Engagingdesign - Methods for collective creativity

CHAMBERLAIN, Paul <http://orcid.org/0000-0001-6643-3480> and CRAIG, Claire <http://orcid.org/0000-0002-3475-3292>

Published version

CHAMBERLAIN, Paul and CRAIG, Claire (2013). Engagingdesign - Methods for collective creativity. In: Human-Computer Interaction. Human-Centred Design Approaches, Methods, Tools, and Environments. Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) (PART 1). Springer Berlin Heidelberg, 22-31.

engagingdesign – methods for collective creativity.

Prof. Paul Chamberlain MDesRCA, Claire Craig (FCOT)

Lab4Living, Art & Design Research Centre, Sheffield Hallam University,
Cantor Building, 153 Arundel Street, Sheffield S1 2NU, UK
p.m.chamberlain@shu.ac.uk
claire c.craig@shu.ac.uk

Abstract. Research often problematises issues older people face and the development of technologies for older users is regularly driven by this agenda. This paper describes a research programme that positions older people as active participants rather than passive respondents focusing on their preferences and aspirations rather than their impairments. 'Engagingdesign' is a transnational research platform developed by the authors that facilitates creative methods for engaging older people and provides a scaffold for collective creativity. Data collected through interviews and focus groups is transformed through critical artefacts that provide a forum or theatre for conversation through exhibition that in turn becomes the medium and method for further data collection.

Keywords: User–centred design methods, older users, design, co-creation, participatory design

1 Introduction

'I tell you what is the worst thing that I come across and it still annoys me now is some people not all people but some people treat you like your brain dead. And they are so patronising as if because you're retired your brains gone. You know they took it out, when you left work they took it out and gave it to somebody else. It really annoys me when they do that'.....older participant – engagingdesign

As the number of people aged 65 and over is set to rise by 2 billion by 2050, efforts to understand the needs of older people have become a priority for research and policy. Much research problematises issues older people face and the development of technologies for older users are often driven by this agenda. Older people are generally still viewed through the 'medical model' that focuses on impairment and from a position that reflects the idea that individuals need to be monitored or need help and assistance. Older people have therefore tended to be viewed with pity as passive recipients, rather than active participants in research. It is less common to find research that focuses on the broader aspirations in relation to their lives. Research has revealed [1] 'how people aged over 70 are persistently seen as incapable and pitiable when compared with other groups and there is unthinking disregard for older people's preferences and aspirations'. The 'old' are not a homogenous group but demonstrate con-

siderable diversity in age, lifestyle, culture, physical and emotional wellbeing and it is important to recognise individuality in shaping what people want and value. Katz et el [2] suggest 'Little is known about what these (older) people want and value, while negative assumptions are sometimes made about their ability to comment on and participate in decision-making and collective action'. Research in HCI, according to Microsoft [3], typically positions older people as recipients of care whereas the social sciences literature shows instead that older people are often providers of care, even to their adult children, and that placing them in the role of 'receiver' may have negative ramifications for self-esteem. Katz et el [2] advocate the promotion of equality between people of different ages, addressing the future needs of an ageing and diverse population, and eliminating discrimination against older people. 'We need to be alive to trends which appear to exacerbate age segregation, and seek initiatives which can bring different generations together around issues of shared interest and importance'. Links between older people and young people are invaluable, helping to break down prejudice on both sides and fostering understanding [1]. Significantly our research acknowledges the changing aspirations of new generations of older people.

2 Building partnerships

According to Sanders [4] through advances in technology and the evolution of human-centered design practices we are witnessing a shift in focus from individual to 'collective creativity' that can provide a new role for designers as creators of scaffolds or infrastructures upon which non-designers can express their creativity. Bohm [5] suggests everyone is creative but non-designers are generally not in the habit of expressing their creativity that is likely to be latent. Interaction design has provided a new design space that has emerged in response to new communication technologies. It is a space where the focus has shifted from form to information. Designing 'experiences' has emerged as a theme for design practitioners but Sanders believes this is a myopic perspective. 'Experience is a subjective phenomenon. You can't design experience. Experience is in people'. She believes; 'Collective creativity and user participation are a much-needed antidote to interaction design's preoccupation with "Experience Design." If you think of products, interfaces and spaces as being scaffolds on which ordinary people can create their own experiences, the design challenge changes'. Sanders suggests the new role of designers will be to learn how to access and understand the dreams of ordinary people to create scaffolds that help people realize their dreams. 'Designers will transform from being designers of "stuff" to being the builders of scaffolds for experiencing. And ordinary people will begin to use and express their latent creativity'.

3 Engagingdesign

Engagingdesign is a transnational research platform created by the authors (Chamberlain is a Designer, Craig an Occupational therapist) that provides the scaffold described by Sanders for collective creativity with a focus on older people but embrac-

ing a broad demographic. The philosophical drive for our multi-method approach to engagement is researching 'with' rather than 'on' older people who are active participants rather than passive respondents. There are many user-centred research methods for collecting data such as questionnaires, interviews, video observation etc. Whilst each method has to be carefully selected and implemented appropriate to the research enquiry significant challenges are presented when the data has to be meaningfully translated. Kolko [6] claims the process of translating data and research into knowledge is the most critical part of the design process. He states research in itself does not produce new ideas and highlights the importance of incubation and translation and states, 'we rarely engage in conversation about making meaning out of data'. Chamberlain [7] has described how the concept of the exhibition is embedded within the culture of art and design and has a long history as a form of gathering employed to prompt academic discourse. The period (17th century) in which salons dominated has been labeled the 'age of conversation' and salons themselves 'theatres of conversation', [8]. Key to our research is the role of objects, critical artefacts, that do not necessarily present solutions but considered questions informed by data to create 'exhibitions' as prompts and a theatre for conversation.

Our research is based on the premise that older people offer a valued resource and asset to families, communities and society and we have actively sought ways to tap into these strengths. We developed and utilised a range of novel and innovative research methodologies to engage with older people across two continents. The initial phase of research 'engagingaging', funded by the British Council aimed to understand the needs of the aging population in order to inform the design of products and systems to support independence and well-being in later life. The research compared the experiences of older people living in Taiwan with those of older people in the UK. Chamberlain and Craig in collaboration with academic researchers at Chang Gung University's Product Design Research Lab conducted a series of workshops and home visits with older people in the respective countries. Taiwan was selected for study as it has a comparable land mass with the UK (small island), and it has a fast developing high-tech industry with one of the world's highest concentration of internet access. Its traditional culture, where older children look after elderly parents, is changing, with many moving to work overseas. Like many countries, it is experiencing a significant demographic shift as a result of an ageing population. Initial data was captured using semi structured interviews but with a focused discussion around objects. Invited participants were asked to bring two objects (or photographs) to the sessions, one being their favorite, and one they hated but couldn't live without. Participants from the UK were recruited from local care homes and community groups e.g. Sheffield Elders, Sheffield 50+ and the University of the Third Age. Participants from Taiwan were recruited from the Chang Gung Health and Cultural village a vast purpose built community (4,500 residents) for older people. This was complimented by home visits in the UK and Taiwan to engage with people living independently. Using a practice-based research methodology we developed the equivalent of a grounded theory approach, transforming data collected through interviews into 'critical artefacts' which were then exhibited in a number of highly prestigious galleries including the Museum of Contemporary Art, Taipei, the Building Centre,

London, The Taipei Cultural Centre and the SIA gallery Sheffield. Included in the exhibitions for example was a collection of furniture 'Stigmas' (fig. 1) designed by Chamberlain to embody the findings of interview data gained from older people in relation to the physical and attitudinal challenges they face in everyday life. Rather than acting as solutions, the furniture formed a series of 'critical artefacts' to pose questions and promote discussion to gain rich, in-depth data used to further our understanding of the needs of an ageing population.

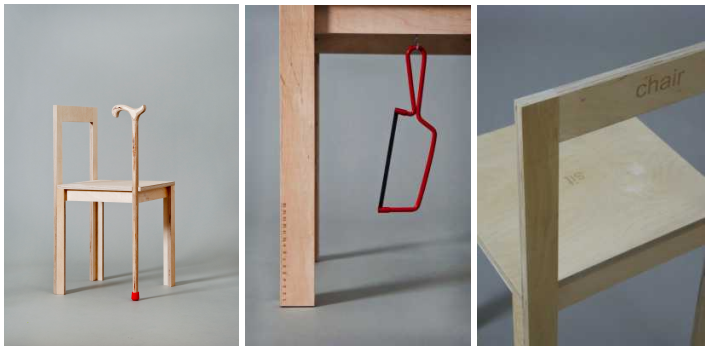

Fig. 1. STIGMAS – Critical artefacts posing questions not answers

The exhibitions, engagingdesign, (Fig. 2) provided the theatre for conversation and became the medium and method for further data collection. Linked to each of the exhibitions was a series of workshops that included, older people, families, design students, health students, medical professionals and the Chinese Community (Sheffield, UK).

Fig. 2. Engaging people in the UK and Taiwan

3.1 Responses to the exhibitions

'The artifacts in the exhibition stimulate deep thought related to older people for participants and visitors. It announces and informs the awareness of issues we all might face in the future'. Curator of Museum of Contemporary Art, Taipei, Taiwan.

'engagingaging was a fresh approach and broke the rules on what we normally expect from an exhibition. It dealt with some difficult and controversial issues in a friendly and accessible way'. Curator of the Taipei Cultural Centre.

'Elders could learn from this exhibition and understand not everything is negative when getting older. Meanwhile this is a nice exhibition to help younger generations understand elders lifestyles and make them more aware of older people'. Epoch Times, December 2010

'I am so glad someone is thinking about us and the exhibition is a great opportunity for us to share our experiences with younger people'. Visitor to exhibition, Taiwan

We turned some of the challenges that arise when working as part of an interdisciplinary (designers, technologists, health and social care professionals) transcultural team into opportunities. Rather than seeing language, different research paradigms, and contrasting health and social care infrastructures as barriers, we embraced these as key elements of our learning and developed a set of principles for the transferability of methods across two continents.

A sense of community emerged as an important theme. Many positive responses emerged from those who participated in communal activities (e.g. game clubs, Bridge (UK) and Mah-Jong (TW), singing groups and physical activity, Tai Chi (TW) and walking groups (UK). A structure and sense of place was important to facilitate such activities, however the ability for individuals to choose to partake in such activities was crucial.

The importance for older people to maintain cultural and intellectual life, through music, cooking, art and craft. We must acknowledge the need for older people to keep learning but also recognise they can act as teachers passing on their valuable experiences. The importance of continuing to make a contribution to society and feeling valued is significant and many participants engaged in volunteer work.

Generally younger participants collectively took the position that older people struggle with all types of new technology and specifically design students felt it was their role to make products easier to use for older people. However the workshops revealed many adept older users of technology and a variety of reasons why older users might not extensively interact with technology. Often it was not the case they couldn't but they either didn't see a need to or couldn't be bothered.

'I realise that one frustrating thing about getting older is the way you become invisible. Yes, you sort of fade into non-existence'. Older participant - engagingdesign

4 Exhibition in a box

Developing the notion of the exhibition as a research tool and inspired by Duchamp's 'Boite en valise' (Box in a suitcase) the exhibition is distilled into a 'suitcase' and aims to compare the experiences of older people to inform design in supporting and empowering independence and quality of life in later life. Rather than the onus being placed on older people to physically access traditional exhibition space, 'exhibition in box' seeks to bring the exhibition to the older person and to transform the home into the research arena providing individuals a tangible prompt to scaffold conversation. Exhibition in a box captures the essence of the larger gallery exhibitions but is an exhibition in its own right.

The American Painter Washington Allston first used the term "objective correlative" about 1840, but T. S. Eliot made it famous and revived it in an influential essay on Hamlet in the year 1919. Eliot wrote;

The only way of expressing emotion in the form of art is by finding an 'objective correlative'; in other words, a set of objects, a situation, a chain of events which shall be the formula of that particular emotion. (9)

If writers or poets or playwrights want to create an emotional reaction in the audience, they must find a combination of images, objects, or description evoking the appropriate emotion. The source of the emotional reaction isn't in one particular object, one particular image, or one particular word. Instead, the emotion originates in the combination of these phenomena when they appear together. Objective correlatives can therefore be described as exercises in economy allowing writers to communicate universal concepts tastefully and subtlety. The idea is to turn an object, event or character in the story into a translating mechanism that poses some greater question that's not directly on the page. The objects selected for our exhibition in a box are in essence object correlatives that facilitate narratives and ways of expressing emotion around ageing.

A set of principles has been developed and employed that primarily positions the older participants as the 'expert' and encourages choice and decision-making. The box comprises of everyday objects, photographs, textual material and 'critical artefacts' defined through the user-workshops undertaken in conjunction with the earlier large-scale exhibition. The 'exhibits' (in the box) are prompts that enable engagement with users in a range of contextual environments the components of which become part of the exhibition. Each 'exhibition', as Duchamp's, is unique through the iterative and evolving contribution from the participants.

Observation forms an important part of user-centred design research. Spradley (10) suggests nine dimensions of any social situation that provide a map for action–based data collection; Space, Actors, Activities, Objects, Acts, Events, Time, Goals and Feelings. According to Robson (11) these dimensions describe the setting, people and the events that are taking place. Descriptions of these settings are as follows.

Table 1. Exhibition in a box provides a physical map of Spradley's theory.

Dimension - Spradley	Description - Robson	Exhibition in a box
Space	Layout of the physical space	The space within the box and the location of the workshop, defined as 'the exhibition'
Actors	The people involved	The researchers and the participants
Activities	Activities of the actors	Facilitated by the researchers (or guidelines) and prompted by the artefacts.
Objects	Physical elements	Objects contained within the box and the environment the workshop takes place
Acts	Individual Actions	Individual and collective acts prompted by the objects

Events	Particular occasions	The workshop/exhibition
Time	Sequence of events	Each workshop event is semi-structured and time limited.
Goals	What the actors are attempting to accomplish	Contents of the box prompt tasks both individual and collective. Our goal is to understand aspirations and preferences and develop insight into value and meaning.
Feelings	Emotion in particular contexts	Prompted by the objects in the box and captured through writings, drawings, audio/video recordings and transcripted for analyses.

Exhibition in a box (fig. 3) contains physical objects and photographs of artefacts (created by the research team including photographs of the Stigma collection), found objects and selected stories gathered and developed through the iterative research to date. Objects have been carefully selected to code, represent and prompt further discussion on themes that have emerged from the earlier research. Key themes include mobility, hygiene, relationships, identity, communication, technology, food, art, money, recreation, safety and work and are represented through the set of found objects that include, keys, dice, soap, pencil, watch, stone, glove, post-card, spoon. The objects can combine to create objective correlatives prompting and enabling participants to express emotional responses. E.g. pencil and post card may prompt discussion around travel, communication or technology (analogue vs. digital).

'I don't know why I hold on to mine (keys), because a stranger lives there now.....I feel a lot of comfort in them jangling in my pocket. They remind me of the old days. Being able to lock your own front door is one of the things that I miss most. It's the loss of privacy and control'.....Participant, engagingdesign

The research data gathered through the series of engagingdesign events has informed the creation of numerous 'critical artefacts' that prompt further discourse through 'what if?' scenarios. Some selected examples contained within the exhibition in the box that focus on our interaction with technology include the following.

Fig. 3. 'Exhibition in a box'

Fig. 4. Biscuit Buddy

'It's not that I am not able to learn to use new technology, at my age I just can't be bothered to learn to use yet another thing'. Biscuit buddy (Chamberlain, Bowen) (Fig. 4) embeds communication technology in an everyday object, a biscuit tin, and ritual, tea-time. The idea is that removing the lid alerts a friend with a similar device and automatically opens up a channel for communication without the need for another product, learning another interface and adopting a new routine. Should we develop new devices that have specific functions or embed technology in everyday objects and rituals?

Fig. 5. 'Love links' – monitoring wellbeing

Fig. 6. Home hospital – family x-rays

'My daughter bought me this mobile phone in case of emergency, but I just keep it in the drawer.' Safety alarms, such as fall alarms, stigmatise users and establish communication with family and loved ones only in times of crisis that set up a situations of anxiety. Objects to cherish could provide a positive continuous 'link' and reminder by monitoring loved ones wellbeing. 'Love links' (Chamberlain, Bowen) (Fig. 5) monitors wellbeing by creating a permanent visual communication link between loved ones in the form of a precious gift e.g. jewelry (rather than device). An alert (lack of activity or fall) breaks the communication link causing change in the object activity (e.g. change of colour). Can we change the negative connotations of monitoring devices?

'I think when you're getting older when you're house bound, I think it, it makes you wonder where you are. You forget what day it is, they tell you what day it is on television or whatever. Your days go all into one'. Home hospital (Chamberlain) (Fig.6) Interrupt your TV viewing and check out the state of your health. Converging technologies present many potential benefits but should we retain boundaries between work, health and play?

Health technologies have in themselves been largely responsible for extended life and will play a critical role in the future but we must not underestimate the value and role of recreation in our lives. Extended life should not just be concerned with survival but with the quality of life. According to Johnson (12) people of all ages need to enjoy themselves, although what gives pleasure to individuals is highly personal and may change with time and circumstances. Age UK (1) acknowledge that humour is an important way of retaining control and personal identity in the face of loss and change. Hubbard et el (13) describe jokes being used to make light of ageing bodies, to manage concerns about accidents, and also to engage those with communication difficulties through practical jokes. While adopting a rigorous protocol in use exhibition in a box deliberately has a sense of game play to incite 'fun' and to help overcome what is often imbalance and inequalities of researcher of participant. Katz et el (2) conclude, *'All of us, regardless of age, need opportunities to show others who we are and to feel good about ourselves.'*

'Because when you get older you do say some outrageous things! Yeah. You're allowed to when you're older'. engagingdesign participant.

Exhibition in a box has identified to date ten partner organisations (research centres and health professionals) across Europe who have made a commitment to utilising exhibition in a box to help continue our study. Ongoing research will focus on gathering further insights from participants but also evaluate the exhibition in a box as a research tool that can provide the scaffold for ordinary people to present their latent creativity. Initial feedback from the workshops to date in the UK and the Netherlands suggests the exhibition in a box does facilitate empowerment for older people providing them with a voice and opportunity for choice and decision-making. Woman participants have tended to focus more on the emotional aspects of their lives while men on practicality and function. The objects have allowed different ways for participants to express their personal identity and in many cases their creativity prompting them to describe things they have made previously in their life and suggest new ways of doing things. The findings to date also challenge negative assumptions about older people and their willingness to participate in activities which could enhance their own lives or those of others.

5 Conclusion

Technological developments present exciting opportunities for designers and offer enormous potential to positively impact and support our ageing society. Too often research problematises issues older people face who become passive recipients of technological interventions. Engagingdesign importantly positions older people as active participants, as experts and as individuals enabling them to comment, participate in decision-making and collective action. We must not view the 'old' as a homogenous group but as individuals and address the future needs of an ageing and diverse population, seeking initiatives which can bring different generations together around issues of shared interest and importance. Our research recognizes and responds to the European Union's (14) mission for solidarity between generations in

providing a shared forum and methods for engaging individuals, families and communities of all ages. The research team's objective is to utilise the new knowledge that emerges from our studies to inform creative design responses. However the research programme has highlighted the value in the process itself not just for design, the research academic community and industry but also for older people themselves. Participants have not just been utilised as a resource from which to collect data but importantly become empowered valued citizens by providing them opportunity for involvement, autonomy and control. Increasingly we experience a saturation of data and as Kolko (6) highlights it is crucial we engage in conversation to make meaning out of this data. The research team have provided through 'exhibition' in its varied formats a theatre for this conversation in an attempt to establish meaning of this data. Crucially engagingdesign provides the scaffold upon which non-designers can express their latent creativity and engage in collective creativity with designers to realise their dreams by defining and shaping what people need and value.

6 References

1. 'Delivering dignity improving later life'. Independent Commission on Dignity for Care a Collaboration established by the NHS Confederation, the Local Government Association and Age UK http://www.nhsconfed.org/Documents/dignity.pdf
2. Katz, J., Holland, C., Peace, S., Taylor, E. "A better life: what older people with high support needs value', Open University ISBN 978-1-85935-861-0 (2011)
3. Microsoft Research, "Designing for Older People", http://research.microsoft.com/en-us/projects/seniors/
4. Sanders L. 'Collective Creativity', AIGA Journal of Interaction Design Education Number 7, June (2003)
5. Bohm, D., "On Creativity" (London and New York), Routledge, ISBN 10: 0-415-33640-4 and ISBN 13: 978-0-415-33640-6 (1998)
6. Kolko J, 'Exposing the Magic of Design', A practical guide to the methods and theory of synthesis (Human Technology Interaction), Oxford University Press, ISBN 978-0-19-974433-6 (2011)
7. Chamberlain, P., Yoxall, A., "Of Mice and Men. The Role of Interactive Exhibitions as Research Tools for Inclusive Design". Vol. 15, Issue 1. pp 57-78. Ashgate Publications (2012)
8. Benedetta, C. "The Age of Conversation" (New York: New York Review Books,) ISBN 978590172148 (2005)
9. J. A. Cuddon's, Dictionary of Literary Terms, Wiley-Blackwell, ISBN 978-1-4443-3327-5 (2013)
10. Spradley, J. P. "Participant Observation", New York, Holt, Reinhart and Wilson, (1980)
11. Robson, C., "Real World Research – a resource for social scientists and practitioner-researchers", John Wiley & Sons ltd ISBN 978-1-4051-8241-6 and 978—1-4051-82409, (2002)
12. Johnson, J., Rolph, S., and Smith, R. "Residential Care Transformed: Revisiting 'The Last Refuge", Basingstoke: Palgrave Macmillan, (2010)
13. Hubbard, G., Tester, S., and Downs, M. G. 'Meaningful social interactions between older people in institutional care settings'. *Ageing & Society,* 23(1), pp. 99–114 (2003)
14. Age Platform Europe. Towards an age friendly EU.