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Katherine Choy Daniel Schlagwein

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Crowdsourcing for a better world

On the relation between IT affordances and donor motivations in charitable crowdfunding

Crowdsourcing
for a better
world

Katherine Choy and Daniel Schlagwein

*School of Information Systems, Technology and Management,
UNSW Australia Business School, Sydney, Australia*

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Abstract

Purpose – The purpose of the paper is to better understand the relation between information technology (IT) affordances and donor motivations in charitable crowdfunding.

Design/methodology/approach – This paper reports the findings from a comparative case study of two charitable crowdfunding campaigns.

Findings – The affordances of crowdfunding platforms support types of donor motivation that are not supported effectively, or at all, in offline charity.

Research limitations/implications – For future researchers, the paper provides a theoretical model of the relation between IT affordances and motivations in the context of charitable crowdfunding.

Practical/implications – For practitioners in the charity space, the paper suggests why they may wish to consider the use of charitable crowdfunding and how they may go about its implementation.

Originality/value – Based on field research at two charitable crowdfunding campaigns, the paper provides a new theoretical model.

Keywords Hermeneutics, IT artifact, Affordances, Interface design, Motivation

Paper type Research paper

1. Introduction

Crowdfunding is an IT-enabled process of collecting relatively small contributions or donations from a large number of people online (Bradford, 2012; Kuppuswamy and Bayus, 2013). In the past years (2012-2015), the interest of practitioners and scholars in crowdfunding has increased substantially (especially following the strong media coverage of Kickstarter in 2012). Crowdfunding can provide support for both commercial and charitable purposes. The success of commercial crowdfunding (e.g. funding new products and business ventures) and the motivations of donors have received substantial attention in the literature (Bradford, 2012; Bretschneider *et al.*, 2014; Kuppuswamy and Bayus, 2013; Rossi, 2014; Schenk and Guittard, 2011). However, we know much less about charitable crowdfunding and what motivates donors in this context. This is despite the substantial differences in what can be expected to drive donors in commercial crowdfunding (i.e. a desire to use a new product) and charitable crowdfunding (i.e. altruistic motives might be dominant here).

To better understand motivations is useful because crowdfunding platforms, as IT artefacts, are accessible to choices in human design and communication. Hence, a better understanding of the relationships between IT affordances and donor motivations in charitable crowdfunding is not only a knowledge contribution about a contemporary

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IT-based phenomenon but may also lead practitioners in the charity space to improve the way in which they design platforms and campaigns.

“How do IT affordances support donor motivations in charitable crowdfunding?” Based on the existing literature, we were unable to confidently answer this question for the unique context of charitable crowdfunding. Hence, we investigated this question by studying two charitable crowdfunding campaigns as field studies in depth. In the 2014 “Earthship Kapita” campaign, money was raised to build an environmentally sustainable community centre for a developing community in Malawi. In the 2014-2015 “Medical Research” campaign, money was raised to fund laboratory research on heart diseases at a university. We collected data on these campaigns through both semi-structured interviews and natural data, with ongoing data analysis and literature review.

What we found in our analysis of the two cases were four IT affordance types (i.e. project-information, project-action, platform-information and platform-action affordances) and four donor motivation types (i.e. intrinsic-individual, intrinsic-social, extrinsic-individual and extrinsic-social motivations). Furthermore, the two cases allowed us to identify relationships between types of affordances and types of motivations, leading us to propose a preliminary theoretical model explaining how IT affordances support donor motivations in charitable crowdfunding.

The paper is organised as follows: in Section 2, we review the existing literature on charity and crowdfunding, and we discuss the theoretical background (i.e. affordance theory and motivation theory) that informed our analysis. In Section 3, we describe how we conducted the case study research. In Section 4, we report the empirical findings of the case studies. In Section 5, based on these findings, we formulate a theoretical model that responds to the research question. We conclude the paper with a brief summary.

2. Literature review and theoretical background

2.1 *Charity*

The term “charity” commonly refers to “the giving of aid to the needy” (Merriam-Webster, 2015) www.merriam-webster.com/dictionary/charity which is the definition adopted in this paper. There may be some differences in what people of different backgrounds understand as fulfilling this definition. However, some globally shared understanding of charity is evident in widely accepted frameworks such as the development goals of the United Nations (United Nations, 2000; United Nations, 2015). We selected two cases for this study – support for the development of a poor community and support for public cancer research – that will certainly fall into most people’s understanding of charity.

Charity is a multi-natured phenomenon (Bekkers and Wiepking, 2010). Many different types of charity exist. Sargeant and Jay (2010) suggest that charity can be grouped into the following broad categories: major gift giving (i.e. wealthy individuals donating large sums); legacy giving (i.e. long-term-oriented endowments); corporate fundraising (i.e. companies donating); foundation fundraising (i.e. charitable bodies providing grants); and community fundraising (e.g. bake sales, doorknocking, public events, etc.). In regards to community fundraising in particular, technology holds the promise of reaching a much wider audience (Sargeant, 1999). From this perspective, charitable crowdfunding presents one such technology-driven charitable fundraising approach.

Why do people engage in charitable giving? A number of studies have explored what motivates donors to give to charity when there seems to be no explicit reward in return (e.g. Bekkers and Wiepking, 2010; Sargeant and Jay, 2010; Wispe, 1978). In offline

charitable giving, studies typically find intrinsic motives and altruism to be the dominant motivation. Donors typically experience positive feelings when helping others (Andreoni, 1990). The reasons for these positive feelings include empathy, sympathy, nostalgia, reciprocity or commemoration (Batson, 1990; Eisenberg and Miller, 1987; Fultz *et al.*, 1986; Mount, 1996). Motivations towards charitable giving can, however, also be intrinsic – selfish or even extrinsic. For example, charitable giving is a way to stimulate the feeling of heroism (Piliavin and Charng, 1990) or to seek “atonement for sins” (Schwartz, 1973) (e.g. in religious belief systems such as Christianity or Islam). Another extrinsic motive is that donors might be interested in contributing to causes that benefit their interests (Odendahl, 1990). Primarily, however, charity is based on intrinsic, altruistic motivations. A further relevant observation in the literature is that the higher the number of beneficiaries from a campaign, the higher the number of people who donate to that campaign (Andreoni, 2007; Ly and Mason, 2012).

2.2 IT-Enabled crowdfunding

Crowdfunding – commercial or charitable – takes advantage of the internet to collect funds (Bradford, 2012; Kuppuswamy and Bayus, 2013). Crowdfunding campaigns are typically hosted on intermediary internet-based crowdfunding platforms that allow campaign creators to reach large crowds with an open call (Geiger *et al.*, 2012). Crowdfunding platforms provide tools that help campaign creators to showcase ideas, collect funds and involve social networks (Gerber and Hui, 2013).

Crowdfunding follows various models with crowdfunding platforms typically specific to one model. Bradford (2012) distinguishes the following models of crowdfunding: the reward and pre-purchase model (e.g. Kickstarter); the donation model (e.g. Chuffed); the peer-to-peer lending model (e.g. Kiva); and the equity model (e.g. Fundable). While potentially all of these models may provide avenues for supporting charity, this paper focuses on the donation model of crowdfunding, which is how charitable crowdfunding is typically organised.

The reasons why donors choose to contribute to commercial crowdfunding vary. Researchers have analysed reasons to contribute as ranging from the wish to use a proposed product, financial gain, curiosity (about crowdfunding as a new possibility) and reciprocity through to the wish to be part of a community (Bretschneider *et al.*, 2014; Gerber and Hui, 2013).

2.3 Charitable crowdfunding

What do we know about charitable crowdfunding? Charitable crowdfunding denotes the intersection between charitable giving and IT-enabled crowdfunding. Charitable crowdfunding campaigns transform the way in which charity has traditionally operated. While few sources are available in the literature on other forms of charitable crowdfunding (Wheat *et al.*, 2013), a number of recent studies have examined peer-to-peer lending on the well-known charitable crowdfunding platform Kiva (Desai and Kharas, 2009; Galak *et al.*, 2011; Heller and Badding, 2012; Knudsen and Nielsen, 2013; McKinnon *et al.*, 2013; Riggins and Weber, 2011; Shen *et al.*, 2010).

Knudsen and Nielsen (2013) argue that charitable crowdfunding platforms, such as Kiva, organise “social production” in an effective way. In social production, participants are not motivated by tangible rewards but rather are by altruism, peer recognition, respect or esteem (Arvidsson, 2009; Benkler, 2011). In addition to donating money, other aspects such as sharing the campaign online throughout donors’ social networks and writing comments appear to be integral parts of charitable crowdfunding.

The IT artefact, the material crowdfunding platform, plays an important, enabling role for charitable crowdfunding. For example, the manner and type of information presented on the platform play a critical role in how donors will respond (Allison *et al.*, 2015; Desai and Kharas, 2009; McKinnon *et al.*, 2013; Riggins and Weber, 2011). However, it is not well understood why certain information should be included or excluded; and existing studies have implicitly treated functionality of the platform beyond information as a “fixed landscape”. However, as Information Systems (IS) researchers, we are sensitive to the fact that such functionality is designed, and hence should be analysed as changeable as well.

Furthermore, the emerging research on charitable crowdfunding suggests that a campaign may appeal to donors not only its impact “on the ground” (i.e. through the project for which funding is sought), but also similarity of the donor relative to campaigner and the community (e.g. same gender, similar social background, shared values and tastes) may be important (Desai and Kharas, 2009; Galak *et al.*, 2011; Ly and Mason, 2012).

In this paper, we frame the effects in more theoretical (abstract, generic) terms than have been provided in the analyses in most of the existing literature. For example, an observation in of the above papers was that “curiosity about new possibilities” in IT-enabled crowdfunding supports donor motivation. This observation is empirically valid. However, such empirical-level observations do not necessarily have the generality typically expected from theoretical claims. In the example, the curiosity about IT-enabled charitable crowdfunding might be a limited temporal effect (likely to wear off soon), and not something that sets charitable crowdfunding apart from conventional charity. Hence, in this paper, we develop a theoretical model (with reasonable stability across spatially or temporally different contexts, see also discussion section) for charitable crowdfunding.

2.4 Affordance theory

We found that the theory of (IT) “affordances” provided us with conceptual constructs that helped us to better understand the relationship between charitable crowdfunding and individuals’ behaviours and motivations. The theory of IT affordances has recently garnered great attention in the IS field and has been used to theorise how users interact with IT in diverse contexts (Leonardi, 2011; Majchrzak and Markus, 2012; Markus and Silver, 2008; Pozzi *et al.*, 2014; Zammuto *et al.*, 2007). In addition, although not explored in detail, several authors have implied that IT platforms embody affordances that make crowdfunding campaigns effective (Gerber and Hui, 2013; Riggins and Weber, 2011).

The theory of IT affordances is based on the general theory of affordances. James J. Gibson first introduced the concept of affordances – within his larger theory of direct perception – to describe “action possibilities” whereby the environment presented opportunities for animals (including humans) (Gibson, 1977, 1979). Gibson’s concept does not imply that these opportunities are necessarily perceived and performed (Greeno, 1994; McGrenere and Ho, 2000). Donald A. Norman (1988/2013) appropriated the term to fit the context of industrial design and suggested that affordances are properties of an artefact that determine how the artefact is perceived to be useful to a human actor. Affordances is a relational concept, affordances is not a fixed property of either the artefact or the actor/animal in isolation. For example, a door knob is perceived by a human as something to pull and open a gate to the next room, not something to land on and rest; the “same” door knob is perceived by a fly as something to land on and rest, not something to pull and open a gate to the next room.

With human actors, individual abilities, culture, experience and knowledge play an important role for what affordances are perceived (McGrenere and Ho, 2000; Pozzi *et al.*, 2014). Affordances or IT (e.g. a crowdsourcing platform) are distinct those of other entities because these affordances can be designed and re-designed by humans with relative ease (e.g. through a software update).

Typically, researchers have used the concept of affordances to explain how artefacts afford immediate physical action. That is, many studies use the concept of affordances exclusive to describe physical actions enabled by an (IT) artefact (e.g. pressing an online or touchscreen button affords the action of immediately submitting information). Less emphasis has been placed on the characteristics of the (IT) artefact that afford mental actions (cognition) (e.g. an online video may support users' thinking, trigger their sympathy and change their opinion). Considering, that cognition and abstract thinking are what actually sets humans apart from other animals, we consider affordances that support cognition at least as important as affordances that support physical actions. Overall, despite the great promise of the IT affordance theory, IS research based on this theory is in its early stages (Majchrzak and Markus, 2012; Pozzi *et al.*, 2014).

2.5 Motivation theory

To better understand the interaction between humans and technology, we found the notion of "motivation" useful because it is able to account for the drive and intentionality that guides much of the action of human actors in charitable giving. Motivation is the degree to which individuals are moved to perform a particular action (Deci *et al.*, 1991). The concept has been extensively studied in psychology and many other fields including IS. In fact, motivation theory is more a family of theories than one particular theory.

The particular motivation theory on which we focus in this paper is Ryan and Deci (2000)'s "intrinsic vs. extrinsic motivation" model. This model is a widely accepted motivation theory and has been identified as relevant and helpful in the existing crowdfunding literature. Intrinsic motivation refers to people doing something because it is inherently interesting or enjoyable for them, while extrinsic motivation refers to people doing something because it leads to a separable outcome (Ryan and Deci, 2000).

In addition, a second distinction of motivation we found important for our analysis was that of "individual vs. social motivation". Individual motivation refers to people doing something regardless of the existence of a community, while social motivation refers to doing something owing to the existence of a social community to which their action is related (Forgas *et al.*, 2005). While not as established a theoretical categorisation as that of extrinsic vs intrinsic motivation, we found this distinction in several empirical studies. For example, in the context of crowdfunding, certain motivations such as using a product are typically "individual" (non-social), while wishes for social integration and peer recognition (Alam and Campbell, 2012; Bretschneider *et al.*, 2014; Kaufmann *et al.*, 2011) are clearly "social" in their nature and only apply if a social community is present. Indeed, more generally, charitable giving is often based on people's desire to win prestige, respect, friendship and other social objectives (Olson and Caddell, 1994).

Despite the fact that many of the above studies on crowdsourcing and crowdfunding suggest the importance of IT affordances offered through crowdfunding platforms and of campaigns for supporting donors' motivation, no study has examined the nature of this relationship to date (to our knowledge). McKinnon *et al.* (2013), for example,

specifically call for studies that examine how the visual representation of the platform, the campaign and the campaigner impacts on donors. The study and analysis reported in the remainder of this paper respond to their call, taking advantage of the above concepts of affordance theory and motivation theory.

3. Research method

Due to the newness and complexity of the phenomenon of charitable crowdfunding, we adopted a hermeneutic epistemological approach towards our research (Gadamer, 2008). Hermeneutics is a common form of interpretivist research in the IS field (Klein and Myers, 1999; Walsham, 1993; Walsham, 1995) among other fields.

Figure 1 shows a high-level view of the research design of the study reported in this paper. In alignment with the hermeneutic approach, we iteratively developed a theoretical understanding of the situation based on both ongoing literature review and ongoing data collection and analysis (Boell and Cecez-Kecmanovic, 2014). We used an inductive approach to theory development in that we did not start with any pre-formulated theory, but based the theoretical development on the emerging insights from the data and the literature review on these insights. We used existing theory as a lens, a “sensitizing device” (Klein and Myers, 1999; Sarker *et al.*, 2013), to inform the theoretical analysis of the data during the research. However, we did not pre-select and pre-impose such theory: The engagement with affordance theory and motivation theory was based on the data analysis and the emerging insights. The fact that affordance and motivation theories are described in the beginning of this paper is due to the paper’s necessarily linear structure. The literature review, data collection and analysis, and theory development mutually informed one another until we reached an “emerging fit” (Ezzy, 2002).

To explore the phenomenon of interest, that is, charitable crowdfunding, we examined two charitable crowdfunding campaigns before, during and after their runtimes in 2014-2015. The first case was “Earthship Kapita”, hosted on the crowdfunding platform Chuffed, a campaign that supported community development in Malawi. The second case was “Medical Research”, hosted on the charitable crowdfunding platform Thinkable, a campaign that supported cancer research. The selection of these campaigns was based on our intention to examine exemplary, information-rich cases of the phenomenon of interest. We defined the “phenomenon of interest” as cases of Internet-based donation-type crowdfunding (Bradford, 2012) that fall within our above-defined understanding of charity. Within the scope of this definition, we aimed to increase the variety and differences (e.g. the case are very different in the type of beneficiary) between the two cases studied in order to observe common patterns and context-specific differences.

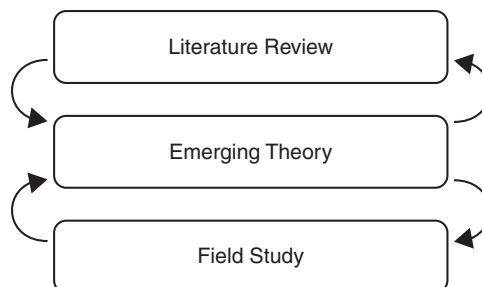


Figure 1.
Research design of
the study

To investigate the two cases in depth, we collected a range of different data from these charitable crowdfunding campaigns before, during and after runtime. Following best practices in case study research (Silverman, 2013; Yin, 2013) we collected both primary data (through interviews) and secondary, natural data (i.e. data which occurred naturally in the field independent of our own research work). Table I provides an overview of the types of data collected and analysed for this study.

We conducted 17 interviews, using semi-structured and open-ended questions, which took place via Skype or in person. For the purpose of later data analysis, we recorded the interviews and took detailed notes. We approached interviewees based on the criterion that they were knowledgeable about the respective case and likely to be able to provide new, interesting and theoretically relevant information (and their willingness and availability to contribute to the study). To triangulate the data and include multiple perspectives, in both case studies, we interviewed three major stakeholder groups: we spoke to campaign donors (people who had contributed, or had considered contributing, to the campaigns); campaign organisers (people who had set up the Earthship Kapita or Medical Research campaigns); and platform staff (people who ran the Chuffed and Thinkable crowdfunding platforms). We used several iterations of the interview guide that increasingly evolved around the concepts of IT affordances, donor motivations and the relationship between them.

To complement and support the interview data, we collected natural data from both public and non-public sources for both crowdfunding campaigns. Public documents included online postings on the campaign page as well as collected documents, online content and press releases. Non-public sources included data from an invitation-only Facebook page and internal documentation of the process of setting up one the campaigns (Earthship Kapita). These natural data provided the benefit of allowing us to study the charitable crowdfunding campaigns without any possible impact on the campaigns from the study itself (e.g. participants might have posted differently if they were aware that their postings might be analysed for academic research) (Ritchie *et al.*, 2013). These data complemented the interview data on which an impact of the research and the researchers (us) could not be prevented, but interviews provided the opportunity to ask detailed and specific questions, the answers to which were not observable in the natural data.

	Case 1: Earthship Kapita	Case 2: Medical Research
Primary data	Interviews with campaign donors (seven interviews, 150 pages of transcript) Interviews with campaign creators (two interviews, 64 pages) Interview with platform staff (one interview, nine pages) Field notes (31 pages)	Interviews with campaign donors (five interviews, 122 pages of transcript) Interview with campaign creator (one interview, 31 pages) Interview with platform staff (one interview, 15 pages) Field notes (17 pages)
Secondary/natural data	Content of the campaign page on the platform (post and updates; checked twice per week) Trade press coverage (six articles) Blog posts and other social media content (50 posts) Campaign development documentation	Content of the campaign page on the platform (post and updates; checked twice per week) Trade press coverage (20 articles) Blog posts and other social media content (100+ posts)

Table I.
Data collection for
the study

For the data analysis, following each interview, we transcribed and coded all interview data using NVivo (a software for qualitative, coding-based data analysis). We had a total of 376 pages of interview transcripts as well as a variety of natural data of various kinds (including non-textual data such as photos and videos). Using the techniques of thematic analysis (Ezzy, 2002), we first analysed the data through open coding, developing a codebook that we refined over time. We aggregated relevant open codes into higher-level abstract codes (concepts), and analysed the relationship between these concepts (taking into consideration existing theory and terminology, so as to connect our analysis to the ongoing academic discourse). We concluded the data collection and analysis when we reached a point at which new data did not provide any additional new insights (Glaser and Strauss, 1967) and we had found the best “fit” of theory and data (Ezzy, 2002).

We present the most important empirical findings in the next section and our theoretical analysis thereof in the following section.

4. Empirical findings

4.1 Case 1: *Earthship Kapita*

The first case, Earthship Kapita, was a campaign hosted on the donation-type crowdfunding platform Chuffed. The campaign ran, and was successfully completed, in March 2014. The project was driven by the charity organisation, Empower Projects (Australia), and the sustainable architecture organisation, Earthship Biotecture (USA). The goal of the campaign was to help raise money for a project in Africa. The project was the development of a community centre in the poor, rural Kapita region of Malawi. The purpose of the project was to help the Kapita community to become independent of foreign aid. The Kapita community centre was to have six rooms, each housing a particular community function (i.e. a bank, a clinic, a library, a kindergarten, a radio station and a meeting hall).

In 2013, prior to the charitable crowdfunding campaign, the project had exhausted all conventional funding sources. The project was not completed and another US\$17,500 was required to complete the community centre. The project team and other volunteers decided to turn to crowdfunding. Through an internal process of considering the best content and design, the group eventually created a campaign on the crowdfunding platform, Chuffed. Figure 1 shows a screenshot of the Earthship Kapita campaign page (Figure 2).

Three campaign creators organised the campaign, and were the primary drivers of the project on the ground in Africa (we interviewed two of these three campaign creators). For the charitable crowdfunding campaign, the creators spent much effort writing “a story” that explained the background of the Kapita community, the reasons why the Kapita community centre was needed, the benefits that the centre would bring to the community and how donations would be spent. Indeed, donors found that the campaign page cleverly and effectively used text, photos and videos to convey information about the crowdfunding campaign and the project on the ground. For example, the campaign page showed photos that clearly illustrated the inadequacy of the current “community centre” (a shed) and how much it was “at the mercy of the elements”. In another example, a video showed how the people of Kapita intensely used a part of the community centre that had already been completed. Furthermore, the campaign page also provided background information about the campaign creators and the organisations involved (i.e. Empower Projects, Earthship Biotecture and the local Zaiuba Community Bank).

The screenshot shows the Chuffed crowdfunding page for 'Earthship Malawi - Kapita Community Centre'. At the top, there are navigation links for 'SEARCH CAMPAIGNS', 'LOGIN', 'HOW IT WORKS', 'OUR CAMPAIGNS', and 'START CROWDFUNDING'. A green box in the top right corner states 'Campaign Completed on 30-03-2014'. The main heading is 'Earthship Malawi - Kapita Community Centre' by Empower Projects. Below the heading is a large group photo of people in front of a traditional earthship building. To the right of the photo, it says '\$17,840 Raised of \$17,500' and 'Help the people of Kapita build their own earthship community centre!'. Below this is a 'SELECT AN AMOUNT' section with buttons for '\$5', '\$25', '\$50', '\$100', and '\$ Other', and a 'Donate Now' button. At the bottom, there is a 'OR CHOOSE A PERK' section with a perk for '\$10 Marvelous Meerkat - we love team work!'. The page also shows '4498 Total shares' and social media sharing options for Facebook and Twitter.

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Figure 2.
Earthship Kapita
campaign page on
Chuffed

In addition to the three central campaign creators, a group of supporters helped with the iterative development and marketing of the campaign, coordinating through a Facebook page (we interviewed two of these supporters, who were also donors). These supporters had been involved with the project prior to the crowdfunding campaign at the time when the project was running on funds traditionally collected through charity events. They supported the creation of the campaign page through suggestions and critiques, with a special focus on how to best motivate the crowd to donate. For example, via the Facebook page, supporters suggested using pictures of the project group at the top of the page so as to demonstrate to “friends and family” and “the crowd” their personal involvement and engagement with the project on the ground. Supporters also made comments to help improve the persuasiveness of the text. For example, one supporter critiqued an early version of the campaign text, stating that: “we need text that is emotional to get closer to people [...] what is the ‘feel good’ factor?”.

The Earthship Kapita campaign was launched in March 2014. To launch the crowdfunding campaign, an offline launch event was held in Sydney, Australia, where people were encouraged to share the campaign via their online social networks. This resulted in the creation of widespread awareness of the campaign in different social media networks and, according to one of the campaign creators, generated “a strong start [and] initial momentum” for the campaign.

The campaign was hosted on the crowdfunding platform Chuffed. Chuffed was specifically designed to support fundraising efforts for charity campaigns, with a

particular focus on human development and environment conservation. Unlike other crowdfunding platforms, Chuffed does not take a commission on the donations raised by the campaigns but instead asks donors to make extra donations to support the upkeep of the platform. Another factor beneficial for Earthship Kapita was that Chuffed has a “resident crowd” that has a special interest in charity.

Donors and campaigners highlighted the importance of several functionalities of the platform. Commonly quoted were the “social functions” on Chuffed. For example, donors found it useful to have the opportunity to leave encouraging and supportive comments. Comments included “[i]t’s awesome that you are doing this for others” or “[g]reat project—for the people, by the people—with direct community impact [...]” Furthermore, donors said that Chuffed provided a clean and minimalistic user interface: according to one donor, this “made things easy to read [and] easy to navigate”. Chuffed also gave donors the opportunity to gauge the status of the crowdfunding campaign. Chuffed displayed the financial progress of the campaign through a progress bar as well as showing how much time was left through a countdown timer. Another function that donors thought important for the Earthship Kapita campaign was that Chuffed provided donors with the opportunity to see the names of the donors who had given to the Earthship Kapita campaign and how many people had shared the campaign through social media. Indeed, external social media played a critical role for the Earthship Kapita campaign. All donors interviewed by us said that they had shared the campaign throughout their social networks (e.g. using Facebook, Twitter, LinkedIn or e-mail) in order to reach out to their friends. While some of the interviewed donors already knew of the Earthship Kapita project through other channels, three of the seven interviewed donors said they had received the Earthship Kapita campaign link through social media and said they would otherwise have missed the campaign.

Donors considered that the Earthship Kapita campaign was effective in connecting with a donor’s emotional feelings towards the project cause. One donor found that “[the text] is part of creating the whole story for the reader. It’s like [...] [a] taste of what [it is] like to be there [in Kapita]”. Donors added that the photos and video were a particularly effective means for engaging their attention. One donor said, “actually seeing people [in the video] really pulled on my heartstrings and really got me”. Another donor found that the photos and the video made the Earthship Kapita project “real life and not just an abstract concept”.

Donors were motivated because they wanted to make a contribution to the project on the ground. One donor wanted to “see the community centre to its end”. Another donor said, “I believe in the concept of what they are doing. For years people have been donating money to Africa but have been getting nowhere. Empower knows how to do things that make a difference and not keep throwing money at a problem”. Another donor talked about how she personally knew Kapita and how she believed in the construction of the community centre. Another donor said that she was moved because she was of rural South African heritage and so the campaign “struck home”. Another donor said that the fact that Chuffed did not take a commission from the amount she donated was great because more of her money actually reached the project on the ground in crowdfunding compared to when donating to traditional charity.

The campaign creators decided to reward participants who donated above certain donation levels with rewards (e.g. a range of gifts, a name plaque on the wall of the community centre, etc.). Indeed, several donors were motivated by the prospect of receiving rewards for making a donation (this was the case for three of the seven

interviewed donors). One donor said that, “it was kind of motivating that [...] they had wonderful gifts that made you go ‘Oh I get a free solar backpack!’” Another donor said that he contributed a large amount to the Earthship Kapita campaign because having his organisation’s name on a plaque on the wall of the Earthship Kapita community centre was important to him. Other donors, however, were uncertain or even sceptical about such rewards. Two donors opted not to receive a reward for which they were eligible. One of the donors explained: “I was like, ‘I don’t want anything’ because I was thinking about the administration costs and everything”.

Donors also said that Chuffed’s easy donation process helped them to actually make a donation. For example, one donor said, “I thought that the [donation] process was pretty fluid and pretty smooth”. Another donor considered charitable crowdfunding “just so much more convenient and required much less effort” compared to paperwork for offline donations or offline events. A project creator explained: “I don’t want to be losing people [because] they turned off by having to log in. Or just saying that ‘Oh I’ll do it later because I don’t have the time now’”.

Donors cited social reasons for their contributions in terms of time and money. One donor said he wanted to be part of a network with like-minded people. The feeling that she was part of a team “working towards a higher goal” motivated another donor. She wanted to be “a team player” and to contribute to a cause that was very worthwhile. Two donors started with a donation but then became involved in the development of and marketing of the campaign. All interviewed donors saw the existence of the community (crowd) as a positive aspect of crowdfunding. Individual donations were not made in isolation, but the donations of others were considered when making the decision to donate. Generally, donors considered that they were more likely to contribute to campaigns with many donors because they thought that this was an indication that the project was worthwhile.

Several donors also said to be motivated because they could show others, not necessarily in the community, that they were supporting the Earthship Kapita campaign. For example, one participant talked about how he made a donation because he wanted to show others he had contributed. He hoped that this recognition would help to generate credibility and gather support for his own charity campaigns. “I have to put my money where my mouth is. [...] I’m going to give to organisations that are doing the kind of things that my organisation believes in”. He also said that he hoped to trigger donations from others. Other donors considered that sharing their contribution on Facebook was, to some degree, a measure to gain recognition for their donating among their social network. Donors cited both reasons of raising awareness and of receiving social recognition. An example of a post on a Facebook timeline reads: “Please JOIN ME in supporting the wonderful people of Kapita in completing their own #Earthship Community Centre”.

The Earthship Kapita campaign finished successfully at the end of March 2014, raising \$17,840 (slightly above target): in all, 193 donors contributed amounts ranging from \$1 to \$1,700. At the time of writing, the construction of the Earthship Kapita community centre has resumed and is expected to be completed within 2015.

4.2 Case 2: Medical Research

The second case, Medical Research, was a campaign hosted on the donation-based crowdfunding platform, Thinkable. The mission of Thinkable, according to their mission statement, is “to connect the world with scientific research and to fund transformative ideas”. The campaign ran from July to November 2014. A medical

researcher from a research-intensive university (UNSW Australia) drove the project. The goal of the campaign was to raise money so that he could continue his innovative research despite the lack of funding to pay for research costs (the researcher had just missed out in the final round of a major government-funded grant). Figure 3 shows a screenshot of the Medical Research campaign page.

The campaign creator, the medical researcher, with help from Thinkable staff, developed content to explain the purpose of his research to potential donors. One key measure was his creation of a professional video that explained his research, including graphics that illustrated the impact of his research and its practical applications. Indeed, donors said that they clearly understood the project without having a medical background.

Thinkable promoted the campaign as a showcase campaign on radio, in newspapers and on social media. The campaign creator uploaded short video and text updates on the progress of his research to the comments section of the crowdfunding campaign. Many of these research updates then stimulated discussion among the crowdfunding community. No tangible rewards were offered in this case; however, the project creator acknowledged and thanked individual donors through the comments section.

Donors were motivated to donate by their own personal connections with the project cause. One donor spoke about how she felt very strongly towards the project because her father passed away from the heart-related problems that were being addressed in the research: she believed such research could have prolonged her father's life. Another donor was the sister of the campaign creator, and said she contributed because she wanted to support her brother in the online campaign. Another donor said that he "knew the details of what [the project creator] was doing" and trusted him. Another donor spoke about how she saw the great value in the Medical Research project and that she believed it was "very important for society". Another donor liked how "innovative" the project was and stated that he wanted to make sure that this "worthwhile piece of research" could be successfully funded and completed. One donor

The screenshot shows a crowdfunding campaign page on the Thinkable platform. The page title is "How can we stop blood vessels becoming damaged and sticky during inflammation?". The campaign is by UNSW Australia, with 52% sponsored and 46% left to go. The goal is \$36,225, and the campaign ends in 32 days. The page includes a video player, a "The Challenge" section, and a "Details" section.

The Challenge

During inflammation, tiny sticky proteins are released that damage a protective lining in our blood vessels, causing white blood cells to accumulate and promote tissue damage that's been linked with heart attacks and strokes. Our studies will pinpoint exactly how this protective lining becomes damaged and will test whether novel drugs we've developed can prevent this.

The Idea

During inflammation, tiny sticky proteins are released that damage a protective gel-like layer of polysaccharides that lines our blood vessels (the glycocalyx). These damaging proteins include a fascinating green enzyme called myeloperoxidase, which produces a range of highly reactive oxidants including HOCI, the active component of household bleach! Once blood vessels become damaged and sticky, white blood cells start to accumulate and cause tissue damage that's been linked with heart attacks and strokes. This project aims to pinpoint exactly how inflammatory proteins such as myeloperoxidase damage the protective glycocalyx layer and to identify drugs that can stop this damage.

Details

Sponsorship funding: Is received by the institution who directly passes it on to the researcher to carry out the project.

Equipment access: ✓
 Human subjects usage: ✓
 Ethics approval obtained: ✓
 Support from University of New South Wales: ✓

\$16000

Figure 3.
Medical research
campaign page on
thinkable

said that it had “shocked her” to find out (on the campaign page) about the difficulty researchers faced in finding funding through traditional channels for projects that clearly had value: she immediately donated.

Similar to Chuffed, Thinkable provided several functions and characteristics that donors considered important for the success of the charitable crowdfunding campaign. According to a number of donors, Thinkable provided a simple and modern user interface. One user said that the platform was “fresh” and she could “easily find” what she was seeking. Donors reported that being able to assess the progress of the campaign (through a progress bar and the countdown timer) was important. Seeing that the campaign had made progress was a positive factor supporting their decision to donate.

Most donors said that the crowdfunding platform made it easy to donate to the Medical Research campaign (many said that they would not otherwise know how to help researchers). However, an early donor said that she found the layout of the campaign page slightly confusing. The project creator and the platform provider, based on such feedback, revised the layout during the runtime of the campaign. After the changes, a later donor said that she thought the layout was very clear and the process of donating “fluid”.

Donors highlighted that the social interactions allowed by and performed on the platform were important. They also appreciated the ability to read through comments, to identify other donors and to see the details about the offline project (e.g. confirmation of equipment access, ethics approval documents, etc.). Comments on the campaign page read: “this is awesome” or “great overview of the paper and theory behind the research!” Donors said they felt they belonged to, or would like to be a part of, a community. One donor thought that the idea of the Thinkable platform was primarily to build a community of people interested in science. Another donor also said that she was motivated to financially support research while joining a community of “like-minded people”.

Donors related the existence of the community to their donation behaviour. They said that they felt motivated through reading comments left by other donors and the campaign creator. One donor said that the comments “humanised the situation” and created a sense of community and human interaction. Similarly, another donor said that “when someone donates and leaves a short message [...] it just adds humanity to it. The Internet can be so [...] disconnecting, but [the message] creates a connection.” Some donors said they were motivated to donate so as to demonstrate to others that they were supporting the project. For example, one donor said that her startup was in a field similar to Thinkable and that she donated to the campaign to visibly show her support and to show that the Medical Research campaign was in line with the aims of her startup. One donor found that there was an element of “peer pressure” when seeing that others had donated. Indeed, another donor said that she was motivated to donate after seeing on the campaign supporter page that a colleague had donated. The project creator said that he tried to create a welcoming, social atmosphere and that he made efforts to be “approachable” to engage potential donors.

The platform, Thinkable, through being of what was called “social media optimised”, allowed content to be easily shared on social media (e.g. Facebook, Twitter and LinkedIn) and via email. Communication and marketing spreading from Thinkable to social media played a critical role in the Medical Research campaign. Donors said they had shared the campaign throughout their online social networks in order to reach out to their friends, family and colleagues. Several participants said that they used the emerging hashtags “#thinkable” and “#crowdfunding” to spread awareness to other

people who might be interested in the campaign. One donor explained why he shared the campaign on his Facebook timeline: “that’s the thing about crowdfunding; you want everyone to donate [to] the campaign you have donated to because you want the campaign to have enough funds to succeed and go ahead”.

The Medical Research campaign ended in mid-November 2014, finishing relatively successfully by raising \$29,800 (slightly below target): in all, 33 donations were made to the campaign. The cancer research continued in 2015, using the funds collected through charitable crowdfunding.

5. Theoretical discussion

Based on the empirical findings of the two cases reported above, in this section, we discuss theoretical considerations in order to improve the understanding of how IT affordances support donor motivations in charitable crowdfunding campaigns.

5.1 IT affordances

Based on the general notion of (IT) affordances (Majchrzak and Markus, 2012; Norman, 1988/2013; Pozzi *et al.*, 2014), we identified four affordance types through the analysis of the data. These four affordance types can be usefully explained through the cross-section of two dimensions.

The first dimension concerns cognition vs action (the mode of the affordance), a dimension alluded to, for example, in Weiner (1985)’s cognition-emotion-action model. We found that some affordances, which we called “cognition affordances”, refer to the potential of the IT artefact (i.e. the charitable crowdfunding platform) to support humans (donors) in their knowing, thinking (i.e. cognition) and, closely connected, feeling. An example is the nature of the Kapita video and its role in supporting donors’ understanding and triggering their empathic thinking about the situation. We found that other affordances of the IT artefact support humans in their doing and acting (i.e. action). An example is the ability of the “comment” function on the Medical Research campaign site to allow donors to post messages.

The second dimension concerns project vs platform (the target of the affordance). We could not identify existing literature that proposed this dimension but it emerged as salient, and useful, in our data analysis. We found that some affordances, which we called “project affordances”, are specific to the charity project “on the ground”. An example is the ability of donors to transfer money to the community centre development project in Africa. Platform affordances refer to the crowdfunding platform itself (i.e. the IT artefact, the virtual space). Another example is the affordance to “friend” and “follow” people in the online community.

Project and platform affordances can be either cognition-based or action-based, and vice versa. Table II provides an overview of the four types of affordance that result from the cross-section of the above two dimensions (cognition vs. action, project vs. platform).

Type 1: project-cognition affordances. In both charitable crowdfunding campaigns (Earthship Kapita and Medical Research), a mixture of textual and visual media was used to effectively convey the goals and objectives of the underlying projects to potential donors. Other studies have also found that the more appealing and useful the project information presented, the more meaningful it would be to donors considering a possible contribution to the project (Allison *et al.*, 2015; Lee *et al.*, 2013; McKinnon *et al.*, 2013; Mollick, 2014; Riggins and Weber, 2011). In the Earthship Kapita case, for

	Cognition	Action
Project	<p><i>Type 1: project-cognition affordances</i> Definition: affordances that support donors' cognitive processes in relation to the charity project Example: donors said the video explaining the purpose of the Kapita community centre helped them to understand the project</p>	<p><i>Type 2: project-action affordances</i> Definition: affordances that support donors' action processes in relation to the charity project Example: donors said they used the platform Chuffed to transfer money to the Medical Research project</p>
Platform	<p><i>Type 3: platform-cognition affordances</i> Definition: affordances that support donors' cognitive processes in relation to the crowdfunding platform Example: donors said the design of Chuffed was self-explanatory and they could easily find what they were seeking</p>	<p><i>Type 4: platform-action affordances</i> Definition: affordances that support donors' action processes in relation to the crowdfunding platform Example: donors said they used Thinkable (and social media) to post supportive comments directed at the campaign creator and other donors</p>

Table II.
Affordance types in
IT-enabled charitable
crowdfunding

example, the video of the current community centre demonstrated to donors the potential benefits of the project. In the Medical Research case, the researcher used text and video status updates (comments) to explain his progress. These affordances of the IT artefact helped donors to easily understand the nature and purpose of the project on the ground (and, relative to traditional doorknocking-type charity, provided an easier way in which to cognitively gain this understanding).

Type 2: project-action affordances. Both of these charitable crowdfunding campaigns provided donors with the opportunity to make a financial contribution to the offline project. Crowdfunding is, per definition, about the collection of money for a specific purpose from the crowd (Greenberg *et al.*, 2013). The platforms, Chuffed and Thinkable, supported donors of the Earthship Kapita and the Medical Research campaigns, respectively, to make donations through their online payment systems to the projects on the ground (i.e. the actual building work and the actual research, respectively). Project-action affordances allow donors to make a difference “in the real world”, not only a difference in the virtual space of the platform.

Charitable crowdfunding campaigns also allow donors to support projects by non-financial means. We found that donors were enabled by these two charitable crowdfunding campaigns to form connections with project creators (similar: Gerber and Hui, 2013). In the Earthship Kapita case, the campaign page allowed donors to directly contact the creators, for example, for volunteering opportunities. One donor, through this route, became a part-time volunteer at Empower Projects, contributing further work and time to the project. In this way, crowdfunding campaigns provide affordances that give donors the ability to further support charity projects.

Type 3: platform-cognition affordances. The design and functions provided on the crowdfunding platforms on which the campaigns ran helped donors to understand how they worked. Donors noted with regard to both Chuffed and Thinkable that the design and layout of the platforms were clear and they were easily able to find what they were seeking. Frequently asked questions (FAQs) and “netiquette” guidelines outlined expected behaviour and requirements for user-generated content on the platforms. Furthermore, in both the cases that we studied, donors reported that they originally followed the link on the campaign page as it had been shared (by others) on social media.

The nature of the IT artefact (being digital, being online) afforded people the opportunity to more easily find and learn about the artefact (e.g. compared to a non-digital, offline artefacts such as printed brochures available only in particular physical locations). Both platforms provided a countdown timer and a progress bar, helping donors to gauge the likelihood of the campaign's success.

Type 4: platform-action affordances. Charitable crowdfunding campaigns afford donors the opportunity to show their support for the campaign without having to make a financial donation. In both the studied cases, donors had the opportunity to leave comments or short messages on the crowdfunding platform. Typically, donors took the opportunity to use the crowdfunding platform to leave encouraging and supportive comments. Through such measures, donors showed social approval in the virtual space. However, these affordances (the ability to like or comment) cannot be said to directly contribute to the project work on the ground. Another digital platform-targeted affordance was based on the “share” functions of the platform (affording the opportunity or making it easier for users to share the link to the platform on their social media channels). The share functions increased the traffic on the platform and the awareness of donors of the platform's existence (see also: Sargeant and Jay, 2010).

Platform-action affordances can also involve campaign creators. In addition to (hopefully) making progress in the project on the ground, campaign creators are enabled, by crowdfunding platforms, to share campaign and project progress on the platform. On the Chuffed platform, donors were able to “follow” the project creator's updates on the campaign's progress. On the Thinkable platform, donors were able to subscribe to updates posted by the medical researcher by becoming “a fan”. Campaign creators conceptualised this updating primarily as a courtesy measure towards people who had already donated (while this measure might also have effects on new or potential donors).

5.2 Donor motivations

In this discussion, we focus on the motivations leading donors to support a charitable crowdfunding campaign (i.e. we do not focus on the motivations of project creators and platform staff). Extending on Deci *et al.* (1991)'s motivation theory, we identified four types of motivation in our analysis. As with the affordance types, we found that the four motivation types can also be usefully organised and explained using two important dimensions.

The first dimension concerns individual vs social motivations. Individual motivation refers to motivation stemming from the desires of an individual and is present even if the person is in isolation. Social motivation, in contrast, refers to an individual's desires that require a social context (e.g. online crowdfunding or a social media community). The latter type of motivation would not appear if there were no community. A similar difference between individual and social motivations has also been argued by Alam and Campbell (2012) and Kaufmann *et al.* (2011).

The second dimension concerns intrinsic vs extrinsic motivations, as suggested by Ryan and Deci (2000)'s self-determination theory. Intrinsic motivation refers to motivation stemming from an individual's inherent enjoyment (Ryan and Deci, 2000). On the other hand, extrinsic motivation refers to an individual performing an activity to realise a separable outcome (Ryan and Deci, 2000). This distinction is widely accepted in IS research, including research on crowdfunding and crowdsourcing (Leimeister *et al.*, 2009; Zheng *et al.*, 2011; Zogaj *et al.*, 2014).

Individual and social motivations can be either intrinsic or extrinsic, and vice versa. Table III provides an overview of the four types of motivation that result from the cross-section of the two dimensions (individual vs. social, intrinsic vs. extrinsic).

Type 1: individual-intrinsic motivations. In both the campaigns studied, a feeling of connectedness with the project drove donors to donate. Consistent with findings on other forms of charitable giving (Bekkers and Wiepking, 2010; Mount, 1996), the motivations of donors in charitable crowdfunding were based on feelings of empathy, sympathy or nostalgia. In the Earthship Kapita case, for example, donors said that they believed the people of the Kapita region needed help. In the Medical Research case, donors said that they hoped the research would help others in the future. Such motivations to donate are often created or amplified through personally knowing people who could benefit from the charity project (see also: Andreoni, 1990; Gerber and Hui, 2013; Sargeant and Jay, 2010). In the Earthship Kapita case, for example, some donors had been to Kapita or otherwise had a personal history that created a connection. In the Medical Research case, some donors made a contribution to the campaign because they personally knew the campaign creator, the medical researcher, and wished to show their support for him.

Type 2: individual-extrinsic motivations. An interesting finding was the mixed response of donors to the prospect of receiving rewards for their contribution. In the Earthship Kapita case, some donors were motivated by the prospect of receiving rewards while other donors did not wish to receive such rewards. This might be due to the overlap of two contexts in charitable crowdfunding. In commercial crowdfunding, a reward is considered to be a major motivator and a necessity (Bretschneider *et al.*, 2014; Gerber and Hui, 2013). In charitable giving, a reward is considered unproductive because donors are assumed to contribute for altruistic reasons (Bekkers and Wiepking, 2010). In our two cases, donors were divided in their opinions about rewards, suggesting that extrinsic motivation was not as dominant as it was in commercial crowdsourcing but also that it cannot be discounted as irrelevant.

Furthermore, donors contribute because they believe such a contribution may have other benefits for them. Indeed, charitable givers might have selfish purposes

	Individual	Social
Intrinsic	<p><i>Type 1: individual-intrinsic motivations</i> Definition: motivations that relate to donors' self-enjoyment or personal satisfaction in supporting the campaign</p> <p>Example: P5 said that she felt compelled to donate because she was passionate about the Earthship Kapita project</p>	<p><i>Type 2: social-intrinsic motivations</i> Definition: motivations that relates to donors' self-enjoyment or personal satisfaction in supporting the campaign in the presence of an online crowd/community</p> <p>Example: P12 said that she felt a part of an online community of "like-minded people" on Thinkable</p>
Extrinsic	<p><i>Type 3: individual-extrinsic motivations</i> Definition: motivations that relate to donors' desire to realise a particular outcome as a result of supporting the campaign</p> <p>Example: P5 said that she felt motivated to donate by the fact that she would be rewarded with a solar backpack</p>	<p><i>Type 4: social-extrinsic motivations</i> Definition: motivations that relate to donors' desire to realise a particular outcome as a result of supporting the campaign in the presence of an online crowd/community</p> <p>Example: P15 said that she wanted to show her support for the cause towards which the Medical Research campaign was working</p>

Table III.
Motivation types in
charitable
crowdfunding

underlying their face-value altruistic behaviour (Andreoni, 1990; Odendahl, 1990). In our two cases, we saw that some donors contributed partially for ulterior motives. For example, in the Earthship Kapita case, one donor contributed, in part, because his organisation was running a similar campaign and his intention was to generate attention. Similarly, in the Medical Research case, one donor said that she had a startup and wished to indicate the commonalities between the campaign and her startup. While this may not have been the dominant motive for donating, these donors received external benefits such as attention and credibility for their respective organisations, and were conscious of this effect.

Type 3: social-intrinsic motivations. Our analysis of the cases further suggests that donors were motivated to donate to charitable crowdfunding campaigns because they enjoyed the feeling of belonging to a team or community. Gerber and Hui (2013) reported that commercial crowdfunding had a similar effect. Charitable crowdfunding brings together an online community of donors with the shared aim of supporting a charitable crowdfunding project, and possibly other shared characteristics. Throughout all the interviews, a common thread was that “the crowd” was considered as something positive (and not an annoyance or distraction) (see also: Wexler, 2011). In the Earthship Kapita case, donors saw crowd as “a team” or “a community”, and saw themselves as part of that community through being active on the platform. Similarly, in the Medical Research campaign, donors talked about being “part of a project” together with “like-minded people”. These examples indicate the positive feeling of donors towards the community in the crowdfunding phenomenon. Social motivators to perform acts in an (online) community have also been found relevant for other forms of collaboration based on social information systems (e.g. Germonprez *et al.*, 2011).

Type 4: social-extrinsic motivations. We found across both case studies that many donors wished to publicly show their support for the project cause. This motivation whereby donors want to signal a certain image of themselves to others is one that has been suggested by numerous studies in the charitable-giving literature (e.g. Ariely *et al.*, 2009; Becker, 1974). In charitable crowdfunding, in contrast to offline charity, a donation is by default publicly visible on the Internet, and it is common to share such donations on one’s Facebook timeline. In the Earthship Kapita campaign, one donor said that the public visibility and “putting [his] money where [his] mouth is” was an important factor. In the Medical Research campaign, a donor spoke about how, through donating, he would send a signal to colleagues. While social-extrinsic motives might not be the dominant form of motivation, they do present an important aspect of charitable crowdfunding.

5.3 Relation between IT affordances and donor motivations

The four types of IT affordances and the four types of motivations discussed above are related. In particular, certain affordance types support certain motivation types. From a broad perspective, we came to conclude that IT-enabled charitable crowdfunding supports additional motivation types compared to those supported by offline charity. To be specific, we identified seven support relationships (shown in Figure 4), which are discussed in the remainder of this section. The presence of a relationship arrow in the model indicates that we found substantial data in the cases and the accounts of the participants to back this arrow; the absence of a relationship arrow in the model indicates that we did not find such data.

Project-cognition affordances support individual-intrinsic motivations. In our two cases, we found that project-cognition affordances (cognition in relation to the project on the ground) support donors' individual-intrinsic motivations (based on donors' enjoyment or satisfaction regardless of the existence of a community). The way in which charitable crowdfunding campaigns conveyed information about the project was important, effectively connecting with and, in some cases, triggering donors' desire to help. For example, in the Earthship Kapita case, several donors said that seeing the conditions of the people of the Kapita community in the online video touched them and supported their decision to donate. Similarly, the Medical Research campaign used a text and videos to describe a complex project in such a way that donors understood its importance.

In addition, charitable crowdfunding, through its transparency, affords donors the ability to assess the credibility and trustworthiness of the project and of the campaign creators. In general, trust is a critical factor for crowdfunding as a form of financial transaction (Gerber and Hui, 2013). Quality materials on a crowdfunding platform support the notion of a highly trustworthy, high-quality project (Lee *et al.*, 2013; Mollick, 2014), while professional videos create the impression of a quality campaign and make understanding the project more meaningful and enjoyable. We found indications that donors assessed the charitable crowdfunding campaigns for both the trustworthiness and credibility of not only the projects but also the project creators. Our analysis aligns with that of Slattery *et al.* (2014) who found that pictures and videos are especially important online in supporting a donor's assessment of trustworthiness as they are "social proof" that project creators are doing what they claim they do. In both cases, donors said that the campaign page on the crowdfunding platform helped them gain trust in the project and in the people behind the project.

Project-action affordances support individual-intrinsic motivations. In addition, project-action affordances (action in relation to the project on the ground) support donors' individual-intrinsic motivations. Most donors said that they were personally motivated to make a "worthwhile" financial contribution to the project. Charitable crowdfunding campaigns afford donors the opportunity to make such a financial donation. For example, in the Earthship Kapita case, a donor talked about how he was personally motivated to make a donation (through Chuffed) to the project because he believed that the donation would give a "boost" to the project. A Medical Research campaign donor said that she was shocked about the funding situation of researchers, and personally felt she wanted to help (which she was able to do through Thinkable).

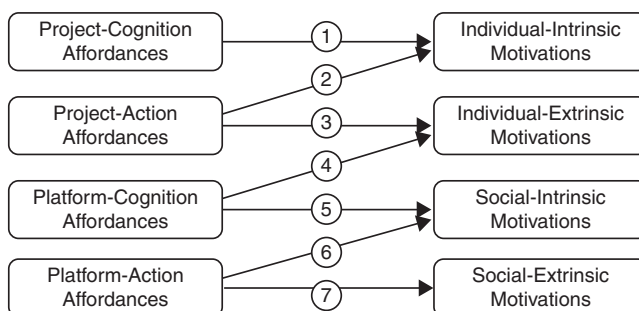


Figure 4.
Theoretical model of the relation between IT affordances and donor motivations in charitable crowdfunding

Donors said they liked the fact that the platforms not only informed them about the projects, but it then allowed them to take action with regard to a project (i.e. primarily to donate money and, in some cases, to volunteer their time and undertake work).

Project-action affordances support individual-extrinsic motivations. Project-action affordances also support donors' individual-extrinsic motivations to donate (based on donors' desire to realise a particular outcome, regardless of the existence of an online community). Some donors had the pre-formed intention to donate to a project about which they had heard and were looking for a tool through which they could act on this existing intention. Charitable crowdfunding campaigns afford donors the opportunity to make a financial contribution to a project in an effective manner (with little time and effort spent). Donors in both cases said that charitable crowdfunding campaigns afforded an "easy", "convenient" and "simple" process of donating. Furthermore, donors, platform staff and campaign creators emphasised the cost effectiveness of charitable crowdfunding campaigns vis-à-vis offline charity (e.g. Chuffed and Thinkable do not take commissions on donations). Crowdfunding is scalable and without cost and effort can increase in a way not possible in typical offline charity scenarios (e.g. shopping mall direct contact, live events or doorknocking collections are not scalable without an increase in cost and effort). Crowdfunding certainly is a low-cost way to reach many people (Schenk and Guittard, 2011). Donors noted both IT-enabled cost efficiency and convenience as a motivation to use crowdfunding over alternative ways to engage with charity.

Platform-cognition affordances support individual-extrinsic motivations. We further found that platform-cognition affordances (cognition in relation to the crowdfunding platform) support donors' individual-extrinsic motivations. One way in which this support is manifested is through the online, global nature of crowdfunding platforms and their connection to social media (emphasised by design elements such as share buttons). Charitable crowdfunding campaigns afford donors with awareness of a campaign that they would want to support but about which they would not have otherwise known. In both cases, donors said that they believed they had only become aware of the charitable crowdfunding campaigns owing to their online nature. Two donors to the Earthship Kapita campaign said they had already made the general decision to support the next campaign for development in Africa that they came across and found convincing: seeing the link to the Earthship Kapita campaign was critical for them in executing their desires. Naturally, the more effective the layout and design are in supporting donors' understanding of the donation process, the more likely they are to actually complete this process and not give up in frustration. The importance of layout and clear information was the reason behind the design change on Thinkable during our research. The same effect has also been reported for commercial crowdfunding (Gerber and Hui, 2013; Greenberg *et al.*, 2013).

Platform-cognition affordances support social-intrinsic motivations. Platform-cognition affordances also support donors' social-intrinsic motivations (based on donors' enjoyment or satisfaction in the presence of a community). Across both cases, donors reported that they evaluated elements such as messages left by others (donors and project creators) to gain a better understanding of the perspectives of other like-minded people. For example, in the Medical Research campaign, one donor said that she read the comments because they "humanised" the Internet, which she perceived as typically cold. Donors commonly considered "social information" when making their own decision to act or not to act. Social information included not only comments, but also the names of existing donors and the campaign's status bar

that showed the amount of support it had already received from others. Donors said that such information was important to them and that their own opinion about the campaign was influenced by information about the opinions of others. Information about wide support by others was seen as an encouragement. Through affordances such as those mentioned above, members of crowdfunding communities can provide evaluation and inspiration to one another. The platform provides a means for social proof that supports people because they consider the opinions of other people as important. People enjoy the presence of social information exchange regardless of whether or not they then subsequently actively contribute content or engage in the community (see also: Gerber and Hui, 2013; Greenberg *et al.*, 2013; Slattery *et al.*, 2014).

Platform-action affordances support social-intrinsic motivations. Platform-action affordances (action relating to the crowdfunding platform) then further supports social-intrinsic motivations. Charitable crowdfunding campaigns afford donors the opportunity to become an active member of a community of like-minded people. In the Earthship Kapita campaign, donors could choose to follow the campaign, to be posted as a donor on the platform and to leave comments or to respond to comments. Donors were automatically signed up to receive emails from the project creators regarding the campaign. Donors and campaign creators said this was not a measure to trigger a further donation, but a community-building measure. Donors said they felt and acted as a “team player”. Donors would come back to the platforms after their donation to read new comments and generally to see what was happening. Similarly, in the Medical Research campaign, donors were able to become fans of the research, to receive updates and to post comments. Again, donors said they regularly came back to “check in” and, in many cases, to respond to new comments. The campaign creator spent a great amount of effort to keep the community alive through continued posting. In both cases, the social interactions “jumped over” from the core platform to social media where discussion continued (which also was partly afforded by share buttons and by the creation of official Twitter accounts and Facebook pages).

Platform-action affordances support social-extrinsic motivations. The last support that we found was surprising to us but was clearly present in the data. Platform-action affordances also support social-extrinsic motivations (based on donors’ desire to realise a particular outcome in the presence of a community). In both charitable crowdfunding cases, we found donors were afforded the opportunity to actively demonstrate their support for the campaign by signalling their support to friends, family and the general public. The purpose was to receive external recognition, thus creating a particular image and generating attention for another project. For example, in the Earthship Kapita campaign, donors and supporters were passionate about reaching the campaign goals and emailed and shared the campaign link through their online social networks in order to raise awareness and solicit help for the campaign. At the same time, many donors talked about this being an “image measure” (intentionally or not, it was a conscious consideration by donors). In the actual Facebook postings, donors often not only provided a link to the campaign, but also mentioned that they had donated. Similarly, in the Medical Research campaign, donors shared the campaign through their networks because they wanted to rally support from their families, friends and colleagues so that the campaign would succeed, at the same time also showing their constituents that they had contributed. Some donors wished to increase their “credibility” in the social space of charity.

6. Conclusion

In conclusion, our study of two cases allows us to provide an enhanced understanding of IT affordances, donors' motivations and the relationship between affordances and motivations in charitable crowdfunding. For IT affordances, we have used a distinction between cognition vs action affordances (affordances relating to thinking and knowing vs. performing tasks and taking action). In addition, we have introduced a distinction between project vs platform affordances (affordances relating to the project on the ground vs. the IT platform itself). For donors' motivations, we have used a distinction between intrinsic vs extrinsic motivations (motivations relating to inherent enjoyment vs. expectation of external rewards). In addition, we have introduced a distinction between individual and social motivations (motivations relating to an individual in isolation vs. an individual as part of a social community). We have then used these distinctions to develop seven theoretical propositions for how the introduced types of affordances and the introduced types of motivation relate. The model empirically develops and extends conceptual suggestions made in prior papers (Greenberg *et al.*, 2013; Zhang, 2008) but provides a more fine-grained theoretical model, empirically grounded in the interpretations of the participants in charitable crowdfunding campaigns.

A few words on the delimitations of our exploratory study are in order. First, while we have selected two very different cases as the basis for our analysis, we do not claim that there are "representing" all possible cases of charitable crowdfunding. That is, other aspects could be important in other charitable crowdfunding cases. Second, "charitable crowdfunding" is a phenomenon of emerging and dynamic ontological nature (Thompson, 2011). Due to this dynamism, our model may or may not hold over spatial and temporal differences and we do not claim it to be a context-independent "universal truth". It is the ethical responsibility of us, the authors, to alert the readers of our paper to this fact and to provide sufficient information about the context of our study. It is the responsibility of you, the reader, to carefully consider the context of our study for your own, future context (e.g. research, practice, etc.) to evaluate the usefulness of our model in these contexts (see further: Lee and Baskerville, 2003; Lee and Baskerville, 2012; Tsang and Williams, 2012). That said, the model is of an abstract and generic nature and is likely to perform better than uninformed guesses in cases of charitable crowdfunding.

Our study makes a fitting contribution to the topic of this special issue: the IT artefacts used in the two cases, with their surrounding organisational and social structures, are indeed "social information systems". Charitable crowdfunding has the potential to make a substantial beneficial contribution to society by using IT to influence the individual and social forces at play in the context of charitable fundraising. Future research could and should build on the model of IT affordances and donor motivation that is developed in this paper. The model allows us to analyse the intertwined technological and social aspects of charitable crowdfunding: it will also be useful for the study of other types of social IS. The reason is that it may well be that social IS in general provide similar affordances (and that these relate in similar ways to motivations) as reported in the topic of this paper on charitable crowdfunding. The paper contributes to the knowledge about social IS and supports the wider agenda brought forward in this special issue.

For practitioners, this paper provides a rationale for why people in the charity space should consider taking advantage of IT-enabled charitable crowdfunding in addition, or as an alternative, to traditional offline fundraising. Based on our analysis, IT affordances allow charitable giving and fundraising to be both more effective and

more social compared to offline fundraising and hence more motivating for donors. The case descriptions as well as our analysis provide readers with knowledge about charitable crowdfunding and a departure point and reference point for how practitioners in the charity space could design and organise their charitable crowdfunding campaigns (i.e. creating all IT affordances types so that the different motivations of donors are supported). Overall, we hope that the analysis provided in this paper inspires practitioners to use and develop charitable crowdfunding.

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Further reading

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About the authors

Katherine Choy is a Consultant at Deloitte Touche Tohmatsu, Sydney Australia. She completed a Bachelor of Information Systems (Hons) at the UNSW Australia, where she received the UNSW Co-Op Scholarship in Information Systems and Management.

Daniel Schlagwein is a Lecturer in Information Systems, Technology and Management at the UNSW Australia. He uses qualitative and mixed-method research to study open and social information systems. Daniel has published in leading journals such as *Information Systems Journal*, *Journal of Information Technology* and *Journal of the Association for Information Systems*. Lecturer Daniel Schlagwein is the corresponding author and can be contacted at: schlagwein@unsw.edu.au

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