



COMMUNICATIVE FIGURATIONS Working Paper | No. 27
ISSN 2367-2277

Adam Fish and John Carter McKnight
The financialization of peer-to-peer lending in the United Kingdom



Universität Bremen*



Universität Hamburg



ZeMKI

Zentrum für
Medien-, Kommunikations- und
Informationsforschung



LEIBNIZ-INSTITUT
FÜR MEDIENFORSCHUNG
HANS-BREDOW-INSTITUT

Forschungsverbund „Kommunikative Figurationen“ | Research Network “Communicative Figurations”
Universität Bremen | University of Bremen
ZeMKI, Zentrum für Medien-, Kommunikations- und Informationsforschung
Linzer Str. 4, 28359 Bremen, Germany, E-mail: zemki@uni-bremen.de
www.kommunikative-figurationen.de | www.communicative-figurations.org

Adam Fish (a.fish2@lancaster.ac.uk)

Adam Fish is a cultural anthropologist, video producer, and Scientia Fellow at the University of New South Wales who investigates power in cultures of digital production. In 2018, he was ZeMKI Visiting Research Fellow at the University of Bremen. His book *Technoliberalism* (Palgrave Macmillan, 2017) describes his ethnographic research on the politics of internet and television convergence in Hollywood and Silicon Valley. His co-authored book *Hacker States* (MIT Press, 2020, with Luca Follis) is about how state hacking impacts democracy. His co-authored book *After the Internet* (Polity, 2017, with Ramesh Srinivasan) reimagines the internet from the perspective of grassroots activists, citizens, and hackers on the margins of political and economic power.

John Carter McKnight (johncartermcknight@gmail.com)

John Carter McKnight is Assistant Professor at the Harrisburg University of Science and Technology. His work examines the assertion and maintenance of collective identities - national, ethnic, and gender - via affective rhetorics and communications technology design. It is rooted in user-centric STS, post-phenomenological approaches to communications technologies (drawing in particular on the work of Ihde and Verbeek), affect theory (including Wetherell, Sedgwick, and Ahmed), and new theoretical work in the rhetorics of experience architecture being developed by Potts and others.

Working Paper No. 27, April 2019

Published by the „Communicative Figurations“ research network, ZeMKI, Centre for Media, Communication and Information Research, Linzer Str. 4, 28359 Bremen, Germany. The ZeMKI is a research centre of the University of Bremen.

Copyright in editorial matters, University of Bremen © 2019

ISSN: 2367-2277

Copyright, Electronic Working Paper (EWP) 27 - The financialization of peer-to-peer lending in the United Kingdom. Adam Fish, John Carter McKnight 2019

The authors have asserted their moral rights.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission in writing of the publisher nor be issued to the public or circulated in any form of binding or cover other than that in which it is published. In the interests of providing a free flow of debate, views expressed in this EWP are not necessarily those of the editors or the ZeMKI/University of Bremen.

The financialization of peer-to-peer lending in the United Kingdom

1 Introduction

Recently, peer-to-peer (“p2p”) lending systems have emerged as popular vehicles for unsecured consumer and small-business lending (Nesta, 2014). P2p lending is an innovation distinct from the better-known crowdfunding: where crowdfunding systems operate as a mixture of charitable donation and pre-purchase (providing funds for a product early in its development stage rather than after product completion), p2p lending involves the exchange of funds at commercial rates of interest, competing largely in the personal-investment market on price, by “disintermediating” banks with their relatively high overhead costs. P2p firms, unlike banks or savings and loans, do not originate loans themselves: they act as a marketplace matching “buyers” of debt (borrowers) with “sellers” of debt (investors). Some scholars claim that p2p lending is transforming the powerful position held by banks, returning that power to distributed, collaborating people (Bauwens, 2005). Others, however, see p2p lending as coopted into the process of financialization, leaving the more radically decentralizing aspects aside (Aitken, 2015). While a variety of architectures and business models can be found within the p2p financial sector, the term “p2p” has shifted over the past decade, away from associations with high technological literacy, risk-taking, playfulness, and innovation, to associations with “fairness,” and a construction of borrowers and lenders as “peers” by virtue of being financially “sensible,” while the underlying p2p infrastructure, both technological and financial, is elided or ignored.

We engaged in a 15-month study of Zopa Limited, the earliest and largest (by transaction volume) UK p2p lending firm. Zopa was the subject of sociological analysis in 2006, the firm’s second year of operation (Hulme, 2006), which included an extensive series of interviews with senior management and employees, observation of work processes, brainstorming sessions, and promotional product development. We chose Zopa in order to examine how the firm and the p2p industry had responded to the global financial crisis of the late 2000s. As Zopa was and remained a reflexive and data-driven firm, we expected it would provide significant information about the evolution of its business model, communications, and technological processes.

While we began our research intending to update the work of Hulme (2006) in light of the global financial crisis of the late 2000s and presumably a larger target market of people with a familiarity with p2p concepts from the popularity of file-sharing sites, crowd-funding initiatives, and similar technological systems, what we discovered was a firm managing a significant socio-technical transformation. Zopa had undergone dramatic growth by changing its desired customer base, its financial-technological systems, and its core product, to appeal to an older and less technologically- and financially-sophisticated group through novel systems and rhetoric. We found a website user experience and advertising messaging

that had abandoned associations with computer-geek culture in favor of a highly class-driven appeal to a group distinguished from customers of other online personal financial products, such as short-term “payday” loans associated with an undesirable underclass.

What we saw at Zopa was an apparently successful attempt to manage three inter-related transformations: (a) organizational, which we address with reference to Polillo’s (2013) model of wildcat/conservative values in banking; (b) online infrastructural affordances, analyzed here via Verbeek’s (2010) interpretations of Ihde and Heidegger; and (c) consumer subjectivities in the UK’s age of austerity, here addressed by contextualizing Jensen’s (2013, 2014) notion of “poverty porn” in highly class-driven British discussions of personal financial choices.

2 Theories and Methods

a) Methods

We interviewed and participated in company interviews with its past and present customers both in formal settings and at the firm’s annual party, reviewed years of comments on the company’s web forums, along with the firm’s media coverage and promotional materials dating back to its founding. We additionally had access to a large amount of the firm’s market research and customer analytics data, both internally generated and supplied by specialist firms. Based upon this work, we demonstrate how rhetoric and structures designed to appeal to technically sophisticated early adopters of internet technologies were abandoned in order to shift the company’s potential user base to a more mainstream, less technologically literate group.

We recorded and transcribed interviews with officers and staff of Zopa over a series of multi-day observational visits in the firm’s London office. This material provided the backdrop for our understanding of the firm’s transformations since the 2006 Hulme report, particularly through extensive discussions with the firm’s then and current CEO, Giles Andrews. These interviews suggested three primary areas of change: the user interface on the firm’s website, advertising materials, and the structure of the firm’s core financial product. We explored the first through observation of first-time and repeat users of the website, data from Zopa on page clicks, and observation of weekly team meetings to refine the website user experience. For the second, we had access to all Zopa advertising and promotional material, text and video, through the firm’s history. For the third, we relied primarily on insights from senior financial and operating officers of the firm and Zopa-produced materials on the firm’s financial instruments and processes, supplemented by a study of relevant British financial regulations.

b) Theories

This analysis is positioned at the intersection of several scholarly projects: a tradition of economic sociology building on the foundational works of Marx, Weber, and Schumpeter (Granovetter, 1985, MacKenzie, 1996, Guillén et al., 2002, Smelser and Swedberg, 2005, Swedberg, 2005), the application of Science and Technology Studies to the economic realm (Pinch and Swedberg eds., 2008, Çalışkan and Callon, 2009); the anthropological study of money in novel as well as traditional forms (Maurer, 2006, 2012; Zelizer, 1989, 1994; Mas

and Morawczynski, 2009); the concept of financialization (Martin, 2002, Epstein, 2002, Montgomerie, 2009); the sociology of networks (Kelty, 2008; Coleman, 1998; Benkler, 2006), the ethnography of new media firms (Neff, 2005; Fisher, 2004; Girard and Stark 2003) and the philosophy of technology (Verbeek, 2005; Ihde 1990). We have not the space to fully address each of these research traditions in this paper but instead we will focus on illustrating how our case provides an opportunity to synthesize three literatures: (a) the sociology of financial-sector innovation at the firm level, (b) the interplay of communications technology and social class in contemporary Britain, and (c) a post-phenomenological philosophy of technology as applied to users of innovative technological assemblages.

Polillo (2013) provides a sociological theory of structural change within banking and finance derived from the work of Karl Marx, Max Weber, and Joseph Schumpeter. He views capitalism as a dynamic process of struggle “between innovators and the old guard” in which the financial sector plays a central role via groups organizing to control particular resources by excluding other actors (citing White, 1981, 1992, 2002). Financial instruments also act as symbolic currencies with a prestige and solidarity value, denoting membership and enabling a network of relations among persons who view themselves as having significant commonalities (2013: 7, citing Collins, 2004). Bankers produce “collective financial identities,” (2013: 10) linking them to financial instruments to create closed networks of value. Creditworthiness is not an abstract property of financial actors, nor susceptible to purely rational, mechanistic calculation, but a moral judgment taken with respect to the boundaries drawn around particular status communities and associated with particular financial instruments (2013: 41, 47). Determinations of borrower creditworthiness are linked with financial instrument creators’ identity, constructed through the type of instruments it offers and to whom, and, equally, whom it excludes.

We apply particular ideas from Polillo’s work, which is based upon American and Italian historical cases, to the distinctly different environment of contemporary Britain, in which financialization has lagged well behind the American example and financial discourse is fundamentally shaped by a history of discourse conventions about social class (Skeggs, 2004; Sayer, 2005; Tyler, 2008, 2013). Much of Zopa’s marketing rhetoric attempts to position Zopa as what Polillo calls a “wildcat firm,” in opposition to “conservative bankers.” Yet it executes a rhetorical move particular to the UK context, in seeking to wrap itself in a mantle of conservative banking traditions and middle-class values, against the consumption-driven excesses of both elite bankers and the “feckless scroungers” of an imagined benefits-dependent working class.

In order to link the materiality of Zopa’s technological and design assemblage with its actions and status within the UK’s retail financial market, we draw on the work of Verbeek (2010), who argues that technologies “determine how human beings can be present in the world, and the world to them.” (2010: 116) This ability to shape relations is not “inherent” in the technology, but only exists in specific context: technologies “are what they are only in their use.” (2010: 117) This distinction explains differences between Zopa’s technological assemblage at the time of Hulme and Wright’s 2006 study and its assemblage in our 2014 research: Zopa’s website tools were largely similar between the two periods, but were used in different ways by different people towards different ends: a small change in the technology was cause and effect of major changes in the network of technology, producers, and users.

3 Class and Technology: Financial Innovation and “Poverty Porn”

The years immediately before and after the 2007-09 financial crisis saw structural changes in the financial sector globally as well as within individual Western nations. Generally, the run-up to the crisis was marked by a process of financialization that encouraged the development of financial knowledge and investment in a range of complex financial instruments by ever-increasing segments of the general population (Epstein, 2002). Martin, Rafferty, and Bryan (2008: 124) describe the process as the rise of a “free labour of do-it-yourself financial planning,” built on an industry of “self-help manuals, investment clubs and extension courses,” but overlook two critical factors: the growth of a mainstream financial press and the rise of the Internet. Simultaneously with the global financial crisis, “Web 2.0” and social media technologies, which enable the collection by institutions and the sharing among ordinary people of vast amounts of personal data, (O’Reilly 2005) developed along with a corporate ideology holding that social problems are susceptible to software-driven solutions implemented in business models which could disrupt and improve upon a broad range of traditional industries.

Additionally, new information and communications technologies (ICT), particularly mobile telephony, converged with new models of revenue sourcing by retail financial firms, which began to look to transaction fees for profits, rather than relying on interest rate arbitrage. One particularly well-examined case in the academic literature is that of Kenya’s M-PESA payments transfer system (e.g., Hughes and Lonie, 2007, Mas and Morawczynski, 2009, Maurer, 2012). Maurer (2012), citing Prestholt (2008), further situates M-PESA within an East African context of innovative repurposing of Western technologies to fit local circumstances. This context includes the “leapfrogging” of landline telephones to the widespread uptake of mobile telephony, particularly in the context of small businesses in agriculture and fisheries (Aker and Mbiti, 2010, Myhr and Nordstrom, 2006). Maurer (2012) describes an M-PESA actor-network (e.g. Muniesa et al., 2007; Caliskan and Callon, 2010) of practices, services and technologies within an “existing, complex ecology of moneys and relationships” including an evolutionary history of global banking processes, in which a current focus on transaction fees as a major revenue source aided the growth of M-PESA and similar systems.

The UK context analyzed here, while superficially profoundly different from that of Kenya (because the UK is a center of contemporary global banking, and if anything is an exemplar of the stifling impact of legacy systems from the earliest eras of industrialization) can benefit from the Kenyan comparison. Peer-to-peer systems such as that used by Zopa are arguably a case of leapfrogging: where the US has developed a vast suite of retail products for consumer savings and lending, the UK market has remained relatively under-served, by US standards if not European ones. Neither recapitulating either the US history of retail finance from the 1960s, which saw both an explosion of consumer credit and of the opportunities and expectations for individuals to manage their household finances, nor building on a UK history of banking cooperatives and “Friendly Societies” (discussed in greater detail below), a novel sociotechnical assemblage was deployed to meet needs neglected by the legacy UK system. Zopa’s experiment with deploying peer-to-peer technologies for consumer savings and loans needs first to be situated within the “ecosystem” of UK banking technologies and practices, as they evolved over time in a highly particular social and regulatory environment.

Another British retail financial firm, Wonga, exemplifies the effect of trends in ICT in their application to personal finance products, yet the firm is better known within the UK, and

more immediately relevant to the present analysis, for its role in the popular discussion of attitudes towards money and class. Wonga is a firm offering “short term credit,” generally referred to as payday loans, entirely through its website, wonga.com, and mobile app. The firm offers automated decisions on applications for small, short-term loans at annual interest rates in excess of 1000%. While its credit-scoring algorithm is proprietary, the firm claims that, rather than relying entirely on traditional credit reporting services for data used to determine the creditworthiness of potential borrowers (as Zopa does, according to its Chief Financial Officer), it additionally uses some amalgam of public data available over the internet (Wonga, 2014). These data apparently include, among other things, IP address, browser type, searches through public databases, and possibly including vehicle registries (Deville, 2013; Deville and van der Velden, 2015). According to Deville and van der Velden, Wonga and similar firms have constructed a business model based on the notion that “all data is credit data.” The firm, however, was the subject of extensive press coverage in 2014: not for its ostensible innovations in credit scoring but for a regulatory crackdown (FCA, 2014) amid accusations of illegal predatory collections practices and for fueling a culture of imprudent consumption among its largely working-class customer base (Swinford, 2013; Vander Weyer, 2014).

In interviews, Zopa management drew distinctions between their desired borrower base and that of lenders such as Wonga, noting that the focus of much of their marketing activity and other actions, such as actively seeking industry regulation, were designed to separate p2p lending from its payday cousin. As Mooney (2011) describes, British public discourse has long separated the “poor” into two groups, the respectable and the disreputable. While a number of culturally specific class signifiers attach to the British “undeserving poor,” (e.g. Tyler, 2008, 2013 on “chav culture”) one distinction which came up repeatedly in interviews with Zopa staff was that between consumption and investment, with expenditure on consumer goods and holidays, rather than the purchase of a car or home improvements, as a sign of both moral depravity and a lack of creditworthiness - and unsuitability as a Zopa customer.

These two trends, of sociotechnical innovation and a growing stigmatization within the UK elements of the working class, converged in the business models of new entrants into the financial system, including both payday and p2p lenders. According to the Peer2Peer Finance Association (2013) (an organization founded and largely dominated by Zopa), 79% of the investment volume in the “alternative finance” sector in 2013 was in p2p, including both retail and commercial lending. New firms using new communications technologies in an era of class stratification and stigmatization provide a information for theorizing the responses by market-entrant and -leader Zopa, to be tested below against our observations.

4 Financial Cycles: Wildcats, Conservatives, and a Synthesis

According to Polillo (2013), as a result of conflict as a structural property of the financial system bankers occupy two rhetorical positions, “conservative” and “wildcat,” which vie for support from the state in terms of regulation, policy, and institutional structure. Polillo’s conservatives seek financial stability through an exclusionary logic, whereas wildcats seek financial democracy through an inclusionary logic. Conservative bankers create financial instruments with signals for banking tradition, austerity, thoroughness, competence, prudence, and principles. (2013: 57) Wildcats, by contrast, construct prestige out of violating

conservative boundaries, they accuse conservative bankers of undue privilege who close off the boundaries of financial status groups. (2013: 60) Wildcat firms mobilize a set of values and rhetorics in order to include themselves and the social identities of the holders of their financial instruments within the circles of legitimacy, not to challenge the validity of those circles and their necessarily associated exclusive practices.

Polillo (2013: 11) argues that, despite whatever specific rhetoric “wildcats” may use, their goals are not in fact for free markets and more accountable systems, but for a market space for “new systems with a different architecture of inclusion.” Spar (2001) describes a similar process of a push towards regulation by emergent technology firms as they mature, to consolidate market position and limit new market entrants while legitimizing their gains vis-à-vis previously dominant industries. Zopa’s evolution epitomizes this process: its actions with respect to regulation have not been aimed at greater systemic transparency but at two goals implicit within the constellation of ideas they refer to as “trust,” towards the end of growing their business: security of lender funds and corporate legitimacy. Towards these ends, Zopa took the lead in establishing the “Peer 2 Peer Finance Association,” a trade group that actively sought regulation by the UK’s Financial Conduct Authority, which it obtained, to become effective in April 2014.

According to Zopa CEO Andrews, the firm decided to pursue regulation by the FCA, and created the Safeguard fund, in order to be eligible for inclusion in ISAs (Individual Savings Accounts), a UK investment vehicle often used for retirement savings. The inclusion of peer-to-peer loans within the ISA framework was announced by the Treasury in March, 2014. Zopa was also motivated, as Andrews puts it, to “keep the riff-raff out:” to draw a distinction from the payday lenders drawing so much media attention in 2013 and 2014. The distinction of peer to peer lending generally and Zopa specifically from payday lending is one of the few respects where the sorts of “strategic and altruistic philanthropy” Hulme and Wright (2006) describes as motivating Zopa early adopters can still be found: payday lending is stigmatized by Zopa management and by its lenders generally as socially destructive by firms and a sign of a lack of creditworthiness by borrowers, which Zopa found generally substantiated by their data analysis.

Our case study of Zopa provides a test of Polillo’s claims by contrasting the rhetorics and practices of Zopa within two historical phases. In Zopa’s case, even in their early, typically wildcat, phase, their promotional message stressed highly stringent standards for credit approval, excluding a large category of potential borrowers, simultaneous with the championing of a social group of technologically sophisticated lenders they argued were ill-served by the banking establishment. Zopa, while acting as a wildcat firm, was able to exploit the UK’s particular banking and regulatory environment by co-opting conservative banking rhetoric to gain entry into the financial establishment, at which point its platform structure, user experience (UX), marketing rhetoric, and customer base shifted towards an approximation of a conservative assemblage.

5 Technological Transformations: From Transparency to Device

The history of Zopa documented in the following sections raises a core question: how do technological assemblages, their producers, and their users co-construct each other? Additionally, how do changes to larger networks in which each of those elements are embedded change the construction and dynamics of the smaller system? As the previous sections

describe, the global financial crisis enabled the rise of new actors with new financial instruments (peer to peer investments) and new sociotechnical assemblages (Web 2.0). By 2014 the financial sector and the constellation of values, practices and technologies associated with “Big Data” and social media were substantially different from those of 2008.

This section attempts to explain both the sociotechnical assemblages arising out of the financial environments of 2008 and 2014 and processes by which the former transformed into the latter. Rather than regarding the contemporary financial sector as solely a set of relations or forces, here we focus on the materiality of finance’s sociotechnical assemblages, at the level of the firm and of the individual user. This paper argues that specific constructions of Zopa’s user experience, via the means by which information is presented and the sorts of tools made available or hidden from the user, construct and have been constructed by, the arc of Zopa’s evolution as a “wildcat” firm in the specific context of the years following the 2008 financial crisis`.

Glossing both Ihde and Heidegger, Verbeek (2010) situates technology as always “something in order to,” necessarily part of a network of actors and practices directed towards an instrumental end. Thus Heidegger’s “ready-to-handedness” becomes a defining characteristic of a tool: it “is the *means* rather than the *object* of our experience.” (2010: 124) In his early *Being and Time*, Heidegger distinguishes between “ready-to-hand” and “presence-at-hand:” he argues that tools are most effective when the least amount of attention needs to be paid to them, when their structure disappears, subsumed into the performance of a task (“ready-to-handedness”). By contrast, it is when a tool breaks that the means by which it mediates the interaction between user and world can best be seen (“presence-at-hand”). From this notion, Verbeek argues for “transparency:” for the ability of the user to access and understand the workings of a technological artifact when it breaks down, in order to return it to readiness-to-hand and continued interaction. The Apple Macintosh represents the ultimate counter-example: a product simultaneously easy to use and inaccessible. This situation “discourages attachment” to the product, as attachment depends both on its functionality for the user and upon its display of that functionality, so the user can understand how it works. (2010: 225-8) The empirical backing for this claim is not presented; indeed the fortunes of Apple, if not the recent history of consumer devices more generally, would argue that attachment and transparency are more likely to be incommensurable.

Verbeek would counter by building on what Borgmann (1984), calls the notion of the “device,” in which the bond between thing and context is hidden from the user. For Verbeek, devices are “consumed” without “engagement,” a practice which cuts humans off from the material and social world (2010: 178-9). For Verbeek, “devices” are not manifestations of “purposeful crafting” which integrates individual practices into ritualistic and lyrical systems (Singleton and Law 2013), due to a “device paradigm” of uncritical consumption. Thus politics becomes about the sharing of commodities rather than debating meaningful questions of the good life. Engagement is an element of “focal practices,” interactions with other people and the world enabled by but not subsumed into the use of tools. Where Borgmann tends to imply that technology runs counter to focal practices, Verbeek argues that certain technologies can in fact encourage them. Those technologies which do encourage focal practices are engaging in part through their transparency. This notion challenges Heidegger’s argument that a tool has to withdraw from perception in order to become usable: tools can be “engaging” in themselves. Verbeek provides the example of the CD player versus the piano: the former becomes invisible in Heidegger’s sense such that users engage

only with the music and not at all with the means of its production while the second engages the user in both the music and its production. Both can enable focal engagement with music, but the more opaque the technology, the more likely it is to encourage consumerism rather than engagement. (2010: 183-9)

Verbeek's example of Apple as the icon of commodification and opacity deserves further development for our particular context of software tools, as the case of Zopa below arguably represents an intentional shift from transparency to opacity in order to reconfigure not only its network of users but its role within the broader network of the UK retail financial sector. Verbeek argues that attachment to a device comes from understanding its transparent workings. Polillo argues for "wildcat" financial firms positioning their desired customers as exclusive, privileged outsiders to the dominant order of firms. We would expect, then, following Polillo and Verbeek, to see a wildcat financial firm creating for its users a set of tools focusing on personal empowerment and fostering a perception among them of a privileged collective identity as simultaneously outsiders to the conservative-banking order and an elite through their mastery of arcane tools and practices. The sections below examine the extent to which Zopa has acted along predicted lines.

6 Zopa: From "Social" and "Playful" to "Sensible"

a) *The pre-Safeguard sociotechnical assemblage*

Prior to Zopa's reconfiguration of its product, message, and infrastructure in the Spring of 2013, collectively called the "Safeguard changes" below, Zopa offered its lenders a suite of tools to manage investments. The Zopa site presented lenders with the opportunity to bid on requests for funds in distinct brackets of risk and return, with the site acting as a clearinghouse for matching bid/ask orders. A core of frequent users tended to bid low, undercutting the price offered by other lenders, in order to maximize the amount of their funds that would be matched by a borrower request for funds. This system arguably rewarded frequent visitors to the site, who could monitor the range of lender offers and alter their own to enable a quick lending match. Infrequent or less-sophisticated users would find that they would not be able to find matching requests for their funds, such that their investment would sit idle, earning no interest.

Zopa management believed, and the narrative told by longtime users on the forums substantiates, that early adopters were particularly interested in the site as software suite to engage with and manipulate, rather than as simply a vehicle for either maximizing returns on their financial investments or for saving towards a particular goal. The thread on Zopa's forum entitled "So long and thanks for all the dosh," ("dosh is slang for an amount of money). begun 31 March 2014, is exemplary of the values of the early adopters, self-styled "Zopaholics," who have become disenchanting with the firm. The original poster states

ZOPA [sic] would have been worth staying with if there was still the possibility of choosing my own markets and setting my own rates, but that has gone too. Originally there was a free market. Now we have a take it or leave it rate, and only the option of being in either shorter or longer (but not both for some reason)... Symptomatic of the change in attitude is that lenders are now called lenders. I can see that this might make ZOPA more attractive [sic] to passive investors, and hence lead to faster growth for them but it no longer interests me. (Blackburne, 2014)

A Zopa manager observes that the behavior of these active users was not financially rational: competition for the high risk/high return “C” rated loans drove lender-offered prices below the expected bad debt rate, leading to eventual losses driven by a desire to get funds lent out quickly. Correspondingly, lenders were setting rates too high for A*, or low risk/low return loans, leading to a dramatic drop in Zopa’s rate of lending as it was being priced out of the market for prime loans. This manager believes that lenders wanted Zopa to offer software tools giving them a high level of control over their investments, but were using that control for the short-term satisfaction of seeing their funds lent out, and for financially-destructive competition with other lenders, rather than for maximizing their returns over time. Another Zopa manager corroborates the view that the most active pre-Safeguard users liked the barebones, data-heavy user experience because it enabled competition and quick lending. Erturk, et al. (2007: 562-3) have argued that financial democratization requires “the calculative competence to appraise different financial services and products,” but based upon data from a survey commissioned by the UK Institute for Financial Services conclude that middle-class UK citizens “have delusions about their competence” in evaluating financial products and tend to focus on reward rather than risk. Zopa managers’ perceptions of the behavior of their early adopters would tend to support both assertions.

Zopa CEO Giles Andrews defined the original heavy users as “Freeformers:” sophisticated people who don’t trust institutions, who are largely self-employed, and self-select products, moving away from packages of travel, albums of music, and lifelong party affiliation. Zopa’s early branding, he claims, thus developed around themes of choice, self-reliance, and collaboration, themes which appealed strongly to IT professionals, who comprised a significant portion of early adopters at Zopa. Andrews notes that the “due diligence,” or investigation prior to investment, of this group is based on due diligence of the IT, not of the financial risk. “Trust” thus meant trust in the software to perform according to specification, rather than corporate or social trust or a low risk of loan default. This conception of trust is common in alternative finance products appealing to a highly technologically literate demographic: Bitcoin has been described as “a shift from trusting people to trusting math.” (Antonopoulos 2014)

Hulme and Wright’s extensive 2006 study of Zopa made much of “risk and playfulness” (2006: 32-4 et seq.), noting that “Social Lending” users self-described as “rational, savvy actors who have a particular willingness to take risks and who feel compelled toward sensation satisfaction owing to their disposition for pleasure seeking,” and as “playing a kind of game, which is simultaneously calculating and strategic and motivated by a deeper urge to create a pleasurable and playful experience.” Hulme and Wright state outright that users “enact the individual as a specific player in the online game with the aim of making the interaction a playful experience.” Likewise, much of the forum discussion prior to the introduction of the Safeguard mechanism focuses on attempts to “game” the system and to test peculiarities of the software, in a manner much like that of “theorycrafting” in massively multiplayer online games (Taylor, 2006; Paul, 2011) in which the focus of player activity is not on the instrumental goals of the game, but on optimizing statistical performance, often by exploiting quirks or errors of the software code. Hulme and Wright (2006: 24) acknowledges, however, that even in what may have been a heyday of fit between the UX, rhetorics of empowerment, and a userbase seeking a playful, risky, competitive environment, members’ feelings of control were largely illusory, “created by the different disciplinary technologies forming the basis of Social Lending schemes and mainstream financial institutions.”

b) The Safeguard technological and marketing changes

The Safeguard fund, instituted in the Spring of 2013, is a trust fund managed by a third party (P2PS Limited) which undertakes contractually to buy back from any Zopa lender all loans which are four months in arrears, at face value plus accrued interest to date. This contractual commitment thus effectively insures lenders against default risk, up to the total value of funds held in trust. Since p2p loans are not covered by governmental deposit insurance, the Safeguard fund acts as an equivalent, with a Zopa affiliate firm acting as insurer in place of the government.

Institution of the fund was packaged with an extensive set of user experience changes to the ability of lenders to micromanage their own loan portfolios. Essentially, Zopa removed the ability for lenders to assemble a custom “basket” of loans but rather prepackages them into a standardized product. This prepackaging reintermediates the firm, transferring “calculative competence,” in Erturk, et al.’s (2007: 562) term, from the potential investor to the firm’s professional staff and software tools, in accordance with the authors’ dictum that programs to develop financial literacy should be accompanied by a re-evaluation of the design of financial products in light of user (mis-)behavior, where appropriate behavior is apparently limited to rational actions to maximize financial return over time, rather than actions driven by competitive urges or short-term gratification.

In the way both the early adopters and Zopa employees speak of Safeguard in the context of the changes it wrought to the demographics of the userbase and to the company’s challenges of speaking to new actual and potential lenders, its effect was less about addressing concerns of lending risk and more about rendering Zopa’s lending tools more “ready to hand” (Verbeek, 2005; Heidegger, 1966, 1993) or “black-boxed,” as discussed in Section 3 above. Zopa decision to make these Safeguard changes materialize insights from scholarship in STS that see infrastructure as malleable in reaction to user-feedback (Furlong, 2011). In this context, the infrastructure for communication shifts from openness to closure. The black-boxing of lender tools in conjunction with the Safeguard rollout was designed both to appeal to the larger percentage of then-current and potential future users, with the knowledge that it would frustrate or drive away some of Zopa’s more vocal users. CEO Andrews stated that Zopa could not afford to cater to the “Zopaholics,” as they are “interested in themselves, not the population...We want to look for what’s good for the community as a whole rather than those who game the system.” The issue that the Safeguard user experience changes were designed to address was primarily the large percentage of people who would sign up with Zopa as lenders but not actually match their investment with loan requests, obviously not then earning themselves or Zopa any financial return. This is interpreted by Zopa management both as a problem of user experience design and as an issue of “fairness,” a term repeated consistently. Thus a message and tools of user control were replaced with a “low-touch savings product,” in Andrews’s terms. A Zopa senior officer describes Zopa as having the opposite marketing issue from Bitcoin and other early-adopter-phase alternative financial technologies: rather than complexity, obscurity and novelty being attractions, new lender feedback holds that users want Zopa to be famous - covered in the mainstream financial media in particular - for them to feel better about their decision to invest.

The construction of financial derivatives has been described as a “Taylorization of finance” (Martin, et al., 2008: 125 et seq.) in which assets are unbundled into constituent elements in order to create generic, tradable financial commodities for which a mass market might

exist, stripping the asset of its individual and particular features. Zopa's pre-Safeguard assemblage mirrored such a process at the individual borrower and lender level, enabling the fine parsing of small segments of personal loans for their elements of risk and return. In essence, the Safeguard changes have positioned Zopa as an intermediary, re-bundling assets into baskets, pursuant to an ideology of "fairness," rather than "individual agency." To the extent that financialization is seen as a set of forces demanding financial literacy and attention from social classes which have not traditionally been rentiers (e.g., Erturk et al., 2007, Martin et al., 2008, Epstein, 2002), Zopa's actions can be seen as a counter-financialization move in response to the limited size of the UK retail lending market with high financial and technological literacy. We note in Section 6 below that Zopa's CEO has indicated a desire to maintain Zopa's current individual, retail focus as the US p2p financial industry moves towards full conservative-financial integration, suggesting a belief at Zopa that the Safeguard changes have positioned the firm in a "sweet spot" in the generally less financialized UK market.

c) The post-Safeguard lender base

While Zopa management apparently had a prior understanding that growing their business required black-boxing their lender tools in order to appeal to a demographic interested in their personal financial goals rather than in exploring the capabilities software tools, they may have been less than fully prepared for the extent of the demographic shift which took place after the launch of the Safeguard fund. CEO Andrews noted that Zopa's demographic changed to wealthier, older, more risk averse people, often at or near retirement. Certain themes recur in the way management describes their current lenders: they are primarily male, around age 50; living in southern England; risk-averse; motivated by fear of poverty, inflation, low returns from savings accounts; and self-describe as experienced investors who dabble in the stock market and use p2p as part of their portfolio.

"Trust" for this group is believed by Zopa's marketing and executive team to be crucial, and it is based in knowledge of the decisionmaking of their peer group, defined fairly narrowly in age, social class, wealth, and financial literacy. In focus group testing, while borrowers dislike testimonials with photographs of other borrowers, lenders respond strongly to facial photographs as signifiers of commonality. One of the indicia of trust is the assertion that Zopa is a "real company:" several employees noted that many of the phone calls they receive simply want to know that Zopa has an office with "English-speaking" people answering the phone. This is arguably a marker of low technological literacy, that reassurance can be delivered by an old, established technology (voice telephony) that cannot by a newer technology (an interactive website, an email contact form). It does certainly signify a desire for additional markers of trust prior to the decision to become a lender. Similarly, Zopa holds an annual party for its customers in London, which is attended almost entirely by late-middle-aged male lenders. Apparently attendees use the party to reaffirm the boundaries of their status group: attendees are more interested in speaking to each other than to Zopa employees, though the celebrity status of Andrews, the CEO, is important for them in establishing legitimacy.

The humor and whimsicality identified by Hulme and Wright has little appeal. Lenders are not interested in the technology of Zopa or in pure maximization of financial return, but are primarily motivated by personal goals, particularly around saving for specific family-related projects such as an adult child's wedding or house down payment.

7 Conclusions: Acknowledging the Limits of Financialization

Section 6 has outlined the means by which Zopa reconfigured its product, interface and users by simplifying and black-boxing, in order to expand its reach into a middle-class market of pre-retirement lenders. This transformation runs counter to the narrative of financialization as a linear process because the commodification of finance blurs the distinction between money and capital; the state has retreated from a major role in the management of household risks associated with health, education, and retirement; this retreat has imposed a burden of information gathering and risk analysis in order to appropriately consume financial products; and this burden “brings into jeopardy the sacred promise of private life unmolested by market demands.” (2009: 471) Zopa’s initial assemblage did provide and encourage this sort of granular and sophisticated information management, and exemplified the “competitiveness of capital valuation” the authors (2009: 467) see as essential to financialization. However, that model proved to have limited appeal and so the firm recomposed itself as an intermediary, assuming the burdens of risk management initially imposed on its users, and saw an immediate and dramatic increase in its number of lenders and volume of funds lent.

Despite assurances from Zopa management that its message and product have remained the same over its corporate lifetime, the Safeguard changes marked a major transition in both areas. Zopa consciously sought to replace one status group - the playful, risk-taking technologists of Hulme and Wright’s 2006 report - with risk-averse, less technologically inclined near-retirees. To do so they changed their product from a customizable basket of loans to a pre-selected one and simplified their website. (The changes are beginning to take effect in late 2016). Zopa’s marketing changed to stress trustworthiness of the firm and its borrowers through an adoption of conservative-banking rhetoric. Similarly, their self-positioning within the financial sector changed from that of upstarts challenging a status quo enforced by conservative bankers to that of leaders of a legitimate segment of the industry defending conservative banking values against dominant actors who allegedly have abandoned them. In doing so, Zopa has acted in accordance with Polillo’s model set forth above, mobilizing conservative-banking rhetoric and values simultaneously to attack the closed system of retail lending and to exclude payday lenders and retail firms with riskier products. It has sought benefits of systemic openness for itself and other firms in its market segment who have co-constructed each other as legitimate through the actions of their trade association in securing regulatory blessing from state entities.

“A feeling of community” and “the desire to be part of something” were mentioned as motivations for, and outcomes of, lender attendance at Zopa’s annual party. However, it is important to distinguish these feelings from those appearing in the conclusions drawn by Hulme and Wright in 2006. They analogized “Social Lending” to the worker-created Friendly Societies of the 17th through 19th Centuries in the UK. Whether this analogy was appropriate at the time, it is not a fit for the nature of Zopa’s customer base in 2014. What Zopa’s lenders seek to be a part of, and to police the boundaries of, is a “status circle”: a group marked by their possession of a financial instrument that indicates status through exclusion. Lenders seek tokens of social likeness with each other: photographs on the website, or visual and verbal cues at the annual party, which signify maturity, moderate wealth and financial sophistication. They are not in any way seeking, or construed as being, in commonality with borrowers. Zopa is not a mutual aid society: it is a circle of holders of a somewhat novel

financial instrument that represents its holders as financially prudent, savvy, and prosperous, built on the aggregation of demand for a different financial instrument entirely - 5- and 10-year unsecured loans - by individuals who are geographically and culturally far removed from Zopa's lenders.

Zopa's Safeguard changes align with Verbeek's (2004) categories of transparency/opacity and engagement/consumption, but may present a challenge to his call for engaging technologies and focal practices. Zopa management is clear that the Safeguard changes were intended to remove transparency and black-box the very peer-to-peer mechanisms that initially defined the company, its business model and technology. They are also unequivocal in recognizing that doing so drove away - or on the official Zopa forum appeared to drive away - a group of early adopters in order to gain a mass market. The questions raised by Verbeek and other critics of opaque technology include, does this change produce consumers mindlessly engaging with their tools in a way that dangerously obscures not just the mechanism of their functioning but that of the socio-political-financial networks in which they are embedded? Does it contribute to the broad trend of turning engaged citizens into apolitical consumers?

Answers to those questions may depend on, per Polillo, where one inscribes network boundaries. If one looks at the boundary around the status group of Zopa's lenders, it is difficult to support a critical reading. Marketing data suggests that the goals of Zopa lenders are focused and that technology is incidental to social aims. Lenders tend to focus on specific ends related to the family: providing for a grandchild's wedding or child's mortgage deposit. From this perspective, best technology is the technology that is ready-to-hand - as invisible as possible in order to focus attention on the social goal rather than the tool itself.

As argued above, Zopa may be acting against a broader trend of financialization, reflecting both the remnants of its wildcat ideology of fairness and inclusion and the realities of relatively low financial literacy in the UK. While an ideology of transparency of digital tools may encourage individual empowerment vis-à-vis the creators of such tools, that same ideology imposes burdens of literacy and attention on users already subject to increasing demands of specialized literacies, including both the technological and financial. Intermediation by financial firms may vastly lower the opportunity cost of financial literacy by allowing it to be located in a small firm rather than in thousands of individual investors, while the p2p financial mechanism, absent the entry of institutional investors and securitization seen in the US, remains comprehensibly transparent for those with a somewhat greater than UK average degree of financial literacy. Such a hybrid model may only mark a transitional phase as financialization takes deeper hold in the UK, or it may represent a stable wildcat niche for a sizeable population remaining at a low-moderate level of financial and technological literacy.

Different conclusions may emerge if one considers the boundary of analytical scope to be drawn around liberal democracy at the national or global level. Here one must consider the broader effects of financialization: is the spread of financial practices, literacy and concern the democratization of a formerly elite realm, thanks to the financial wildcats, or is it the imperialist spread of the ideology of conservative banking across domains once far removed from bottom-line logics? Here the answer seems to be much less clear than in the more circumscribed case of personal and familial wealth, and would seem answerable primarily on the basis of one's ideological predilections. An intermediate case comes in examining a circle of sociotechnical relations around software artifacts, between the personal-finance

case and the national or global political economy. This may be the focus at which a call for an optional, partial transparency as reflected in the Safeguard changes is most convincing.

8 References

- Aker, JC, & Mbiti, IM (2010) Mobile phones and economic development in Africa. *The Journal of Economic Perspectives*, 207-232.
- Aitken, R (2015) Everyday Debt Rationalities: Situating peer-to-peer lending and rolling jubilee. *Cultural Studies*.
- Antonopoulos, A (2014) Bitcoin security model: Trust by computation. *O'Reilly Radar*, 14 February 2014. Online: <http://radar.oreilly.com/2014/02/bitcoin-security-model-trust-by-computation.html>
- Bauwen, M (2005) The Political Economy of Peer Production. *CTheory*. <http://www.ctheory.net/articles.aspx?id=499>
- Benkler, Y (2006) *The wealth of networks: How social production transforms markets and freedom*. Yale University Press.
- Blackburne, et al. (2014) So long and thanks for all the dosh. Zopa Forums, original post 31 March 2014. Online: <http://talk.zopa.com/topic/9111-so-long-and-thanks-for-all-the-dosh/>
- Bryan, Martin, R, and Rafferty, M (2009) “Financialization and Marx: Giving labor and capital a financial makeover.” *Review of Radical Political Economics* 41, 458-772. DOI: 10.1177/0486613409341368
- Çalışkan, K, & Callon, M (2009) Economization, part 1: shifting attention from the economy towards processes of economization. *Economy and Society*, 38 (3), 369-398.
- Coleman, JS (1988) Social capital in the creation of human capital. *American journal of sociology*, S95-S120.
- Collins, R (2004) *Interaction ritual chains*. Princeton University Press.
- Cortese, A (2014) Loans that avoid banks? Maybe not. *The New York Times*, May 3, 2014.
- Crotty, J (2009) Structural causes of the global financial crisis: a critical assessment of the ‘new financial architecture’. *Cambridge Journal of Economics*, 33(4), 563-580.
- de la Merced, MJ (2014) Prosper, a peer to peer lender, raises \$70 million. Dealbook, *The New York Times*, May 4, 2014.
- Deville, J (2013) Leaky data: How Wonga makes lending decisions. *Charisma: Consumer Market Studies*. Online: <http://www.charisma-network.net/finance/leaky-data-how-wonga-makes-lending-decisions>
- Deville, J. & van der Velden, L (2015) Seeing the invisible algorithm: The practical politics of tracking the credit trackers. In Louise Amoore and VolhaPiotukh (eds.), *Algorithmic Life: Calculation in the Age of Big Data*, London: Routledge.
- Epstein, G (2002) Financialization, rentier interests, and central bank policy. Manuscript, Department of Economics and Political Economy, Amherst, MA.
- Erturk, I, et al. (2007) The democratization of finance? Promises, outcomes and conditions. *Review of International Political Economy* 14:4, 553-575.
- Fisher, M (2004) Corporate Ethnography in the New Economy. *Anthropology News*, 45(4), 15-15.
- Financial Conduct Authority (2014) FCA proposes price cap for payday lenders. Online: <http://www.fca.org.uk/news/fca-proposes-price-cap-for-payday-lenders>
- Furlong, K (2011) Small technologies, big change: Rethinking infrastructure through STS and geography, *Progress in human geography*. 35(4): 460-482.
- Girard, M, & Stark, D (2003) Heterarchies of value in Manhattan-based new media firms. *Theory, culture & society*, 20(3), 77-105.
- Gola, C (2009) *The UK banking system and its regulatory and supervisory framework*. Palgrave Macmillan Ltd.
- Granovetter, M (1985) Economic action and social structure: the problem of embeddedness. *American journal of sociology*, 481-510.

FISH: THE FINANCIALIZATION OF PEER-TO-PEER LENDING IN THE UNITED KINGDOM

- Guillén, MF, Collins, R, England, P, & Meyer, M (2002) The revival of economic sociology. In Guillén, M. F., Collins, R., England, P., & Meyer, M. *The new economic sociology: Developments in an emerging field*, 1-32. Russell Sage Foundation.
- Heidegger, M (1966) *Discourse on thinking: A translation of gelassenheit* (JM Anderson & EH Freund, Trans.). Harper Perennial.
- Heidegger, M (1993) *The question concerning technology*. Harper Perennial.
- Hughes, N, & Lonie, S (2007) M-PESA: mobile money for the “unbanked” turning cellphones into 24-hour tellers in Kenya. *Innovations*, 2(1-2), 63-81.
- Hulme, MK and Wright, C (2006) Internet based social lending: Past, present, future. Manuscript, Social Futures Observatory.
- Ihde, D (1990) *Technology and the lifeworld: From garden to earth* (No. 560). Indiana University Press.
- Jensen, T (2014) Welfare commonsense, poverty porn and doxosophy, *Sociological Research Online*, 19(3).
- Jensen, T (2013) A Summer of Television Poverty Porn. *The Sociological Imagination*. Online: <http://sociologicalimagination.org/archives/14013>
- Kelty, CM (2008) *Two bits: The cultural significance of free software*. Duke University Press.
- Law, A, & Mooney, G (2011) ‘Poverty Porn’ and The Scheme: Questioning Documentary Realism. *TRADITION*, 4(4HE), 4HE.
- MacKenzie, D (1996) Marx and the machine. In MacKenzie, *Knowing Machines*. MIT Press.
- Martin, R (2002) *Financialization of daily life*. Temple University Press.
- Martin, R, Rafferty, M, and Bryan, D (2008) Financialization, risk and labour. *Competition & Change* 12(2), 120-132.
- Mas, I, & Morawczynski, O (2009) Designing mobile money services lessons from M-PESA. *Innovations*, 4(2), 77-91.
- Maurer, B (2006) The anthropology of money. *Annual Review of Anthropology*. 35, 15-36.
- Maurer, B (2012) Mobile money: Communication, consumption and change in the payments space. *Journal of Development Studies*, 48(5), 589-604.
- Maurer, B, Nelms, TC, & Rea, SC (2013) ‘Bridges to cash’: channelling agency in mobile money. *Journal of the Royal Anthropological Institute*, 19(1), 52-74.
- Montgomery, J (2009) The pursuit of (past) happiness? Middle-class indebtedness and American financialisation. *New Political Economy*, 14(1), 1-24.
- Mooney, G (2011) Stigmatising poverty? The ‘Broken Society’ and reflections on anti-welfarism in the UK today. The Open University. Online: <http://oro.open.ac.uk/29714/2/AEF16A71.pdf>
- Morawczynski, O, & Miscione, G (2008) Examining trust in mobile banking transactions: The case of M-PESA in Kenya. In *Social Dimensions of Information and Communication Technology Policy* (pp. 287-298). Springer US.
- Neff, G (2005) The changing place of cultural production: The location of social networks in a digital media industry. *The annals of the American academy of political and social science*, 597(1), 134-152.
- Nesta (2014) *Understanding alternative finance: The UK alternative finance industry report 2014*. [<http://www.nesta.org.uk/sites/default/files/understanding-alternative-finance-2014.pdf>]
- O’Reilly, T (2005) What is Web 2.0: Design patterns and business models for the next generation of software. 30 September 2005. Online: <http://oreilly.com/web2/archive/what-is-web-20.html>
- Paul, CA (2011) Optimizing play: How theorycraft changes gameplay and design. *Game Studies*, 11(2).
- Peer2Peer Finance Association (2013) Online: <http://www.p2pfinanceassociation.org.uk/>
- Polillo, S (2013) *Conservatives versus wildcats: A sociology of financial conflict*. Stanford University Press.
- Prestholdt, J (2008) *Domesticating the World: African Consumerism and the Genealogies of Globalization*. University of California Press.
- Singleton, V and J Law. (2013) Devices as Rituals. *Journal of Cultural Economy*, 6(3): 259-277.

- Smelser, N, and Swedberg, R, eds. (2005) Introducing economic sociology. In Smelser, N., and Swedberg, R., eds. *The Handbook of Economic Sociology*. Princeton University Press and Russell Sage Foundation.
- Spar, DL (2001) *Ruling the waves: Cycles of discovery, chaos and wealth from the compass to the internet*. Harcourt, Inc.
- Stephenson, N (1999) *In the beginning... was the command line*. Avon Books.
- Swedberg, R (2005) The economic sociology of capitalism: An introduction and agenda. In *The economic sociology of capitalism*, V. Nee and R. Swedberg, eds. Princeton University Press.
- Swinford, S (2013) Britain has “Alice in Wongaland” economy, The Telegraph. [<http://www.telegraph.co.uk/finance/economics/10244129/Britain-has-Alice-in-Wongaland-economy.html>]
- Taylor, TL (2006) *Play between worlds: Exploring online game culture*. MIT Press.
- Tyler, I (2013) *Revolt subjects: social abjection and resistance in neoliberal Britain*. Zed books.
- Tyler, I (2008) Chav mum chav scum. Class disgust in contemporary Britain. *Feminist media studies*, 8(1), 17-34.
- Vander Weyer, M (2014) Yes, Wonga lent at shocking rates - but it was customers who lied. The Spectator. Online: <http://www.spectator.co.uk/columnists/any-other-business/9334721/yes-wonga-lent-at-shocking-rates-but-it-was-customers-who-lied/>
- Verbeek, PP (2010) *What things do: Philosophical reflections on technology, agency, and design*. Penn State Press.
- White, HC (1981) Where do markets come from? *American journal of sociology*, 87(3), 517-47.
- White, HC (1992) *Identity and control: A structural theory of social action*. Princeton University Press.
- White, HC (2002) *Markets from networks; Socioeconomic models of production*. Princeton University Press.
- Wonga (2014) How Your Wonga Loan Works. Online: <https://www.wonga.com/money/how-to-wonga/>
- Zelizer, VAR (1989) The social meaning of money: "special monies". *American journal of sociology*, 342-377.
- Zelizer, VAR (1997) *The social meaning of money*. Princeton University Press.