Will a digital camera cure your sick puppy? Modality and category effects in donation-based crowdfunding

Larry Zhiming Xu

Annenberg School for Communication and Journalism, University of Southern California, 3502 Watt Way, Los Angeles, CA 90089, USA

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A B S T R A C T

Project descriptions in donation-based crowdfunding are supposed to give a full account of the incidents and help compensate for the lack of social cues, on which donors rely to judge if donations are worthwhile. The study examines three common communication modalities in project descriptions, including video, picture, and text, in terms of their effects on crowdfunding outcomes. Using webpages of a major crowdfunding platform ($N = 4123$), the author found that only a limited number of projects leveraged the benefits of embedding videos and pictures. Although having more videos and pictures generally predicted an increase in donation, the increase was unevenly distributed across different categories of projects. Meanwhile, topic modeling distinguished word clusters from description texts. While a variety of topic words relating to factual details positively predicted the fundraising outcomes, clusters featuring the overuse of requesting words such as "help", "money", and "thank" seemed to backfire. The findings shed light on the complex contingencies of communication modality effects across different types of projects and provide guidelines for more effective message design in crowdfunding campaigns.

1. Introduction

As a novel and noteworthy fundraising model, crowdfunding in recent years has continued to spread and flourish all over the world. For example, roughly one out of four Americans has participated at least once in crowdfunding (Pew Research Center, 2016), in which small funds are collected from a large number of contributors. While in some projects funders are compensated with benefits such as discounts or early access to new products, in donation-based crowdfunding rewards are typically not provided. From overcoming medical crises to rescuing homeless animals, eliminating community problems to reallocating educational resources, donation-based crowdfunding covers an incredibly broad spectrum of topics. As a distinctive problem-solving strategy and a widespread social practice, donation-based crowdfunding has become an alternative source of capital for a variety of personal and public purposes.

Despite its expanding scope and profound influence, research examining the dynamics of donation-based campaigns is much scarcer compared to that of their for-profit counterparts. Specifically, both conceptual work and empirical evidence are meager in delineating the unique landscape of this emerging social phenomenon, as well as the practice-wise processes through which fundraisers use different tools afforded by the platforms to persuade donors. To reduce the gaps in literature, the current study aims at explicating the mechanisms and dynamics of donation-based crowdfunding, with particular regard to the use and effects of communication modalities in project descriptions. Although existing studies have examined the effects of video, picture, and text modalities embedded in project descriptions (e.g. Dey et al., 2017; Feldmann and Gimpel, 2016; Koch and Siering, 2015; Mitra and Gilbert, 2014; Mollick, 2014; Xu et al., 2014), insufficient attention has been paid to demonstrating the complex contingencies of the

effects across different categories of crowdfunding projects. Hence, apart from examining the modalities of message delivery, the study will also delve into the possible interactions between modality and category effects in donation-based crowdfunding to showcase if modality effects can apply across the board. By identifying categories in which certain modality configurations are especially conducive (or detrimental) to persuasive attempts, the study will provide practical guidelines for more efficacious message design in nonprofit crowdfunding campaigns.

2. Literature review

2.1. The rise of donation-based crowdfunding

Regardless of sharing the same title, crowdfunding campaigns differ in goals, and, consequently, routes through which the goals are attained. As one of the widely used typologies provided by Belleflamme et al. (2014), projects can be categorized as equity-, reward-, and donation-based. In equity- and reward-based projects, contributors (commonly referred as backers or funders) are compensated with financial or non-financial benefits to incentivize or repay their giving, whereas in donation-based projects contributions are usually detached from any kind of benefits in return. Although nonprofit campaigns disperse in more than 2000 global platforms (Drake, 2017), there are online communities that specialize in donation-based crowdfunding (e.g. GoFundMe, Crowdrise, Kiva). In 2017, Facebook launched "Fundraisers", an internal tool allowing users to raise money for nonprofits, which is expected to further expand the frontiers of this already pervasive fundraising mode given its 2.2 billion active users worldwide (Statista, 2017; Yurieff, 2017).

The social causes leading to the recent rise of donation-based crowdfunding are diverse but generally related to the unfulfillment of public services or underprovision of public goods (Davies, 2015). Wash and Solomon (2014) maintain that donation-based campaigns almost always involve some civic and public good components being funded, such as education (Colgren, 2014) and journalism (Jian and Usher, 2014), thus offering financial and social support to individuals and communities that can hardly seek help elsewhere. Wash (2013) argues that since crowdfunding often yields the same outcomes as raising capital from other sources, it has the potential to be a powerful supplement to, if not a replacement of, the undermined public sector. During community disruptions, such as Flint water crisis in Michigan in which governmental actions are delayed or absent, crowdfunding has been playing an important role in providing resources and services to the residents in time (Garcia, 2016). When struck by serious illness, more individuals who have little or no insurance resort to crowdfunding to tackle the crippling burden of medical costs (Jopson, 2018). With a wide array of charitable purposes realized more effectively and efficiently, Özdemir et al. (2015) believe that donation-based crowdfunding is changing the landscape of traditional philanthropy due to its participation mode and extensive reach. Aligned with the models of individual charitable giving and social entrepreneurship, donation-based crowdfunding achieves old goals through new means (Frydrych et al., 2014; Meer, 2014).

Compared to conventional, loosely-structured nonprofit fundraising campaigns, donation-based crowdfunding projects have concrete, well-defined guidelines and dynamic information to keep the participants up to date (Wash, 2013). As donations rarely go offline, the cues available online are critical for decision-making. From a social information processing perspective (Walther, 1992), it is these online cues that help compensate for the lack of the face-to-face interactions in traditional charitable fundraising. Existing research has examined the influence of a wide range of supplemental cues embedded in online project listings, including goal, fund received, time frame, geographic location, number of donors, social media connection, sharing, user commenting, and project updating, to name a few (Agrawal et al., 2013; Kuppuswamy and Bayus, 2013; Lu et al., 2014; Mollick, 2014). Together, the cues help legitimize fundraising attempts and promote participation while eliminating dubiety and providing social proof (Gerber et al., 2012). However, compared to these supplemental cues, project description as the central element of listing has received inadequate attention (e.g. Anderson, 2016; Huber, 2014; Kahl, 2015; Manning and Bejarano, 2017; Zheng et al., 2014). Despite some empirical findings (e.g. Dey et al., 2017; Koch and Siering, 2015; Mitra and Gilbert, 2014; Mollick, 2014), insufficient work has been conducted to systematically examine how the components of project description, such as modality cues (video, picture, and text), facilitate or hinder crowdfunding initiatives.

2.2. Modality effects in crowdfunding

Communication modality refers to the specific format of message delivery, such as text, picture, audio, or video (Chaiken and Eagly, 1983). Although the term "modality" is often interchangeably used with analogous concepts such as "mode", "medium" and "channel", Sundar (2008) specifies modality as a structural affordance present in digital media that conveys cues to trigger information processing heuristics. By his definition, modality embodies more than the physical channel through which information is transmitted; it is highly functional in engendering a chain of visceral reactions on both physiological and psychological levels. Thus, the structural characteristics innate in different modalities may well cultivate diversified information processing patterns of the same message, possibly leading to contrasting outcomes (Chaiken and Eagly, 1976).

Communication modality has been viewed as a key determinant of persuasion (Chaiken and Eagly, 1983). For decades, the persuasiveness of specific modalities, such as video, picture, and text, have long been explored but only yielded mixed if not contradictory results, with little definite proof of the persuasive superiority of any modality (e.g. Cantril and Allport, 1935; Kim et al., 2011; McGinnies, 1965; Pfau et al., 2000). The impact of modalities is further complicated by their interactions with message content and characteristics (Chaiken and Eagly, 1976; 1983). As of viewing crowdfunding as a novel persuasive attempt (Anderson, 2016; Dey et al., 2017; Murray et al., 2015; Tenca, 2015), scholarly interests are growing on examining the use and effects of video, picture,