

Space|Time|Place : enabling participation in design research for higher education staff

ATKINSON, Paul http://orcid.org/0000-0002-3086-6273, GWILT, Alison http://orcid.org/0000-0002-3086-6273, GWILT, Alison http://orcid.org/0000-0002-6986-7441

Available from Sheffield Hallam University Research Archive (SHURA) at: https://shura.shu.ac.uk/9873/

This document is the Accepted Version [AM]

Citation:

ATKINSON, Paul, BATEMAN, Roger, GWILT, Alison and HANSON, Maria (2015). Space|Time|Place: enabling participation in design research for higher education staff. In: The Value of Design Research, 11th International European Academy of Design Conference, Paris, 22-24th April 2015. (Unpublished) [Conference or Workshop Item]

Copyright and re-use policy

See http://shura.shu.ac.uk/information.html

SPACE|TIME|PLACE: ENABLING PARTICIPATION IN DESIGN RESEARCH FOR HIGHER EDUCATION STAFF

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

Author	Affiliation	<u>email</u>
Atkinson, Paul	Sheffield Hallam University	p.atkinson@shu.ac.uk
Bateman, Roger	Sheffield Hallam University	r.bateman@shu.ac.uk
Gwilt, Alison	Sheffield Hallam University	a.gwilt@shu.ac.uk
Hanson, Maria	Sheffield Hallam University	m.hanson@shu.ac.uk

ABSTRACT

This paper explores the value of design research to better inform design pedagogy in Higher Education. It describes a programme of initiatives aimed at giving staff involved in delivering undergraduate and postgraduate design courses the space, time and place to fully engage with practice-based design research and describes the results of that research.

These initiatives aimed to address a perennial problem in design education in the UK. Although being actively involved in research is recognized at the highest levels as beneficial to better staff morale and resulting in better informed teaching, the daily pressures of working in Higher Education combine to restrict the very people who wish to engage with research from doing so.

To retain the initial momentum Space|Time|Place provided, the staff established a Community of Practice. The goal of a COP is to bring the peripheral members of the community into full participation within the community guided by more experienced peers who form the core group of the COP. The Space|Time|Place COP met to develop the initial discussions into bids to secure funding for further practice based research. The Community of Practice meetings were supplemented by the use of social media platforms.

The strength of support the Space|Time|Place event and Community of Practice have engendered in the staff is undeniable. The initiative proved to be a useful and meaningful intervention to support staff into research projects that bridge disciplines and contexts, physical and virtual environments, situating support within authentic collaborative staff-centred experiences. The outcomes of Space|Time|Place will be exhibited in a group exhibition. These artefacts will then used by the authors to model and broker the impact of this approach to other lecturers across the department, faculty and University.

Keywords: Design Education, Practice-based Research, Communities of Practice

1 INTRODUCTION

This paper explores the value of design research in better informing design pedagogy in Higher Education. It describes a programme of initiatives aimed at giving the members of staff involved in delivering undergraduate and postgraduate design programmes the space, time and place to fully engage with

Your paper title will go here

Authors will go here

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

practice-based design research, and in turn describes the results of that research.

These initiatives aimed to address a perennial problem in design education in the UK. Although active involvement in design research is recognized at the highest levels as being beneficial to better staff morale and results in better informed design teaching, the daily pressures of such work - high levels of contact time with students, increasingly higher levels of administrative duties and the often disparate geographical location of staff - combine to restrict the very people who wish to engage with research and develop a personal research profile from doing so.

This project seeks to respond to this provocation in the form of a Knowledge Sharing Event followed by the development of a number of collaborative interdisciplinary projects. Outputs from the SPACE | TIME | PLACE project will be disseminated online and in the form of a website that includes both the staff projects as well as critical writing about the SPACE | TIME | PLACE process.

2 METHOD

Space|Time|Place (STP) began with an amount of internal seed funding from the Sheffield Hallam University Art and Design Research Centre (ADRC) being made available to support a variety of events, including away days, workshops, symposia, publications and exhibitions, all determined by the staff themselves. It was decided that a series of 'events' could be used to explore relevant questions including: What could pragmatically be changed to better enable staff to become actively involved in research activity? What resources are really required to enable staff to make research a personal priority? What is the best way forward to start to develop relevant research projects?

STP has 5 core goals:

- Creating the opportunity for staff to share and exchange their past, current and future research.
- Increasing staff research activity.
- Enhancing collaboration between staff.
- Exploring the use of a community of practice as a catalyst to kick-start collaborative, cross disciplinary research.
- Exploring ways to apply for external funding/grants to support staff research.

Action Research:

The project uses a participatory action research methodology (Swantz, 2008; Wadsworth, 1998). The 2014 STP project will inform subsequent project iterations that will further explore collaborative staff co-creation across the department, faculty and later the University. The focus of the research is increasing staff engagement with design research.

Research Questions:

- 1. What is the value added to lecturers from participating in such a collaboration in terms of (for example) acquired competencies, social capital, and motivation.
- 2. What types of learning activities and strategies prove appropriate for this type of staff collaboration?

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

Your paper title will go here

Authors will go here

- 3. What strategies can be used to create social constructivist learning environments that bridge formal and informal learning contexts?
- 4. What are best practice examples of the use of Communities of Practice to facilitate the building of research supportive environments?

The project is founded upon social learning theory and frameworks. These inform the choice of technologies that support the types of interaction and assessment strategies implemented within the project, forming a design framework.

Communities Of Practice:

Communities Of Practice are made up of groups of people with a common interest who act as peers as they explore issues within a particular context. Lave and Wenger (1991) assert that new peripheral (or partial participation) community members learn from the active members of a community, and learning occurs as they are gradually brought into an active role or full participation in the community. The process of moving from a position of legitimate peripheral participation to full participation within a community of practice involves sustained activity and requires time for the ontological shifts that must occur. An ontological shift is "the re-assignment or re-categorizing of an instance from one ontological category to another" (Chi & Hausmann, 2003, p. 432), or simply put, a reconceptualisation. The sustained engagement of a community of practice creates a supportive framework for cultivating participant ontological shifts as members reconceptualise their roles from individual experts to members that facilitate co-generated content.

Project Outlines:

The overall STP project strategy focuses upon enabling staff to be research active, with a particular focus upon developing collaborative staff-generated projects that are then shared and critiqued by the other participating staff in the STP group. The utilisation of social media (for example facebook) and the affordances of web 2.0 are core catalysts in enabling these staff-generated projects and the related communication and collaboration across the boundaries of discipline, location and timetables.

The use of Film and video:

Analogue technologies like audio recording, film, and traditional video have a long history of use in many areas of social and psychological research, especially in anthropology (Gibbs et al., 2002). For example Kanstrup suggests that "methodologically, it can be difficult to understand work practices since parts of work practices may even be invisible at first hand... [The] need for closer investigation has made researchers within work place studies turn to ethnographic methods and to the use of visual technologies in data collection and analysis. (Shrum et al., 2005)

Film and video were used to capture the one-day STP event as well as to follow up with participants at selected intervals after the event had taken place.

3IMPLEMENTATION

Setting up Space|Time|Place:

The sharing of staff research aims, objectives and outputs within the Sheffield Hallam University Design Subject Group had not been undertaken for some time, realistically over a decade. As numerous new staff had joined the Subject Group it had become apparent that there was a need to discuss and share their work as well as look for new projects and partners to engage with.

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

Your paper title will go here

Authors will go here

The researchers decided that an introductory knowledge-sharing event could be an appropriate way in which to provide a platform to cultivate an open arena for dialogue and creative research; sharing what we do and who we are to enable the establishing of cross-disciplinary synergies. Through provocation and creative activity it was envisaged that a number of interrelated, collaborative projects would be generated. The projects would then be used to explore co-creative activities, resulting in a reflective exhibition.

At the point of organising the first event the Design Subject group was the largest within the department encompassing 30 staff from 5 separate disciplinary groups. Only a handful of these were active researchers, with some groups not having a research voice at all. It was challenging half way through an academic year to find a time that would be able to accommodate all staff due to timetabling structures within the institution and as a result only 12 out of the 18 people who wanted to participate were able to attend the whole event. However, the development of the COP and mechanisms to facilitate subsequent activity has ensured that all members have felt part of the community and enabled additional staff to join the initiative at later dates.

The Sheffield Hallam University Art and Design School environment does not contain places or spaces where staff can easily come together and work. The physical environment does not adequately support staff in a creative manner and there are few opportunities for staff to exhibit their work. STP sought to create the SPACE TIME and PLACE to enable staff to work outside the 'known' and beyond individual zones of knowledge.

An initial discussion about the event was undertaken by a collective group (all of whom expressed an interest in participating). This was then developed further by a smaller group who planned, structured and organised the event in detail. This smaller group considered the use of an external facilitator but decided that the conditions for intimate/ in-depth knowledge sharing would be more easily created within our closed group. As design educators, researchers, practitioners we felt that participatory action research methodologies (Swantz, 2008; Wadsworth, 1998) that used co-creative strategies could engender the types of outcomes hoped for. Bateman and Hanson, the leaders of the knowledge sharing event, also took part as participants. This approach required discipline to keep a focus on time and the flow of activities but also allowed for spontaneous adjustments to be made in relation to the dynamics of activities as they unfolded.

THE EVENT

The STP knowledge-sharing event was hosted in the form of a one-day two evening residential. It was decided that taking a facilitated event off-campus would provide staff with the SPACE | TIME | PLACE to surface and share knowledge. Being removed from the 'Normal' working environment was pivotal and meant that participants were able to become absorbed within the event without constant distractions. The event structure can be seen below (Table 1).



Your paper title will go here

Authors will go here

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

D#	AY ONE - EVENING
	Arrival - Refreshments
	Welcome (Roger Bateman and Maria Hanson)
	Introduction to Divya Shankar - Outradius Media (Documentary film maker)
	Speaker -Claire Craig : Adventures of an initially reluctant researcher
	Speaker - Paul Chamberlain: Research: Who are you and what do you want to be?
	Dinner
D#	AY TWO
	Arrival - Coffee
	Introduction to the day (R Bateman & M Hanson)
	UNVEILING / REVEALING
	REFLECTION: Questionnaire – Part 1
	INTERACTIONS - CONVERSATIONS
	SHARING
	INTERACTIONS - CONVERSATIONS
	LUNCH
	SHARING
	REFLECTION – ITERATION: Questionnaire – Part 2
	GROUP DISCUSSION - RESEARCH THEMES
	NEXT STAGE?: OUTPUTS - Discussion

Table 1 - Structure of the STP knowledge-sharing event

At the start of the event all participants were provided with a bound leather notebook which has become a symbolic metaphor of belonging to a community. These have continued to be used by individuals within the smaller project subgroups.

Your paper title will go here

Authors will go here

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS



Figure 1 - Clair Craig's Inspirational Presentation

The event began with an evening session that included presentations from the Head of the Sheffield Hallam University Art & Design Research Centre and an established researcher from a non-design background. These presentations discussed a variety of issues including cross disciplinary, multidisciplinary and inter-professional working, the UK Higher Education research context, and the broad nature of research-based design practice. Using the heading of 'Adventures of an initially reluctant researcher' Claire Craig, (whose background is in health and well-being) opened the event with a very engaging talk that was able to set the tone for what followed (Figure 1). Her infectious presentation style made participants feel at ease, enabling preconceptions to be broken down by demystifying what some staff felt to be unknown territory. She talked with passion and humour about the highs and lows of working within crossdisciplinary research teams, providing insight into methodologies and outcomes in a way that made staff feel energised. In contrast Paul Chamberlain (Head of ADRC) started his talk by asking the group 'Research: Who are you and what do you want to be?' He discussed the importance of passion and enthusiasm in relation to research topics and questions but also the need to occupy spaces that sometimes feel uncomfortable and to take risks in order to be able to create new knowledge. He stressed the need to be reflective to ensure that research is

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

Your paper title will go here

Authors will go here

being done from an informed position and that by engineering opportunities alongside more self-indulgent research enquiries can provide very fruitful results.

These presentations were followed by a communal dinner, engendering further discussion about possibilities, team building and group morale.

The following morning, the event used workshop activity to provide the catalyst for developing future research projects. In order for staff to 'Share what we do and who we are' they were tasked with bringing something physical that can be placed on a table (or floor) (Figure 2). These 'Things' were used as Cultural Probes (Gaver, Dunne & Pacenti, 1999) as a strategy to pursue experimental design research thinking in a responsive way. These provocations acted as the catalyst for revealing/sharing/discussing/developing work during the event with the hope of leading the group towards unexpected ideas and outcomes. The provocations selected needed to enable the participants to share something with each other about themselves, their values, their research interests, skills, methods of being creative, and aspirations for future creative research/exploration/practice. Drawing upon earlier work by Hanson and Wood (2010) which explored how certain Key-pieces (of craft making) could be used as probes to create critical dialogue it was suggested that the 'Things' revealed during the SPACE | TIME | PLACE event could represent an endpoint or resolved stage of enquiry or they may represent a question, a challenge or a first idea.

Examples of suitable 'things' that were given to staff were:

- Drawings
- Material samples
- Prototypes
- Written text (E.g. book / paper / article)
- An object that you have made (or someone else has made)
- Photographs
- Tools
- Fragments of 'STUFF'



Figure 2- Physical 'Things' brought to the workshop.

Staff had 15 minutes to independently view all of the provocations after which participants were given a questionnaire that required them to describe what had been brought and then respond to the four questions below. The focus of the questionnaire was to illicit both reflective information about the provocations and

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

Your paper title will go here

Authors will go here

as a means of generating potential starting points for research topics that could be shared later in the event.

- 1. Use three key words related to the things you have brought that describe something about yourself / personal characteristics.
- 2. What key ideas issues concepts themes are embodied / represented by the things you have brought?
- 3. Identify one or more personal strengths that you have developed as a result of your creative practice / research.
- 4. Can you identify an area of research that is topical / timely that you would like to engage in. (This does not need to be connected to the things brought)





Figure 4 - The Space | Time | Place participants working in pairs.

The Interaction-Conversation sessions that followed were organised in a way that required participants to work in pairs for a maximum of 10 minutes (Figure 3). Using the 'Things' brought they were tasked with discovering something about their partners research, ideas, context, questions, issues and so forth. These initial thoughts were captured by using analogue post-it boards - a methodology used throughout the event to capture ideas and discussion. In some cases these were anonymous postings and in others participants' initials were used to enable individuals to identify synergies that would be used to establish smaller focused groups at a later stage. These paired conversations were repeated a number of times creating opportunities to iterate and refine thoughts and develop new understanding and empathy with colleagues. During the subsequent open group sharing activity it became apparent that the unveiling of 'Things' had provoked participants to engage in storytelling as a methodology (Miller, 2008) for revealing key issues and questions.

After intensively working together for a number of hours an additional set of questions were presented to participants providing quiet reflective time before final discussion and planning:

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT
FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

Your paper title will go here

Authors will go here

- 1. Through the interactions, what have you discovered about the things that you brought?
- 2. What common ground / shared interests have you identified?
- 3. What new areas of Interest / themes / questions have started to form in your mind?

These activities gave staff the opportunity to take the necessary initial steps in proposing projects and undertaking practice-based research themselves, and quickly led to initial discussions around the development of interdisciplinary research teams based around shared research interests - discussions that would otherwise have been unlikely to happen (Figure 4).



Figure 3 - The Space|Time|Place workshop event.

To maintain the initial momentum Space|Time|Place provided, the staff established a Community of Practice. 'Communities of Practice' is a social learning theory (Lave and Wenger, 1991; Wenger et al., 2005, 2009). Communities of Practice (COPs) can provide a framework for developing and nurturing learning communities. The goal of a COP is to bring the peripheral members of the community into full participation within the community guided by expert (or more experienced) peers who form the core group of the COP. The Space|Time|Place COP met to develop the initial discussions into bids to secure funding for further practice based research. The Community of Practice meetings were supplemented by the use of social media platforms.

4 RESULTS

The outcomes of Space|Time|Place will be exhibited in a group exhibition. These artefacts will then used by the authors to model and broker the impact of this approach to other lecturers across the department, faculty and University.

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

Your paper title will go here

Authors will go here

Members of the community of practice that participated in the initial Space|Time|Place event and those who have subsequently joined feel empowered by the event and the outcomes so far. Video interviews have been used to follow the development of staff research since the event and to further understand the impact of the event on both staff morale and staff research activity. Space|Time|Place provided an opportunity for staff to work outside of their own fields of practice collaborating with colleagues with shared interests and complementary skills and expertise. As a direct outcome of Space|Time|Place, five smaller sub-groups have formed to collectively develop specific research projects. Further internal seed corn funding was applied for by the groups, mentored by the COP, all with successful outcomes. The level of success achieved by the Space|Time|Place sub-groups demonstrates the success of this initiative as well as the support that exists within the Institution's Art and Design Research Centre to support, nurture and encourage staff into become active researchers.

An outline of these projects can be seen in the chart below (Table 2):

Caring for People, places and things: exploring the ways in which people (designers, makers and users) extend and preserve the lifecycle of specific objects and places through 'caring'.

Space|Time|Place: Enabling participation in design research for Higher Education Staff

From **Green to Gold:** Increasing the uptake of Bio-composite materials - A multidisciplinary investigation into surface decoration and tailoring techniques applied to a novel bio-composite fabric.

Thinking – Keeping: exploring the irreversible act of 'breaking in' to a sealed package, as an experience that structures the user's first stages of owning a product.

My Space: co-creating personalised space within UK healthcare environments: Examines whether engaging patients in the process of customising and personalising the healthcare space they inhabit can empower them and encourage active participation in their recovery process rather than being passive receivers of care.

Table 2 -Research projects being developed by Space|Time|Place sub-groups

The five groups have been meeting regularly, both physically and virtually sharing progress with the rest of the COP though a closed Facebook group and monthly meetings.

These groups have discussed the challenges of finding the time within the normal working week to keep moving projects forward but feel a strong sense of responsibility to their groups (Wenger, no date) not just to themselves as lone scholars. Without exception, all cite the benefits of being part of the COP.

5 DISCUSSION

The impact of the Space|Time|Place project described in this paper is clearly seen in the changes implemented in the Design Subject Group at Sheffield Hallam University. Beginning with initial explorations of supporting staff into research activity, the Subject Group now features staff-generated projects as a

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT FRANCE

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

Your paper title will go here

Authors will go here

core part of staff's work, supported by the department and funded by the Art & Design Research Centre.

Space|Time|Place enabled staff to begin research projects and to capture, record, share, and categorise ideas, processes and collaborative activities outside of the University environment.

The integration of lecturers and established researchers (Bateman, Hanson, Atkinson, Gwilt) in the Community of Practice has given a core support structure within the COP and has led to sustained collaboration between the lecturers and the researchers. An outcome of this collaborative partnership has been not only a change in approach to research but also significant practice-based research outputs that will be used to broker the concepts and approach to other lecturers in other contexts.

At the start of a new academic year it is difficult for staff to prioritise research over other academic commitments and as a result, research activity could reduce and even stop if left unsupported. Since September the COP has met twice to discuss and support the projects that resulted from Space|Time|Place. During recent video interviews with key members of the COP (October 2014) staff clearly cited the support of the COP as vital in terms of maintaining research momentum.

While the commitment and input of the participants has been intense, the outcomes have been rich. The results have been significantly better than the previous approaches towards scaffolding lecturers into research activity via research cafés and research presentations.

6 CONCLUSIONS

This paper outlines a project for implementing research support within higher education with the goal of transforming staff engagement with research. This project has enabled the valuable development of staff-generated research projects and collaborative working. The design research generated within this context has added value not only to the day-to-day experience of the staff involved in Space|Time|Place, but also to the Design Subject Group itself, and hopefully in turn to the students belonging to this Subject Group.

Adopting a COP that allows for collaborative partnerships between the participants was found to provide a powerful support structure for change and proved to be a key component of the project. It has been indicated by those staff yet to become actively engaged in any specific project that belonging to the COP in a peripheral way as suggested by Lave and Wenger (1991) has created a sense of inclusion in a way that previous structures and mechanisms have not permitted.

In summary, the Space|Time|Place project can be seen as a useful and meaningful intervention to support staff into research projects that bridge disciplines and contexts, including formal and informal (for example, in the creation of research funding applications), physical and virtual (for example, the STP online site), situating support within authentic collaborative staff-centred experiences.

Your paper title will go here

Authors will go here

11TH EUROPEAN ACADEMY OF DESIGN CONFERENCE

APRIL 22-24 2015

PARIS DESCARTES UNIVERSITY INSTITUTE OF PSYCHOLOGY

BOULOGNE BILLANCOURT

CONFERENCE ORGANIZERS:

PARIS DESCARTES UNIVERSITY
PARIS SORBONNE UNIVERSITY
PARIS COLLEGE OF ART
ISTEC PARIS

References

Chi, M., & Hausmann, R. (2003). Do Radical Discoveries Require Ontological Shifts? In L. Shavinina & R. Sternberg (Eds.), *International Handbook on Innovation* (Vol. 3, pp. 430 - 444). New York: Elsevier Science Ltd.

Gaver, W. Dunne, A, & Pacenti, E. (1999) *Design: Cultural probes*. Interactions, (Vol 6, Issue 1, pp. 21-29) ACM, NY, USA

Gibbs, G. R., Friese, S., & Mangabeira, W. C. (2002). The use of new technology in qualitative research. Introduction to Issue 3(2) of FQS [35 paragraphs]. Forum Qualitative Sozialforschung / Forum: Qualitative Sozial Research, 3(2).

Hanson, M. & Wood, N. (2010) *KEYPIECE: Creating a critical dialogue in contemporary craft* in Design and Craft: a history of convergences and divergences, 7th Conference of the ICDHS, Brussels, September 2010. pp. 202 – 206

Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.

Miller, D. (2008). The Comfort of Things. Polity Press, Cambridge, UK

Shrum, W., Duque, R., & Brown, T. (2005). Digital video as research practice: Methodology for the millennium. *Journal of Research Practice, 1*(1), Article M4. Retrieved [17.03.2015], from http://jrp.icaap.org/index.php/jrp/article/view/6/12

Swantz, M. L. (2008). Participatory Action Research as Practice. In P. Reason & H. Bradbury (Eds.), *The SAGE Handbook of Action Research: Participative Inquiry and Practice* (Second ed., pp. 31-48). London: SAGE Publications.

Wadsworth, Y. (1998) What is participatory design research? http://www.aral.com.au/ari/p-ywadsworth98.html last accessed 17.03.2015

Wenger, E., White, N., Smith, J. D., & Rowe, K. (2005). *Technology for communities*. Available from http://technologyforcommunities.com/CFFRIO_Book_Chapter_v_5.2.pdf

http://technologyforcommunities.com/CEFRIO_Book_Chapter_v_5.2.pdf last accessed 17.03.2015

Wenger, E., White, N, and Smith, J.D. (2009) *Digital Habitats: stewarding technology for communities*. Portland, OR: CPsquare Publishing

Wenger, E. (1998) *Communities of Practice : Learning, Meaning, and Identity*, Cambridge, Cambridge University Press.

Wenger, E. *A Communities of Practice a Brief Introduction.* (online, no date) http://wenger-trayner.com/introduction-to-communities-of-practice/ last accessed 17.03.2015