Taking a Softer Approach: Using Photo Elicitation to Explore the Home as a System for Happiness and Sustainability

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Background

Quality of life has improved dramatically over the last 200 years but this has also brought many consequences. Temperatures, sea levels and natural disasters have risen due to the increased intensity of human endeavours such as burning of fossil fuels and deforestation (IPCC, 2014). Current

GDP based economies, being reliant on high levels of material consumption, continue to exasperate these issues with the excessive production of commercial products and waste. For example, 15 million tons of food and drink are wasted every year in the UK (Department for Environment Food & Rural Affairs, 2013).

However, it is not just the habitability of our planet that is in demise. Approximately 450 million people worldwide also have mental health issues (World Health Organisation, 2001) and one in four British adults experience at least one diagnosable mental health problem in any one year (The Office for National Statistics, 2009). It is clear that we need to change our current practices to those that are both environmentally and emotionally sustainable.

Home as an Expression of the Self and Current Society

Current western homes, filled with free flowing electricity and products, are built around these contemporary social norms of material consumption, efficiency and convenience. Sustainability remains an abstract concept to most individuals as there is a disconnection between the planetary crisis and everyday experiences. People tend to live by the *affordances*[1] of their space (Gibson, 1979) and the current domestic environments offers seemingly boundless electricity, comfort and convenience.

However, this modern way of life does not seem to make us happier. A considerable body of research is amounting to discount any connection between high levels of consumption and long-term happiness (Hofstetter et al, 2006). There is also research that suggests a strong commonality of characteristics between happy and sustainable societies and that our current unsustainable socio-economic system may even counteract these (Escobar-Tello, 2010). See figure 1 for examples of these overlapping qualities.

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[1] The *affordances* of the environment are what actions it *offers* or *affords* to the occupier that can result in either good or negative outcomes as a consequence of this (Gibson, 1977).
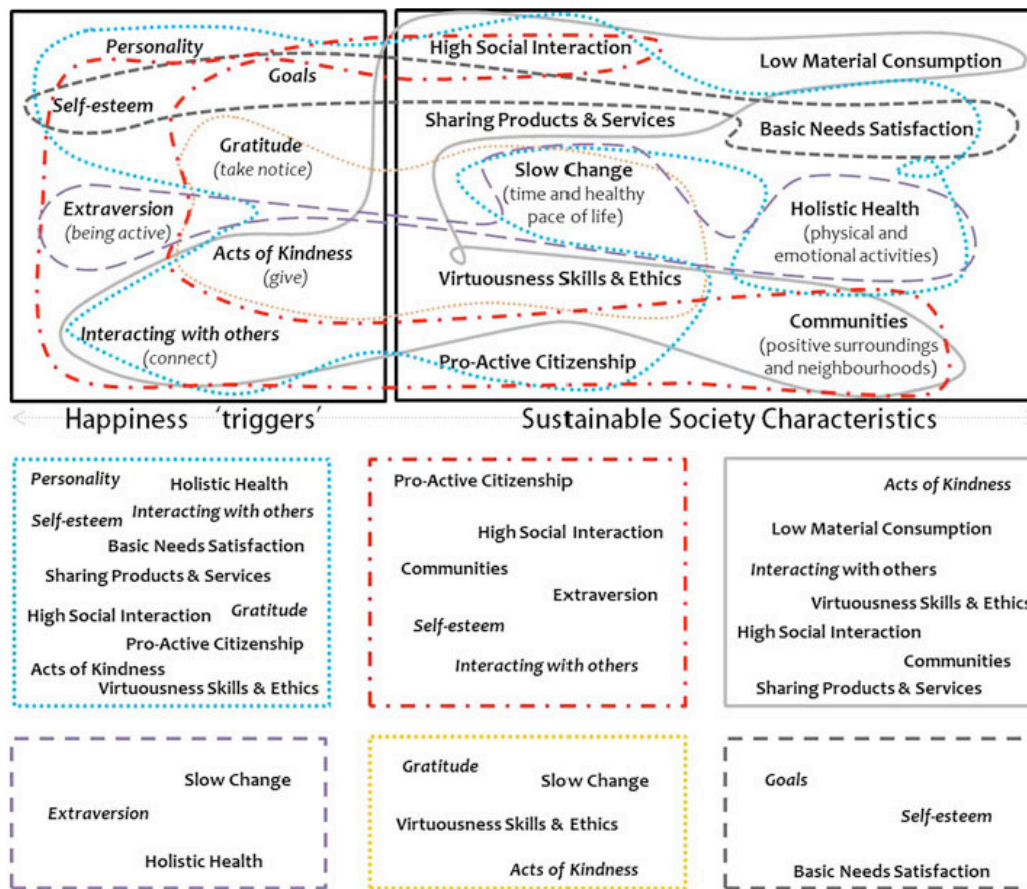
Figure 1 – Overlapping happiness triggers and sustainable society characteristics (Escobar- Tello, 2013)

Homes are usually explored from technology and built environment points of view (i.e. LEEDR project[2] and Better Buildings Partnership[3]), which tend to neglect the social dimension of home and what make people happy in these spaces. The home is not just a place of shelter. It is an expression of the self and current society (Cristoforetti et al, 2011: De Botton, 2006). The home is also a complex system comprising of many evolving dialectic practices of individuals, objects and society (Massey, 2005; Ingold, 2011; Dovey, 1985). Taking a happiness perspective allows us to consider all these aspects and explore the domestic space holistically. This research therefore intends to highlight the overlooked social dimensions of domestic life, particularly emotion, happiness and well-being aspects, and their potential contribution to future sustainable lifestyles. This paper focuses on the first study, discussed in the following sections.

Home from a Happiness Perspective

The aim of this study was to identify the important qualities, practices and needs for home life happiness. As privacy is a central component of the contemporary western home (Hareven, 1991; Crabtree and Rodden, 2004), methods that would allow the collection of data in a semi-open, non-intrusive manner were decided to be the most effective to begin the data collection. These would be used to *sensitize* (Bogd, 2001 cited in Aldiabat and Le Navenec, 2011), to allow the researchers to understand the emic experiences of participants (Aldiabat and Le Navenec, 2011) and begin locating

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[2] The LEEDR project is a research project studying energy consumption in the home by analysing the use of home devices (LEEDR, 2014)

[3] The Better Buildings Partnership is a collaboration of UK property owners to improve the sustainability of existing commercial properties through the education, management and monitoring of architectural and technological aspects of buildings (Better Buildings Partnership, 2015)

happiness cues in this context. Routines and interactions within the home therefore needed to be captured from their perspective to begin making this assessment.

Creativity as Means of Exploring Happiness in the Home

A creative method was chosen as a suitable approach to explore happiness in the home as engagement in creativity has been heavily linked to the expression of emotion and happiness. For example, creativity is used within art therapy to elicit emotions that are difficult to verbalise through art making (BAAT, 2015). In fact, the creative interaction involved in art practice has been shown, using fMRI scans, to provide alternative access to emotional centres in the brain when an individual creates an emotionally mood piece as this process activates the corresponding neurological areas (Lusebrink and Alto, 2004). Averill (2005) also understands emotions as both mediators and products of creative activity. He implies that it is necessary to connect emotionally with oneself in order to be creative and to create in order for one's authentic emotions to be acknowledged. Other evidence using fMRI scans would suggest that it is impossible to think emotionally and rationally at the same time as each way of thinking requires specific areas of the brain to be active and others to become dormant (Jack et al, 2012). For this research, it was therefore necessary to consciously encourage one mode of thought over the other. In this case, creativity was used to elicit emotional responses from participants.

According to Nakamura and Csikszentmihalyi (2002, p.89), a happy life is one that is characterised by the achievement of flow – the complete absorption in what one does during acts of creativity. Kasser (2013) also claims that engagement in arts activities may suppress a dominant focus on extrinsic motivators[4], which have been shown to increase negative emotions[5] (Kasser, 2011), by encouraging a shift to intrinsic motivators[6] conversely associated with long-term happiness (Segliman, 2002). By utilising creativity with participants, the researchers therefore hoped to elicit positive emotion and intrinsically motivated behaviour in the home to explore current and potential happiness triggers in this area.

Study Sampling

For this qualitative study, a combination of criterion sampling (Creswell, 2013, p. 119) and convenience sampling (Cohen et al, 2011, p.155) was used to obtain 13 participants from 10 home-owning households with families from similar socio-economic backgrounds. This group was selected as they tend to have a greater emotional attachment to their home. Also, they are in more of a position to respond to and modify their environment when compared to those renting. They are also those with the least amount of time and resources to maintain happy and sustainable lifestyles due to their hectic daily routines and responsibilities. Therefore, their domestic spaces would bare more of an honest reflection of their practices and would be more receptive and beneficial to the study.

Method

Photo elicitation is a qualitative method that combines the use of images with interviews (Harper, 2002). These images can evoke feelings, memories and serve as a point of reference for both parties to improve overall understanding (Harper, 2002; Henry and Fetters, 2012). The researchers or participant(s) can supply them (Rose, 2007). Participant-generated photography can be particularly useful in understanding people's emotional experiences (Lo, 2011a) and encouraging reflection on previously unconsidered everyday activities (Rose, 2007; Lo 2011a). In this research, photo elicitation was used as a combined creative and interview method in which participants supplied the researchers with creatively generated imagery around home life and then attended a semi-structured interview to discuss them afterwards.

This method allowed the researchers to give participants clear guidelines to capture specific visual aspects of home life while also allowing participants to take control of the mediums and take initiative in executing them in a creative manner. It also later allowed participants to narrate and reflect on their daily routines in the follow-up interviews. It was therefore selected as a non-imposing creative method to gather both visual and verbal data about home life.

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[4] Extrinsic motivation is the engagement in an activity to receive external rewards such as money and possessions for social status.
[3] Examples of negative emotions related to a focus on extrinsic goals are anxiety and depression.
[4] Intrinsic motivation is the inherent desire to engage in one's interests or to develop one's capabilities.

Process

Using photography, participants were asked to create a visual narrative of two typical representative days of their home life – one working and one non-working day. A small selection of the images captured can be viewed in figure 2.

Figure 2 – Selection of images captured by participants using the photo elicitation method

The specific aims of the study were not discussed to reduce any a priori and/or external influence on participants. They were also given the freedom to take as many or as few images as they desired. Subsequently, the researchers created memos from these images and then triangulated the results against follow-up semi-structured interviews. These interviews facilitated the *live* expression of emotions and elaboration of home life routines depicted in imagery from participants. They also allowed the researchers to use semi-structured questions (see table 1) and adjust the focus of the enquiry in response to interesting reactions or non-verbal cues from participants to investigate any underlying intentions (Robson, 2011). The questions were generated from the findings of a literature review on concepts of home i.e. home is a reflection/extension of the personal, social and ideal self (Cristoforetti et al., 2011; De Botton, 2006) and were therefore framed to elicit how these home-making practices contributed to or depleted personal happiness.

Part 2 – Reflections on Home

1. Do you have a favourite place/activity in the home? Where/what and why?

2. Do you have a least favourite place/activity at home? Where/What and why?

3. Is there anything that you became more aware of by doing this exercise?

4. Is there anything you would change as a result?

5. What makes home feel like home for you?

6. Have you ever had a pet in the home? What was that like?

7. How does your home reflect/not reflect you?

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8. What do you *need* in a home?

9. Where do you and your family spend most of your time together? Do you think this area could be improved and how?

10. Do you get enough family time together at home?

11. When do you get 'me time'?

12. What would your ideal home look like?

Table 2 – Interview schedule sample for the semi-structured interviews

Interviews were kept to one hour maximum in order to ease participants in and out of in-depth discussions without exhausting them and were divided into sections: introduction, warm-up, main and cool-off (Robson, 2011). The participants mostly led the discussion of the imagery but further questions were asked if particular elements of interest (i.e. what were you thinking?) had not been covered. These were audio recorded but important visual aspects were also noted and hand scribed. Analytical memos and *session summary sheets* – outlining how the data identified practices and needs for home life happiness – were used to clarify these further at the end of each interview (Robson, 2011, p.473).

Analysis Strategy

The combined results from the imagery and semi-structured interviews were analysed inductively through thematic analysis using *open* and *in-vivo* coding (Corbin and Strauss, 2008). This was done by asking sensitising and theoretical questions i.e. "What are people doing in their daily routines?" and "How does this behaviour facilitate happiness?" and using the *constant comparison* and *flip-flop technique* (ibid). These were analysed at least twice to obtain maximum consistency and validity. A deductive analysis was then carried out on resulting themes and properties using Escobar-Tello's (2010) *a priori codes* (see figure 3) for happy sustainable societies. This allowed initial connections to be hypothesised between domestic happiness behaviours and sustainable lifestyles. The *counting technique* (Miles and Huberman, 1994, p.215) was then used to identify which themes and properties appeared with more or less frequency.

	CODES	CLUSTERS	
Macro-code	**Sust**	**Issues relating to Sustainable Society**	
	Sust-low	Low Material Consumption	
	Sust-inter	High Social Interaction	
	Sust-needs	Basic Needs Satisfaction	
	Sust-sha-PS	Sharing Products and Services	Sust Cluster
	Sust-slow	Slow Change	
	Sust-holistic	Holistic Health and Education	
	Sust-virt	Virtousness Skills & Ethics	
	Sust-comm	Communites	
	Sust-pro-act	Pro active citizenship	
Macro-code	**Happ**	**Issues relating to Happiness Triggers**	
	Happ-self	Self-esteem	
	Happ-active	Extraversion	
	Happ-goals	Goals	Happ Cluster
	Happ-aware	Gratitude Journal	
	Happ-give	Acts of Altruism and Kindness	
	Happ-connect	Interacting with People	

Figure 3 – A priori codes for happy sustainable societies (Escobar-Tello, 2010)

Results and Findings

The results suggest that using photo elicitation in this manner successfully engaged participants emotionally, encouraging them to reflect on their habits in their home environments. One participant even remarked, "Lots of my pictures seem to be about mess… am I obsessed with that? Is that such a big part of my life because I'm taking pictures of it?" The imagery provided the interviewer and the interviewee a common ground for initiating discussion around sometimes sensitive and private topics of home life. Using the imagery in this manner appeared to put participants at greater ease as the focus of the interview was initially on the images they had supplied. The photos acted as memory aids and allowed the participants to give the researchers a rich account of home routines. They often contained other elements that the researchers could gently probe the interviewee to discuss in greater detail. The discussions of images therefore often lead to useful topics outside of what was being depicted.

The combined visual and verbal data from the study not only revealed what participants commonly did at home during their domestic routines but also which activities or situations gave them the most and the least pleasure, made them feel relaxed, happy or irritated etc. This was made evident through (1) overt statements of situations or spaces e.g. "…with the kids it would be chaos if we tried to sit in there" or (2) open reflections on home life e.g. "…we're working towards me getting my life back so I'm doing quite a lot of drawing and painting" and (3) what elements appeared most frequently in the images. For most people, positive imagery included their children, relaxing periods, their hobbies and family pets (see figure 4).

Figure 4 – Selection of captured images depicting positive themes

Negatively described imagery often consisted of household chores or untidy spaces (see figure 5).

Figure 5 – Selection of captured images depicting negative themes

This also brought to light the *relational messages*[7] of the home in which feelings felt by a household member could be seen as a direct response to another member's actions e.g. frustration was felt by one participant that their partner put everyone's laundry away except theirs and this irritation was often brought on by the sight of the laundry pile left on the bed. The most reoccurring actions depicted were often those portraying emotional self care, such as pursing one's interests (see figure 6), or spending time on or with family members (see figure 7).

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[7] Relational messages are perceived messages the receiver interprets from the sender (Alder et al, 2006). For example, leaving dinner out for someone can be a positive signifier for the viewer but the sight of a messy kitchen may cause negative emotions/reactions.

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Figure 6 – Image of subject about to go for a run

Subject: "I like running because it's outside… I think you can kind of lose yourself when you're running."

Figure 7 – Image of mother and daughter making chocolate lollies together

Subject: "[Daughter] had the chocolate lolly kit as a present and was desperate to make them, [son] was desperate to eat them and I think [mother] was… oh well here's something that both of you can do together without causing an argument."

Other less common positive activities discussed were socialising with neighbours and volunteering in the local area. Negative activities included the tidying up of other people's mess especially where little appreciation was shown e.g." That really annoys me when he's been in there with his friends and I just look at it with distain and say oh my god I've got to sort this out!" or it was one that appeared to be never ending e.g. "the dishwasher just symbolises all that is untidy really" and took away time the participant could be spending on more enjoyable things e.g. "I don't really like cleaning and I don't like how it intrudes on your home, your day off time".

Conclusions

By providing participants with a creative photography task to document their home routines prior to interview, they emotionally connected and reflected on otherwise unconsidered norms of domestic life. Using this method not only provided a common ground for discussion of the topic but also acted as a way of sensitising participants to their domestic emotional experiences. This sensitisation allowed for a greater elaboration of the ups and downs of home life including dreams and ideals for future domestic happiness. Finally, using photo elicitation, this study was able to establish dominant motivations for the most common activities in the home by examining and observing the emotions expressed in the verbal and visual data (see figures 6-7). These could then be divided into upper and lower needs by observing which occurred with the most frequency in the data. For example love, firstly self-love and secondly reciprocal love, was found to overwhelmingly dominate the motivation for activities performed in the home. Of those relating activities, the most prevalent under self-love were pursuing interests e.g. painting, socialising and interacting with friends. Under reciprocal love, the most common were spending time with family and satisfying basic needs for others such as cooking food for the household. Other upper needs included companionship, comfort, and reflection of values while lower ones emerged as consistency, freedom, privacy, control and security.

By observing the visual and verbal data it was also possible to see that in most cases, lower needs were implied by the pursuit of higher needs even if they did not appear with the same frequency overtly. Generally, in order to satisfy needs for *self-love*, *reciprocal love*, *comfort, companionship* or *reflection of values,* one should have some *privacy*, *freedom, consistency, security* and *control* in one's home life. For example, one participant remarked that their home was '"a safe haven" where their daughter could be left to play while they relaxed or took care of household tasks (see figure 8).

Figure 8 – Daughter playing in fabric tunnel while parent tidies the house
Subject: "I very much feel as though I can leave [daughter] to do her own thing in our house whereas if we go to a friend's house and I'm constantly watching…"

Here, the need for security is being satisfied, enabling self-care activities (such as relaxing) and reflection of values activities (such as maintaining the living space).

By using photo elicitation, participants became more emotionally aware of the significance of their home settings. The creative element of the study encouraged active reflection and engagement, lessening the risk of dishonest representations. Participants were motivated to interact with the subject matter on an emotional level as creativity activates the emotional centres in the brain (Lusebrink and Alto, 2004). The findings therefore provided insights into the role emotions have on human behaviour in the home and relational messages (Lo, 2011b) resulting from this. Without taking a creative approach, participants may have generated responses from a more logical rational mind-set (Jack et al, 2012), offering responses that represented their values but not their true feelings. For example, when participants were asked what they needed in a home, responses were personal and reflective i.e. "Me, wife and child, we could move into any building and we would create a home".

Future Work

The next stage of this research will involve the use of two other creative methods – cultural probe[8] and art therapy[9]. While the static imagery created from the photo elicitation method provided a snapshot of the emotional aspects of home, these methods will be used to explore them more deeply. Using the findings from the photo elicitation study as a guide, these methods will be used to expand promising aspects of previous results. The outputs from each method will then be employed separately to provide inspirational material for two design workshops aimed at conceptualising future designs and/or services for sustainable and happy homes.

Design facilitates the use of creative methods (Sanders and Stappers, 2012) and service design being naturally systemic (Stickdorn and Schneider, 2011) complements home as a complex system. A service design approach and the design double diamond model (see figure 8 below) will therefore be used to structure these workshops when testing the results from creative methods. A workshop format is chosen as it facilitates collective creativity from participants of contrasting backgrounds, which Sanders (2001) remarks can lead to more culturally relevant results. Each creative method will be tested for its usefulness in conveying the emotional richness of home life by evaluating the creative solutions against the higher and lower needs of home resulting from this study.

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[8] This is a research method that takes an artist-designer approach and gives participants a selection of materials and creative exercises to complete over a period of time in order to gathering inspirational data about them (Gaver et al, 1999).
[9] Art therapy is a form of psychotherapy that uses art making to allow participants to tune into and make sense of their emotions (BAAT, 2015).
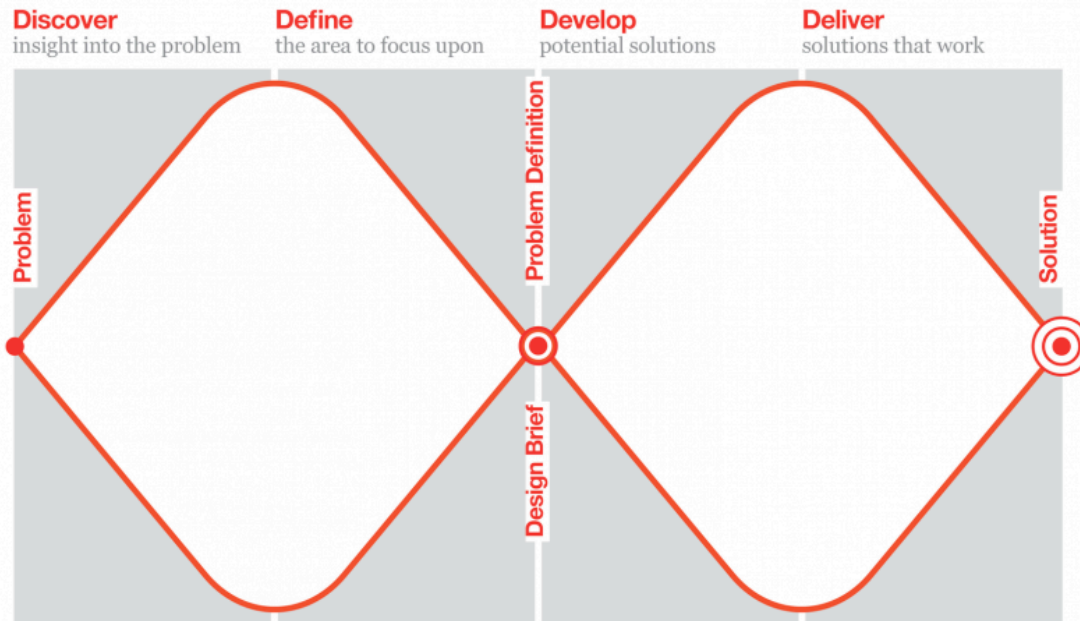
Figure 8 – Double diamond design process (Design Council, 2014)

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Author Biographies

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Emily Corrigan Doyle

Emily Corrigan Doyle is a PhD researcher in her second year from Loughborough University. She is originally from Dublin, Ireland and her work looks at how design and creativity can be used to cause changes in habits and behaviours to improve sustainability and happiness in the home. Her research aims to explore ways that creativity within service design can facilitate happiness and sustainability in the domestic environment using different creative methods.

Emily began her higher education career at DIT School of Art, Design and Printing with a BA (Hons) Visual Communication degree, completing her thesis 'Body Identification as an Entrance to the Idyllic Worlds Portrayed by Cosmetic Advertisements: A Study into Western Women's Menstrual Advertisements', graduating with distinction. She continued her career with an MA in Design: Critical Practice at Goldsmiths, University of London, also graduating with distinction, where she completed her Masters major project, a speculative design piece entitled 'Mind Entity Technology' which explored the complexities of human nature and its role in emotional well-being.

She started her PhD study at Loughborough Design School in October 2014, after winning a studentship at The Service Design Mini Centre for Doctoral Training. Her current research interests include sustainability, art therapy, sustainable design, design for a circular economy, ecopsychology, happiness, well-being, positive psychology, ethnography and sensory ethnography, service design, relational design, sustainable product service systems, social innovation, and environmental arts practice.

Dr Carolina Escobar-Tello

Carolina is a forward thinking researcher, lecturer, and facilitator. Sustainability, creativity, systemic thinking, and a pro-active mindset shape her role as a designer and citizen of the world. She has worldwide professional design experience in the industrial and governmental arena. In addition she has extensive experience in design teaching and facilitating workshops ranging from the academia to the industry. Currently a Lecturer in the Design School at Loughborough University (UK), her work has been published in journals and international peer reviewed conference proceedings. Carolina's research looks at facilitating the transition towards increasing sustainable design practices by understanding better the design characteristics of products, services and systems that contribute to people's happiness and sustainable lifestyles. She is particularly interested in uncovering grass-root opportunities that help people to innovate and shape more sustainable societies.

She is an expert in Sustainable Design and active member of the Design Research Society Special Interest Group Sustainability, UK. In 2013 Carolina won a HE Social Entrepreneurship Award for her design framework and toolkit '**Design for Happiness**'. This award gave way to establishing '**Riant by Design'**, a company whose overarching aim is to support communities, businesses and organisations in their transition towards more sustainable and happier lifestyles. This, in turn, seeks to generate a positive impact on social capital and innovation; and consequently economic prosperity.

Dr. Kathy Pui Ying Lo

Dr. Kathy Pui Ying Lo is the Academic Lead of The Service Design Mini Centre for Doctoral Training at Loughborough University, UK. She is also Lecturer in Visual Communication in School of the Arts. Kathy has extensive research experience in service design, experience design, emotional design, interaction design, and visual communication. Her recent research aims at facilitating positive transformations through service design and innovation. She is interested in achieving impact in quality of life, innovative ways of living, meaningful use of technology, and social innovation. Funding bodies of Kathy's research and activities include EPSRC, AHRC, and The Saudi Arabia Cultural Bureau.

Kathy holds a PhD in Design and an MA in Design (with distinction) from School of Design, The Hong Kong Polytechnic University. Her experiences and professional background cross boundaries between design, communication, social science, psychology, journalism, tourism and hospitality. She was the manager of an interactive design agency and worked on design projects for leading companies including Disney, Motorola, Peninsula Hotel, and Singapore Airlines.

Kathy was a conference track chair in service design. She also gives keynote speeches and guest lectures on her research areas. Kathy's recent research includes: Service design for social harmony between tourists and local communities, relational messages in design, hybrid touchpoints for service involving online and real-life interactions, emotional design for tourism and hospitality experiences, social enterprise for sharing home-grown fruits through digital mapping, and co-design of augmented reality. Kathy's research approach is inter-disciplinary, strategic and user-centered. She has made

contributions by offering not only original concepts but also applicable strategies and real-world cases. Kathy's most recent publications can be found in International Journal of Design, Design and Culture Journal, and conference proceedings such as Design and Emotion Conferences, NordDesign Conference, and IASDR Conference etc. Kathy's contact email is K.P.Y.Lo@lboro.ac.uk