How do Fintech Service Platforms Facilitate Value Co-Creation? An Analysis of Twitter Data

Christoph Breidbach  
*The University of Melbourne*, christoph.breidbach@unimelb.edu.au

Sasitharan Ranjan  
*The University of Melbourne*, sranjan@student.unimelb.edu.au

Follow this and additional works at: [http://aisel.aisnet.org/icis2017](http://aisel.aisnet.org/icis2017/ServiceScience/Presentations/3)
How do Fintech Service Platforms Facilitate Value Co-Creation?
An Analysis of Twitter Data

Short Paper

Christoph F. Breidbach
The University of Melbourne
Parkville, VIC, Australia
christoph.breidbach@unimelb.edu.au

Sasitharan Ranjan
The University of Melbourne
Parkville, VIC, Australia
sranjan@student.unimelb.edu.au

Abstract

How do service platforms facilitate value co-creation processes amongst other interdependent economic actors? An analysis of Twitter data stemming from the official accounts of four peer-to-peer (P2P) lending platforms enables us to identify the practices that intend to facilitate the co-creation of value amongst lenders and borrowers. Our findings indicate that P2P lending platforms align their value facilitating practices to the unique needs of their multiple user groups (i.e., borrowers and lenders), and highlight the purpose, content, and economic actors targeted by each P2P lending platform. We provide a theoretical and empirical contribution in the form of research propositions that advance the discourse around platform-businesses, value co-creation processes, as well as Fintech and the digitization of financial services.

Keywords: Fintech, P2P Lending, SD-logic, Service Science, Value Co-Creation

Introduction

The Global Financial Crisis (GFC) of 2008 significantly increased the general public's distrust in the banking sector (Muzellec et al. 2015), and sparked the growth of financial technology or 'Fintech' ventures. Today, Fintech represents a USD 5 billion market in the US alone, with firms like 'Lendingclub.com' enabling peer-to-peer (P2P) lending between interdependent lenders and borrowers, thus challenging the status quo of mainstream banking (Zhang et al. 2016).

Integral to the growth of Fintech has been the advancement and subsequent profusion of digital service platforms (Lusch and Nambisan 2015; Breidbach and Brodie 2016). When adopting the lens of service-dominant (SD) logic (e.g., Vargo and Lusch 2004; 2016), it becomes evident that service platforms aim to facilitate the co-creation of value amongst other interdependent economic actors who engage with it (Breidbach and Brodie 2017). Lusch and Nambisan (2015) therefore argue that platforms enhance the accessibility and availability of resources (e.g., resource ‘density’), as well as the transferability of resources (e.g., resource ‘liquefaction’) in service systems. However, and despite their relevance for emerging service businesses like Fintech, existing research on service platforms is limited (e.g., Breidbach et al. 2014; Lusch and Nambisan 2015), and those contributions that are available (e.g., Hamari et al. 2015), have been criticized in that they “failed to offer insights on emerging digital service innovations” (Lusch and Nambisan 2015, p. 172). Consequently, a significant gap in knowledge exists. For one, investigating the implications of digital service platforms for service-based post-GFC economies represents a key research priority at the intersection of Information Systems (IS) (e.g., Fielt et al. 2013), and service research (Ostrom et al. 2015). In addition, improving the understanding of the actual practices service platforms use to facilitate value co-creation is important because it could provide novel theoretical insights related to value co-creation in digital service contexts like Fintech, and subsequently guide managerial practice therein (e.g., Breidbach and Brodie 2017).
Here, we address these gaps in knowledge. Specifically, we follow the precedence of prior Information Systems (IS) research (e.g., Breidbach and Maglio 2015; 2016), and adopt a lens of SD logic (Vargo and Lusch 2004; 2016) to empirically investigate how digital service platforms aim to facilitate value co-creation processes. Our present study relies on an analysis of Twitter data that we obtained from four leading P2P lending platforms. A thematic analysis of 4000 tweets enables us understand the purpose, content, and economic actors targeted by each P2P lending platform, as well as the practices used to facilitate value co-creation within these service systems (Maglio and Breidbach 2014). As such, this study contributes to the emerging discourse related to service innovation at the intersection of IS and service research (e.g., Fielt et al. 2013; Ostrom et al. 2015), addresses emerging calls for more empirical research related to service platforms more broadly (e.g., Jaakkola et al. 2015), and the role and impact of platforms in emerging service contexts like Fintech, more specifically (e.g., Breidbach and Brodie 2017).

This paper is organized as follows: We first provide a comprehensive overview of the extant literature on value co-creation and service platforms, before discussing our research method and study in detail. We then highlight our findings, and show how these translate to meaningful insights and future opportunities for both service and IS research alike.

**Value Co-Creation and Service Platforms**

Value co-creation is a concept that gained prominence with the rise of service-dominant (SD) logic (Vargo and Lusch 2004; 2016), and describes how economic actors engage in mutually beneficial service exchanges (Lusch and Nambisan 2015). Though SD-logic was initially developed in marketing (e.g., Vargo and Lusch 2004), its benefits are well documented (e.g., Peters et al. 2014), and research exploring value co-creation and SD-logic has gained substantial momentum within the information systems (IS) discipline in general (e.g., Breidbach and Maglio 2015), and service science in particular (Maglio and Spohrer 2008; Maglio and Breidbach 2014). We consequently position our study within its foundational premises, and delineate our conceptualization of value and value co-creation based on this metatheoretical lens.

On the most basic level, value co-creation embodies exchanges between a service ‘provider’, who creates and offers value propositions through specialized knowledge and skills, and a service ‘customers’, who may realize value through use of a physical artefact (Vargo and Lusch 2004) or experience of the interaction with the provider itself (Grönnroos 2011). As such, value, and the perception thereof, is inherently phenomenological (Breidbach et al. 2015), with SD-logic broadening existing perspectives on human economic exchange by implying that all economic actors are service-providing and value-creating entities.

Lusch and Nambisan argue that digital service platforms enable value co-creation by ensuring “resource liquefaction and resource density” (Lusch and Nambisan 2015, p. 163), which allows platform users to play a more active role in providing and accepting value propositions (Gawer 2014). As such, platforms set up the “preconditions” (Ordanini et al. 2011, p. 463) to support “user-self organization” (Hamari et al. 2015, p. 4) in service systems like those prevalent in Fintech. Service platforms therefore represent an “economical-technological coordination” tool (Hamari et al. 2015, p. 4) that aims to facilitate the integration of resources to achieve co-created value. In a similar vein, the extant literature on two-sided markets views platforms as ‘intermediaries’ (Muzellec et al. 2015, p. 139) that connect distinct but interdependent groups of economic actors. For example, in the context of Fintech, P2P lending platforms like ‘Lendingclub.com’ allow individuals to lend and borrow money from one another, while making their own risk assessments and determine pricing and loan terms accordingly. As such, they are a viable alternative that challenge the more expensive and resource intensive banking industry (Mild et al. 2014).

Today, the value co-creation (e.g., Lusch and Nambisan 2015) and platform (e.g., Breidbach et al. 2014) concepts, as well as the Fintech context (e.g., Zhang et al. 2016), are of increasing interest to IS researchers. Empirical studies, however, of how service platforms facilitate value co-creation in technology-enabled contexts are just emerging (e.g., Breidbach and Maglio 2016). And while prior research exploring the facilitation of customer value co-creation explored the means by which organizations support customer learning (e.g., Hibbert et al. 2012) or utilize dedicated human service orchestrators that act on behalf of service customers (e.g., Breidbach et al. 2016), very little is known about how platforms in the Fintech context facilitate these processes. Consequently, there are only limited managerial guidelines available on how to structure and manage the facilitation of value co-creation (Payne et al., 2008). In order to address this challenge, Gawer (2014) called for future research to investigate platform functionalities in use, which
could provide a better theoretical understanding, as well as managerial guidelines, on how to use platforms to facilitate value co-creation processes (Frow and Payne 2011).

A potential starting point when exploring how value co-creation processes could be facilitated by service platforms, is to focus on the practices performed by them (Maglio, Kwan, and Spohrer 2015). Here, we adopt this approach and ask: how do service platforms facilitate value co-creation processes amongst other interdependent economic actors? As such, our study addresses recent calls to advance knowledge at the intersection of IS and service research more broadly (e.g., Rai and Sambamurthy 2006), and provides new insights about platforms (Gawer 2014), and Fintech – a context in which platforms play a significant role today (e.g., Zhang et al. 2016; Breidbach and Brodie 2017), more specifically.

**Research Method**

**Overview**

Investigating how P2P platforms in the Fintech context facilitate value co-creation processes is an emerging area of inquiry. We therefore relied on an exploratory netnography as our research method, which is particularly suitable for exploratory research in technology-mediated contexts (Bartl et al. 2016). Prior netnographic research has been conducted in fields ranging from anthropology (Nelson and Otnes 2005), psychology (Chan and Li 2008), or sociology (Braunsberger and Butler 2011), which highlights the broad applicability of this method. In its simplest form, netnographic research is defined as the application of qualitative research in the “form of ethnographic research in an online context” (Bartl et al. 2016, p. 167). Compared with traditional ethnography, a netnography presents a faster, simpler, and less expensive means of data collection, offering a more practical solution to conducting research in the emerging Fintech context.

**Data Collection**

The data sources used in netnographic research typically include posts in forums (Nelson and Otnes 2005; Ekpo et al. 2014), blogs (Hsu et al. 2009; Ji et al. 2016), or online communities and social networks (Cova and D’Antone 2016). The volume of data analyzed in prior netnographic studies ranges from 400 forum entries (Nelson and Otnes 2005) to 1100 social media postings (Cova and D’Antone 2016). Here, we followed the precedence in the extant literature, and collected 1000 tweets from 4 leading P2P lending platforms, thus creating a data set of 4000 tweets that represent interactions of these platforms with their followers.

In order to select the most suitable P2P lending platforms for our analysis, we relied on a criterion-based theoretical sampling approach (Miles and Huberman 1994). Criterion-based theoretical sampling is based on the initial definition of appropriate parameter to screen potentially suitable research sites (i.e., P2P lending platforms) before data collection. This process ensures the comparability of data, and that each research site sufficiently represents the phenomenon under investigation (i.e., the facilitation of value co-creation). Our present work builds on Zhang et al. (2016), and uses autonomy as the key parameter. Previously controlled by the banks, a key hallmark of the growing Fintech sector is the delegation of autonomy to the owner of the funds (e.g., Zhang et al. 2016). In addition, by granting autonomy to economic actors, P2P lending platforms provide and enhance the perceived level of control, which is known to influence the manner and extent to which individual economic actors perceive their role during value co-creation (Russo-Spena and Mele 2012). Consequently, we distinguished between the level of autonomy provided to lenders to set the interest rate on loans, as well as their autonomy to select borrowers. Figure 1 explains this context and provides an overview of the platforms we included in our present study.
Figure 1. Categorizing platforms by levels of autonomy over borrower selection and interest rate.

Data Analysis

We followed precedence by Mkono (2012) as we analyzed a total of 4,000 tweets collectively posted by the official accounts of Lending Club (@LendingClub), Funding Circle (@FundingCircleUK), Zopa (@Zopa) and Upstart (@Upstart). Data analysis followed processes outlined by Miles and Huberman (1994) and Eisenhardt and Graebner (2007). First, we initially cleaned, verified, and organized the data in nVivo 11. Second, our subsequent coding approach relied on open, interpretive and pattern codes (Miles and Huberman 1994). We thereby intended to identify the practices used by individual platforms to facilitate value co-creation. Third, we then used a variable-oriented strategy (Miles and Huberman 1994) to compare the characteristics of each platform (i.e., how to borrow, testimonials, lending volume update), targeted actor (i.e., borrower, lender, non-member, industry 3rd party etc.) and supporting media used (i.e., video, blog article, website etc.). Finally, we created propositions to summarize results and highlight relationships in the data. These represent the theoretical contribution of this study (e.g., Colquitt and Zapata-Phelan 2007).

Findings

Our findings indicate that P2P lending platforms use four distinct practices to facilitate value co-creating interactions between current and prospective lenders and borrowers across their service systems. Table 1 provides an overview of the distribution of tweets for each practice and platform in our study.

<table>
<thead>
<tr>
<th>Practice</th>
<th>Lending Club</th>
<th>Funding Circle</th>
<th>Zopa</th>
<th>Upstart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction</td>
<td>217</td>
<td>354</td>
<td>354</td>
<td>464</td>
</tr>
<tr>
<td>Education</td>
<td>88</td>
<td>21</td>
<td>85</td>
<td>142</td>
</tr>
<tr>
<td>Informing</td>
<td>302</td>
<td>266</td>
<td>332</td>
<td>230</td>
</tr>
<tr>
<td>Stimulating</td>
<td>393</td>
<td>359</td>
<td>229</td>
<td>164</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
</tbody>
</table>

Table 1. Distribution of tweets across each platform and practice.
First, the Interaction practice accounts for approximately 35% of all tweets, and refers to activities that provide guidance and assistance to users. Overall, interactions with prospective and actual borrowers and lenders guide, promote, and entice user engagement with the platform itself. For example, Funding Circle, which targets small businesses, tweeted:

“Running a creative business? Here are 4 tips for success (blog article)” – Funding Circle

Second, the Education practice aims to guide P2P lending-specific initiatives through general P2P lending advice or specific financial advice. It intends to create awareness and provide knowledge to users and potential users, on how to best employ the benefits of the platform or P2P lending. For example, Upstart uses tweets to highlight the benefits of lending in general:

“Did you know you can take advantage of the tax benefits of an IRA while investing through Upstart? (blog article)” – Upstart

Third, the Informing practice aims to report on aspects relating specifically to features of the value proposition regarding the Industry as a whole or the platform itself. It thereby differs from the Education practice in that the tweets only create awareness of information regarding the platform or industry, rather than demonstrating how such information can be used in financial endeavors.

“We just reached $3 billion in cumulative loan volume - we passed $1 billion in November 2012! (past tweet)” – Lending Club

Finally, the Stimulating practice refers to tweets aimed at inciting engagement by advocating the adoption of either P2P lending or more specifically, the adoption of the respective platform. P2P lending platforms thereby advocate their benefits by highlighting platform-specific factors that can potentially enhance perceived value. These tweets also serve to promote the adoption of the platform, while increasing the engagement of actors with the platform and embedded value proposition. For example, Zopa tweeted:

“Find out how Richard used his @Zopa loan to improve his home (link)” – Zopa

While these four practices existed across all platforms, there are noticeable differences related to the extent to which each platform performs these. We argue that these differences are rooted in the varying degrees of autonomy (e.g., ability to set interest rates and lenders) across platforms. For instance, whenever the platform (e.g., Zopa) selects borrowers, it aims to educate and inform borrowers first, while stimulating lenders, second. Specifically, the platform’s accountability of borrower performance (i.e., low loan default rate) necessitates this process, as this reflects directly on the capability of the platform to generate monetary value for lenders. In contrast, platforms enabling lenders to select borrowers will stimulate borrower interest first, while educating and informing lenders, second.

**Discussion, Conclusions, and Future Research**

Our present research in progress contributes to IS research by providing an empirical account of how P2P lending platforms facilitate value co-creation processes amongst other interdependent economic actors. We thereby addressed calls for future research to investigate platform businesses more broadly (e.g., Gawer 2014), the Fintech context more specifically (e.g., Ostrom et al. 2015), and advance the important and under investigated intersection of IS and service research more generally (e.g., Rai and Sambamurthy 2006). Following recommendations by Colquit and Zapata-Phelan (2007), we now delineate the theoretical contributions of this work through a set of propositions that summarize our findings.

Understanding the mechanisms and processes of how economic actors engage in value co-creation more generally, and how service platforms can facilitate these processes more specifically, represented a key research gap to date that our present work aimed to address. We followed recommendations by Maglio, Kwan, and Spohrer (2015), and focused on exploring the practices performed by service platforms. We identified four unique practices that help contribute to our field’s understanding of how platforms facilitate value co-creation processes. Our first proposition therefore states:
Proposition 1: P2P lending platforms facilitate value co-creation processes through the Interaction, Education, Informing, and Stimulating practices.

Gawer (2014) called for future research to investigate platform functionalities in use, and we responded to her call in our present work. Specifically, we have shown that P2P lending platforms align their value facilitating practices to the unique needs of their multiple user groups (i.e., borrowers and lenders). For instance, our data shows that whenever platforms select eligible borrowers, the platform aims to educate and inform borrowers first, while stimulating engagement from lenders, second. These practices, however, differ substantially whenever the levels of autonomy are increased, and lenders themselves can select borrowers. Specifically, we argue that these diverging practices are rooted in the varying degrees of actor autonomy (e.g., ability to set interest rates and lenders) across platforms. The segregation of distinct practices by platforms, and resulting impact on autonomy, also enables platforms to align their value proposition with the needs of each economic actor. Put differently, rather than advocating multiple value propositions, we argue that platforms use the value-facilitating practices that we identified to influence multiple perceptions of the same value proposition. Our second proposition therefore explains:

Proposition 2: P2P lending platforms align their value-facilitating practices to each group of economic actor in order to influence multiple perceptions of the same value proposition.

It is evident that economic actors perceive value based on a comparative appraisal of the expected value with the actual value experienced in use (Vargo and Lusch 2016). Therefore, the platform must facilitate interactions and exchanges that ideally increase each actor’s perception of expected value. We interpreted the individual linguistic tone and content of each practice, and argue that these differ across platforms and role. From the colloquial and entertaining tone of millennial-focused tweets by Zopa, to the more business-focused tweets of Funding Club, platforms align not only the value proposition (e.g., ‘what?) to each economic actor, but also the ‘how’. Vargo and Lusch (2016) define these mechanisms as ‘institutions’, that represent ‘socially formulated constraints’ (p. 8) that govern the degree and manner of engagement amongst actors involved in economic exchange (Vargo and Lusch 2016). Our third proposition therefore states:

Proposition 3: P2P lending platforms adapt to socially formulated constraints when facilitating value co-creation processes.

Finally, while our present work addressed substantial gaps in knowledge within the wider IS and service research literature related to service platforms, ample opportunities for future research remain. For one, Vargo and Lusch (2016) argued that institutions and institutional logic are relevant for an understanding of value co-creation. Future research could adopt the lens of institutional logic to generate new insights into this area of inquiry. Further insights could be generated by building on existing literature on two-sided markets (e.g., Muzellec et al. 2015), which views platforms as entities that connect distinct but interdependent groups of economic actors. Future researchers could adopt this lens, as well as that of SD logic, to further generalize our research in progress by investigating other P2P platform contexts like, for example, those commonly affiliated with the so-called ‘sharing economy’ (e.g., Breidbach and Brodie 2017). P2P platforms in the sharing economy context provide a market place that allow multiple economic actors or user groups to co-create value by exchanging resources ranging from cars (e.g., ‘Uber’) to apartments (e.g., ‘AirBnB’), and offer ample opportunities to understand if, how, or to what extent value-facilitating practices differ across platforms and contexts.

References


