

Article

Upcycling – a new perspective on waste in social innovation

by

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Abstract

The purpose of this paper is to introduce 'upcycling' – a well-known term within design practice – to the field of social innovation. A mix between 'upgrading' (adding value) and 'recycling' (reusing) creates the word upcycling, which, in its simplest terms, is the practice of reassessing waste and transforming it into something valuable. In this paper, we ask: How does an upcycle mind-set and practice contribute to situated social innovation?

This conceptual paper seeks to combine insights from the fields of social innovation and co-design with the ideas inherent in upcycling. To ground the theorizing of what we term 'social upcycling', four cases are used to illustrate what upcycling practices look like. The cases illustrate the diversity of actors, activities and materiality involved in social upcycling processes. Concluding, the paper outlines a new promising area of social innovation and some practical implications.

Keywords:

upcycling, innovation, co-design, learning, sustainability, social work

Introducing the term upcycling

Do not throw anything away. There is no 'away'.¹

The purpose of this paper is to introduce 'upcycling' – a well-known term within design practice – to the field of social innovation. We consistently take resources, make them into valued products, and after a while, consider them trash and dispose of them. We value the new, and not the old. A sustainable alternative to this sequence is upcycling – a word created by a mix between 'upgrading' (adding value) and 'recycling' (reusing). In the simplest terms, upcycling is the practice of reassessing waste or trash and transforming it into something valuable. A basis for upcycling is the notion of sustainable consumption, and the main idea is to revitalize old material by placing it into new constellations and by suggesting new ways of using it, while at the same time, keeping its essence intact as a main value-adding feature (McDonough & Braungart, 2002). Upcycling stems from the technological field and is often referred to as 'cradle-to-cradle', as it seeks to break an environmentally unsustainable production cycle of 'cradle-to-grave'. The primary focus of this movement is how to deal with

and reduce waste in the production of goods and technologies (e.g. cars, textiles, see McDonough & Braungart, 2002 for further details). However, scholars within the field of design are now studying related matters, and creating connections among the technological and social issues of sustainability in the complex challenges of modern societies (Manzini, 2015; Manzini & Staszowski, 2013; Kimbell & Julier, 2012). Hence, sustainability issues are expanded to include not only environmental matters, but social matters as well.

This trend makes the term upcycling relevant when working with potentially marginalized groups, e.g. prisoners, emigrants, refugees, elderly people or unemployed youth - humans who are often primarily categorized by deficiency and the societal problems they pose. The preconception of humans belonging to certain social – unprivileged - groups is problematic in many ways. Here, we want to stress the risk of paternalistic intervention – in which these groups are ‘done to’, thus neglecting the value of relational and co-constructed partnership and collaboration. Presenting the concept of upcycling in the context of social work is a way to ensure a focus on the agency of all humans involved, ‘clients’ and ‘professionals’ alike. In its simplest form, social upcycling is the act of recognizing and nurturing potential value, and insist on dignity and creative expression as guidelines for human interaction. In order to get a feel of what upcycling looks like in practice, the following short narrative illustrates the essence of what social upcycling is all about:

Lesbos, Greece - Piles and piles of discarded rubber dinghies on the shore. A huge orange graveyard of life jackets. Thousands of refugees in tents, many of them without their bags, and with only a few belongings rescued from their dangerous sea crossings. Textile student Floor Nagler from Amsterdam is there as a volunteer. She notices the material waste and the human need, and starts connecting them. Bringing back 20 kilos of rubber material and the story of refugees who are going to travel long distances without any bags to carry their sparse belongings, she consults an artist friend. Together, they design a bag made from one folded piece of boat material, held together with rivets and clipped shut with buckles from life vests. Price: \$3. Floor and her friend return to Lesbos and embark on a weeklong bag-making workshop. One participant is Raida, a 13-year-old refugee from Iraq. She does not understand English, but learns by watching how to punch holes and fasten the seams

together. Finally, she attaches black life vest straps to the bag and slips the finished product over her shoulders.

- We made the bag ourselves, she says with a big smile.

The project is called 'It works', and it becomes a part of Oddysea, a new Greek organization that aims to make bags and wallets out of discarded boats and vests, and to sell the finished products to benefit migrants. The workshop week has passed, but Floor and her friend leave the patterns and tools so other volunteers and migrants can continue the project.²

This case illustrates several of the main features of social upcycling; a rethinking of material waste is the starting point. However, during this project, the creativity and dignity of people who are easily considered in terms of deficiency become the main drivers for change. Expertise about textiles is needed to even see waste as a resource, but equally so are the quest for simplicity and a pioneering spirit. The textile student and her companion have launched an upcycling idea and a collaborative practice so cheap and simple that others can take over and continue the partnership when they leave. The innovation is neither tied to the initial participants' expertise, nor to external money or technology. It is situated innovation, based on local resources and needs.

In the following, we further explain the history and ideology of upcycling. We then look into social innovation and notions of 'newness', which is traditionally one of the main defining criteria of innovation. Third, we involve perspectives from co-design. To ground the theorizing of what we term 'social upcycling', the paper provides five snapshot cases from around the world, one of which is presented above. These cases are not to be understood as traditional data we have produced and analysed. Instead, they serve to illustrate the main features of social upcycling practices, from which we can tentatively deduce a concept and outline an emerging research field. The aim of the paper is to sketch this field and invite others into a dialogue, ongoing conceptualization and upcycling practices in social work.

Upcycling – a rethinking of waste

As mentioned, upcycling takes as its vantage point that which is old and the processes of transforming and rehabilitating it. Upcycling therefore serves well as a lens through which we can rethink 'old' and 'new' and reconsider supposed waste in its broadest terms. This

'valuing the waste' mind-set is both a design practice and a political statement about creating sustainable solutions to complex social and environmental challenges.

The concept of upcycling stems from the field of technological and industrial design, and concerns the design for sustainable production and consumption. Upcycling counters the argument that obsolete goods and waste material have no value once it is disposed of, or that it must be destroyed before it can re-enter into a new circle of production and value creation. As explained by Richardson (2011), *recycling rarely achieves the aim of no waste, because the reprocessing of discarded goods requires energy, which often results in a downgrading of their constitution. Upcycling thus maintains the statement that not only consumerism, but also recycling, need to be reduced.*

Try Googling upcycling, and you will find upcycled houses made of old shipping containers, plastic bottles or wood chips that are by-products of other production sites. Google on, and you will find upcycled textiles for furniture and clothes, empowerment projects in the slums and an abundance of ideas for your own everyday upcycling practice such as crafting paper, plastic bags or old household items into lampshades, coat racks and jewellery. You will even find upcycled Shakespeare (Iyengar, 2014)!

In order to further understand the upcycling practice and mind-set, we must look at its history. The term upcycling was coined by McDonough and Braungart (2002/2010) in their book on ecologically intelligent design, *Cradle to Cradle: Remaking the way we make things*. Upcycling is related to the 'greener living' phenomenon featuring the repurposing of things formerly known as garbage. The mind-set of 'cradle-to-cradle' has seemed to catch fire outside activist communities and eco-friendly movements. At the World Economic Forum in Davos in January 2016, circular economy was a central topic.³ It is argued that there are potentially large economic benefits for industrial systems in organizing for the re-use of raw materials and components in circular systems.

When related to social innovation, the notion of sustainability must be conceptualized in a new way to be meaningful. Sustainability is a contested concept with no universal definition, and tends to suffer from a too narrow focus on economic-centred benefits (Banerjee, 2011).

Here, we refer to Banerjee (2011), who defines sustainability along three integrated dimensions: economic, social and environmental. Upcycling for sustainability is hence not just a design approach. It is a mind-set and a practice concerned with the lifecycle of things, emergent organizational forms and mutual efforts for change across social groups. An upcycled object or process has improved eco-credentials, but it is primarily the *story* of rehabilitation and the visible processes of re-valuing waste instead of throwing it away. As stated in the introductory motto, there is no 'away', as permanent disposal is an illusion. Waste 'strikes back'; despite costly destruction, it does not simply disappear, but generates polluted environments and health hazards. An alternative to this 'getting rid of' mentality is the story of rehabilitation. This story can take various forms, but at its core is the idea of sustainable consumption and - highly relevant to social innovation – a raised voice towards an uncritical production of waste and devaluation of human rights. What makes upcycling distinct from other kinds of social innovation is the incorporation of the transformation process. Upcycled products and processes are not just 'better' than the original, they also incorporate the aging process, telling stories such as 'production with zero waste', 'small is beautiful' and 'start local, but think global' (Earley, 2011). Consequently, upcycling is both concerned with re-assessing the past and paving the way for a desired future.

The subsequent case further illustrates how social upcycling includes a broad constellation of critical resources, here among political recognition and support, voluntary labour and philanthropic commitment:

Mpigi, Uganda - David Miiro is part of the Social Innovation Academy (SINA) in Uganda, seeking to protect the environment and promote innovative mind-sets while empowering youth. Through the upcycling of 15,000 used plastic bottles, David and a team of volunteers will train their local community, focusing on disadvantaged youth, to protect the environment while constructing a learning hub together.

The major beverage companies in Uganda are phasing out recyclable glass bottles, replacing them with plastic bottles. Without a garbage disposal system in place in Uganda, the bottles are burned after use with devastating effects on the environment. With this project, David wants to raise awareness and show innovative ways of upcycling waste,

including creating bottle bricks that can be used to build environmentally efficient houses.

David explains:

- *We constructed the first plastic bottle house in Mpigi District. The experience changed our mind-set of how to view waste, and we want to spread this awareness in a practical and fun way to other youth.⁴*

The Social Innovation Academy is turning around life stories of suffering into positive catalysts of social change. Its unique learning environment empowers youth to become job creators by nurturing innovative project ideas into social enterprises. As the case highlights, the upcycling process is sparked by a sensitivity to local needs *and* an eye for local resources, unnoticeable as they may be. It takes as its point of departure a situated construction of newness and, at the same time, seeks to foster a mind-set of dignity and belief in a desired future. Waste is therefore not solely associated with material resources. In a new social sense, the rehabilitation of waste addresses at least Banerjee's (2011) three dimensions of sustainability: economic, social and environmental.

Social innovation - socially embedded value creation

To further investigate the context for upcycling, this section will outline some of the motives from which social innovation processes are driven. Mulgan, Tucker, Ali and Sanders (2007) argue that social innovation develops in ways different from business innovation, as the driving motives for social innovation most often exceed material incentives and hence 'include motives of recognition, compassion, identity, autonomy and care'. The demand to find solutions to pressing social challenges in contemporary societies is evident, and the interest in innovation in practice and research is rapidly increasing. Definitions of innovation are multiple, depending on the specific research field, and providing an overview is beyond the scope of this paper. However, many innovation researchers identify newness and value as the two fundamental criteria for innovation (Høyrup, 2010). According to Mulgan (2007), the simplest definition is that public sector innovation is about new ideas that work at creating public value. But the idea of newness is problematic. New for whom and in which context? New for how long? To help address this problem, several scholars point to innovation as a process of translation, combination and re-combination. The emphasis on recombination and translation underscores elements of learning, co-creation and transformation involved in innovation, and not newness per se.

As pointed out by Janssen et al. (2015, p. 1975), much research on innovation fails to problematize the underlying descriptions of 'newness', and thereby 'overlooks the processes that constitute what is seen as new in the specific empirical contexts'. Given the cross-sector challenges that face societies, here among implications of demographic and climate change, youth unemployment and increasing costs in social and health care, it seems reasonable to focus on sustainable innovation across domains, sectors and organizations. Accordingly, an extensive part of the innovation literature addresses collaborative innovation across organizational (involving different institutions or organizations), professional (involving different occupational groups) or mental boundaries (involving different conceptual frameworks or frameworks of understanding). Hargadon and Sutton (2000) refer to these kinds of cross-boundary innovation processes as knowledge brokering. The term is used to explain how successful innovators systematically make use of old ideas as the raw material for new ideas across knowledge domains. Recent research also engages far more with the practical conditions that make innovation possible, and not least the configurations of boundaries (Aakjær, 2014) and differences that can prevail between practices in different social fields and cultures (Tinggaard & Wegener, 2015).

Epistemologically, this interest in social innovation is in line with process thinking in organizational studies, as presented in Weick's (1995) work on sensemaking in organizing, and a situated practice perspective, in which innovation is considered an ongoing activity embedded in everyday work and learning (Brown & Duguid, 1991). Still, in order to clarify the contribution that we seek to make, a short positioning in relation to social innovation is relevant. Here, we consider in particular the complex social challenges of contemporary societies that are not easily defined as purely public or private, local or global. Rather, these challenges are characterized by their complexity and entangled socio-materiality.

Relating innovation to complex challenges underscores the necessity to consider implications and challenges not solely in a technological-material perspective, but also in a socio-cultural perspective. But what is *social*? And how is social innovation defined? Following The Open Book of Social Innovation (2010, note 2 p. 10), the term social denotes 'social problems and social impact as well as social motivations or intentions'. The British

research organization Young Foundation has been a central actor to propose social innovation as an approach to critical societal challenges (Murray, Caulier-Grice, & Mulgan, 2010). In their definition, social innovation can be:

New ideas (products, services and models) that simultaneously meet social needs and create new social relationships or collaborations. In other words, they are innovations that are both good for society and enhance society's capacity to act. (Murray et al., 2010, p. 3)

From a socio-cultural perspective, social innovations introduce 'new practices, intuitions, rites, techniques, customs, manners and mores' (Hochgerner, 2010) and 'reconfigures social practices and constellations of actors in such manners as to better satisfy or answer needs and problems than is possible on the basis of established practices' (Howaldt & Schwarz, 2010, p. 20). Within research on innovation, the content of innovation is divided into different typologies such as new processes, products, services, position, strategies, governance or rhetorical innovations (Hartley, 2005), but more often social innovation is a mix of several. Approaching innovation from the vantage point of workplace learning, innovation can be 'any content, but new knowledge, reconstruction of routines and organizational innovation will often predominate' (Høytrup, 2010, p. 148). Therefore, innovation is closely connected with the perceptions, skills and behaviour of the involved actors, and 'can be seen as the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, services, experiences and transformations' (Høytrup, 2010, p. 146).

This perspective on social innovation accentuates knowledge-in-practice. It frames innovation as contextualized and socially embedded value creation that is closely connected to the development of knowledge and the competencies of the involved actors. In the following case, socio-economic value emerges from re-assessing the knowledge and competencies of actors formerly judged as unable to work:

Holstebro, Denmark - On their website, Code of Care⁵ states that they do not accept human waste – individual, social and economic. Code of Care is a non-profit organization that works strategically and practically with companies and public services to hire workers who would normally be regarded as unable to work. Their slogan is 'More care, less me', indicating the

need for a less egoistic and more inclusive and caring labour market and society. Businesses who want to enhance their socio-economic responsibility can get knowhow and assistance in making a business plan, which includes job descriptions to be undertaken by people with disabilities or other challenges.

Code of Care is currently involved in establishing task forces. A task force is an active group of companies, which in cooperation with the local employment service initiates entrepreneurial activities to promote social responsibility in the local municipality. Each task force is working with a local challenge - for example, combating youth unemployment, the establishment of more flexible jobs or other kinds of inclusion of people with challenges.

This organization aims explicitly at a paradigm shift in businesses and in society. The purpose here is to create human and financial balances by providing people with limited resources the opportunity to contribute to the benefit of businesses and society. Although Code of Care does not use the term upcycling, they explicitly address the core idea of reconsidering waste and insisting on human dignity and worth. One more statement from their website is: Every human being has value - let's use it.

Co-design – agency in networks

Another central field we can draw on to conceptualize social upcycling is co-design. Design is primarily concerned with potential, or with 'what could be', and hence easily lends itself as an approach to social innovation and upcycling. Two trends are forming in the field of design at the present time: the orientation towards more complex challenges, and an increased focus on co-creation. Among both practitioners and researchers, the field of design is moving, and rapidly expanding, into new areas, embracing still broader questions and concerns. There is a growing awareness of the complexity in today's major challenges and a belief that design is useful in shaping new sustainable solutions. 'Socially Sustainable Design,' 'Socially Responsible Design' and 'Design Thinking for Social Change are some of the educational directions taught in design schools across the world, reflecting this viewpoint.⁶ New strands of design bear names such as social design, service design, human-centred design and transformation design, thus reflecting a change in the object of design (e.g. looking for a new way to tackle social issues), as well as the methods and

constituents of design practice. This development is caused by a change in design challenges, with challenges no longer solely addressing 'how to design a response to a current issue', but increasingly 'how to design a means of continually responding, adapting, and innovating' (Burns, Cottam, Vanstone, & Winhall, 2006, p. 21). Hence, design challenges are much more complex, interactive and relational, and 'strive towards meaningful and effective change, by reconfiguring resources in different ways' (Kimbell & Julier, 2012)

Design practice is no longer the practice of a sole profession, but rather to be perceived as a collaborative endeavour and, thus, referred to as co-design. Co-design practice is a collaborative mode of inquiry and creation involving people, space, artefacts, materials and aesthetic experience (Telier et al., 2011). Theoretically, co-design research draws on actor-network theory, practice theory and situated theories of learning, thereby concerning itself with configurations and re-configurations of human and non-human arrangements across both time and space (Ibid). Co-design takes its point of departure in concrete everyday enactments, in which various meanings and a sense of newness and value are constructed through ongoing, coordinated relations, actions and interactions (Janssen et al., 2015). When we consider this in relation to social upcycling, co-design seeks to re-create valuable and meaningful socio-material assemblies around matters of concern (Binder et al., 2011). As argued by Janssen et al. (2015), this ontological point of departure as an alternative vantage point may help shed new light on innovations as 'representations of complex social processes in which many interactions take place over time' (Ibid, 1975). The approach of co-design might then apply to innovation in social work, in which goals are often complex configurations of practices and technologies – such as more effective services, knowledge building, enhanced well-being or a more fulfilling life for citizens.

The movements in design described above can be summarized as embracing complexity and the distribution of agency in networks. This reconceives of design as an activity concerned with designing for connecting - people, purposes and resources. The following case involves a diversity of people, purposes and resources which, combined, result in a brand new neighbourhood:

Roskilde, Denmark - Snake run is the most fundamental form of all skate park designs and at Musicon⁷ as the idea of skating the California waterways is mimicked in the design of the overland waterways. An infrastructure of concrete water canals stretches through a series of hills and slopes towards three open basins that work as rainwater reservoirs during flooding. The water drainage canals and the one large water bowl are designed for skating and BMX. In 2003, Roskilde municipality bought an area previously used as a gravel pit, landfill and a site for cement production. The 250,000 m² area is severely polluted, with gas and garbage deposits in the top seven metres of soil (Gudiksen & Lerche, 2012). The environmental restrictions due to the pollution of the area, as well as new legislation on handling increasing rainwater, set strict demands on the new infrastructure of the area. The area is named Musicon, inspired by the former cement production company, Unicon, and the Roskilde Festival, which is almost in the DNA of Roskilde. The manager explains:

- *Some things ran in parallel. Hal12 – where the skaters are – started before the Musicon secretary was established out here. Essentially, [Hal12] was initiated by a couple of young guys walking into the department of culture [of the Municipality], saying: ‘We’ve looked into this workshop and it’s just standing there empty - can we build some skate ramps?’ So they got the keys.*

The idea of combining rainwater drainage with skating facilities emerges in the encounter of local city planners and members of the skating community, and develops when new actors are involved: ‘So the thing progressed and we involved this architect. He is a skater himself and the daily manager of Hal12 knew him, so they started talking about the project,’ the manager says. Hence, the area was not left as a technical plant and a wasteland in dry weather, but altogether turned into a recreational area with this skating-idea as the overall idea. Musicon is now developing into a combined location for housing, cultural business, education, a museum and shops.

Social innovation can be conducive in transforming and reconfiguring relationships between public bodies, communities and private partners. In Musicon, the political motives and resources are combined with the motives and resources of the local skater community, which transforms the ideas of the usage of the polluted area into a combined technological plant and recreational resort. ‘Useless’ land, ideas and intentions meet and are upcycled in socio-material processes that address economic, social and environmental dimensions of sustainability

Conceptualizing social upcycling

Upcycling takes place through new combinations – be those people, knowledge, desires, ideas, materials, technologies or needs. In each upcycling process, the combination is unique and organically evolving, based in situated needs, skills and resources. The cases illustrate that an upcycling process is rarely designed once and for all, and it is rarely the outcome of strategic determination. By knowledge brokering, diverse elements create social upcycling, which is therefore by no means completely new.

We have investigated what comes into view if we conceive of social innovation not only as the recycling of ideas, material and practices, but also as upcycling in the sense of valuing ‘waste’ elements as the very basis for the creation of something new and valuable. As mentioned, this entails a renewed interest in the ‘old’, that which may be considered useless in a traditional appreciation of- and reflex focus on the new. Thus, upcycling puts an emphasis on sustainability in its broadest terms.

The broad notion of sustainability inherent in social upcycling is related to an increasing need to embrace the complexity and entangled socio-materiality of innovation. Overall, there is a call for context-sensitive innovation discourses and practices. What we suggest here is that upcycling as a concept and as a mind-set is helpful in this endeavour. Approaching social innovation through the lens of upcycling adds a new perspective to how value is created and dissolves the implicit categories of old vs. new present in much innovation policy and research. Based on the cases, and with inspiration from social innovation and co-design research, we have investigated and illustrated what a sustainable innovation strategy for social work may look like: To capture and rehabilitate skills and competencies, ideas, material, objects or practices from a wide variety of sources that might previously have been considered not just ‘old’ but also ‘useless’. This opens new perspectives in studies of innovation, among which contextual factors do not solely serve as mediators when innovations are adapted in new contexts, but as the very basis of the new. Social upcycling is a mind-set that opens up a situated perspective on both newness and value. Iyengar (2014) notes that the act of upcycling is both cheeky and reverent. It salutes qualities of the

past and at the same time seeks to create a desired future. Upcycling is a kind of nostalgic futuristic innovation.

What might the upcycling mind-set and practice contribute to complex social challenges, in order to rethink and rehabilitate not only ideas and things, but also human interaction and collaboration? The cases illustrate how the upcycling of 'waste' elements can simultaneously address multiple challenges, in addition to economic, social and environmental dimensions of sustainability. The cases have served to illustrate the principle of upcycling, and how the concept opens new perspectives on innovation in social work.

Upcycling can thus include a range of actors in their role as citizen, professional or volunteer. It also includes the skills and knowledge at hand, as well as waste material such as abandoned industrial areas, disposed goods and by-products. Social upcycling competencies consequently involve:

- an eye for potential;
- a knowledge brokering mind-set;
- a willingness and boldness to act without a business plan, and
- the passion and desire to create the future and not just let it happen.

Social upcycling competencies and strategies

An upcycling mind-set constructively questions the obsession with newness present in many discourses of innovation. However, the idea of value creation based on what is considered 'old' or ordinary is scarcely present in innovation literature. Here, we will elaborate on a single term used in management studies, namely the abovementioned term 'knowledge brokering' (Hargadon, 2002; Hargadon & Sutton, 2000). This term is used to explain how successful innovators systematically make use of old ideas as the raw material for new ideas, thereby stressing the role of interactions across organizations, professions and domains as a core strategy to enhance innovation. Knowledge brokering encourages people to 'use their in-between vantage point to spot old ideas that can be used in new places, new ways, and new combinations' (Hargadon & Sutton, 2000, p. 58). A successful innovation strategy is to hence capture ideas from a wide variety of sources, play with them and imagine their use in other contexts (Tanggaard & Wegener, 2015) just like in upcycling processes.

Hargadon (2002) notes that many definitions of innovation recognize the presence of old ideas, yet this point is often downplayed in efforts to identify and describe the events that produce revolutionary change. As a result, he states, dichotomic pairs using such terms as *revolutionary vs. evolutionary*, *radical vs. incremental* and *discontinuous vs. continuous* are common. Nonetheless, the problem is that these descriptors often confuse the idea's impact with its origin. With reference to Basalla (1988), he argues that 'revolutionary innovations often come from very evolutionary origins' (Hargadon, 2002, p. 51). That is, the original idea might seem insignificant, old or even disposable, but the upcycling process result may have a huge impact.

In order to understand the processes of evolutionary revolution, he suggests that the relation between old and new can be better understood in a 'small world perspective' (Hargadon, 2002, p. 53). Drawing on social-network theory, actor-network theory and 'the small world phenomenon' (Watts & Strogatz, 1998), he regards domains as communities with shared knowledge and schemas, inhabited by people experiencing their own domain as 'a small world'. For this reason, the creative act is the process of moving ideas from where they are known (and maybe categorized as useless or trash) to where they are not. Sensitized to this gold mining mentality, we can consciously connect to other 'small worlds', transport ideas from one domain to another or scan foreign domains for things, skills and collaborators with novel application potentials. Just like the upcycling mind-set, moving things from the category of garbage to the category of useful is a vital part of creating a new commodity, process or space.

Focusing on 'old' material and its reuse allows for a situated perspective on both newness and value. Upcycling points to innovation competencies as the ability to look into other worlds, reconsider value and envision future value. It carries the message that innovation is not a matter of newness and value per se; rather, when resources move and combine with other resources in other domains, 'they become novel for their unfamiliar origins and valuable for their established elements' (Hargadon, 2002, p. 55). As creative human beings we can all pick up and transport material and ideas across domains, and accordingly add to the upcycle spiral. In this paper, we have sought to do so by drawing on different research domains and combining them in a new way. As social science researchers and social work

practitioners, we can do that all the time, whether on a small or large scale. All we have to do is to be involved in partnerships and collaborations with people different from ourselves, and seek to inspire ourselves and others to look for gold in the garbage. By continually doing so, we can insist on creativity and human dignity as guidelines for the futures we want to create.

Endnotes

1. <http://posters-for-good.tumblr.com/post/23043193776/dont-throw-anything-away>
2. <http://itworksshops.org/>
3. <http://www.weforum.org/global-challenges/projects/circular-economy/>
4. <http://www.socialinnovationacademy.org/>
5. <http://codeofcare.dk/>
6. phd-design@jiscmail.ac.uk, on a discussion on 'degrees in socially sustainable design'; located October 2011.
7. <http://musicon.dk>

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