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Interpreting infrastructure:
Defining user value for digital financial intermediaries

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Executive Summary: Drawing from Studies of Use - the value, use and interpretation of infrastructure in digital intermediaries to their users

The UK economy has a huge dependence on financial services, and this is increasingly based on digital platforms. Innovating new economic models around consumer financial services through the use of digital technologies is seen as increasingly important in developed economies. There are a number of drivers for this, ranging from national economic factors to the prosaic nature of enabling cheap, speedy and timely interactions for users. The potential for these new digital solutions is that they will allay an over-reliance on the traditional banking sector, which has proved itself to be unstable and risky, and we have seen a number of national policy moves to encourage growth in this sector. Partly as a result of the 2008 banking crisis, there has been an explosion in peer-to-peer financial services for non-professional consumers. These organisations act as intermediaries between users looking to trade goods or credit. However, building self-sustaining or profitable financial services within this novel space is itself fraught with commercial, regulatory, technical and social problems.

This document reports on the value, use and interpretation of infrastructure in digital intermediaries to their users, describing analysis of contextual field studies carried out in two retail digital financial intermediary organisations: Zopa Limited and the Bristol Pound. It forms the second milestone document in the 3DaRoC project, developing patterns of use that have arisen on the back of the technical infrastructures in the two organisations that form cases for examination. Its purpose is to examine how the two different technical infrastructures that underpin the transactions that they support–composed of the back-office hardware and software, data structures, the networking and communications technologies used, supported consumer devices, and the user interfaces and interaction design–have provided

opportunities for users to realise their financial and other needs. While we orient towards the issues of service use (and its problems), we also examine the activities and expectations of their various users.

Our research has involved teams from Lancaster University examining Zopa and Brunel University focusing on the Bristol Pound over approximately a one-year period from October 2013 to October 2014. Extensive interviews, document analysis, observation of user interactions, and other methods have been employed to develop the process analyses of the firms presented here.

This report comprises of three key sections: descriptions of the user demographics for Zopa and the Bristol Pound, a discussion about the user experience and its role in community, and an examination of the role of usage data in the development of these a products. We conclude with final analytical section drawing preliminary conclusions from the research presented.

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1. Introduction

This document describes how users of two retail financial digital intermediaries, Zopa Limited ("Zopa") and the Bristol Pound ("£B"), interact with and derive value from the intermediaries' products and services. The two intermediaries differ greatly in their social positioning, offering a sense of the scope of sociality and user-to-user interaction possible with new financial technologies. Zopa Limited, a peer-to-peer borrowing and lending firm, has reconfigured its infrastructure to remove or downplay qualities of sociality, structuring interactions so as to be with the Zopa brand and technology, rather than the ostensible "peers" of those on the other side of peer-to-peer financial transactions. By contrast, the Bristol Pound, a local alternative currency, structures transactions to provide opportunities for rich social interactions through which individuals are able to express themselves as members of their community and make lasting connections based on trust. Taken together, these two cases provide a number of different solutions to constructing and defining a user base for new retail financial tools.

1.1 The Bristol Pound
The £B is a local complementary (or alternative) currency in use in Bristol, UK (Population: 432,500, the 8th largest city in the UK). In practice, Bristol has a functional urban population of around 1 million, making it a very large area that draws a population from within inner-city, urban, suburban and rural districts with its own a distinct and independent culture. The £B was introduced with a deliberate intention to act as an instrument for social change. Its aims are to "build community connections and work for people not banks to create fairer, stronger, happier local economy" (Bristol Pound website, 2013). Transactionally, the Bristol Pound is a digital/paper hybrid, 'mixed-media' currency, primarily used by supporters of local businesses in Bristol, UK, backed through co-operative principles as a Community Interest Company (CIC). Launched in late 2012, by mid-2014, approximately £B620,000 has been issued. £1 sterling is equivalent to £B1, and each £B is backed by its sterling equivalent held in a credit union. 650 businesses have so far elected to participate in the trade in £B, making this one of the largest alternative or complementary currencies in the world, and the largest at time of writing in the UK. Acceptance of the Bristol Pound is growing rapidly, gaining strong institutional support and infiltrating the city infrastructure. The currency is now accepted for bus travel, housing payments and payment of local taxes, as well as its strongholds in the local restaurants, bars, craft and cultural industries. The Bristol Pound CIC has an active network of paid and volunteer workers that actively work to market/promote the values of the currency, and ensure that traders accepting it are highly visible (through a directory), as well as trying to build vertical payments structures so that traders are able to purchase services and supplies using the currency. In this sense, traders are themselves users.

Payments can be made using the Bristol Pound using printed notes (in denominations of £B1, £B5, £B10 and £B20), online via a browser, and by using a platform-independent text messaging system on mobile devices (via SMS, called Txt2pay). Anyone can exchange sterling for various denominations of Bristol Pound notes (and are encouraged to do so). This currency exchange can be done at a

number of physical locations in Bristol, including many of the larger 'trader' businesses, the Bristol Credit Union (which manages the financial backing for the currency), and even at tourist information offices. However, to participate in digital transactions (online or using the Text2pay system), users are required to become 'members', with a special electronic £B account to mediate and track transfers. While anyone can exchange sterling for £B notes free of charge, but once sterling has been exchanged for £B notes, the notes cannot be exchanged back into sterling without a penalty charge. Membership of the scheme falls into two categories: Individual and Trader. Businesses may become trader members, and hence maintain a £B account, if they are locally owned and operated. Individuals and businesses are only are eligible for membership and will be granted £B accounts if they reside or work within a 50 mile radius of the city of Bristol, differentiating digital transactions from Sterling or paper £B note interactions by their spatial restrictions. Traders in Bristol are not obliged to accept payment in £B. For legal reasons and practical purposes, the paper currency is a voucher, so can be treated by businesses in the same ways that they treat other forms of similar payment; the electronic transfers (online and Text2pay) are managed as token based transfers, backed by the pound sterling deposit held at the Bristol Credit Union.

1.2 Zopa, Limited

Zopa is a commercial peer-to-peer (p2p) lending firm offering consumer loans and retail investment instruments primarily to individual investors and consumer borrowers. Based in London, it is the largest firm of its type in the UK, with over £600 million lent since 2005. All transactions for borrowers and lenders take place via – though not entirely on – the zopa.com website. The website structure, content, and process flow are constantly changing, and have been through several major iterations during the course of this study.

Currently, upon arrival at zopa.com, a potential customer is presented with a choice of largely separate process flows: as borrower or lender. A potential lender then creates a user account, involving the provision of identity details, and agrees to the terms and conditions, called the Zopa Principles (https://secure2.zopa.com/principles). Identity information is accessed by an automated service provided by Equifax's eID Verifier, to provide "a combination of background checks," according to an internal memorandum. If the potential lender's identity is confirmed by the service, they will receive a confirmation email with Zopa account information enabling them to log into the secure website and begin the process of lending money. This process involves leaving the Zopa website for the user's online banking site, where identification and transaction verification processes may vary widely.

On completion of the funds transfer on their banking site, the lender must return to the Zopa website to create a "Safeguard Offer" which allows them to specify how much money, of the funds they have transferred from their bank account, which they would like to lend initially, to choose whether they would like to lend in shorter (up to 3 years) or longer term loans (4 or 5 years), and specify whether they would

like the repayments they receive each month to be lent out again or not. Through Safeguard the lender will receive a 'basket' of loans across different credit grades – these are currently A*, A1, A2, B, C1 and S (the latter are loans for business purposes, for sole traders only). Prior to the establishment of the Safeguard self-insurance process in April 2013, lenders could manually select loans for their basket; subsequently the process has been automated, reducing choice to that of term (and associated rate of return).

For borrowers, the process is much more streamlined: On choosing the "Get A Loan" option from the front page of the Zopa website, the user progresses to an interactive loan calculator, which displays interest rate and total payment amount for various amounts and durations. The potential borrower then proceeds to an application form and is required to agree to the "Zopa Principles," after which they can request a quotation for loan terms. Upon doing so, the system uses the application information to perform a credit check, combining a credit search with evaluation against a "bespoke scorecard," according to internal memoranda. If they are passed by the scorecard system, they are assigned to a risk category and given a fixed loan quotation. The application is then accepted or rejected, and the applicant notified via email. At this point, Zopa will match funds on Safeguard Offers to the loan request. Zopa then disburses the funds to the applicant's bank account.

Aside from a customer service telephone helpline, interactions among lenders, borrowers, and Zopa are mediated through Zopa's website (zopa.com). Transactions are fully automated, but for the manual underwriting of all loan applications. Zopa engages in little mass-media advertising; thus the website is the primary means of corporate communication to potential and actual users. Zopa does not retain deposits, and as such, it is not subject to banking regulation. In 2014, p2p lending became regulated by the Financial Conduct Authority, pursuant to which Zopa website language and disclosures were revised to meet regulatory requirements and concerns, particularly in area of risk disclosure and distinction from financial instruments covered by governmental deposit insurance. However, Zopa is not a clearinghouse or "marketplace" for p2p transactions like eBay or file-sharing sites. It offers guaranteed rates of return on standardized loan products, which it self-insures against default. Thus, investment customers effectively purchase Zopa's experience in risk evaluation and management in underwriting, bundling, and maintaining reserves as an enabling service for their private lending.

2. User Demographics

2.1 Activity, Evolution and Identity

The two intermediaries differ significantly in their target demographic and means of appealing to it. The Bristol Pound's fundamental characteristic is its inherently local nature: its infrastructure and messaging necessarily involve a construction of the Bristol "local" as a primary marker of social identity to be performed through financial transactions. Zopa Limited, a national business with a strong regional distinction between the borrowing and lending sides of its business processes, has struggled to define its user base, evolving its product and messaging towards a class-based vision of its users as "sensible" investors. While they have an apparent common reference to the peer-to-peer interactions – as a community of users – the implementation of the social and technical systems that surround them offer different ways that this can be enacted and rendered in practice. What they both appear to do though, is proffer a form of 'affective solidarity', in which the two user groups are considered (and consider themselves) to have some common characteristics with (at least a segment of) other members using the service.

2.2 The Bristol Pound: Identity of people and place

We have collected extensive quantitative and qualitative data on the population of £B users, allowing us to understand their ffinancial activity and motivations for its use. Self-reported spending figures from the £B member survey give an indication of how often respondents spent £B, where they spent it and what mattered to them when they spent it. The interviews and the open questions from the £B member survey provided further insights into participants' impressions of spending £B and their motivations for participating in the scheme.

The £B member survey shows that:

- **Frequency** of spending Bristol Pounds ranged from only one participant (0.6%) reporting spending Bristol Pounds several times a day, through seven (4.5%) respondents reporting spending Bristol Pounds every day, to the remaining respondents spending a few times a week or less. The largest group of respondents reported to spend Bristol Pounds less than once a month (32.1%, N=156)
- **Average spend** is 14.1% of weekly spend, ranging from 0% to 80% (N=150). The largest proportion of respondents (56.8%, N=155) reported an average spend of 0 - 20 Bristol Pounds per week from their accounts. The next largest proportion (18.1%, N=155) reported an average spend of 21 - 40 Bristol Pounds per week. This is spending either online or using Txt2Pay. Only 3.9% of respondents (N=155) reported to spend more than 60 Bristol Pounds per week from their account.
- **Topping up** accounts is mostly done with one-off payments (32.5%, N=197) and standing orders (22.8%, N=197).

- **Preference for spending** with independent local shops over supermarkets and online shopping (91.8%,N=159), with the same number of respondents wanting to do so more often.
- **Origin** of products is important (71.3%,N=154).
- **£B are spent on** eating out (84.8%, N=157), buying groceries (66.1%, N=159) and travel (63.6%, N=154).

Users also reported on their impressions of spending £B. Spending £B is considered to be a positive experience (65.8%, N=155) invites more conversation (43.1%, N=197) and Txt2Pay feels comfortable to 64% of respondents (N=157). Users also reported that their patterns of spending with the £B were different to spending GB Pounds (sterling), illustrated in quotes from fig 1 below.

figure 1. sample illustrative quotes from £B users on their spending patterns.

Spending is considered easy once initial hurdles with respect to setting up an account and getting hold of the currency are overcome[1]:

> "When I first set up my standing order the first time it was going into my credit union account and not my BP account. They are two separate things. And on your reference you have to put BP at the end. So they know which account to put it into. That was annoying at first because I did not realise that that's what you had to do

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[1] Quotes are coded for user identification, please see appendix for full details.

> *I had some money but couldn't spend it. Once I sorted that out it was so simple."* [iBPu17]

> *"I don't use it as much as I used to, just because it does have a layer of inconvenience that sterling doesn't have. It requires me to make an actual effort to get some money and then use it. Whereas sterling doesn't."* [iBPu05]

Attitudes towards Txt2Pay were generally positive, despite acknowledging the complications involved in composing the text messages:

> *"It [Txt2Pay] always works really well. I've never had any problems with it – both receiving payments and giving a payment. Apart from the slight cumbersomeness of typing in all the stuff."* [iBPt04]

> *"Sometimes I just can't remember what comes first, whether it's my pin number or whether it's the amount or whether it's their username."* [iBPu07]

Similarly, poor mobile phone reception making sending text messages difficult in some locations around the city:

> *"Because of the geography I didn't get mobile phone coverage. So it wasn't the network or the Bristol Pound. I literally had to walk away from the building in order to get a phone signal to send a text message. It was [successful]."* [iBPu06]

Users consistently reported the transactions as a fun and adventurous way to pay, for example:

> *"In a way TEXT2PAY's more fun because you can't do that with normal money. You can't do that with a card, it's innovative and quite good fun."* [iBPu05]

Specifically to **place**, the people using the Bristol Pound describe themselves, or are described, as having an identity that upholds common values in line with the scheme, such as ensuring that local businesses thrive and local communities are sustained. Shoppers that we spoke to described this in their interviews in a variety of ways:

> *The reason I'm attracted to it is because of loyalty to Gloucester Rd and the independent shops there* [iBPu06]

> *I just thought it was a really good idea. It seems to me really obvious that we need to keep money circulating within the local economy to strengthen the local economy and help our local small businesses become more sustainable.* [iBPu07]

This reference to a unique identity appears to go beyond individuals and involve the locality or place itself. People within localities are described by users and the £B team as having particular characteristics, for e.g.:

> *Bristol's get up and go spirit... Pride of place and their sense of togetherness* [vBPa01].

This role of place is institutionalized in the £B membership criteria. Businesses can only obtain membership if their business model is seen to fit with the Bristol Pound values and they operate within the local economy. The £B team takes membership very seriously, and in our conversations with the £B team it was explained to us that decisions are considered on a case-by-case basis against how they would fit into the community of users; they are evidently very conscious of how expectations around place and member identity are highly interdependent.

Our user data shows how notions of locality and independence are important factors that shape how the currency is used and what it means to be using it. Both physical and digital transactions in £B are tied to geographical location and in making payments to traders, users are practically–and very visibly–engaging with a business model that is locally owned and operated (from a shop, stall or farm), rather than controlled from a national or global headquarters:

> *Whenever I see a sign like that ["We accept Bristol pounds"], I know it's usually an indicator that they're independent and I'd rather shop there than somewhere that didn't have that sign up. [iBPu01]*
>
> *Quite often if there's a queue of people and somebody is paying by text that always creates a bit of conversation and a bit of interest, which is good and they know then that we're Bristol-centric then, which is good. [iBPu16]*

Accepting and using the Bristol Pound is a clear differentiator that allows users to select from among the thousands of businesses and individuals that serve the Bristol region. Its use also sends signals about the business and the individual, and the values that they uphold. By accepting the currency, businesses are able to rapidly and simply communicate information to customers about how their business operates, and allows customers to signal their support of that model simply through making a transaction. This is subtly different to brand identity, which carries somewhat similar value signals. This choice of payment option (as £ or £B) has a communicative function that is different to simply allowing the user to choose to purchase a brand that users might identify with.

2.3 Zopa, Limited: Evolution and Intermediation

Prior to Zopa's reconfiguration of its product, message, and infrastructure in the Spring of 2013, collectively called the "Safeguard changes" (see 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.

User demographics, values, and priorities, however, changed substantially with the Safeguard changes, leaving behind some of the values held by early users. Several members of Zopa management stated in interviews that early adopters were particularly interested in the site as a software suite to engage with and manipulate, rather than as simply a vehicle either for maximizing returns on their financial investments or for saving towards a particular goal. One senior employee [ZE03] gave a figure of 5% of the lending base as "'Zopaholics' who really care about the way that the algorithm works." As one employee involved with user experience design stated,

> *People weren't pricing their own loans correctly. We had different risk markets. People were pricing too high for the A* borrowers, so we weren't getting enough creditworthy people, but under-pricing for the too risky. People were competing for those – willing to be risky, loads of people competing for C [credit rated borrowing requests] and pricing it lower and lower till they were going to be making a loss from the expected bad debt rate. They didn't really have wider range, now that we can price based on the loan market we can give people overall a better return. Loan rates were dropping dramatically last year – there weren't as many borrowers coming through because lenders were overpricing. It was a really niche market for people who had that much visibility.*

> *People wanted a level of control, but they weren't using it smartly. People would make losses but didn't really catch on then – they just wanted to get their money out as quickly as possible, and got into a bidding war with each other. They knew if they dropped rates they'd get matched quicker, so they'd do that just to get their money out. They wanted to get something right away – classic for people: they don't think about the future.*

> *We have far more people now who were really risk averse before, but with the Safeguard fund now there's really minimal chance they can lose any money, so a lot of people looked at Zopa before but went away because it was too risky for them. Also "I have to spend a lot of time on this," now "all I have to decide is how long I want to lend for," and you had to keep checking your account because rates would change, that would turn people off as well. It skewed to people who log in every week, now people who log in once every 6 months, a year. People who log in every week are a minority – before Safeguard they didn't understand you had to keep checking your rates, so main question was "why isn't my money getting lent out," a lot of "lazy money" on the market that would never get matched to anyone. They're more satisfied now. [ZE06]*

A veteran customer service employee described the shift in interest as:

> *Under the old system savers had a lot more control, there was a sense I don't want this to be easy, I want to sit*

> *and see what everybody else is doing. It was almost like*
> *a competitive thing as well. When we took that [the*
> *ability to select and compete for individual loan*
> *requests] away there was quite an uproar from our*
> *existing client base. We got lots more savers, we knew*
> *the new savers liked it but from our existing savers [we*
> *heard] you've just taken away my control and I don't know*
> *what everybody else is doing. We've made it more*
> *straightforward. We've had a group of savers on the forum*
> *who like to sit and analyze what everybody else is doing…*
> *there's a big group of people who just like to tinker,*
> *and with that competitive element to it.They sit around*
> *and they're grumpy. Most of them are earning better rates*
> *but they still are grumpy they can't see information,*
> *they want to choose who they're lending to, they want to*
> *choose their rates.[ZE09]*

The thread on Zopa's forum entitled "So long and thanks for all the dosh," begun 31 March 2014, is exemplary of the values of the early adopters, self-styled "Zopaholics," who have become disenchanted with the firm. The original forum poster states:

> *ZOPA 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. [http://talk.zopa.com/topic/9111-so-long-and-thanks-*
> *for-all-the-dosh/]*

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 (Mori 2004)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 behaviour of their early adopters would tend to support both assertions.

Zopa CEO Giles Andrews defined the original heavy users of their service as "Freeformers": sophisticated people who do not trust institutions, who are largely self-employed, and capable of self-selecting financial products. They are a cohort moving away from packages of travel, albums of music, and lifelong party affiliation. Zopa's early branding, Andrews 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, conducted by 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. For example, the cryptocurrency Bitcoin has been described as "a shift from trusting people to trusting math" (one study of Zopa once 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." They see themselves 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" (ibid.). 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" (ibid.). The authors (2006: 24) acknowledge, 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."

The Safeguard changes, instituted in the Spring of 2013, included the establishment of 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. Institution of the fund was packaged with an extensive set of UX 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.

Both the early adopters and Zopa employees speak of Safeguard as less about addressing concerns of lending risk and more about rendering Zopa's lending tools more "black-boxed." 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." As a senior employee put it,

> *The ethos definitely changed when we changed to Safeguard, it did change slightly, it's still pretty much the same, but personally I think it changed slightly. People were upset about that control taken away from, them… They had all this control, and they were beating the banks themselves, they were doing it, and now we're doing it for them. "You're becoming just like a bank," they said, and they're partly right, we're getting closer*

> *to that model, but it's to grow as a company… but we're*
> *not offering savers the play and control they had before.*
> *I think that's a good thing overall because it obviously*
> *wasn't working, but I can agree with the people who want*
> *that control. So we did have to change our ethos slightly*
> *in that sense, to make a better business in the long run.*
> *[ZE06]*

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 of software tools, they were apparently unprepared 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. As a veteran customer service employee [ZE09] stated,

> *Our website used to have too much info, people would get*
> *bogged down in data and then phone us because it seemed*
> *much more complicated than if you had a normal savings*
> *account. Our website is now vastly improved, so it seems*
> *more straightforward. There's no risk with the Safeguard*
> *fund where it was a risky product when we started. The*
> *kind of savers we used to attract would expect some risk*
> *from bad debt.*

One of the employees responsible for website development described the transformation of the site and product as

> *Well how can we engage those lenders that are interested*
> *in the game side of it? We came to the conclusion that we*
> *want them to be 1% we don't have to care about, so it's*
> *okay to lose that engagement to make it better to get*
> *their money out and create a better product that does*
> *what we're actually trying to promise people. [ZE11]*

A senior employee contextualized the changes as a matter of putting outcomes ahead of mechanisms:

> *We focus on the benefit to you as a lender. It's all*
> *about the benefit to you as a user, the overall benefit*
> *rather than the mechanics. Ultimately p2p will be come a*
> *mechanic like the internet, nobody cares how it works,*
> *just what it can do for you. No one talks about internet*
> *banking has all these really clever checks in place, you*
> *just know you can pay your bills automatically. [ZE02]*

3. Community, Interactivity and the User Experience

3.1 Mechanisms for community building

Both financial intermediaries have worked to create a coherent user base through messages of 'affective solidarity' – in the Bristol Pound case, around the concept of the "local," and for Zopa Limited, of the "sensible." This section documents the ways in which these values have been manifested in infrastructure and messaging in order to present users with an affective attachment to the intermediary around a core value shared (or believed to be shared) by the demographic group targeted. This is supplemented through the practical ways that users were able to interact with the financial services through form of the digital interfaces presented by the digital intermediaries was important to the ways that they were able to make sense of and interact with one others. This could primarily be observed through the structure or format of the interaction, in which the visibility of information, the sequential presentation of content, and interactional feedback impacted on the values ascribed to the service, the ways that it was found to be useful, and how the process and progress of transactions was interpreted.

3.2 The Bristol Pound: Enshrining the local, and spending 'in place'

At the heart of the £B's vision for a "fairer, greener, happier" city sits the orientation to the *local*. Localness here affects social, economic and environmental change–by choosing to use the £B, rather than sterling, users are exhorted to consciously evaluate the ethicality and impact of their purchasing decisions. This message is reinforced daily by users and the £B CIC on social media with hash tags #lovebristol and #golocal, while the £B website conspicuously and ubiquitously displays the messages "our city, our money", "love Bristol, go local". Our findings suggest that the notion of "local" is interwoven with individuality, independence from central control, distinctiveness, regeneration, sustainability, diversity, neighbourliness and community: "a sense of place, heritage, belonging and well-being" [Potts, Simms and Kjell, 2005: p17].

Unpacking notions of 'local' and its implications for design allows us to move towards an understanding of the contexts in which technological interventions can be effective. Designing for localism requires taking account of the underlying networks and foregrounding the identities of people and place, enabling users to make more local connections, build networks and make the best use of and derive the best value from those connections without insulating community members from one another or from the wider geographical context.

Using the currency places users within a developing social network. This is in part that users may begin to feel part of something bigger, making conscious decisions about whom they give their money to. Our informants described how they would actively seek out local suppliers using the £B, and be more conscious and aware of where they were shopping. One of the interviewees referenced the importance of being part of a self-reinforcing community of likeminded people:

I live in the south where there's quite a big community spirit and a lot of the stuff they do is all tied around the Bristol Pound... I got quite involved with the community through the currency really.... Even if you're just buying a pint because you can pay at the Tobacco Factory with Bristol pounds you feel like you're part of something bigger than just going down the pub. So that's good. [iBPu01]

Through the use of the £B, a sense of community is reinforced:

A community is common interest and for us the common interest is the use of a different currency. It's a community within a wider community of interest about changing the way we trade, the way we choose to make ethical decisions. [iBPu11]

This reinforcement is displayed clearly in our data and from our analysis appears to be driven by the affordances of the currency itself, as well as the social interactions that occur during the transaction. Cash payments require a physical handover, and this is reported as supporting networks of trust and an acknowledgement of shared values. This is also true for the Txt2Pay system: going digital does not have to mean becoming incognito as it is still a face-to-face method of payment. The Txt2Pay SMS message that is sent between the mobile devices used for payment carries information connecting the transacting partners. This allows forms of relationship management with customers, allowing traders and the Bristol Pound team to send them vouchers, invite them to special events or connect them to other social media, further embedding them in a web of connections within the Bristol Pound user community. Survey and interview respondents reported to be having more conversations with the traders when spending using the Bristol Pound. Our investigations into these conversations showed that they served to strengthen bonds between traders and customers, and build trust and belief in the credibility of the scheme (for more on these conversations during transactions see [1]).

To illustrate how these conversations relate to the interplay of users, transactions and community. We can illustrate this interplay (see figure 2) using the data from our interviews serving as illustrations of the mechanisms at work. This illustrates how the £B community evangelizes and promotes the £B to grow their user base. £B users participate in £B transactions that are opportunities for rich social interactions, and through these transactions reinforce the sense of community among £B users. In another publication (Ferreira, Perry and Subramanian, 2015), we further explore the role of the Txt2Pay technology in contributing to social cohesion and shared values. The unpredictable nature of payment by SMS held surprising opportunities for engaging in rich social interactions with benefits to both the trader and customer, as well as the overall community of £B users.
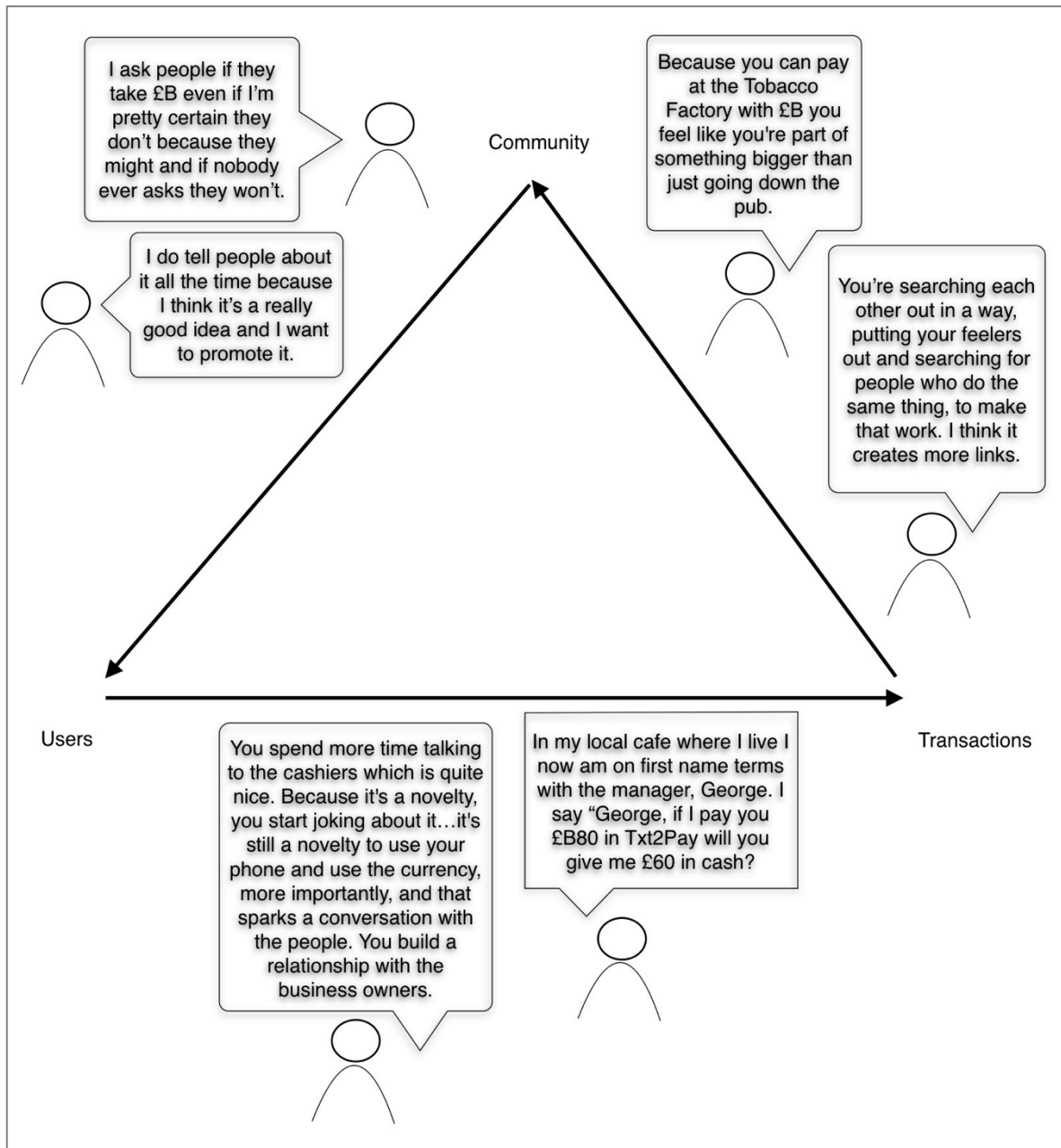
Figure 2: Users, transactions and community: 3 factors at work

The physicality of the £B, as either notes (tangible) or as digital transfers (intangibile) provided some interesting issues and differences around their exchange, and bringing these attributes to interaction around the 'local'. The fact that mobile payments can be made digitally or using physical tokens of value offers users multiple ways to make, and manipulate the ways that they interact around transactions. While their interactional features are more complex, digital payments are relatively restricted in their opportunities for appropriation and interrogation. The tangible and aesthetic qualities of the physical notes promote interest in the scheme itself and give visibility to their aims, e.g. through local artists' work on the notes. Unlike their digital counterpart, notes do not require a specific technology to use, or formal community membership criteria to be assessed, and users are familiar with their operation. This opens up the scheme to a wider user group,

further increasing its reach and acceptability. The physical form for the notes even allows users to manipulate purchasing behaviour. We have observed this specifically in encouraging bigger purchases: Bristol Pound team members have described how they have paid in denominations of £B20 notes for small purchases, because the receiver will now have £B20 to spend, rather than a smaller amount, further circulating the currency in the local community. Notes can also leave the local area and reach a wider audience without it necessarily being spent:

> *"I went to a work conference in Manchester and I was showing it off all over the place. People thought it was great, they were really impressed. They passed it all 'round the conference "Ooh look at this a Bristol Pound"." [iBPu07]*

Indeed, the physical notes are curious and collectable, occasionally being sold on eBay for prices above their face value. The attractiveness of the physical notes serve as discussion points and for one Bristol Pound member, was their first contact with the scheme:

> *"My friends said 'Oh look what I got' and they just had them almost as souvenirs. And then I looked into it further and I joined the credit union and they helped me set up a Bristol Pound account." [iBPu01]*

This discussion about the 'special' status of notes is itself interesting, as we have observed users engaged in discussions about where they plan to spend them, and on what. This is not just a matter of working around a limited set of trading outlets that accept £B, but users seems to regard the currency as a form of 'special money' with different characteristics to sterling.

3.3 Zopa, Limited: The "sensible" class

Currently, Zopa's website design encourages an early choice between borrowing and lending on its front page, pushing users into two different sets of content. This enacts a conceived separation of interests of borrowers and lenders rooted in differences of age, class, and geography, though not financial or technological literacy. While there is no structural barrier to the same person being a borrower and lender, and the Zopa team has expressed an interest in converting current borrowers into eventual lenders, Zopa's demographic research has been interpreted by the corporation as fundamentally dichotomizing the two groups, a view with profound implications for the user experience on the website. For borrowers, little engagement with the site is required, and none with other users: Zopa's loan products compete on price, and the transaction is oriented solely to the financial.

For lenders, the case is more complex: trust in the Zopa product is caught up the construction of collective identity of lenders as savvy middle-class investors. "Trust" for this demographic is crucial according to Zopa marketing research, and it is based in knowledge of the decision-making 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 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 or an email contact form). It also is a marker of distrust of globalized banks and displeasure with "offshoring" of their operations out of the UK, particularly of customer service facilities to call centres in east Asia. 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. For this group, the humour and whimsicality identified by Hulme and Wright (2006) has little appeal. Lenders do not appear to be interested in or motivated to come to Zopa through the technology that it provides, or in the simple maximization of financial return, but describe themselves as being primarily motivated by personal goals, particularly around saving for specific family-related projects such as an adult child's wedding or house down payment. What this points towards is that these users are *not* motivated to use Zopa because of the technology platform, or of the fact that they are seeking an optimised financial instrument, but rather that they are more task-oriented in their selection of Zopa as a medium for investment. One might at this point question whether the fact that Zopa has an internet-only or p2p model is of especial relevance to its users (and especially to its lenders); yet this is not played out in our other findings, as we explore below.

"A feeling of community" and "the desire to be part of something" have been mentioned by users as motivations for, and outcomes of, lender attendance at Zopa's annual party. However, it is important to distinguish these attitudes from those appearing in the conclusions drawn by Hulme and Wright in their 2006 study of peer-to-peer lending which utilized Zopa as a case study. Hulme and Wright (2006) analogized the "Social Lending" of p2p firms to the worker-created Friendly Societies of the 17th through 19th Centuries in the UK. Whether this analogy was appropriate for Zopa's business processes and messages in 2006, it is not a fit in 2014. What Zopa's lenders seek to join, and to police its boundaries, is a "status circle" as Polillo (2013) uses the term borrowed from Max Weber: a group marked by their possession of a financial instrument which 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 constructed as being in, commonality with borrowers (one notable change in the website this year was the removal of the ability for lenders to see information about the people to which they lend). Zopa is not a Friendly Society: it is a circle of holders of a somewhat novel financial instrument which constructs 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 – to borrowers who are not constructed as a status circle and who are geographically and culturally far removed from Zopa's lenders.

While Zopa has extensive data on its user base, including geographical dispersion of borrowers and lenders, it does not make this information available on its website. According to Zopa marketing staff, this is intentional, to elide geographic and related class distinctions between borrowers and lenders. Rather, Zopa has focused on the term "sensible" as the affective link connecting its users. This term attempts to establish a contrast between Zopa and payday lending firms, which have garnered negative press for high-risk lending to a social class of users often stigmatized in a genre of press known as "poverty porn" (Jensen 2014) for being socially and financially irresponsible and dependent on the largesse of a "sensible" middle class. Zopa's focus on the disciplined working-class subject, however, contrasts with the expressed interests and self-descriptions of lenders, who focus on financial return, their own financial sophistication, and openness to financial and technological innovation, in which the backgrounds, bodies and values of borrowers are unified into a black-boxed financial instrument.

4. Organisational data collection and analysis

4.1 Challenges and opportunities

This section examines the problems and the role of data and analysis in making sense of on-going financial activity. The opportunity to keep and examine data streams is a key purported opportunity for digital systems to increase their reach and underlying profitability. Yet it is interesting to see that data can be both difficult to collect and analyse, and once available it may simply increase the expectations on what is expected out of the infrastructure – for systems which may not have initially been anticipated as being used for these purposes. Our fieldwork points to two features of such systems: i) they need to manage the levels of transparency around the data available and how it allows its various users to visualise trends, and ii) it needs to deal with issues around the huge potential for the abundance of data. Together these pose real problems for their communities of use and scope the opportunities for realising the full value and utility of their offerings.

Financial transactions are at their core a matter of trustworthy and accurate recordkeeping. Digital technologies obviously are both a natural fit with and significant enabler of such transactions, and banks and other financial firms were among the first commercial entities to adopt computerized systems. However, the power of the digital, particularly in the "Web 2.0" era (O'Reilly 2005) extends beyond mere recordkeeping, into the ability to monitor, evaluate, and model user behaviour in real time with great accuracy. Digital financial intermediaries at minimum have the capability to maintain tight decision making loops between information collection and action, whether that action is a marketing campaign, modification of the user experience, or changes to future business plans. Where in earlier sections, we have seen substantial convergence around common problems of brand identity and marketing, in which both infrastructure and messaging have evolved to play key roles in shaping the user base and its expectations, the intermediaries' challenges are primarily a factor of the data environment in which each operates. Zopa sees itself in some respects as a data-analytics firm with a financial product, with a significant back-end operation collecting and analysing both qualitative and quantitative data about its potential and actual user base to effect real-time modification of the user experience, the Bristol Pound operates in an environment of guesswork and limited feedback.

4.2 The Bristol Pound: Data drought

Survey respondents agreed that increasing the number of shops that accept Bristol Pounds would serve as motivation to spend more. This sentiment is central to the two-part challenge faced by the Bristol Pound CIC: growing the scheme (reaching beyond the members, more places to spend), and producing the evidence showing that the aims of the scheme are being met (that the currency is working, data collection about its uptake). Among users, there are still perceptions of inconvenience surrounding the currency, i.e. survey respondents and interviewees consistently reported on the challenges in getting hold of the currency and the limited spending opportunities that exist. The Bristol Pound CIC addresses this

challenge by continually working to expand the scheme to new members (see also the Real Economy scheme <http://realeconomy.co.uk>) and the effects of the new businesses joining the currency can be seen in the growing number businesses mapped on the website and the regular updates by the CIC on the number of business members circulated in their newsletters. It has also become possible to order the currency online from the £B website. While the scheme is visibly growing, there is still a need to reach out beyond the community of £B users:

> *Because at the moment its kind of like preaching to the converted. It feels a bit like because so many people in Bristol who sign up adhere to the ethics of the BP [£B] anyway, in shopping locally and supporting local firms. But what we want to do is take it to the people that don't currently do that and register their use of the BP and show them that the financial circle could be very small and intimate. [iBPu16]*

The participant quoted above raises an important point regarding evidence for the need for the existence of the Bristol Pound. From the surveys it was clear that most of the respondents agreed with the values of the Bristol Pound and most agreed that it is important to support local traders, but there was uncertainty over whether the Bristol Pound is having the desired effects. This same uncertainty emerged during the interviews when asked about whether they think the money is actually staying local. If positive effects can be demonstrated, this would not only address current users' demand for reasons to invest more in the scheme, but also encourage non-members to join. However, the challenge lies in communicating a clear message as to why the use of a currency (instead of some other payment scheme) is the way to achieve the goals of the CIC.

As a local currency with both physical and digital forms, the Bristol Pound affords a rich set of user experiences and interactional possibilities that offers different potentialities in different settings and scenarios of use. Most notably, the form of implementation of the currency can make the invisible visible: what is normally hidden to everyday view, such as our identities and values, business models and the details of transactions themselves become manifestly observable. In doing so, their use can extend the possibilities for social connectivity and information sharing–but does so in ways that are understandable and over which users have a high degree of control. Money is becoming increasingly digital and mobile and yet our findings show the physical notes as playing a vital role in the everyday practices of the users. Both the physical and the digital forms of the currency are platforms for accessing and sharing information, however, our findings have shown how their affordances differ. The physicality of the printed notes affords a visibility that is independent of any financial transaction. Traveling with people, the currency can reach audiences outside the local area and can even be used to manipulate spending behaviour (for e.g. by using large denominations to increase the currency in circulation). Yet physical notes do not carry information about the transaction (who spent it, its origins and what it was exchanged for) in the way the digital form does. This presents an opportunity when designing digital infrastructure to support

local economic communities that complement the physical, rather than overtake it, such that users have opportunities to extend, rather than restrict, their potential for social interaction and developing new practices of use.

4.3 Zopa Limited: Quantifying the experience

CEO Giles Andrews described Zopa as a technology firm, not a financial firm, stating that most of the employees he hired came from marketing, technology, and data analytics rather than finance.

> *We do technology – financial services don't do that well, so they can't bring expertise that's helpful, marketing, customer service, they don't do that well, so why bring people in trained in that way. [ZE01]*

Data analysis plays a key role in the firm's work process, business model, and strategy:

> *We like having opinions, but the great thing about the internet is it tests opinions. Find out what the answer is. You can apply test-based learning to things that go beyond web pages. It's a discipline that evolved out of direct mail. Directly translatable to the internet. [ZE01]*

One member of the marketing team described the challenges of this approach as

> *Working with the data services team to understand different needs to tailor the site and get different messages to the right people. They really slice and dice that data from what the acquisition guys do and what channels lead to better conversion and what we can do about it… Obviously with too little (data) you can't do anything clever, but when you've got too much data and it's not in an accessible way, you can drown in it. We make sure we try to focus on the real priority and where the real wins are and not on every possible trend…*

> *Data science can manage all the web logs on individual customers, what kind of actual journeys [people take through the structure of the website], look at real consumer journeys and where people are dropping off, and what kind of devices they're using… It's a deep dive through the consumer journeys and what we can make them do and not do. [ZE08]*

The value of data for Zopa lies not in macro-scale decisions like those resulting in the Safeguard changes, but in constant tiny course corrections to improve the "conversion ratio" – the percentage of site visitors who become borrowers or lenders – even the smallest amount.

> *It's easier to do 100 things that add .1% than one big
> thing that adds 10%. It's much easier to do lots of
> little things you're pretty sure will have an impact. You
> need to track at that level of detail because you're
> going to be blind otherwise. I'm very aware of what our
> top metrics are but on a day to day basis, it's the lower
> level stuff that's much more exciting, you can see what
> people do coming through in how they use the product.*

From there, the challenge becomes deciding what of the vast data the firm collects - from monitoring clickthroughs on the site; from their own customer research involving surveys of over 6000 customers [ZE08], interviews, A/B testing of website elements; and from third party market research firms – should be made available to users, and in what format. In accordance with Andrews' prescription that such questions have an answer which can be discovered through research, rather than through intuition or inspiration, design elements are extensively tested and rolled out onto the site on a weekly basis. As noted above, the tendency is to simplification, to prevent the process of interacting with the site from becoming overwhelming to an older and less technologically sophisticated audience than the firm's early adopters. As a marketing employee put it,

> *Our website used to have too much info, people would get
> bogged down in data and then phone us because it seemed
> much more complicated than if you had a normal savings
> account. Our website is now vastly improved, so it seems
> more straightforward. [ZE09]*

To our surprise, Zopa makes no use of analytics from social media, unlike payday lending firms such as Wonga. Various tools and data sets have been investigated, but the consensus is that social media data is less accurate in predicting loan default than standard credit bureau rating reports, is too easily "gamed" by the least creditworthy, and fails to reflect the substantial percentage of Zopa's target markets which make little or no use of social media. Thus, Zopa's primary focus for the data it collects is increasing the conversion ratio, with a secondary role for expanding the reach of its marketing, and effectively none for credit risk analysis.

5. Summary and Conclusions: Interpreting Infrastructure

The findings of this work suggest design possibilities around the following areas:

- *Complementarity between novel and traditional media*. Physical media can support digital services to drive uptake, provide access without a need for wireless connectivity, as well as allowing non-members (or those without digital access) to access financial services. Digital media can be used to support physical media, for example in linking physical tokens to digital content, to provide counterfeit protection or authentication, contextual/customised advertising, or payment tracking services. The tangibility of physical media seems to offer important functionality to users, both as a means of materially coupling and scaffolding the exchanges that occur 'in place', as well as providing a credible – and inspectable – token of that exchange. Similarly, potential users of unfamiliar digital technologies can find reassurance through access to consistent information provided via more traditional channels, such as telephone calls or coverage in mainstream media, particularly personal finance segments on television news and consumer-reports magazines.

- *Geography matters*. Geographical location remains both a significant token of identity formation and a proxy for key data of financial interest, from income to occupation to sources and uses of funds, and perhaps to personal and social values. Where financial services are enacted – physically or virtually – is evidently important to users and to the providers of those financial services for a variety of uses. In terms of future design opportunities for financial services, location-based services could be used, for example, to enable or facilitate access to capital (e.g. for assembly of tokens or services, researching peers, physically enabling co-located interactions), to derive contextually appropriate services, or as a resource for enabling social or community connectivity between users.

- *Social and economic values represented in the media*. In this respect, the user experience of digital financial services is more than just accounting for the usability of the interface, but represents and enables a particular set of values, through its physical form, aesthetics, access to content, interactive visualisations, and methods of engagement with other users (amongst others). The systems and things that we use (and how we appropriate them) demonstrate – and allow us to visibly show – the meanings, social significance and values that we invest in our social interactions. User experiences from the project cases demonstrate how the value of the financial systems in use can go beyond their role as means of providing transactional services. Besides acting as an intermediary for exchange, a rich set of information about people's identities, business practices, and locality (at a variety of levels of abstraction) may be exchanged through the media, inextricably connecting the financial transaction to its social context.

- *Sociality, sociability and the user experience.* In social settings, we deploy our understanding of social norms and protocols in making sense of what we see

and in acting appropriately. For example, people have a tendency not to want to embarrass others or impede social norms and practices (see Mainwaring et al., 2008). We also naturally build human relationships around the people that we interact with, and interpret these interactions as embedded in our social lives. Since financial instruments are in a profound way tokens of identity (Polillo 2013), even where no actual interactions between users take place, they are inherently a part of our social existence. These technologies are thus involved in the construction of a sense of oneself in community, whether united by values of insider knowledge and expertise, being an early adopter, being concerned with one's local community, or being sensible and prudent with money. As such, the user experience that comes out of financial interactions does not need to be entirely asocial and impersonal; users may derive value from access to knowledge about their peers' social interactions, with or without any actual ability to socially interact with one another.

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Appendix: Survey Data

A.1 Demographics: £B member survey

This survey was run with members of the Bristol Pound (individual and trader members). The number of respondents who attempted the survey was 197, of which 152 completed the survey. The 45 partial survey responses are included in the analysis. At the time of the survey, 34.5% of respondents had been Bristol Pound members for 12 months, whereas 26.4% of respondents had been members for 6 months or less (N=197). At the time of the survey, the Bristol Pound CIC had been in existence for approximately 12 months.

Of the total respondents, 68 indicated that they were female and 83 male. Respondents ranged from 20 years to 72 years in age with a median of 44 years (N=149). Respondents included 128 (84.2%) employed, 6 students (3.9%) and 10 retirees (N=152). Those respondents who indicated that they were employed reported to be in professional occupations (57.7%), managers (19%), while the remaining included technicians, administrative support workers, one craft worker, labourers or helpers, service workers, voluntary workers and homemakers (N=142). All respondents were living, working and/or studying within a 10 mile radius of the centre of Bristol.

Among the respondents, most applications for Bristol Pound membership were lodged online (52.3%, N=197).
Asked what they knew about the Bristol Pound at the time of becoming a member, 64.5% of respondents claimed to know about the Bristol Pound and why it had been set up, while 21.8% of respondents admitted that they did not know much but felt that it sounded like a good idea and wanted to give it a go (N=170).

A.2 Demographics: In the field

Ethnographic interviews and observations were conducted over a 3 month period to explore the behaviour, patterns and practices around £B use in context. Participants include individual users and traders, as well as the Bristol Pound team administering the currency. We were interested in examining the values and needs of the community of £B users, traders and currency administrators, and exploring the implications for designers to reflect and support these patterns of use, practices and values in digitally augmented media. As part of the survey respondents were asked whether they consent to be contacted for interviews. Of those who indicated their agreement, 18 were interviewed. Participants were deliberately drawn from a range of backgrounds, ages and income groups, and split evenly across gender, allowing us to get a broad range of views and patterns of Bristol Pound use (see table 1). Interviews were either face to face in a relaxed setting or via Skype. The interviews, of 33 minutes average duration, were audio recorded and transcribed for analysis. Table 1 provides an overview of interview participants. The first column contains the unique identifier assigned to the participant to indicate that they were interviewed (i), were Bristol Pound members (BP), were trader members (t) or

individual members (u) or both (u) and the order they were interviewed (01,02,03,etc.).

The second column of table 1 indicates whether the interview was face to face, with both interviewer and interviewee colocated (ftf) or whether the interview took place via Skype (skype). The third column indicates whether the interviewee was male of female. The fourth column indicates age in years (if known) taken from the participants' survey responses. The fifth column indicates employment status (if known) also taken from their survey responses, where 'emp' indicates that the participants are in full- or part-time employment, 'retired,' studying (student), or unemployed (unemp). The sixth column indicates whether the participant is a 'high' (more than 10% of total spend) or 'low' (less than 5% of total spend) spender of £B. The final column indicates whether the participant is an 'individual' member, a 'trader' member, both an 'individual and trader' member, or on the £B 'team'.

Table 1: Interview participant details:

code	type of interview	male/female	age	employment status	user type	member type
[iBPu01]	ftf	m	n/k	emp	low	individual
[iBPu02]	ftf	m	n/k	emp	low	individual
[iBPa03	ftf	m	n/k	emp	high	BP team
[iBPt04]	ftf	f	35	emp	low	trader
[iBPu05]	ftf	f	46	emp	low	individual
[iBPu06]	ftf	m	38	unemp	high	individual
[iBPu07]	skype	f	60	emp	high	individual and trader
[iBPu08]	ftf	f	n/k	n/k	n/k	individual
[iBPu09]	ftf	f	61	retired	high	individual
[iBPu10]	ftf	f	25	student	low	individual
[iBPu11]	ftf	m	52	emp	high	individual
[iBPu12]	ftf	f	43	emp	high	individual
[iBPu13]	ftf	m	69	emp	low	individual
[iBPu14]	skype	f	59	emp	low	individual
[iBPu15]	ftf	m	50	emp	high	individual
[iBPu16]	ftf	m	n/k	emp	n/k	individual and trader
[iBPu17]	ftf	f	27	emp	high	individual
[iBPu18]	ftf	m	37	emp	high	individual

Summaries

Median age	46	High users	8
Male	9	Low users	9
Female	9	Individual members	14
Employed	14	Trader members	1
Students	1	Admin team	1
Retired	1	Both individual and traders	2
Unemployed	1		