Vital Vagueness

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Technologies, Arts and the Commons

UNCONFERENCE PROCEEDINGS

University of Nicosia Research Foundation

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Phygital is an Interreg V 2014-2020 BalkanMed, EU-funded programme implemented in Greece, Albania and Cyprus and which involves the development of makerspaces – one in each country – that work with local communities.
In Cyprus, the project's work is being carried out by the University of Nicosia Research Foundation in collaboration with the Municipality of Lakatamia and focuses on social art practices exploring the melding of open technology, art and design. The project operates on the basis of the 'design global – manufacture local' model which introduces innovative organisational and business patterns allowing an unprecedented booming of communities engaged in do-it-yourself (DIY) activities. It wishes to support and enhance local capacities for innovation and utilise the opportunities decentralised modes of production can create. The Cyprus section of the project examines the importance of makerspace culture in the advancement of contemporary social art and design practices.

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Catalysing innovation and entrepreneurship unlocking the potential of emerging production and business models

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contents

INTRODUCTION

Commoning practices: Social arts, free technologies and maker cultures

Evanthia Tselika

"In place of the old bourgeois society, with its classes and class antagonisms, we shall have an association, in which the free development of each is the condition for the free development of all"
(Marx & Engels, 1848).

This text introduces a reading of how community focused social arts practices relate to ideas underpinning the free software movement, the politics of the commons and maker cultures. It arises from the key concepts proposed by the *Unconference Free/Libre Technologies, Arts and the Commons* as well as the wider University of Nicosia Research Foundation's participation in the Phygital project (Phygital 2017-2020). Phygital is itself a play of words between the words *physical* and *digital*, and as a project it explores the processes of groups of people engaging in do-it-yourself (DIY) activities through access to digital fabrication tools in community centred makerspaces. In its Cypriot iteration the project is informed by how commons orientated collective hacking and making approaches relate to social art practices,[1] and will take a physical dimension in the form of a makerspace hosted in the premises of the Lakatamia Community Centre.[2] Drawing from the experience of the Unconference and what the people who were there allowed to develop this text investigates the melding of free and open source technologies, social art practices and the commons drawing from the research and activities of the wider Phygital project in Cyprus. In addition, the notions of community and the commons are explored in order to consider the wider social context and theory that influenced both the rise of the social art method of practice as well as the formation of the free and open source software movement. Both in the *Unconference* and in these proceedings these threads are interwoven in order to reflect on increasing debates around makerspace cultures and the politics of making, on the commons in times of digital realisms and bottom-up collaborative structures, and on how we think of commoning practices in relation to social art and free technologies.

Thinking of community and commons

Raymond Williams, in his book *Keywords*, tells us that the Latin root of the word community, from the Latin *communitatem*, and derived from *communis*- common,

[1] A study will be published by the author under the Phygital context (2020, phygitalproject.eu). It will further explore notions of communities and collectivities and the socio-ecological effects and affects of technology in relation to contemporary social arts and design practices. The UNRF Phygital study focuses on how we understand community and social art practices in relation to technologies, how contemporary cultural practices involve communities in their production, and the impact and responsibility of acting as facilitators of access to technological advancements and contemporary digital fabrication processes. Issues around open access, software freedom, learning together and social artistic practices are addressed in the study, drawing from the wider UNRF Phygital programme which includes desk research, practitioner and activist interviews, a series of specialized workshops (including members of the wider team that put together this Unconference such as Jenny Dunn, Niki Sioki, Eva Korae, Maria Hadjimichael and Leandros Savvides), participation in community events (in all three countries of the programme- Greece, Cyprus and Albania), contribution to the Lakatamia Makerspace shaping and set up and active involvement in the makerspace prototype development (2017-2020).

[2] The project in Cyprus was instigated by members of the collective #hack66 – Chrystalleni Loizidou, Thrasos Nerantzis, Achilleas Kentonis (Artos Foundation), Avgi Tryfonos, and through the involvement of several #hack66 group members in different parts of the process such as Costas, Yiannis, Sony, Veronica, Greg and many others.

first appears in the English language in the fourteenth century (1983, p. 75). Community becomes a way to consider the human dimension of people coming together, as well as how processes of differentiation are shaped between people. Eric Hobsbawm (1995, p. 428) writing in relation to the cultural revolution of the second half of the twentieth century indicated that "never was the word community used more indiscriminately and emptily than in the decades when communities in the sociological sense became hard to find in real life". From the social movements of the late 1960s "the rise of 'identity groups' – human ensembles to which a person could 'belong'" (Hobsbawm, 1995, p. 428) the word community is related to the mobilization of groups of people, but has also been placed at the heart of local, regional and international development programmes. In the later part of the twentieth century (1990s), when a shift from a post-civil-rights era to the golden age of multiculturalism occurred, the notion of community also changed and became further embedded in state and corporate foundation funding programmes.

Community is referred to as a way to resist the alienation that characterizes our contemporary digital lives and to fill in the gap from wider sentiments of diminishing collective belonging. Often invoked in order to resist wider mechanisms of power within neo-liberal capitalism, the notion of community denotes a sense of shelter from the helplessness one feels in resisting these mechanisms alone. It becomes a place, as Sarah Lamble (2016, p. 105) tells us, "where those who are disenfranchised, marginalized and oppressed can form bonds of solidarity with people who feel share similar identities, interests or values".

In fact, the centrality of the idea of community is what connects the discussion between the free software movement and social art practices. Sarah Davies (2017) in her book on makerspaces devotes a whole chapter on the idea of community and its centrality to the perception of the hackerspace and makerspace. Further to this, of all the words circulating at the moment amidst activist artists and critical art practitioners, community is probably one of those most overused but also the most elusive. My own response in trying to understand the notion of community is connected with the understanding of how people form into groups. Sociologist Michael Banton (1987) argues that how community identities are formed is presented in a complex and interrelated framework, which can be applied to how any group of any kind is formed and constructed, be it of gender, class, national, ethnic or others.

This complexity is echoed in the work of political scientist Iris Marion Young (1990) who indicates that the kinship demonstrated by members of a social group also leads to a process of exclusion. As Young (1990, p. 43) points out "A social group is a collective of persons differentiated from at least one other group by cultural forms, practices, or way of life". The members of a social group demonstrate kinship with one another because of similar life experiences; this leads to the formation of relationships and simultaneously the exclusion of others who do not share that experience. Moreover, according to Young the grouping characteristic of social life is "an expression of social relations", as "a group exists only in relation to at least one other group" (2002, p. 40). She also presents us with the "idea of the common good" which can be interpreted simply as the addressing of problems that people face together, without any assumption that these people have common interests or common way of life, or that they must subordinate or transcend the particular interests and values that differentiate them.

In the last few years the idea of the commons and commoning has been gaining unprecedented momentum (Federici, 2018). For Massimo DeAngelis (2010, p. 14) the commons are "variegated social systems" with systemic features. He considers how such systems could be formed on grander scales through interactions that form types of commons ecologies taking into account how contemporary neo-liberal capitalism deals with the commons and social movements. He also discusses the

potentialities of how the commons can be developed "into a hegemonic force to push us into a post capitalist mode of production" (2010, p. 14). By now the widely discussed notions of the commons can be understood as social, cultural and natural resources which are held and/or produced in common. They are thereby not interpreted simply as goods but also as social practices that generate and preserve common resources and products–where the focus shifts to the practice of commons, or otherwise commoning (Meretz, 2012). The commons, therefore, are also produced and understood through the struggle to protect them and typologies of commoning practices are revealed that hint at possibilities of life-in-common. Discussions revolving around such typologies highlight the value systems of those who participate in such practices and the types of social relations demonstrated within these that escape the limits of imposed dominant models of sociality (Stavrides, 2016, p. 2).

From community to social art practices

In the late 1960s, debates around the social and political utility of art, in its capacity to involve different publics and communities, started to become firmly present both in the practice of art and in the literature. The facilitator role of artists and cultural practitioners who use participatory art production models in their work with communities has become gradually more professionalized; this started with the community art worker of the 1970s and now applies to the socially engaged art practitioner of today. Professionalization of the practice, both in contemporary cultural production and formal education structures, has occurred together with a substantial increase in the wider use of the arts for the purpose of public engagement, audience participation and community inclusion (Sholette, 2015). We see this in the work of museums, NGOs and local authority bodies, and in the sharp increase in festival and biennial cultural production. The methodological approach of socially engaged artistic practice (which is applied in diverse artistic fields) features notions of community and the social in the arts, and has been described in varying terms. Some prevailing terms that are proposed by the art world include: new genre public art (Lacy, 1995), dialogical (Kester, 2004), socially collaborative and participatory art (Bishop, 2012), socially situated art (Leeson, 2017) and the much-debated idea of socially engaged art (Helguerra, 2011; Finkelpearl, 2013). As a practice and movement, socially engaged practice is multi-faceted; it implies a methodology whereby artists, designers and cultural practitioners aim to set up situations that will trigger critical thinking and spark innovative, creative responses to socio-political conditions. It also aims to motivate–and it can often even enable immediate–participation (engagement) of disparate social groups and their collaboration, where the once assumed spectators become not only participants but also co-authors in the project.

In the late 1960s into the early 1970s, the action-based performance and conceptual practices of the early twentieth century combined with political activism and community organizing to produce hybrids of what we now term as social art practices. In the 1980s, this methodology of practice expanded and in the 1990s became institutionalized (Felshin, 1995). At present we observe its influence in the branding of commercial art galleries and contemporary institutions, as well as its substantial inclusion in cultural funding programmes.

Lorraine Leeson (2017) has been creating socially engaged art projects in East London since the late 1970s. Leeson's work focuses on the production of work with different communities that live in East London, displaying these collaborative art works in the public space. When asked to reflect on how she interprets the word "community" in her practice she responded as follows:

> The term "community" is sometimes useful because it denotes an interest group. I mean maybe people live in a particular geographical area, but it could easily be people who come together or relate to each other for other

> reasons, so it's a fairly broad understanding what community is… The community arts aim was cultural democracy and it was based on everyone being creative, everyone realizing their own potential, and therefore changing society in that way… Social practice is different in the sense that it describes activities that are happening at a different point in time, which have different influences, and so it's not the community arts movement, but I still see these things as labels. I suppose I've used the term socially situated practice, as I found it very useful, because the situation sort of means that you are routed or embedded in the community or working from within that community and not just parachuting in (L. Leeson, interview 2018).

Being situated and placed therefore within the community and working from within becomes an important element to consider, when we think of the wider social movements that influenced both the rise of social art practices but also the formation of the digital commons movement, the free software movement and making communally.

The Free and Open-Source Software movement, the digital commons and the hackerspace/makerspace

During the last four decades, our digital sharing landscapes have shaped virtual terrains of free, participatory and distributed production of information. The invention of the World Wide Web, the Commons Based Peer Production (CBPP) and the Free Open-Source Software movements have formed alternative types of digital commons, as well as virtual communities. The computer revolution, accompanied by the information age shaped what has come to be discussed in terms of the hacker culture, which stemmed from people who were drawn together to tinker and experiment, but who also wanted to ensure free access to the developing technologies both in terms of software and hardware. Stephen Levy in his book *Hackers: Heroes of the computer revolution* (1984), discusses the hacker ethic in terms of a philosophy of sharing, openness and decentralization where information should all be free and where we are assessed via our skill and not our education. Even though not always explicitly political, the desire to provide free access to technological tools and information does demonstrate the desire for collective social change.

The politics of the hacker movement relate to issues of public access to the source code and the most prominent iteration of how such public access relates to social change becomes evident in the work carried out by the Free Software Foundation (Söderberg, 2008). The Free/Libre Software Movement is a social movement which focuses on the freedom to run software, to study and change the software, and to redistribute copies with or without changes. Richard Stallman formally founded the movement in 1983 by launching the GNU Project and later established the Foundation so as to support the movement (Stallman, 2019).

Influenced by the collective working of the hacker culture which spearheads public access to software and source code in the last few years, we have witnessed the rapid emergence of makerspaces as community-led spaces, where free and open source software and hardware are utilized collaboratively by individuals (Kostakis, Niaros & Drechsler, 2017). The access provided to additive and subtractive manufacturing technologies and digital manufacturing tools within these maker-hacker spaces shifts the access to contemporary tools of production and aims for a democratization of technology. The popularization of community based digital fabrication workshops is manifested in the formation of hacklabs, makerspaces, fablabs and DIY bio labs (Davies, 2017). These spaces are wide ranging and operate under very different kinds of collective contexts that range from anti-systemic collectives to learning focused communities to entrepreneurial design initiatives. However, wide-ranging community seems to be central in how such spaces define themselves,

as well as in the importance of making and learning together, repairing and questioning overt consumption.

Hackerspaces and makerspaces allow groups of people to create, tinker, hack existing technologies and structures, and learn together through non-hierarchical structures. At the moment, they are probably *the* spaces where the non-professional public creatively engages with latest advancements of technology and digital fabrication processes (Davies, 2017). As spaces they are contexts where the collective experience is negotiated, where DIY culture is experimenting with digital manufacturing and where informal learning and playful experimentation become of utmost importance. The access to tools that are usually confined to experts and factories, the sentiments of collectivity and sharing and the collaborative playful approach to making means that the hackerspace/makerspace has become established as a space where we can learn together and experiment.

Susana Nascimento (2014, p. 1) underlines the importance of makerspaces as new settings promising to open up "concrete opportunities for decentralized and collaborative engagements with technology, not only related with material and technical experimentations, but also with economic, cultural, social and political consequences, and ultimately with conceptual and epistemological changes". Citizens become included in the process of making and producing and thus emerges "a multiplicity of potential pathways for empowerment through technology and democratization of technology for broader social groups" (Nascimento, 2014, p. 1).

By way of concluding: Makerspace/hackerspace cultures as sites of commoning between free technologies and social art practices

In our times of digital realisms, bottom-up collective structures allow us to unpick how we think of commoning practices and how we work together to achieve social transformations that resist the multiplicities of oppressions that surround us. This text considered the increasing debates around makerspace cultures and the politics that characterize them in relation to the centrality and importance of the discourse on community both in the development of the Free and Open-Source Software movement and the social and participatory praxis of the arts. What has become evident is that in our turbulent times we cannot understand the shifting experiences of our contemporary *phygital* lives – which are altering our processes of making, living and resisting communally and collectively – within isolated fields of studies. In the *Unconference Free/libre technologies, art and the commons*, by bringing together threads that relate to contemporary debates concerning freedom and technology, art and the commons, issues of how we can work together in common gained unprecedented importance. Luiz Guilherme-Vergara highlights this in his text in this volume "Grassroots utopias", through the tripartite schemas of playfulness-placefulness-placemaking and the forest-school-museum. The urgency and potentiality of us working together in groups and as teams in order to resist social and natural exploitations and destructions, wars and alienation both of nature and of each other was insightfully captured by Silvia Federici (2020 – in this volume) when she said:

> Commoning is about collective decision-making, cooperation, and a sense of responsibility towards each other. It is the idea of placing one's life in common, of responsibility also towards the earth, it is an idea of not only taking but caring for.

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day 1

Free software and your freedom[1]

Richard Matthew Stallman

There are a couple of digressions since people are working on makerspaces, it's very important for a makerspace to have a moral stand about free object models. The makerspace should have a rule that it will not host or distribute a project which is not free. People can come and make their designs which are not free, but if they want to use the makerspace to edit or publish the design, then it must be under a free license. This is the way a makerspace can uphold freedom and I urge every makerspace, every hacklab, every such organization to adopt this principle.

Cyprus is having an international dispute about which country is going to get to pump fossil fuels from the bottom of the sea and burn them and help destroy civilization and cause a mass extinction. It's amazing to see people who are old enough to know better focus on "no, give it to me!" instead of "how are we going to make sure this country is still here in one hundred, two hundred, three hundred years?" The correct solution to every such dispute is "we all agree to leave it in the ground!" That way, everybody gets to make the same sacrifice; that way, they can agree. Nobody is the loser, and everybody more or less is the winner.

Moving to free software, in Greek it's called "Ελεύθερο λογισμικό": "Ελεύθερο" because we are talking about freedom. We are not talking about price; we are not talking about gratis. Whether you pay a price to get a copy of a program, that's a minor side issue; we don't see that as a matter of right or wrong, how you get the copy. The important thing is, once you have the copy, how does it treat you? Does it respect your freedom or does it trample your freedom? Does it respect your community, or does it divide your community? That's the important issue, that's what free software is about. Free software means software that respects the user's freedom and community.

So, what is a program? What is a computer? A computer is a universal computing engine which will do whatever computation you tell it to. But really, at the conceptual level, it's very simple, it can only do one thing, get the next instruction and do what that says. Then it gets the next instruction and does what that says, and the next, and the next and the next. Millions of times per second it will get the next instruction and do what that instruction says.

The instructions come from a program. A program is just a collection of instructions for the computer to get and run. So, depending on what instructions make up this program, they will tell the computer to do this and that or that or that, or millions of other possible things that the computer could do. In fact, the right program could tell the same computer to do anything, except for the impossible things that no computer can do at all. Within the realm of the possible, the right program with the right instructions will tell the computer to do it.

So, who gives the instructions to your computer? You might think it's you, but really it's someone else (picture shows a ghost with the Microsoft logo). You might

[1] Transcription of oral presentation.

think your computer is obeying you, when really, it's obeying its true master (Apple), and it will do what you want if the true master approves; otherwise you might find there is not even a way to ask for what you want. With any program there are two possibilities: either the users control the program, or the program controls the users. It's always one or the other, because there is no other possibility. When the users control the program, that's free software. Why? Free software respects users' freedom and community. What is freedom? Freedom is having control of your own life, control of the activities you do in your life. However, if you use a program to do the activity, control of the activity requires control of the program. So, when the users control the program, that program respects their freedom and community, so it's free software.

Practically speaking for the users to have control of a program, it must give them the four essential freedoms, which make the practical criteria for a free program.

Freedom zero is to run the program any way you wish, for any purpose.

Freedom one is to study the program's source code and change it so the program does your computing activities the way you wish. Why do we insist on source code, make a fuss about it? Well there (on the screen) is some source code, it's like a mixture of English and math. If you have learnt the programing language, you can read it and understand it and change the code to do something else.

To run it (the source code), we convert it into an executable program, which is an enigmatic series of ones and zeros which are not easy to understand. For a tiny program like this, it's not so hard, you could look up what instructions those ones and zeros stand for and see what they do. However, with a bigger program it becomes a pain. And for a real program, with maybe one hundred million ones and zeros, it's terribly hard. Just finding out what the instructions are is only the first step, then you must figure out what they are all going to do. If the user's only get this enigmatic bunch of ones and zeros, and then you say to them, "you are free to change these ones and zeros if you can figure out how", that's not respecting freedom, that's mocking freedom. So, a program is not free, unless the users can get the source code.

These two freedoms together, gives user's separate control of the program, separate control means I am free to change my copies and you're free to change your copies and you're free to change your copies etc. Here we see separate control, each of these users has control over per own copy. This user is exercising freedom one, by changing a copy. The other users are free to do that, but they are not doing it, they are using the program as they got it.

This separate control is essential, but not enough. Why is it not enough? Because most users are not programmers. They do other things. In life there are many important and useful things to do. Some people don't know how to write programs but know how to do other things which may also be important, and useful and interesting. They cannot change programs themselves, but they still deserve control of their computing. How can these people control (what a program does) when they don't know how to read and write code? Through "collective control", which is the freedom to collaborate with other users to change the program to do what they wish.

Here is a group of three users who are collaborating in this way. There are two programmers, and one that does not have the ability to program, however that user is still participating in control over how the program works through the decisions of the group about what changes to make. The ones who know how to change (the code) will write it, but they all decide together. This enables a non-programmer to participate in the deciding of what the program will do.

Those who collaborate are those who choose to. At the bottom are some users who use the original version. They are not working with that group. Why not? It

could be for any reason, maybe they do not like each other? Maybe they are friends, but have different preferences to what the program should do? Maybe they just like original more? Maybe they do not know each other? Maybe tomorrow they will contact each other and start working together, or maybe not.

Collective control requires two more essential freedoms. Freedom two is to make exact copies and then give or sell them to others when you wish. Freedom three is to make copies of your modified versions and give and sell them to others when you wish. These two freedoms make it possible for a group to collaborate. If one member of the group makes a modified version, with freedom three persons can make copies and distribute them to others in the group. And with freedom two, they can make more copies of that same version and redistribute to others, so it can be available to everyone. But the group is not required to have any formal status, any name, or any list of members. So, freedoms two and three are not limited to specific people, you can distribute copies to anyone. In fact, you can offer copies to the general public, which means publishing that version. Everyone who has a copy is free to do so.

Let me repeat the freedoms, as this is a really important point. Freedom zero is the freedom to run the program as you wish, for any purpose. Freedom one is the freedom to study the source code and change it, so it does your computing activities as you wish. Freedom two is to make exact copies and give or sell them to others when you wish. And Freedom three is to make copies of modified versions and give and sell them to others when you wish. So, if the program comes with these four freedoms, users have control of the program. It therefore respects their freedom and community and is free software. But if any of these freedoms is missing or incomplete, or insufficient, then the users do not have control of the program, instead the program controls the users and the owner controls the program.

This non-free program creates a system of unjust power, power for the owner over the users. The owner exercises power over them through controlling what it will and will not do in the program.

This is the inherent injustice in any non-free program. This is why non-free software should not exist. This is why I refuse to have it in my computer because it would do wrong to me if I allowed it to run on my computer. The basic idea of the free software movement is,

“Let’s put an end to this injustice”.

This is why it is better to do nothing than develop a non-free program. Because if you do nothing you are not doing any harm, however if you develop a non-free program you are creating more injustice, more subjugation. So above all you should not do that. It is better to do nothing. If you need a job, get a job outside the software field, rather than a job making life worse.

This, by the way, is why I reject innovation as an important value. The idea that innovation is good for people is based on assuming that people get to decide which innovations they will use. Well, that is not true. Today, businesses make innovations and force them onto people and make it so that you can hardly refuse to accept them, and then the injustice that pleases the businesses is forced on the people who must use it.

So, this is the inherent injustice of any non-free program, just because it’s not free. That tends to lead to other injustices, because nowadays the owner is aware of the power it has or hopes to have over users. This creates temptation to try and gain more at the expense of its own users by putting in malicious functionalities. Each malicious functionality is an additional, secondary injustice: possible because of this power structure, but it’s a separate wrong.

For instance, non-free programs nowadays typically spy on the user. Therefore, whenever you hear the word “smart”, think “spy”. It’s a spy phone, it’s a spy lock, it’s a spy thermostat, it’s a spy city, because that’s what they are designed to do.

This example is the Amazon “Swindle”, Amazon’s e-book reader. “Swindle” is not the official name, but it describes what the thing is designed to do. It does complete, Orwellian surveillance of what the person does. It reports everything. It sends the title of the book to Amazon servers, it sends the page number, if the user enters any notes or highlights any text that’s sent to Amazon also.

But spying is standard practice. Someone investigated hundreds of the most popular android apps, more than a thousand I believe, checking for one particular type of surveillance that the investigator could detect easily. Remember these were non-free programs, meaning the source code was not available. But in any case, the investigator found that of the paid programs, sixty percent spied. And of the gratis programs, ninety percent spied. And that was only one way that the app could spy, a way that the investigator could identify; the rest of the apps could be spying too, but the investigator could not tell. Therefore, I say that spying is standard practice.

The four successful proprietary operating systems spy. I mean, Windows, MacOS, Android and iOS. Each one transmits data in its own way.

Spying is especially dangerous when you get to apps for streaming, and accessing data, or transportation. Things like Spotify and Netflix, each is working in connection with one particular server, and they spy. The server keeps a file about each user, recording what that user has listened to or watched. Now this is the basis for tyranny. We should not allow this to exist. In any case, I won’t allow them to get any information about me. With streaming you do not have a copy, and if you do not have a copy, you are unable to share copies with other people like a good member of society. So, you should reject streaming, reject systems of listening or watching things that don’t let you have a copy that you can share.

Spying is especially dangerous for transportation systems, such as Uber and Lift. They keep a record of each customer’s movements. This record cannot be allowed to exist. It should be illegal for these systems to keep track of people this way. They should use anonymous payment. We have an anonymous payment system that will be perfect for this, called GNU Taler (see taler.net), so they can collect money and provide the service, but they would never know who watched what, or who went where.

In fact, many products as well as programs are designed so that they are tethered to a server. The only way to get them to do anything is to talk to them through that server (which belongs to the manufacturer). The Fitbit was the first example I heard of. It collects personal data and sends it to the manufacturer’s server and then the company offers to sell it to the user it’s about. What nerve!

There are a lot of things like that now, thermostats, cooking devices, home security cameras, door locks, sex toys. There is a sex toy that accepts commands over the internet from someone else. This could be an enjoyable functionality in some cases. But how does it get the command from someone else? It goes through the manufacturer’s server. From the other person to the server and then from the server to the toy, which means the manufacturer is spying on everything. And any responses also go to the manufacturer’s servers, so it knows them too. And someone discovered that the product was built for spying. It was built with a thermometer. Why? If you’re using this toy, why would you need to measure any temperatures? Well, you don’t, but the manufacturer wants to in order to work out when the product is in contact with the human body. I also suspect it can also detect how the product is in contact with a human body at any time. It’s a device built to spy on people’s sex lives, and I suspect it will also keep data of who is sending the commands.

Another thing about this architecture, which is now the usual architecture for the internet of “stings”, is that they can shut off your account in the server. If they want to make your product stop functioning, they just turn off your account and you can’t give commands to it anymore. In fact, they can sabotage everyone at once, by turning off the server entirely. It has happened, and it still happens.

Then there is the functionality of refusing to function. This is known as “Digital Restrictions Management” or DRM also digital shackles, where they design the thing to refuse to do things for you. Instead of technology designed to serve you, its technology made to be your prison guard. This example is the infamous blue ray that attacks users when they try to copy. If I had free software to break the shackles with, I would consider using that disk. But because we do not have full free software that in general can break the shackles, I absolutely refuse and have never used a blue ray disk. Unless I can defeat the system that shackles me, I will never use one. I value my freedom; I value my freedom more than I value seeing any or all of the movies ever made. They are not worth accepting something as vicious as blue ray disks.

The five successful proprietary operating systems, Windows, MacOS, Android, iOS, and ChromeOS, all implement the basis for DRM, and many apps that work on media implement DRM. The Amazon “Swindle” implements DRM, so it’s designed to restrict and spy on the user.

Then there are back doors. A back door means that something is listening for commands to tell it to do something nasty to the user. Why something nasty? Well if it were not nasty, they wouldn’t want to force it on people, they would just put a command in the menu and say, “Do it if you wish”. But they want to be able to forcibly do things to the user that the user won’t like, so they have to implement it with a back door, so the user has no choice. It’s not easy to tell that back doors exist in a non-free program. The only way is to observe their functioning. After all you can’t study the source code to see what it will do.

Observation is how we discovered in 2009 that the Amazon “Swindle” had a back door for remotely removing books, because Amazon erased thousands of copies one day of a book, by sending a command to thousands of devices. Some people were reading the book and saw it disappear. This was a grave Orwellian act. What was the book? It was 1984 by George Orwell. There was a lot of criticism, and Amazon said it would never do this again unless ordered to by the state. Right, that’s not a very comforting promise, is it? But, actually, it wasn’t a promise at all. Amazon a few years later resumed remotely erasing books, without an order from the state. I don’t want my books to be in something that has a back door, and the only way to make sure it doesn’t have a back door is if the software is free.

A back door in a driverless taxi could be extremely dangerous. You could say “Take me to the train station” and someone else could tell the car (through the back door) to take you to the CIA black site or the secret police headquarters or whatever it may be. If it is your car and the software is free, then user community can make sure there is no back door. But if it is a taxi, that does not belong to you and the software copies in it are not yours either, then you are not free to change them. If it is free software then the taxi’s owner is free to change them, but you’re not free to install software in the taxi, it is not yours.

So how can you be safe? Only if the taxi can’t tell who you are, that’s the only way you could trust it. So, if it’s not free, this malicious potential can be used. I’m sure China will use it. I’m sure Saudi Arabia will. In Saudi Arabia there might even be a saw in the taxi, so that you would arrive at the destination already dismembered. What about the US? Well if the conman is still president... I will not trust these things one bit. Other countries, who knows? You can speculate what the government of Cyprus would do.

Apple pioneered censorship of applications. The iPhone was the first generally used computer in which the users could not freely choose what applications to install. They could only install the applications which were approved by Apple, from Apple’s store. Apple practiced this censorship power arbitrarily, based on its commercial interests and its political positions, until 2017. Then China ordered Apple to censor VPN applications (Virtual private network, something that enables people to

get through the great firewall of China). Apple was surprised to discover that it was compelled to obey China; it had no way to refuse.

If Apple had not given itself the power to censor the users, then it would have had an excuse to tell China. “Oh, China you know we always want to make you happy, but we just have no control over this. What could we do?” However, China knew that Apple had control over what users could install, so China could order Apple to exercise its unjust power of censorship.

When users found a way to break the censorship, they called it “Jailbreaking”, effectively recognizing that these computers were designed as jails for their users. That’s our term for them.

There are also universal back doors. That’s a back door that is so powerful that it can actually change the software on remote command. It can install new code; any new code that is sent to it, it can install. Which means that through the universal backdoor, whoever controls it can do anything it pleases. There was a universal back door in Windows XP. Its presence was demonstrated by experts who studied output messages. They demonstrated that Microsoft could impose any change in the software whenever it wanted to. Microsoft never acknowledged this, but with Windows Vista it proudly announced that it had this power, using a nicer name. Instead of “universal back door”, it said “auto upgrade”, another name for the same power.

There is also a universal back door in the Amazon “Swindle”. Worse, there is a universal back door in almost every mobile phone. In mobile phones they use this universal back door to convert them into full-time listening devices that listen all the time and transmit everything they hear. You do not have to speak right into the microphone for it to hear you, because it can use the speakerphone all the time. And if you think you can get your privacy back by turning it off... Surprise, there is no off switch! You cannot turn it off. All it has is a button where you say, “Oh Sir, Telephone, would you please be so kind as to switch yourself off for me?”. But once they have modified it through the universal back door, it never switches off. It keeps listening and transmitting, all the time.

Put this together with the fact that your movements, the position of the phone, is tracked by the phone network. They save the geolocations of the phone for a long time.

This leads me to call the mobile phone “Stalin’s dream”. This is what Stalin would have wanted to give every inhabitant of the Soviet Union: something to track the person’s movements and listen to personal conversations all the time. Stalin would have ordered everybody to carry one, but in the world today they are more subtle. They have lured most people into accepting one because it’s convenient, and people have been taught to value their convivence so much that they give up their freedom for it. Now they are starting to pressure people into doing this as well.

I have never had a portable phone. When I considered getting one, I asked someone to investigate it, I found out those things about them, and I concluded it’s my duty as a citizen to resist this. Even if I am the only one, I will serve as an example, showing that you can live your life without a portable phone. In fact, I am not the only one, there are others who resist.

Sometimes one device can have multiple bad behaviors. For example, the Netflix app spies on the user, it puts on digital shackles (“Digital Restrictions Management”), and it requires users to agree to an antisocializing contract.

Now why did I coin that word? Well, what does it mean to socialize young people? It means to teach them to be good members of society, who cooperate with each other. This contract is designed to do the complete opposite. It is designed to anti-socialize the users of Netflix. They must agree not to share copies, which is being a jerk. They also have to agree not to lend the one and only copy they have to others, which is also being a jerk. They also have to agree not to give that copy away,

which is being a jerk in yet another way. So, it is a contract where the user agrees to be a jerk.

If you have agreed to such a contract, that does not excuse being a jerk; to be a good member of society you must break it. I do not like the idea of agreeing to a contract while realizing I would be morally drawn to break it. I would rather say no, and that is what I always do. I check the terms of service, and if there is anything such as the things I have mentioned, I do not agree. I will not use that service. I call it a dis-service. And we have a lot of problems nowadays with online dis-services.

There are different ways it can be a dis-service. There is another nasty thing, which is not a functionality, which Microsoft does. When it finds out about a security hole in Windows, before fixing it, it informs the NSA so the NSA can enter the computers of Microsoft clients. Do you think the government of Cyprus should use Windows?

In my opinion they should know better than to use Microsoft software. Of course, what about all the other companies? We have this information from the press about Microsoft. We have no information about what other companies do with other programs. Maybe they are doing the same thing? How can you assume that is not so?

These few examples are enough to prove that almost everyone who is using proprietary software is using proprietary malware.

Malware means software designed to mistreat the user. What I have shown you is that many widely used programs are malware. In fact, we have hundreds of examples. (See https://gnu.org/malware/). Every week or two we find more examples. There are other forms of cruelness, such as things which are designed to be addictive, things designed to manipulate users, or trick users. Any sort of cruel thing that anyone could think off, the brilliant developers of innovative software are working on right now. And why do they do this? They make more money by mistreating their own users.

It's important to understand that any program can be released as free software. And any program can be released as non-free software. This is regardless of what the program does. Any program can be released as free software over here and as non-free software over there, at the same time, in parallel. This is because the difference between free and non-free software has nothing directly to do with what's in the code. It's purely a matter of how the code is made available to users. It could be available with the four freedoms or lacking the four freedoms. So, it could be free and could be non-free. If the developer does both of these things at the same time with the same code, that code can be available over here as free software and over there as non-free software.

Meanwhile, the difference between malware and honest software is purely a matter of what is in the code. It is not a matter of how that code is made available. So, in theory, these are two independent dimensions, two independent coordinates. Depending on how the code is made available, it's either free or non-free.
And depending on what's in the code, it's either honest or malware.

All combinations are possible in principle, but in practice not all of them are frequent. Free software is almost always honest and non-free software is usually malware. The reason for the systematic relationship is that power corrupts. The developers of non-free software have power over the users, and they know it. In many cases they developed the program so they could have power over people, meaning whoever took the bait by using the program, and fell into the trap. So, they feel the temptation to put in cruel functionalities and mistreat the users to get more money. It is standard practice to give into this temptation. The idea that there is something wrong, that you should not do to the users, has basically evaporated in the non-free software world.

Mistreatment is so widespread that they hardly hesitate before deciding to mistreat users in whatever way is possible for them. As a result, you cannot rationally trust non-free software. The only way to trust it is with blind faith. Typically, that's blind faith in a company which has already demonstrated it does not deserve any faith, for example by breaking faith with its past users.

However, with free software there is a rational basis for trust. You can trust the user community that controls the program, as a free program is controlled ***unitedly*** by its users. We contributors know that if we put in anything the users don't like, the users can change it. They are therefore not bound by any decisions we may make. They can change anything; they are free to do as they please. People read even the obscure parts of programs, and if there is anything that is bad in them, they will notice, and they won't like it, so they will fix it.

The fact that the program is controlled by the user community as a community means that there is no one party that is in a position to impose anything that is negative in the program. If one contributor wants to try to change the program in a negative way, others can detect that and fix it. You will then eventually receive the corrected version through the normal working of the community; you won't even have to pay attention. As the other users would want an honest program, so they would therefore make the program honest and they will put that into distribution and it will reach you, even if you are not paying attention.

This is the only known defense against bad software, for the users to have control. It is not perfect. It is not guaranteed. However, it is a lot better than being defenseless. The user of a non-free program is always defenseless, at the mercy of the program's owner. So resist the temptation to use a non-free program; it's a trap. It's a trap that will put you under somebody's power, somebody with the power to mistreat you, cheat you, and do all sorts of nasty things to you. I urge you to reject non-free software and escape from it and come live with us in the Free World that we have built.

We built it with a GNU operating system and the kernel, Linux. I started developing the GNU system in 1984, with the purpose of making it possible to run a computer in freedom. That was impossible at the time, all the operating systems were non-free, and without an operating system the computer was useless. However, I knew I could change that. I was an operating system developer. I figured that I knew how to develop another operating system where I could make it free and I decided to recruit others to help. I started GNU in 1984, and in 1991 GNU was almost complete, missing one essential component, the kernel. In 1991, Mr. Torvalds published his kernel Linux, however it was not free software. In 1992 he liberated Linux, he released it as free software, and at that point it was possible for us to use Linux in the GNU system, producing the combination, GNU/Linux. For the first time there was a free operating system available that you could use to run a PC.

A confusion started at that point, as many people started referring to the system as Linux, ignoring our work and attributing it to Mr. Torvalds, which is treating us unfairly. Please do not do that. Please call the system GNU/Linux. Give us equal mention.

In principle, GNU/Linux is a free operating system. However, in practice often it is not free, because there are thousands of different variants of GNU/Linux, each one with its own development team. They are called distros, distributions. And the development team decides

what to put in each distro, which programs to include and which to leave out. If the team puts in a non-free program, then that distro is not a free operating system, you cannot trust it to respect your freedom. So, I do not recommend any non-free distros.

Unfortunately, there are thousands of non-free distros and around 10 free-distros. If you would like to find out which are free you can go to gnu.org/distros. We give information about them, and the other distros which are not free, as to why they are not free.

Many web pages contain programs. These programs can be free and non-free, just like any other program. If you have installed only free software in your computer, you are still at risk of running non-free programs on your computer because they come in web pages.

We did not want websites to be able to run non-free programs and live on our machines, so we developed LibreJS. That is a Firefox extension which analyses the programs in the web pages you visit, and if a program is free then it is allowed to run. However if the program is non free it will not be able to run. It will be blocked, and LibreJS warns you on the screen, "This website is not okay, there are blocked programs here".

It does one other thing, it searches heuristically through the site looking for where and how to complain to the webmasters. The hardest part is finding where and how, and this program does this for you. So you can send your complaint in a minute. Please complain each time. In ten minutes a day you can complain to ten different sites. This will help pressure them to care about the issue. We need to teach web developers that they should not do this (send non-free software to the user).

With the advent of online dis-services there is now a new way to lose control over your own computing activity, and that is to entrust it to somebody else's server. We call this SaaSS, or Service as a Software Substitute. It means a server offers to do your computing for you. If you entrust your computing activity to the service, you lose control of how it is done.

The old way of running a computing activity is to run a program on your computer. Then if the program is free, you will have control as to how it is done, on your own and as part of a group. However, if you hand your own activity over to somebody else's server, they will control how it is done and you have no say. By accepting that offer, handing your own computing activity to someone else's server, it is as if you ran a non-free program.

I am making a distinction between your own activities and activities that you do with others. You can tell the difference with a thought experiment. Suppose you could have any free software you wanted and whatever data you wanted in your own computer, and it is as big and powerful as you could ever want, could you do the activity by yourself without any communication? If so, it is your own personal activity, and you deserve to have control over it.

In some activities it is unthinkable to do them yourselves, as they need the involvement of others. If it is a joint activity of course you cannot do it all yourself, that would cut the others off. Thus, if what you want to do is talk with me, or work together with a few other people and do something, you cannot do that inside your own computer as that would exclude all but you. Those activities are not your own activities, they are a different kind of subject, which I do not have a full answer for.

However, when it comes to your own activities, things that do not involve anyone else, then it's pretty clear you deserve to have control over them, and you would lose control of them if you gave them over to someone else. So, for your freedom's sake, don't accept those offers. I reject such offers because the price, my freedom, would be too high.

Now I want to talk about the issue of massive surveillance, because we are seeing proposals about how to deal with that problem. Inadequate proposals. Here is basically all of the data that gets collected. Many different things can be useful together, for many different purposes, like tracking us and manipulating us. In fact, it is

collected by many different systems, some run by companies. I did not include here the cameras in the streets, tracking the movements of our phones and so on. In any case, each of these makes separate databases. Then these databases get made available to data brokers. Even if the data broker gets them in separate databases it can figure out that this record over here is about the same person as this record over here and it can combine them. So, it takes these separate databases and turns them into this combined tool for surveillance.

In the US, the FBI can do it even more easily, because the FBI can seize a copy of any database about people at any time, with a very few special exceptions. And it gets them with everybody's name, address and identifying numbers. So, the FBI does not have to do any work at all, it can merge all these databases together and give it to other US government agencies, which it does. It doesn't really matter that the surveillance is collected through these various companies, because they will be put together later.

There is a proposal now to break up these companies into smaller pieces so that the data would be collected as more separate databases. That sounds nice, but the data brokers can still recombine them, and the FBI will still recombine them, so it does not really change much. I contend that the only way to end the threat of massive surveillance is to forbid the collection of the data.

I contend that we need laws that require systems to be designed so that they do not collect this data, that they will have to deal with users anonymously and not try and recognize them in any fashion. There can be special cases where it will allow some people to be recognized. For instance, people who were designated by a court as a suspect, or a subject for investigation. The court should submit an order for cameras to recognize that person's face or car license plate. However, for everyone else, the system should not recognize them. If you have not been designated by a court and you drive past a camera, the camera should say "Car. What car? I did not see a Car". If the camera sees your face it should say "Face. What face? I did not see any face there". Unless the court has ordered that you should be tracked.

We want freedom, but there are obstacles. One of the obstacles is the term "open source". You will have noticed that I did not once mention the term open or closed source, I do not want to be associated with either one of those words. And the reason is that open stands for a different idea. It's an idea that I disagree with, and that is no coincidence, because the whole point of that word is to reject my views, to reject the free software movement.

You have probably heard of the term open source. It was coined in 1998 by people who disagreed with the free software movement and our idea of the freedoms that every user deserves. They wanted a way to talk about the same programs but not raise it as an ethical issue. So they came up with this term that had never been used in our field before.

They gave it a definition that, in practice, is very close to the definition of free software. However, they developed a different philosophical approach, a different discourse based purely on practical convivence. The only values that it appears to have are practical advantage. The thing they avoid saying at all costs is "This is a matter of freedom that users deserve". They won't say "if a program is not open source than it's unjust". That idea is what they want to forget. So, where we say, "if you develop and release a program, it's your moral obligation to respect users freedom to change it and re-distribute it", open source supporters say, "if you develop and release a program, please consider whether it might be to your practical advantage to permit users to change and redistribute it, as then they might provide practical improvements which will benefit you".

The fundamental difference is that we say users are entitled to freedom; and open source supporters say it is legitimate for the owners to do whatever they like

to the users, and they only try to change owners to be nicer, based on their self-interest. Well, they have a right to their views.

In 1998, the majority of the community held those views, and the politicians and the media followed the money. Since then, the media say open source, they do not talk about free software. And as a result, we have to work hard to make the users of our software aware that there is a free alternative movement. All they hear about is the ideas that go with open source. If they hear about me, they think that I agree with the ideas of open source, a term which was made to reject my ideas. So, I'm being misrepresented; the whole free software movement is being misrepresented every day.

This is why I say to people "do not associate me with the word open at all". I do not want the word to be used at all in connection to me or the free software movement. But every week I get mail from people talking with me about the name of open source, they even thank me for my "contributions to open source". I respond that "There is a misunderstanding here, as I do not agree with open source, I never did, and that is not what I am working towards. I am working for your freedom".

I have even seen articles that called me the "father of open source". I sent a letter to the editors saying, "If I am the father of open source, it was conceived through artificial insemination, using stolen sperm, without my knowledge or consent". Then I give the name and the meaning of free software and what the free software movement stands for. That is the serious meaning of the letter, but I like to start with a joke because that's fun.

I do a lot to make people aware of the free software movement ideas. But I cannot do enough. There are other free software activists too, who are doing this, but it is not enough, we need your help and support. Of course, you are free to say whatever it is that you think, but if you agree with us about the freedom in free software, please make this as visible as you can. You have a choice to make. Decide what ideas you're visibly going to support.

Schools should teach exclusively free software. And when I say "schools", I mean all levels of school, from kindergarten to university, and adult education. And when I say "teach", that is not limited to formal instruction in using a particular program. It includes anything the school does which leads students to use a particular program. The school should only encourage people to use free programs.

However, this should not be a mysterious policy handed down from high and obey. Just the opposite. The school has a mission to educate good citizens of a future society which is strong, capable, independent, cooperating and free. In computing, that means teaching free software and graduating good citizens whom are accustomed to using free software. The school should never teach how to use a non-free program, because that is implanting dependence in the future of our society. Teaching people to use a non-free program is like teaching them how to smoke tobacco.

There is also needed education in citizenship. Teaching the students the habits of helping other people, "socializing" them in other words. Every class should have the following rule; students, if you bring software into class, you may not keep it for yourself; you must share copies to the rest of the class, including the source code in case somebody would like to learn, because this is a class where we share our knowledge. Therefore, it is not permitted to bring non-free program to this class, except to reverse engineer it. The school must set a good example by following its own rule: bring only free software to class, and share copies, including source code, with those in the class who want them.

There is also education of the best programmers, the people who have a passion for programming. Every program embodies knowledge. There are people who say a program is knowledge, I think that's a category error. The program embodies knowledge. Whether it allows students to learn from that knowledge depends. If

the program is free, it makes that knowledge visible and available to the students so they can learn. It supports education. But a non-free program conceals the knowledge from the students. It is the enemy of the spirit of education, so it should not be accepted in a school, except to do reverse engineering, which is a way to expose that knowledge for others.

How do you learn how to write good code? You do it by reading and practicing writing a lot of code. But only free software gives you the chance to read the codes of large programs we all really use. Then you have to write a lot of code. In order to get good at writing code for big programs, you have to write a lot of code for the large programs. However, at the beginning, you do not have the knowledge to do a good job at writing good code for large programs, because that is what you are trying to learn. So, what you have to do is make lots of small changes to large programs, until you can gradually make the changes larger, and eventually you will reach the point where you could write a large program from scratch.

How to help our cause? One way of helping our cause is to be an example of resistance, but that is not the only way, there are many other kinds of work you could do. For instance, if you have a talent for programming, contribute to free software projects. That's not only useful, but that also reduces the pressure on people to use a non-free program. It wouldn't be inconvenient for them, just a little different, and you will have freedom in this activity. I suggest that you work on 15 projects managed by others, before you start your own project as then you will know how to do it well.

But most people don't have a talent for programming, so do some other kind of work. There are many types of work that we need. For example, you can organize the movement's campaigning. We need more speakers who will present the free software ideas. We also need

people to manage free software activist groups. We need various kinds of work to build up the movement, as with any other movement.

You could help persuade governments and the educating systems to move to free software. (I have already explained about schools). The government exists for the people. It does its computing for the people, and therefore has a responsibility to the people to maintain control over that computing and not to allow that control to fall into any other hands that are not responsible for the people, for example, any business. Use of non-free software in an agency with a critical function, such as the army, the police, the fireman, the water transportation, electricity, telephones, this threatens national security. Remember it may have a universal back door; you do not know what it does, the government using it does not know what it does. You cannot rationally trust a non-free program, especially not with your national security.

If you're a user of GNU/Linux, than you can help other users, that is a useful contribution both to the community and the movement. You can start a GNU/Linux user group and invite users to come there for help. If there is an existing group, then you can go there and help users. If there is an existing group which erroneously calls itself a "Linux user group", you can go there and help users, and remind them to change the name to "GNU/Linux user group".

And just saying free software instead of talking about open software helps our cause in a very important way. And it is something which will take you almost no effort, once you have taught yourself a different habit. I have also taught myself to never use the word free when what I really mean is gratis. That word ("gratis") is completely unambiguous, if you say gratis people know it means "Δωρεάν" (in Greek). So, when I say "free", people know I am talking about freedom.

There are many other kinds of work we need, which involves different skills. So please take a look at gnu.org/help and see if there is something you can do to help. There are things which are only a few hours of work a week which will help us, take

a look. In the same site you will also find articles about philosophical and political questions.

In /licenses we talk about which licenses are free and which may not be. Under the bad copyright law that exists today, every work of authorship is automatically copyrighted, so every program is automatically copyrighted. And the only way it can be free is if it carries explicitly a free license, so the license is important. It is not a decoration, it is not redundant information. The license is what makes the program free.

In /government has information about the policies we recommend for government agencies to move to free software. That will take time. It might take ten or twenty years to finish the job, but if the government does not try in the right way then it won't even move in the right direction.

In /education has information about free software within schools. In /gnu has the history of the GNU operating system. /malware describes hundreds of examples of malicious functionalities (in nonfree software).

In /distros describes the various GNU/Linux distros and lists which ones are free.

We also have FSF.org. That's the site of the Free Software Foundation. Here you can find resources about free software, political activities which you can support, a store in which you can buy GNU merchandise. You can get onto our GNU announcement list, which gets possibly a couple of announcements per month through FSF.org, you can sign up. You could also become a member of the Free Software Foundation through the same website, FSF.org.

Now it's time to present my other identity.

I am saint iGNUcius of the Church of Emacs. I bless your computer, my child. Emacs started out as a program, an extensible text editor I had written. It developed through the years into a way of life for many users, because it was extended so much that they could do all their computing without ever leaving Emacs. And then it became a church with the launch of the newsgroup alt.religion. Emacs, which used to be amusing to visit but it has fallen into disuse. I hope people will start posting and using word play there again to revive it. In the Church of Emacs we have a great connection between rival versions of Emacs. We also have saints but fortunately no gods. Instead of gods we adore the one true editor, Emacs.

To be a member of the Church of Emacs you must pronounce the confession of the faith. You must say, "There is no system but GNU, and Linux is one of its kernels". Then, if you become a real expert, you can celebrate that with our ceremony, the Foobar Mitzvah, in which you chant a portion of our sacred scriptures, which is to say, the systems source code. In the Church of Emacs we have eliminated the priesthood of technology, because everyone is welcome to read our sacred scriptures.

We also have the cult of the Virgin of Emacs for anyone who has never used or known Emacs. And according to the Church of Emacs, offering the opportunity to lose Emac virginity is a blessed act. We also have the Emacs pilgrimage, which consists of invoking all the commands of Emacs in alphabetical order. There is a breakaway Tibetan sect which claims that it's sufficient to invoke them automatically under the control of the script and does so repeatedly. (That is what Tibetan religion is like). However, the mother church holds that to gain spiritual merit you must type them by hand.

The Church of Emacs has advantages compared to other churches that I will not name. For instance, to be a saint in the Church of Emacs does not require celibacy; but it does require living a life of moral purity. You must exorcize whatever diabolical proprietary operating systems have possessed computers under your control, or set up for your regular use. Then you should install a holy (wholly) free operating system, and use and install free software exclusively in and on the system. If you make that vow and you live by it, then you too will be a saint, and you will have the right to wear a halo, if you can find one, as they do not make them anymore.

There is a traditional rivalry between Emacs and the other text editor, Vi. People occasionally ask if, in the Church of Emacs, the use of Vi is a sin. It's true that Vi is the editor of the beast, but using a free implantation of vi is not a sin, it's a penance.

Five years ago, I went to China and I was really stunned that some Vi users proposed to attack me. What can I say? Apparently, violence starts with Vi.

People sometimes ask whether my halo is really just an old computer disk. This is no computer disk, this is my halo. But it was a computer disk in a previous life.

Thank You.

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day 2

Coming home to roost: How a new wave of institutional critique confronts our "Bare Art World" from deep inside the *Oikos*

Gregory Sholette

The art market is booming. Estimated global sales are topping sixty billion euros annually. This surge has been growing steadily since soon after the deep recession of 2008-2009. During this same time frame several dozen arts-focused investment and management funds emerged. They offer wealthy clients financial advising about the ins-and-outs of speculating in contemporary culture. Private banks are also getting into the game. One UK-based financial advisor at JPMorgan Bank described the current art investment frenzy as that of "amazing prices on almost an *exponential* curve upwards over a very short time".[1] And yet something equally explosive is taking place within the art world's arena of ideological production.

Figure 1. Subway station near the Whitney Museum of American Art NYC, December 9, 2018 (image courtesy of the author).

[1] Mr. Ben Williams quoted by Kate Beioley (2018).

This other escalating phenomenon delivers a critical disturbance to the art establishment. It is a confrontation that has been riding the shockwaves of the ruinous global financial meltdown a decade ago, just as much as it is a response to the surge of anti-global nationalism, authoritarianism and xenophobia that was brought so sharply into focus during the Brexit and the US presidential elections of 2016. In short, as a privileged site of production for social meaning the art world is being confronted with a dual political and economic challenge to its institutional, fiscal and symbolic structure. This mutiny comes from art's peculiar type of labor that is mostly unwaged, poorly remunerated and consistently precarious. At the same time, this productivity is always in apparent oversupply, though it is also largely invisible, even when it is conspicuously displayed for all to see.[2] Therefore it is in spite of the art market's triumph that the past decade has witnessed a steady and growing wave of museum boycotts, occupations, protests, and labor unrest. One could even say that this artistic activism has become the signature characteristic of 21st century high culture.

Of course, the presence of this new wave of art activism is not without precedents, any more than it is free of contradictions. For one thing, much of the post-2008, post-Occupy art generation of artists, curators, and even arts administrators outwardly despise the flourishing art market and the .01% ultra-wealthy that it epitomizes. For another thing, certain groups of artists who were once forced to the margins – including people of color, LGBTQ and indigenous people, and those activists who belong to what I call the dark matter of the art world – are today openly calling for a de-colonization of high culture. This sometimes involves carrying-out direct protest actions within major art museums and demanding substantial policy changes including calling for the resignation of specific trustees by name.

Still, it is important to bear in mind that the ideology of artistic production and consumption –at least within the Western art world – has for centuries imagined itself as an *exceptional* economy, and therefore imagines itself as set-apart from capitalism and the worldly sphere of politics. Nevertheless, this fantasy is rapidly melting into air. The once *vaunted* realm of high culture is falling fast to earth.

Here we arrive at another contradiction. On one hand, the citadel of high art is being pried apart and exposed to the everyday world of social struggles and economic precarity (not that these were ever really absent from the art world, but typically remained *hidden within plain sight* (Sholette, 2011). On the other hand, the "actual" world that art is "descending" into is a far cry from the *socialist* utopia once dreamt of by the early 20th century avant-garde when, for instance, Russian poet Mayakovsky (1918-19) proclaimed "The streets shall be our brushes, the squares our palettes".

Instead, we confront today a global reality in which radically asymmetrical access to income security and basic human needs are presented as inevitable tradeoffs for an increasingly truncated version of democracy. It is a time in which the financialization of everyday life, as the late Randy Martin (2002) lamented, reaches into the very fiber of our being. And it is also a world where, as Jodi Dean (2005) vividly details, a networked *communicative* capitalism *robs us*, not only of our privacy, but also of any genuine political solution to these dire circumstances. All of this is taking place as we witness the strident return of authoritarian Right wing and fascist ideologies, and at a moment when–with every grim uptick in the planet's median temperature–we draw closer to environmental calamity. Given today's circumstances, perhaps even Mayakovsky would have reversed course and called upon art to return to its romanticized pedestal.

Still, as art joins with the commonplace world and its multiple unfolding catastrophes, and even as art sheds its centuries-old ideological aura of privileged freedom and self-determination, in exchange it gains a front-row seat to the conten-

Figure 2. Agata Craftlove sketch of the first anti-Kanders Whitney Museum intervention December 9, 2018 (images courtesy of the collective www.Themm.us).

[2] Think of the thousands of fully accredited art school graduates who install exhibitions at galleries, kunsthalles and museums, fabricate the work of more successful artists, or labor hauling and storing highly priced art in freeports around the globe, all the while desperately trying to find time to spend in their own studios. See the thesis of my book *Dark matter: Art and politics in the age of enterprise culture* (2011).

Figure 3. New Museum union organizers setting up table outside museum for an action June 26, 2019 (image courtesy of the author).

tious struggles surrounding the struggle to rethink and rebuild society at a time of extreme crisis. Likewise, the very term *art* is radically shifting, twisting, inverting as it undergoes an outright self-expulsion from itself, springing away from its familiar white cube sanctuary in order to occupy the uncertainty of the public sphere. I call this new cultural condition (with apologies to Giorgio Agamben) a *Bare Art World*.[3]

Bare Art is a state in which high culture's professed autonomy and mystique is stripped away, and artistic production has been subsumed by the demands of networked capitalism, including the dictate to be "creative" in one's labor and always think, like an artist, "outside the box". As artists and cultural workers today, we therefore confront our *Bare Art World* as it is conspicuously entwined within an equally unconcealed and unending capitalist crisis. And yet, as I stated earlier, a certain wave of artistic opposition is also visible on this over-lit stage set.

Since the 2008 financial crash, we have seen a surge of creative hybrid art and activist experiments that address fair labor practices within the multimillion dollar art world, by groups such as Working Artists for the Greater Economy (WAGE), Occupy Museums, Debt Fair, bfamfaphd.org, Decolonize This Place and Gulf Labor/Global Ultra Luxury Faction (G.U.L.F.), a group that has targeted Guggenheim museums in New York and Venice with boycotts, occupations, and charges of abuse towards migrant laborers in Abu Dhabi, the site of a planned future Guggenheim outpost.[4] Other forms of resistance have emerged from within the very institutional structure of the art museum.

Early last December, almost one hundred staff members of the Whitney Museum of Art in New York City wrote a confrontational letter to director Adam D. Weinberg calling for the immediate resignation of board vice chairman Warren B. Kanders[5] whose defense manufacturing company "Safariland" is known to have supplied tear gas canisters that were deployed by US military at the Mexican border against men, women and children making up the so-called "Migrant Caravan". After the letter was made public, a coalition of activists including Decolonize This Place sought to support the museum staff by staging nine weeks of activism in the Whitney's lobby that included banners, chants and on one occasion a pot of burning sage mimicking teargas and ultimately drawing the New York Fire Department to extinguish the smoking container. Months later and across town at the New Museum, some seventy staff members voted to form a labor union. But when confronted with this pending unionization vote the New Museum administration hired the services of Adams Nash Haskell & Sheridan who strive to provide businesses with a union-free future by declaring on their website that "when we take action you take control".[6] Nine days later art handlers, installers and maintenance workers at the Guggenheim Museum repeated the same process of unionization, and confronted the same attempt at obstruction by management (Moynihan, 2019).

What appears to be taking place is a new wave of institutional critique, which involves the artistic unconcealment of the formal art world's fiscal and power structures. As in the past, artists lead this new wave of institutional critique. Recall that the initial wave of institutional critique in the 1960s and 1970s involved conceptual art based practitioners such as Hans Haacke, Daniel Buren and Michael Asher, whereas the second wave of institutional critique in the 1980s was led by ethnographic based artists such as Fred Wilson and Andrea Fraser.[7] But by contrast, this new wave of institutionally critical agency comes from cultural laborers who are not being exhibited by museums, but who are employed by them. Here we must bear in mind that many of the staff at the New Museum, Whitney Museum, Guggenheim and so forth graduated with art degrees that included the study of institutional critique and its legacy. Today that critical endowment is coming home to roost from deep inside the institution itself.

[3] Theorist Giorgio Agamben uses the term "Bare Life" to describe a human being deprived of all socially constructed legal rights and thus reduced to a state he calls *homo sacer*: no longer human but a purely biological entity. What I am calling "Bare Art" is a condition that emerges when art's traditional autonomy, mystique, and romance boils away, leaving the world of high culture stripped down and subsumed by the forces of modern capitalism and its political ideology. I expand on this in my book *Delirium and resistance*: *Activist art and the crisis of capitalism* (2017).

[4] The group's most recent statement explains that "we were inspired by the struggle for worker rights taking place by students and faculty around the construction of the NYU Abu Dhabi campus and asked ourselves what we as art practitioners could do to address potential labor abuses for the Guggenheim Museum's planned Abu Dhabi branch". Note: I am a founding member of Gulf Labor Coalition. See: https://gulflabor.org/2019/gulf-labor-statement-april-28-2019/

[5] Following some seven-months of collective actions that included denunciatory letters, protests, interventions, and boycotts the campaign against Kanders succeeded on the 18th of July 2019 when he officially stepped-down from the Whitney Museum board stating that: "I joined this board to help the museum prosper. I do not wish to play a role, however inadvertent, in its demise". Zachary Small, Warren Kanders resigns from Whitney Museum Board after months of controversy and protest [UPDATED], *Hyperallergic*, July 24, 2019: https://hyperallergic.com/511052/warren-kanders-resigns/

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[6] The vote took place on June 18, 2019. For more on this story see: Alex Greenberger (2019). The Adams Nash Haskell & Sheridan website is available at: https://anh.com/

[7] For an elaboration of this genealogy see Hal Foster's "The artist as ethnographer?"

Grassroots utopias

Luiz Guilherme Vergara

Living ethics of playfulness-placefulness placemaking of Forest-School-Museum The Microgeographies of grassroots utopias

Everything that is concrete melts in the "thickness of the present".

> While global capital and the system of nation-state negotiate the terms of the emergent world order, a worldwide order of institutions has emerged that bears witness to what we may call "grassroots globalization", or "globalization from below" (Appadurai, 2003, p. 16).

Appadurai's grassroots globalization is taken here as an entry point to explore a conceptual inquiry for new forms of art and critical pedagogy, as he mentions Paulo Freire's legacy "that could level the theoretical playing field for grassroots activists in international fora". (Appadurai, 2003, p. 19). Appadurai's globalization from below is pointing to micro-political strategies that bring education into micro-geographies of collective and community-based engagement. In order to set up a conceptual framework this inquiry addresses Appadurai's grassroots globalization as part of both decolonial pedagogies and a phenomenological approach to the meaning and knowledge making process centred in the body, which dislocates narratives and values from the alienated colonizer universal lens towards what Ramon Grosfoguel (2008) calls "transmodern pluri-versalism". The same call is emerging within the artworld as its system of alternative and independent institutions is trying to develop strategies of flipping the capitalist globalization of technologies of control and consumption from the top down to their counter-flows of art and activism of socially engaged networks. Indeed it is still necessary to expand Appadurai's vision of bottom up (grassroots) globalization with the unlearning of neoliberal pedagogies and global aesthetic systems of value to rebuild a network of community based actions of a forest-school, including Freire's existential learning. There is also a phenomenological primacy involved in decolonial grassroots globalization (or mobilizations) requiring the embodiment of XARKIS (from the beginning)[1] within the event of solidarity (Santos, 2002). This phenomenology of the senses in the meaning and process of making art brings us back to Mario Pedrosa's "vital need of art" reconfiguring "placefulness" (Casey, 1998), playfulness, and placemaking as the instrument of new connectivities and community constructions especially within the lens of micro-geographies of collective actions.

[1] The word "Xarkis" (i.e. from the beginning, in Greek) was brought to the "unletter" group by Christina Skarpari and Valentin Musteata. Actually, Xarkis is the name of their organization and they put it forward as part of the culminating and final experience of the Unconference called Clusters.

XARKIS! Moving forward to the primacy of placefulness for the embodiment of the senses towards a decolonial call for grassroots living ethics in MAC Niterói's (Niterói Contemporary Art Museum) opening experience (1996) makes me recall another one of Pedrosa's critical perceptions, which is very pertinent in the Brazilian crisis today. Mario Pedrosa in *Anachronisms of a utopia*,[2] was recommending to the architects-designers of Brasilia in 1957 to keep a parallax of visions and ethical position towards the future and at the same time having a "will to not submit to the immediate contingencies" (Ferreira & Herkenhoff, 2015, p.351). In *Aesthetics Speculations III: Endgame (*1967) he also urges for a release of the imagination from the oppressive immobility of the "thickness of the present":

> Thus an art that must be based less and less upon phenomenological perceptual experiences stems from today's technological and scientific civilization itself, from which formal phenomenological wholes always emanated and, inevitably, turned into something like the "thickness of the present" (the threshold of sound perception). […] It should be observed that these investigations have always been leading toward an expansion or intensification, an interpenetration of the threshold of perception, this 'thickness of the present'. […] The sensory fields are also becoming objects of aesthetic investigation beyond the visual, the auditory, the tactile, and – let us say – the olfactory. Any research that does not propose a breaking down of the boundaries of the "thickness of the present" in any field, cannot be considered innovative. (Pedrosa in Ferreira & Herkenhoff, 2015, p. 133).

Pedrosa's advice was completely "present in the thickness" in the memory of that night, the inauguration of MAC Niterói (September 2, 1996) when the monumental Niemeyer architectural structure was opened to house the collection of João Sattamini. The anachronism of our utopias was also there, within the present activism of a group of teachers from the city's public system of education protesting their position against using the city's education funds to instead support the construction of that monumental building. That image will not and should not be forgotten – this was exactly the revival of the Brazilian "anachronism of utopias" and the recall for Oswald de Andrade's anthropophagy of Forest-School. XARKIS!

This is also the relevance to expand the notion of Pedrosa's *para-laboratory* towards the search for a living ethics as an experimental forest thinking in all contemporary art, pedagogy, and museum practices of engagement, from curatorial education to social museology. This was the intrinsic motivation for the project *Arte Ação Ambiental* – 1996-2008 (Art Environmental Action) in the favela next to the museum, as well as all the participatory and critical pedagogy which was based on collaborating as a whole one, instituting curatorial care and awareness with a grassroots utopia (Appadurai, 2003) and *micro-geographies of affect*. All these layers of institutional experiments and anachronisms towards a "vital need of art" gathered here were part of a collection of shared experiences within the threshold of *future-front-novum* (Bloch 1996) of MAC. It derives from an understanding of Boa Viagem as more than a landscape, but as an event of being a territorial palimpsest of hope. Here the concrete utopian function of art, proposed by Bloch is invoked, as an anticipation of not-yet-finished futures – *future, front, novum* – the grassroots pathos of transformation (and here Bloch draws from Marx) – daydreams – before the "not yet" is known or made conscious:

> Marx was the first to posit the pathos of change instead of this, as the beginning of a theory which does not resign itself to contemplation and interpretation. The rigid divisions between future and past thus themselves collapse, unbecome future becomes visible in the past, avenged and inherited, mediated and fulfilled past in the future (Bloch, 1996, p. 8).

A contemporary art museum can also be approached and challenged by the sense of event of being, "In-Front-of-Us", a "Not-Yet-Conscious, Not-Yet-Become" (Bloch, 1996. p. 6) future, "the Novum demands its concept of the Front".

[2] Mario Pedrosa in *Anachronisms of a utopia.* in *Reflections of the new capital* (1957) debates on the architects involved in the design of Brasilia to "(…) keep their eyes permanently open to two chief points for the proper execution of their tasks: an awareness that they are designing for the future; and a will to not submit to immediate contingencies of the present" (Ferreira & Herkenhoff, 2015, p. 351).

Figure 1. The mailbox project by Phaneromenis 70.

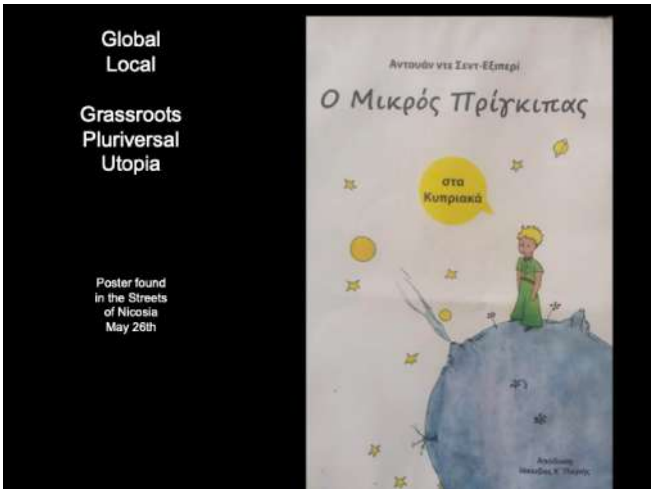

Figure 2. Saint-Exupery's "Petit Prince" as poster in Nicosia.

All together build the entanglement of what is represented in the word XARKIS, "being at the beginning". It is not difficult to recognize in Niemeyer's futurist architecture for MAC the legacies of the "Spirit of Utopia", yet a pragmatic utopia to embrace and embody the place and placefulness, playfulness, and placemaking of decolonial and forest thinking, with the freedom of artistic ruptures and movements of the 20th century and project them towards the new millennium. There was the counter-flow of grassroots utopias emerging from an ethic-aesthetic and social engagement of a multivoiced body of contemporaneity in this age of diversity, as with the visions of Fred Evans (Evans, 2009). The phenomenological turning point of experimental and environmental art of the sixties (especially articulated by Mario Pedrosa and Hélio Oiticica) was also reframed into micro-geographies of collective action requiring radical changes in Pedrosa's "museum for today" to be approached as *forest* of multisensorial experiences, but also of the museum as public park, as a school, as a social-aesthetic therapeutic "para-laboratory" of co-creation and of meaning making processes. The grassroots utopia/globalization brought to the collection of experiences at MAC an ethical and decolonial response to these global and local shifts intertwined with a transcultural call for reframing the museum's praxis as a broader concept of multi-sensorial, cultural and social *para-laboratory*.

> The sensory fields are also becoming objects of aesthetic investigation beyond the visual, the auditory, the tactile, and – let us say – the olfactory. Any research that does not propose a breaking down of the boundaries of the "thickness of the present" in any field, cannot be considered innovative (Pedrosa in Ferreira & Henkerhoff, 2015, p. 133).

It was from those early years of MAC (1996-2008) that a genealogy and collection of experiences, "where the sensory fields are also becoming objects of aesthetic investigation", were built unveiling layers of a phenomenological hermeneutic of the "Not-Yet" (Bloch, 1996) and manifesting consciousness through the intuitive contact within the place of palimpsests of Boa Viagem. The museum itself was not just looking over the colonizing landscape of the paradise of Guanabara Bay but redeeming both inside and outside its iconic structure its purpose as an *Event of being* (Bakhtin, 1999) in the world. In the special case of MAC, the museum as form-function was approached as a work of art. It was the place and the placefulness of a phenomenon of content-context, the vessel and receptacle (Casey, 1998) turning itself to be a container of *front-novum-future* (Bloch, 1996) connectivities.

This "not-yet-conscious" experience imprinted a pragmatic utopian function to MAC as what Pedrosa called "museum of today" – a "living museum". But it allows us to also recall Oswald de Andrade's 1924 manifesto. His poetry of anthropophagy of "Pau Brasil" expressing the contemporary paradox of the Brazilian struggle of opposing boundaries between Forest,[3] micro-resistance practices of forest thinking or as Dion Workman proposes "re-wilding the human", in the face of the barbarism that envelopes and dominates, the so-called domesticated and civilized social condition of "school" (as European School). This is where Bloch's concrete utopia to "thinking as venturing beyond" (Bloch, 1996, p. 8) embodied a philosophical and ethical turn into the curatorial, artistic, and education principles. The placemaking of placefulness-playfulness of MAC open the call for a praxis of Pedrosa's intuitions in his aesthetic speculations on the complexity of thinking and acting from within the collective and shared experience moving beyond the "thickness of the present".

Yet, all the experiences were followed by the increasing decolonial awareness of the power of the place of generating new connectivities, as a living receptacle of confluences including the anachronism of Brazilian utopias. This is where "Forest-School" is redeemed as Bloch's sense of "not-yet-become" of a Brazilian anthropophagic utopia but demanding to be grounded in grassroots utopia of micro-political and *micro-geography of affects*. And it is in this context that the appropriation of the notion of *para-laboratory* (1960) was explored in the newness of MAC Niterói (1996-2016) as a place of hope and paradox. What does it mean to have a "museum for today" if not to invest on the threshold of forest-school perceptions and of a radical re-thinking of the art institution from within through its social engagements of playfulness and "placefulness" (Casey, 1998).

The thoughts of Mário Pedrosa's *para-laboratory* became seeds which continuously grew through the social and pedagogic practices of MAC. Deriving from the need to reconsider the social praxis of the para-laboratory another of Pedrosa's intuitive notions, that of the "living museum" was taken as a "Not-Yet-Conscious" dimension of care; with the public life of the institution-instituting an organism of multiple voices, a living instrument of experiments of synthesis.

> The art museum, especially the living, experimental museum that targets the people, attracts them, educates them, can be the privileged place for this non-logical but perceptive-aesthetic reeducation. Everything in it must converge for that purpose, from the internal services to the exhibition mounts, from the house in which it is housed, the architecture that embraces it until the collection, posters and flyers, from the communication signs to the lighting design. Beyond this it cannot be attached to a single artistic sensory activity. ... Behind its formula, which is in its appearance so simple and even superficial, lies a deep synthesis (Pedrosa in Arantes, 1995, p. 297).[4]

This brings to mind Guattari's "institutional therapy",[5] through the lens of "a molecular-revolution" (Guattari, 1984) that also inspired the understanding of strategies and ethics of *micro-geography of affects.* Investing in the grassroots praxis of a living museum as an "instrument of synthesis" manifests itself towards a perceptive-aesthetic reeducation to provide the singularity and uniqueness of the "event of being" (Bakhtin, 1999) in the public place of co-creation. Thus the experimental art, the innovative art is part of the reconfiguration of a systemic perspective of decolonial awareness of regaining the place of art in the public reeducation of human inter-relations. Pedrosa's notion of living museum points to what was emerging from the collection of experiences as an organic grassroots utopia grounded in the playfulness and "placefulness" (Casey, 1998) of sharing social practices. It also brings to mind Guattari institutional therapies in the scale of "molecular revolutions" or furthermore, a contemporary reconfiguration of curatorial, experimental art and radical pedagogic strategies of collaboration that

[3] The artist Jorge Menna Barreto translated Dion Workman's notion of "forest thinking" into Portuguese (Workman, 2019).

[4] Free translation. Mario Pedrosa published *Museu, Instrumento de Síntese* in the Jornal do Brasil, 1961 (in Arantes, 1995, p. 297).

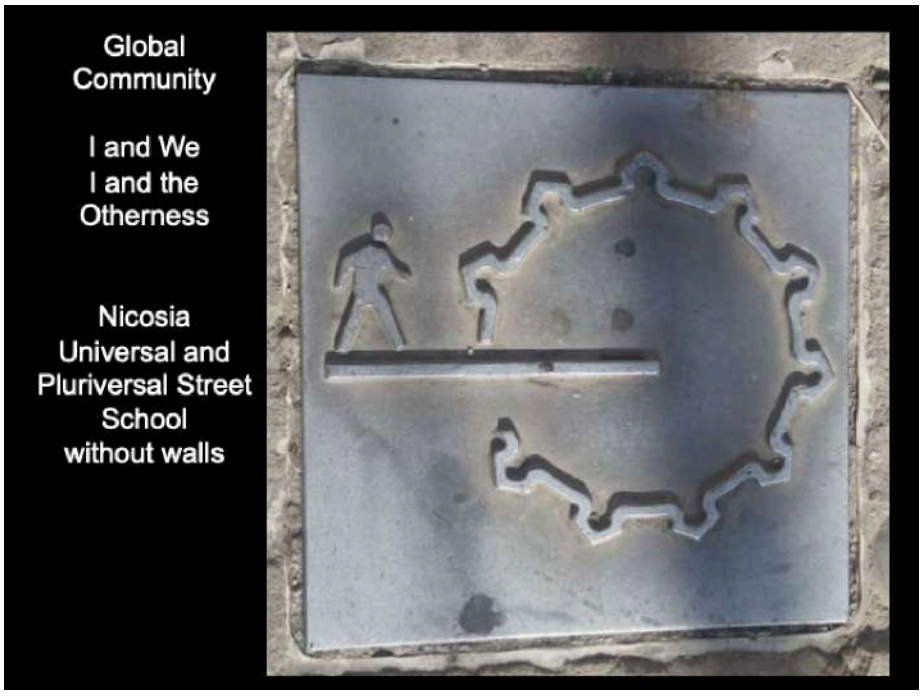

Figure 3. Metal plate in the streets of Nicosia; Universal and pluriversal street school without walls

nurture the living museum with its own therapeutic anthropophagic resistances against all the remnants of the established colonizers forms still prevalent in Brazilian society.

Even though, Pedrosa's approach to the *para-laboratory* was a very short commentary produced in the 1960s, its authentic impact in the public life of the art institution has not-yet been studied through its potential as a perspective for systemic curatorial practices, including its contribution to think further the idea of the living museum and living ethics. It requires a new lens of public care with the micro-politics of curatorial awareness breaking out of hierarchies of art history, which is centred in one universal voice of hegemonic narrative. It is also about Guattari's "molecular revolutions" setting a continuous flow of a tripartite unity between the art-institution and society (Guattari, 1984). This was the very experimental ground of the art and environmental action project at MAC that became part of an institutional elliptical therapy for a living museum as a receptacle of new connectivities for a social, "multivoiced body" (Evans, 2009).

In other words, there is an "elliptical"[6] collection of public experiences where social and cultural experiments demanding for participative attention and care were addressing to the architectonic of otherness in the work of art already approaching to Bakhtin's dialogical "event of being" (1999). Such a process of deconstruction and dislocating acts towards redeeming "placefulness" (Casey, 1998) and playfulness as a decolonial position pointing towards a new phenomenological objectivity of what Mário Pedrosa[7] called as "affective nature of the form" in the aesthetic experience. It is claiming to approach art and museum curatorial practices beyond the tangible forms of the building into an organic shift towards the "architectonics" of placefulness instituting an ecology of decolonial awareness with the lens of a grassroots utopia. Pedrosa's vision for a "living museum" is turned into a living structure-organism with the contributions of Spinoza's ethics of the mind and the affects (Spinoza, 1994) to care with the collective life of social and curatorial practices in "the house of experiments" (Pedrosa [1960] in Ferreira & Herkenhoff, 2015, p. 142).

[5] Felix Guattari in "Transversality. Institutional Psychotherapy" writes that these therapies can be taken today as a "molecular revolution" – or more contemporary reconfigurations of strategies for "institutional therapy". However, subject to the same risks of being incorporated into speeches or "ministerial texts". Felix Guattari deals with "institutional therapy" and the fragility of psychiatry of avant-garde before "the Mainstreaming" institutionalization. Which is quite symptomatic simultaneously and institutional ruptures in museums and schools (Guattari,1984, p. 11).

[6] Using the "elliptical" as part of research in progress that uses the geometry of the ellipse, a circular figure with two centers. From that it is discussed an ethics that is equal dialogue or Bakhtin's dialogism considering the meeting place with the other. It also can be projected in terms of Bakhtin's concept of architectonic and answerability for an art work considering the role and place of the other as a co-creator. Furthermore, in case of a whole curatorial paradigm to open a perspective of participative place in the public life of the art institution.

[7] Mário Pedrosa first explored the problems of gestalt in the Psychology of Art as a student in the University of Berlin (1927/1929), but his thesis, called as the "Natureza Afetiva da Forma" was published in Brazil only in 1979 (Pedrosa, 1979).

In *Postulates of the mind*, Spinoza gave another conceptual contribution to think of the micro-geography of collective actions as an interconnectivity of the human mind – body with many individuals as "composed of a great many individuals of different natures, each of which is highly composite" (Evans, 2009).[8] Spinoza postulates an ethics that invokes the physically present temporality of the body-voice and affection-joy, empowering a conceptual understanding of Casey's "placefulness" as well as Bakhtin's event of "being" and "being as an event", pointing to an institutional – "house of experiments of synthesis of art and social therapy".[9] Here, I not only draw on Spinoza's anticipatory pan-human ethics, but also Milton Santos' events of solidarity and his concepts of geography of actions (2002),[10] with a view to imagining a curatorial ethical turn of a systemic *para-laboratory of* care that is informed by social engaged contemporary art practice. This ethic position is also proposed as decolonial fundamentals of playfulness, placefulness, and placemaking for contemporary art museums as a house of artistic-social-cultural experiments.

1. The human body, as an event of meetings, as well as the aesthetics of collective affections (*museums – schools – interventions*) is composed of numerous individuals (of diverse nature), each one being a compound.
2. The individuals that make up the human body and, consequently, the human body itself, (the cultural organizations, galleries, and *museums*) are affected in numerous ways by external bodies.
3. The human body (the event of solidarity, organizations, and institutions) in order to conserve itself needs numerous other bodies, and it is as if they continuously regenerate it.

Through all these postulations Spinoza explored a composition of the human body by many other bodies and individuals as projected in the visions of Helio Oiticica's and Lygia Clark's collective cells and poetic shelters. Furthermore, Spinoza in Postulate IV points to "The human body, to be preserved, requires a great many other bodies, by which it is, as it were, continually regenerated" (Santos, 2002, p. 128). Dislocating Spinoza's approach to the human body of multiple bodies, and from there expanding still further the living ethics for a *para-laboratory*, one can gather many different appropriations in contemporary philosophy, art and performances. Spinoza's *Ethics* is also inspiring the sense of collective performance pointing towards a mutual belonging and care with the common, community making as an organism, organization and any instituting practice involving collaboration. But, as pointed by Spinoza, it "requires a great many other bodies" being together to be preserved. The Brazilian geographer Milton Santos added to this appropriation of Spinoza with another nature of the space as part of a geography of actions that can be taken for a curatorial care with the experimental ground of playfulness-placefulness-placemaking intrinsic to the grassroots utopia of "micro-geography of affects" as an "event of solidarity" (Santos, 2002, p. 128).

Grassroots utopias

Reframing new imaginaries of Forest-School-Museum

"Every landscape is a hermetic narrative: to find an ideal place for oneself in the world is to find a place for yourself in a story", (Lippard, 1997, p. 33).

Through all those years a collection of curatorial-artistic-educational experiences was forming the museum's conceptual framework towards the awareness of an organic ethical unity between art-institution-society. The phenomenological sense of practicing the circular spaces of the inside-outside the museum gave the experimental ground towards placefulness-placemaking-playfulness with the ecosystemic vision of new imaginaries of Forest-School-Museum within one body-world organism made up of multiple bodies. A reverse causality between dystopia – heterotopia was also constructed out of this collection of experiences pointing from

[8] Fred Evan's concept of multi-voiced body is fundamental to expand Spinoza's ideas of the body of multiple bodies (Evans, 2009).

[9] Revisiting Spinoza's concept of the body through medical scholar Ricardo Teixeira's approach can usefully point to this vitality, to the human body as a territory of affection and an event of meetings.

[10] Milton Santos, O proceso espacial: o acontecer solidário (2002, pp. 165-167).

the anachronism of Brazilian utopias towards an intuitive synergy of an *unbecome future* of a para-laboratory of grassroots social action.

Casey's sense of "placefulness" can also be applied in the case of MAC to remeaning the museum as a "receptacle" or a "container" of multiple connectivities. This ethical approach had a very important impact on changing the curatorial position towards the museum as a para-laboratory of public art as a meeting place of society. There was a series of curatorial-educational collection of experiences that unfolded into exhibitions combining displaying art works and the museum as a forum – agora for meetings, performances and collective healing rituals. That was the case of *Poetics of Infinity* (2005), Lygia Clark's *Poetic Shelter,* both involving the curatorial studies of João Sattamini-MAC Niterói's collection and dialogues with the circular Niemeyer's architecture. There were also some temporary solo-exhibitions, like Suzana Queiroga (*Olhos d'Água*, 2013), Joseph Beuys (2013), and Carlos Vergara (*Sudario*, 2014).

It is worth to point here the culminating curatorial program *Guanabara Bay: hidden lives & Waters* organized to celebrate the 20th anniversary of MAC Niterói with the exhibition and environmental action involving not only Isaac Julien (*Ten Thousand Waves*, 2016), but a network of collaborations with different community and collective based art projects – inside-outside the museum. The museum became an active receptacle and "unmoved mover" (Casey, 1998) proposer, as an agency of environmental art and awareness of placefulness, playfulness, and placemaking. The site specific, geopoetic and geopolitic, positioning of the museum was highlighted as a special universal-local chalice enrooted close to the edge of the marvelous site seeing of Guanabara Bay. It gave a curatorial turn into ethical-aesthetic vocation of the museum as a sentinel and guardian pointing towards the invisible conditions of lives hidden in the landscape surrounding the museum. There was also a paralaboratory of transcultural and transtemporal celebration of the feminine principle addressed in different art projects. There were together Iemanjá in Nelson Leirner's installation looking out of the varanda towards the entrance of the Guanabara Bay next to the Re-Aphrodite collective project from Nicosia.
In the main room *Ten Thousand Waves* by Isaac Julian brought the Chinese tragedy of lost fishermen in the west coast of England crossed with the images of Masu, a Chinese divinity protector of the ocean. The waters of the planet, beyond the landscape, invade the museum not only as a symbolic and sacred homage to the role of woman and a universal Mother of the World. The shape of the chalice was also pointing towards a planetary crisis and urgent call to deconstruct patriarchal primacy of power and responsibility in the impact of local-global capitalist order. Livia Moura was another Brazilian artist that redeemed the Myth of Pandora with an intervention and video performance in the waters of Guanabara Bay. It is possible to refer to this project as a culminating awareness of placefulness, playfulness, and placemaking towards the art and environmental role of MAC Niterói. Invading in literal, conceptual, polysemic and symbolic ways as part of the continent and content of meanings of these exhibitions.

In all of these curatorial cases, from *Poetics of Infinity* (2005) to *Guanabara Bay: hidden lifes and waters* (2016), from geometry-geography of circularity and roundness of time-space, the museum was bringing together artists, educators, and society as one whole community based body of multiple bodies. The shape of a chalice turned the museum's function into an intuitive mission of a receptacle of new connectiveness, as a cosmo-geopoetic container of grassroots synthesis of spiritual and transtemporal, pluriversal-local playfulness and placefulness.

These exhibitions were part of a curatorial experiment of bringing together the decolonial tripartite ethics of playfulness, placefulness, and placemaking dialogues. It was also an experimental ground of instituting imaginaries of a living museum as a

receptacle of Block's vision of unbecome future, the house of experimenting a not-yet-conscious meaning making process of affecting and changing the very preliminary artistic and curatorial conceptual framework. The exhibitions discussed here were some of the main critical turns to understand the power of place in contributing towards a continuous flow, shaping a living museum and a place of participatory co-creation through the experimental interplay of art, museum, environment and society. There is the role of place revisiting Pedrosa's vision of para-laboratory as an event-instrument of synthesis. These curatorial experiences were also pointing towards a Forest-School-Museum of social and institutional therapies of grassroots roots utopia out of the "pluriversal" uniqueness and singularities within the site of Boa Viagem. This is reflected in the turn from architecture-landscape into Bakhtin:

> Valuative architectonic division of the world and I and those who are all others for me is not passive and fortuitous, but is an active and ought-to-be-division. This architectonic is something-given as well as something-to-be-accomplished, for it is the architectonic of an event (Bakhtin, 1999, p. 75).

This position also allows us to return to the inquiry and public challenges which are part of this spiral thinking towards Pedrosa's *para-laboratory* to reframe the whole museum curatorial, artistic and pedagogic experience within the social – environmental – and symbolic practice of playfulness & placefulness. In all these para-laboratory curatorial experiments of exhibitions, pedagogic and geopoetic performances there was the tripartite unity of placefulness-playfulness-placemaking. There is also a universal-pluriversal resonance of the geopoetics of MAC's circular shape with the Greek sense of "unmoved mover" (Casey, 1998) making tangible the palimpsest of the transtemporal landscape in the event of Being – and Being as an Event.

Another side of this tripartite unity for a *para-laboratory* of contemporary art mirrors the contributions from the aesthetic theory of Hans-Georg Gadamer's three features of art: game (playful mind), party or ritual, and symbol (1977). Gadamer's actuality of the Beauty can also be re-approached towards MAC as work of art facing the marvellous landscape. The challenge of what Pedrosa called as "living museum" and "house of experiments" requires a systemic approach to art as care with the meeting place of connectivity – play (playfulness); party (placefulness); and community (placemaking). The care with the connectivity between place, art and society is equally relevant to build a new institutionality grounding these tripartite ethics. Perhaps, what Pedrosa referred to as the experimental in museums pointing to a special synthesis integrating the embodiment of playfulness through co-creation, placefulness through contemporary rituals and cosmogonies, and the transtemporality of the symbolic and pluriversal experiences revealing and redeeming pluriversal-universal hermeneutic meanings in the aesthetic experience. It reminds also Paul Ricouer's phenomenological hermeneutic in the social engaged art experience unfolding from the epistemic experience of meanings, to onthologic meaning of experience.

From the outside walking experience to access the museum through the spiral and circular ramp it was already redeeming the sense of rituals, universal pilgrimage of ascese represented in the anachronism of the living and transtemporal structure of MAC.

There was already the living experience of placefulness in Casey's sense recovering the unfolding turn from modern utopias towards a contemporary temple where the multi-sensorial power of the place demands the presence of all senses in the body to turn the museum into an instrument of synthesis and decolonial meanings of being. That is where the *unbecome future* is radically present in shaping a contemporary practice of placefulness-playfulness-placemaking. These are just an introduction of the power of the place moving a museum as an event of grassroots

utopias towards the fundamentals for a Forest-School, a Forest-Circular Museum Forum (*agora*) but also towards the embodiment of social conviviality and institutional therapies of "collective constructive will" (Oiticica, Figueredo, Pape & Salomão, 1986).

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Post-human translation in the fourth phase of global capitalism: Digital technologies, sensorial languages and Big Data, a critical approach from art

Federica Matelli

Introduction

Starting from the diagnosis of the current situation that sees the mobile, the Internet, the Internet of Things or Everything (IoT/E) and the Big Data (Greengard, 2015) to be related, my intervention wants to raise a series of questions: What is the relationship between Big Data, the algorithms involved in it and cultural difference? What could be the result of cultural translation via new digital technologies? To try to answer these questions, I will use a method of speculative and synthetic analysis on a transdisciplinary basis. Bringing together different disciplines such as philosophy, media art history, and art history to reflect on these questions and issues on an abstract and speculative level in order to formulate a hypothesis.

Control, security, and consumption are the fields mostly related to Big Data and the different algorithms that shape it, and this becomes especially evident within globalization, as the universalism and multiculturalism of a global society involve the issue of how to deal with heterogeneity within politics. However, when we talk about globalization and new technologies, we must not forget that it isn't one global system but four great technological architectures, that correspond to four areas of the planet: the American, the Chinese, the European and the Russian. Technological architectures refer to the structures and relationships within the internet and when I use the word global, I am referring to the generalities and similarities of the operation of new technologies within each area despite the differences.

In short, with this paper, I propose a reflection on a new aspect related to the global production and use of new digital technologies: their influence on global culture(s) and their possible consequences with respect to cultural translation. The aim being to raise a series of questions based on the relationship between digital studies and cultural translation studies in the line of the artist Antoni Mountadas.

This line of questioning takes its origin from the artwork PRISM, *The Beacon Frame*, Speculative NSA Forensics Equipment by The Collective Critical Engineering Working Group. In September 2013 the two artists Julian Oliver and Danja Vasiliev developed a project over two days as part of the ArtHackDay Berlin that they then expanded and completed for the main exhibition of Transmediale 2014 (Critical Engineering Working Group, 2014*)*. On the opening night of Transmediale, PRISM

furtively appropriated the cellular connection of at least 740 phones without any user interaction with their mobile phones. PRISM is a clandestine electronic surveillance software operated by the U.S. National Security Agency (NSA) for the mass collection of communications from at least nine large U.S. Internet companies. Although only known in 2013, the program was implemented from 2007 – coincidentally also the date of the release of the first smartphone, the iPhone – following the expansion of U.S. intelligence services that began in 2001 after the September 11 attacks and the beginning of the "war on terrorism". This software collects and stores the Internet communications of users depending on the demands that the NSA makes to Internet companies such as Google, Facebook or Yahoo.

PRISM: *The Beacon Frame* was censored in Transmediale and we are interested in it because it makes evident and public the hidden work and one of the clandestine uses of the data we give daily to Internet companies, not only mobile and telephone companies, but also those that offer social media and networking services such as Facebook or Instagram, or online storage such as Google or Dropbox, during our consumption of online content.[1]

Consumption, control, surveillance, and speculation are four concepts that go strictly hand in hand in today's society, defined by different authors, from Armen Avanessian to Matteo Pasquinelli or Franco Berardi (Bifo), the society of computational capitalism or semio-capitalism. The virtual data store is at the heart of this system, which depends on new online technologies. With the automation of marketing, popular culture and consumption, objects and humans translate each other's, a translation that recovers the concept of "translation" by Bruno Latour (2001) or the Speculative Realism by Bryant R. Levi (2011) or Graham Harman (2015), who introduces a universal language.

Post-human translation[2]

The current post-human situation of computational capitalism, and above all the future IoT/IoE (Internet of Things / Internet of Everything), with the total protagonism given to technological objects and the automation of processes that nullifies the centrality of the human, seem to endorse and confirm Bruno Latour's "actor-network theory". The actor-network theory conceives nature and society as inseparable terms and develops a series of concepts for the understanding of the complex of relations between human and non-human agents (Correa & Gonzalo, 2011). This theory, then, developed a series of conceptual tools to unravel the complex networks that constitute the inseparable relationships between technology and society, that are not considered as two distinct spheres, but as a single framework. Among those is the concept of translation linked to that of mediation and that of quasi-object by Michel Serres. On the other hand, the recent theories of Speculative Realism/Materialism also contribute to describe a future world assimilated to the object in which life and space are determined by objects, among which is the human being who loses his sovereignty over society. These concepts of objectual translation are very useful to us to conceptually frame the current situation of cultural translation conditioned by new technologies, especially Big Data, the cloud and mobile applications, and the power relations they generate, considering that the use of such technologies influence and cause cultural change in everyday life and a cultural translation beyond human reach.

Data, algorithms and power relations

The devices on which we depend every day, especially Smartphones, are nowadays equipped with sensitivity and capacity for interpretation, not only of our speeches but also of our gestures and somatic characteristics, so as to provide a daily translation of our material reality in terms of data. This relationship between bodies and

[1] A short video of the installation at this link: https://vimeo.com/79578734

[2] By the definition "post-human translation" I mean above all automated systems in which human action is reduced to a minimum. By this I mean mainly – as I explain in this section of the article – the IoT, the algorithms that interpret and translate the human, or the different preventive algorithms with different uses and purposes that condition the user beforehand based on previous data collection. Thus, these induce or convey their behavior. Examples are Spotify, Amazon, Netflix, Tinder, Bumble, among others.

devices (Smart Phone) and the translation that derives from it takes the name of Bio-Hipermedia (Terranova, 2017) and will reach its extreme consequences with the Internet of Things, that is to say with the semi-physical and semi-virtual network that – using the mobile as an interface – will create a community of humans and non-humans in real terms.

We have entered a new era, a new world of invasive technology to the point that with the IoT every aspect of our daily lives will be affected. With the IoT, the data collection will be independent of humans and a totally non-anthropocentric technological object system will be created. Currently, data collection depends on human interaction with the physical world, but the aim of the latest research is to equip computers and mobile devices with sensitivity so that they can interact with the world on their own and do not need humans as mediators to collect data. So in a not too distant future, mobiles will have the ability to smell and taste and acquire what they currently lack, the ability to detect the lexical and cultural context with which they interact. In this way, the global village thought by McLuhan, until now only visual, will become total, considered the feature of hyperobject of the internet (Morton, 2018).

Big Data is a large container of information often compared to oil for its value in contemporary society, but just as crude oil is useless if it is not processed, so is stored data. Data processing is entrusted to algorithms that interpret it and translate it into a specific language: this is the speculative value of its use. Since each translation is also an interpretation, by providing a translation and an interpretation, the algorithm can be considered "a frame" according to Gregory Bateson's (1972) definition of frame as a crucial form of meta-communication of messages that tells us how they should be interpreted (Andrejevic, 2017).

Big Data is frameless, i.e. deprived of a frame and this complicates the relationship between the web, the digital with multiculturalism. The frame is each time created by the different algorithms that work with the data and in this sense they are on the one hand generators of sense and on the other hand bearers of prejudices, those of the programmer or of the culture of the programming company that creates them. This creates a new verticality in the Internet, nullifying the dreams of the 90's of the net as a democratic and free place. It can be said that technological objects are a reification of a particular set of beliefs and desires and that software carries codified and thus automated prejudices, while at the same time it is an abstraction, a generalizing formalism.

By influencing our behavior and daily life, the use of applications in everyday life could lead to the mechanization and leveling of global popular culture in the long term. An example of this process has been the exhibition *Speculation on Anonimous Materials*, which brought together post-internet works with very similar aesthetics from global artist collectives that had never come into contact with each other before the exhibition. In this sense, the multiculturality of a connected global world is annulled in algorithmic metalanguage; popular cultures linked to online consumption are translated into a single language, with vast invisible exclusion zones. This and other concepts related to that asymmetry are explored in the exhibition *Africas in Production* at ZKM in Karlsruhe*,* which is part of the research and exhibition project *Digital Imaginaries* that started in spring 2018 with events in Senegal and continued in South Africa before going to ZKM Karlsruhe. This series of events see the issue of the inequalities of digital capitalism from the point of view of many digital African artists.

The algorithms transcend the linguistic: the different global data flows that cross the internet are translated into the same language by the algorithms that are applied to it, which always contain in their structure a coded prejudice(s), that of the culture that programs the code. Somehow, we can conclude that this generates

a form of computational "imperialism", considered that trafficking with the network and data means dealing with something similar to an infinite bourgeois bookstore of Western origin, with all its inherent contradictions. An algorithm is always a generalization, thus sweeping away cultural differences.

Conclusion

In conclusion, we can affirm that the digitization of cultures could generate a crisis of its sense and meaning and a vertical levelling of cultural translation at a global level. Digitization here means, on the one hand, putting cultural products into digital format and, on the other hand, translating and mediating with applications some human behaviors that are fundamental for society – such as communication and consumption – by means of digital media. When we speak of digital translation, we must also distinguish two of its aspects, which also correspond to two of its levels. Firstly, there is the already mentioned basic translation of any cultural content in the form of binary code, i.e. number. Secondly, there is the contextual translation, which would correspond to the work of the algorithm, which computes this first numerical data in the form of binary code (Angus, 2016).

With digitization, that is, with the numerical translation of aspects of human culture and its automation, two problems emerge. On the one hand, the issues of loss of meaning and of subject of culture, related to the fact that Big Data is frameless, as explained earlier in this presentation, entails a loss of the relationship with "otherness" and a destabilization of the "other", which is always determined by the presence of a frame or frames. On the other hand, we have the algorithms that provide a certain reconstruction of cultural meaning, which is conditioned by a dominant culture, that of the place where the applications are produced, altering the cultural sovereignty of people from everyday life.

It should also be noted that with digitization the cultural unconscious is lost since explicit computing in algorithmic language controls every aspect it encompasses and leaves no room for the unforeseen or the unknown. This contributes to the development of a post-human intercultural translation, led by technological objects, closely related to the global situation of computational capitalism. In this extreme order of global capitalism, which is governed by algorithms and conditioned by techno-politics, the transnational diffusion of digital technologies establishes a unique sensory language that translates and uniforms different cultures and at the same time guarantees control over the present and future of the different populations through Big Data. What could be the solution to this situation? Perhaps to welcome the suggestion of authors such as Armen Avanessian (2017) or Matteo Pasquinelli, who propose new forms of resistance and struggle to the current system through hacking tactics, new and speculative techno-humanities and digital poetics.[3]

[3] 1985 is the year of the formation of the Free Software Foundation by Richard Matthew Stallman, also inventor of free software. From the 80s onwards we have seen the development of the Free Software movement which, although in another plan, faced problems similar to those raised in this article, placing the freedom of the computer user as a fundamental ethical purpose. It would be necessary to contemplate and analyze the possibility of applying free software technology to IoT or mobile applications but I suspect that in any case, this option presents the limitation derived from the fact that the diffusion of digital technology in everyday life is not proportional to the knowledge of its functioning on the part of common users, while open codes can be modified only by users with a high level of technical knowledge. Perhaps the solution to this problem lies more at the macro-political level than at the micro-political level.

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Decentralization and commoning the arts

Ruth Catlow

Art for the living

Art is practical philosophy and creative play with everyday rules, matter, behaviors and structures. It is a means to extend intersubjective expression between living beings, things, and environments - decoration, a conversation piece. It is a field of practice that, while real, requires no defense of what constitutes truth (Catlow and Vickers, 2017). Radical, rooted, artworld events can produce new timespaces that cultivate new ways of being, feeling and knowing for individuals and collectives of people.[1]

The intense commodification of art since the 1980s[2] has been accompanied by the hyper-individualization and beggaring of artists on the ground in even the world's wealthiest countries.[3] The unsatisfactory relationship between art and money tends towards a total financialization of artworks, detached from communities of artists from which they spring. A pyramidic artworld, structured via markets and business interests (Schneider, 2018; Catlow and Vickers, 2019) is well illustrated in William Powhida's 2010 drawing, *A Guide to the Market Oligopoly System*. Because of this, the potential is lost for a positive transformation of collective values that can be generated through collaborative artistic production and diffusion in grounded communities. (Crompton, 2010; Marçal, 2016).

Can we use the redecentralized internet to redecentralize art?

Since their emergence in 2008, blockchain technologies, described as the new Internet of money, value tracking and unstoppable applications,[4] have moved beyond their initial promise to blow apart the control of money from the center. They have demonstrated a capacity to carry a full spectrum of political hopes and ideologies (Myers, 2017;[5] Kanad Chakrabarti, 2016). Emerging Web3.0 technologies,[6] tools and frameworks[7] are now also enabling new possibilities for decentralized collectives of people to coordinate and self-organize in their own interest.

In 2015 we called artists, techies and activists to join us at Furtherfield to discover how emerging data and blockchain technologies could be used "to build a commons for the arts in the network age".[8] Since then we have devised and produced a series of public exhibitions, films and workshops to explore the affordances, potentials and limitations of blockchain and cryptocurrency technology cultures beyond pure market speculation.[9] Now Furtherfield's Decentralized Arts Lab (DECAL) is hosting artist-led research to experiment with and prototype new systems, working with blockchain and web 3.0 technologies for more emancipatory cultural economies and ecologies.[10]

[1] From CreaTures – Creative practice and transformations to sustainability, forthcoming EU Horizon2020 cooperation project.

[2] In the 1980s the art press starts to note a new kind of art collector motivated by their "hope to double or triple their investment." http://www.artnews.com/2018/01/09/115-years-manic-market-go-go-80s/

[3] Studies show that the national median wage for a fine artist in 2010 was only £10,000 – less than half of the average UK salary https://microsites.bournemouth.ac.uk/cippm/2011/05/16/copyright-contracts-and-earnings-of-visual-creators/

[4] https://ethereum.org/

[5] Informed by ongoing collaboration with Ben Vickers and DAOWO workshop participants http://daowo.org

[6] Web3.0 (follows Web1.0 and Web2.0) and is the web of secure, transparent data produced by machine learning and the mobility of our technological devices/IoT. The Distributed Web campaign led by Tim Berners Lee seeks to bind the decentralization of data with choice: "being able to choose where you store your data, independently of the services you want on top of that data" (2018) https://bit.ly/2KtF9T5 Also see Hackernoon for Aviv Lichtigstein on the significance of Web3.0 and the blockchain IT stack https://bit.ly/2YHIt38

[7] See DAOStack https://daostack.io/, Aragon https://aragon.org/ and Colony https://colony.io

[8] *Art Data Money*, Furtherfield (2015), http://www.furtherfield.org/artdatamoney/debate/

[9] *Furtherfield Blockchain Art Resource* (2018), http://www.furtherfield.org/furtherfields-art-and-blockchain-resource/

[10] Decal web page https://www.decal.is

With a focus on work at the intersection of three fields of practice – art, commoning and decentralization technologies – and inspired by Elinor Ostrom's work on institutional design, and Marilyn Waring's Feminist economics, this paper shows how blockchain and Web3.0 affordances can inform an approach to commoning the arts. It ends with a discussion of *Decentralized Autonomous Organization With Others (DAOWO)* (Myers, 2015; Catlow and Vickers, 2019), an attempt at a second wave of global artworld restructuring, against the toxic cult of the individual-artistic genius, which first found expression in the punk spirit of networked collaboration called *DIWO (Do It With Others)*.[11] This shows some approaches to decentralizing and commoning the arts in order to increase the resilience and resourcefulness of connected, distributed, communities with an increased sense of agency, imagination and alliances.[12]

Commoning in the interest of artist communities

There is an unsatisfactory relationship (symbolic and practical) between Art and Money in a pyramidic Artworld, structured around a single market that facilitates the total financialization of artworks for the benefit of a tiny elite (Haiven, 2018). As long as this image of one Artworld persists, we are wasting the collective potential of globally-connected grounded communities to produce visions and cultures of renewal fit for the age (Crompton, 2010).

Questions around the formation of new constellations of artworld communities are raising important and critical questions about the future of the art market. Reflexive engagement with questions about the relationship of art to money and currencies leads inevitably to investigations into the possible reconstitution of artworld institutions and machineries.

> If art is an alternative currency, its circulation also outlines an operational infrastructure. Could these structures be repossessed to work differently? How much value would the alternative currency of art lose if its most corrupt aspects were to be regulated or restructured to benefit art's larger communities? (Steyerl, 2016)

Commoning provides a crucial theoretical and practical approach to this project by extending political analysis and action beyond wage struggle. A commons is owned not by a state or any individual. It is collectively owned, managed and controlled and is characterized by images and systems of "intense social cooperation". "Through this concept, the history of the class struggle can be rewritten so that the indigenous peoples' resistance to colonial expropriation [...] can be described as a complement to struggles of anti-intellectual property programmers in the free software movement" (Federici, 2019).

A commons is made up of "the synergy between the elements of a community, a resource and the rules for its co-governance" (David Bollier in Bauwens, Kostakis, Utratel & Troncoso, 2018). **Commoning the arts means** turning the current pyramidal art market system upside down and inside out. Instead, aiming for a circular economy and working to establish assets created by art workers (culture, knowledge) as a shared resource, co-governed by its communities (of art workers, participants, and audiences[13]) according to the (possibly new) rules and norms of those communities (Bauwens, Kostakis, Utratel & Troncoso, 2018). A number of early artistic communities have been exploring these questions and building new initiatives with emerging blockchain technologies.[14]

What is the blockchain and what can it do for the commons?

The blockchain is a decentralized database cryptographically secured by a network of computers proposed in The White Paper by the pseudonymous Satoshi Nakomoto in 2008 (Nakamoto, Bridle, Brekke 2019). This technical innovation enables the

[11] Furtherfield (2011) *DIWO-Do It With Others Resource,* https://bit.ly/2Zwnkcd

[12] From CreaTures – Creative practice and transformations to sustainability, forthcoming EU Horizon2020 cooperation project.

[13] We need new words for audiences.

[14] See *Art Decentralized, DADA NYY, RARE Art* and the upcoming *Black Swan DAO*.

disintermediation of (established institutions of) authority through the issuance of a functional currency in the form of Bitcoin. The Bitcoin blockchain (and others like it) acts like a decentralized bank in code - backed by mathematics – using software that could be infinitely reproduced by anyone. The arrival in 2015 of Ethereum enabled decentralized applications. These incorporate "smart contracts" (or suites of smart contracts), pieces of executable code, that automate the transfer of digital and financial assets according to a predetermined set of rules. Crypto-rhetoric once claimed these to be resistant to all human interference, however the DAO Hack of 2016 (more on DAOs to follow) forced an admission of human fallibility when a bug in its smart contracts allowed millions of investors' money to be drained from a joint fund.[15] The dispute that followed resulted in the establishment of a concurrent blockchain, Ethereum Classic. Programmable blockchains have nevertheless led to the rapid production and deployment of systems designed to incentivise specific behaviours and activity according to pure market logic. The combination of the technology's affordances, Silicon Valley's philosophy of "Save the world and get rich doing it", plus astonishing levels of investment in blockchains and crypto-currency in 2017 has also encouraged engineers to "address/reengineer 'wicked problems' and societal challenges as 'misaligned incentive systems'".[16]

One of the most compelling cases for positive societal change promised by blockchain technologies are **Decentralized Autonomous Organizations (DAOs)** which allow people to exchange economic value, to pool resources and form joint-ventures, without control from the centre, in ways that were impossible before blockchains; to agree on how risks and rewards should be distributed and to enjoy the benefits (or otherwise) of the shared activity in the future (Olpinski, 2016).
Since the DAO Hack, technical limitations, a focus on internal governance issues, and the lag in legal, political and cryptoeconomic thinking and frameworks have hampered developments in application layer DAOs. However 2019 is being declared as the year of the DAO comeback and it is promised to provide both the technical underpinnings and the context for reimagining a distributed global commoning infrastructure.

How commoning and feminist economics can help build better DAOs – Organization before economics, and culture before structure!

The recent DisCO Manifesto by Stacco Troncoso and Ann Marie Utratel[17] is injecting a more radical politics into thinking around DAO developments with commons transition practices and feminist economics. They insist that structure serves culture rather than the other way round.

Elinor Ostrom (famous for overturning Garrett Harding's turgid rejection of the commons with her work on *8 Principles for managing a commons*) argued that institutions are what shape economics, and in turn, political and social change.
The winner of the Nobel Memorial Prize in Economic Sciences showed that rules and patterns of human interactions, and their co-production of value, were the source of economic flows - not the other way round. She also asserted the need for economists to use qualitative data to understand behavior not just maths (Wall, 2017) by asserting that most people are not primarily motivated by money.
Ostrom's work on institutional analysis and design showed that:

- Economies that spring from how people organize to get things done are more likely to work in their interest than those designed from a distance to flow money to a board room or bank account.
- Democratic control leads to effective problem solving therefore participation is better than top down control especially participation based on associations formed by local people.
- The more people are involved in constructing rules of governance – the better they will work.

[15] https://en.wikipedia.org/wiki/The_DAO_(organization)

[16] From a presentation and hosted discussion with Ruth Catlow, Ben Vickers at The DAOWO 2019 blockchain & art knowledge sharing summit. London Digital Catapult http://www.daowo.org/#the-2019-blockchain-art-knowledge-sharing-summit

[17] Guerilla Media Collective and Commons Transition.

This counters the dominant logic of a global society of nation states optimized for economic growth. It argues against an economics which depends on growth (an often "fake growth")[18] achieved by reporting profits on resources extracted at a distance with no account given to the impoverishment of those affected on the ground. While Ostrom's findings chime with cryptoeconomic rhetoric around the democratization of money (enabling communities of users to participate in its design and governance) they also pinpoint a core problem of crypto-engineering projects that attempt to design communities from the financial mechanisms up.

Additionally, the feminist economics of activists such as Marilyn Waring show that parts of the economy vital to human prosperity and survival are rendered invisible to economists as they have no place in the GDP ledger. In this way care work, along with the environmental commons of resources and natural services are excluded from considerations of global economic wellbeing. Ostrom and Waring also understood the dread power of the metaphor (e.g. growth as an absolute good) to assert and lock in harmful economic systems, through misleading narratives.

Artists' experimentation with the blockchain and DAOs

Arts-led experiments with DAOs can directly benefit the arts by providing new organizational vehicles to remodel social relations within the artworld.[19] DAOs are now the focus for attention for remodeling and diversifying collaboration in the artworld.[20] By creating and sharing free and open source DAOs people could be freed from proprietary platforms, while lowering the cost of organizing transnationally. In this way they may provide new vehicles for automated solidarity between artists along with new kinds of audiences, patrons and participants. This work also has the potential to provide much needed critical feedback to the blockchain development community by enriching the discourse and producing demonstrators for DAOs that benefit society beyond the tech community.

Decentralized Autonomous Organization With Others (DAOWO) for artworld commoning[21]

In 2006 Furtherfield coined the term *DIWO – Do It With Others*[22] with a series of critical net based artistic interventions. DIWO critiques the artworld trope of the individual genius, extending the Do-It-Yourself ethos of punk, Situationism, and early net art towards a more collaborative approach for the network society. In 2014 artist, hacker and writer Rob Myers wrote a paper *DAOWO – Decentralized Autonomous Organizations With Others* (Myers, 2015). In it he pointed to blockchain's ability to carry the hopes and ideologies of those from across a wide political spectrum and made a call to artists to experiment, together with new forms of blockchain enabled collaboration. Inspired by this paper I collaborated with Ben Vickers to devise and run the *DAOWO blockchain laboratory and debate series for reinventing the arts* in 2017.[23] Silo-busting labs explored how blockchains might enable a critical, sustainable and empowered culture, to transcend the emerging hazards and limitations of pure market speculation of cryptoeconomics. In addition to more standard presentation, seminars and discussion events these also employed a range of experimental participatory processes from LARPing to theatrical improv and hot-seating. Plans are now underway for a global DAOWO series of artworld DAO think tanks and a summit which will employ technical talk, political discussion and uncanny working methods.

DAOWO supports critical practices at the intersections of three fields – Art, Commoning, and Decentralization. There is a long history of experimental collaborative practices and cultural-infrastructure building at these intersections which give rise to new disciplines, cultures and asset forms.

[18] For more on fake growth see this article: https://ftalphaville.ft.com/2019/08/09/1565336640000/Uber-becomes-modern-art/

[19] Draws on as yet unpublished Hypothesis for Serpentine Star Labs 2019.

[20] See the Art xN Alliance http://axna.io

[21] This is based on work done in collaboration with Marc Garrett for the upcoming *DAOWO Open Score for Artworld Commoning.*

[22] The Furtherfield Do It With Others (DIWO) Resource. Since 2006, http://archive.furtherfield.org/projects/diwo-do-it-others-resource

[23] The DAOWO series was devised as part of the European cooperation State Machines and in collaboration with Goethe Institut London and Serpentine Galleries (http://daowo.org).

- **Art and commoning practices** produce new cultural protocols, rites and rituals that in turn produce new forms of communal and collective being, feeling, and knowing. Examples of this are the *Constallations Methodologie* by Annie Abrahams, Pascale Barret & Alix Desaubliaux;[24] the *Cryptorave* by !Mediengruppe Bitnik and Omsk Social Club;[25] *Real Game Play* by Omsk Social Club;[26] *Bank Job – The artists' renegade "bank",*[27] a symbolic and practical intervention into debt slavery, and *Open Source Embroidery* by Ele Carpenter is an early inspiration for bringing together cultures and communities of code and craft.
- **Commoning and decentralisation technologies** combine to enable systems of *collective data ownership, management and governance* in the interests of the communities of use. E.g. *DisCO Manifesto for Open Distributed Cooperatives* by Stacco Troncoso and Ann Marie Utratel,[28] *Axn Alliance* distributed art curation mechanisms and open art data;[29] *DAOStack, Aragon, Moloch DAO & Colony* collective decision making and governance tools; the forthcoming *Algorithmic Food Justice prototype* by Sara Heitlinger, for a more-than-human value system for the food commons.
- **Decentralization technologies and art** can now support decentralized artworks with the power to own themselves, create and circulate assets, and to provide a critique of dominant economic theory and money as a medium; also translocal "seeing rooms" which act as interfaces to distributed data sets. These in turn provide communities with new narrative engines. Examples include *Respiratory Mining*, a speculative dystopian cryptocurrency that mines human breath by Max Dovey;[30] *Plantoids* evolutionary artforms on the blockchain by O'Khaos and Primavera De Filippi;[31] *Terra0*, an artwork and prototype for a self-owning, self-exploiting forest, exploring the consequences of cooperating peer-to-peer and at scale across human and nonhuman divides;[32] the workshops for a new feminist crytpocurrency at the *People's Bank of Govanhill*[33] run by artist Ailee Rutherford, and the "advanced spatial and media investigations into cases of human rights violations, with and on behalf of communities affected by political violence by *Forensic Architecture*.[34]

Artists are bringing disciplines of institutional critique and reflexive creative play to the co-creation of decentralized infrastructure with blockchain and Web3.0. Evolving the experimental practices of net artists of the early days of the web, some artists are now working directly with the symbolic and practical relationships between aesthetics, money and governance, shaping a networked medium that can now also *be* money and digital assets and an organization. The convergence of projects across open cooperativism, platform coops, feminist economics, commons transition and decentralized governance brings a commoning approach to transnational organizing via DAOs. Together these hold promise for:

- Institutions whose governance design follows from the emerging and changing needs of the humans they serve...constituted as DAOs, a set of agreements, rendered interoperable by shared values, and executed and tracked on a blockchain for scrutiny by armchair auditors (no fake growth here!).[35]
- Intersectional feminist economics that accounts for the care work vital to human and non-human prosperity and survival.
- Commons oriented organizations that care for the human and non-human bodies and communities of local ecologies and see themselves as part of an interdependent web of communities.

Radical imagination belongs to us all

Max Haiven's declaration that "radical imagination is not something individuals have but something collectives do" (Haiven, 2018) provides a rallying call for a search for better systems for supporting cooperation and shared values in future artworlds.

[24] *Constallations Methodologie* by Annie Abrahams, Pascale Barret & Alix Desaubliaux (2018, Ongoing), https://constallations.hotglue.me/?methodologie

[25] *Cryptorave* by !Mediengruppe Bitnik and collaborators (2018), https://0b673cce.xyz/

[26] *Omsk Social Club* (2015 - ongoing), http://punkisdada.com/

[27] Bank Job by artists Dan Edelstyn and Hilary Powell (2017) https://bankjob.pictures/

[28] An introduction to Open Distributed Cooperatives (DisCOs) by Stacco Troncoso and Ann Marie Utratel, https://bit.ly/2M0xyi2

[29] https://axna.org/

[30] https://maxdovey.hashbase.io/Respiratory_Mining/

[31] http://okhaos.com/plantoid/

[32] https://terra0.org/

[33] https://thepeoplesbankofgovanhill.wordpress.com/

[34] https://forensic-architecture.org

[35] Thanks to Alexie Blinov and Larisa Blazic for this!

Campaigns to decolonize the arts, to fight for the right of artists to be paid,[36] and to resist art as a vehicle for gentrification,[37] all point to the global horror story that is the financialization logic of the one artworld pyramid. Arts and culture are a synecdoche for human life so we should regard their exploitation as a foretaste of the no-holds-barred extraction by distant interests, of our future subjectivities and intersubjectivities.

At the same time arts and cultural practices have demonstrated their transformational potential to move the world towards social and ecological thriving. They increase affirmative social cohesion and environmental citizenship by addressing values, lifestyles and ways of being. In this way they enable people to join forces with common intentions to transform society.[38] The work of artists, in collaboration with commoners, and decentralization engineers is creating pathways to collective arts production, tools, capacities, resources, resistance and solidarity.

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[36] See W.A.G.E. Working Artists and the Greater Economy https://wageforwork.com/home#top

[37] The famous resistance and rejection of the Art Angel proposal for the Heygate Estate in London 2013 is well documented and provides an excellent analysis of the tactics and problems associated with arts and gentrification https://southwarknotes.wordpress.com/2013/12/13/heygate-estate-artangel-mike-nelson-pyramid-no-thanks/

[38] From CreaTures Creative practice and transformations to sustainability, forthcoming EU Horizon2020 cooperation project.

Vital vagueness

Rose Butler

"There is an invisible handshake that exists between freedom of information and freedom of imagination that lets you know what information is worth"
(Author Ali Smith, personal communication, 13 June 2019)

My doctoral research centers on surveillance and considers the ethics and politics of looking, through art practice. In 2016 I spent eight months observing the Investigatory Powers Act (AKA The Snooper's Charter) being debated in the UK Houses of Parliament. This new digital surveillance legislation became an Act of (UK) Law in November 2016. The debate centered on the balance between privacy and security. One of the recurring rationales for the legislation was the necessity to keep up to date with technological advances. While observing the debate in Parliament I took photographs on a Minox Cold War spy camera and recorded audio on a 1980s Dictaphone in some areas where it was not permitted. In 2017 I commenced research at the Stasi Film and Video Archive and analyzed historical footage from hidden cameras that had faults, had been sabotaged, or missed their intended subject alongside training material from and for hidden cameras.

To make work, my process involves getting access to a restricted area, *to have a look*, to document through photography or film and amass material to work with. I use a camera as the vehicle with which to look closely and from which to have a reason to look over a period of time and to learn something by doing so. Described in this way, it makes sense why my doctoral research now centers on surveillance, although surveillance suggests someone in a position of power, with access and authorization to look, alongside the technology or means to enable that. As an artist I do not have or necessarily want that, but my research involves getting access to look *at surveillance,* with adapted use of technology and sometimes with the authorizations in place to do so.

As artists we could consider vision and interpretation of material as one of our strengths, but we often need to make a case to maintain the conditions and freedoms to pursue research in our own way. Alongside this there is a greater struggle to secure financial support for creative work and research. In the UK we see massive challenges to the autonomous production of art and creative critical thinking through limitations on funding and restrictions on the ways that we are able or not to spend funding. This applies to institutions as well as individuals. There is also an attack on the ways that we are able or not to teach art across all levels of education. There are many more invisible barriers and borders that artists as individuals face beyond authorizations and finance, that challenge creative freedom. My work is concerned with state control and the control that is exerted by corporations to enable and maintain power.

Throughout this text, I use the term 'art practice' to refer to art made by contemporary visual artists. This includes work by artist researchers carrying out practice-based research inside academia, as well as artists with practices across media working outside of an academic framework. My work straddles both of these ways of working, work that sits within an academic framework alongside preparatory experimental artwork that falls outside the frameworks of art making as research.[1] This definition is necessary as research that is perhaps ill defined by its very nature calls for this acknowledgement.

I am going to discuss a body of work titled *Lines of Resistance* (2014) that acted as a preamble to my doctoral study and then expand upon this research. I describe a responsive, visual, sensorial process, which is supported by and extended through critical reading, technology and experimentation. Throughout the text I draw upon the uncertainty of creative process to comment on the hierarchies of looking and the power structures that it generates or challenges.

Lines of resistance

Lines of Resistance consists of two large photographic panoramas of undeveloped areas of the *death strip* – the former German Democratic Republic patrolled zone on the border of East Berlin. A video filmed at the Berlin Wall Memorial site is also part of this body of work. These photographic panoramas (and video – see website)[2] examine historical, decommissioned surveillance structures within a space of reunification following the end of the Cold War. The Berlin Wall Memorial Site with its hard borders, watch towers and patrolled zone offers a historical perspective on the theme of surveillance and control. In the 28 years that the wall was in place during the Cold War, the patrolled zone was a no man's land between the two walls of the border. It was an extensive space under militarily controlled stasis, framed by the political forces of opposing ideologies. Now decommissioned following the reunification of Germany in 1989, parts of the wall have been preserved, abandoned or are being redeveloped. The Berlin Wall Memorial research and education centre affords the viewer an opportunity to study and comprehend the methods used to seal the border.

The panorama *Chauseestrasse* was made whilst experimenting with a Gigapan, which was new technology at the time. A Gigapan is an automated tripod head that pans, tilts, rotates and releases the shutter within defined parameters. You visually set the top left image of documentation and the bottom right, the Gigapan then automates the tripod head to take the image series line by line. The camera took 20 minutes to photograph 144 images. These were then digitally stitched in accompanying software and then corrected in postproduction. The size of this uncompressed digital-composite image is 4m x 1.5m.

Figure 1. Chausseestrasse 2014. Digital composite panorama 4m x 1.5m (image courtesy of the author).

[1] This is a simplified description of a complex definition. For a comprehensive analysis of this term, see Sullivan, 2010.

[2] http://www.rosebutler.com/projects/lines-resistance

It was the pictorial qualities of this space that gained my attention: the flowers, the meandering path and the height of the wall intentionally restricting the view, alongside the contrast of the building site. To be able to see over the wall and frame the image to set the point of view I made a tripod from pieces of timber lying on the floor. Each image takes 20 minutes to document a panorama of this size. Whilst I was standing on the tripod a man passing by told me that the building behind the wall would be the new German secret service building. I later discovered that Gigapan is a technology that was developed by Google and NASA to take high resolution panoramas of Mars using remote control. Forensic scientists adapted this technology for use at crime scenes. The high-resolution image produced by Gigapan allows a detailed digital analysis to uncover evidence that might not be apparent to the naked eye. Using this technology as an artist presents a further change of use and allows an exploration and critical reading of the image through the politics of the technology combined with the subject matter.

The image spans the old and new materials of state surveillance, the historical decommissioning of the death strip on the left of the image is in a state of flux, having been abandoned and taken over by undergrowth in the years following the revolution in 1989. On the right of the image, the building site of the new German Federal Intelligence Service presents the re-commissioning of state surveillance in the years following the revolution. The image documents an ambiguous, transitional space, where historical and contemporary political states overlap. In this image both of these sites of surveillance are in an interstitial state and the image presents a collision of temporalities. Surveillance takes the place of the former border walls of the East and the West and in-between is a wasteland, disarray, a scar, a crime scene. The image presents evidence of the fall and rise of state control, the use of surveillance to support state power and through this speaks of the rhythm of politics and resistance.

The body of formative experimental works *Lines of Resistance* acted as preparatory research that informed a proposal for doctoral study and created a structure for the research. Embedded within the study is a commentary on the overlap and repetition of surveillance narratives. The historical reappraisal of state surveillance made

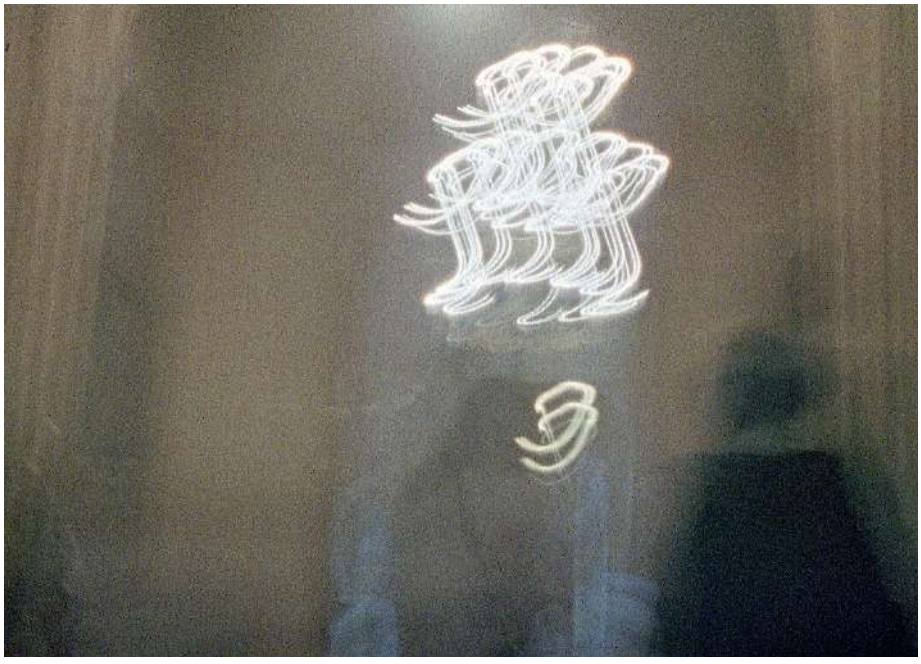

Figure 2. Houses of Parliament, UK. June 2016. Image taken on a Minox Complan C-Type print (image courtesy of the author).

possible by research at the Stasi archive and an observation of the contemporary extension of new state surveillance capabilities through the UK Investigatory Powers Act. As we enter the third year of the political uncertainty following the EU referendum in the UK, I have begun to think of this in-between space, stasis, a wasteland or the state of limbo to support state power, as Brexit which happened in the middle of my observation of the bill in parliament.

Observation in Parliament

Putting the Investigatory Powers Act before Parliament was one of Theresa May's significant acts as Home Secretary before she became Prime Minister. One of the rationales behind the bill was to keep up to date with existing technologies to protect the country from harm. But more often than not the development of surveillance techniques and the legislation that governs their use is established under the rationale of national security. This is Joanna Cherry QC and MP for Edinburgh South West, Scottish National Party during the debate of the bill:

> The Joint Committee on the draft Bill recommended that the Bill include a definition of national security, which, of course, is the first ground. I call on the Government, not for the first time, to produce an amendment that defines national security. The Bill is sprinkled liberally with the phrase 'national security'. The Government need to tell us what they mean by that phrase, so I call on them to define it (Cherry, 2016).

Over the last two years since the bill became law there have been trail of legal challenges by civil liberties, human rights and journalism groups that have been upheld. Parts of IPA have been found to breach our rights to privacy and free expression by the European Court. More recently MI5 was found to be acting unlawfully with surveillance data. This is an extract from a Liberty press release 11th June 2019:

> The British security service MI5 has been unlawfully retaining innocent people's data for years, Liberty can reveal. It also failed to give senior judges accurate information about repeated breaches of its duty to delete bulk surveillance data, and has been criticized for mishandling sensitive legally privileged material. Government is still trying to keep secret details of the breach by applying for closed litigation proceedings (Liberty, 2019).

The ethics and safeguarding surrounding surveillance also needs to keep up to date with existing technologies. Although the bill was heavily debated in parliament with consultation from 71 external bodies (which made a pile of paper work over a foot high) the Government has been found to be in breach of EU human rights laws. The EU Referendum happened during the second reading of the bill, a critical stage for the bill's passage. David Cameron, Prime Minister at the time, resigned and was replaced by Theresa May on the 14th of July 2016. The referendum punctured the passage of the bill, the political climate and structure. It rocked the financial markets, created violence and unrest, presented questions about the unity of the UK and challenged parliamentary democracy and sovereignty itself. The Government was reeling from the unexpected result in 2016 and in 2019, three years after the vote, it remains in disarray. As an observer in parliament following Brexit I watched the precedence and terms of reference for the remainder of the debate reset.

In August 2018 a report in *The Guardian* revealed the extent of the Home Office's changes to immigration rules since 2010 when Theresa May was Home Secretary. The article reports that over 1,300 changes were made in 2012 alone, this coincided with Theresa May's introduction of the "hostile environment" policy. An accompanying Guardian graphic reveals a drop off in changes when Theresa May left the Home Office. Senior judges and lawyers have described it as "impossible to navigate" and "a disgrace" (Barr, Bozic & McIntyre, 2018).

Following Theresa May's ascendancy in September 2016, the UK agreed to fund a

2 million pound "anti-migrant" wall at Calais (supported by increased French riot police) and the refugee camp *The Jungle* at Calais was destroyed in October 2016. Brexit had provided a political mandate for the restriction on free movement whilst the Calais wall was symbolic of the physical means to reassert external borders. The one-kilometer wall wasn't completed until January 2017, even though *The Jungle* was destroyed before then and the need for a wall became increasingly disputed. The Investigatory Powers Act supported the legal means to restrict free movement alongside new immigration rules, to extend digital surveillance to implement a "deep border". We see this in increased legal access to digital personal data, Home Office requests for landlords to check the legal status of tenants or face a fine, the requirement of universities to check the visa status of students and passports of casual workers, the request for data on pupils from schools, the sharing of NHS data to inform enforcement action and immigration checks by banks and residency status checks for driving licences. The narrative of fear, suspicion and hostility supports the core aims of Theresa May's policy of establishing a deep border and creating a "hostile environment" for non-British citizens.

The Stasi archive

The Stasi Records Agency in Berlin emphasize that the power or threat of surveillance does not lie within the capabilities or function of technology itself but in the governance and authorization of its use, access to and analysis of that data.
I have selected a small amount of material in reference to this paper. This has been selected from several visits over two years. As part of this research I requested material from hidden cameras that revealed more about the agent behind the camera, material where the documentation had failed or had been sabotaged as agents left the offices.

Some of the material that the archivist selected included pitches from agents for proposals to develop new devices to carry out surveillance. This ranged from a button hole camera, to a camera hidden in a glove, a basket of mushrooms, a motorbike, a dress, a bra, a shirt and a series of bags. A lens that could photograph around corners and an early proposal for CCTV by connecting cameras to the telecommunications system. The pitches reminded me of artist funding or commission bids, they contain a written proposal, a description of the process and technique, a budget and technical specifications with illustrative shots and actual documentation as examples. There were a series of possible or impossible inventions made with limited resources and virtually no money. Within the descriptions there was excitement surrounding the technology and ambitious claims alongside slight untruths about their capabilities. There were also proposals that hacked existing technology, objects and clothing to enable change of use. People and car number plates within the footage have been anonymized by the archive in accordance with the Stasi Records Act 1990.

Figure 3. Copy of BStU archival surveillance images from a buttonhole camera (image courtesy of the author).

The files had the look of school notes on ageing sugar paper, some with images stuck down, some typed, some hand written in blue biro, underlined with a ruler, sometimes in red. Some of the photographs had fallen from the pages or were loose like an old scrapbook. This was a creative process, trial and error, experimentation, learning by doing. However, if the pitch was accepted and therefore funded, the proposer would have a certain amount of creative freedom to develop the technique and device although it was with the authorization and employment of a dictatorship.

Some of the material the archivist had selected included training material. Two rolls of 16mm film footage from the 1970s (transferred onto VHS by the Stasi) presented agents learning and practicing how to use hidden cameras on a controlled site and with cameras hidden in briefcases. Within this footage agents practice

techniques such as framing, point of view, pan, tilt, focus and signaling. There are calibration figures with a tonal range for exposure and letters for focusing within shot. The films expose agents filming each other and practicing signaling as well as technique. On one part of the digitized film the cassette holding the footage has been put into another camera to carry out surveillance. At this point the subject, a man rocking a baby in a busy street, is anonymized by a digital filter, only to then return to the training material. The archive has protected the person's identity and avoided a secondary invasion of privacy through the work of the archive. The majority of this material is raw as the identity of former agents is not protected under the Stasi Records Act 1990.

The footage is complex and unsettling but as an artist I can recognize this creative learning through my early learning and the work of my students. I recognize the seduction of technology, technique and processes and I see the playful experimentation and the japing about to act as subject matter. I am aware of the faults, scratches, cuts, the points at which the camera has been opened and the layering of processes or repair work. Through the material itself these images bear witness to political change, this time one of resistance. The fact that we are seeing these images from a former Secret Service at all suggests resistance. These photographs and footage hold the same collision of time zones as the panorama of the death strip, the historical surveillance footage and documentation which sits behind the contemporary digital filter of the archive.

One short piece of 16mm film exposed the surveillance control room that was monitoring the scientist Robert Havemann who was under house arrest. The film had been cut to pieces by agents as they tried to destroy evidence before they fled the Stasi offices. The archivist had just remastered it so that it was seamless, and the cut marks were hidden, but this film was then taken to be remastered and the cut marks replaced to reveal the historical sabotage. This is what artist, researcher and writer Susan Schuppli would describe as the *Material Witness.* Without a feel for the material qualities of technology, we cannot understand historical content. Without a basic understanding of how it works, we cannot assess, critique or realize its potential or its potential for repurposing.

We know that for large tech companies like Google or Facebook it is in their best interest to maintain ignorance in their populations. This is compounded by the lack of ethical critique that surrounds computer science, data analytics and the development of surveillance technologies. Shoshana Zuboff in her book *The age of surveillance capitalism* describes these large tech corporations hiding the immense data harvesting that takes place under a shroud of inevitabilism, blaming the technology for the collection, amassing and machine learning that it generates (Zuboff, 2019).

The freedom to be ill-defined, uncertain or vague begins to generate hierarchies and power structures but it also has the potential to challenge them. As artists and cultural producers we thrive within these uncertain spaces and use methods we are all familiar with such as imagination, playfulness and experimentation. So, it is understandable that as the UK Government became more authoritarian under Theresa May it reduced support for the arts and restricted the ways that it is taught. Since I started this study the need to protect and promote the autonomy of creative critical thinkers becomes ever more urgent. Boris Johnson's Government has the hardest right cabinet in recent history. The UK is the most surveilled democratic country in the West. The 2016 EU referendum and continuing fallout has exposed the threats to individual freedom, democratic process and human rights. Art can offer a range of subjective insights, creating ambiguous spaces to be self-critical and offering to bridge understanding between culture, technology and politics. We continue to work across disciplines and define art as research in order to preserve the freedom to carry out research within the language of art making. Artist, writer and technolo-

gist James Bridle on his recent radio series *Invisible networks* said that art critic John Berger believed that only by looking long and hard at the world could we understand it and thus begin to change it (Bridle, 2019).

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Intersectional feminism and fact Women's experience in practical workshops

Harriet Poppy Speed and Lynn Jones

Introduction

Discovering through making is recognized as a critically significant and valuable part of life, yet women are most often in the minority both in education and later in their careers, if they choose furniture making as their vocation. This paper proposes that dealing with feminist issues will make for a workspace that would benefit all genders.

Intersectional feminist issues highlight dynamics that have often been overlooked by movements and theory in the past, challenging preconceived ideas about feminism and presenting a positive environment for women, men and others, helping to dismantle the rigidity of a gender binary society for the benefit of all people.

This paper was presented by two women conducting live research and collating evidence to find out the prevalence of intersectional feminist issues in wood workshops. The 33 years age difference between the two researchers might suggest that their experiences of working in workshops would be somewhat different, and in some ways they are–think mobile phones, digital technologies, and globalization–but in fact their experience of women remaining in the minority within this field remains almost identical.

Intersectional feminist issues in workshops are rife. They were in 1981 when Dr Lynn Jones started her training and here we are in 2019 and men in furniture workshops and on furniture making courses still massively outnumber women. Therefore, we need a revitalized workshop ethos for the future. If we are to combat feminist issues in this industry, we need something new: new formats, new approaches, new thinking, new courses and new environments within which to experiment, inspire and excite:

> Most furniture workshops I visit are quite uninspiring places actually, with poor facilities for people like me. The environment I want to work in needs to be bright and vibrant and full of inspiring images, with an inviting, social place to take my breaks. I also need somewhere to wash out my Mooncup and to change my sanitary towel in comfort!
> Furniture Graduate, 2019

The research

Qualitative data was collected for this paper by collating feedback from participants in workshop events held in Oxford between 2017 and 2019. Interviews with women designers and makers, carried out as part of the This Girl Makes blog (Speed, 2019),

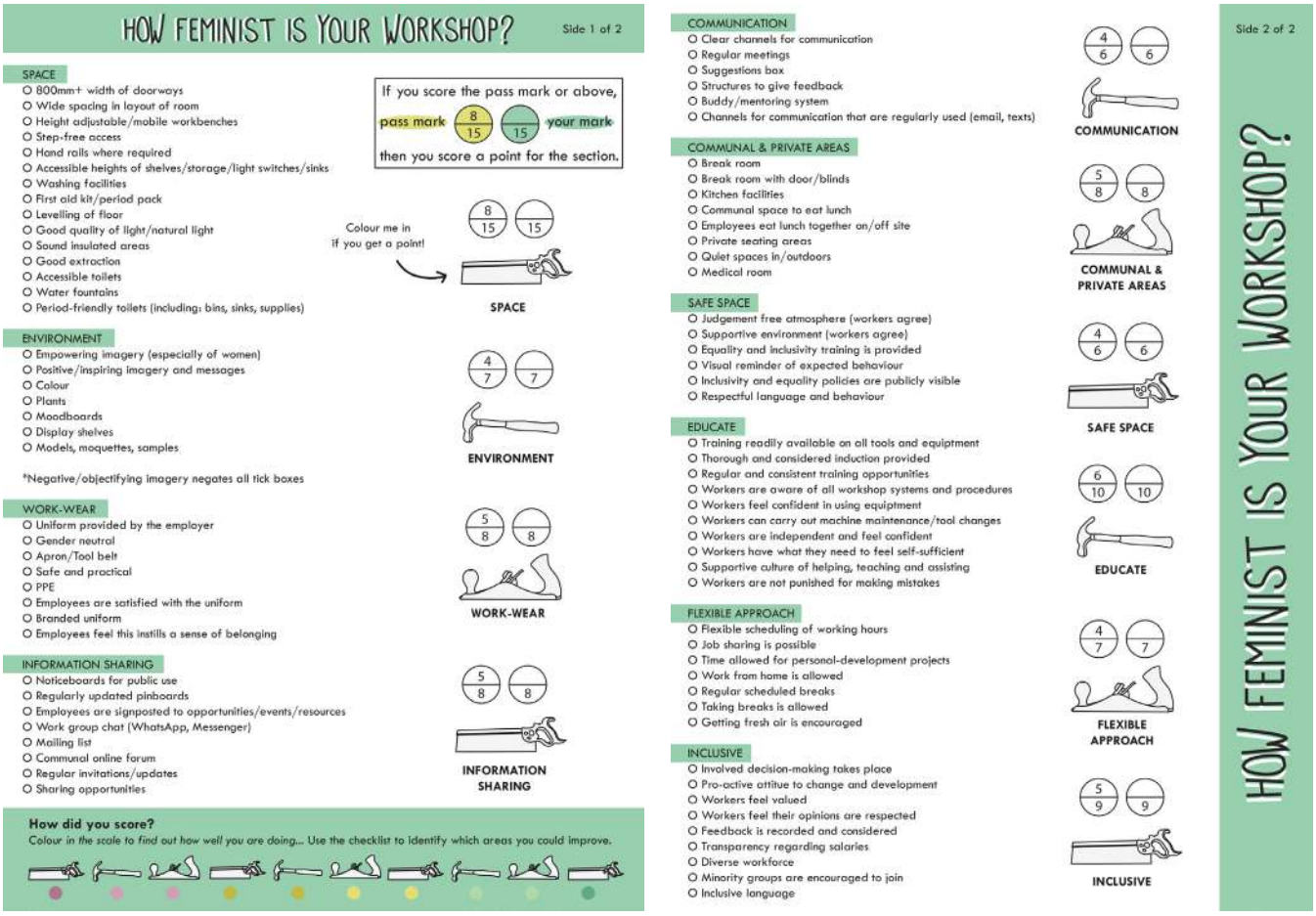

Figure 1. The ten feature checklist (image courtesy of the author).

and observations made during workshop visits both in and out of the UK have also informed this paper. Alternative research methods, both photographic and film-based (Speed, 2019), have also highlighted some significant findings, relating to how women are represented in workshops online and across social media. Methodologies adopted by other women-only or communal-use makerspaces have also been carefully analyzed as part of this study, such as Young Women's Music Project (YWMP, 2018) and Makespace Oxford (Makespace, 2018).

In response to the issues that have been highlighted, we propose a pragmatic, creative and positive solution for the future: A checklist that details what we believe needs to happen, in order to make workshop environments more easily accessible and inclusive to all women and their supporters. The ten features outlined in the checklist were devised in response to findings from several sources.

THE TEN FEATURE CHECKLIST

Feature one – space

This includes ergonomic considerations, access and facilities relating to the physical layout and functionality of the workshop. This is a feminist consideration, firstly because it provides the necessary facilities for all, but also enables women (and supporters of women) of all abilities and physical builds to access and be productive within the space.

Several craftswomen and makers were consulted during the development of this checklist, to ensure it was fully intersectional. Having grown up with a disability,

Shawanda Corbett's experience of practical workshops is especially unique. She was able to offer constructive feedback:

> Accessibility in economics, both background and cost of supplies, in ethnical backgrounds, in supporters of women, and in use of the facility and tools are strongly present in this [check]list, but I've noticed that the only diverse physical access to the facility is the mentioning of toilets. Something to think about: physical access is more than just toilets. Have you ever worked with anyone that's differently abled? Think beyond gender. What would any functioning facility need? What would women and supporters of women need? Keep in mind how this could be beneficial for other communities.
> (S. Corbett, February 2019)

Feature two – environment

The ambience of the workshop and how it aims to inspire through the use of images, objects, bookshelves, and models is another important feature. This creates a welcoming and more positive space for all. No one should feel negatively represented within the space: any imagery should be a source of empowerment, rather than the reverse, such as objectifying images of women. The benefits of this are improved focus and positive attitudes towards working, leading to better productivity, as workers are inspired and motivated. The environment also sets a precedent for the standard of behaviour to be expected within the space (Stokholm, 2017).

> Carrying out an online search for images and video content showing women in practical workshops, it was found that searches for "makerspace", "workshop", and similar terms produced little to no images of women. Interestingly however, the American term "woodshop" produced more results than any of the British terms. Following this, the online searches were amended to more specific terms: "woman in workshop" or "woman making". Typically, images of western cisgender women, dressed semi-provocatively were the default result to this search. In an attempt to find image and video content representative of a wider range of women, the searches had to be made even more specific, profiling the women on their race or other characteristics. This anecdote highlights that based on imagery across the internet and social media platforms, women are not presented as the default users of workshop spaces, and in the minority of instances where they are, it is often a very specific type of woman, perhaps presented for the interest of a male viewer. This finding might also suggest how in a world that is increasingly structured or ordered using algorithms, by gendering our referral of women who are makers as "women makers" or "female makers", rather than simply "makers", means that their online representation will remain exclusive or segregated from the masculine default; perpetuating the perception that women in workshops is a novelty and not the "norm".
> (Harriet Speed, May 2019)

Feature three – Work wear

By ensuring everyone is dressed comfortably and appropriately, preconceptions of individuals are removed by having everyone equally presented through a gender-neutral uniform. In addition, it shows a practical and professional approach to work that should positively influence the behavior of users of the space, promoting teamwork and instilling a sense of belonging (Silverlining, 2018).

Feature four – Information sharing

This could take place via: notice boards, posters or physical handouts, but also through digital platforms, such as email or social media networks. This establishes

a more egalitarian environment, where opportunities are openly shared to create an informed and engaged community. This is inherently political, as it brings people together, encouraging transparency and promoting personal and professional development. The positive benefits of such initiatives are increased: motivation, confidence, and self-esteem (Makespace Oxford, 2019).

Feature five – communication

By providing open and warm channels of communication, possibly through initiatives such as a buddy system, the outdated perception of hierarchy is removed, and allows users of the workshop to communicate and operate on the same level. This communicative culture encourages feedback, enabling growth and development for both the workshop and on an individual level. This is an intersectional feminist consideration because it ensures all voices are heard, considered and given equal weighting (YWMP, 2018).

Feature six – Designated communal and private areas

This addresses the needs of other minority groups within a feminist context, as it may be a requirement of those who are differently-abled or have specific needs for peace and quiet, for example those with mental health illnesses or autism. It shows an acceptance of other people's needs, and respects their personal space (Lee, 2019), whereas communal areas encourage cooperation and integration between workers, leading to better equality and inclusivity within the workshop. Providing a space for people to spend their breaks together supports other features within the checklist, such as education and information sharing, but also encourages healthy routines and a better work-life balance.

Feature seven – Safe space

This means the workshop has an atmosphere of tolerance, acceptance and the abandonment of judgment. Existing models of such spaces suggest that it is beneficial to have this explicitly stated somewhere within the space, for example through the application of a poster.

It is important because it removes preconceptions of others' abilities, including the expectations put upon men, and the disbelief that women can do things. The removal of socially constructed roles allows everyone accessing the space to feel comfortable in expressing themselves and their identity.

Figure 2. Didcot Girls School students following their Creative Clinic, a workshop-based event in collaboration with Ercol Furniture and THIS GIRL MAKES (March 2019) (image courtesy of the author).

Figure 3. THIS GIRL MAKES stool making workshop event at Pegasus Theatre, Oxford (May 2017) (image courtesy of the author).

Figure 4. Andrea Stokholm in her cabinet making workshop in Copenhagen (August 2017).

Feature eight – educate
This includes how to use all types of tools, equipment and systems within the workshop. By ensuring that all those accessing the space are confidently trained and self-sufficient, then the division of labor is equally and appropriately distributed, allowing workers to take an active role within the workshop's operations. The benefits of this include: a safer, cleaner and more efficient workshop, personal and professional development, and team building, as workers learn from and assist each other.

Feature nine – Flexible approach
Adaptable ways of working are needed in the modern age. Family dynamics have changed, and we are now better aware of what different people need in order to be productive, happy and healthy. The scheduling of working hours is therefore just one example of how workshops can make themselves more accessible. Finding a way that works for everyone is not always possible, so being flexible and finding different approaches that suit the needs of individuals will lead to a happier and more productive work environment. Other positive benefits are longevity of workforce, reduced stress, maximum engagement, better work-life balance, and a sense of mutual understanding.

Feature ten – inclusive
By inviting all parties to be part of proactive decision making, the barriers faced by minority groups are more likely to be highlighted and dismantled through a more democratic process. By successfully addressing the other features outlined in this checklist, then the workshop should be inherently inclusive, and the diversity of the demographics accessing the space will be a reflection of how successful the workshop is in being inclusive. However, there are external factors that are perhaps beyond the workshop's control, such as its geographical location, which will influence who is able to access the space. However, by addressing as many features within this methodology as possible, in addition to implementing some positive discrimination, for example when offering opportunities or during the recruitment process, then it is far more likely that the imbalance will be addressed at the progressive rate that it needs to occur.

Figure 5. THIS GIRL MAKES developed stool making workshop event at Pegasus Theatre, Oxford (May 2018) (image courtesy of the author).

Testing the theory

To test out our theory of this ten-feature methodology, we approached four workshops based in Oxfordshire (England) that represent a cross-section of environments a furniture maker is likely to experience throughout their progression from education into industry.

Table 1: Application of the ten-feature checklist in four different workshops.

	Ten-feature checklist	Secondary school	Commercial workshop & Furniture school	Communal workshop & Wood school	Commercial workshop
1.	Space		√	√	
2.	Environment		√	√	
3.	Work-wear				√
4.	Information sharing			√	√
5.	Communication		√		√
6.	Designated communal & private areas		√	√	
7.	Safe space		√		√
8.	Educate	√	√	√	√
9.	Flexible approach		√	√	√
10.	Inclusive		√	√	√

Where do we go from here?
It is our suggestion that the methodology outlined in this checklist could form the basis for an online platform that provides a public forum for makers to rate workshops that they have accessed. This opens up a channel for discussion, encouraging feedback and constructive development. It also provides an arena in which to celebrate those workshops or institutions that are making positive change, to highlight their successes and show others how to improve.

But what would be the most effective format for delivering this feedback?
It could be that an official score is awarded by a specially selected and elected, diverse body of experts, similar to how Ofsted assesses schools in the UK. The rating would be finalized based on how well the panel believe the workshop addresses the ten features in the checklist. The rating would not be delivered as a percentage because how would it ever be possible to achieve 100%? Also, many of the features are based on qualities, rather than anything quantifiable. Therefore the score could be presented as a traffic light system, to best represent where the workshop falls on the sliding scale. The results would be broken down and displayed in a visual way, to communicate points of success and areas for improvement. In addition to the official review, individual feedback from makers could be published alongside, in order to aid further discussion and allow room for alternative comments and views.

However, there may be downsides to a system like this: who would elect the panel? What or who would give them authority? And, how would they ensure a standardized assessment across all workshops?

Therefore, could an alternative format for presenting feedback be similar to that adopted by other online applications, such as TripAdvisor or Uber? A user-based rating system that creates an average traffic light coded rating based on every individual's review of the workshop. The voice of every user is considered, making it therefore a more democratic method. However, if women make up a minority of those accessing these spaces, then it is likely that their feedback will prove a minority too. If the infrastructure of the workshop is meeting the needs of its majority, then their score might be misleading, suggesting that the workshop is more inclusive and progressive than it in fact is. Might this suggest that the feedback should only be collected from women? But then, the same might be found when considering the different intersections of women within the space, once one considers: ability, race, or sexuality for example. Might another alternative be to open feedback from all people accessing the workshop, but only after they have completed an inclusivity and equality training session? This would familiarize them with any new or specific terminology and encourage an objective and self-reflective approach when completing the feedback. This point responds directly to feedback collected during this initial study, as one subject stated:

> I am uneasy about some of the terminology…Some statements were similar to each other, so would weight the responses. There are lots that are very subjective, e.g. accessible to whom?
> (Secondary School DT Teacher and Workshop Manager)

Regardless of how the data is collected or presented using the online forum, we believe it would be a useful tool that would greatly benefit the industry and women entering into it. Even if it was just the top five scoring workshops listed on the THIS GIRL MAKES website, then this would at least provide a series of current case studies for existing workshops to be inspired by, or developing makerspaces to model themselves on. Every workshop, regardless of their score, would be encouraged to display the THIS GIRL MAKES logo on their website to show solidarity and to highlight to their customers or potential employees/students that they are taking measures to improve.

We hope that this scoring system will become a recognized way within industry to identify good employers, organizations, institutions and/or collaborators, and from that put enough pressure on this sector to progress at an effective rate and make workshops more inclusive. Because it is our belief that a wider variety of people within these creative spaces will lead to a greater variety of ideas, improved innovation and progression, as well as a happier and healthier experience for all.

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Digital fabrication for the stage The case of the Limassol Grand Ballets – a design and making work log

Eva Korae

Introduction

The ballet gala titled *Belong* was organized on behalf of the Limassol Municipality and it included performances ranging from contemporary versions of *Bolero*, executed by a large group of dancers, to ballet solos from world famous dancers. Five-star hotel rooms were booked, drivers were hired, and champagne was bought.

The brief was simple: To do a backdrop for all dance pieces which could transform depending on the nature and atmosphere of the choreography. The opening act was supposed to be spectacular, the following acts needed to be flawlessly executed and in an equally festive mood.

The mayor wanted this to succeed. The choreographer saw this gala as his duty towards his city. The stage designer had just bought her new digital fabrication toy. The scenography was designed and made by five women at the newly-established Makers Will Make open-access makerspace in Limassol, Cyprus, which is engaged in current design issues.

Politics, the role of women in making, green design and digital creative practice needed to be negotiated on many levels in order for the set to be installed and the performance to be a success. What follows is a log of the creative process.

The brief

The choreographer Lambros Lambrou described the performance entitled *Belong* to be a gala evening where nine pieces were to be performed. There would be *Bolero* choreography in the beginning where 10 dancers would perform the piece by Lambros Lambrou, ballet performances in solo or duet form invited from abroad and a piece of contemporary approach choreographed by Panos Malactos titled *4 Years*.

The set needed to be something which would be adaptable to cater for the needs of all these pieces. It couldn't take any of the limited floor space which is 100m^2, considered small when compared to stages of international standards. It could provide some hints of locality, if possible.

The response

As a response, initial research brought up the suggestions of using vector based laser cut images of Limassol, a heartbeat which would be created on the stage using "Moiré Effect" techniques,[1] or textured backdrops which would utilize theatre lights for variety. All these options would be hanging from flying bars.

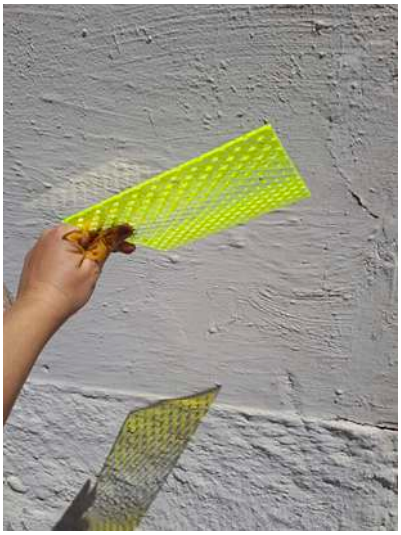

Figure 1. Acrylic laser-cut test squares were produced and discussed with the director and light designer, which lead to the final design (image courtesy of the author).

All ideas appeared to be too graphic or too dominant for the international identity that *Belong* wanted to achieve.

One thought that could be kept from this process was the use of acrylic sheets which would also utilize the laser cutter recently acquired by Makers Will Make,[2] the workshop employed to materialize the stage construction, led by Eva Korae, *Belong*'s stage designer. There was an interest in the shining edges achieved through laser cutting neon colors. This would be a step further from the set made for Arianna Marcoulides' *Stomach Rumblings* in 2015,[3] where transparent pieces of acrylic were used on a dark stage. By having their edges highlighted, there was an impression of a platform floating in space.

The obvious decision seemed to be to design and make a set which could appear and disappear, be bold or out of the way, according to the needs of each of the ten pieces. A stage appearance as close to a black box as possible and without sacrificing any of the stage's dancing area, needed to be reached. It would appear by shedding light on it and disappear in darkness.

Stepping further into experimentation, 3 mm acrylic test pieces of different patterns were laser cut. Deep purple, brown, black and green acrylics were chosen. The key factor was that they needed to be transparent. The idea of a tilted frame emerged while discussing over these test pieces with director Lambros Lambrou and light designer Panayiotis Manoussis.

A large tilting transparent acrylic frame with cut through patterns was decided on.

The advantage was that this frame could be used in many angles and heights to accommodate all dance pieces, the disadvantage was that it could not disappear from the stage during the performance. It could potentially provide a spectacular beginning for *Bolero* as it would tilt front and back to slowly reveal the ten dancers hiding behind it.

The pattern used, emerged from motifs found in the streets of Limassol, specifically through extracting shapes from sewerage lids. Lids were photographed, imported into a vector-based program (Rhinoceros 6) and traced over.

In terms of color, all tests provided promising tints and shapes under sunlight giving some clues as to the patterns they could deliver through professional stage light. This, however, appeared to be too daring for a show where there would be no general rehearsals until four days before the actual performance. A less intrusive approach in terms of color was decided, so that more set and light capabilities could be explored safely on the day of the setup.

Black and brown transparent acrylic were decided upon. When the day of ordering the material came, there weren't enough brown sheets on the island (!), so we had to proceed with plain black. The set was then in the hands of the lighting designer who would need to carefully design the light to bring out the set.

The making

There were only four hours devoted to the set-up of the construction on the first day of entering the theatre. Then the international cast would all arrive to the theatre, would need to rehearse and get accustomed to the stage. This meant that true and correct calculations for as many factors as possible needed to be made, as the budget and mere size of the set made it impossible to test at another site before the date of installation at Pattichion Theatre.

Certain factors needed to be taken into account which are analyzed below in detail:

1. The size of the stage and the area to be covered by the frame

The stage's measurements were imported into Rhinoceros 6 and an initial layout was made. The frame would be blocking many of the stage's lights, so it needed to be carefully planned in agreement with the lighting designer. He suggested to have it as

[1] https://www.seamlexity.com/ripples/

[2] www.makerswillmake.com

[3] https://bythewayproductions.com/stomach-rumblings/#gallery[]/2/

far back as possible. The final size was agreed at 7.50m x 3m on a 10m x 10m stage, after taking into account the material's manufactured sizes.

2. The position of the theatre's flying bars and their tolerances regarding the height

A visit to the theatre was necessary for coordination with the stage manager Andreas Triantafillou and to confirm which of the flying bars could be devoted to the set alone. In order for its movement to work smoothly, it needed to be hung from chains vertical to two flying bars. Then it would move by alternatively pulling the front and back flying bars up and down. If the frame's width and the position of flying bars were not the same, then the chains would be at an angle, resulting in unpredictable movements from the frame. This was confirmed through model-making. The flying bars were 3m apart so the frame's width needed to be 3m as well.

Regarding the height, the frame's lowest tilted position would be at 2.50m but in the case of *Four Years* the frame would come all the way down at a height of 50cm from the stage's floor. This meant that the length of the chains needed to fit in the theatre's height! This was confirmed by the stage manager.

3. How the acrylic was going to be hung from the flying bars

The acrylic needed to be fixed on frames, as it is flexible and fragile at the same time. Additionally, lengths of acrylic needed to be added together to achieve the required size. Options of metal and wooden frames were discussed and after consultation with Architect Georgia Themistocleous, the best solution was to buy full lengths of 3.10m x 1.52m of 18mm plywood and cut out three rectangles, leaving behind a sturdy frame.

This would be as light and as strong as possible, keeping the frame straight. To avoid any unnecessary cupping, the plywood was reinforced with lengths of pine beams fixed on their side as advised by Civil Engineer Panayiotis Stelikos. The stage manager confirmed that each flying bar can hold up to one tonne and upon weighing the components the construction was not anywhere near that weight.

4. How to achieve the final frame size

There were three size facts: The acrylic sheets were 1.22m x 2.44m, the plywood 3.10m x 1.52m and the laser table 1.60m x 1m. Ideally, three sheets of acrylic needed to be used for each length of ply – 15 pieces in total. This would allow for more intricate patterns to be cut, but at the same time raising the cost of laser and plastic.

There was a need to reduce both those costs, so the design was simplified by laser-cutting grids which resembled sewer covers and therefore utilizing the offcuts. Five 3m x 1.50m plywood frames where to be hung in a row, each carrying three 1m x 1.50m pieces of acrylic.

The fabrication

The acrylic sheets had begun to be laser-cut and the design needed to accommodate the easy removal of the offcuts, therefore minimizing the risk of breakage while handling. Extra cuts were made so the off cuts would drop by themselves. Holes to hold the acrylic to the frame were designed on the original document and cut directly onto the laser at the same time as the decorative motifs. This meant that each piece of acrylic was quickly and securely added to the plywood frame. This also meant that the screws were placed at equal distances from each-other providing a geometrically balanced design.

Note that in cases where holes needed to be opened using a handheld cordless drill, they were drilled in reverse mode, minimizing the risk of the acrylic breaking.

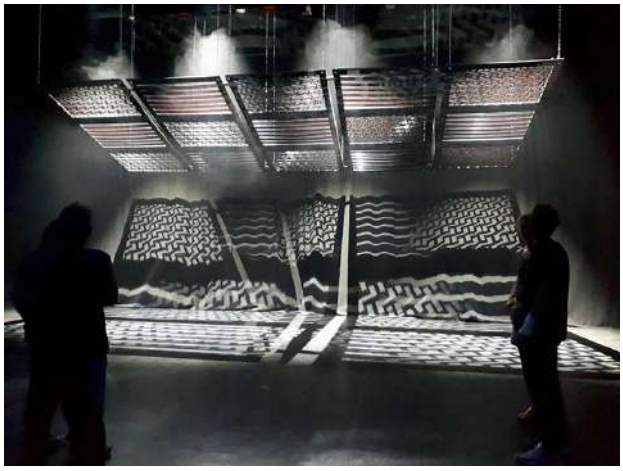

Figure 2: The set's possibility of casting shadows (image courtesy of the author).

Figure 3: Scenes from rehearsals and the performance showing two of the frame's aspects and functions (image courtesy of the author).

The installation

The two-woman crew had to set the stage up in just four hours.

The construction would be hanging above the dancers at all times, so it needed to hold from strong strings. Chains were an obvious choice because they can hold a lot of weight and they could be lit by the lighting designer, therefore adding to the overall aesthetics of the set. A second security line of wire rope was added close to the chains. Wire rope tends to hold as much weight as chain, but it gives more gradually, usually allowing those in danger to take cover or run away.

The flying bars were lowered, the chains and wire rope were fixed. The chains were secured in position using cable ties therefore achieving parallel hanging next to each other. A test tilt was executed which showed that the five 3m x 1.50m frames moved individually so they needed to be fixed to each-other with small pieces of wood, for a more uniform movement. A disadvantage of the theatre premises is that the flying beams are controlled manually, so some marks for correct positioning needed to be added onto the rope mechanisms.

The set was ready for light tests and rehearsals.

What slowly started to become clear, was the fact that there would be pieces performed with a white background and some performed with a black curtain. There was not going to be a common background for all dances. This played a big role in the overall final aesthetic.

The pieces performed on a white background demanded fine tuning between the floating bar's operators and the lighting designer. This was unfortunately not at all times possible due to the manual operation of the floating bars, resulting in heavy shadowing in some of the cases. This is apparent on many of the performance photos.

The set worked best on the black curtain background.

Additionally, the frame's purpose was to be used for light to shine through and create patterns on the floor. It could not be used in that way because it was found to be too confusing for some dancers, who didn't even have enough time to get used to the new environment.

Politics in a theatre are always an issue, especially with such high-profile performances. Certain things needed to be fought for such as achieving the frame's positioning, but the fights could not all be won. There were attempts to convince in favor of the black background, but the invited pieces needed to be performed in the way they were created regardless of the poor aesthetic. There was persistence with regards to shedding more light from the front, which was thankfully positively received resulting in better outcomes in some cases.

The surprise

An unexpected pleasant surprise happened when light was thrown to the frame from the front, resulting in golden tints where the screws were holding the acrylic fixed to the frame, as well as where there was plain black emulsion paint. This added more aesthetic depth to the construction.

Conclusion

The set was indeed adaptable, but it worked best at *Bolero* and at *4 Years*. These were the two local pieces where it was more possible to discuss the needs with the choreographers and more importantly explain the possibilities of the frame.

It appears that the set's weakest points were the pieces performed on a white background because it was not possible to eradicate the shadows created from the construction itself.

As requested, it did not take up any of the floor space and the hints of locality were not very obvious as they took a very underground approach. This may have been a good decision since it gave a more neutral floor space to the invited dancers.

Carbon footprint awareness

Makers will make, is committed to reducing waste and therefore minimizing its environmental footprint. Therefore, *Belong*'s acrylic off-cuts have been given to designers to create business cards, jewellery, rulers and other products. These are now sold as part of a product line which can be found online.[4]

What will be practiced in the future, is the incorporation of design features ensuring the handling of offcuts, at the same time as when the main design is being laser cut. This will result in the creation of multiple products at the same time, therefore generating zero waste!

Quick reference guide for reproducing the set:

Factors to take into consideration to produce similar stage designs		
Size of stage	**Position of frame**	**Crew**
The length of the chains hanging from the flying bars need to allow for the frame to be pulled all the way up, yet still allow to come low, close to the ground.	The position of the stage flying bars needs to accommodate vertical hanging of chains/ steel rope.	Needs to coordinate with stage designer for correct height marks, especially during frame movements.
	The position of the overall frame structure should allow for sufficient use of the stage lights from front and back.	Needs to coordinate with lighting designer to find the best position for the frame, to minimize unwanted shading
Area covered by frame is suggested at ¼ of the stage.		In agreement with director and light designer.

Factors to take into consideration for digital fabrication
Size
Acrylic sizes available from local manufacturers
Laser cutter cutting area

[4] https://areskee.com/designopoulla-en/

Sizes of poplar plywood available from local manufacturers
Treatment of acrylic
Best to accommodate the design of fixture cuts (eg. drilling holes) so that they can be cut at the same time as the pattern
Best to accommodate for easier removal of the offcuts by integrating additional cuts on the pattern.
If there is a need to drill further holes, to operate a cordless drill in reverse had proven to minimize cracking of the acrylic.
Weight
The tolerance of the flying bars
The tolerance of the chains

Credits:
Set design and making advisors:
Efthimiou Maria, Architect
Themistocleous Georgia, Architect
Stelikos Panayiotis, Civil Engineer
Eleana Alexandrou, Dancer/Performer

Stage Design and Making: Eva Korae with the assistance of Constantina Yiannapi and Stephani Milikouri at Makers Will Make Open Access Makerspace

Performance contributors:
Artistic direction: Lambros Lambrou
Lighting design: Panagiotis Manousis
Stage manager: Andreas Triantafillou

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Community making towards situated agency

Jenny Dunn

Community Making is a socially engaged art project developed as a response to and in collaboration with the community of the Dorset Estate in East London, exploring the lived experiences of the residents in the area through a cultural program of interventions and events. The project was carried out from September 2016 until September 2018 in the context of the Master's program Art & Social Practice at Middlesex University.

As a resident of the estate I wanted to explore how my creative skills could help our community address some of its issues and challenges. The process started by me joining the tenants and resident's association and attending community meetings and gatherings, as well as having informal conversations in the park and lots of cups of tea with people. This shaped the focus of the project on two main issues: a) our shared green spaces and the lack of care and attention given to them; and b) how there are few places or opportunities for our highly diverse community to come together, regardless of age, race, culture or background.

Like many estates in London and across the UK, the area has witnessed a process of rapid change in the last 20 years and the degradation of its social infrastructure. The once very active tenants' and residents' association had become purposeless to some, the youth centre had been closed at the time for two years and there are still ongoing issues of anti-social behavior, drug dealing and gang crime. Berthold Lubetkin[1] led the design of the Dorset Estate in the 1960's with a vision of exemplary social housing, famously saying "nothing is too good for ordinary people" (Architectuul, 2010). The estate included a pub, an estate library and a social club. Nowadays the few community spaces that do exist are generally only accessible to members of a particular ethnic or religious group and are either implicitly or explicitly not open to others. Social opportunities that work across these perceived community boundaries are rare.

Through my creative practice, I explored what happens in this estate within the context of London and the UK: looking at the relationships between different social groups that inhabit the estate, and how to address issues of segregation and the sense of being left behind to fester in a hot spot for drug deals and gang violence. During a workshop I ran in collaboration with the local youth centre where we asked the young people who frequent it to create a collage map of their estate, the teenage boys talked about their fears of knife crime and acid attacks and their wariness of areas where drug deals take place. Encounters such as this one made me reflect on the potentialities of community in such spaces and to want to explore what living on an estate might mean and what other stories, which are currently unheard, can be told and made more visible.

[1] Berthold Lubetkin (1901-1990) was a Russian émigré architect who led the design of the Dorset Estate and the adjacent Sivill House alongside Francis Skinner and Douglas Bailey as part of architectural practice Tecton. Lubetkin was a socialist and a pioneer of modernism, designing many council buildings with such features as decorative facades and tiling, and spiral staircases (Architectuul, 2010).

In order to bring people together I first started developing ideas for a neglected raised garden on the estate in collaboration with residents and particularly the Columbia Tenants' and Residents' Association (CTRA) and ran local school workshops building miniature gardens. Together with the CTRA, we had a community picnic, started planting in the local park and held seed planting sessions to gather the residents' interest.

To arrive to this long term goal I focused on short term outcomes, which formulated the idea to create a deconstructed and mobile community space that would temporarily transform different areas on the estate and raise the question of what we can do with our common spaces and what can we do and build together in these spaces. *The cart*, as it became known, was built with and within the community, using making as a process in itself not just as a means to an end. By setting up a small workshop in a garage on the estate it meant passers-by could see what was going on and ask questions, which often meant they came back to donate things, help out with the building of the cart or offer to get involved in the events, which were to take place once it was built.

Acting as a focal point and providing amenities, the *CTRA CART* enabled a summer program of events in 2018 which occupied space through acts of communing: cooking together, local history discussions, gardening, art and cultural exchanges. This process used technology that is available and familiar to everyone; the cooker, the notice board, seating etc. and contained elements of the unfamiliar of using such everyday material in the open space and collectively.

Through my own work and researching similar practices about creating community resilience and agency, I have encountered strategies of community involvement that I have developed into a three pronged approach:

- **Commoning** – bringing people together over shared histories, culture or quite often over food. This can be interestingly interrelated with that old idea of breaking bread.
- **Sharing and making visible existing voices, cultures and skills** – Who is cultural production for and who is cultural production by? Who gets a voice, who gets a space? In the context of working within a social arts practice framework and collaborating with marginalized groups it is important not to exploit communities through tokenistic work, but create a truly cooperative framework and use the resources you have to make space for the voices of others.

Figure 1. A vision of the cart, 2018. Community Making, Jenny Dunn & Columbia Tenants and Residents Association, London (image courtesy of the author).

Figure 2. Local history lunch with author Linda Wilkinson, 28th July 2018. Community Making, Jenny Dunn & Columbia Tenants and Residents Association, London (image courtesy of the author).

Figure 3. Eating "cart-made" masala curry together at the Cultural Mixer Lunch, 14th July 2018. Community Making, Jenny Dunn & Columbia Tenants and Residents Association, London (image courtesy of the author).

– **Taking up space** – physically or virtually, is where the first two approaches are enacted. A place in the public realm to gather, where everyday life can be shaped and celebrated.

This methodology of practice is an iterative cycle, where it takes time to build up trust and foster community, but as these three processes feed into one another, capacity is shaped over time. In my practice these physical spaces are the community cart and the garden, and these also link into each other. The cart goes out, bringing people in because of its visibility and the sharing and preparing of food and drinks, and becomes a 1:1 representation of what could happen in a future community garden.

Living on the estate, joining and actually becoming vice-chair of the tenants association not only gave me a real depth of understanding about the area, but was helpful in gaining funding for the project and the donation of the garage and some materials through the council.

Unlike the more traditional invitation of an external designer, through a commission from a community group itself or through the council or a funding body, I came into this project without a brief and worked with a community that didn't currently have an active group or project in the making. At odds with this, my own personal necessity to contribute to my neighborhood through my skills and training as a socially engaged art and design practitioner, meant that I needed to "make something happen".

Developing trust and relationships was a big part of this process, as it is in any project, but there were some hurdles that could have been avoided if things had been laid out at the beginning in a more formal arrangement; who owned the cart and who could use it? Could the tenants association store footballs in the garage?

My own multiplicity of roles as artist, resident, vice-chair of the tenants association, facilitator and maker, actually led to some ambiguity as to the roles of the tenants and residents in the project. Some people took up the role of client or even

auditor, which at times stalled the project in bureaucracy as their focus seemed to be about setting up a governance system before the cart was up and running, rather than putting the effort into actually making it happen as genuine partners in the project.

Many of the residents did act as true collaborators, in particular John the retired carpenter who sees the cart as his baby. Others participated, happily taking part without the responsibility of acting as an instigator. Through this process I feel that it's this subtle difference between participant and collaborator that determines the final sense of ownership and authorship and ultimately the legacy of the project. For me the goal is to promote true collaboration where a group of people feel empowered to take up the mantle and push the project and other community initiatives forward.

These practices are about fostering connections, shared journeys and ultimately community and a sense of belonging, where the strategies and methods of practice hold the potential for a new system of working together, flat hierarchies, shared ownership and authorship, and local autonomy.

Film about the project: https://vimeo.com/290995201

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Delegating management, augmenting the mind: What could be the role for technology in commoning practices?

Selena Savić

Introduction

In 1974, French feminist writer Françoise D'Eaubonne identified two threats to humanity: the destruction of the environment and overpopulation (D'Eaubonne, 1974). "Feminism or death", she proclaimed alarmingly. The oil crisis of the 1970s heightened the awareness of the finiteness of resources (even though their scarcity was artificially generated in this particular case) and fueled a plethora of thoughts about alternatives to the capitalist economic system that was perceived as consumptive of the very energy and human resources it attempted to manage. Even though such counterculture ideas did not gain mainstream recognition, and precisely because they failed to cause deeper changes to the system, similar claims are being made today. The Global Footprint Network estimates that the pace of using resources is alarmingly faster than their regeneration capacity:[1] in eight months we use twelve months' worth of resources. Climate change activists as young as teenagers address political and business leaders at World Economic Forums.[2] Commons-based economy and commoning are proposed by many as more stable, resilient forms of governance (Gibson-Graham, Cameron, & Healy, 2013; Bollier & Helfrich, 2015). It is not a surprise that Elinor Ostrom was given Nobel Prize in Economics for her work on the governing the commons (Ostrom, 1990) right after the biggest financial crisis we experience in recent times (2008). This discourse is often characterized by inflammatory statements. With the current text, I propose to think calmly about burning topics such as resource sharing, collective decision making and the role of technology in these processes.

The relationship between commoning and technology is explored here in the scope of the research project *Thinking Toys for Commoning*,[3] looking into the ways media-based tools, such as computer-based models, can make complex commoning processes not only visible but also comprehensible. The multidisciplinary team gathers around questions raised by both lived experiences of commoning in a community of individuals, and the experimental approach to computer modeling. We explore, expose and make explicit different phenomena related to common living. We collaborate with three Swiss housing cooperatives, probing organizational and communication challenges they face.

Technocracy, degrowth: What alternative visions?

The cooperatives we work with: *NeNA1* from Zurich, *LeNa* from Basel and *Warmbächli* from Bern, are part of a wider movement *Neustart Schweiz*, which promotes sustainable living. Inspired by utopian fiction novel *Bolo'bolo* (P. M., 1983), these

[1] Global Footprint Network identifies this as the Earth Overshoot Day: a day in a given year when humanity's use of ecological resources exceeds what Earth can regenerate in that year https://www.footprintnetwork.org/our-work/earth-overshoot-day/

[2] The most recent talk given by teen activist Greta Thunberg in January 2019 at the World Economic Forum in Davos, Switzerland, urges the global elite to act on climate change with the statement "World is on Fire". The complete, edited transcript is available here: https://www.theguardian.com/environment/2019/jan/25/our-house-is-on-fire-greta-thunberg16-urges-leaders-to-act-on-climate

[3] *Thinking Toys for Commoning* project explores sustainable use and the organisation of common resources with the focus on alternative, utopia-inspired urban neighbourhood initiatives in Switzerland. The team is made of Shintaro Miyazaki (project lead), Michaela Büsse, Victor Bedö, Selena Savić and Yann Patrick Martins. More information about the process and project outputs can be found on the project website: http://commoning.rocks

communities are organized around principles of sustainability, independence and degrowth. Resources such as living space, water, energy and food are shared and, ideally, produced by the community. Computers and communication media are rarely seen as a resource to be shared. Additionally, the philosophy of degrowth makes these communities unsympathetic towards cutting-edge technical solutions. Nevertheless, there are topics of interest that can be developed in this context. How could we integrate science and technology into the commoning efforts? How could we make technology such that it is common? With this work, we want to identify and develop specific areas of interest that concern commoning and technology, especially given the philosophy of degrowth and sustainability.

One direction is to think about existing alternative solutions for online tools and services used by community members, networking infrastructure and communication devices. Another axis brings together reflections on new services and needs that could be addressed by open source technologies, developed for and within the communities. Between the ambition to delegate management to computational systems and to envision technologies that augment communication and knowledge within a community, the discussion on the role of technology in commoning unsettles the common belief that technical systems are competing with human deliberation or sustainable use of resources.

Technology can be alienating when we are passive consumers of complex systems and services, such as Gmail, AirBnB, Uber, Roombas or self-driving cars. But technology is not only about efficient automation of otherwise human-driven processes. Technical knowledge and skills can be used directly against consumerist alienation. Especially in commoning efforts, there are points where technology could help rather than hinder cooperation and facilitate sharing.

Solving problems with boxes

In a recent post on his platform, Facebook CEO Mark Zuckerberg presented his design for an IoT object – a box that emits light when it's time to wake up. Zuckerberg articulated his motivation like this: "As an engineer, building a device to help my partner sleep better is one of the best ways I can think of to express my love and gratitude".[4] He assumed the position of an engineer from a classical Silicon Valley narrative, characterized by addressing (human) problems with design of technologies. This short-circuits care and technics in a kind of consumerism that is foundational to corporate technology. Companies like Google, Amazon and Facebook (the popular Big Four, GAFA or Big Five, including Microsoft: GAFAM)[5] that heavily invest in the automation of information processing, communication and movement, have given us a model of technology that is highly unsustainable, always about producing more hardware, more information, more data and more interactions. But if we try to think more abstractly, what can this technology be good for?

Kevin Kelly, co-founder of the internet magazine *Wired*, wrote enthusiastically in his book *What technology wants* about the "technium", the extension of our human bodies, i.e. our skin (clothes), our feet (wheels) and our eyes (cameras). Inspired by Marshall McLuhan, Kelly defined "technium" as that which is not nature, in the sense that it is an expression of our minds and not simply manifestations of some processes coded in our bodies.

The fascination with technology as a way to think pervades the writing of the French philosopher Michel Serres:

> Certain objects in this world write and think; we take them and make others so that they can think for us, with us, among us, and by means of which, or even within which, we think. The artificial intelligence revolution dates from at least as far back as neolithic times (Serres, 1995, p. 50).

Serres talks about quasi-objects that create relationships between living and inert things. Quasi-objects are not merely passive, they create relationships between

[4] Quote coming from a Facebook post by Mark Zuckerberg on April 27th 2019 https://www.facebook.com/photo.php?fbid=10107265929036761&set=a.529237706231

[5] See Wikipedia article on Big Four tech companies https://en.wikipedia.org/wiki/Big_Four_tech_companies

living and inert things. They are at the same time quasi-subjects: we handle the ball when we play, but we also play with the ball, it creates relationships; the spindle of the sundial uses the sun to mark the hour of the equinox, it tells time; machines and technologies create groups and change history.[6]

In our work on possible roles of media and networking technologies in commoning processes, we use the workshops with the communities, document discussions with specialists and review literature on commoning practices to identify challenges in housing cooperatives. We focus on the communicative aspect of technology and explore media-based tools and networking as sites for cooperation between "commoners".

A theory of commoning practices

Bolo'bolo, the starting point for the Neustart Schweiz communities imagination, is a utopian novel in which the author P.M. (pseudonym assumed by the Swiss writer Hans Wiedmer) proposes and describes the transformation of society from today's growth-obsessed economy to a decentralized network of "neighborhoods" formed by small communities (no larger than 500 people), whose economy is fully sustainable and self-sufficient (P. M., 1983). He developed 27 concepts/words that describe the new planetary system of living, working, exchange, and even conflict in a transformed society. *Bolos* are communities gathered around a *nima*, common values, interests and lifestyle. Everyone must produce food and tools for themselves, but some will prefer to grow and others to read. Individuals contribute to the community on a voluntary basis. Common goods are distributed as needed. Interestingly, communication here is both essential for the working of communities, and a subversive technique, a way to dismantle the planetary work machine.

In his critique of the capitalist control of tools for production (and technology in general), philosopher Ivan Illich proposed a triadic relationship between persons, tools and new collectivity so that the tools would serve those that are politically mutually interrelated (Illich, 1975). Contrary to inherently oppressive tools that by their very nature restrict the liberty to use them in an autonomous way, Illich (1975, p. 25) sees the tools for conviviality as a "guarantee for each member of the most ample and free access to the tools of the community", spelling out the philosophy of open source movement in software as well as hardware.

More recently, Paul Virno talked about "common places" (*topoi koinoi*) as infrastructure for thinking, the condition for reason (Virno, 2003). Common places are where we, the strangers "without a home", turn in the face of the contemporary condition of "not-feeling-at-home". Those "without a home" behave like thinkers: they turn to the most essential categories of the abstract intellect in order to protect themselves from the blows of random chance, take refuge from contingency and from the unforeseen. While reason has always been the way out of disorder, Virno stresses the contemporary condition of distributed responsibility and thinking in a democratic but neoliberal world.

In a book that affirms artistic tinkering with technology (Newman, Tarasiewicz, & Wuschitz, 2018), commoning of knowledge is given an important place. The authors observe that sharing skills on how to produce, manufacture, hack and repair things, makes communities more autonomous and resilient, even when this happens out of necessity. Sharing skills seems to have an effect on a community longevity too, the authors claim. Against consumerist alienation, such attention to technical problems guarantees fast, collective "debugging".

Phantasms of decentralization

How and when do technology and technical skills become important for commoning? In a panel discussion the team of the *Thinking Toys for Commoning* project organized at the 2019 edition of the Transmediale festival,[7] under the title *Phantasms*

[6] For a more complete understanding of these examples that Serres brings up to demonstrate the *quasi* of the subject and object see Serres, *Angels. A modern myth*, pp. 47-48.

of Decentralization, we raised questions about personal interfacing with commoning processes, about economy and governance, with a focus on technology and in particular, communication. The two invited guests were Cade Diem (lead designer at Tactical Tech) and John Evans (a member of a programmers cooperative and developer of the Wobbly app).[8]

We discussed a number of concrete examples of protocols (TCP/IP, Bit Torrent), online services and communities (What.CD, 4chan, Plan C, Wobbly) and techniques (improvisation, LARP explorations of extreme community scenarios, collective dreaming) around which communities gathered or emerged. We observed how organic cooperation of people lead to a form of media, or a cultural programming element based entirely around a piece of technology (Bitcoin, What.CD). We discussed existing alternatives to corporate tech solutions (Protonmail instead of Gmail, Nextcloud instead of Dropbox, Wobbly instead of WhatsApp, MAZI for independent wireless networking), as well as reflections on new services and needs that could be addressed by open source technologies, developed for and within the communities. Three main threads crystallized in this discussion:

- **Communication systems** and the difference in speed and kind of content that needs to be exchanged in commoning context.
- **Technical infrastructures**, their independence and resilience.
- **Decision making** and perception of fairness about negotiation and taking note.

In these three areas, more concrete proposals can be speculated on. Evans pointed out the importance of building a communication system with several layers that move at different speeds. This would mean that "commoners" could communicate about different topics in temporalities that are appropriate to a particular issue: quick messages about urgent issues, weekly/monthly communication on meetings, long-lasting wiki about how to do things in the community. Not using proprietary services for these purposes is important not only ideologically but also as a gesture of ownership of one's own tools.

Building community networks is another opportunity to claim autonomy from centralized systems. These efforts animate a belief that independent or alternative modes of accessibility will evoke different modes of social organization. For example, in the wake of 2014-15 Greek elections and the subsequent political changes, an alternative mesh network created in 2002 by a group of citizens became instrumental in information exchange amongst activists. The association known as the *Athens Wireless Metropolitan Network* (AWMN)[9] allowed citizens to exchange data quickly, both online and offline. Similarly, *Occupy.here*,[10] was a mesh of extendible points that provided local, offline information and/or access to the internet. Alternative internet services that cost little and protect against government surveillance are increasingly set up by digital activists with avid technical knowledge and creativity. Spanish network *Guifi*[11] or mesh networking tool *Commotion*[12] are some of the existing alternative services.

In terms of organization, it is interesting to think about mechanisms to distribute labor in an actual commoning community. The Wobbly app developed by Evans (2018) is an interesting example of a workplace organizing platform, an organizing tool for precarious union struggle, communication and organization techniques. It connects workers on different layers (by location, task, time) and enables them to organize, while at the same time owning the infrastructure and data they exchange. Another example in this area of thinking is the agent-based model of shared work contribution that we developed in the scope of the *Thinking Toys for Commoning* project.

Commoning tech with "commoners"

To work out different scenarios for technology to play a role in commoning situa-

[7] Transmediale is a yearly festival held in Berlin, Germany, with a focus on media-art, technology and communications.

[8] Wobbly is a workplace organizing platform. See: https://notesfrombelow.org/article/an-introduction-to-wobbly

[9] Athens Wireless Metropolitan Network (AWMN) is http://www.awmn.net/

[10] *Occupy.here* is a project developed in parallel with the Occupy movement, offering a network of virtual spaces to share collective network infrastructure using customized router firmware. Occupy.here has been active since October 2011, http://occupyhere.org/ (current release November 2013).

[11] *Guifi.net* is a telecommunications network built through a peer to peer agreement of its users who extend the network and grant connectivity to all. Guifi is released under Wireless Commons Licence (WCL) and is in operation since 2006 (https://guifi.net/en).

[12] *Commotion* is a free, open-source communication tool that uses wireless devices to create decentralized *mesh networks* https://commotionwireless.net

tions, we created a special workshop format, around a currently hyped social media hashtag, #10yearschallenge. The ten years challenge surfaced recently in social media as a way for celebrities to publicize how little they changed over the past ten years. It was quickly picked up by more diverse social groups, including technically minded people, posting for example, the old Nokia 3310 phone that has lost only one percent of battery power in ten years.

With this workshop, we were hoping to identify the kinds of technology and services the "commoners" would find relevant for their organization and how do they envision it develops in the future. We tested this at a workshop with the Zurich-based community NeNa1 in March 2019. In a similar gesture to the panel discussion, three general topics of relevance for commoning crystallized in the workshop with the NeNa1 community:

- **Personal communication**: ten years ago, it was email → today it is Wikis and chat platforms → in ten years, there might be a commons app.
- **Ubiquity and autonomy of infrastructure**: ten years ago we relied mostly on telephone lines → today it is the internet → in ten years, we might have a significant presence of self-determined autonomous networks.
- **Cultural considerations**: ten (and many more) years ago we were into dialogue → today it is mostly chat groups → in ten years, we can expect a convergence of local and global discussion through technology and personal deliberation.

It is interesting to observe the ways in which these topics overlap with those identified in the panel discussi on. Communicating through a system at different speeds is exactly what a commons app should do. Self-determined autonomous networks are an additional iteration of community-managed alternative networks. Dialogue is a more abstract form of deliberation and decision making across a community. Same social skills are needed: 'commoners' need to be able to agree on, and discuss rules, opinions, plans, and so on.

Decentralization of knowledge and decision making: what perspectives

We explore these topics with the interest in communication as the act of making common or letting information circulate, but also as a space of different kinds of technical applications (wireless networking, wikis, chat platforms, etc). There are two directions in thinking about decentralization: decentralization of decision making and decentralization of sharing knowledge. Then, there is another dimension of differentiation, between technologies that delegate human work – such as the management of resources or decision making – and technologies that augment the mind.

This distinction is parallel to several directions we already discussed here: Zuckerberg's light box is an example of the former (delegating management) while the thoughts of Kelly and Serres are closer to the latter (augmenting mind). Similar to Langdon Winner's (1980) articulation in *Do artefacts have politics*, Ivan Illich discussed two kinds of tools: the one, within which machines are used to extend human capability (Winner: politically undetermined or open-ended) and the other in which they are used to contract, eliminate, or replace human functions (Winner: technologies with inherent internal authoritarian patterns).

Of course, the distinction between delegating and augmenting is not about making a categorical cut – techniques we invent to delegate human work, such as memorizing or communicating knowledge also augment human mind – we are able to keep knowledge and engage our thinking on a more abstract level.

The three topics that we identified in the panel discussion and at the workshop with "commoners" can be represented in a three-dimensional graph, where decentralization of decision making and knowledge define one plane, and the "delegating management – augmenting the mind" axis is perpendicular to it.

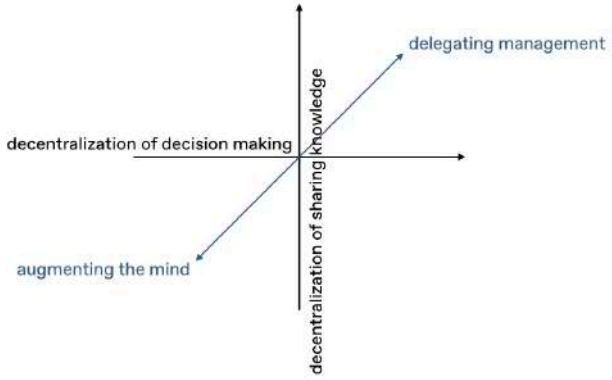

Figure 1. The three axes of decentralization and technology (image courtesy of the author).

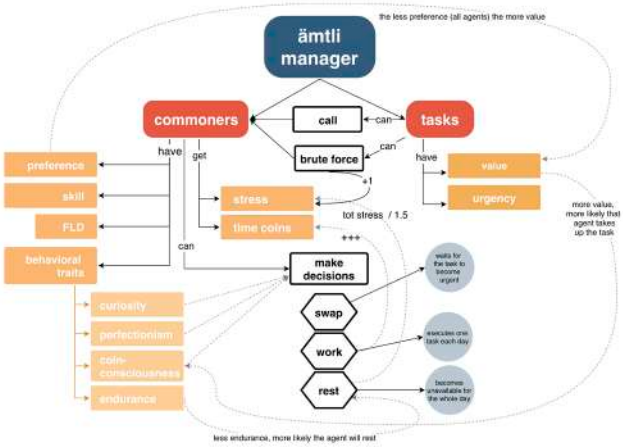

Figure 2. Concept map of the Ämtli manager agent-based model (image courtesy of the author).

Ämtli manager: distributing labour in a community

Ämtli manager is the name given to our model of shared work. In the model, "commoners" are invited to contribute work on common tasks related to the maintenance of common spaces and infrastructures. They work in the food depot, the common kitchen, clean common areas and rotate in watching children. "Commoners" have different traits: they can be more or less curious, perfectionist, enduring and more or less conscious of the value of certain tasks. Based on these traits, and some other conditions, they make decisions whether to work or not. Their work is directly rewarded with the right to take some rest, directly after or whenever they would like to skip a task later. This results in them being more or less stressed and more or less able to rest.

On a very general level, we are interested in the perception of fairness, as well as in a kind of smoothness of community operation, when work is organized in this way and individual contribution rewarded by the right to rest. Fairness is defined:

- On the individual level as the relationship between stress and possibility to rest and
- On the community level, as the measure of tasks being done and agents being free to choose work.

Just as with automation and optimization-oriented technology, "commoners" in the three housing cooperatives tend to perceive (with some notable exceptions) computational modeling as related to tidy quantitative, mechanical modeling paradigm that is of high value to economists and policy makers. This is precisely the challenge we pick up and explore how it can be thought differently, how these technical tools could be made so that they serve the community and are owned by it.

Problem finding, not problem solving

With the work on the model as well as in discussions, we propose to develop "thinking toys" for commoning: setups and artifacts that foster reflection on complexity and make processes in communities understandable and negotiable. The work on "thinking toys" is partly speculative design, based on fiction, partly simulation, agent-based modeling, and partly interaction design, entailing questions of physical prototyping. With the notion of the "thinking toy" as a method for design and research, we hope to inspire the thinking about the agency of objects and artifacts in creating knowledge.

In this sense, the model that we have developed is a kind of a toy in the game, like a black box that problematizes technocratic decision making, or like the essence of a *nima* of a bolo. It diffracts different roles technology can play in thinking through the organization of common work, and common life. Our experimental design practice is about buildings models but also the design of a workshop model, design of these toys and their documentation. On all these levels we explore design of/about complexity. The importance of this work is not in creating or generalizing solutions for specific problems that the housing cooperatives are experiencing (though this might happen) but in tracing and carefully documenting the problem-finding process.

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Peer to Peer: The Commons Manifesto – A book presentation[1]

Alex Pazaitis

What is Peer to Peer (P2P) and how is it related to the commons?

P2P is, foremostly, a type of social relations found in societies since the dawn of humanity – from hunter and gatherer societies to contemporary relations among friends, colleagues, etc. It is a type of social relation that is non-hierarchical and non-coercive with no predefined roles and responsibilities. Simultaneously, with the broad diffusion of Information and Communication Technologies (ICT) and the internet, P2P has re-emerged as a type of technological infrastructure, built on the same principles of its counterpart social relations. This way, P2P social relations, which hitherto mostly concern small groups, can now scale potentially on global level. This combination of the P2P social dynamic and technological infrastructure provides the premises for a system of production, distribution and management of resources. In this sense, P2P is synonymous with *commoning*, i.e. the quality of benefiting from- and contributing to the commons.

The commons is a social system, built around self-organization, as well as a huge economic sector, comprising the natural and inherited wealth: from the gifts of nature, such as the oceans, forests and the air we breathe, to human-made wealth, such as culture, language and knowledge. In order for a commons to exist, three elements must simultaneously be evident: (a) a certain resource; (b) a community gathered around the resource; and (c) the rules and norms through which the community collectively caters for the resource. The combination of P2P and the commons is, thus, enabling capacities for contributory activity. P2P creates the conditions to specify and optimize the three elements of the commons, namely the *what* (resource), the *who* (community) and the *how* (rules), for the commoning to take place.

On Commons-Based Peer Production (CBPP)

This combination of P2P socio-technical relations and the commons have recently gained prominence through Free and Open Source Software (FOSS) and projects like Wikipedia, as well as open design and open hardware projects. For the first time in human history we have unique technological affordance through which dispersed communities of users, with no predefined roles or structure, engage in self-identified contributions to a common goal and co-create commons, such as free software code, designs and knowledge. A closer look at the socio-technical infrastructures of such projects can unveil the way they identify the three elements of commoning. For instance, the Wikipedia interface to edit a certain article identifies the *what*, i.e. the enhanced wiki-text that embodies the shared resource, in this case knowledge; the *who*, i.e. the specific Wikipedia user, which can be potentially anyone, under

[1] With reference to: Bauwens, M., Kostakis, V., & Pazaitis, A. (2019) Available in free e-book at: https://www.uwestminsterpress.co.uk/site/books/10.16997/book33.

certain provisions; and the *how*, i.e. the rules and norms of commoning, in this case the explicit Wikipedia terms and conditions, as well as the automatically regulating architecture of the Wikipedia platform. This form of production has been called, by Harvard Law Professor Yochai Benkler, Commons-Based Peer Production (CBPP), and it presents a new pathway to value creation and distribution, where P2P enables an unseen human capacity to communicate, self-organize and create and collectively manage commons.

A new ecosystem of value creation

CBPP projects, operating in a new modality of production, have gradually also began forming some proto-institutions. In every CBPP project we can identify the following elements:

- A productive community, where individuals and groups of people engage in P2P cooperation, they pool knowledge and skills and make voluntary contributions.
- Clusters of commons-oriented enterprises which create commons-based products and services and participate in the market to generate livelihood for the communities and help sustain the production.
- For-benefit associations, that is, democratically governed organizations that act as the caretaker of the system, support the common infrastructures and strengthen cooperation by providing legal protection, licenses, education/ training, fundraising, etc.

A more vivid picture to imagine this ecosystem is as a flowerpot (fig. 1). The soil represents the productive community, where the capacity for the production of commons, here represented by the flowers, is situated. In turn, bees, representing the commons-oriented enterprises draw from the commons to engage in markets, but simultaneously enrich and assist the reproduction of the system. The picture is completed with the for-benefit associations, represented by the pot itself, which maintains the infrastructure that holds the community together and allows the system to exist.

These developments, though first (re)emerging in the digital sphere, with FOSS and open knowledge projects, they are not potentially restrained there. CBPP comprises a generalized capacity for contributory activity and co-creation of commons that, through open knowledge, information and open design, can gradually shift to the physical sphere as well. The digital commons have, thus, formed a new common sense for the collective stewardship of any type of resource, digital or physical, material or immaterial, abundant or depletable.

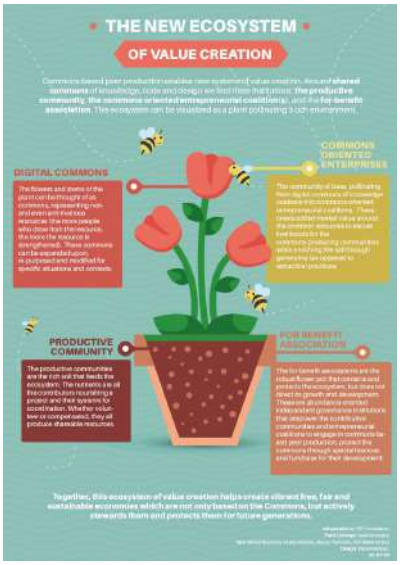

Figure 1. The new ecosystem of value creation. Designed by Elena Martínez Vincente. First published in M. Bauwens, V. Kostakis, S. Troncoso, & A. Utratel, (2017). Commons transition and peer-to-peer: A primer. Amsterdam: Transnational Institute, pp. 8-9. (CC-BY-SA).

Technology is ambivalent

However, even though the emergence of the internet itself has eloquently evinced, technology is ambivalent. This means that the same types of technologies simultaneously enable different outcomes in different political directions. For instance, the internet, on the one hand, has created an unseen capacity for many-to-many communication, self-organization and the production and distribution of value. On the other hand, both Facebook and Wikipedia are equal manifestations of different ways to utilize the internet infrastructure. The former is based on centralized control and accumulation of power, monetization of value in advertising markets and an almost exclusively extractive relation towards the resources upon which it relies, that is, the human P2P sociality and sharing. Contrary, the latter is based on distributed cooperation, enables the free circulation of use-value in the form of commons and has a generative logic towards the systems of resources upon which it relies, by caring for their maintenance and reproduction.

There is arguably as much of the P2P dynamic at work in both Facebook and Wikipedia. Nevertheless, the technological capacity alone does not pre-define nor guarantee the potential outcomes. Similarly, the digital commons may have generalized and enhanced a certain capacity for commoning and contributory activity, which is arguably moving from the digital to the physical sphere. This may also potentially lead to more fair and sustainable management of our natural and social wealth. But simultaneously, the production and distribution of digital commons heavily relies on energy-devouring ICT infrastructures, whose development and growth are largely based on extractive and profit-maximizing relations. Hence, the digital commons, the internet or P2P technologies in general, simultaneously create conditions that could potentially improve or deteriorate the condition of human and natural ecosystems. Therefore, whether or not P2P can lead to a better or worse future for humanity is a foremostly a political, rather than a technical question.

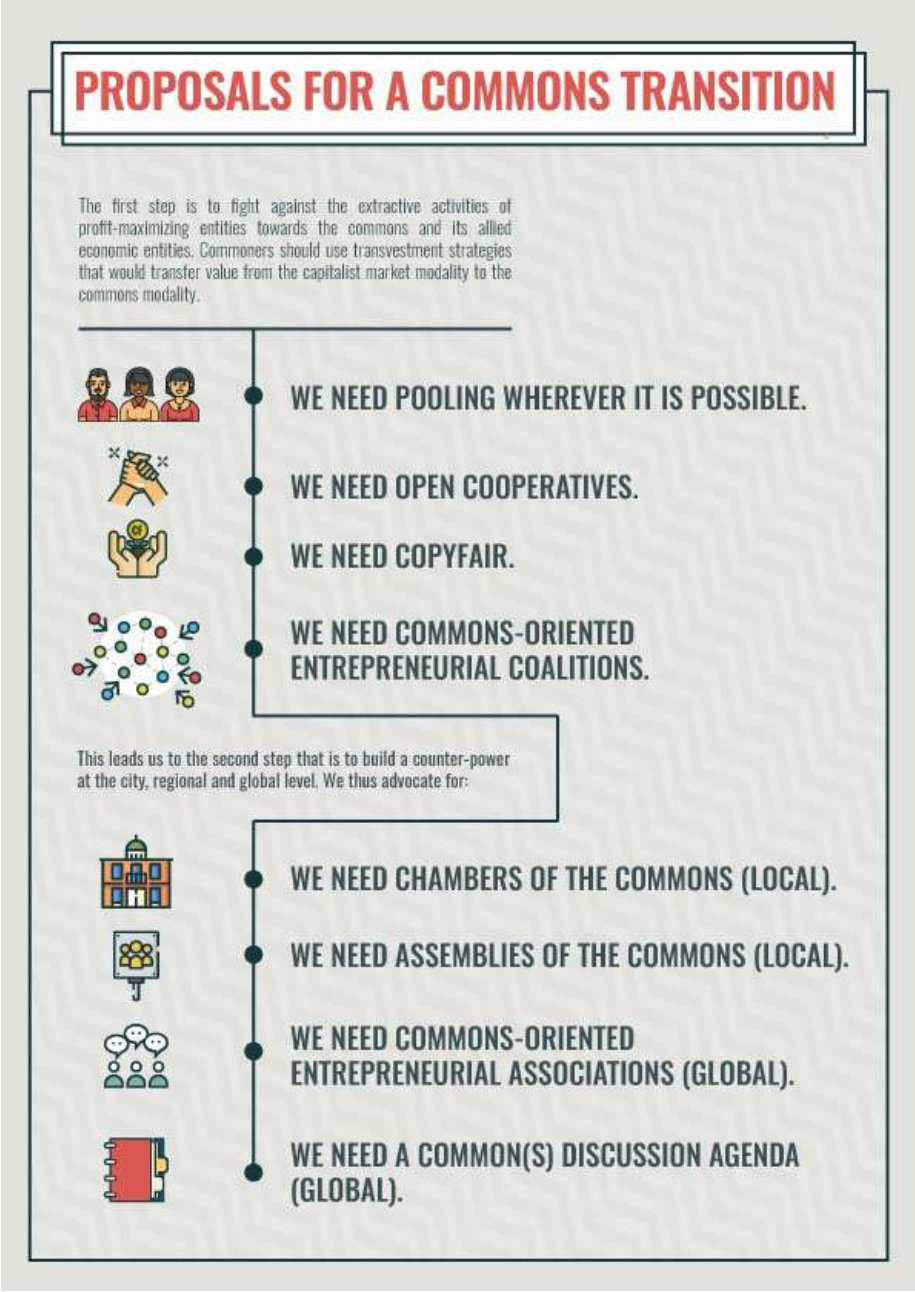

Figure 2. A commons-transition strategy. Designed by Elena Martinez Vicente. Text and concept by Vasilis Kostakis. First published in M. Bauwens, V. Kostakis, & A. Pazaitis, Peer to Peer: The Commons Manifesto. London: Westminster University Press. (CC-BY-NC-ND)

A commons-transition strategy

Our approach to favor the fairer and more sustainable scenario of P2P builds on the premise that all societies have historically been multi-modal. That is, different forms of social and economic organization have been present at the same time but one of them has been dominant, subordinating the others. For instance, feudal societies where strictly hierarchical and the imperial state was almighty. Nevertheless, market-based relations still existed, but were subordinate to the state order. Similarly, in capitalism the market is the dominant modality, however state institutions still exist, foremostly to serve the markets, while commons-based and solidarity systems appear where the former two fail or have not expanded yet. Therefore, a strategy to transition to a commons-centric society would focus on strengthening the conditions for the commons modality to become dominant, and eventually re-configure both the state and markets to the commons logic.

This strategy of "revolutionary reform" aims to build economic and political counter-power to protect and strengthen the commons and commoners from the extractive forces of the state and markets (fig. 2). More specifically economic counter-power takes the form of the struggle against extractive economic models, by pooling resources whenever possible, both in the material and immaterial sphere; the creation of solidarity-based organizations, such as open cooperatives and appropriate legal and institutional tools, such as copyfair, to protect the livelihood of commoners and shift value from capitalism to the commons, through wide commons-oriented entrepreneurial coalitions. Whilst political counter-power concerns bodies of political representation and coordination, such as chambers of the commons and assemblies of the commons, to enhance democratic governance and cohesion of commoners and their communities and build multi-stakeholder alliances, both locally and globally, as well as a common(s) discussion agenda to align all the relevant emancipatory movements.

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Horror stories from Digiland[1]

Theodotos Andreou

Digital rights activists are often being treated as conspiracists when they attempt to warn others about devices or services that may spy on them (slide 1). But anything Mr. Stallman said yesterday, and anything I'm about to say today is verifiable from reliable sources. (Puts aluminum foil roll on table). And I have brought enough aluminum foil to make tinfoil hats for everybody.

Let's talk about some notable horror stories.

In 2005, Sony decided to use a malware on their audio CDs that would prevent the users of the computers it was installed on to listen to audio not approved by SONY (slide 4). This rootkit was essentially converting the PC into a zombie loyal only to SONY (Russinovich, 2005). The malware was discovered by a brilliant engineer, Mr Mark Russinovich. Mark now works for Microsoft. Nobody is perfect.

This is one of the scariest stories I have for you (slide 5). The school board of Lower Merlion High School decided to buy MAC computers for the students. The MACs were equipped with anti-theft software that was taking advantage of a "feature" in the computer's camera to operate without the blinking light. The idea is, when a laptop is stolen, the anti-theft system is activated, stealthily recording the thief and sending the footage back to the owner. Alas the School Board decided it was a good idea to activate the anti-theft system in order to monitor the "undisciplined" students. This resulted in private footage of the students in the bedroom in the hands of the school board. The scandal erupted and ended in favor of the students (Stanglin, 2010). What we learned from this story: Cameras can operate without your knowledge and your rights can be violated even by the most "innocent" organizations, like your school.

In this photo (slide 6), we see Mr. Zuckerberg trying to sell us his goods, apparently unrelated to the point above. But on closer inspection we see two marks on his computer; there is tape on the camera and mic of his computer (Zuckerberg, 2016; Hern, 2016). Apparently, Mr Zuckerberg does not trust his very expensive MAC because he knows it is a spy device.

This story blends the physical world with Digiland (slide 7). Chelsea Manning, a soldier in Afghanistan, came across evidence that showed the US army participating in crimes of war in Afghanistan. She released these documents via Wikileaks (Wikileaks, 2010). Chelsea Manning was convicted and jailed as a traitor (Pilkington, 2013), and Julian Assange of Wikileaks spent seven years in isolation in the Ecuadorian embassy in London (Ma, 2019). He is now jailed and awaiting extradition to US (Goitein, 2019). None of the perpetrators of the war crimes were convicted. So apparently exposing the illegal activities and crimes of your government is illegal! (slide 8), (Tandberg, 2017).

Here is another scary story (slide 9). A teenage girl got pregnant and bought some relevant products from Target. Target thought it was a good idea to send a

[1] You can find my presentation and all the references I've used to prepare it here: https://www.theo-andreou.org/?p=1845, just click on 'Horror Stories from Digiland' hyperlink. It is recommended to read the text together with the slides.

"Congratulations" mail to the girl, unaware that she was using her father's account to buy the products. So, the mail ended up in her father's inbox, learning in this creepy way that his daughter was pregnant (Hill, 2012).

When the PRISM scandal came out, I was happy that at last something so big became public so at last people would no longer think I am crazy and paranoid (slide 10). But that's not how it worked out. If you show the photo of Mr Snowden to passersby, a very small percentage would know who this man is and what he did. He worked for the NSA and exposed the illegal surveillance of everything and everybody (even the Pope!) (Greenward, 2013.) Mr Snowden is now considered a traitor in his homeland and lives in exile (Oliphant, 2017). The NSA, who violated the Constitution of their country, was not harmed in any way.

This slide from the Snowden leaks shows that major tech giants were collaborating with the NSA in the PRISM scandal (slide 11). Dropbox (slide 12) had already been a recipient of criticism for privacy violations, (Wikipedia, 2019, "Criticism of Dropbox") but in 2017 their users would not believe that their year long deleted files miraculously appeared in their accounts! Apparently, Dropbox restored their systems from backups after a disaster, and the deleted files came back (Tung, 2017). As master Fravia warned us, everything you put on the web it is unlikely to go away (Fravia, 2004).

Here is a funny meme teasing at the scary things Facebook (and others) knows about you (slide 13) (9GAG, 2019). By the way, memes like this one may come to be illegal in the EU under the dreaded article13/17 of the Copyright Directive (Collins, 2019).

Facebook does not only threaten your privacy, but your democracy too (slide 14). The Cambridge Analytica scandal is one of the worst things Facebook has done. The CA company used Facebook to create the profiles of millions of people. Then they sent aggressive targeted ads to the people that had not yet decided what to vote (in the Trump and Brexit election) thus changing the tide in favor of those that paid them (Cadwalladr and Graham-Harrison, 2018; Cadwalladr, 2019). After this the #deletefacebook campaign started (Wong, 2018). It was not very successful because Facebook is designed to be heavily addictive (Sloan, 2017) and apparently harder to quit than smoking.

This may be the scariest story I have for you today (slide 15). Some researchers in Japan are trying to decode the images our brain sees (Guohua, Tomoyasu, Kei and Yukiyasu, 2017; Saenz, 2010). As you can see in the image above, the results are not brilliant but, if they are given a couple of decades of research & development, they will probably be able to decode minds. That tinfoil hat may no longer be a joke.

Now let's see some examples of state surveillance.

Echelon was one of the first attempts of mass surveillance using traditional telephony (slide 17) (McCarthy, 2001). It is run by "Five Eyes" (five English speaking countries) (United States Army Combined Arms Center, 2014.) Nicky Hager gave an interview in Cyprus and revealed that the antennas at St Nikolaos in Akrotiri are part of this system. Trailblazer was another early attempt for Internet surveillance (United Press international, 2006.) PRISM is another example.

Vault 7 was a series of revelations from wikileaks about the CIA's tools and methodologies to access computers, routers and other devices for spying (Wikileaks, 2017). Now, imagine a garden with tall trees, beautiful flowers, a light breeze but surrounded by a big, fat, tall wall and you cannot see, hear or smell anything beyond that wall. This is what centralized services are like (slide 18) (Wikipedia, 2019, Closed platform.)

Google, Amazon, Facebook, Apple, and Microsoft are examples of centralized services (slide 19). We call them the GAFAM (Wikipedia, 2019, "Big Four Tech Companies") but there are many more, like Twitter, Dropbox, Viber, etc. The last one is very popular in Cyprus and used by kids for cyberbullying among other things.

Mr. Douglass Rushkoff said that you are not Facebook's customer, you are the product (slide 20) (Rushkoff, 2011). You may think that their service is free (gratis) but you are paying with your data. Your data is sold to advertisers, marketeers and statisticians. This is true not only for Facebook but every walled garden.

One other foe is our beloved devices (slides 21-22). Your computers, ebook readers and almost everything holding the "smart" label is a potential spy device (FSF, 2019).

Now let's talk about some potential threats to our democracy (see slide 23).

There are many international agreements decided behind closed doors, without your knowledge or consent (fig 2. and slide 24) (Walsh, 2012; Wortham, 2012; Leahy, 2011; Rogers, 2011; Panda, 2015; Burr, 2015-2016; European Commission, 2017; European Commission, 2016; Collins, 2019; European Parliament, 2016). Looking at the image above, you can see we have defeated some of the agreements (crossed out) but there are battles we have lost (bold). The latest agreements are attacks on net neutrality in the US and the dreaded Copyright Directive in the EU.

One of the scariest CISA (Cybersecurity Information Sharing Act) provisions is that the US can ask and get your browsing history from your provider. Here you can see the companies that supported CISA (slide 25) (Fight for your future, 2015). #SaveYourInternet is an initiative to fight article 13/17 of the EU copyright directive (slide 26) (EDRi, 2019). Follow the links in the footnotes to see a list of countries that apply Internet censorship (slide 27).[2]

Never say "I have nothing to hide" (slides 28-30). It is a lame argument. Privacy is your right and you should defend it (Wikipedia, 2019, Nothing to hide argument; Greenwald, 2014; Snowden, 2015). If you are not comfortable having spy cameras everywhere in your house, you should not be comfortable with spyware on your digital devices. These are your digital home and they deserve the same respect as your physical home.

So how do we fight back? (slide 31). Use free software as much as possible, use decentralized alternatives to mainstream services (avoid walled gardens), encrypt everything, use end-to-end, client-side encryption whenever possible, and use https instead of http, use anonymity networks and privacy enhancing browser plugins (EFF, 2019; Rogoff, 2019; Zhong, 2019).

Rysiek, a digital rights activist, once said "if it's technically possible, it is practically unavoidable" (slide 32) (Woźniak, 2015). That said, your goal should be to build technologies that make privacy violations very hard, even impossible (see slide 33). Our tech should be designed so as to protect privacy and promote transparency for public affairs.

These are some organizations that fight for our digital rights (slides 34-35). EFF[3] and FSF[4] in the US, EDRi[5] and FSFE[6] in EU and the humble Cyprus FOSS Community in Cyprus.[7]

I will conclude with a bit of the wisdom of master Fravia (2006) (slide 36) "The web was originally designed for sharing knowledge not for what it has become today".

Lastly, a little piece of advice. If you wrap your cell phone in aluminium foil, it will not work. It will not send or receive calls or texts. So, if you are a journalist on a mission, or an activist on the run, and you don't want to be tracked you can use this technique to take your phone off-grid, without having to throw it in the trash every time.

[2] Wikipedia, (2019), Internet censorship and surveillance by country. Retrieved May 30, 2019 from https://en.wikipedia.org/wiki/Internet_censorship_and_surveillance_by_country

[3] EFF, The leading nonprofit defending digital privacy, free speech, and innovation. https://www.eff.org/

[4] FSF, The Free Software Foundation (FSF) is a nonprofit with a worldwide mission to promote computer user freedom. We defend the rights of all software users. https://www.fsf.org/

[5] EDRi, Protecting digital freedom. https://edri.org/

[6] FSFE, Empowering users to control technology. https://fsfe.org/

[7] Cyprus FOSS Community, Καλωσορίσατε στον ιστοχώρο μας. https://ellak.org.cy/

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Dealing with difficult history: The Ledra Palace project[1]

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Museums and difficult history

During the last couple of decades, discussions among museum professionals regarding the role of museums and the form these should take in the future have multiplied and taken various directions. One of them has focused on the rise of the post-modernist or the re-invented museum, as opposed to the modernist or traditional museum. According to Eilean Hooper-Greenhill, a key difference between the modernist and the post-modernist museum is that:

> The great collecting phase of museums is over, and the museum concentrates more on the use of the objects rather than on further accumulation, while it is additionally interested in intangible heritage. Furthermore, rather than focusing on display as the major form of communication, the post-museum choses the exhibition and events instead which enable it to incorporate many voices and many perspectives (2000, p. 152).

As a result, she argues, "where the modernist museum was (and is) imagined as a building, the museum in the future may be imagined as a process or an experience" (Hooper-Greenhill, 2000, p. 152).

Although this was written almost twenty years ago and the discussion regarding the future museum has advanced and evolved since then, Hooper-Greenhill's position has influenced museology and contributed to our understanding of the transition to the post-museum, the museum as an experience. In the last 50 years or so we witnessed a paradigm shift in museum related theory. According to Gail Anderson (2012),[2] the traditional museum is a collection-driven institution, an information provider that constitutes the voice of authority and focuses on the past. As such it is interpreted as a stable institution that provides a reassuring, usually ethnocentric narrative. On the other hand, the reinvented museum is an audience-focused institution that includes multiple viewpoints, facilitates knowledge and strives to be relevant and forward-looking. Recently, Robert R. Janes and Richard Sandell (2019) talked about museum activism, in the sense of museum practice shaped out of ethically informed values, that is intended to bring about political, social and environmental change. An activist museum is, as they argue, a mindful museum. They underline that museums as social institutions have the opportunity and the obligation to question the way in which society is manipulated and governed as well as to resist and critically re-imagine the status quo (Janes & Sandell, 2019, p. 6).

Most museums dealing with difficult heritage adopt a seemingly neutral, authoritarian, and thus more traditional and "safer" approach. However, more recently,

[1] Panel Discussion: The future of technology in museums.

[2] REINVENTING THE MUSEUM TOOL. This tool is an excerpt from Reinventing the Museum: The Evolving Conversation on the Paradigm Shift, edited by Gail Anderson of Gail Anderson & Associates, and published by AltaMira Press in 2011. It is a dramatically revised version of the first edition of Reinventing the Museum, originally published in 2004.

certain museums, especially those dealing with political, ethnic or social history, are increasingly eager to include multiple narratives and voices, acknowledge the social and political construction of knowledge, take a stance towards a difficult subject matter and thus embrace uncertainty and become "unsafe" spaces of exploration, critical analysis, and social responsibility (Stylianou-Lambert & Bounia, 2018).

We are interested in exactly how the post-modern, re-invented - and now activist - museum can deal with issues of "difficult history" or "difficult heritage". According to literature, "difficult heritage" is a past that is recognised as meaningful in the present but that is also contested and awkward for public reconciliation with a positive, self-affirming contemporary identity (Macdonald, 2009, p. 1). We might say that "difficult heritage" is another term for dissonant, negative, or contested heritage but, as Joshua Samuel explains, all terms refer more or less to the same thing, namely the challenge of what to do with the material remains of an historical period, site, or event that is today generally perceived as problematic for one reason or another (Samuels, 2015, p. 113).

The *Ledra Palace* project

Having these in mind, the Museum Lab at RISE Centre of Excellence, has embarked on a project that aspires, through the creation of a re-invented – or activist if we dare say- museum, to deal with issues of "difficult history" in an effective and inclusive way. In this effort, technology could play a vital part. More precisely, the *Ledra Palace Museum* project deals with the representation of difficult history in museums and investigates ways in which technology can help to overcome any obstacles this entails. The project aims to give museums the methodology and the tools to host and promote artifacts, exhibits, stories or exhibitions that deal with issues of contested history. Especially so in countries dealing with social or political conflict, such as Cyprus, where it can be very challenging for museums to represent different layers of contested heritage and even help visitors negotiate the legacies of difficult heritage.

Cyprus, a small island in the Mediterranean, was under the suzerainty of several foreign rules until 1960 when it became an independent, sovereign country. This, along with the fact that its population was comprised of 80% Greek-Cypriots and 20% Turkish-Cypriots who were attached to their respective motherlands instead of focusing on creating a unified national identity, make Cyprus a classic example of a country with troubled and contested history. Within this context, if we were to think of one building that best exemplifies the troubled recent history of Cyprus that would be the Ledra Palace Hotel. Once praised as the jewel of Cypriot modernity in the heart of the capital, now it is a crumbling dwelling located in the buffer zone between the southern and northern parts of the island and partly used by the United Nations Peacekeeping Force.

The 70-year old hotel has fallen into despair and only its intricate facade reminds us of its glorious past. Inspired and founded in 1949 by three wealthy men who owned the Cyprus Hotel company and designed by the German-Jewish architect Benjamin Gunsberg, the *Ledra Palace* Hotel soon became the pride of Nicosia, the first choice for esteemed visitors, journalists, official meetings, general assemblies, balls and social events, art exhibitions, concerts, etc. Through its short-lived history as a hotel, the Ledra Palace witnessed and inevitably became part and parcel of the island's turbulent history – from the beginning of the 1950s until the tragic events of 1974.

Furthermore, the hotel continued to play a central role, even after the division of the island, although not functioning as a hotel but as a meeting place, which accommodated the most significant political meetings taking place in Cyprus that negotiated the potential solution of the Cyprus problem. These meetings include

the bicommunal meetings between Clerides and Denktash at the end of the 1960s and the most recent meetings between President Anastasiades and Turkish Cypriot leader Mustafa Acinci a couple of years ago.

It is considered a place which can be seen from multiple perspectives, as for many it symbolizes conflict and division, while for others, peace and reconciliation. It is a place that had always been oscillating between contradictory notions: militarization and opulence, darkness and virility, as a meeting point for nationalist demonstrators and as a meeting point for peace activists, amongst many more interpretations and functions (Demetriou, 2012; Demetriou, 2015). Actually, the checkpoint located outside the hotel on the dividing line cutting through Nicosia has taken its name after the hotel itself, i,e, the *Ledra Palace* checkpoint, and it was the first to open in April 2003 allowing thousands of people from both communities to cross over to the other side. All these inevitably render the *Ledra Palace* Hotel a part of the island's difficult history.

Collaborative and participatory approaches

Today, despite its decadence, *Ledra Palace* remains a beautiful and interesting place with a history worth to be told. Our aim is, through an extensive archival research, as well as a layered collection of testimonials, to "revive" the history of the *Ledra Palace* in a more multivocal and multilayered way. Since this cannot be done on the actual site of the hotel, we will try to create a museum 'in the wild' with the use of interactive media and new technologies. This project will therefore become an example of a museum becoming an imaginary place where, without the practical and political restrictions of a physical museum, we can re-imagine the future of museums that deal with difficult heritage.

In their majority, museums and cultural heritage sites established in Cyprus, with their practices and main narratives, usually reinforce either Greek Cypriot or Turkish Cypriot ethno national identities (Stylianou-Lambert & Bounia, 2016). Therefore, they perpetuate the building up of cultural boundaries instead of facilitating peace building, in an island which has been divided for more than 45 years despite its small size and its limited natural and financial resources. We aim to distance this project from this dominant approach and adopt a different and more inclusive stance. This project is mostly based on the notion that museums dealing with difficult heritage can use technology to facilitate participatory and collaborative approaches and actively engage different groups and communities (especially excluded, marginalized or silenced ones) in order to tell contested histories. We are interested in the co-creation of content and narratives that influence collecting and archiving practices. Through our process of development, the methodology of deep mapping has been identified as one that could assist in shaping a more multi-layered and multi-vocal narrative. In general terms, deep mapping is a "collection of interconnected and intertwined context and location dependant data that can help us build a narrative, specific to a place" (Roberts et al, 2016, p. 3). It may integrate stories, photographs, images, maps, and memories so as to create a 'deep' and multilayered narrative of a place or space. In the *Ledra Palace Museum* project we focus on how technology can enhance the process of deep mapping and the collection and display of information (textual, audio and visual) from archival sources as well as from participants from different social strata and ethnic backgrounds. Crowdsourcing, interviews and testimonials are therefore essential to the project. We aim to project not merely the official history of the place, but also untold stories of people who experienced the *Ledra Palace* Hotel in one way or another; as guests, as audience in a wedding, concert or show, as participants in conferences, business or work meetings, or as employees. These everyday and more personal stories are usually neglected for the sake of the political, diplomatic or military history of the

place. It is our view that these voices need to be heard and since this is not possible through the traditional museological way, we will try to achieve with the use of emerging technologies.

Our Museum

It is important to state that in the context of our project, the museum does not claim to have the right answers, does not adopt an authoritative voice and recognizes that the socio-political environment of an institution influences its narratives. However, as, Janes and Sandell argue, museums are civil society organizations (distinct from state, family and market) and both generate and contribute to the norms, networks and shared values and trust that constitute social capital (2019, p. 5). It is in this sense that the *Ledra Palace Museum* distances itself from traditional museum tactics and chooses to adopt bottom-up collaborative approaches in gathering the information needed, so there is enough space for different stories to be told and various emotions and memories to be shared. It fosters an approach led by an openness, which is assumed as an essential ingredient of museum activism (Janes & Sandell, p.9), for it aims to foster mutual cultural understanding between the different communities of the island. This project could also be interpreted as part of the current efforts to " 'decolonise' museums as a way of decolonising society" (Das, 2019). Our aim is to create, through the use of current and emerging technologies, an alternative museum aspiring to contribute towards overcoming the difficulties of presenting contested histories, and through this process make visible unheard stories and contribute towards social cohesion on the island.

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Exploring the challenges of interactive technologies in museum spaces[1]

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Introduction

In recent years, a growing emphasis is placed on the introduction of new technologies in museums and heritage sites which is based on the idea that these technologies can offer many advantages to the overall visitor experience. Thus, a growing amount of literature focuses on the investigation of the potential of different technologies and their advantages (Smithsonian Institution, 2001; Witcomb, 2010; Stogner, 2011; Kounavis et al., 2012; Johnson et al., 2015; Freeman et al., 2016).

Indeed, the application of new technologies in museum spaces offers many advantages to their visitors, which is why their effect has been characterised as "catalytic" (Parry, 2007, p. 140). The advantages are multifaceted and it has been argued that "the opportunities offered by today's digital technology are bringing museums even closer to their goals of accessibility, inclusion and democratization of culture" (MacDevitt, 2018, p. 2). In many cases the future of museums has been associated with new technologies, which have also been defined as "the catalyst for change in the future of museums" (Stein, 2018).

Despite the indisputable advantages that new technologies offer in museum environments, however, the use of interactive technologies comes with a set of challenges that should also be discussed. These challenges are somewhat "neglected" by relevant literature and therefore the possible implications and limitations of these technologies remain an under-studied area. Thus, we argue that before discussing or envisioning the future of technology in museums it is imperative to first examine the current challenges so that these can inform our future decisions.

The research presented in this paper is based on a research project currently carried out at the Research Centre on Interactive Media, Smart Systems and Emerging Technologies (RISE), which focuses on the uses of interactive and emerging technologies in museum spaces and on what the future holds for technological applications in museums and heritage sites. More specifically the project investigates current technologies used in museum spaces, explores technology-related problems faced in museum environments and investigates the limitations or challenges that are associated with the use of such technologies in museums. The research also identifies potential gaps that technology can fill in museums. Thus, one of the aims of the project is the identification of key theoretical and practical debates, as well as the creation of specific directions and guidelines for the ideal future technology

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in museums and for the application of emerging technologies in museum spaces. The produced directions/guidelines will be addressed to museum professionals and designers and will be based on the actual needs of museum professionals and the potential challenges they have identified.

As such this paper focuses on the exploration of some of the challenges of the interactive technologies currently used in museum spaces and concludes with some suggestions on how these challenges can be addressed as we move forward.

Which are the challenges of interactive technologies currently used in museum spaces?

Currently when museums use technology in their exhibition spaces the prevalent uses are in the form of tablets, interactive tables and boards, or mobile phone applications. Most of these applications are screen based, which has created an absorption of visitors into screens and a screen dependency which may create a tension between physical and digital experiences, with digital experiences gaining more ground rather than the promotion of personal human interactions with objects. This absorption of visitors into screens and mobile devices has been called "the heads-down phenomenon" or the "lure of the screen concern" (Mayr & Wessel, 2007, p. 18).

Despite the argument that the incorporation of screens may facilitate the inclusion of younger visitors, it may also take their attention away from the physical objects on display. In many cases visitors may spend "more time with the system than with the original object" (Vom Lehn et al., 2005, p. 133). Thus, digital technologies, may start to "compete' with the physical museum, rather than complement the physical museum.

Interactive technology in museums may also affect the exhibition flow and diminish the overall experience. As noted by Ciolfi et al. (2001, p. 605) as a result of their evaluation studies, "kiosks interpose themselves between the visitors and the objects, preventing the visitors from maintaining their physical proximity to the exhibit". Moreover, touch screens may also create an impoverished experience to the rest of the visitors not using the screen and waiting in long queues for their turn. As Vom Lehn et al. (2005, p. 132) explain, "the interface and the structure of the interaction afforded by the system, do not simply prioritize the individual user, but also transform those gathered around, often waiting to use the exhibits, into an audience that has impoverished access to the activity that they are witnessing".

Although visiting a museum is often a social occasion, most technologies used in museums are designed for a single-user and do not allow shared experiences with other visitors. Thus, new technologies may change the "visitor-group-relationship" (Mayr & Wessel, 2007, p. 18) with the museum visit being transformed into an individual experience which reduces social interaction to the minimum. As Li, Liew, & Su (2012, p. 647) argue "the physical museum is becoming more isolated and functionless without visitors participation while the audiences are also losing the opportunities for sharing and communicating their viewpoint with others since they are absorbed by the screens and smart phones used in the museum space". However, as emphasized by the American Alliance of Museums (2018), the social aspect of the museum visit is valuable:

> We observe that the social experience of museum-going is frequently cited as among the top motivations for visiting at all. We know that museum visitors value the authenticity of the 'real thing' and despite the influences of a visually-laden social media culture, the interest and dedication of audiences to hyper-local, artisanal, and delicately nuanced physical experiences hints at a desire for the real over the virtual (American Alliance of Museums, 2018, p. 1).

In many cases due to the desire to attract younger audiences or keep up to date with advancements in our everyday life, museums tend to incorporate technology in their spaces just for the sake of it and without addressing the real needs of visitors. However, this means that in many cases technology becomes the "starting point" (Elliott, 2014), with technological applications being created only for marketing purposes and for "visitors' consumption" (Ashton, 2018, p. 421). Thus, in many cases, the result is an "uncritical use of technology" with disputable results (ibid).

From a practical point of view, users of VR and AR applications have pointed out particular problems caused by the hardware used for such applications. An example is the different types of head-mounted displays (HMDs). Some users argue that most HMDs are uncomfortable, "bulky and hot" and do not allow users to see the environment around them, meaning that because of these characteristics they cannot be used for very long (Kain, 2016). VR headsets may also cause headaches and nausea to some users, which also impede their prolonged use (Kain, 2016).

Another very important limitation is the high cost of implementing such technologies in museums. New technologies are usually installed in museums with a plan to be permanently incorporated into the exhibition for the years to come. However, due to the rapid advancement of technology such installations can easily and quickly become obsolete and old-fashioned. Apart from quickly becoming obsolete technologies such as the ones discussed in this paper are in constant need of updating and maintenance, which requires investment of both money and the appropriate personnel (Dodge, 2016).

This rapid advancement and the need to constantly update the provided technology, also means that targeted technological expertise is needed. This is especially difficult for small museums with limited staff and budgets. In many cases, however, it has also proved challenging for bigger museums as well, which may outsource their technological needs to third-parties, meaning that they may end up "spending too much time helping contractors understand why certain approaches do not work in a museum" (Duff et al., 2009).

The above brief analysis includes only some of the several challenges associated with the use of interactive technologies in museums. There is a need to explore new ways of overcoming the barriers created by the use of new technologies and to be able to enjoy their advantages without diminishing the museum experience. So how can we approach the use of new technologies in museums so as to address these challenges?

Brief points on the way forward

The key to the successful implementation of new technologies in museums is not the technology itself but the visitor. It is important to adopt a "user-centric" approach when developing new technologies for museum spaces so that the technology used offers an improved experience or addresses some of the visitors' needs. As emphasized by Kati Price, head of digital media at the V& A museum, the starting point should always be the people, as "some of the most enduring, compelling innovations come from looking at what people want, and at their latent needs" (Elliott, 2014). Although the use of technology can be a powerful tool that may produce memorable immersive and interactive experiences, museums need to "identify what service they are offering, who it will serve, and how the audience will benefit from the experience" (Price in Elliott, 2014).

In order to encourage truly engaging activities we should invent new ways to encourage visitors' critical thinking, beyond the simple physical interactions with multimedia tools (Stylianou-Lambert, 2010). This is a critical issue that museums should deal with, since "the enduring enjoyment that comes from investing attention and creating meaningfulness can be easily distracted by brief moments of sensory pleasure" offered by new technology applications (He et al., 2018, p. 134).

Museum experiences require a level of social interaction and the isolation of visitors using these technologies is a major challenge which should be overcome. In order to facilitate social interaction and collaboration it should be recognised that "social interaction is critical to people's experience of exhibits" (Vom Lehn et al., 2005, p. 135). Therefore, museums need "experiences that work well with multiple users, and provide points of social interaction" (Chan & Cope, 2015). One such idea is the development of VR or AR applications that allow the interaction of multiple visitors or groups of people which will greatly enhance the user experience.

Moreover, new technological applications should focus on the integration of digital applications to the museum environment without distracting from the object itself and "without disturbing the aura of an exhibit" (Mayr and Wessel, 2007, p. 7). As Ciolfi et al. (2005, p. 2) note, the technology used should "support visitors' experiences of the physical museum space rather than replace it with a virtual experience". The museum space should offer something else than what a visitor can experience at home or another place/institution.

Particular note should also be made to the concepts of "interactivity" and "participation". In recent years there is growing interest in creating participatory approaches in museums, with the current trend focusing on the stimulations of more "active, hands-on opportunities that can foster deeper knowledge acquisition" (Freeman et al., 2016, p. 18). Indeed, the new technological tools available have facilitated in many cases the design of interactive exhibitions and the implementation of more "complex forms of participation" (Vom Lehn et al., 2005, p. 131).

However, although these new forms of interactivity may enhance educational experiences, they often do so at the expense of other museum experiences which are more personal or social. Thus, "interactivity is not infrequently conflated with social interaction" (Vom Lehn et al., 2005, p. 131). A re-conceptualization, therefore, of the notions of "interactivity" and "participation" is needed so as to reflect what active participation really stands for in museums. In this context, it would be useful to shift the focus from creating "hands-on" interactive experiences to creating a "heart-on" interactive experience (Zheng et al., 2005, p. 19).

Conclusion

As evident from this brief analysis the use of interactive and emerging technologies in museum environments not only offers particular advantages but also poses several challenges that should not be overlooked. All the points raised in this paper are elements for consideration in the context of the implementation of new technologies in museum spaces if the aim is for these technologies to promote the social aspect of the museum space and its learning dimension.

We argue here that the incorporation of new technologies in museum spaces should be based on a "user-centric" approach, which takes into account the real needs of the visitors. Moreover, any technological applications should ideally be seamless, non-intrusive and should also promote social engagement and critical thinking. In this way new technologies may not only promote knowledge but may also promote imagination, inspiration and collaborative experiences.

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Technology as the means to democratic, participatory and community-oriented practices in museums[1]

Marinos Koutsomichalis

Introduction

Novel/emerging technologies find their ways in museums on a regular basis these days, with respect to archives (Bury, 2019), accessibility (Osterman, 2018), heritage (and the implications/controversies it brings forth) (Stylianou-Lambert & Bounia, 2018), personalized content services (Kosmopoulos & Styliaras, 2018), audience participation (Clover, 2017), and miscellaneous other affairs (Parry, 2013). Theoretical research and real-world practice in the field delineates and advances a series of possible (albeit not necessarily discrepant with one another) futures for technology in museums. This article is concerned with such a possible future, wherein technology becomes an important means to more democratic, participatory, and community-oriented museums. It pinpoints those particular theoretical and empirical traits characterizing the author's own artistic practice with respect to the questions of socially empowered co-creation, collective experimentation, and hands-on material exploration. More importantly, it addresses an open call for related research/practice, so that the herein envisioned future is, indeed, eventually put forward. As such, this article should be rather thought of as a manifesto or futurology—or rather, as an euchology of sorts.

In the next section the theoretical and empirical underpinnings, fuelling the author's particular perspective are outlined. Following, in the subsequent section, it is shown by example how to successfully actualize the former in some real-life setting. Why such a venture may concretely speculate more democratic, participatory, and socially empowered schemata is also discussed. Finally, in the last section, the article sums up with concluding remarks and a call for related research and practice.

Background

The herein envisioned future draws on four broad and often interrelated traits. Firstly, on the broad and rather eclectic tradition of participatory arts; in particular, on those practices concerning active audience engagement regarding how art may be experienced and, most importantly, produced. Consider for example relational art (Bourriaud et. al., 2002), broadly drawing on human relations and their social context and, up to a certain extent, furthering an understanding of the artist as more of a "catalyst" that co-creates alongside an audience in some situated context

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(rather than as a sole author that is exclusively responsible for an artwork). Consider also a wealth of participatory music practices ranging from various kinds of traditional world music (Turino 2009), to "Deep Listening" collective improvisation (Oliveros, 2005), to network/internet driven composition and distribution schemata (Koutsomichalis, 2018). In all the above cases, the role of an audience shifts from passively surveying/experiencing a work of art, to becoming an integral part of it, to contributing own content and, in certain cases, to also determining the structural and contextual characteristics of the resulting outcome.

Similar in both spirit and scope are the various do-it-with-others (DIWO) methods/methodologies encountered in art, design, and STEM education. Consider, for instance, Richards (2013) or Jo and et. al. (2013) accounting for collective music making pivoting on "workshopping" and involving local audiences. Therein, the true artwork is not so much to be sought for in some final artifact or event, but rather in the whole workshop experience which becomes both the means and the end to the former. In a design/educational context, Andersen (2017) accounts for workshop-like and open-ended making, that enact play-like intriguing experiences to some situated audience while, at the same time, allowing a broad range of knowledge to concretely materialize. There are also numerous other documented instances of DIWO practices within a media architecture context that range, e.g., from experimental non-monetary micro-economies[2] to digital building facades reflecting citizens' moods, and from guerrilla gardening, to dedicated learning and research hubs.[3] Up to some extent, in all the above cases, audience participation is not dealt with as merely contributing content to some inelastic predetermined context, but instead as largely defining the latter in the first place.

The third vein concerns a clear-cut "Dewean" perspective wherein learning is a necessarily hands-on, social, and interactive process (Dewey, 1916/2004). Such a Dewean perspective is fundamentally discrepant with the traditional view of pedagogy as the inter-generational (lossless) transmission of authorized knowledge. It is, instead, understood as sharing lives with things, technologies and one another within a broader (democratic) community, in this way allowing for "commoning and variation" to occur (Ingold, 2017, pp. 5-6). That is, allowing for the emergence of democratic (micro-) communities structured around generous co-existence and demanding that everyone contributes (on their own discretion) to the conditions of common life from which further variation may emerge. Accordingly, such a trait suggests that true education only happens intermediary of the environment, so that its primary role is to establish those environmental conditions wherein community members may purposefully and creatively engage with one another. It should be underscored that while such ideas do reverberate contemporary learning sciences in general—e.g., theories of Situated Cognition (Greeno, 2005)—they are not always reflected to the way technology is incorporated in museums.

The final constituent vein concerns an assorted array of "open-source" practices, as well as their ideological underpinnings or repercussions. The latter arguably reflect many different and often contradicting perspectives; yet they all agree that sharing (that is "opening") prototype technology of some sort is a good thing to do and, consequently, one way or another they all endorse open collaboration and peer production (Feller et al., 2005). A series of related "commoning" movements—not to be confused with Dewean commonism—further call for the opening and the common ownership of all sorts of cultural content (and natural resources) so that they are publicly accessible to everybody (Bollier, 2014). Such perspectives often draw upon, or simply correlate with, socialist, leftist, communist, and/or anarchist political theories and views, so that related discourses tend to be speculative and utopian in essence—at least insofar as broader applications to national contexts are concerned. This is not the case with open-source practices, however, which are

[2] See, *e.g.,* the *30 days in the garden* project, https://www.valentinakarga.com/30-days-in-the-garden-15-days-on-mars/ (Accessed July 3, 2019).

[3] See Caldwell & Foth (2014) and Travlou (2014) for several such examples.

already widely spread across peers, academia, small companies, and even enterprises, so that sharing hardware/software blueprints, or data with one another and with the general public is not at all exceptional these days. In fact, the so-called "open innovation" model, pivoting on less secrecy in business and the sharing/use of ideas/artefacts both internally and externally is a growing field among enterprises of all sizes with its global importance bound to rise in the near future (and despite ongoing debates regarding exact benefits and methodological specifics) (Saebi & Foss, 2015).

A case study: *Inhibition*

Over the years and drawing eclectically on the above veins, the author has been responsible for experimental endeavors meant to engage audiences to simultaneously experience and co-produce art, to creatively engage with one another, and getting their hands dirty with materials and technologies of various sorts acquiring concrete empirical knowledge about them in the process (Koutsomichalis, 2015). The particular ways in which such projects may pragmatically further more democratic and participatory hybrids within a museum context are best demonstrated by example.

Consider the case of *Inhibition,* a hybrid artwork originally commissioned by Onassis Cultural Foundation for the *Hybrids* media art exhibition that has been curated by Ars Electronica and hosted in Athens, Greece, between November 2016 and January 2017.[4] Although not a museum per se, the Onassis Cultural Center does involve the kinds of building infrastructures, institutional mechanisms, and situated audiences that are typically encountered within some museum setting, so that the work's exhibition/installation specifics are realistically "museum-grade" one.

Inhibition revolves around an intelligent headset (fig. 1) that is capable of EEG (electroencephalography), algorithmic sound synthesis, and machine learning. The headset is exhibited so that audiences may use it in a typical interactive fashion to listen to an ever-going individuated sound composition. The latter is synthesized in real time with respect to monitored neurophysical activity and pivoting on those particular kinds of sounds that are most likely to inhibit concentration in each individual case—that is the intended purpose of the original prototype.

Figure 1. Inhibition headset. Image by Theodora Ziaragka, Athens, Greece 2016.

Figure 2. Inhibition workshop. Image by Marinos Koutsomichalis, Athens, Greece 2016.

Figure 3. Inhibition workshop. Image by Marinos Koutsomichalis, Athens, Greece 2016.

Yet, more than just a prototype to be presented to and used by an audience, *Inhibition* is also a venture forwarding hands-on audience participation and socially-empowered experimentation. Related technology is designed and implemented from ground up as workshop material, comprising parts that can be digitally fabricated, a circuit board with ample space between components (so that it is easily solderable by amateurs), and an open-source micro-computer employing open-source programming frameworks. The overall design makes the prototype headset relatively cheap to make, and safe to use (being battery-operated). More importantly, circuit schematics, 3D-printable/cnc-millable models, text instructions, and code, are all made publicly available online in a dedicated hub[5] providing information on the project and aspiring to become a meeting place for makers, artists, scientists, hackers and creative technologists alike that are interested in the technologies and/or open creative methods the project pivots on. Specialist audiences (e.g., designers, media artists, software/hardware developers, or STEM educators) and the general public may, then, utilize it to socialize with one another, to contribute technical material, and/or to upload images/video showcasing their own creative outcomes. At the same time, local audiences (that is, individuals selected following an open call for interest) are guided to create their own individuated headsets in dedicated workshops (fig. 2)—five have taken place as of now—to exhibit them alongside the artist's original prototype, and to participate in a series of performances, technological showcases and impromptu "music ensembles" in-situ (fig. 3).

In this fashion, *Inhibition* suggests a hybrid and decentralized paradigm towards making, experiencing, sharing, and presenting art. Accordingly, a series of traditional clear-cut dichotomies, between, e.g., artist-audience and composition-performance, are no longer of relevance herein, since the audience co-creates and co-exhibits alongside the artist, and since the artwork is ever-recomposed/repurposed by (non-) local peers pursuing their own interests. Up to a certain extent, *Inhibition* seeks to demystify and to democratize the technologies it revolves around, to inaugurate a creative interlocking between the artist and the general public, and eventually, to become an inter-disciplinary playground where audiences may concretely experiment with certain technologies and (co-)creative methods.

It is worth identifying herein the constituent veins as introduced in the previous section. (a) *Inhibition* both calls for audience participation and, most importantly, acquires itself (artistic) meaning/significance only through the active engagement of participating (groups of) individuals. (b) It does employ situated and networked tactics to engage the general public to co-produce with certain materials/technologies, eventually resulting in newly forged social hybrids, artifacts, collective performances, collaborations, and empirical knowledge regarding all the former. (c) It largely adheres to a Dewean perspective in that it establishes the environmental conditions

[4] *Inhibition* has been subsequently presented in Berlin (DE) (twice), Sofia (BU), and Nicosia (CY), in some contingent form.

[5] http://www.inhibition-eeg.com (Accessed July 2, 2019).

to concretely allow for "commoning and variation", so that temporary micro-communities are enacted and so that education and democracy—in the Dewean sense of the terms—are, indeed, practiced. (d) It employs open-source technologies and, most importantly, shares original hardware/software blueprints with the general public not merely for the sake of it, but as important means to achieving the former three affairs.

By virtue of engaging audiences in the creative process—co-making, co-exhibiting, and co-performing alongside the artist and one another—*Inhibition* allows individuals to construct their own meaning and to acquire new empirical knowledge with respect to the overall experience. Accordingly, albeit primarily concerning art, the delineated method is very relevant (and, up to a certain extent, readily implementable) in all sorts of other contexts concerning museums and addressing, *inter alia,* questions of: (life-long) learning, visitor meaning-making. (e.g., Silverman, 1995), active (community) participation vs. passive surveying, or contextual/community relevance vs representation (e.g., Lohman, 2006).

Conclusion

The author's euchology towards a future wherein technology becomes an important means to more democratic, participatory, and community-oriented practices in museums is shown to draw on four veins that concretely inform his practice, namely: (a) relational/participatory aesthetics, (b) DIWO and workshopping approaches in arts, design and education, (c) Dewean philosophy/ethos, and (d) "open-source" practices in contemporary techno-scientific culture. How these may concretely merge and prospectively put forward more democratic and participatory hybrids within a museum context is shown by example, in the case of *Inhibition*—a hybrid endeavor comprising interactive media technologies, workshopping, collective performance, co-making, and (co-)exhibiting tactics. The particular methods at play were outlined in the previous section, and the ways in which they concretely draw on the above-mentioned veins were also discussed in some detail therein.

Inhibition is shown to be essentially participatory, so that (up to some certain extent) it acquires significance only through the active participation of (non-) local audiences guided to creatively engage with one another, to experiment with available materials, technologies and methods, and to co-exhibit/co-perform within a professional artistic context. At a technical level, this is achieved by means of existent open-source infrastructures, through publicly sharing new prototype technology, and employing decentralized network-driven tactics. An important Dewean perspective is ascribed in this process, *Inhibition* being itself an environment that both enables and furthers "commoning and variation" so that education and democracy are, indeed, socially practiced in this context. Albeit this schema originating in a primarily artistic framework, it is herein argued that it is of great relevance, and probably readily implementable, within all sorts of other (museum) contexts as well, and addressing questions of collective performance, (life-long) learning, visitor meaning-making, active (community) participation, cultural innovation, technologically informed entertainment, and familiarization with emerging prototype technologies—to name a few.

Still, a lot more research and consistent practice is necessary before this envisioned future becomes a viable possibility. The occasional occurrence of DIWO-driven and Dewean in spirit practices is not enough to advance "commoning and variation" within a society and in some perceptible scale. Consistency and continuity in situated socio-geographical contexts are necessary for an appreciable footprint in local communities. Fortunately, an increasing number of museums/institutions seem to be open to that kind of practices nowadays (with some of them being primarily intended as hubs), and an increasing number of practitioners consistently experiment with socially-relevant co-creation methods (e.g., Simon, 2010;

Koutsomichalis & Rodousakis, 2015; Clover, 2017; Travlou, 2014; Kent, 2016). It is believed that a condition wherein more and more museums and institutions ascribe to DIWO, participatory, open-source, and "Dewean" hybrid tactics would significantly reverberate several substrata in a society, fueling democratic values, trans-generational "commoning and variation", life-long learning, open-ended research and experimentation with emerging technologies, and co-creation/collaboration across all aspects of one's social and professional life.

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Hacking hacked: The struggle over recuperation as a source of innovation[1]

Johan Söderberg

If you have seen me constantly walking around taking notes and things, it's because I have been trying to figure out what kind of conference this is. And I have noticed generally, and with the audience today, that there is a mixed audience, with artists, people coming from the free software world, the speakers… I saw my role as trying to find a way to bridge those, so let's see if I have managed. In so doing I want to try and convince those of you whom primarily identify yourselves as having an entirely practical angle towards the subject, such as software developers or artist/activists, that it can be very practical and very useful to make sense of the situation in which you find yourself with the help of theory. And reversely, to the scholars in the room, let's say that the hackers occupy a privileged position within capitalism, which is very useful to think with when we are trying to make sense of the developments of this system. A system that is justifying itself on the grounds of being a knowledge-based economy.

I will anchor the speech in a quote, which I will read no less than twice, by William Morris. William Morris, being the founder of the Art and Crafts movement, he is a mascot for *Make:* magazine and *Wire* publications. What is typically left out of the picture when William Morris is cited in this context, is that towards the end of his life, he turned into a socialist agitator campaigning for worker control. He wrote this quote in a historical fiction about a peasant rebellion in the fourteenth century England. In spite of the demands of the peasant having been fulfilled at the time when he wrote the text, feudalism had been replaced with capitalism, and in some respects, it was worse than what they had been rebelling against. So, here is the quote:

> I pondered all these things, and how men fight and lose the battle, and the thing that they fought for comes about in spite of their defeat, and when it comes turns out not to be what they meant, and other men have to fight for what they meant under another name.

That he says "Men" attests to the date of the quote; it was written in 1888. I will replace this word in order to stress its continued relevance in the context where we find ourselves today. So, let me reread this quote a second time but I will replace the word "Men". "I pondered how *hackers* fight and lose battles and the thing they fought for comes about despite of their defeat. And when it comes it turns out not to be what they meant; other *hackers* have to fight for what they meant under another name". And you can replace "hacker" with "maker" or whatever else you identify yourselves with. Now, in this quote is contained a full-blown theory

[1] Transcription of oral presentation.

of recuperation. I will draw out two observations from this. Firstly, present-day hackers continue under different names to fight for what workers meant. I will come back to that later. Secondly, what hackers are fighting for today, will be realized through their defeats, and the rest of us will have to struggle against that next. In the unevenly distributed future in which we live, the dreams about freedom which hackers are dreaming about today, can be studied as an early warning system for the nightmares that we will all ending up living with in another ten years from now. This is why I think it is productive to study this subculture to get leads of where capitalism is going. I will give you two brief examples, just to substantiate my claims. One is historical, the birth of the "personal computer" (PC), a story which has been retold by many historians of technology. The small PC was built under the auspice that it would be in the hands of the users. It was guided by the idea that "small is beautiful" in opposition to the mainframes, which were under control by the military. The PC was meant to hand back these tools to the users, that would be a way of setting them free. As we have heard so many examples here today, what we have got instead is a distributed surveillance system. Another example to underline this claim is the so-called "sharing economy". Originating in the dream about a peer-to-peer society, exploitation of the pretense that things are being voluntarily shared covers up what in fact is an intensification of exploitation.

Now it would be very easy to multiply those examples, and I have no intention to do so, that would be to revel in despair. And indeed, the temptation is strong to debunk the rhetoric that comes bundled with every new wave of IT products. But that would be to adopt an external position and criticize hackers from a supposed outside. I do not think this is the right way to go about it. And here again I think that the quote by William Morris could suggest to us a middle-way to being either boosterish about the new technologies and the possibilities that they will bring, or, standing back and criticize all of it and adopt a position of despair. By saying that, "everywhere we are looking we see struggle". So, there are struggle over the terms of the license, continuously, as we heard yesterday from Richard Stallman. Although copyleft does not ban profit-making in principle, it determines under what conditions corporations can benefit from the collective labor of the community, which often enough constrains profit maximization. And so this is constantly being fought over in one community after the other, in one project after the other. There is struggle over design. Struggle over to what extent the design should go in the direction of optimizing certain performances, where by it eventually can be packaged as a commodity and mass marketed. These kinds of struggles appear basically wherever you are looking or wherever you find yourselves. And, then there are all the struggles over names. Open/ free, GNU/Linux or Linux and so on and so forth. Another example which is productive to think with, is the various typologies of hacker's labs, hackspaces, makerspaces and so on and so forth. Natalia Avlona was referring to it in a presentation previously today, how the different names encapsulate different aspirations of the group/project.

Here I find the work of Maxigas, who some of you might know, on the genealogy of the names of hacklabs and hackerspaces very useful to think with, and for discussing "recuperation". The origins of this movement is in squats, where people interested in technology found a space to do their thing, while, coincidentally, mixing with the social movements who were running the squats. In this way, technology and politics mixed. This idea was then exported to the US changing the thrust of it to one of optimizing and having a shared space to do innovations and promote local growth, etc. And finally, Maxigas has shown, closing the circle, cases when the new version of makerspaces are exported back and used in anti-squat tactics, by property owners, to put hacking spaces in real estates in order to stop it from being occupied. So, if it started out as a movement originating in squats, it has now in some places become a way of preventing squatting. Here the quote by William Morris makes

a lot of sense: A name which now stands for something else than it originally did must be resisted in the new name with the original meaning. From which it follows, the importance of collectively passing on memory and names. When this transition is broken geographically, as when the hacklab movement was exported to the US and brought back to the European continent as makerspaces. Or in the transition from one technological generation to the next, as in the transition from software to hardware, from hacker to maker, or whatever other transition, then in every such moment, there is the need to pass on memory of what the objectives are and what the names originally meant.

This can be done if the community has some degree of autonomy over its own cultural production, its own ways of determining the purpose for its existence and carry that into the future. And if that memory capacity, of calling things by their right name has been lost, then autonomy is also lost. And this is the importance of such magazines as *Wire* and the *Maker:* magazine. They do the same thing to these movements that they have done to William Morris, that is, playing up artistic creativity, personalization of goods, utility, etc., at the expense of the socialist agitator. In this way, the community is subjugated under the logic of being mined for knowledge and innovation for capital. There is a name for this, a name for when resistance to recuperation fails, and that name is "innovation".

Innovation has had a bad press from the days of the Romans until roughly the 1950's, when it was revised and suddenly everyone wants to do innovation. But as Benoit Godin has extensively documented, there is 2000 years of not wanting to innovate or to be an innovator because previously, to be an innovator was to be against the community. So, to take one example of that, and to bring the argument one step closer to home, the Jacquard loom, typically celebrated as the first instance when binary numbers were applied to control a machine (the loom). Basically, the loom was using punched cards to store patterns for weaving carpets and such things. Mr. Jacquard himself had to escape the city of Lyon to not fall into the hands of the upset workers. It was only when Napoleon declared this innovation to be of a national interest, and backed it up with state power, that the innovation began to flourish. So, in continuation with this original meaning of the word, you could say that innovation is what happens when community resistance to recuperation fails. For instance, when someone goes off and sells the collective labor of the community to a venture capitalist. In high-tech innovation-based capitalism, the outsourcing of production and innovation to communities of hackers, makers, users, meaning you can put whatever you like in there, has become structural. The computer industry and very many other industries depend on this way of putting-out their production to communities to increase their profit margins. They also depend on having the means to appropriate the productivity going on in the community.

A lot of scholarly work on "free labor", is often inspired by autonomous Marxists, and the idea of the social factory. But what I want to focus on here is the conditions of appropriation. And this is where the struggle for recuperation comes in, that's why this struggle becomes key. Now, the whole field of makerspaces and free software movements etc. are being tilted to facilitate appropriation from the community labor. The laws are constantly being modified in order to allow for individuals to claim exclusive rights, so that someone can walk out to the bank with some IP they have patterned or whatever it could be. Then you have a whole culture around start-ups which creates this aspiration to behave in that way against the others. Then you have the media outlets again, molding the collective consciousness, the memory and naming practices. The whole landscape is set up to enable these kinds of innovations, meaning, for resistance to recuperation to fail. This is what I refer to in the title of this speech, "hackers being hacked", "hacking has been hacked". Hacking in the broadest sense, is the promise that humanity now has the technological means to free itself from the powers that be, whatever that is, the state, the firms, monopolies, incumbent forces, whatever. Those powers can be resisted by circumventing

them. By repurposing the tools, by finding another use for which the tools were not meant, by decentralizing such capacities to every user, etc. This is the core promise of hacking. However, if the whole landscape has been tilted in order to extract innovation from these kinds of circumventing activities, to make them productive for capital, the possibility of circumventing power has always-already been anticipated by that power. And this, I contend, is why theory is practical, because it allows us to some extent to anticipate anticipation, and then perhaps become a little bit better at resisting recuperation attempts, and prevent innovation from happening.

There was a second observation I made from the quote by William Morris. As by now you have probably forgotten the verse, I will read it again. "Hackers continue under different names to fight for that for what was meant." Now, definitely, there has been a change of names because the reference to factory workers and machine operators is not a very frequent one within the tech communities. I think the question pops into your head, what do factory workers have to do with the theme of the talk? In the same way as there have been transitions from hacklabs to hackerspaces, and from hackers to makers, and so forth, at every such transition there is forgetting. Now, my proposition is that one such passage was from factory workers to hackers. Although it is not kept in living memory, the connection can be traced by following the object itself, the computer. Because the computer is completely inscribed within industrial struggles of all kinds, starting with the Jacquard loom, which I mentioned previously. The Jacquard loom took the knowledge from the weavers and put it into the punched cards. Knowledge about how to weave the carpets, to make the patterns, etc. In that knowledge, the bargain power of the workers was contained, so that the knowledgeable one, became another worker, the one who was punching the cards, let's say the programmer. And then this same technology of the punched cards was exported to heavy industry, in numerically controlled machinery tools, the latest iteration which is the much betoken 3D-printers. For the exact same reason, the managers did not entrust the machine operators with knowledge over the labor process, as the workers would not put that knowledge to use for the purpose of profit maximization. To lessen the bargain power of the machine operators, and the managers' dependency upon them, the skills they had over how to steer and operate the machinery tools had to be taken out and moved to the software, i.e. the punched cards.

Now one could argue that the programmer stands in the lineage of the white-collar engineers who were employed to manufacture the punched cards, and were so to speak representing the managers' interest at the shop floor. However, another lineage can arguably be traced from the programmer back to workers resistance to scientific management and Taylorism. Basically, the workers fought for the same four freedoms, to defeat innovation which was introduced in order to dissolve their practices and know-how of the technology, to preserve their skills which enabled them to expand some freedom within the confinement of the employment relation. So, in all of these, whether we look at the defense of the four freedoms within the Maker or Hacker communities, or in a factory, we see the same struggles unfold. Struggles which are taking place under many different names, so different in fact that we often do not recognize how they are related to each other. Still, there is something common that is being meant here, which is: That what is being fought for, that what is meant, is the possibility of a future where the conceptualization and execution of different stages and moments of the labor process could be unified. So that the labor of the hand and the labor of the head must not be separated, but will actually be part of a common labor process. So that, finally, those who produce will also be the ones who decide over what they are producing.

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The politics of the commons[1]

Silvia Federici

Thank you for your words and thank you to the organizers of the Unconference and to those who have invited me. Actually, I was surprised when I was invited because in my work I have been quite critical not of technology in general, but of the technology produced by capitalism. I have also been critical of the concept of "digital commons". I will explain why this criticism and what I mean by "commons" and why this concept is coming back today in so many radical movements.

I think the idea of the commons is being adopted to signify an alternative to capitalism because of the accelerating destruction of what remains of our planetary commons, due to the global expansion of capitalist relations and the massive processes of dispossession, expropriation it has activated, and the destruction of what remains of communitarian regimes. Struggles like those of the Zapatistas have made aware of the consequences of these developments and not only for the people immediately affected by them.

I want to say something about my own coming to this politics which was not immediate because in the 1970's I was involved in a feminist campaign for wages for housework. I learned about the commons while working on *Caliban and the Witch*, where I discovered that women were crucial in the 16th – 17th century, in England, in the struggle against enclosures. Later on, while teaching in Nigeria, I realized that in African communitarian regimes (forests, lands) commons still existed even though they were under tremendous attack because of the drive of the World Bank and International Monetary Fund to convince African governments to abolish communal property regimes. This was done in the name of "economic recovery" and practically imposed by means of the so-called "debt crisis" that was artificially created. The idea of the commons, as a principle of social organization is coming back because the real commons are under siege. But obviously when we speak of "the politics of the commons" we are not thinking of going back to the past but of producing a new social reality centered on the idea of cooperation, sharing of and equal access to the wealth that we produce, and self-government.

I am critical of the idea of "digital commons" because the technology involved is very destructive. It is in fact partially responsible for the destruction of the many land/forest/water commons today, because the minerals necessary for digital technology have to be mined; and in being mined, tons and tons of soil have to be sifted through to get the coltan, lithium etc. necessary for iPhone, iPad and computers.

One of the first things I would like to put on the table is the kind of dilemma that this situation presents to us. It is a dilemma that is particularly strong for those who are organizing around the construction of digital commons but in a way is facing all of us because, whether we like it or not, we are all forced to use digital tools. In brief how can we build new forms of communalism, new forms of commoning, if these very technologies are the source of the destruction of many communities, and, for

[1] Transcription of oral presentation.

instance, the wars that are taking place in Africa, which are triggered by the need of companies to acquire the minerals that are important for the production of computers, mobile phones etc. Not to mention the conditions in which much of this technology is produced. Let's think of the enslaving conditions in which Foxconn workers are producing these technologies, so terrible that threaten to kill themselves. So, here it's the first point I want to make. We cannot evaluate the potential of these technologies for positively changing our lives and forwarding our struggle only by examining what we can do with them without at the same time examining how these technologies are produced, because these technologies are produced in conditions that are creating an enormous destruction across the planet. I face myself the same dilemma every time I open my computer knowing that the production of one single computer consumes huge amount of water, and, as I said, tons of soil have to be sifted through to extract the minerals that are necessary for this technology.

Second, we need to have a working conception of what we mean by commons. I propose a conception of commons that is being adopted by ecological movements, and some feminist movements, especially in Latin America. This is a conception that has at least these three fundamental elements. One element is access, control over, equal share of the means of our reproduction in the broader sense of the term. Secondly, cooperation and collaboration in the reproduction of life. Third is self-government, government from below. So, the conception of the common is a conception that is anti-capitalist, anti-statist and provides the vision of a society that is constructed, reproduced, organized from below. Now, no movement and no country today approximates this idea. Even the communities that have most strenuously attempted to approximate it, like the Zapatistas and some of the commoning villages that can be found in Europe, where people try to be self-sufficient and live outside of monetary relations, still have to use money and turn to the market for things they cannot produce. The Zapatistas for instance are selling coffee because they cannot produce everything. Today there is no pure common. Nevertheless, we are not speaking of a utopia. The idea of communing is already implicit in many of the ways in which we relate to each other – not all that we do is governed by consideration of utility, by the logic of profit making.

Commoning is about collective decision-making, cooperation, and a sense of responsibility towards each other. It is the idea of placing one's life in common, of responsibility also towards the earth, it is an idea of not only taking but caring for.

Again, repeating something that Massimo De Angelis has broadly discussed in his book *Omnia Sunt Communia*, when we speak of commons we don't speak of material things, or of small projects like an urban garden, as important as these may be. We speak of a principle of organization of society that therefore can be realized in many different ways. It is a principle of social organization as much as capitalism, but according to a very different logic, which is not statist, not market oriented and not based on the privatization of the means of our reproduction. I think that this concept is very important because it means that in order to speak of commons we need to engage in a process of re-appropriation. We cannot have commons only but putting together some aspects of our lives without at the same time addressing the question of our reproduction and the means of our reproduction. So, another important point is that the construction of the commons necessitates a broad process of re-appropriation, of the lands, the technologies and of course the power to make decisions. Digital commons cannot reproduce our lives. Those who today are most involved in this kind of struggle, this kind of mobilization are those who have been dispossessed, who have nothing left and to be able to survive must engage in land take over, or take over of urban spaces, and creation of communities from the grounds. In Latin America, for instance new communities are created through collective labor, collective appropriation of urban territories where, then, houses,

streets are built. Commons today are created by people who have to reinvent their lives, who must construct new forms of existence, and in this process they give us an alternative to the way capitalism has organized our reproduction.

I am inspired by these experiences because they show us that it is possible to go beyond the very isolating ways in which capitalism has forced us to live. The United States has perfected this model, through the construction of suburbia. The suburbs were conceptualized in a very explicit political way at the end of World War II, when the soldiers were coming back from the war, where they had developed a sense of solidarity and also learnt to use arms, and they had expectations coming back to the country after fighting presumably for democracy. The government was worried, so the suburbs were created as a solution. The idea was to make the returning GIs home owners, home ownership was considered the best cure against communism; and then have the home located far from the place where people worked, so that when a worker ceases to work at the end of the day, he would have to take a car and go far away to their little home, and they even provided a lawn in front of the home so they have something to do on Sunday.

But when you go to many places in Latin America you see something different, you see larger number of people who live in a way that is breaking down those divisions, certainly not without difficulties. Often narco-traffickers threaten people but at the same time another conception of life is forming, communal kitchens are created, and so are urban gardens, spaces where women get together to discuss what is health, forms of prevention, how to recuperate older forms of knowledges, the knowledge, for example, of medicinal plants, plants that are lost in the process of urbanization. It's women who are the main subject of these "reproductive commons". It is not surprising, because women have always paid the highest price for the isolating way in which reproduction has been organized and they understand that "commoning" is the only possibility both of economic survival and resistance to power. To share resources, to work in common builds a social fabric that enables people to confront the state, to negotiate with the state with more power, and to struggle with the state. It enables them to engage in a continuous process of re-appropriation, for example connecting electrical wire not to pay for electricity. It is again women who in the rural areas or in Amazonic forest fight against the mining companies in defense of communal lands, because they know that when the land is poisoned the community cannot survive. Women's role in the process of reproduction is crucial for the defense of the commons. Women have taken a special leadership in defense of the commons precisely because they are the ones who are most concerned with daily consequences of the expansion of capitalist relations and activities that today are destroying the planet.

I want to add here that an important aspect of this work is the question of knowledge. Here too we have two different concepts of the commons. We have the digital commons that promise us and to some extent give us knowledge of what happens across the world, knowledge of places and things we never have dreamt of learning, but at the same time we have another kind of knowledge. It is the work of reconstructing the memory, the history of the places in which one lives, in which one fights, in which one constructs a new life. Capitalism is continuously destroying our memory, it is continuously destroying the buildings, the places that were important markers of struggles, that signified something in the collective life of people. Again, the United States has mastered the importance of destroying the collective memory and for instance building a supermarket over a cemetery of African slaves.

By reconstructing our history, our collective memory, we strengthen our capacity to struggle. Reconstructing the history of the places in which we live, creates a collective subject, a common interest and also places our struggles in a much broader context. It shows that our struggle is not something isolated, contingent but

is part of a longer history and that contextualization gives it a new significance and strengthens the formation of the collective subject.

In this context I want to speak of a project I am involved in with women in Spain. Some years ago, we decided to go to the places in Spain where women have been executed as witches, and we discovered that the witch-hunt is being turned into a business, into a tourist attraction. In the places where women were executed dolls of "witches" are being sold. So we decided to do something about it, and we have begun to create groups to go to the archives and recuperate the history of the witch-hunts, to find out who were the women who were executed, why they were killed, what have been the consequences of this persecution on the conditions, the lives of other women, how this violence relates to the surge of violence that women today are experiencing across the world. In March of this year (2019) we had our first congress in Pamplona, we collected what was found by the women's study groups and the idea is to continue with this project involving women also from other countries. Our goal is to connect past and present and understand why with the expansion of capitalist relation today we have a return of witch-hunting, in Africa and India. This is an example of what it means to re-appropriate our history, rebuild our collective memory. I believe this is necessary because we have to "common", to be in solidarity with not only the living but the dead, in the sense that we cannot allow the social injustices of the past to be forgotten. Studying the history of women executed as witches – that was so painful at times – I realized that at the very least I could say something, I could be the voice for these women.

Solidarity with the past also means not to assume that it is capitalism that has produced all the knowledge that we have today. I just published a book called *Re-enchanting the world* where I mention that people in Polynesia thousands of years ago were able to navigate the oceans without any instruments because they used their body as an instrument. They were lying down on their pirogues and they could tell from the movements of the waves in which direction the pirogue was going. Also, the Babylonians by watching the skies, were able to discover all the constellations without a telescope. It is important to recuperate these histories, these memories, also to realize what we have lost the process of capitalist development and not assume, as many do, that outside of capitalism there is no knowledge and no social wealth.

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day 3

Introduction

This Unconference follows the momentum of a broader movement rethinking the academic conference format towards a more connected model of knowledge sharing, peer learning and collaboration. The methodology of the Unconference format in this context allowed for presentations of research and also proposed a format of working together in the form of parallel clusters starting and closing with a general assembly. The clusters set their own agenda in the dialogue and conversations which followed responding to presentation proposals as well as spontaneously emerging priorities. The following section presents summaries and posters from the cluster groups, a transcription from the closing general assembly and images photographed and drawn by a group of fine art students from the University of Nicosia.

The Unconference was the initial idea of Chrystalleni Loizidou and was then developed as a methodology together with Evanthia Tselika, with input by the Unconference Scientific Committee: Helene Black, Yiannis Colakides, Maria Hadjimichael, Marios Isaakidis, Eva Korae, Thrasos Nerantzis, Leandros Savvides, Gabriele de Seta, Niki Sioki and with the contribution of the Future Worlds Centre (FWC) team.

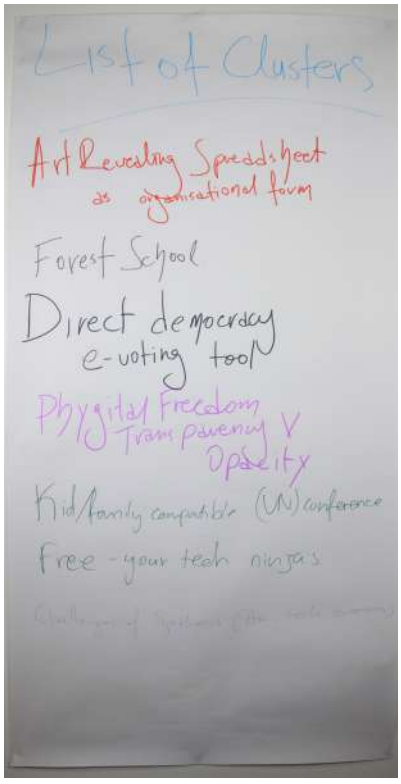
The FWC team, who facilitated the event and have compiled the below documentation of the process are: Helene Josephides, Jordan Kent, Dora Heracleous, Eliza Danenfelde-Kirpe, and Chloé Morgan.

What follows are the proceedings of a hot June Saturday in the Fine Art Building of the University of Nicosia, where dialogues centering on art, freedom, technologies and commons took place throughout the fine art studios and workshops. A vital element of the format and day was the use of what Luiz Guilherme Vergara named *The cloth of everyday miracles*, a circular 7 meter wide cloth made by Re:Aphrodite and Athina Antoniadou that has hosted evenings, discussions and ideas since 2016 between Brazil and Cyprus.

The Cloth of everyday miracles, Re:Aphrodite and Athina Antoniadou, 2016.

Unconference methodology

This Unconference included presentations of research while also allowing participants to work together and set their own agenda in discussions, workshops, and co-working sessions, that respond to previous proposals as well as spontaneously emerging priorities. We hosted participants from a broad network of researchers and activists across fields.



UnConference rules

- The people who came, are the best people who could have come. People who could not come can still participate via remote collaboration.
- Whatever happens is the only thing that could have happened.
- The Law of Two Feet: If you find yourself in a situation where you're neither learning nor contributing to a talk or discussion, use your two feet to go somewhere where you can actually contribute or learn.

Responsibilities

1. Each person and cluster are responsible for the notes of what is discussed.
2. Each person is also responsible to write their name under each cluster they-participate in, if they so choose.
3. Moving between clusters is part of the plan, but please make sure to respect the cluster and follow what they have been building before.

General Assembly Clusters

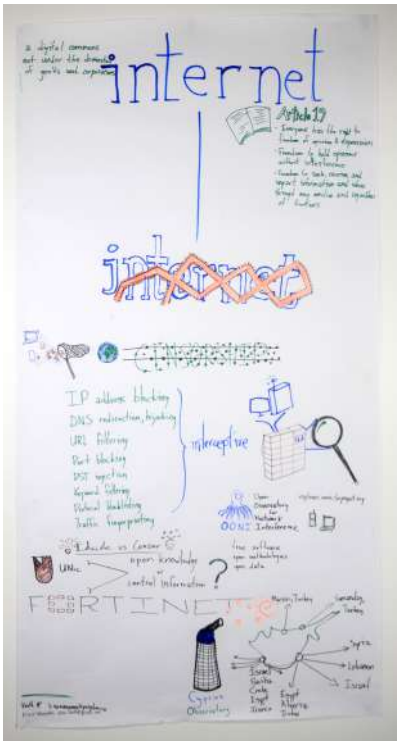
1. Internet freedom

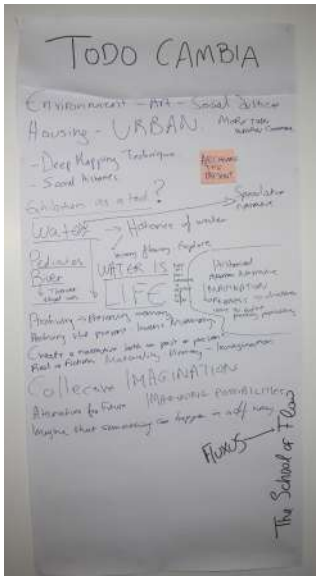
When the user can not access some websites, most of the times the note about "Internet Usage Policy" appears. Probably an average internet user won't pay that much attention to this note, which is understandable as average internet users usually are not aware and informed enough about their rights while browsing.

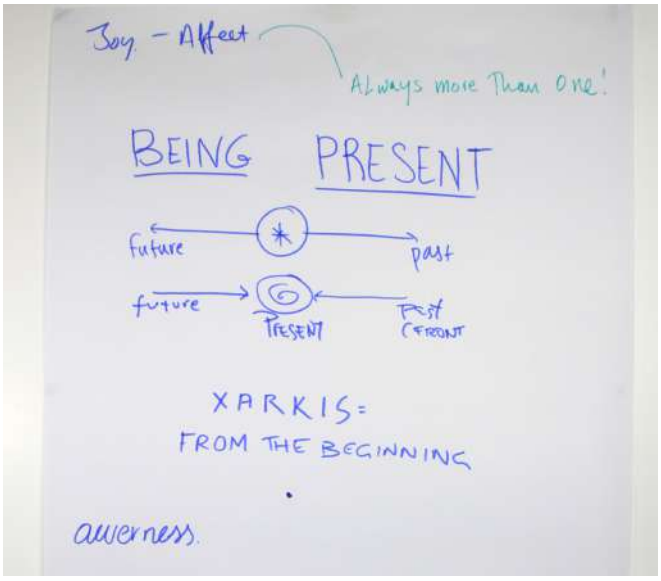
In the Internet Freedom cluster, simple research was done using simple to use, free programs to see whether there are any sites blocked by the University, what kind of sites and why. The programs generated a report, listing sites that were blocked. This led to questions such as why an institution that is meant to share knowledge is blocking huge number of sites that might be useful for the students without any particular reason and explanations. Moreover, are the students and staff aware of the internet usage policy of their university and how it may affect their learning process?

The group concluded by discussing who is censoring us, why, what are the ethical issues and what rights we should have with regards to the internet. Practical steps forward offered in the discussion included raising awareness around users' rights while using the internet, especially while using it in the University, and encouraging everyone to use programs to test internet connections in order to become an informed and efficient internet freedom advocate.

Participants: Eliza Danenfelde-Kirpe, Marios Isaakidis, Keith McManamen, Vasilis Ververis, Jordan Kent.





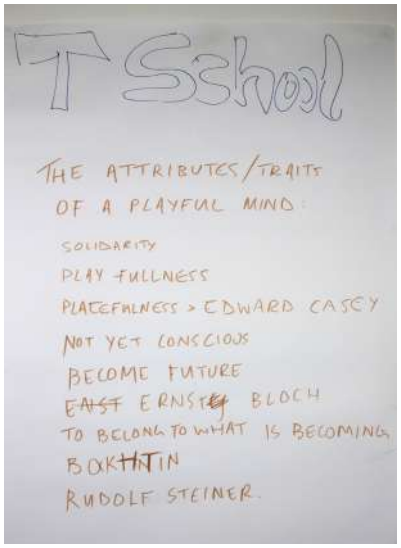


2. "Todo Cambia" – from river to human ecologies
Starting the Nicosia Unletter

This cluster flowed throughout the day, with different peoples' input. It started from river and water ecologies and ended up addressing learning, connectivities and notions of care.

Water, particularly rivers represent a very strong metaphor for human narratives. How do you construct a narrative that emulates the idea of a flowing or even a dry, dead river? How do we learn from the physicality of the river? How do you construct a narrative based on that, referring it back to ideas of the alternative art school?

The mere concept of this cluster was reflected on the one hand in a discussion about the members of the cluster itself, and on the other hand on its title. Enthusiastic participants to the discussion were not present any more by the end of it, and a constant flow of people and different ideas emerged or faded away around this concept and around the constant need for reinvention. The cluster was initially identified under the title of "Forest School", and evolved to "The School of Flow" to then be renamed as "Todo cambia," which in Spanish means "Everything changes" and is a reference to a famous composition sang by the Argentine singer Mercedes Sosa.



"Todo Cambia" represented the discussion around water as a narrative in terms of countless possibilities, the concept of the river as a being and as a symbol of the human body, and of the construction of collective imagination with countless possibilities. It also came to touch upon the urban repercussions of the presence or absence of a river in a city, and the ways this affects the population in an interpersonal, emotional, and practical way.

The group talked about how human activity modifies the rivers, changing the natural course of the things and how that reflects on the power that we exercise on other beings. This comment led to discussion on care practices and the importance to connect humans with other beings, and how that "affects the population in an interpersonal, emotional, and practical way."

During the process we decided that we will be drafting following Luiz Guilherme Vergara's suggestion the Unletter of Nicosia.

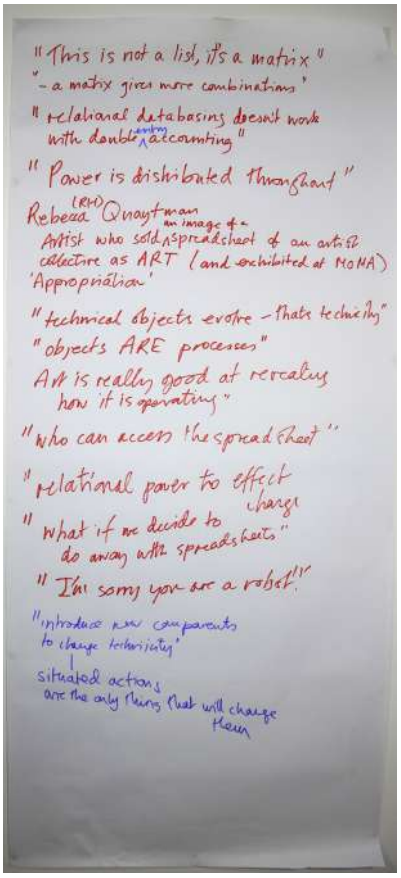
Participants: Luiz Guilherme Vergara, Evanthia (Evi) Tselika, Haris Pellapaisiotis, Maria Hadjimichael, Valentin Musteata, Blanca Jove, Helene Josephides, Christina Skarparis, Jenny Dunn, Neofytos Kolokotronis.

3. Art revealing the spreadsheet as an organizational form

What if we created a spreadsheet to analyze how the use of spreadsheets as a technological object affects people's thinking, power relations and governance? This cluster worked on the concept of art revealing the spreadsheet as organizational form creating a matrix – revealing at the same time the form of a spreadsheet – that allowed for more combinations to come to the surface.

As in a spreadsheet, the group came up with a few categories which composed the main relational features/lines of thought of that particular spreadsheet. Vertically, the main keywords were: governance, forms/formats, accounting, value and technicity. Following these initial keywords, the group embarked on an attempt of giving an ad hoc definition and elaboration of these keywords. Governance exemplifies how something changes the conduct of another; Forms/formats means to establish dialogue with citizens' system; it's a historic strategy to collect information; Accounting means to tally, record, reckoning but having further elaborated the concept accounting also means to represent; Value poses the question of what is important; and Technicity means those elemental forms of technologies e.g. what is it that makes a saw a saw; how technicity conditions the world around it; how it orientates us. Horizontally, the main keywords that came to the foreground were the following: affordances (i.e. possibilities of association; impact), intra-personal (i.e. how personal thought is shaped and mediated by tools), history, power, politics and types.

Following the logic of a matrix, each combination of concepts brought to light some very interesting insights. For example, correlating affordances and forms/formats resulted in the "door to database" concept discussing at the same time spreadsheet's accessibility, participatory *vs* single authorship or how synchronous and communicative it is, as well as its intelligibility, standardization and distribution – a machine readable form.

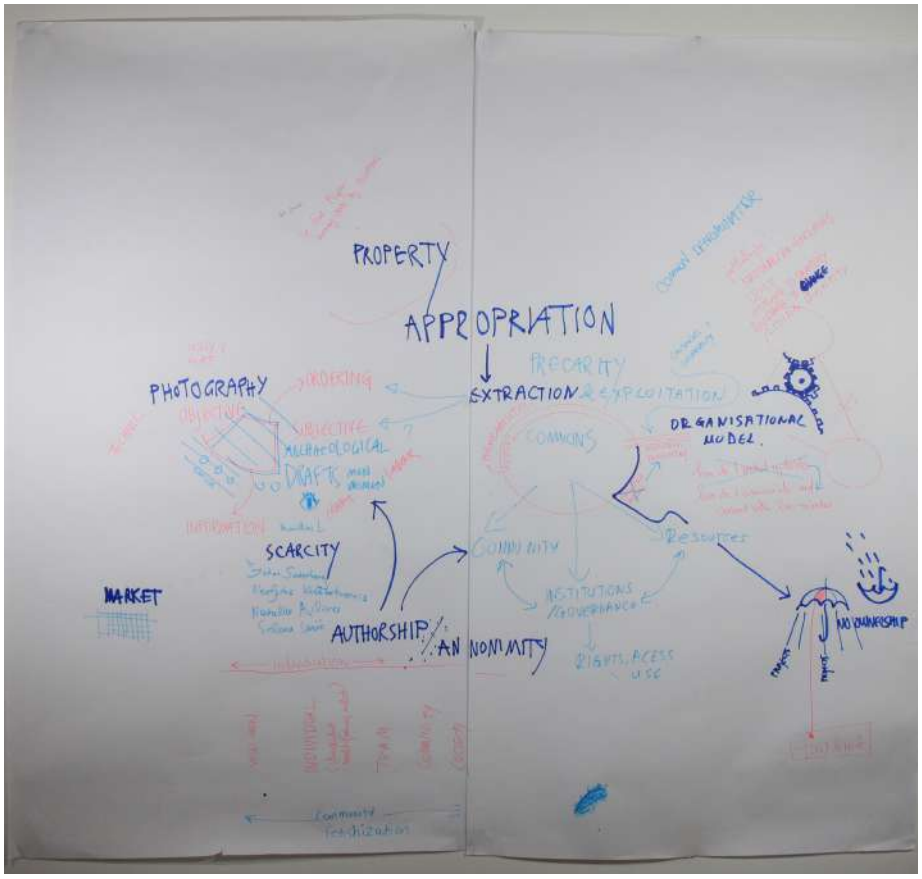


Discussing the intersection between history and governance, the group mentioned some statistical arguments for policy, while the discussion around history and accounting was centered around findings of the Sumerian/Mesopotamian civilizations and preservation of records and concluded with current formations like corporate social responsibility. When discussing history and value, the group mentioned the distribution of goods, labor and trade which embed value. The discussion around history and technicity resulted in an elaboration of the notion of matrix for example some members talked about the 1958-book of Gilbert Simondon about history and the mode of existence of technical objects.

Discussing power and governance, the group argued that the spreadsheet makes us express the system and we are both subjects and agents, while the categorization functions as a discipline of control. Power in relation to forms/formats results in spreadsheet sets of codes to pattern behaviour. Power and value brought a discussion on the right to enter the spreadsheet and delete access, while power and technicity seen together allowed for a discussion around the capacity of power to mobilize mass actions and humans (to care for the database) and to perpetuate class relations.

Participants: Tom Keene, Ruth Catlow, Niki Sioki, Rose Butler, Dora Heracleous.

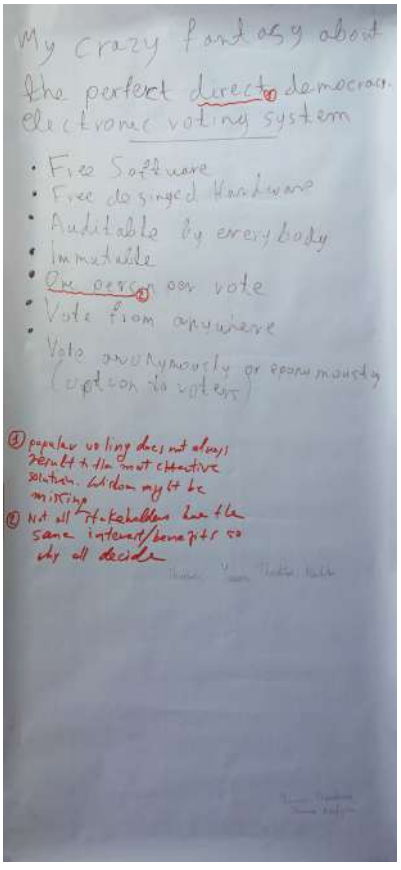
4. Strategies for a life in commons (Explaining commons humanistically)
How could we articulate personal and collective responsibility in a community? What are the implications of organizing responsibility and sharing of goods as a commons? The discussion in this cluster moved between different concepts that determine what commons is and what it does. Community, its institutions and modes of governance, as well as its permeability are strongly related to questions



of ownership and identity. Addressing property, and appropriation, authorship and anonymity, an organizational model that supports different distribution of goods and responsibility was discussed. Orienting by economic concepts such as scarcity and extraction, we addressed the issue of property as a strategy for appropriation of one's identity and other things. Appropriating means, making one's own, making proper, a formulation which already contains directions (a recipe): proper to ourselves is not proper to others. French philosopher Michel Serres played with this word-play in his book *Malfeasance: Appropriation Through Pollution?* (French original: *Le Mal propre*) which can serve as a model for the way we pollute the Earth as well as for establishing an identity through authorship.

Wondering what constitutes a person in a more abstract way, especially in today's age of artificial intelligence, automation and technocracy, we looked at distinctly human ways of acquiring information as an example. Following this line of thought, we observed how photography is able to capture the visual field with significantly more accuracy than a drawing; nevertheless, photography is not an adequate tool to capture the information at an archaeological site, where draftsmen and women subjective but impersonal look is able to identify and document important lines and objects with much higher precision, disregarding unimportant details. Differentiation between important and unimportant data (pixels or otherwise) is a task that requires skill (learning, training) and labor (work, effort). Another example from the discussion considered housing cooperatives as a property distribution model: ownership is collective, as well as responsibility, and there is an agreement that no part of the building will be privatized.

Different levels of individuation enable and engender different ownership models, therefore collective ownership requires also a collective authorship. Permeability of a community: its openness to accept new members but also resistance to outside appropriation is the key to its sustainability. If the borders of the community are porous then the community is inclusive, however the commons are endangered by appropriation in terms of the value produced internally. On the other hand, a community with hard lines, is unable to be inclusive and operate in a rhizomatic fashion to other communities of the commons. This rhizomatic interconnection, consists of a mode of growth and expansion of the commons that tackles the issue of scalability. Scalability is very closely connected to the sustainability of the commons initiatives.



Participants: Johan Söderberg, Natalia Avlona, Selena Savić.

5. Direct democracy and e-voting system

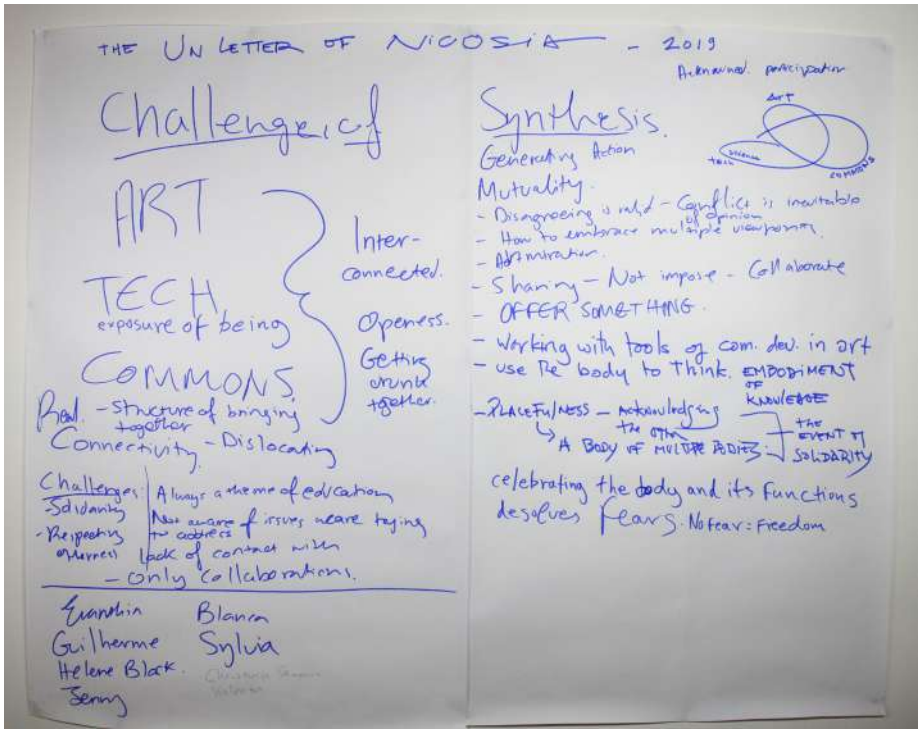
What if we could have an easier system, a system where people could vote easily following the principles of democracy? This would be a system that could be auditable, verifiable and would protect the people's will.

For this ideal system to be functional and respect the values of democracy, the system must operate on free software with open access, guaranteeing that no one and nothing else would have control over it. The system must be auditable by anyone with the appropriate technical expertise, and this could include the political parties. This would be a system of guided democracy. Through this system, referenda would be easy to set up in a very short period of time, allowing for citizens to respond to big questions concerning the society they live in. This would be particularly useful when the citizens suspect that the politicians, their representatives, might vote against their interests and rights and they want to have a say.

This ideal e-voting system would allow them to take the question to a referendum. Conventional referenda and elections are not easy, for there are a lot of logistics that hinder the process and the direct character that democracy could have. A

system that would give the opportunity to vote in an easy and accessible way while respecting the principles of democracy would be of great value for our democracies. However, there are some concerns that must be taken into consideration, such as the critics against binary choices in elections and the question of how to accommodate in an e-voting system all relevant debates around the referendum question or the particular election.

Participants: Theodotos Andreou, Yiannis Laouris, Thrasos Nerantzis, Neofytos Kolokotronis, Panis Pieri, Michael Papadopoulos, Theodoros Karounos.



Forest School writing: What did I think this was going to be, the revolution?

Chyrstalleni Loizidou

(1) Notes on the Free/Libre Arts Unconference and TropicalBurn / The difference between me and a free person[1]

Are YOU able to trust in a fully participatory format? / On the academy as capitalist enclosure (edu-factory). / On the (arts) academy as a capitalist enclosure / On the significance of deconstructing patterns of gathering and working (labor) that leave out the common good, in order to come together anew. / On the political continuity between being a parent, learning-theory, and the academic format: How to identify and re-evaluate governmentalities in real time. / Parenthood as coming with a new perception of responsibility about the structural and ritual realities we create for other people and ourselves. / Contemporary parenthood and its reconfigurations of labor. / You either trust in a fully participatory format or you don't: there can be no middle ground, no hybrid format, no backstage. / THE CAKE IS A LIE / Five types of freedom at the Free/Libre Unconference: (1) Those who don't know they are free to leave an oppressive set-up, (2) those who know they are free and leave, (3) those who know they are free but stay to help others see through the illusion, (4) those who know they are free, leave, but project that others ought to stay, (5) those who know they are free but stay because it ultimately makes no difference and they're enjoying the company. / I wasn't sure whether I was free and stayed, even though the 16 month old was clear about wanting to leave. Except he enjoys the cloth, it's colorful and makes promise of ritual. / How a Free/Libre Unconference can reveal the truth? / The truth as graspable primarily in false starts. In small grasps. / The truth as not-text. Certainly not as academic text / Tineke called it soulwriting. / My small grasps of a truth, apospasmatically shared, from the forest. The school that is being in the forest. This must be what Guilherme means. / You either trust (make space) in a meaningfully participatory format, in allowing (!) people – each other – to fall freely into patterns of work and life together, and enjoy sharing out of their own drives, or you don't. There is no middle ground. There can be no filter, no editorial layer, no concerns about professional appearances, no institutional requirements, no maximums or minimums, no preconceived restrictions of time or place. When you have this trust (and considering the Unconference line-up, come on!) "it ends when it ends" is a primary value, not something conveniently forgotten about as organizers never become participants, and participants are herded onwards to tick another box. When you show trust in the people you've brought together, you value your time with them too much to try and structure it. You become impatient with gatherings that are arbitrarily over-organized, you find them

[1] July 2019, Ixodos at A Casa Lar, Tijuca Forest, Rio de Janeiro.
Permalink: https://allonan.com/2019/07/15/forestschoolwriting/

oppressive. You are impatient with gatherings where those who take charge aren't seeing the deepest, most beautiful vision of what could exist between us in that moment. You are saddened by others' will to override a gathering's human tendency for beautiful ritual. For beautiful sharing. / When you're organizing a meaningfully free and participatory event and Silvia Federici prefers not to be in an air-conditioned university building but go to the beach of Famagusta instead, you don't skip out on the event and everyone else in order to take her there. You invite or let everyone else know too. You take the Unconference to the beach of Famagusta, and this is how you change the world one deconstructive gesture at a time. / "It ends when it ends": on deconstructing the division between work and life as a primary topos of resistance. / How to refuse-deconstruct the kinds of labor that reinforce rather than dilute this division: There can be no revolution/serious mass ritual/ simple coordination for fast change if we always need to go to work the next day. The possibility of a sudden break needs to have a chance to override everything. / The favela knows this. Hadjimichael knows this too: going home because we have to work tomorrow as the reason Cyprus is still divided. / On moments where we radically "decide to stay". Some people call it falling in love. / "Don't take the children out of the room": On community, Mujeres Creando, and integrating work and life with a new human. / Federici and Caffetzis discussion of the health-war-edu industrial complex- how something different and new and better can begin with childcare that isn't like "parking our children while we go to work". / "In Rio there is a growing movement of community parenting". / On how the Unconference was never going to be deconstructive of politically regressive elements of the academic format, of structures of sharing and learning. / On unfair projections of sexism. / On unfair projections of a division between art and technology. / On RMS's gracious nature. / On RMS's unexpectedly immediate intuitive appreciation of community and connection. / Why did the cultural historian need to cross the ocean with her kid after the Unconference? / On the mindful practice of identifying communal priorities in the present. / On the necessity of free writing. / On the importance of repetition. / On why people choose to stay in oppressive set-ups. / Ten reasons why this wasn't an Unconference. / Ten reasons why if it was, it would have left with Silvia Federici. / Ten reasons why the Free/Libre Unconference couldn't be free. / On formats that remain disconnected from their content as means of control. / On expired formats in the information age. / On formats that do not allow ritual. / On ritual as constitutive to commoning and commoning practices (moments of defiance to the normalization of enclosing practices) as necessary for connection and change. / Parenting by connection and conflict resolution by connection. / On art by connection as conflict resolution. / On how Federici and Sholette knew to get out. / On how Stallman and Vergara stayed in to help others see that they can get out for themselves. / Catlow's self-referential eye-opener: Excel sheets and Unconference schedules: How the grid-table creates or limits possible states of being. / Söderberg and de Seta in true freedom: The social science-anthropology of contentment whatever the setting. / What's in a name: Marys get transcendence. / I wish I was a Mary. / Must remember that I am free to leave oppressive setups. / You either trust in a fully participatory format or you don't: There can be no middle ground. Insistence on a middle ground "because people need (to be given) structure" means that you don't quite admit that you don't have this trust, which arguably contains that you don't quite know what this kind of freedom looks or feels like. That's OK. Most people don't. (Sylvia Serena: Most people don't know how to be free. Carol: And they may not like others being free in front of them). We've been educated out of our ability to engage and produce meaningfully outside of safe layouts. Because unsafe layouts lead to community, ritual, dance, trance-like states, sharing, sudden change in the course of things. This is why rethinking the format of politically

oriented academic gatherings is important, and this is why it's difficult. / And this is why the carnival is so important. They know this well in Brasil. / What did I think this was going to be? An EU-funded revolution? / Maybe it was always going to be an enclosure: Alienated academic labor in the guise of community discourse. / No, at some point there was a choice. / Was this always going to be an enclosure: Maybe nobody else ever imagined it as anything else. / Dear Evi and Helene, please include both texts: the first is a necessary self-critique (a tradition for the hackathons and unconferences I've previously worked on), and the second is a summary of the work I did for the Unconference but was only partially communicated. Better late than never, no? The text provides the conceptual backdrop for the suggested practice of "Don't take the children out of the room": As a contribution to current reconfigurations of practices of community, learning, and care. / Perhaps I should specify that I'm suggesting a post-fetishistic use of the term "community"! How disappointing, this labeling as "community-fetishism" of our need to reconnect and repair labor-based (children-parking) conditions of alienation. I suspect Natalia was making an indirect critique of how community is used as a fundraising keyword, perhaps even for this particular event, but I was crushed by it: By the realization that there may be opportunistic academic capital in not taking seriously or even destroying efforts to repair our problems with coming together (i.e. through free-er, or freedom-respecting ways of gathering). I don't wish to have to defend me and my child's instinct to be where we don't feel alone, as fetishistic. / Why did the idealist cross the ocean? / Why did the idealist go to TropicalBurn? / To discover better attempts at reconnection, among people who know how to survive in the (as) wild (as possible), in the Tropics. / THESE COCONUTS ARE PRIVATE / From one enclosure to the next. / TropicalBurn as spectacle. / But this is on private land. But this is on private land. But this is on private land. But this is on private land. But this (eco-paradise) is on private land. / "If this wasn't guarded people would invade" and if it had belonged to the state it would have been ruined or ... privatized (like it is now). But maybe it doesn't matter who (we) think owns the land, maybe what matters is what happens there, or how it's allowed (!) to be. / TropicalBurn brings Burning Man into paradise. It makes it deal with its alienations. / TropicalBurn as a powerful post-capitalist experiment in environmentalist community participation that will grow stronger and stronger, and more beautiful and politically challenging every year. Its effect on the contemporary digital image economy is phenomenal. Its paradoxical reconfiguration of spectacle is enough to drive a cultural theorist crazy or provide them with such material that they have no choice but to step away from theory, and into life. Into the carnival. TropicalBurn knows-feels about ritual what Burning Man doesn't. Its transformative social (media) potential has been trapped in Instagram, until now: diaspora*: #tropicalburn #neospectacle #liberatingcontent #xamanaxana

The only thing we can control is the texture of our interactions. / And this may be our primary teaching/sharing tool. / The only change possible through WhatsApp, Facebook or Instagram is one that necessitates more WhatsApp, Facebook or Instagram. / Instagram art and why there seems to be no free software movement in Brazil (it turns out there is!) / The missing principle to the free software movement is "use as few pieces of software as possible". / The absolute necessity of familiarizing your kid as early as possible with techno-survivalist petro-anarchist (?) post-capitalist spectacle communities. / A crazy wonderland of hardship balanced by beautiful miracles. A tribal village (or a number of very different tribal camps actually) working to make every second a sublime experience. / TropicalBurn and the image economy. / TropicalBurn as a capitalist enclosure. / Seeking baby compatible ambience pockets – a broader metaphor / Must listen to infants more. They know when to stay. / TropicalBurn: Thank you for the subtly branded extremely useful artifact you're gifting to me, in conditions of deprivation, I will remember you

as an excellent marketeer and invite you to future projects. / But the goddess singer didn't sing at TropicalBurn, Carol didn't bring out her guitar – But the burning of the Serpent the night after almost everyone left was amazing. / Community: The public art of creating a beautiful and meaningful life, without taking the children out of the room. / The only thing we can control is the texture of our interactions: Playlistening / What Israeli parenting gurus (military trained, military minded) don't understand is the wonder of connection through play. / Livia's answer to the suggestion that children should be kept out of an experiment on concentration-intention: "If you can't focus your intention because there are children around, then you don't know how to focus your intention". / I found a ribbon in the sand bearing the words "radical self-reliance", and tied it on my wrist, astonished. The baby had been ill the previous days and had taken a while to open up to people or engage in extended meaningful interaction with anyone, including me. He wouldn't let other people hold him (indeed why should they? He's interested in play, in balls, and voom sounds, in running around, not being at the mercy of the unpredictable approaches to intimacy of strangers). He wants to be free. Livia to J: "You just want to be happy!" / He also needs to feel connected and given the chance to communicate with new people, not be among people who are stuck in non-communicative behaviors, who need isolation, or are staring at screens. / On social media as oppressive setups. / To my friends producing amazing work for Instagram: The only change possible through mobilization that takes place there, is one that perpetuates the use of these media. This is far from the most beautiful thing we could be doing right now. We will live better lives, our children will live better lives, people far away will be less negatively impacted by the systemic effects of such isolating and disconnecting automatisms if we decentralize, slow down, look around and at each other. We need to be free of the built-in distractions and addictions of these tools in order to connect with each other and our environments. And if these media stand in for the connection missing in our environments, then we need to see this placebo for what it is and make the changes we need so that we stop relying on these bad tools for the design of our future. These media centralize control over information and are actively stopping us from creating futures where these forms of exploitation are absent, futures with other kinds of values at their core. The only meaningful thing to do on these platforms, asap, is organize where to meet when we leave them. / How the heart of the carnival was elsewhere. / How the Unconference was a success. / How TropicalBurn was beautiful. / How letting go is a difficult thing. / On letting be.

Tineke called it soulwriting. We were talking about caring too much about one's project design/funding proposals. / On hereby exiting the edu-factory through soulwriting. / On exiting the sad politics of longing for a community/unconference on the beach with Silvia Federici, towards a militant politics of joy, in the forest.

(2) What future for education: On trust, protection, and community[2]

With this [edited transcript of a video] I put forward my priorities or the conclusions of my effort to preserve my child's "happiness in learning" or his delight in the world (and his ability to change it through a militant politics of joy). These priorities build on work that is critically deconstructive of schooling while it also demonstrates what I think of as a radical sort of "kindness", following from feminist discussions of "care".

This is a combined product for:

- Coursera's "What Future for Education," a reflective and open-ended application of online learning technology,
- the *Uncoference Free/Libre Technologies, Arts, and the Commons*, University of Nicosia 2019, an event that investigates the political need to think, learn, and collaborate outside of typical academic, creative, and community limitations and formats,

[2] April 2019, Kaimakli: Eimaste
Permalink: https://allonan.com/2019/05/07/edufuture/

– the School of TropicalBurn Brasil 2019, an event where people gather to build a temporary community based on principles of gifting, decommodification, radical self-reliance, radical self-expression, communal effort, civic responsibility, leaving no trace, participation, and immediacy,
– towards an experimental merging of playlistening rituals/parenting by connection theory, Scaravelli yoga and contemporary work on emotional alphabetization through art (see VAV).

I wish to put forward three key ideas as priorities in how we might re-conceive of schooling:

The first idea is the importance of trust towards learning as a natural process: A free process, without need for intervention, where all we need to do is what Ken Robinson calls "climate control"[3] or a kind of protection.

This is the second key idea. Protection of a kind approach to learning: Protection from unnecessary limitations or warnings, from frameworks that are closed-ended or anxious, or fearful. Protection from misguidance, from "testing," from undue comparison, from the stresses that characterize a lot of contemporary education.[4]

The third key idea is integration in community. The need for a view of education as part of life, as embedded rather than distinct, as continuous rather than walled off in purpose-built secure locations. Silvia Federici gives a meaningful example about a community of women called *Mujeres Creando* in Bolivia who started with a kindergarten: They developed a practice of daycare that went against the model of "parking" our children while we go to work.[5]

This reveals how the dominant segregation between the working life of adults and the learning life of children, is a side-effect of lifestyles and labor conditions that go against our instinct to protect and guide new generations towards the common good, or to give them the tools for their own quests towards such a good, or indeed trust them to freely find their own tools.

Applying trust, protection, and community integration could be part of what Robinson calls a *necessary* revolution in education. And further yet, they could be part of what Federici argues is our duty of resistance. She argues that education, health, and war, are all connected battlefields, and that we need to bring these struggles together and transform communities of reproduction into communities of resistance: "to reconstruct society, […] to construct new forms of being, new structures – even if they are small."[6]

I would like to connect this with the work of Anne Pirrie that exemplifies with humor, this type of trust, protection and kindness in education, by zooming in on the dominant values in the academic community. Pirrie performs a beautiful re-grounding, or a philosophy of the virtues of the university, while keeping its limitations in sight. Pirrie is interested in what our current education system leaves out and works to "provide scope for dimensions of life that are frequently suppressed in the quest for a convincing, consistent and comprehensive 'grand narrative' rooted in a particular disciplinary tradition or professional practice". She "calls for an alternative aesthetic of academic practice, one that foregrounds lived experience", and she encourages the celebration of alternative "epistemic virtues".[7] Perhaps of the kind explored by the one year old in this video.

To conclude, my aim is to add my voice to a growing movement that struggles to apply what we have learned about learning as a primarily fluid, independent, community activity. And to apply what we have learned about learning as something that happens best beyond enclosures in terms of walls or paywalls, and that requires trust, protection, and working together with those around us in radically meaningful ways, through the formation of new kinds of co-ops, new kinds of socially engaged apprenticeships, or informal systems of peer to peer learning, and so on.

[3] I am referring, in the first instance, to what Ken Robinson describes as a necessary revolution, of moving from the factory model of education to one that offers institutional or policy respect and, protection perhaps, for the conditions under which humans are "free to learn". A model that is more organic and positive in its recognition that learning is a default, nonlinear, organic process, that is too easily stifled by structures that attempt to command and control.

[4] This has to do with an idea I encountered in the work of Ina May Gaskin: In order to labor with the best chances to deliver a healthy baby, what a woman needs most of all, is not medical supervision or checks, as the very presence of the medical gaze can cause delay and thus complications, nor does she need "support" which denotes that she may be incapable or lacking in her own ability or in her nature to do what must be done. Instead what she needs is protection. She must feel safe, she needs protection from fears, stresses, and influences that would have her question that she is capable, whole, and perfect in her labor.

[5] According to Federici, *Mujeres Creando* questioned the dominant practice of "parking" our children in order to get to our "real" work, with the awareness that this is about raising a new generation. It therefore becomes appropriate for all of us to ask questions like "What do we want the children to learn? How do we want them to relate to each other?". She describes how this questioning of daycare or the early function of showing "the ropes" to our young, so to speak, led *Mujeres Creando* into community discussion and mobilization about childhood that lead into a community restaurant and a meeting place for archives and cultural activities.

[6] An article written by Silvia Federici and George Caffentzis entitled "Notes on the edu–factory and cognitive capitalism" (2007) addresses the role of the university as "a key space of conflict, where the ownership of knowledge, the reproduction of the labor force, and the creation of social and cultural stratifications are all at stake [and] a crucial site in which wider social struggles are won and lost". Federici and Caffetzis bring up how the university – and, by extension, the education system – plays a part in the military-industrial complex, and discuss the "strategic role of knowledge in the production system in a context in which the 'enclosure' of knowledge (its privatization, commodification, expropriation through the intellectual property regimes) is a pillar of economic restructuring".

[7] In her book entitled *Virtue and the quiet art of scholarship* Pirrie (2018, p. 7)) discusses alternatives to the dominant conceptualization of scholarly work, and of education

There's a lot more to be said regarding the idea of a necessary revolution or resistance in connection to the need to reclaim the university, and by extension to reclaim the educational system as fundamental commons. One that needs to radically re-engage with our lived experiences, and community needs.

This is certainly a tall order and an intimidating task. But at the same time, we are no doubt surrounded by the most wonderful examples of best practices that we could hope for. And we can trust that we are already equipped with the best of tools to approach and realize this future for education, perhaps as beautifully and simply as a one year old teaching himself basic motor skills through play with leaves and sticks.

more broadly, as the pursuit of goods like "knowledge, truth, and understanding". In one instance, she suggests, after Italo Calvino's take on literature, that a conceptualization of scholarly work in celebration of "lightness, quickness, exactitude, visibility and multiplicity" can help in the defence of the "quiet art of scholarship" and towards "reclaiming the university" from the privatizing forces and the managerial culture that are breeding competitive and exploitative academic environments.

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Commons as a library, the Unconference and a note on automation

Thrasos Nerantzis

Newton claimed to have seen further by standing on the shoulders of giants, meaning he built and advanced science from his predecessors. The notion of commons in technology is precisely this: a vast library which is the heritage of humanity.

If we take a closer look at Newton, we will see that he addresses the problems of production and economy of his time and solves them based on the technology, social abilities and resources that his time had to offer. In this sense, we can observe that scientific and technological knowledge is not automatic or autonomous, it does not come out of thin air, or by divine intervention but it reflects the sum of social fluctuation and material conditions of every period.

The material conditions of our time have led many to claim that we are going through a so-called 4rth industrial revolution. Firstly, let us clarify that our time, our period, is characterized by the current production process and the individualist relationship within the means of production, which is in contrast with social development and the forces of production. This so-called fourth revolution is not really a revolution; instead, it is the rapid expansion and upgrade of infrastructure and the increase in the speed of production. Automation and communication networks as innovative ideas are as old as the hills.

Already from 1927, the German expressionist science-fiction drama motion picture *Metropolis* by Fritz Lang depicts a dystopia of robots, automation business magnates living in luxury and workers in harsh conditions. A message of critiquing capitalism and automation coming to us from the past a good 92 years ago (Metropolis, 1927).

This period has two main pillars, the first being automated production along with artificial intelligence and robotics and the second being the web of information and interconnectivity of logistics for production purposes.

It is precisely the automated shifts in contemporary life and redistributable design that have brought us upon discussing the need for commons which is one of the thematics of the Unconference that took place in Nicosia (30 May-1 June 2019).

A comment on automation

During the Unconference, there was talk of automation, robotics, 3D printers and artificial intelligence; hence a short personal comment on automation is set below about this topic from a social point of view.

Automation, according to Marx initially increases profits amongst the capitalists who apply it, but down the road, it reduces the human labor within the production-process; this reduction results in the drop in total profit.[1]

[1] Here please refer to Karl Marx's chapter 15 of volume 1 of *Capital,* "Machinery and large-scale industry" (Marx 1976).

In a hypothetical scenario where everything is automated and can be self-replicated in its most complete form without any form of human labor, the economic value of the product will be null.

Proof of the above lies with software (if we exclude the sword and barriers of law enforcement). When it reaches the stage that it could be copied and redistributed without the artificial restrictions of copyright enforcement agencies, the cost of the software after the prototype is out will be null.

If we transpose the aforementioned logic to self-replicating machines, we will observe that the value will be zero. It is highly unlikely that capitalism will create self-replicating machines that require no human labor; because at the end of the day, the ruling class feeds of the surplus-value of labor and it also needs someone to purchase the products.

Marx points out this contradiction. On the one hand, the capitalists want to minimize labor hours in the production flow, but on the other hand, there is no way of calculating the value of the end product.

In principle, the ongoing automation of production should lead to a reduction in labor hours. However, today not only there is no reduction in labor hours (which is a necessity in our time and age), [2] but on the contrary, there is the growing exploitation of the segment of the working-class which is involved in the modern means of production. The problem is not solved but magnified.

Intellectual property

A compelling case for interconnected logistics and "intelligent" production would be the manufacturing of smartphones; the design takes place in the West and the production in the East. Design is not just about aesthetics, minimal design and simple user experience. What needs examining is what design is from a social and economic standpoint. Industrial design has massive profits, which correlate with a broader issue that capitalism has to face. That is the protection of intellectual property. We can see copyright everywhere, from the iPhone to quite a few software packages.

What is the issue though?

If we examine the minimalist design of Apple, we will observe that it is not something they came up with, but it is the distillation of a massive aesthetics development that leads to this outcome.

Even if we take the case of software and operating systems, the currently running version is not just from the initial group of people who came up with the original concept or architected the algorithm, but from a vast number of coders that might even go back in generations. Every one of which has contributed to the development process. There is an evident inherent social character on software, design and generally what is considered Intellectual Property (I.P.).

Capitalism's nature is trying to capitalize on anything it can get its hand on.

So, capitalism has found a way to commodify something that requires zero cost to reproduce, such as copying software or design, and the way is none-other than copyrights. A legalistic way that the system is trying to inject using the law and regulatory politics, whereby it imposes on the user to purchase the software, even though there is no real cost when it reaches the market and despite that this is the product of an entire society.

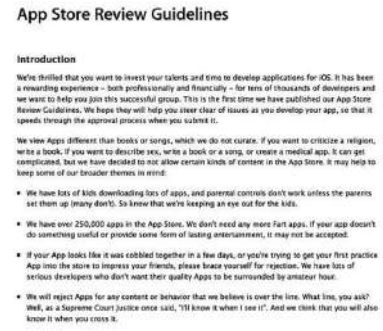
What does this side of capitalism show us?

It shows the antithesis between social production, and the private ownership and possession of the result.

This collective labor put in I.P. is screaming to be liberated and become social property.

> There is a struggle over design. Struggle over to what extent the design should go in the direction of optimising certain performances, whereby it

[2] Karl Marx in his notes that were later compiled and published by Friedrich Engels as *Das Kapital Vol. III* writes – "The realm of freedom really begins only where labour determined by necessity and external expediency ends; it lies by its very nature beyond the sphere of material production proper. Just as the savage must wrestle with nature to satisfy his needs, to maintain and reproduce his life, so must civilized man, and he must do so in all forms of society and under all possible modes of production. This realm of natural necessity expands with his development, because his needs do too; but the productive forces to satisfy these expand at the same time. Freedom, in this sphere, can consist only in this, that socialized man, the associated producers, govern the human metabolism with nature in a rational way, bringing it under their collective control instead of being dominated by it as a blind power; accomplishing it with the least expenditure of energy and in conditions most worthy and appropriate for their human nature. But this always remains a realm of necessity. The true realm of freedom, the development of human powers as an end in itself, begins beyond it, though it can only flourish with this realm of necessity as its basis. The reduction of the working day is the basic prerequisite" (1981, pp. 958-959).



App Store Review Guidelines

Introduction

We're thrilled that you want to invest your talents and time to develop applications for iOS. It has been a rewarding experience – both professionally and financially – for tens of thousands of developers and we want to help you join this successful group. This is the first time we have published our App Store Review Guidelines. We hope they will help you steer clear of issues as you develop your app, so that it speeds through the approval process when you submit it.

We view Apps different than books or songs, which we do not curate. If you want to criticize a religion, write a book. If you want to describe sex, write a book or a song, or create a medical app. It can get complicated, but we have decided to not allow certain kinds of content in the App Store. It may help to keep some of our broader themes in mind:

- We have lots of kids downloading lots of apps, and parental controls don't work unless the parents set them up (many don't). So know that we're keeping an eye out for the kids.
- We have over 250,000 apps in the App Store. We don't need any more Fart apps. If your app doesn't do something useful or provide some form of lasting entertainment, it may not be accepted.
- If your App looks like it was cobbled together in a few days, or you're trying to get your first practice App into the store to impress your friends, please brace yourself for rejection. We have lots of serious developers who don't want their quality Apps to be surrounded by amateur hour.
- We will reject Apps for any content or behavior that we believe is over the line. What line, you ask? Well, as a Supreme Court Justice once said, "I'll know it when I see it". And we think that you will also know it when you cross it.

Figure 1. Apple Review guidelines 2010.

eventually can be packaged as a commodity and mass-marketed. These kinds of struggles appear basically wherever you are looking or wherever you find yourselves. And, then, there are all the struggles over names, Open/ free, GNU/Linux or Linux and so forth (Söderberg, 2019).

The debate is intense on what license design or code should go under, and it is the struggle for ownership over this socially produced product.

Respect to the user and the user's freedom

The way massive software multinationals treat the people who produce software for them is characteristic. It is not a coincidence that Apple has released snobbish and arrogant press releases when addressing developers who submit apps to its store.

Looking at figure 1, we observe the patronizing behavior of a massive monopoly towards people who want to submit software apps to the iTunes store. In other words, people who will be making the company's products. Obstructionism and censorship are on the main agenda, a kind of big brother where all coders await approval.

In a whole different universe from the above is the Free Software movement, where users, developers and publishers are considered peers. The developers are allowed to produce any kind of software, and they are free to share it with the community as long as it abides by the four freedoms.

> Freedom zero is the freedom to run the program as you wish for any purpose. Freedom one is the freedom to study the source code and change it, so it does your computing activities as you wish. Freedom two is to make exact copies and give or sell them to others when you wish. And Freedom three is to make copies of modified versions and give and sell them to others as you wish. So, if the program comes with these four freedoms, users have control of the program. It, therefore, respects their freedom and Community and is free software. But if any of these freedoms is missing or incomplete, or insufficient then the user's do not have control of the program, instead the program controls the user's and the owner controls the program (Stallman, 2019).

A reflection on the methodology of the Unconference

There were two parts to this hybrid Unconference. The first two days featured presentations and panels, so the participants got to know who is who and what their work evolves around. This allowed for the participants to be acquainted with each other for the third day when the open space format took place.

The concept was relatively simple. On the third day, no topics were predetermined, no keynote speakers had been invited, no panels were arranged. Instead, the event came to life by the participation of its attendees. The participants decided what topics were to be discussed and they convened in individual breakout sessions. In other words, the Unconference had no agenda until the participants set one.

The attendees initially were invited to sit in a circle and introduce themselves stating their names and topics they are interested in. Having concluded the circle, the facilitators dispersed markers and poster-size white papers throughout the room. Teams were formed, and conversations were initiated.

There were only two rules at the Unconference:

1. Nobody was giving a presentation as it was structured in its entirety on conversations.
2. If a session did not inspire attendees and they felt that they were not contributing, they got up and found a different one (It is called the Law of Two Feet).

The Unconference empowered attendees to share their expertise. It allowed participants to have an unfiltered exchange of ideas in a free and safe environment.

The generation of ideas is a collective process. Participants within these groups co-created them by feeding off and enabling each other, taking turns on pushing boundaries.

The Unconference was a microcosm of what most of us envision for regional economies across the world. Too often, artists and technologists are not aware of the assets that exist right in their backyards. Too often artists do not have access to knowledgeable people that can help them take their ideas to the next level. Too often they are not up to speed on the latest trends and technologies.

The Unconference broke down these barriers of idea exchange by giving attendees a voice and by redefining what an expert is. It would be interesting to see the results if this type of format and free dialogue was to happen more often within the communities of the tech and art world.

Technologists will solve problems, generate social ideas and participate in artistic messages, if we connect them to research institutions, artists, people from the humanities, and other resources they are not aware of or do not have access to. These connections do not "just happen". They require thoughtful preparation, strong baseline expertise, skilled facilitation and persistent follow-through.

When it comes to this endeavor, the next step would be to bring together artists and technologists under the same roof, in the same physical space to produce art and prototypes respectively using the valuable knowledge gained from this conference. The experience gained from the Unconference and the methodology of open space interaction could be applied in the upcoming Makerspace in the municipality of Lakatamia. Collective work and peer-to-peer brainstorming sessions should make the whole process of addressing challenges easier. Furthermore, open classes and tutorials will take place so that an exchange of knowledge is possible with the local community.

The goal is to focus on producing results not aiming for profits but having as guideline societal needs. The ideal would be that every design produced is freely available, redistributable, and with all the freedom for it to be edited, modified and upgraded.

Based on the fact that knowledge is the collective product of humanity, and just as Newton stood on the shoulders of the giants of his time, it is necessary to create a Library of Commons for future generations to stand on.

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Unconference programme

Free/Libre Technologies, Arts and the Commons
An Unconference about Art, Design, Technology, Making, Cities and their Communities

The Unconference was organized by the University of Nicosia Research Foundation as part of project PHYGITAL, and co-organized in collaboration with Lakatamia Municipality, the Fine Arts Programme, Department of Design and Multimedia, and hack66. The project Phygital was carried out at the local level as a collaboration between the University of Nicosia Research Foundation and Lakatamia Municipality.

The programme of the 1st of June and the directions of the clusters were shaped by suggestions by the Unconference presenters and participants.

Programme

DAY 1 | Thursday 30th of May

18:00 – 21:00	**Welcome** Dr Chrystalleni Loizidou and Dr Evanthia Tselika **Keynote** Professor Richard Matthew Stallman *Copyright vs Community in the Age of Computer Networks* Unesco Amphitheatre Chair: Thrasos Nerantzis

DAY 2 | Friday 31st of May

09:00 – 09:30	**Registration** Unesco Amphitheatre
09:30 – 09:45	**Opening Address** Professor Constantinos Phellas Vice Rector University of Nicosia and President of the University of Nicosia Research Foundation Unesco Amphitheatre
09:45 – 11:10	**Ethics and Aesthetics** *Mutiny, Mutualism and Complicity in a "Bare" Art World* Dr Gregory Sholette, Queens College, City University of New York *Micro-geographies of Grassroots Collective Action. Tripartite Ethical Unity of Art* Professor Luiz Guilherme Vergara, Federal Fluminense University (UFF) Unesco Amphitheatre Chair: Evanthia Tselika
11:10 – 11:30	Break

11:30 – 13:30	**Politics of making** Newton Amphitheatre *Intersectional Feminism and Fact - Women's Experience in Practical Workshops* Harriet Poppy Speed and Dr Lynn Jones *Digital Fabrication for the Stage: The case of the Limassol Grand Ballets* Eva Korae *Community Making towards situated agency* Jenny Dunn *Gendering the making: Contemporary Makerspaces in Athens* Natalia Avlona Chair: Niki Sioki		**Negotiating digitalities through art** Plato Amphitheatre *Post-human translation in the fourth phase of global capitalism: digital technologies, sensorial languages and Big Data. A critical approach from art* Federica Matelli *Decentralisation and Commoning the Arts* Ruth Catlow *Ejected Body Doubles: beyond the grasp of digital control* George Themistokleous *Vital Vagueness* Rose Butler Chair: Yiannis Colakides
13:30 – 14:30	Lunch		
14:30 – 16:30	**Commoning practices** Newton Amphitheatre *Delegate Management or Augmenting The Mind: What Role for Technology in Commoning Practices?* Selena Savić *Peer to Peer: The Commons Manifesto (A book presentation)* Alex Pazaitis *Database (e)state* Tom Keene *Shared learning- peer to peer, common* Blanca Jove Alcalde Chair: Maria Hadjimichael	**The Future of Technology in Museums** Plato Amphitheatre *The Museum Lab of the Centre on Interactive Media and Smart Systems and Emerging Technologies (RISE)* Theopisti Stylianou-Lambert, Chair **Panelists** Georgios Artopoulos; Ioanna Hadjicosti; Antigone Heraclidou; Marinos Koutsomichalis; Maria Shehade; Evanthia Tselika	**Internet Freedom** Rousseau Amphitheatre *Horror stories from Digiland* Theodotos Andreou *Into the Red Stack: Chinese digital media between platform protectionism and infrastructural sovereignty* Gabriele de Seta *Internet censorship around EMEA* Vasilis Ververis *Open technologies in the Making* Despoina Mitropoulou and Theodoros Karounos Chair: Chrystalleni Loizidou

16:30 – 17:00	Break
17:00 – 17:50	*Hacking hacked: The struggle over recuperation as a source of innovation* Johan Söderberg Amphitheatre Jean Monnet, -203 Millenium Building Chair: Leandros Savvides
18:00 – 19:00	*Professor Silvia Federici* *Keynote Presentation* Amphitheatre Jean Monnet, -203 Millenium Building Chair: Maria Hadjimichael

20:00	*Social Event - Dinner*

DAY 3 | Saturday 1st of June

10:00 – 10:30	**Registration and Coffee** Fine Art Building, University of Nicosia
10:30 – 11:30	General Assembly and Clusters Facilitated by Future Worlds Centre Parallel Clusters will be shaped by the scientific committee based on the suggestions of conference participants suggestions on the 2nd Day
11:30 – 13:00	Studio 01 (or anywhere in the Fine Art Building) **Parallel Clusters**
13:00 – 14:00	Lunch
14:00 – 16:00	**Parallel Clusters**
16:00 – 16:30	Break
16:30 – 17:30	General Assembly Parallel Clusters Sharing what happened through the day- Summary Closing Remarks

18:30	Social Event *Future Worlds Center Event* Multifunctional Center of Lakatamia Aigaiou Street 48, 2302, Lakatamia, Nicosia, Cyprus

bios of authors and editorial team

Theodotos Andreou is a Free Software advocate and a founding member of Ubuntucy.org and the Cyprus FOSS Community (ellak.org.cy). He works in the Cyprus University of Technology as a System Administrator.

Ruth Catlow is an artist, curator and activist who brings 20 years of experience from the intersection of arts and technology to emerging practices in art, decentralised technologies and the blockchain. She is co-founder and co- director of Furtherfield, a not-for-profit international community hub founded with Marc Garrett in 1996. Through exhibitions labs, & debates the Furtherfield community collaborates to disrupt and democratise art and technology through deep exploration, open tools and free thinking. Ruth is co-editor of Artists Re:Thinking the Blockchain (2017) curator of the touring exhibition New World Order (2017), and runs the DAOWO arts and blockchain lab series with Ben Vickers, Serpentine Galleries. In 2015 Furtherfield launched the Art Data Money programme that sought to develop a commons for the arts in the network age. Decentralised Arts Lab (DECAL) is the outcome. DECAL, a Furtherfield initiative, exists to mobilise crowdsourced research and development by leading artists, using blockchain and web 3.0 technologies for fairer, more dynamic and connected cultural ecologies and economies now.

Jenny Dunn is an artist and spatial designer, working in a social context around themes of community and the environment. She graduated from Manchester School of Art in 2010 with a BA (hons) in Interior Architecture and worked for 8 years in design and architecture before completing an MA in Art and Social Practice. Jenny is currently assisting with teaching and working on the project Phygital at The University of Nicosia in Cyprus.

Silvia Federici is a feminist writer, teacher, and militant and one of the most important contemporary theorists of capitalism and feminist movements. In 1972 she was cofounder of the International Feminist Collective that launched the campaign for Wages for Housework internationally. Her books include Re- enchanting the World: Feminism and the Politics of the Commons, Caliban and the Witch: Women, the Body and Primitive Accumulation and Revolution at Point Zero. She is a professor Emerita at Hofstra University, where she was a social science professor. She worked as a teacher in Nigeria for many years and was also the cofounder of the Committee for Academic Freedom for Africa.

Antigone Heraclidou holds a PhD in Modern History from the Institute of Commonwealth Studies, University of London. She is the author of Imperial Control in Cyprus: Education and Political Manipulation in the British Empire (2017) and co-editor of Cyprus: from Colonialism to the Present: Visions and Realities. Essays in honour of Professor Robert Holland (2018). She has taught History modules at the University of Cyprus, the Open University of Cyprus and the European University of Cyprus. She worked closely with several museums in Nicosia during her post as Officer at Nicosia Tourism Board. She is now a Research Associate at the Museum Lab MRG at the RISE. Her research interests include Cyprus' colonial history, decolonisation, education and cultural heritage.

Lynn Jones: I love to inspire people, especially women, to design, to engineer and to make things, enabling them to enjoy a career like I had as a furniture designer earlier in my own life. My PhD completed in 2003 focused on breastfeeding and furniture giving me a great insight into designing something significant for women. Working in education for over twenty years, I developed many collaborative educational projects with leading companies such as Herman Miller, Vitra, Lago, and Ercol and with

schools and universities across the UK. Since the Furniture Department I headed at Bucks New University closed three years ago, furniture design education is now my primary interest. I was encouraged to start my own business in 2016, Lynn Jones Associates, coaching and helping furniture graduates find a pathway after graduation. I continue to be an External Examiner for furniture courses across the UK and Ireland, at Birmingham City University, Kingston University, London Metropolitan University, Nottingham Trent University and Dublin University of Technology whilst still teaching Furniture Design one day a week at Rycotewood College in Oxford. Basically, I am waving a big flag that says "Save Furniture Courses!". I have two amazing daughters who make things and a partner who is a furniture maker with a workshop in Thame, Oxfordshire where we live.

Marinos Koutsomichalis (Athens GR, 1981) is a media artist, scholar and creative technologist. His practice is hybrid,nomadic, and ethnographic, involving field-work, creative coding,critical theory, making, live performance, workshopping, research residencies, 'Doing-It-With-Others', and hands-on experimentation with materials and technologies of all sorts. He has hitherto publicly presented his work, pursued projects, led workshops, and held talks worldwide more than 250 times and in all sorts of milieux: from leading museums, acclaimed biennales, and concert halls, to industrial sites,churches, project spaces, and underground venues. He has held research positions at the Norwegian University for Science and Technology (Trondheim, NO) and at the University of Turin (IT), and has taught at the University of Wolverhampton (Birmingham, UK), and the Technical University of Crete (Rethymnon, GR). He is now a Lecturer in Multimedia Design for Arts at the Cyprus University of Technology (Limassol, CY).

Eva Korae studied Furniture Restoration and Craftsmanship (BA Hons - UK) and holds an MA in Furniture Design and Technology (MA - UK). She designs, makes and exhibits her own contemporary furniture/three-dimensional designs in Cyprus and Europe with an emphasis on sustainability and upcycling. She has been teaching in Tertiary Education since 2003 and presently works as Special Training Staff at the Cyprus University of Technology. She has been collaborating in the field of contemporary art, dance and theatre as a visual artist since 2005 and has travelled to international festivals with several works. She specializes in contemporary fabrication techniques and holds a degree from the Fab Academy (Amsterdam 2016), the course ran by the official Fab Lab Network. In 2018, "bytheway Productions", the NGO she founded and is actively involved in, set up the open-access makerspace "Makers Will Make" which aims at producing and promoting contemporary design innovation in Cyprus.

Chrystalleni Loizidou (b.1983, aka nee) has been battling a Google addiction for over a decade and has been trying to make up for it with free software advocacy (Wednesday night vigils with hack66.info since 2013) as well as open and collaborative work in art and academia (PhD in Humanities and Cultural Studies with the London Consortium, 2014). She organised her first unconference in 2011 (THATCamp Cyprus) which was attended by around three people as well as her uncle. She has been organising and reviewing hackathons since 2012, and these days is concerned with the fate of Open Government Data and the abuse of transparency discourse towards privatisation. Her conventional scholarship deals with politics of memory, public space, public art, and their activist interventions. Aside from teaching artists and designers to read and write theory at university level, she spends time processing the politics of personal writing, as well as coordinating and co-curating things between art, life, and love with Evanthia Tselika and reaphrodite.org. She confesses

astonishment at how this powerful dream of an Unconference on Art, Tech, Commons, and Freedom is actually coming true, and would like to bring her baby son to as much of it as possible. allonan.com | eimaste.net

Federica Matelli is an Italian researcher, lecturer and cultural agent. She got her PhD in "Theory and history of contemporary art" from the University of Barcelona. Previously, she gained her BA in "Philosophy, aesthetics and theory of contemporary art" from the University of Pisa, and a Master in "Curatorship and Cultural Practices in Art and New Media" from ESDI and Ramón Llull University, organised by MECAD, the Media Centre of Art and Design. Shortly after she began to work as an independent curator and researcher. She has curated different selections of videos and exhibitions and collaborated with festivals, exhibitions and institutions of international prestige, among them the ZKM | Centre for Art and Media Technology (Karlsruhe, Germany, MECAD Grant 2006). Matelli has lectured at seminars and congresses of different institutions and universities, conducted research for public and private bodies dedicated to art and has published essays, scientific and critical articles, reviews of contemporary art and culture in various magazines, catalogues and online platforms.

Thrasos Nerantzis is a Computer Scientist and is currently working for the private sector as a researcher. A free software enthusiast and contributor with a particular interest in Artificial Intelligence and Data Mining. His research involves the application of AI using societal data. Recently he has been active in the blockchain community researching ways to incorporate smart contracts in e-Governance decision making and voting.

Alex Pazaitis is a core member of the interdisciplinary research collective P2P Lab, spin-off of the Ragnar Nurkse Department of Innovation and Governance, Tallinn University of Technology and the research arm of the P2P Foundation. He holds an MA in Technology Governance and is currently a Junior Research Fellow and PhD candidate at the Ragnar Nurkse Department.

Selena Savić is an architect and researcher interested in the way information technologies and communication techniques shape and transform cities and societies. She holds a joint PhD from the Swiss Federal Institute of Technology in Lausanne (EPFL) and IST in Lisbon, with a background in architecture (Faculty of Architecture, University of Belgrade) and media design (Piet Zwart Institute, Rotterdam). She is currently a postdoc researcher at the Institute for Experimental Design and Media, FHNW Basel, where she works on the project Thinking Toys for Commoning, together with Shintaro Miyazaki, Viktor Bedö, Michaela Büsse and Yann Martins.

Maria Shehade is an Expert Scientist at the Cyprus University of Technology and a Research Associate at the RISE Research Centre on Interactive media, Smart systems and Emerging technologies. She obtained her PhD from University College London. Her PhD thesis, entitled 'Negotiating cultural property disputes: bridging the gap between theory and practice, a way forward', focused on the development of a strategic framework for negotiating cultural property disputes. She also holds an MA in Heritage Management from UCL, a BA in History, Archaeology and History of Art from the University of Athens and a Certificate in Negotiation from the Institute of Leadership and Management (UK). She has worked as a Research Associate in research projects, both in the UK and Cyprus, as a teaching assistant at UCL and as guest lecturer at the University of Nicosia. She has received several scholarships from the National Foundation of Scholarships of Greece, the UCL Graduate School and the Leventis Scholarship Foundation, which funded her doctoral research.

Gregory Sholette is a New York-based artist, writer and activist. He is a founding member of Political Art Documentation/Distribution, REPOhistory collective, and Gulf Labor Coalition, an artists' group advocating for migrant workers' rights constructing Western branded art museums in Abu Dhabi. His individual art explores issues of artistic labor, historical representation and political resistance, and his critical writing documents and reflects upon several decades of activist art, most recently by guest editing a special double issue of FIELD Journal of Socially Engaged Art with over thirty global reports focusing on "Art, Anti-Globalism, and the Neo-Authoritarian Turn" [http:// field-journal.com/issue-12?cat=30]. Author of the books Delirium & Resistance: Art Activism & the Crisis of Capitalism (2017); Dark Matter: Art and Politics in an Age of Enterprise Culture (2011) both Pluto Press, and co-editor with Chloë Bass of Art as Social Action (Skyhorse Publishers, 2018), Sholettte is a graduate of The Cooper Union (BFA), the University of San Diego (MFA), the University of Amsterdam (PhD), and the Whitney Independent Studies Program, as well as affiliated faculty of the Art, Design and the Public Domain program of Harvard University's Graduate School of Design, and Full Professor at Queens College, City University of New York where he co-directs the project Social Practice Queens (SPQ) http://www.socialpracticequeens.org/

Johan Söderberg is a reader in Theory of Science, at the Department of Philosophy, Linguistics and Theory of Science, Göteborg University, Sweden. Notably, he is the author of Hacking Capitalism, where he developed a Marxist interpretation of the hacker movement. More generally, his research interests is about how political subjects emerge from conflicts surrounding new technologies, and how those conflicts in turn become a motor for technological change and innovations.

Harriet Poppy Speed: I am a young designer maker who combines a background in illustration with a love for making with natural materials. My work encourages others to assert more value on curiosity and play through the objects they use. My passion is to use my skills to create opportunities to pass on practical knowledge, as well as opening up new channels for discussion. Originally from the North East of England, I moved to Oxford to pursue my studies, where I now continue to live with my tools and my van. I graduated from Rycotewood Furniture Centre in Oxford with a first-class honours degree in Furniture Design and Make in August 2018. It was there that I founded THIS GIRL MAKES. My experiences demonstrated how furniture design and manufacture still largely remains a male-dominated industry, from education right through to commercial workshops. My multi-dimensional project aims to celebrate women in craft and design to inspire and educate a new generation of makers. My initiative is supported by the fact that I now work as a design engineer for established furniture company, Ercol, based in Princes Risborough. My work has also rewarded me with many other exciting opportunities. The most significant are: attending the 2017 LINLEY Summer School; organising the 2018 Rycotewood Graduate show in partnership with Heals; being awarded Best Undergraduate Research Poster Design at Oxford Brookes University's 2018 Get Published Conference, which outlined my research project entitled A Maker's Guide to Grief; and winning Best in Show at the 2018 Young Furniture Maker's Exhibition.

Richard Matthew Stallman leads the Free Software Movement, which shows how the usual non-free software subjects users to the unjust power of its developers, plus their spying and manipulation, and campaigns to replace it with free (freedom-respecting) software. Born in 1953, Stallman graduated Harvard in 1974 in physics. He worked at the MIT Artificial Intelligence Lab from 1971 to 1984, develop-

ing system software including the first extensible text editor Emacs (1976), plus the AI technique of dependency-directed backtracking, also nown as truth maintenance (1975). In 1983 Stallman launched the Free Software Movement by announcing the project to develop the GNU operating system, planned to consist entirely of free software. Stallman began working on GNU on January 5, 1984, resigning from MIT employment in order to do so. In October 1985 he established the Free Software Foundation, of which he is president as a full-time volunteer. Stallman invented the concept of copyleft, "Change it and redistribute it but don't strip off this freedom," and wrote (with lawyers) the GNU General Public License, which implements copyleft. This inspired Creative Commons. Stallman personally developed a number of widely used software components of the GNU system: the GNU Compiler Collection, the GNU symbolic debugger (gdb), GNU Emacs, and various others. The GNU/Linux system, which is a variant of GNU that also contains the kernel Linux developed by Linus Torvalds, is used in tens or hundreds of millions of computers. Alas, people often call the system "Linux", giving the GNU Project none of the credit. Their versions of GNU/Linux often disregard the ideas of freedom which make free software important, and even include nonfree software in those systems. Nowadays, Stallman focuses on political advocacy for free software and its ethical ideas. He spends most of the year travelling to speak on topics such as "Free Software And Your Freedom" and "Copyright vs Community in the Age of the Computer Networks". Another topic is "A Free Digital Society", which treats several different threats to the freedom of computer users today. In 1999, Stallman called for development of a free on-line encyclopedia through inviting the public to contribute articles. This idea helped inspire Wikipedia. Stallman is officially a Visiting Scientist at MIT. Free Software, Free Society is Stallman's book of essays. His semiautobiography, Free as in Freedom, provides further biographical information.

Theopisti Stylianou-Lambert is associate professor at the Department of Multimedia and Graphic Arts of the Cyprus University of Technology (CUT). She is the leader of the "Museum Lab" group at RISE (Research Center of Interactive media, Smart systems and Emerging Technologies) and the coordinator of "Visual Sociology and Museum Studies Lab" of CUT. Her research interests include museum studies, visual sociology with an emphasis on photography, and new technologies in museums. Theopisti has published widely on museums and photography, is the co-author of The Political Museum (Routledge, 2016) and the editor of Museums and Visitor Photography (MuseumsEtc, 2016), Museums and Photography: Displaying Death (co-editor, Routledge, 2017), and Photography and Cyprus: Time, Place, Identity (co-editor, I.B.Tauris, 2014). She received her PhD in Museum Studies from the University of Leicester (UK) and is the recipient of several scholarships and awards including a Smithsonian Fellowship in Museum Practice (USA), a Fulbright Fellowship (USA) and an Arts and Humanities Research Council Award (UK).

Luiz Guilherme-Vergara is a Professor in the art department and the Postgraduate Program in Contemporary Studies of the Arts at the Federal Fluminense University (UFF). He had a PhD in Art Education at NYU (2006) and Master Degree in Studio Art and Environmental Art at NYU (1993). Pos-Doctoral with Fred Evans at Dept. of Philosophy, Duquesne University, Pittsburgh, USA. As former curator/director of the Museum of Contemporary Art in Niterói (MAC) (2005-2008) he curated numerous exhibitions with dialogues in Education and Environmental Actions such as Poetics of the Infinite (2005) and Lygia Clark: Poetic Shelter (MAC, 2006) as well as the outreach initiative Arte Ação Ambiental [Art Environmental Action] (1998-2014)) working with the favela community of Morro do Palácio in the surroundings of MAC. In 2013, on returning to MAC as director and general curator (2013-2016),

he curated a number exhibitions with Brazilian artists and the João Sattamini's and MAC Niterói's collection. He co-curated the international exhibition Joseph Beuys: Res-Publica: Conclamation for A Global Alternative and the video installation of Isaac Julien – Ten Thousand Waves as part of the 20th anniversary of MAC Niterói including the exhibition Guanabara Bay: hidden lives and water. Current is dedicated to the research group – Interfluxos Contemporâneos Arte e Sociedade (Contemporary Interflows of Art Society) focuses on the interface between art, museums and society. He is co-editor of Revista MESA (www.institutomesa.org).

Editors:

Evanthia Tselika [PhD] is Assistant Professor and Fine art program coordinator at the University of Nicosia. Her research is focused on contemporary art, the urban context, social movements, community processes and socially engaged art practices. She develops and researches social and public art practices and has worked, exhibited and collaborated with various art centres and museums in Cyprus and internationally. Currently she is co-ordinating commons related art and technology research and public art practices, under the Interreg Balkan Med funded programme *Phygital* (Greece- Albania- Cyprus, 2017-2019). She has been involved in co-conceiving and producing the European Cultural Foundation *Shaping Common paths* (2017-2018) project and was principal researcher and curator in the Cyprus iteration of the *Artec-ity*a platform by Artos Foundation, Creative Europe, in the displaced housing estates in Nicosia. Her articles are published in journals such as Visual Studies and Public Art Dialogue. In 2019 a collective volume publication she is co-editing on contemporary art and Cyprus is due to be published by Bloomsbury. Information on art projects, articles and exhibitions can be found on http://evanthiatselika.com.

Niki Sioki holds a PhD in Typography & Graphic Communication from the University of Reading, UK . She combines professional and research expertise having worked for more than 20 years in the academic and medical Greek publishing sector. Niki is currently Assistant Professor at the University of Nicosia, Cyprus, where she teaches typography, print and digital publishing, and design research. As a researcher her interests concentrate on the history of Greek graphic design and printing, book design, typography, and print culture in Cyprus. Her work so far is well documented in academic publications, proceedings, presentations in international conferences and in popular media. She is a member of a number of professional associations and scholarly societies in the UK, Greece, Cyprus and Germany. For a list of published papers and articles you may visit: https://unic.academia.edu/NikiSioki

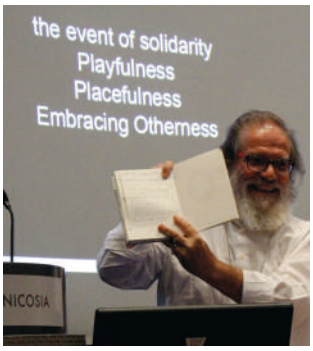
Editorial assistants:

Helene Josephides is a jurist specialised in International Criminal Law and Human Rights. She studied in France (Université Paris 1 Panthéon-Sorbonne), Canada (University of Toronto) and Ireland (Irish Center for Human Rights - National University of Ireland, Galway). Her strong interest in the arts and in education and their power for positive social change, led her to create a project for the promotion of human rights through arts in Latin America ("On the Road for Childhood"/"En ruta por la infancia") and to later work as a Project Manager in the Global Education Unit of Future Worlds Center, a non-governmental organisation based in Cyprus, on projects aiming to social change through innovative ideas, including arts and technology.

Jordan Kent holds a Bachelor of Arts degree in Political Science and International Relations from the Victoria University of Wellington, New Zealand. She is an intern at Future Worlds Center, working on an array of projects.

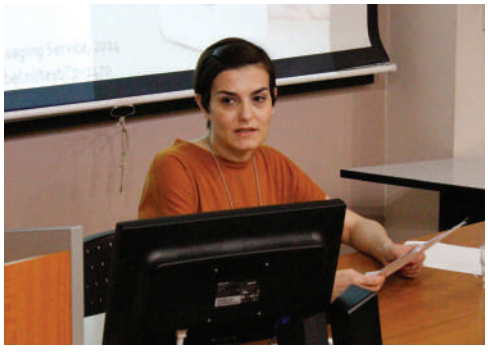
GALLERY of images

Richard Matthew Stallman



Luiz Guilherme Vergara

Gregory Sholette

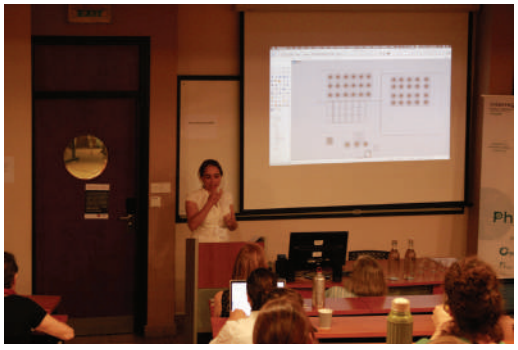


Federica Matelli

Ruth Catlow

Rose Butler

Harriet Poppy Speed and Dr Lynn Jones



Eva Korae

Jenny Dunn

Selena Savić

Alex Pazaitis

Theodotos Andreou

Antigone Heraclidou

Maria Shehade

Theopisti Stylianou-Lambert

Evanthia Tselika

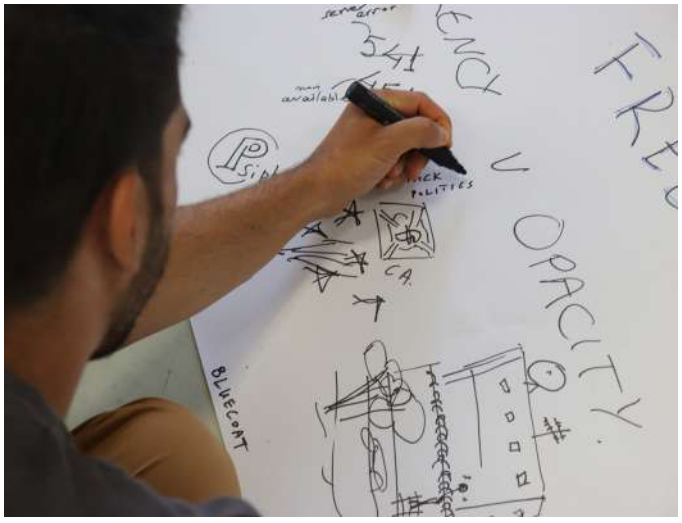
Marinos Koutsomichalis

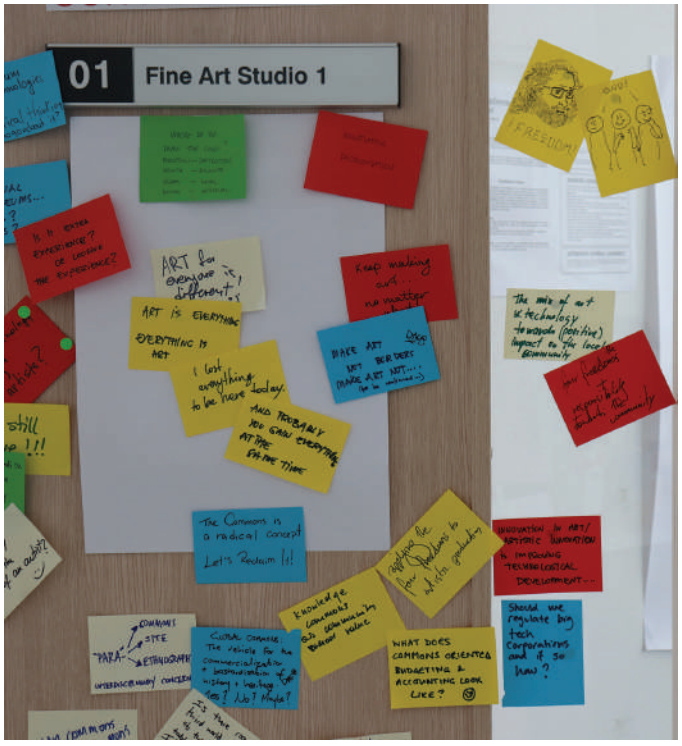
Johan Söderberg

Silvia Federici


FORES T School


Interreg


OPACITY
BLUECOAT

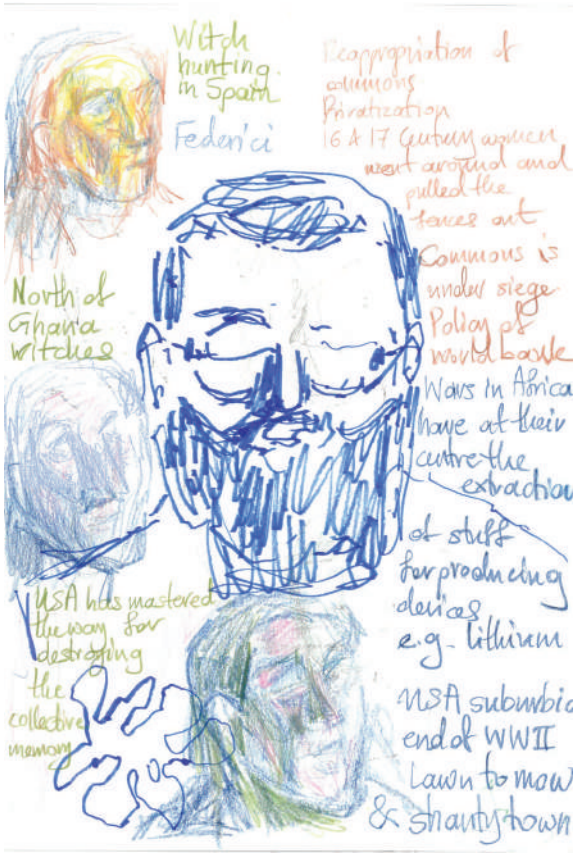

01 Fine Art Studio 1
ART for everyone different!
ART IS EVERYTHING
EVERYTHING IS ART
I got anything to be here today
AND TOGBANY YOU CAN EVERYTHING AT THE SAME TIME
Keep making art... no matter
PLACE ART NOT BORDERS (MAKE ART NOT...)
The Commons is a radical concept Let's Reclaim It!
WHAT DOES COMMONS ORIENTED BUDGETING & ACCOUNTING LOOK LIKE?
Should we regulate big tech corporations and if so how?

Richard Matthew Stallman
drawing by Sophia Grammatikogianni

Richard Matthew Stallman
drawing by Sophia Grammatikogianni

Luiz Guilherme Vergara
drawing by Melina Symeou

Audience
drawing by Sophia Grammatikogianni



Leandros Savides
drawing by Nafsika Demetriou

Federica Matelli
drawing by Melina Symeou

Ruth Catlow & George Themistokleous
drawing by Melina Symeou

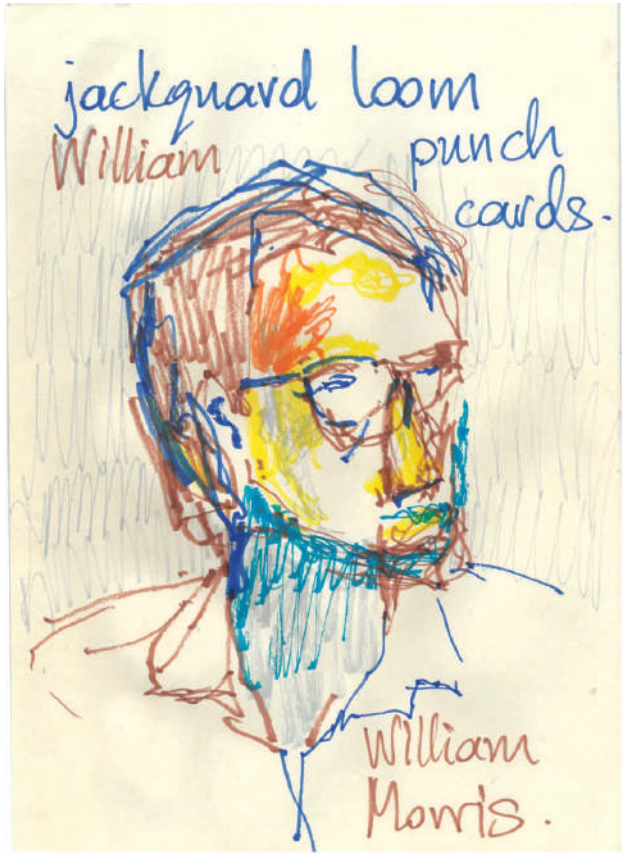
Drawing by
Sophia Grammatikogianni

Rose Butler
drawing by Sophia Grammatikogianni

Johan Söderberg
drawing by Sophia Grammatikogianni

Gregory Sholette
drawing by Sophia Grammatikogianni

Audience
drawing by Nafsika Demetriou



Johan Söderberg
drawing by Nafsika Demetriou

Clusters
drawing by Elisha Cox

Evanthia Tselika
drawing by Sophia Grammatikogianni

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drawing by Sophia Grammatikogianni

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Balkan-Mediterranean
European Regional Development Fund
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Project co-funded
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