



**Social Innovation through employing Design
Entrepreneurship in serious game design;
How to use design entrepreneurship as the innovator in
social contexts?**

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4 **How to use design entrepreneurship as the innovator in social contexts?**
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8 *Abstract*

9 The potential of understanding social entrepreneurship through design is still underdeveloped,
10 therefore this article will explore how design can enable social innovation, and specifically
11 how creative entrepreneurship can enhance these innovations. We contend that creative
12 entrepreneurship can provide solutions to collaborative international design and enable
13 knowledge creation and innovation through tacit knowledge exchange. In recent publications
14 design is seen as an enabler of user-centered innovation at a macro-economic level. There is a
15 strong positive correlation between the use of design, national competitiveness and the potential
16 of collective governance. The article will demonstrate through two case studies (in the field of
17 serious games)article the transformative potential of design on social innovation, and what is
18 needed to enable these.
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22 *Keywords*

23 creative entrepreneurship - design innovation - co-creation - serious game design
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1.0 Introduction

Imagine a retirement village where elderly people walk their Aibo robot dog to get their daily exercise; enhance their cognition as they play chess via the Aibo's wifi with their friends and relatives remotely or be monitored and reminded by the Aibo to take their daily medicine. Picture a neighborhood where people get to know each other by playing a game together using their mobile phones, and at the same time research can be done on how social cohesion and community engagement can be provoked. Design projects for special needs like these, implementing artificial intelligent systems in home environments or using games as a vehicle for research are examples of successful projects, and show that providing design solutions can improve the independence of living, health and cognition. And for this we need understand how design can help, support and enable social innovation. This article will start with understanding innovation, and in particular social innovation in the context of design. It will then unpack creative and social entrepreneurship through understanding the definition, what is needed to make it happen and how it can be applied. The article will describe two case studies in which social and creative entrepreneurship played a central role in enabling social innovation through design.

2.0 Background: Innovation and Design

2.1 Design

For the purpose of this article the 'creative process' follows Cziksentsmihalyi's (1997) research in which he articulates it as a process that "can enable change in a symbolic context, such as design, and this approach opens up understanding of the participatory aspects of design (and the designer) to an acceptance of the receiving field (field of application of design)" (Thomassen and Preston 2010, p 46). Bilton (2007, p. 2) discusses how "Creativity is not to be located in one state of mind, one room, one type of person, one individual. Rather it lies in the transition points between different ways of thinking (...) Creativity and business are not natural opponents - they have more in common than we may assume".

The definition of "design as goal-oriented process to solve problems, meet needs, improve situations, or create something new or useful" (Thomassen and Preston 2010, p. 46) is central to any design discussion in this article. The world is changing rapidly into a more complicated, competitive and challenging society, even for designers, new levels of creativity and problem solving are needed. Single problems, linear approaches and design craft skills are inadequate for facing the current paradigm shift (Tapscott 2009; Jenkins 2008). The new designer must be able to cope with adaptation, or 'sensemaking' (van Patter 2007). This change is relatively new, in 2005, design agencies were changing their attitudes and strategies, however, the innovation for design education is currently synchronising by implementing the entrepreneurial ingredients in their design curriculum. Design finds itself in a transition phase of becoming the agent for 'Social Transformation' (Van Patter 2009). Little research has been carried out on how design can be inclusive to society and its citizens, or what role creative entrepreneurship plays in enabling collective change. To respond to this designers need to apply a deep local human centered 'sensemaking' (Jones 2009), ie. how can human centered design approaches transform social situations (Wiener 1948). To understand this we need to go to the heart of design as a change agent which is innovation.

2.2 Design Innovation

Before innovation will be unpacked it is important to understand that this article will build on Schumpeter's definition of innovation "the carrying out of new combinations" (1971 p. 47). This definition is well aligned with the definition of design used for this article. As innovation is carrying out new combinations, design is achieving these by providing solutions. In combination with what Landry (2000) calls innovative creative thinking in an active and cultural climate, this can be the fuel for social-economic global dynamics. Research carried out by Kurzweil, (2005) and Salzman & Matathia (2007) show that three 'mega trends' of global mobility, information technology, and communications are driving the innovation process (Rive and Thomassen 2010). At the heart of this is the convergence of individuals, ideas, cultures and interactions; a so called global 'network society' (Castells 2000; Kurzweil 2005; Salzman & Matathia 2007). Following Schumpeter's approach on innovation we can understand how innovation can be seen as an important driver of education, economic development, and discovery, (Von Krogh, et al 2000). A new trend is that at the heart of the innovation process often design teams contribute novel solutions to user problems, which is aligned with the definition of design used in this article (Mau, Leonard, & Institute without Boundaries 2004; Suri & IDEO (Firm) 2005). The designer, Bruce Mau, has commented that design is no longer about one designer, one solution, one place, and one client but is 'distributed, plural, and collaborative', (Mau, et al 2004). Design has the potential, beyond 'delivering' aesthetics to products and services, of creating social innovations that change the performance capacity of society through creative entrepreneurship (Drucker 1985). In particular 'user centered' design provides a context for social change; special needs, health, accessibility amongst others. Due to social and economic innovation, the potential of design, and its application, is getting more public attention (EU 2009). Effectively design can be seen as a driver and enabler of innovation, but further research is needed to sustain these innovations (UN 2008). In recent publications (EU 2005; UN 2008; Tunstall 2008) design is seen as an enabler of user-centered innovation at a macro-economic level; there is a strong positive correlation between the use of design, national competitiveness and the potential of collective governance. One could conclude that the ability to innovate is closely related to one's ability to collaborate, co-create and participate (Bryan & Joyce 2007; Hamel 2007; PricewaterhouseCoopers 2008; Tapscott & Williams 2006).

VanPatter (2009) in his research essay describes what designers face is changing; no longer is a single designer needed for a simple problem. As society has become more complex, so have problems become more complex. And in that analogy it is important to understand that often problems are so complex that a designer needs at least a team to solve a problem, but moreover it needs an attitude change as well. Aesthetic refinement no longer is the solution. Designer are faced with applying more than craft focused solutions. Their entire skill set has become a more intrinsic part of the solution; understanding and adapting to complex situations, creating and envisioning alternatives, and the ability to create quantities of ideas and concepts have become the main ingredients (Thomassen 2010).

3.0 Social Innovation

Central to enabling design innovation is understanding how individuals can contribute to it. And in particular what attributes are pivotal to the ongoing development of design innovation. Schumpeter (1984) argued that innovation and change comes from entrepreneurs. Drucker (1993) explains in his work that the term 'entrepreneurship' was introduced by Say (1803) to

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3 describe how an entrepreneur is to “shift economic sources out of an area lower and into an area
4 of higher productivity, and greater yield.” (1993, p.21). This take on entrepreneurship has since
5 then be applied and theorized in several other fields, including creative, cultural and social
6 entrepreneurship. For the purpose of this article creative and cultural entrepreneurship will be
7 investigated before social entrepreneurship is being discussed.
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10 *3.1 Creative Entrepreneurship*

11 According to Hagoort (2007) the foundations of creative entrepreneurship provide insights into
12 the dynamics of the design and innovation. From the moment the prehistoric hunter-artist first
13 etched his drawings on a rock face - 20 to 30.000 years ago – mankind has been confronted by
14 the relationship between art and economics (Hauser 1951). To put differently we should ask who
15 is in charge of day-to-day necessities, and who creates works of imagination to help survive this
16 routine? As primitive society becomes more agricultural, the idea of stocks and merchandise also
17 spreads to the domain of culture. Relatively independent sculptors’ workshops created works to
18 order for representatives of the divine. Later on, during the Greek festivals, ad hoc patrons
19 allowed for thousands of spectators to witness the winning tragedy. Another good example is
20 how artists in the Italian Renaissance could only survive with help of commissioners.
21 It is important to understand that creative entrepreneurship is different from cultural
22 entrepreneurship. Cultural entrepreneurship refers to the process of leading a cultural
23 organisation from three perspectives: 1) to formulate a clear proactive cultural mission statement
24 that offers direction, 2) to find a balance between cultural and economic values and 3) to
25 maintain the cultural infrastructure surrounding the own organisation (Hagoort 2007). In sum the
26 focus is on unifying cultural content and commercial possibilities as a basis for innovation.
27 Creative entrepreneurship on the other hand focuses on how creative and intellectual capital can
28 be exploited. The trading good difference lies in the fact that a creative entrepreneur uses
29 creative talent, attributes, skill and attitudes to capitalise, and how to apply these to developing
30 innovation (Hagoort 2006).
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36 Dealing with fluid systems requires creative skills, to help initiate discovery and exploitation of a
37 system. One way of understanding it is from the perspective of creative entrepreneurship. In
38 particular the foundations of creative entrepreneurship (Hagoort 2007b) show which skills are
39 required; 1) innovation is the central instrument of entrepreneurship (Drucker 1985); 2) heroic
40 entrepreneurs are characteristic as they combine strategy and organisational aspects with
41 intuition; 3) entrepreneurs have the ability adapt to their context of activity, this so called self
42 entrepreneurship is quite visible in the creative industries, it is dynamic, in constant change and
43 doesn't follow a particular model; 4) and that evidently requires the skill to see the need for
44 adapting to any new situation. This approach has gained a lot of attention, and is supported by
45 empirical evidence, currently international agencies are acknowledging the need and support of
46 these particular entrepreneurs, such as by the EU (2010) and the United Nations (2008).
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50 In addition to this Van Patter (2007) speaks of outbound and inbound skill sets, skills to
51 participate and co-create with all the stakeholders in the defined and demarcated context, but also
52 skills to be able to collaborate and to be a team player. This process was guided by lateral design
53 thinking of the involved lead designers (Schon 1983; Huizinga 1988). They applied the four
54 entrepreneurial dimensions Hagoort discusses above (2007, 2007).
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3.2 Social Entrepreneurship

Social entrepreneurship is crucial for social innovation with the potential to galvanize major changes across society through co-creation (Sanders et al 2003; Stappers et al 2006).

According to Bornstein (2007) “it takes creative individuals with fixed determination and indomitable will to propel the innovation that society needs to tackle its toughest problems” (2007, p. 3). He also indicates that a social change starts with an entrepreneurial author who has defined a problem and has a solution for it, who is able to organize systems that support the articulation of the solution and has the ability to act on that vision.

Light defines social entrepreneurship as “an effort by an individual, group, network, organization, or alliance of organizations that seek sustainable, large scale change through pattern-breaking ideas in what governments, nonprofits and business do to address significant social problems” (2008, p. 12). Basically it requires efforts to solve intractable social problems through pattern breaking change different from a current situation. The following creative (social) entrepreneurial model outlines how change can be brought into a system.

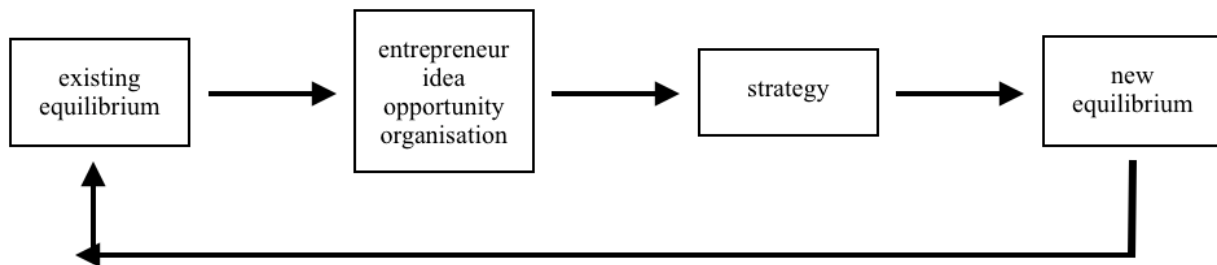


figure2: A first logic Chain of Social Entrepreneurship (Light 2008, p 54)

In this model Light (2008, p. 58 cited by Dietachmair 2009, p. 65) defines 8 steps:

- Step 1: Imagining a new equilibrium
- Step 2: Discovering an opportunity
- Step 3: Inventing the idea for change
- Step 4: Launching the idea into action
- Step 5: Scaling up for high impact
- Step 6: Diffusing the idea
- Step 7: Sustaining momentum
- Step 8: Navigating the changing social system

This model has been studied and applied to socio-cultural entrepreneurship in organizations by Dietachmair (2009). In his research he studies how this model explains how change can be brought in contemporary arts organizations in Central and Eastern Europe. His study navigates how to create change in a set context. It is important to understand that in order to create change the current equilibrium, or in other words the current situation, initiatives need to be taken. This starts with creative thinking tasks of imagination, discovery and inventing. Followed by what Drucker (1983) calls a entrepreneurial spirit to launch and scale up the idea. This activity will through the upscaling lead to diffusion, it becomes active in other parts as well. When this settles we can speak of a sustained momentum. For a system to be in an equilibrium, all its parts (subsystems) must be in equilibrium. If a system is in equilibrium, then its parts are in equilibrium. According to this Steady-State principle (Von Bertalanffy 1972) change can take

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3 place in small parts, as they clearly belong to a larger system. For the purpose of this article this
4 model will be applied to the case studies, which will be discussed in section 4.0.
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7 *3.3 Co-creation*

8 Intrinsic part of creative and social entrepreneurship is collaboration with others. We see that in
9 design as well, Mau already made notion of this in 2004 “It is no longer about one designer, one
10 client, one solution, one place” (2004, p. 17). Designers work together, either in teams of
11 designers ‘renaissance teams’ (Mau 2004), or with other stakeholders in co-creation situations
12 (VanPatter 2009). Current design projects that are focusing on social innovation are constructed
13 on the concept of Co-Creation. Sanders and Simons (2009) define “co-creation as any act of
14 collective creativity that is experienced jointly by two or more people”. Sanders and Simons
15 explicitly distinguish co-creation from collaboration, it is referred to as “a special case of
16 collaboration where the intent is to create something that is not known in advance” (p. 2). To
17 stay within the context of design, and in particular design innovation, it is important to
18 understand this difference. The lens for this article is on enabling social innovation through
19 design; hence how to create social innovation using design that is in particular innovative, and
20 therefore unknown before the creation process started. These are often communities that share a
21 particular context, practice or objective, ie. businesses, stakeholders, (end) users. It is more
22 common that stakeholders, end users or individuals are participating more intensely in developing
23 experiences, and thereby wishing to express their creativity, as part of the design project.
24 Leadbeater in 2007 discusses in his book “WeThink: why mass creativity is the next big thing”
25 how the current consumers (individuals) are becoming more prosumers (producers and
26 consumers). They want to be active “players and participants” and “these are activities of mass
27 participation rather than mass consumption.” (Green 2007, p. 9). This phenomena of the
28 experience economy is often driven by mechanisms through which individuals express
29 citizenship, participate in democracy. Empowerment comes out of these networks and lead to
30 political and democratic solutions for this same net generation. Castells (1996) Network Society
31 differentiates the net and the self as two entities in a network structure, the organisational forms
32 powered by network structures and the people who try to adapt and reaffirm to change caused by
33 the net. Based on this notion both the European Commission and the US design policy initiators
34 are seeking online public consultation. These viral means of communication enable non-binding
35 co-operation, sharing of experiences and good practice, and the setting of common targets and
36 benchmarking through informal networks. The European Commission states that the
37 development of tools and support mechanisms for design-driven, user-centred innovation,
38 networking and research, and collaboration in education and training are areas of action that
39 could help remove some of the barriers to better use of design in Europe.
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47 In particular for creating social value through co-creation it is important to understand that the
48 larger context and long term ideation is pivotal. Eero Saarinen refers to this as “Always design a
49 thing by considering its next larger context — a chair in a room, a room in a house, a house in an
50 environment, an environment in a city plan” (cited by Sanders and Simons 2009, p. 5).
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52 The following model outlines the different elements in a co-creation process within the context
53 of this article, ie. social innovations and experiences.
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| co-creation of value | Objectives | Mindset | How people are seen | Deliverables | Timeframe |
|----------------------|---|--|--|---|--|
| Use/Experience | <ul style="list-style-type: none"> - positive experiences - personalizations - customization | <ul style="list-style-type: none"> - experience-driven - service orientation | <ul style="list-style-type: none"> - End-users - Empowered customers | <ul style="list-style-type: none"> - products and services that people need and want | <ul style="list-style-type: none"> - from life-stage to life time - longterm |
| Societal | <ul style="list-style-type: none"> - improve quality of life - sustainability | <ul style="list-style-type: none"> - human-centered - ecological | <ul style="list-style-type: none"> - partners - participants - owners | <ul style="list-style-type: none"> - transformation - ownership - learning | <ul style="list-style-type: none"> - over many generations - longer-term |

Figure 3: Comparison of Three Types of Value Co-creation (Sanders and Simons 2009, p 3)

As research has indicated individuals want to become more active participants in the developing of new innovative solutions for well being, even if this takes time and requires long term change. The ongoing support of change can 'assured' by addressing the context, the co-creation modus of operandi and the participatory methods, and moreover understand the current model of net-generation. This global phenomenon points out the current gap we find ourselves in (Tapscott, 1998) that of the old society and that of the new, often neglected society of peer networks (such as virtual worlds) and other groups that work on building innovation.

Building on the above ingredients of creative entrepreneurship, social entrepreneurship and co-creation the following section will show how these can be applied in real case studies.

4.0 Case studies: examples of applying entrepreneurship for social innovation

In these particular case studies both design, research and entrepreneurship were combined for the project objectives which concentrated on the development of future scenarios through visualisation and understanding technology enhanced healthcare for the elderly, and development of social play within a neighborhood setting both using serious games as a tool for change.

This section will start discussing the objective, the method of creation and design, the outcome and will reflect on the issues encountered that relate to the issues discussed in this article.

4.1 AiBO robot dog and Elderly Healthcare

Objective

In this particular case study the objectives concentrated on the development of future scenarios through visualisation and understanding technology enhanced healthcare for the elderly. The project explored the usage of the AiBO as a monitoring system for the elderly. The main

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3 problems threatening the independence of elderly are related to social isolation, physical and
4 cognitive decline. Systems that monitor the living environment are deployed to estimate how
5 well older people are functioning in their activities of daily life. Today's monitoring systems
6 only marginally improve the quality of life for aging citizens. Demographic aging, shortage of
7 care places and loneliness are reasons these systems are being developed for the elderly but their
8 aversion to technology stands in the way of practical use.
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Figure 4: image of the Aibo project (Thomassen 2006)

Method of creation

Implementing artificial intelligent systems in home environments of the elderly was welcomed with open hands. They reacted in a spontaneous manner to the small animal. The AiBO, an independent robot dog, is equipped with wifi, camera, speech control, sensors and stereo microphone. It sees, listens and reacts to people and its surroundings. From the start of the project the elderly, healthcare agents, designers, visionaries and design managers together co-created future scenarios (Bødker 1996; Kim H et al 2009):

- started with sense making of the current situation through participatory conversational events with all the stakeholders; designers, elderly, health care personnel, representatives of agencies dealing with these issues, academic researchers in the area of health care. These conversation were facilitated by EMMA (European Media Master of Arts) students.
- this was followed by participatory observations where the EMMA students interviewed, observed and interacted with the Aibo robot dog, the elderly and the health care personnel.
- throughout the creation of the project, seminars were organised which included all the stakeholders, to discuss progress, new ideas, and eventually leading to the articulation of three visualisation the future health care using Aibo as the monitoring system.
- the project concluded with a symposium where all the stakeholders as a community presented the end results of the project to a wider audience.

The outcome

The outcome of the project (documentary, animations, web-portal and spatial designs) have been used in research discussions and brainstorm sessions with all the stakeholders and potential investors of ambient assisted living technology. With its cute appearance, a robot dog might be able to bridge the gap between the elderly and technology, and as such enhance social innovation through creative entrepreneurship. As it has impacted the daily life and provides an appropriate

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tool for democratization by developing this transformative applied technology. (Thomassen 2006)

| co-creation of value | Objectives | Mindset | How people are seen | Deliverables | Timeframe |
|----------------------|---|---|--|---|---|
| AIBO project | future scenarios through visualisation and understanding technology enhanced healthcare for the elderly | to provide service through experience on a human centered issue | users are seen as participants, owners and empowered customers | visualisation of future scenarios, through an online portal | project duration was 4 months, but longer term is needed for it to be executed and fully integrated, so the project is ongoing. |

Figure 5: co-creation model applied to the Aibo project

4.2 Mobile game and social cohesion

Objective

Social cohesion within urban spaces is becoming more and more a pivotal element to create desirable living and interaction in urban spaces. This project investigated through design how social cohesion can be promoted in particular in areas with animosity and a large group of youth and elderly. Play was chosen as the best strategy to enable social interaction with a set of community of a neighborhood. Ludology in particular allowed for procedural rhetoric to be applied on a strategy on how social cohesion could be promoted. Play was used as a leverage for users to be provoked to interact, and therefore creating a community and starting conversations.



Figure 6: image of the Digidog project (Thomassen 2007)

10 Method of creation

The project, Digidog, was designed as a serious game to be played in a neighborhood, which was in an evident need for social cohesion to diminish hostility and alienation amongst its occupants. The declarative layer of Digidog ensured the rules of play matched the wide target group audience, youth up to elderly people, and the possibility of it being played by all in a public spaces. The game therefore used mobile technologies with a web community to extend the interaction after the game. The project was using the co-creation concept for its development:

- the project started with a meeting with the stakeholders to help the explication of the problems in the neighborhood; individuals in the neighborhood ranging from young-old, social workers, academic researchers and the community centre director. The meeting was facilitated by a group of EMMA (European Media Master of Arts) students.
- the EMMA team then met with the core group of end users and used co-creation to support the ideation process to come up with the plan.
- regular meetings were held throughout the duration of the project to facilitate participation in the project.
- co-design was used to include the focus group in the design of the game and the game play.

- the final product was showcased, and tested, in a meeting set up with the group of stakeholders that EMMA team met when the project started.

The outcome

The game was projected on a wall outside a community hall and every time someone would pass this wall animated dogs would enter asking for attention. The dogs would give instructions on how to play the game. Using bluetooth on mobile phones/PDA would allow for interaction with the game. The games were of a very simplistic nature and in particular encouraged group play. Everyone could adopt a dog and use the credits to nurture the dog online. The main outcome of the project was that game triggered and facilitated conversations between citizens in the neighborhood who normally wouldn't have interacted through conversations. The project accordingly gave both the students and the researchers highly desired insights into the target group (public), the technique (mobile game), the design and development. In sum the project gained extra attention and awareness for issues on social cohesion, and pointed out in this case that play can create and facilitate interaction within communities.

| co-creation of value | Objectives | Mindset | How people are seen | Deliverables | Timeframe |
|----------------------|--|---|--|--|---|
| Digidog project | facilitate and provoke conversation to create social cohesion in a neighborhood known for its animosity amongst its citizens | to design an experience that would allow for engagement, and therefore create social cohesion | users are seen as participants, owners and empowered customers | mobile game using participation and group play to increase interaction | project duration was 4 months, but longer term is needed for it to be executed and fully integrated, so the project is ongoing. |

Figure 7: co-creation model applied to the Digidog project

4.3 Reflections on case studies

Both case studies used different forms of co-creation. Where the Aibo project used co-creation as way of sense making, understanding the context, the Digidog project used co-creation in a co-design manner, using creative thinking collectively. Both case studies also had a design manager in the team, to channel any entrepreneurial response, to understand and apply cross-disciplinary methods and to be able to adapt to the given specific contexts. All the designers in the team had to be very entrepreneurial, on a creative and social level;

- on a creative entrepreneurial level:

- they had to develop process leadership skills to collaborate within social and collective contexts. It required them to adapt to their context of activity, to make sense for which context they to design for

- they had they had to shift the creative focus from just delivering design to the design process itself, and thereby including their context in the process as well, whilst maintaining a director role and navigating the design process.
- they had to understand the role of design innovation in order to deliver a ‘new’ solution for the future, which required a ‘heroic entrepreneurial approach’, combining strategy and organisational aspects with intuition.
- on a social entrepreneurial level:
 - they had to apply their creative skills of ideation and imagination to sketch the problems and possible solutions in the particular context.
 - this helped them to discover opportunities and having the agency to articulate the idea
 - through co-creation and team work they were able to launch these ideas into action, understanding what needed to be designed, facilitating participation in the design process and navigating the overall design process.
 - by doing this they were able to scale up their ideas to a workable design solution, followed by a communication strategy to help diffuse the discovered design innovations.
 - they then handed it all over to academic researchers and the other stakeholders for a follow up of the design innovation.

Crucial to both case studies was including the concept of play as a change agent. In both instances play was used to engage the users, to provoke learning and to offer a different way of addressing the problem and associated solution. Play, as defined by Huizinga (1998) in his work *Homo Ludens*, perceives humans as playing humans, in other words Ludology. It is inclusive play which is characterized as a free activity standing quite consciously outside “ordinary” life as being “not serious”, but at the same time absorbing the player intensely and utterly. (Thomassen and Easterly 2010, p. 1) With this notion the case studies have used play rhetoric to involve users into a societal issue. The players found the games engaging and illuminating towards the aspects of social innovation that was intended with the objective of the projects.

5.0 Concluding creative entrepreneurship and social innovation

Both cases concluded their research by promoting user engagement through participation. While a discrepancy between the principles of innovation, design and entrepreneurship may lay ahead within the context of social innovation, the research projects presented in this article are part of a wider research investigating to what extent design actually has the power to enable social innovation and how these innovations can be enhanced.

Drucker (1985) discusses in his work that talented entrepreneurial people are able to transform ideas into successful business for society sense of initiative, bold, business oriented mind, visions product specific strategies, export performance global markets. It is important to understand that design innovation, creative and social entrepreneurship are growing rapidly. Partly because society is not any longer driven by state and churches, people are becoming more active in applying change and organisations are set up due to technological enhancement on a international and global scale. Bornstein (2007, p. 7) sums it up by saying “more people today have the freedom, time, wealth, health, exposure, social mobility, and confidence to address social problems in bold ways”. Which brings us to understanding why in particular the field of design is applicable to enable change. Partly because the net-generation is seeking agency and

designers are responding to that by developing 'social media', partly because of the development and acceptance of different network structures and partly because design and creativity are providing more open entry. These dynamics have led to increase of designers requirements; 1) they need to understand innovation as a specific instrument of entrepreneurship, 2) they have to become a heroic entrepreneur, combining strategy with intuition, 3) be able to adapt to their context of activity sense of initiative, imagineers, 4) and basically having to learn to adapt to any new situation which enables transformation of ideas into successful business for society.

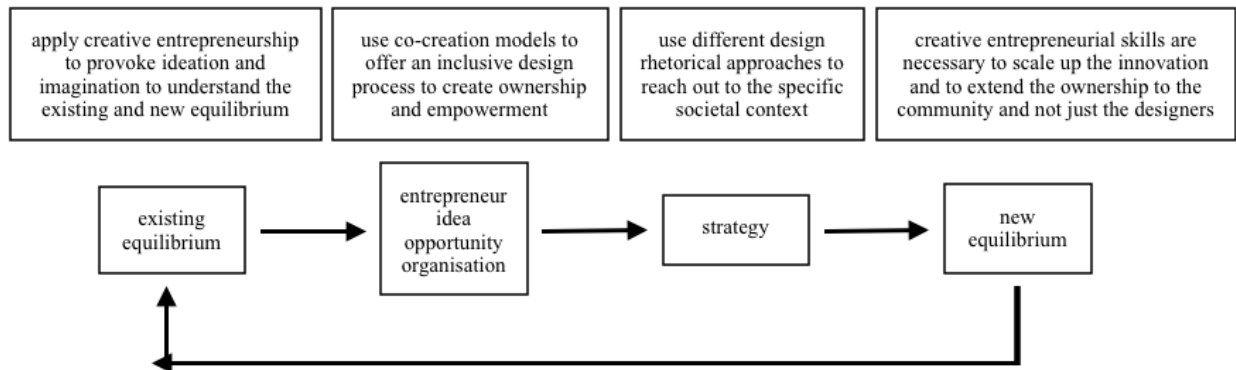


Figure 8: social entrepreneurship model applied to creative entrepreneurship and co-creation

It is important to understand how new these changes are, and how little has been reported on combining creative and social entrepreneurship for the benefit of design innovation and well being. A solution for ongoing development is applying creative entrepreneurship to the chain of social entrepreneurship model. According to this model to start developing an equilibrium imagination of the future is needed, designers are trained to deliver ideation through imagination. If models such as co-creation and play are used to create leverage and agency, strategies for change can be developed. Part of reaching out is knowing how to reach out, and again design offers novel and engaging ways of reaching out. In attempt to answer how to use design entrepreneurship as the innovator in social contexts, it is important to understand the dynamics and differences of creative and social entrepreneurship. This research suggests that a combination of both types of entrepreneurship, along with co-creation as the modus operandi for developing design innovation, are a good point of departure to any design enabling social innovation process. Heroic approaches, creative thinking and an aim for achieving new combinations within design seem to be the recipe for initiating social change and well being.

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