ENHANCING THE VALUE OF SOCIAL INNOVATION: INTRODUCING THE 'PEOPLE VALUE CANVAS' TO SUPPORT DESIGNERS IN VALUE CREATION

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ABSTRACT

Well-designed interactive experiences connect people, meet their needs, life-styles and life choices, and can make a positive difference on their wellbeing. The overall challenge of people-centred innovation can be summarised in how to design value for people — as well as for companies and society. To be able to create value, designers need to explore, validate and reflect upon the different design choices and their intended impact. In turn, this demands methods for understanding needs and motivations of the users, exploring solutions and designing business models. There isn't one single way to organise these tasks. Nevertheless, it may be helpful to learn from frameworks that offer a basic recipe consisting of checklists and a structure for the work to be done.

In this paper, we introduce a concept development tool to support value creation for both designers and stakeholders, which we call People Value Canvas (PVC), according to which users' needs and wishes can be systematically identified for the purpose of the further conceptualization of innovative solutions with a technological component. The PVC is intended for designers and stakeholders involved in social innovation, and who are interested in how media ICT can be employed to promote design for social interaction. We approached the PVC as a reflective, systematic tool during the design process. The tool proved valuable in discussing new concepts since it gave structure to constructive conversations and showed the interdependencies between the different design aspects. Additional research will help to understand this even more.

KEYWORDS: *Social innovation, value creation, healthy ageing, empathic design, media ICT*

INTRODUCTION

'Social innovation' refers to new strategies, concepts, ideas and organizations that strive to provide solutions for serious social challenges (Stikker, 2012). The urgency of today's social innovation is mobilized by the innovation capacities of everyone in society. Social innovation now is founded on a fundamentally different value system than it was in the 20th century. Social innovation can best be described as striving towards a society that is sustainable and socially conscious. Innovative solutions addressing this challenge ask for new ways of working, often referred to as 'creative research' (Van Dijk, 2011), aiming to involve a variety of stakeholders in co-creative acts; these include universities, research centres, schools, healthcare organizations, network providers, governments, artists, living labs, innovative small and medium-sized enterprises, and large corporations.

To provide value, the long-term effects of interactions and experiences of design solutions have to be considered by designers, for which a framework such as the Framework of Product Experience could be of value (Desmet & Hekkert, 2007). This theoretical framework structured attempts to 'design for experience. To be able to substantiate value and compare different value propositions, designers need to be able to challenge existing concepts and to collectively imagine and build future scenarios, together with other stakeholders. This requires an open attitude and sensibility of the designers to fully understand the questions at hand and the

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users that are involved. In practice, despite all the best intentions, products, solutions and/or services often seem to be conceived in relative isolation, not realizing the optimal long-term impact for its target group. Designers have a diverse set of methods and tools at their disposal to help them explore the potential value their interventions could bring to people, and to bring the people they serve through design directly into the design process in order to better meet their needs in the future (Sanders, 2012).

Value creation demands a process of understanding needs and motivations of the users, exploring solutions and designing business models. There isn't one single way to organise these tasks, nevertheless it may be helpful to learn from frameworks that offer a basic recipe: checklists and a structure according to which the work will be done. A 'canvas', such as the popular Business Model Canvas, has already proven to be a useful tool in analysing innovation processes (Osterwalder & Pigneur, 2010). Nevertheless, most of the business models we know lack detailed knowledge about individuals, making them operate on assumptions about 'their customers' that don't reflect their real needs and motivations. Even though the people behind the Business Model Canvas developed an additional 'Value Proposition Canvas', which helps you design, test, and build your company's Value Proposition for customers in a more structured and thoughtful way, the users needs are addressed from the company's point of view and not from the user's point of view ('Value Proposition Canvas', 2012). We developed the People Value Canvas in an iterative manner, born out of a need to describe critical aspects of concept development, involving a technological component. When users, designers, researchers, and business developers work together, each of them take on multiple roles throughout the design process. However, the user is the expert on his own life and experiences, and should therefore be the driver of the development process. The People Value Canvas supports this angle of the design process by offering a tool to systematically identify users' needs and wishes for the purpose of further conceptualizing innovative solutions with a technological component.

EMPATHY AS A VALUE CONSOLIDATION TOOL

One of the biggest challenges of modern day society is the aging population. We advocate a people value approach as a perspective on the challenge of ageing. It is based on our work in the Express to Connect project (E2C), an Ambient Assisted Living project, which looked for ICT-based solutions for the advancement of social interaction of elderly people (Wildevuur et al., 2011). The oldest age bracket in the population is at particular risk of becoming isolated and lonely as they grow older and their work-related networks erode. ICT-based solutions could advance social interaction amongst older adults. A user-driven approach was used from the beginning of the project, actively involving users from the start (Wildevuur et al., 2013). The E2C partners jointly proposed a people-centred, holistic approach towards designing solutions for the ageing society, in order to deal with what really matters: social connectedness between people. Therefore, it was important to find ways to reframe 'old' ideas, step aside from assumptions regarding 'old age' and to reconfigure the design process towards a more empathic approach.

Since there did not seem to be a tool which mapped insights in a structured way from the user value perspective, the urge was felt to construct such a tool based on our own experiences: the People Value Canvas (PVC). The central idea behind the canvas is that a product or service has added value only when it satisfies user needs and fits user motivations. On the one hand, the canvas helps to structure user insights (needs, context and so on) (figure 3). On the other hand, PVC describes the proposed new technological solution (effect, experience and so on) (figure 4). We connected the People Value Canvas closely to the logic of the Business Model Canvas (Osterwalder & Pigneur, 2010). The Business Model Canvas (BMC) has become a popular strategic management and entrepreneurial tool, which allows the user to design a business model in a user-friendly way. A 'canvas', such as the popular Business Model Canvas, has already proven to be a useful tool in analysing innovation processes. The BMC formally describes nine building blocks for the activities. Since the release of the canvas, new canvases for specific niches have been developed. The overall output of the PVC is a value proposition, which is the starting point of the Business Model Canvas (see: figure 1). The filled out PVC can help establish the entire scope of the intervention you design, often referred to as the 'Product-Service-System' (PSS).

When working towards the business model of a product or service, one has to envisage how it will be implemented in real life and how it will sustain itself. The business model is part of the business strategy. What does the market for your product look like? Who will be involved? What value does the product create, for whom and why? Who is going to invest and pay, and what is the flow of monetary reward? The Business Model Canvas is an effective way to capture this discussion, and to support sketching, developing and discussing business model elements within the development team. At the centre of the business model canvas is the value proposition: Which customer's problems and needs are being served?

Qualitative insights into why, how, and when people experience a problem or have unmet needs is necessary when aiming to address these problems or unlock opportunities, and might prove a critical factor in triggering their ability or willingness to use new products or services, which are developed according to the users needs and wishes. Critical insights are the relevant needs, the different user characteristics, their contexts, and the motivations that drive them. The PVC is therefore intrinsically linked to the development principles of the 'Users as Designers' method, as well as the ethnographic research method (Van Dijk, 2011). Users as Designers is a combination of existing and customised participatory and empathic design methods that are qualitative in nature and are drawn from the arts and social sciences. This design philosophy is particularly appropriate when challenging user

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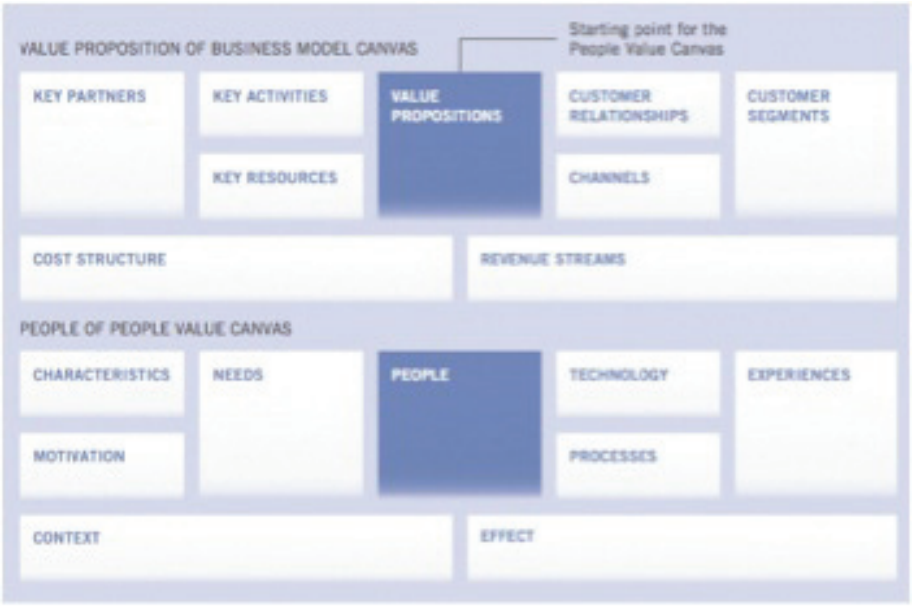

Figure 1: People Value Canvas (People) in relation to Business Model Canvas (Value Proposition)

groups are involved, such as seniors and their caregivers. Inspirational research methods help to facilitate the dialogue needed to elicit personal and contextual information that helps to define users' needs and desires. Conscientiously involving the users throughout the design and development process helps designers to build strong empathic relationships and intimate connections with exemplary users. During the development process, users tend to be involved in various (co-creative) ways; different approaches are available for designers to involve them. The PVC uses a number of these tools and methods to help designers fill out the canvas. In the explanation of the building blocks, some of these methods will be described briefly.

PEOPLE VALUE CANVAS: NINE BUILDING BLOCKS TO REFLECT ON VALUE

The People Value Canvas consists of nine building blocks —that have to be filled in when developing new concepts— describing the input that has to be provided in order to establish the value proposition for the user (See: figure 2). The building blocks are intrinsically linked and have to be revisited iteratively. The framework has been developed in an iterative manner within the earlier mentioned Express to Connect-project.

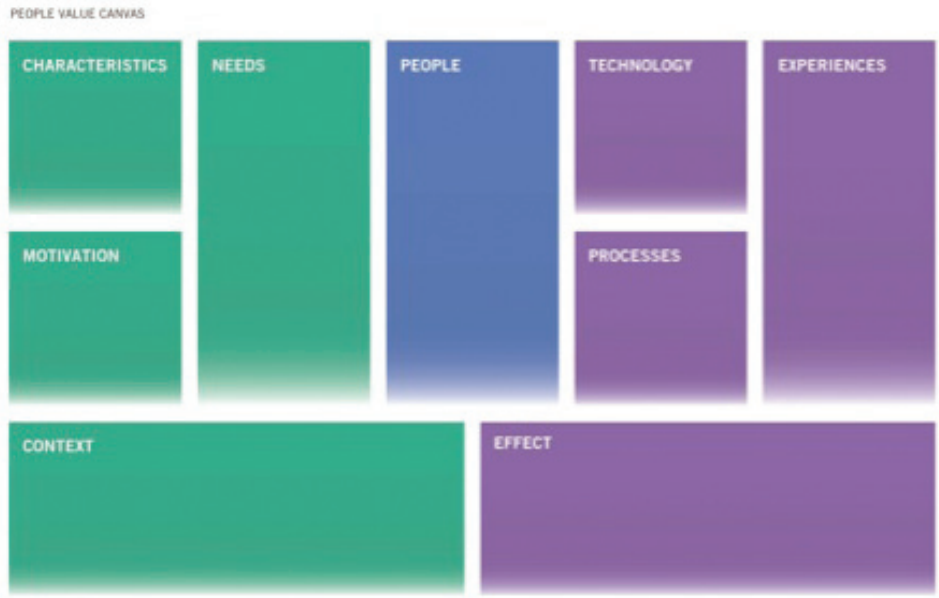

Figure 2. The People Value Canvas

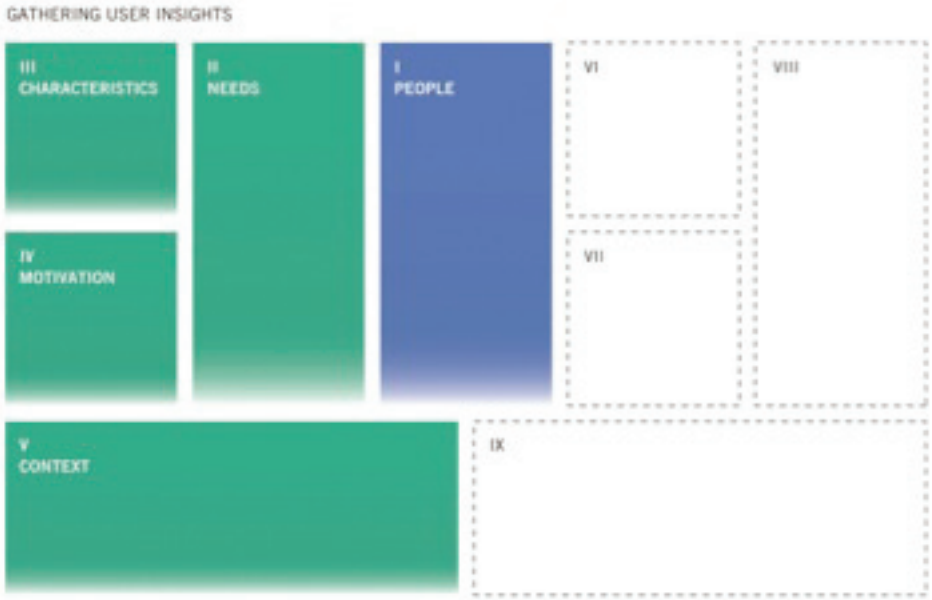

Figure 3. Gather user insights

When you take the interdependencies between the different blocks into consideration, this structure allows for a holistic development and description of concepts. The different building blocks have been iteratively formed and grouped during the development process. The descriptions provided below describe what needs to be considered during concept development in order to reflect upon value.

Roughly the canvas is divided into a 'user insights' part (see: figure 3) and 'intervention' part. The first part is based on the conducted user research whilst the second part describes the envisioned intervention.

Building block I: People

Who are you designing for? People take centre stage in the user value canvas. Designing for social innovation means designing innovative products, systems, or services that help people to be active, joyful and socially connected to society, which in turn effectively contributes to their health, overall quality of life, and social inclusion. To really understand your target audience they need to be regarded as a source not only for research, but also for inspiration, co-creation, and prototyping. A clear demarcation of the people you are designing for makes it possible to initiate multifaceted design research that provides deeper insights into needs, motivation, and characteristics.

Building block II: Needs

What are the most urgent or specific needs you aim to address? People have all sorts of needs. People need to feel related to others in order to feel socially connected. People need input to take informed decisions. There are several models we could use to look at needs, such as Maslow's Hierarchy of Needs (Maslow & Lowry, 1968), Design for Happiness (Schot et al., 2009) and McClelland's Human Motivation Theory (McClelland, 1987), to name but a few; but when exploring social innovation we tend to look at six dimensions of wellbeing as a starting point: the physical, spiritual, intellectual, social, emotional, and occupational dimensions (Renger et al., 2000). However, there are several needs frameworks that you can use as a reference point to categorize the needs of your target group. Nonetheless, keep in mind that there might be conflicting needs (Ozkaramanli & Desmet, 2012).

Building block III: Characteristics

What are the attributes of the people for whom we are designing? In what ways are they socially active and connected? What are their lives like? What kind of relationship do they have with others and with technology?

The insights arising from qualitative research can be channelled into 'portraits'. Much like a 'persona', a portrait is a description of your audience, but based on empirical data from your qualitative research rather than a fictive description. Portraits anchor the differences within the identified user needs. These portraits serve as: vehicles for empathy and identification; visual depictions of knowledge and information; and representations of certain market segments.

Building block IV: Motivation

What is a person's attitude in life? What are the relevant user motivations that might stimulate or hinder potential interventions? Motivation is what drives a person to behave in a certain way, and is in that sense different or complementary to the needs: motivation is the crucial component in setting and reaching goals. Motivations shed light on individual aspirations, and what people value. Intrinsic motivation is driven by an interest or enjoyment in the task itself, and exists within

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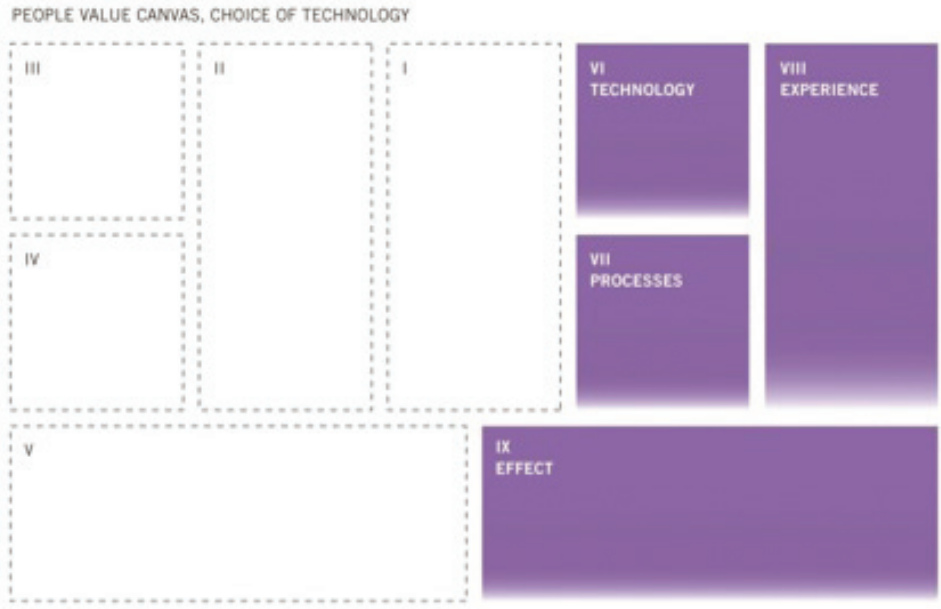

Figure 4. Describing the intervention

the individual, rather than relying on external pressures or rewards. Motivation may be rooted in a basic need to minimize physical pain and maximize pleasure; or it may come from specific needs such as eating and resting; or a desired object, goal, state of being, or ideal; or it may be attributed to less apparent reasons such as altruism, selfishness, morality, or avoiding mortality.

Building block V: Context

In which context does an intervention need to land? The way a person approaches, uses and experiences an innovation needs to be seen in a broader context, which includes not just the user and the product or service, but also other contextual factors (time, place, temperature and so on). Important contextual parameters include people's life circumstances, such as income, geography (urban or rural), and distance from family members, but also the location where the product or service is used, or where a person's comfort zone is. Context mapping and social mapping are tools to visualize all these factors from the user's perspective, and to get a first notion of what opportunities and/or limitations they face.

Building block VI: Technology

When you want to put people and experiences at the centre of developing solutions supported through technology, you need to be explicit about your technological development (see figure 4). The design space in a technology-driven approach is often limited, since the outcome (the technology) is frequently defined in advance. Disruptive solutions do not get a chance. Different media allow for different degrees of participation on the part of a person who chooses to use them, and can emphasise one sense (for example sight or hearing) over the others. This makes it very important to choose the right set of design principles when the systems that influence our lives are being built. Think of how this particular technology will take the users into account and specifically their desire to feel trusted, socially accepted or connected. A good interface activates people, enables them to take action themselves, empowers them, and offers a context for dialogue. In order to create real value we should put empowerment, reciprocity, and transparency at the very core of the design of processes and interactions. Openness allows people to take control of their own systems, and find new uses for them. The right to access and use the (aggregated) data should be the same for both the user and the system. This goes beyond the issue of privacy, which should be designed carefully at the heart of every system. The answer to building block 'Technology' is a balanced description of the technology envisioned, with an openness to spot potential unintended side effects that might occur during its use.

Building block VII: Process

What are the potential consequences and desired touch points related to the envisioned intervention? Offering an experience means paying attention to the entire ecosystem within which the application or service is located. For instance, support: there is no point developing an alarm button in the absence of an emergency room with people who cannot react to the alarm. Moreover, interactions with an application usually involve multiple touch points, and services around the product. 'Service Design' is a discipline that offers a variety of tools to this end (Stickdorn et al., 2011). These include methods such as the 'Service Blueprint', which aims to develop a service prototype by looking at all the conditions to ensure that technology works in real life and not just in the test environment. The answer to building block 'Process' is a reflection on the potential challenges and desired touch points related to the intervention you envision – some visible to the user, some very much in the background.

Building block VIII: Experience

What is the quality of your interaction? How digital or tactile is it? How is it connected to the user's daily life, routines and flow? Will it contribute to the sovereignty of the user? Some pleasurable experiences can be described with a flow model and theory, describing the optimal mental state (flow or zone) where people reach enjoyment and engagement in an activity (Csikszentmihalyi, 1997). Increased understanding of human drives and pleasures will help to understand how interactive experiences can be designed to have a positive impact and can play a positive role in social interaction. Throughout the experience design process, storytelling plays an important role as a tool for empathy, inspiration, contextualisation and explanation. Intuitive interfaces, playful learning and embodied interaction can help to create pleasurable experiences. The answer to building block 'Experience' is a vivid description of the nature of the experience you design from the perspective of the user.

Building block IX: Effect

What will be the long-term impact of your intervention on the user's own narrative? How will the intervention contribute to their potential or relations? Social innovations are supposed to support social change, since their aim is to stimulate new experiences and behaviours that meet social needs of all kinds, raise the individual's quality of life, and create value for society as a whole. On the other hand, some (assistive) technology can cause existing skills or knowledge to become obsolete.

Social innovators need to be aware of the implications of their designs, both in terms of their sustainability and of their transformative power, i.e. their impact on people's lives. To determine their relevance to people's lives, processes and routines, an estimate of their long-term effects is needed. In the context of people value, the effect of a solution is measured in terms of its contribution to wellbeing. The answer to building block 'Effect' is an estimate of the anticipated impact of the intervention.

EVALUATION

The first versions of PVC were developed iteratively based upon the Ambient Assisted Living-project, Express to Connect. In several workshops the base of a design tool was developed to work in a systematic way with different stakeholders, such as prospective users (the primary target group are not only the people over the age of 65, but also their children and grandchildren), municipalities, SMEs, and developers.

As a follow-up to the E2C effort, the PVC-tool was used in different settings; the designers collaboratively developed the concept iteratively while filling out the canvas. Different tools like portraits were introduced to support the designers to identify user needs (Wildevuur et al., 2013).

When trying out the canvas in the workshops almost all participants recognised the canvas to be a useful tool, which helped them feel more in control in tackling all aspects concerning the value proposition, since it provided an overview and a common ground for discussion. One participant said that he did not feel he found new surprising insights because of the tool, but he could definitely see his concept had improved. Other participants agreed upon the fact that the tool supported them so naturally that they could use it intuitively. Moreover, the tool provided a framework that would help them in the whole process. In a nutshell, the canvas seemed to be relevant for a designer and stakeholders as a checklist, but most of all the canvas was helpful as a communication tool for collaborative developing.

CONCLUSION

In this paper we approached the PVC as a reflective, systematic tool during the design process. Apart from applying the canvas to design processes, the PVC has also been tested and used in different settings as a tool for developing a mutual understanding between different stakeholders on the development of a concept, design or service. The tool proved valuable in discussing new concepts as it gave structure to constructive conversations and showed the interdependencies between the different design aspects. Filling out the canvas —in a digital format or printed as a poster, to be filled with sticky notes— can therefore be helpful in a collaborative process with different stakeholders. Additional research will help to understand this even more.

Our mission is to design for the 'real needs of real people', and our aim is the empowerment of the target group. The biggest challenge is: How to develop and formulate models of value propositions? The PVC is a supporting tool that strives towards this goal. PVC is a value tool that can substantiate value by mapping the context of a target user to the different aspects of a concept. It can also be used to develop a concept, and to provide a reference point when choices need to be made later on in the development process, or to help frame the ideas around the possible impact of a solution. In a nutshell, the PVC supports the designer in creating impact for the user by challenging the proposed solution by asking the following questions: Does the product/service truly fulfil the user's needs? Does it fit their lifestyle? What is the impact of the required technology? Will it be accepted/understood by the user, and what will the expected long-term effect(s) be on individual lives as well as society as a whole?

All together, the canvas reveals which information is lacking in the context and supports the design of a product or service; the 'blind spots' become visible. The canvas can help to compare the added value of different conceptual directions, to reflect on the crucial aspects of a concept, to engage in further research on a target group, or to guide the design of emerging solutions.

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DISCUSSION

Filling out the PVC helps designers and stakeholders to reflect on the impact of the intervention they are designing. To consolidate value, a designer needs to empathize with its users to understand their true needs and to validate its concept on how it fits the users' needs and context. Tools to support the designer and stakeholders on these aspects seem important. As the set of tools is growing rapidly, a categorization to understand when and why to apply those tools seems to be essential. PVC could be regarded as a reflective tool, next to empathy tools (such as Portraits), or consolidation tools (such as Service Blueprints). These are all part of a large toolkit, which are already available to designers. A more elaborate categorization, and in-depth research, is needed to identify the different tools and their role and function in the process of designing for social innovation.

Just as the Business Model Canvas is not the complete answer to developing a successful business model, the People Value Canvas is not the complete answer to creating value for the user. Rather, it is a method to support designers and stakeholders in a systematic manner to gain insight into what people actually consider to be valuable. In addition, PVC could be used in user sessions, co. creation workshops, expert panels, and rapid prototyping meetings in order to exchange knowledge, communicate ideas, and ultimately learn from one another. When designers and stakeholders work together in the design process, they all take different roles. When working in multidisciplinary teams, the People Value Canvas could map the space for social innovation. However, additional research is preferred on the PVC with different users, to clarify the different building blocks, and to avoid confusion about terminology or how to use it. To do so, a team of universities (of applied sciences), SMEs and other organisations are developing an educational module based upon PVC for international students as a framework to walk through a specific design challenge and map insights in an iterative and new manner.

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