Alipay's 'Ant Credit Pay' meets China's factory workers: The depersonalisation and re-personalisation of online lending

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Abstract: Scholarly accounts of the global rise of statistical credit scoring technologies have tended to portray these automated, digitised systems as supplanting human involvement in lending. This paper examines Chinese migrant factory workers' encounters with Ant Credit Pay, Alipay's novel consumer credit facility (which utilises the Zhima Credit scoring system). Drawing on ethnographic data, we document how workers come to understand Ant Credit Pay through the depersonalising and re-personalising processes they associate with it. Workers prefer its depersonalised mode of lending over borrowing from banks, friends or family. However, they nonetheless also attempt to re-personalise Ant Credit Pay through propagating the belief that human-style logics underlie its scoring mechanisms. This becomes evidenced through workers' integration of the platform into their personal spending practices, alongside their portrayal of charismatic Alipay founder Jack Ma as the orchestrator of the platform's novel approach to lending. We argue that acknowledging Ant Credit Pay's consolidation of depersonalising and re-personalising qualities necessitates the productive analysis of digital credit as a human-machine assemblage. Furthermore, this financial object—and workers' engagement with it—is generative of a distinctive personhood that concretizes China's ongoing social transformation, while also carrying implications for understanding current global trends towards the digitisation of credit.

Keywords: credit scoring, China, debt, digital technology, personalisation, Zhima Credit

'My Zhima Credit[1] (*zhima xinyong*) rating hasn't changed for three months', says Huang Jiwei[2], in a tone carrying both bewilderment and frustration. Jiwei is 22 years old and works on a production line manufacturing magnetic fasteners for bags and clothing in Dapeng Factory, a

[1] International media reports and scholarship often refer to these services as 'Sesame Credit', the literal translation of *zhima xinyong*. However, Zhima Credit is the official English-language name of the product.
[2] Pseudonyms have been used in order to preserve participant confidentiality.

small, low-tech factory on the periphery of the city of Shenzhen in southeast China. He gazes at the screen of his smartphone, with the Alipay app open, flicking between one page that displays his credit score and another, which shows a record of transactions made through the platform—mostly purchases of goods, or money transfers to friends or family. He runs through rough calculations of the points he ought to have earned in the last few months, trying to comprehend why Alipay no longer awards significant credit score increases on the basis of multiple online purchases made through the platform, as had been his experience previously.

Jiwei's efforts to understand and improve his Zhima Credit score are tied to the fact that a higher score will mean that the amount of money he is able to borrow on Ant Credit Pay (*mayi huabei*)—a feature on Alipay which enables him to buy certain goods now and pay for them later—will grow accordingly. Jiwei's motivation for increasing his capacity for borrowing should not be explained away as a materialistic desire to bolster his personal consumptive abilities, evidencing the oft-assumed function of credit as 'the handmaiden of consumer demand' (Carruthers and Ariovich 2010, p. 86). Instead, Jiwei claims that his chief reason for cultivating a higher score is in case his friends should ask to borrow money from him, given that such a request would put further strain on his already tight finances. Ant Credit Pay allows him to quickly free up cash from his wages—which would normally be 'earmarked' (Zelizer 2017) for his own living expenses—and instead use this money for lending to friends.

Jiwei is not the only person exploring Alipay's novel Zhima Credit offerings. He is one of the 100 million individuals across China who, as of November 2017, have accessed this new form of credit through the novel Ant Credit Pay feature on their Alipay accounts since its launch two years prior (Gao 2017). Researchers and media commentators are turning their gaze towards this new form of consumer credit, which promises to promote financial inclusion in China by offering 'ant sized' loans to swathes of citizens, including those normally refused access to credit by banks (Kapron and Meertens 2017). However, suggestions that this new avenue of ‘formal’ credit helps low-income persons avoid resorting to ‘informal’ lending seem undermined by Jiwei’s attempts to draw on the former in support of the latter.[3]

Alipay’s Zhima Credit services represent the company’s attempt to redefine personal lending in China by capitalising on the vast amounts of customer data collected by Alipay (and its parent company Alibaba) pertaining to users’ financial transactions, shopping histories, consumer preferences, personal information and social relationships. This data supposedly gives Alipay a competitive edge over traditional financial institutions in identifying new sections of the population to lend to, while also streamlining loan application procedures. Numerous scholars have documented the central role that digitisation and algorithmic decision making technologies have played in the evolution of credit scoring in American and European contexts (Poon 2007, Leyshon and Thrift 1999, Fourcade and Healy 2013, Fourcade and Healy 2017, Marron 2013). However, Alipay pushes this to a new level both in terms of the scope of data collected and, as evidenced by Jiwei’s struggle to make sense of his own credit score, the seeming opacity with which decisions are being made.

This situation prompts two questions, which this paper attempts to address. The first is an empirical puzzle, which asks what qualities of Zhima Credit make Dapeng Factory workers like Jiwei feel comfortable borrowing from Alipay, while they remain reluctant to do so from banks or other ‘formal’ financial institutions. This paper will suggest that Alipay’s appeal partly stems from its radical reconfiguration of the way that lending is personalised, which accords neither with the existing precedent set by banks, nor that seen in informal lending. This gives rise to a second, more theoretically-oriented question, which asks whether the digitisation of credit—both as a decision-making process by lenders, but also as the ‘*site* where consumer credit is enacted’ (Ossandón 2017)—necessarily entails inevitable rationalisation and

[3] The distinction between formal and informal economies is, of course, a problematic one. Hart (2008) notes that the concept draws heavily on Weber’s (1981) notion of rationalisation and works to consign a broad array of economic activities (e.g. casual labour, unregulated lending) occurring outside formal bureaucratic institutions to the domain of the informal, or, even more pejoratively, the ‘underground’ or ‘black’ economy (Hart 2008, p. 1).

depersonalisation? The evidence presented in this paper suggests otherwise, leading us to argue that studies need to acknowledge how, as consumer credit adapts to take on novel digital forms, both consumers and lenders are continually inscribing the various 'financial objects' (Yuran 2014) of credit with both personalising and depersonalising qualities. These are, in turn, giving rise to new forms of personhood that are responding to broader societal transformations and the social opportunities found within them.

This paper consists of several sections. First, the literature on the emergence of statistical credit scoring technologies is reviewed, which generally assumes a depersonalisation of the lending process. Second, the conditions of fieldwork in Dapeng Factory are described. Third, we locate Alipay within the broader context of the variegated forms of credit present in Chinese society, which helps illustrate how Alipay's appeal to workers stems from its strongly depersonalised nature. Fourth, we describe how through their use of Alipay, workers nonetheless attempt to re-personalise Zhima Credit by working out how its scoring technologies 'think' through embedding Ant Credit Pay within their own personal consumption. Charisma also plays a key role in the re-personalisation process, with workers asserting that Alipay founder Jack Ma actively steers the logics of the platform's lending. A concluding section will discuss the novel personhood stemming from Ant Credit Pay's unusual consolidation of depersonalising and re-personalising qualities.

The rise of statistical credit scoring: machines replacing people?

In her account of the growth of 'doorstep finance' in Britain around the turn of the twentieth century, McFall (2015) describes how check credit and life assurance companies relied upon the charisma of their door-to-door agents to not only collect customer payments, but also to obtain and transmit useful information between the company and its clients. This charisma, 'bureaucratically organised' by companies who sought to style their agents as 'good, average men' was essential for gaining the trust of customers and building an accurate picture of their financial position on which lending decisions could be based (McFall 2015, pp. 63–64).

Charisma increasingly took a back seat during the second half of the twentieth century, which witnessed a fundamental reshaping of consumer credit through the emergence of sophisticated scoring technologies that allowed banks, retail stores and other institutions to make lending decisions, supposedly with ever-greater efficiency and precision. The rise of statistical credit scoring has increasingly seen consumers constituted in terms of 'risks' (Marron 2007). Leyshon and Thrift (1999) note how decision making has moved out of the hands of bank managers and their employees who—much like earlier doorstep finance agents—were supposed to possess 'embodied knowledge' about customers' credit-worthiness gleaned from personal interactions. In its place, credit-scoring software has been touted as an effective means of overcoming 'information asymmetries', whereby customers possess greater knowledge of their own financial situation than lenders, making it difficult for the latter to distinguish between 'good' and 'bad' borrowers.

The United States played a leading role in the development of credit scoring technologies (Marron 2007, Marron 2009, Poon 2007) while also instilling a widely-shared belief that reducing the role humans played in evaluating consumer credit applications would lead to the reaching of more equitable, rational lending decisions. This position received state endorsement with the passing of The American Equal Credit Opportunity Act 1974, which banned basing credit decisions on factors such as gender, race or religion and 'gave legal recognition to scoring systems as being objective, scientific devices permitting a dispassionate, empirically derived account of credit worthiness' (Marron 2007, p. 110).

New actuarial techniques such as credit scoring have also encouraged the expansion of consumer credit amongst lower-income populations by making it easier for lenders to differentiate *within* the market, offering interest rates or loan conditions tailored to different segments of borrowers (Marron 2007). Poon describes this transformation as one which has 'shifted the way people were selected away from a simple yes or no, towards a linear gradation of classes constructed around empirically assessed odds-predictions which lenders could—sliding up and down the scale at will—parse out and treat differently' (Poon 2007, p. 295). A dual dynamic can be seen here: just as the removal of human actors from credit scoring made the credit encounter more depersonalised, the same technologies allowed for the personalisation of loan products according to borrowers' individual circumstances.

Despite the dominant trend in consumer credit being one of increased reliance on automated credit scoring and decision-making technologies, some scholars are notable in pointing to the enduring presence of human actors within novel digital formations of credit. Ossandón's (2013) study of retail credit in Chilean department stores achieves this by treating consumer credit as a 'socio-technical mediator'. He examines how credit analysts (whose role had been to screen out unsuitable borrowers based on a reading of their customer records) have been replaced by risk managers (who are charged with using data to increase customer borrowing without corresponding increases in default rates). Ossandón notes that despite risk managers being heavily reliant on statistical methods and software for performing their duties, they nonetheless saw a continuity between their work and that of the credit analysts they had replaced. Both involved making lending decisions 'not only based on abstract knowledge, but also on carefully following the daily flow of transactions and acting on it accordingly' (Ossandón 2013, p. 441). In this case, introducing greater technology into the credit scoring process appears to have had the effect of *displacing* rather than *replacing* persons and their labour.

Shifting the focus from lenders to borrowers, Kear's (2016, 2017) research on the use of credit-building peer 'lending circles' by financially marginalised groups in the United States demonstrates that consumers attempt to find ways to assert their agency amidst the increased dominance of algorithmic scoring methods. Kear argues for 'an object-oriented account of financial subject formation', describing how individuals holding poor credit ratings joined lending circles in an attempt to provide credit scoring algorithms with positive data about themselves in order to align the 'alien quantitative abstraction' of their credit score with the 'felt qualitative reality' of their own lives, in which they understood themselves to be creditworthy individuals (Kear 2017, p. 348).

Significantly, Kear describes lending circle members' attempts to remedy this perceived misalignment as a process of 'personifying economic objects that enable the performance of unfamiliar subject positions' (Kear 2017, pp. 348-349). This involves members 'acting out' behaviours normally alien to themselves (e.g. using one's credit card for store purchases despite being accustomed to paying with cash) with the aim that these actions are transposed on to the external 'object' of the credit scoring algorithm. By 'playing the game' of credit scoring, users are able to personify this abstract algorithm in the hope of making it more closely resemble their 'real' (creditworthy) self and in so doing, fulfil their 'longing for equality in the market' (Wherry et al. 2019, p. 5).

Ossandón and Kear's accounts both suggest that the growth of statistical credit scoring technologies represents more than a passive process of digitisation. Rather, the introduction of computing technologies constitutes a reworking of credit as an assemblage of contemporary finance, comprised of human actors (lenders, borrowers) intertwined with multiple computing technologies. This therefore necessitates distinguishing the person (and the personal) from the human. Whether credit is experienced as personal is clearly not solely determined by whether lending decisions are made by a machine or a human. Rather, the above studies point to how, in relation to credit, the sense of the personal and impersonal is multi-valent and socially contingent, pertaining not only to scoring itself, but also to broader interactions with and around credit. Also visible are the shifting boundaries between personalising and depersonalising that accompany the reworking of these human-machine assemblages. This is particularly evident in the adoption of Ant Credit Pay by Dapeng Factory workers, where it radically alters personal experiences of borrowing.

Doing fieldwork on factory work

The research presented in this paper stems from primarily ethnographic fieldwork conducted by the two authors at Dapeng Factory between November 2017 and October 2018 as part of a broader project on digital money transformations and migrant labour in China.[4] Although it was never our original intention to specifically study Ant Credit Pay, during our fieldwork we were surprised to discover that not only were many workers eligible to purchase goods on credit through the service, some—like Jiwei—were already enthusiastically doing so.

As opportunistic anthropologists eager to understand the social implications of this phenomena, we nevertheless faced challenges in finding participants who were willing and able to discuss their experiences of using Ant Credit Pay. Although the vast majority of the approximately one hundred labourers employed at Dapeng Factory regularly make use of Alipay (and its main competitor, WeChat Wallet) as a mode of payment for everyday spending and transfers, only around half a dozen employees—generally males in their twenties—have begun to access credit via the new features being rolled out on the platform. Taking into account the fact that not all workers wished to discuss their financial affairs with us[5], those who ultimately did share their experiences were somewhat self-selecting. As such, the individuals discussed in this paper do not represent all workers in Dapeng Factory, much less so all workers in China. Instead, these cases should be read as providing a valuable early glimpse into the

[4] https://sociology.hku.hk/digital-money-china

[5] A rumour circulated that Li had been sent onto the production line by factory management in order to surreptitiously observe workers.

varying social experiences and engagements generated through low-income Chinese persons' encounters with emerging forms of digitised credit.

Participant observation with workers took place on the production line, in dormitories and elsewhere in the factory. This method allowed for casual conversations to occur between researchers and participants, while also witnessing the broader social contexts of the factory. This was complemented by more formal interviews conducted with participants, incorporating focused questions aimed at eliciting their views on, and uses of, these new digital credit services. Interviews were recorded with a digital voice recorder, before being subsequently transcribed. Analysis of interview transcripts and fieldnotes was a collaborative process between the authors, involving both researchers making multiple careful readings and highlighting potentially relevant themes. By repeating this process at regular intervals and comparing between each other's understandings of pertinent themes, several clear phenomena began to coalesce around the different kinds of depersonalisation and re-personalisation found in this novel form of credit. It is to these issues that we now turn our attention.

Alipay's depersonalised credit: mediated, trustworthy and dispassionate

The success of Alipay's Ant Credit Pay service in attracting factory workers to borrow seemed remarkable given that, as well as being very frugal with money, many workers strongly believed that credit products offered by banks and rural credit co-operatives were simply not intended for 'blue collar' labourers like themselves.[6] For instance, Jiwei rationalised not having a credit card with the assertion that 'I don't want to put too much effort into nurturing (*yang*) a credit card because I am not a businessman. A credit card is of no use for me'. Jiwei's sentiment is shaped by the fact that, for many years, Chinese banks—which are frequently state owned

[6] Rural credit co-operatives are financial institutions that primarily serve rural Chinese townships. Despite their name, these institutions are typically enterprises (many of which are state owned) and operate in a similar manner to banks.

enterprises—offered loans only to other state owned enterprises. Even when the roll-out of credit cards to Chinese citizens started to widen in the early 2000s, such products were initially targeted at various ‘elite’ groups with strong connections to the state (e.g. civil servants, enterprise employees), rather than ordinary workers (Rona-Tas and Guseva 2014).

Jiwei’s perception that bank-issued credit cards and loans were simply not intended for people like himself was further affirmed by the ‘documentation difficulties’ that many rural migrants face when applying for consumer credit products. Banks often ask potential borrowers to produce evidence of collateral (i.e. real estate/car ownership records), proof of urban residency and long-term employment contracts—all of which Jiwei lacked. However, Jiwei confidently asserted that had he really wanted a credit card, he could circumvent many of the documentation requirements by enlisting the help of a licensed guarantor company (*danbao gongsi*) which, for a fee, would assist him in securing credit from a bank. Jiwei emphasised that it was in fact his prerogative not to pursue the lines of credit offered by traditional financial institutions.

By contrast, Ant Credit Pay provided access to credit against purchases without the need for lengthy application procedures or complex documentation requirements. Workers’ experience of this service thus contrasts sharply to the discrimination—both explicit and implicit—that rural migrants often experienced in encounters with banks. For instance, female worker Wang Lihua made clear how *depersonalised* interactions facilitated by Alipay were often preferable to *dehumanising* ones with bank staff:

> Banks treat VIPs and us differently. VIPs have gold cards, diamond cards. When they go to use bank cashiers, the people meet each other, then there will be a separation between rich and poor, high and low status. But when you use Alipay, it’s all operated on your phone, so it’s not the same.

While Ant Credit Pay's mediated nature contributed to its appeal, workers were not facing a purely binary choice between Alipay and banks. Rather, their decisions were made against a lending landscape populated by a plethora of easily accessed 'informal' modes of credit. Casual, often interest-free lending between friends and family is extremely commonplace in China (Turvey and Kong 2010). Multiple forms of 'curbside-credit' or 'folk credit' (*minjian jiedai*) also exist, including rotating credit associations (*hui*), pawnshops (*diandang hang*), moneylenders, loan sharks and peer-to-peer online loans. Rather than attempting a detailed comparison of the differences between these indigenous forms of Chinese credit (see Tsai 2004), we instead highlight two key characteristics found amongst them, which when taken together, help further explain why Alipay constitutes a preferable alternative.[7]

First, several forms of indigenous credit were regarded as being usurious or unstable. Loans offered by moneylenders and loan sharks often bore extortionate interest rates (*gaolidai*), rendering them illegal. Rotating credit societies—which during China's reform era had mushroomed from small lending circles of mutual friends into large networks composed of strangers hungry for readily available credit—had suffered several high-profile collapses, most notably in the city of Quanzhou in the early 1990s (Tsai 2000). Peer-to-peer (P2P) online financing platforms expanded rapidly since 2010, but became dogged by scandal following media reports of cases of university students forced to provide P2P lenders with naked photos of themselves as a security against their loans (Li 2016). By contrast, Alipay is widely regarded as being 'trustworthy and safe', in part because of the colossal size of its parent company, Alibaba (Chong 2019, p. 300). Ant Credit Pay users in Dapeng Factory asserted that Alipay was 'too big to fail', with its dominant position in providing escrow and savings services meaning the company could be trusted not to act usuriously.

[7] We use the term 'indigenous' rather than 'alternative' credit, as the latter phrase often implies these forms of credit exist due to a lack of other 'legitimate' options.

Second, many sources of indigenous credit rely heavily on borrowers' personal social networks, usually as a safeguard against the kinds of unscrupulous lending outlined above. For instance, one female factory worker mentioned the continued existence of small rotating credit societies amongst friends from their home village, with lending in such associations driven not by a desire for profit from interest payments, but rather by the creation of obligations for subsequent interactions amongst members.[8] However, the most commonly mentioned form of credit was casual borrowing from either friends or family. Jiwei identified clear differences in the moral obligations involved in borrowing from either Ant Credit Pay or friends:

> If you borrow from Alipay, you will become a slave to money; while borrowing from friends, you only owe them *renqing*.

Here, Jiwei describes personal borrowing from friends as being governed by logics of *renqing*, a Chinese concept literally meaning 'human emotion', which alludes to the affective personal bonds held between individuals that are deepened or maintained through the ongoing exchange of favours (see Yan 1996, Kipnis 1997, p. 58, Yang 1994, pp. 67-72).

While drawing on *renqing* as means of accessing credit from friends or family seemed safer than potentially usurious impersonal borrowing, it could be troublesome nonetheless. This was because it was understood to entail not only the eventual repayment of the initial sum borrowed, but also of another yet-to-be-decided favour at some unspecified point in the future. Many of the younger workers at Dapeng Factory lived fairly transient lives, changing employers frequently. As such, they were hesitant to test the *renqing* of their colleagues by asking to borrow from them. Even if co-workers were willing to engage in casual lending, it was difficult to predict the nature of the possible favours that may be asked of borrowers in return, much less their ability to fulfil them.

[8] This somewhat accords with Martin's (2014) description of rotating credit societies in rural 1970s Taiwan.

Relying on friends or family from one's hometown carried its own moral problems, too. For instance, Jiwei described how, during his previous employment working as a chef on a night-time food stall, he felt reluctant to borrow money from his boss with whom he shared a hometown connection:

> We are from the same place and I fear that the boss would gossip with my fellow villagers back in the hometown about me borrowing money all the time, and this will 'injure my credit' (*sun wode xinyong*).

Comparing Alipay with both banks and indigenous forms of lending shows that much of the appeal of Ant Credit Pay to factory workers stems from their perception that it is a strongly depersonalised mode of credit. This distinct sense of depersonalisation can be attributed to the mediated (avoiding the embarrassment of requesting credit in person), trustworthy (institutionally embedded in a large, private technology firm) and dispassionate (free from *renqing* obligations associated with friends or family) qualities of the platform. While Ant Credit Pay appears to be strongly depersonalised, some personal qualities still remain visible. Indeed, just as 'money is always both personal and impersonal' (Hart 2007, p. 16), in credit, too, the boundaries between the two domains can, at times, be indistinct.

This indeterminacy becomes particularly clear in migrants' varying attitudes towards borrowing from and lending to friends. Like Jiwei, many of our participants were *reluctant to borrow* from friends, family or co-workers. Instead, small loans provided by Ant Credit Pay were playing a vital role in helping them 'to deal with mismatches between family income and expenditures' (Carruthers and Ariovich 2010, p. 84) in a way that personal savings often could not. However, participants also expressed a strong *willingness to lend* to others who might be in need, even if this meant drawing on depersonalised loans through Ant Credit Pay in order to be able to do so. The accumulation of *renqing* therefore clearly remained desirable, despite the fact that calling upon it oneself was not always so. While this suggests an accordance with Peebles' (2010) observation that many societies maintain credit to be productive and debt to be destructive, it also demonstrates how the advantages and disadvantages of particular forms of credit hinge upon the specific social contexts that acts of borrowing are grounded in. As such, multiple sets of social connections are often implicated in borrowing acts, extending beyond simple dyadic relations between lender and borrower.

While Alipay may have been preferred by workers because its depersonalised nature allowed them to avoid having to rely on friends for loans, workers nonetheless felt that Ant Credit Pay was not without its own pitfalls. Jiwei's concern that 'you will become a slave to money' by borrowing from Alipay pointed not to worries that the platform may act usuriously, but rather that the assumption of debt would precipitate feelings of greed amongst borrowers, leading to a loss of self-control over money. These sentiments suggest an anxiety that when debt relations occur between people and impersonal institutions, the absence of the moral constraints normally fostered by *renqing* could have derisive effects on the borrower's own moral integrity. Worker Huang Zhongtian, aged 22 years, similarly explained that 'Once you start [borrowing money], you will create more and more desire till it is far beyond your control'. Of course, such concerns were not unique to Alipay alone. Workers expressed similar worries with regards to credit cards and loans offered by banks. However, Ant Credit Pay was seen to do a better job of ameliorating potential dangers because it was relatively conservative in the amount of credit it would extend to workers in the first place. Rather than expressing frustration at being unable to access large amounts of credit, workers instead interpreted this as a sign of Alipay's responsibility as a lender.

This section has demonstrated how workers perceive Ant Credit Pay to be a strongly depersonalised mode of credit. Workers do not particularly envisage it as helping them to either enter the formal economy or avoid informal lending (even if financial inclusion experts may claim this to be the case). Nor does it appear as though Ant Credit Pay owes its existence to a paucity in the availability of credit (legitimate or otherwise) in China. Instead, the particular constellation of relations, obligations and personhood condensed within Ant Credit Pay is what affords it its strongly depersonalised nature. However, workers' attempts to use these loans in the service of more casual forms of lending also point to an opposing dynamic at play, whereby workers made successive attempts to re-personalise Ant Credit Pay with the aim of being able to relate to this form of credit and efficaciously appropriate it into their social lives.

Re-personalising credit: logics of scoring, shopping and charisma

One of the key modes of re-personalisation came from workers' perceptions that Alipay assessed the creditworthiness of individuals in a way fundamentally different from that practiced by banks. Chinese banks chiefly rely on the country's central credit bureau, the People's Bank of China Credit Reference Centre (PBC CRC), for credit scoring. PBC CRC collect extensive data (i.e., loans, court records, tax positions, telephone, utility bills, etc.) covering almost the entire adult population (Rona-Tas and Guseva 2014). While the hegemony of credit scoring in many economies results in consumers having little option but to 'play the game' of cultivating one's own score (Kear 2017), low-income persons in China have long regarded their PBC CRC credit score to be largely inconsequential.[9] This was primarily because they (like Jiwei) believed bank loans were not intended for their use, or because urban bank staff discouraged them from submitting loan applications in the first place.

By contrast, Zhima Credit's rating system touted a personalised scoring technology that promised to rate *all* users—regardless of their social background—through a combination of five factors: 'credit history' (*xinyong lishi*), 'good behaviour' (*xingwei pianhao*), 'ability to

[9] The recent introduction of certain punitive sanctions against Chinese citizens with poor credit records (e.g. bans on air or high-speed rail travel) suggests that credit scoring is becoming increasingly difficult to ignore.

practice economy' (*lvyue nengli*), 'distinguishing identity characteristics' (*shenfen tezhi*) and 'personal connections' (*renmai guanxi*) (Zhima Credit 2019).[10] Alipay also allowed users to easily view their Zhima Credit score—a single numerical value between 350 (lowest trustworthiness) and 950 (highest trustworthiness)—through their smartphone app.

While for factory workers this personalised score represented a novel way of 'seeing' credit, Alipay provided no further guidance on what criteria went into each of the five factors, their calculation methods, or the relative weighting between them. This opaqueness left many workers trying to understand the system's functioning by embedding it within their own, pre-existing personal economic practices. These heuristic efforts to comprehend how Zhima Credit 'thinks' sought to translate the seemingly arcane inner workings of Zhima Credit's algorithmic scoring system into a set of easily implemented guiding principles.

It also had the effect of opening a further avenue for re-personalising Zhima Credit through assuming that such logics were, somehow, perceptible. For instance, Jiwei asserted that improving one's Zhima Credit score was simple: 'If you use it, it grows' (*Ni yong ta, ta jiu sheng gao*). He claimed to have deduced that the only action that made any discernible impact on his score was making regular purchases on credit with Ant Credit Pay. Jiwei reported that the easiest way of achieving this was by spending regularly on Taobao, a vast Alibaba-owned online shopping marketplace which uses Alipay for payment processing. He confidently asserted that 'If you don't buy anything for a month, it won't grow'. Jiwei's re-personalisation of Ant Credit Pay through attributing common-sense, human-style logics to Zhima Credit's scoring system strengthened his affinity for the service, while also providing him with a sense of agency over his own credit score. He saw himself as being able to positively influence his score through increasing his consumption, which to him seemed a more accurate reflection of

[10] Like banks, Alipay also consulted (and contributed to) PBC CRC credit score data. However, Zhima Credit's marketing materials instead emphasised the primacy of its own proprietary credit scoring system.

his economic ability than external indicators relied upon by banks, such as rural/urban status or educational attainment.

The agency that workers felt they possessed over Zhima Credit's personalised scoring sometimes even led to deliberate attempts to 'mislead' the system by inflating the amount of purchases made through the platform. Jiwei recalled one such instance, from when he worked as a chef, prior to joining Dapeng Factory. His former manager relied on Jiwei to use his personal Alipay account to purchase large volumes of ingredients and cooking equipment from Taobao. As a result, Jiwei received monthly increases (of around 100 RMB) to his Ant Credit Pay borrowing limits. In a desire to further bolster his Zhima Credit score, Jiwei began to offer to help other friends and colleagues make everyday purchases on the platform. However, Jiwei found it difficult to maintain the same purchasing volume after taking up employment in Dapeng Factory. Older factory employees generally had little need to buy items online, whereas his peers had their own Alipay accounts and did not wish incur *renqing* obligations by asking newcomer Jiwei for help making purchases. In contrast to Kear's (2017) description of low-income Americans who feel obliged to 'play the game' of credit scoring by providing algorithms with positive data in the hope they recognise their creditworthiness, Jiwei's attempts to 'fool' the human-style logics of Zhima Credit rather suggest a willingness to 'play with' this new form of credit and explore its potentials.

Workers' perception of there being an element of human reasoning governing Ant Credit Pay's functioning extended to the managerial structure that guided Alipay's operations. Here, workers' use of Ant Credit Pay sparked powerful social imaginaries regarding the individual believed to be central to this novel mode of borrowing: Alipay founder and (until recently) Alibaba CEO, Jack Ma. Participants often spoke of Ma and Alipay as being inextricable from each other, despite the fact that he was not actually the CEO of Ant Financial, the subsidiary of Alibaba that manages their credit. This technicality did not prevent workers from asserting that Ma's unorthodox decision-making had been instrumental in Alipay's foray into the personal loan business. Zhang Xiaowu, a male worker in his thirties, commented:

> It's just that every person's brain thinks differently. Jack Ma's got guts. He dares to use his platform to lend money to you. He *gives* this money to you; he's not worried about not getting it back.

This near-comical image of Ma as a benevolent moneylender, doling out cash to borrowers with little concern over repayments arguably represents an anathema to the dominant model of institutional credit, with its insistence on profits deriving from interest-bearing loans. This playful vision was further fostered by numerous promotional campaigns laid on by Alipay, which encouraged the adoption of Ant Credit Pay (and other services) by rewarding users with 'virtual red envelopes' containing money or discounts. Jiwei explained that 'For Jack Ma, [distributing red envelopes] is a drop in the ocean, he's given out so many red envelopes.' Notably, workers appeared reluctant to abuse Ma's magnanimity. All of our participants—perhaps guided by fears of themselves becoming slaves to debt—reported conscientiously repaying purchases made on Ant Credit Pay within the interest-free period, thus avoiding incurring extra charges.

Workers' invocation of Ma as being central to Ant Credit Pay meant that such lending was viewed as unconventional but nevertheless imbued with strategic purpose. Wang Lihua, a female production line worker in her forties, described how Alipay's objectives stemmed from Ma's deep familiarity with grassroots society:

> In my heart, [Ma] is like a legend. He does business, invents software, his brain is very agile, he can know the public's feelings. Jack Ma just really understands the public feeling and digs into their problems. So, he is very smart.

This portrayal of Ma as uncannily able to discern the difficulties faced by ‘normal people’ positioned him as uniquely suited to address the inconveniences, shortcomings and discrimination that workers felt were inherent to existing sources of credit, whether from banks or community-based lenders.

Alipay’s own branding of its loan products also further fostered this sentiment, carrying strong connotations that, in contrast to banks which were understood to prioritise serving companies or wealthy urbanites, Ant Credit Pay primarily sought to assist hard-working individuals and small businesses. In naming their loan products after the eusocial ant, Alipay invoked powerful imagery of an army of tiny loans combining forces to foster economic development amongst a striving entrepreneurial working class:

> ‘Ant’ represents the natural world’s tiny and tenacious force. Although small, when they are put together, they are an infinite power. ‘Ant’ represents our trust in, and dependence on, the ‘tiny’. (Ant Financial 2017)

This sentiment was echoed by Jing Xiandong, CEO of Ant Financial, who claimed that ‘Ant represents the little guys (*xiaohuoban*), the normal public and small companies’ (Zhongguo Xinwen Wang 2016).

This final example of re-personalising Alipay through invoking the figure of Jack Ma was only possible thanks to Ma’s charismatic nature, whereby factory workers considered him ‘extraordinary’ and possessing the kinds of ‘exceptional powers or qualities’ that allowed him to understand the problems they faced (Weber 1978, p. 241). Applying charisma to consumer credit may seem counterintuitive, given Weber’s assertion that charisma ‘abhors the owning and making of money’ and is, in its pure form, ‘opposed to all systematic economic activities’ (Weber 1978, p. 113). In fact, such a position aligns nicely with workers’ depiction of Ma as a carefree distributor of credit. Although Weber went so far as to suggest that charisma was an inherently unstable force, destined to succumb to economic rationality and ‘a slow death by suffocation under the weight of material interests’ (Weber 1978, p. 1120) Ant Credit Pay’s continued expansion seemed to further evidence Ma’s charismatic status. In this case, economic activity actually appeared to sustain charisma.

Workers’ injection of Alipay’s loans with the charisma of Ma also demonstrates how the re-personalisation of institutional credit can make possible ostensibly formal financial products that nonetheless appear to resist bureaucratic organisation. In this sense, the strong emotional affinity workers feel they have with Ma somewhat resembles the cult-like charismatic leaders that Biggart (1989) describes as directing American direct sales organisations, where a kind of ‘charismatic capitalism’ operates through a logic that appears radically different from that of bureaucratic organisations. Just as the inclusive membership and aspirational ideals of direct sales organisations led by founders with magnetic personalities represented ‘a challenge to the bureaucratic organisation of enterprise’ (Biggart 1989, p. 7), Chinese factory workers attributed Alipay’s willingness to extend them small amounts of credit as part of Ma’s masterplan, whereby he sought to deliberately undermine the market dominance of banks that clung to bureaucratic lending procedures. Alipay was also complicit in ‘bureaucratically organising’ Ma’s charismatic image (McFall 2015), by featuring Ma’s face on virtual red envelope giveaway promotions and implying that the company was fighting in the corner of the ‘little guys’.

The above examples have shown workers re-personalising Ant Credit Pay through attributing common-sense logics to its scoring system, ascertaining how the platform ‘thinks’ by embedding it within personal spending and ascribing its mode of operations to Jack Ma’s charisma. These diverse modes of re-personalisation reveal that, despite Ant Credit Pay’s appealing depersonalised nature, workers nonetheless still aspire to form a social relationship with the financial object of credit itself. Indeed, the achievement of Alipay is arguably that its personable nature has ended up becoming expressed in many of those domains of life where China's working class feel they possess at least a modicum of agency: their extensive familiarity with digital technologies, growing consumptive abilities and participation in a larger social transition towards a more entrepreneurial society (as epitomised by Ma himself).

Conclusion: Reinventing credit and redefining the person

Observing factory workers' encounters with and uses of Ant Credit Pay reveals a 'grassroots view' of emerging Chinese credit scoring technologies that differs markedly from established accounts of statistical credit scoring, which have traditionally portrayed computerised systems as superseding human-led lending decision making by delivering more equitable outcomes and new borrowing markets. Instead, Dapeng Factory workers come to understand these new digital credit products through their assumed depersonalising and re-personalising properties, which although appearing somewhat opposed, are in fact often simultaneously consolidated with each other in a multitude of variations.

This paper has demonstrated how workers find Ant Credit Pay's depersonalised mode of lending preferable to relying on familiar connections—such as friends or family—for loans. At the same time, workers have responded to the opacity of Zhima Credit's scoring mechanism by subjecting it to their existing personal spending practices, in an effort to glean insight into its operations. Alongside this, workers have also re-personalised Zhima Credit through a process of personification, invoking Jack Ma as the charismatic leader behind the platform, steering its operating logics, encouraging its perceived munificence and distinguishing it from credit offered by banks, which is seen to discriminate against low-income workers.

Appreciating the varying forms of depersonalisation and re-personalisation found in Zhima Credit allows us to answer the two questions posed at the beginning of this essay. First, it helps to empirically explain the appeal of Ant Credit Pay over not only banks, but also other indigenous forms of lending. By combining depersonalising and re-personalising processes, Zhima Credit is tailored by workers (and also the Alibaba company itself) into a financial object that fits closely with their shifting priorities as they reassess the nature of their social relationships with family, friends, colleagues and state-owned banks. This reflects workers' growing desire for financial autonomy, a changing relationship with the state and a need for credit that can be flexibly deployed credit for a range of social purposes.

Second, it addresses the theoretical question of whether the digitisation of credit inevitably leads to its rationalisation and depersonalisation. Here, the unique amalgamation of depersonalising and re-personalising characteristics present in Ant Credit Pay challenges dominant accounts of the rise of statistical (and increasingly algorithmic) credit scoring as a process whereby machines are gradually replacing humans. Indeed, the consolidation of these aspects within Ant Credit Pay raises the question of whether this new form of credit may, in turn, be producing a new form of person?

Moor and Lury (2018) suggest the development of dynamic 'personalised' pricing technologies makes it harder for consumers to identify themselves as part of a recognised group, giving rise to a 'transcontextual' personhood, combining individualisation with dividualisation. Ant Credit Pay's depersonalising and re-personalising qualities—and the role that workers play in constructing them—similarly indicate the emergence of a distinctive personhood, albeit one that speaks to Chinese tendencies to anchor the person within sets of hierarchical relations. Ant Credit Pay facilitates a personhood increasingly made manifest through individual consumptive activities, rather than one's position as a labourer under a (systematically inequitable) state-led market economy, or as an actor within emotionally burdensome networks of familiar friends and family. Importantly, it represents not an abandonment of these latter modes of personhood, but rather an articulation with them. Indeed, if, as Hart asserts, 'the moral economy of capitalist societies is based on an attempt to keep separate the impersonal and personal spheres of social life' (Hart 2006, p. 29), then the case of Ant Credit Pay serves as a reminder of how contemporary digitalised businesses work in both separating but also re-entangling the impersonal and personal.

This is especially important in the current moment, as the meaning of credit in China appears to be undergoing a monumental reworking. Private companies like Alipay are introducing new forms of credit, calculated in novel ways, using reams of big data generated through the platformatisation of everyday life in China (de Kloet et al. 2019). While this paper has focused on the new loan products being offered as a result of this process, Zhima Credit is increasingly being employed for an array of 'off-label uses' (Rona-Tas 2017, p. 53) across multiple domains of social life, determining users' eligibility for everything from bicycle rentals to expedited visa applications. Alongside this, the Chinese government are in the midst of creating a 'social credit' system designed to monitor and positively influence citizens' behaviour (Creemers 2017). These developments suggest that while the dominant understanding of credit in the world today is rooted in developments in the American financial services sector occurring over the twentieth century (Poon 2007, Marron 2013), the story of contemporary credit is by no means complete. Important questions remain about how the new financial technologies and cultures of credit that are currently being forged in China may shape the future of credit elsewhere in the world.

Indeed, Alipay may itself be grappling with such questions. On 10 September 2019, Jack Ma stepped down from his position as CEO of Alibaba in a carefully choreographed handover of power that had been first announced a year earlier. Different explanations surfaced for Ma's departure. One was that it represented an attempt to reduce the risks associated with ownership of the company being concentrated in the hands of Ma and other key individuals. Another was a desire to avoid a 'cult of the founder' business culture. In an open resignation letter penned by Ma himself, he simply wrote 'I still have lots of dreams to pursue', while also professing that ‘Alibaba was never about Jack Ma, but Jack Ma will forever belong to Alibaba’ (Lahiri 2018). As Alipay continues to pursue its dream of reinventing credit in the absence of its charismatic leader, the issue of how and where it is depersonalised and re-personalised will remain of importance for the company, its users, and for scholars seeking to understand the nature of credit in contemporary society.

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Bibliography

Ant Financial, 2017. *FAQ* [online]. Available from: https://www.antfin.com/faq.htm [Accessed August 1 2018].

Biggart, N. W., 1989. *Charismatic Capitalism: Direct Selling Organizations in America.* Chicago: University of Chicago Press.

Carruthers, B. G. and Ariovich, L., 2010. *Money and Credit: A Sociological Approach.* Cambridge: Polity.

Chong, G. P. L. 2019. Cashless China: Securitization of everyday life through Alipay's social credit system—Sesame Credit. *Chinese Journal of Communication,* 12(3), 290-307.

Creemers, R. 2017. Cyber China: Upgrading propaganda, public opinion work and social management for the twenty-first Century. *Journal of Contemporary China,* 26(103), 85-100.

de Kloet, J., *et al.* 2019. The platformization of Chinese Society: Infrastructure, governance, and practice. *Chinese Journal of Communication*, 12(3), 249-256.

Fourcade, M. and Healy, K. 2013. Classification situations: Life-chances in the neoliberal era. *Accounting, Organizations and Society,* 38(8), 559-572.

Fourcade, M. and Healy, K. 2017. Seeing like a market. *Socio-Economic Review,* 15(1), 9–29.

Gao, X., 2017. *Ant Credit Pay user figures already break through 100 million (Mayi huabei yonghushu yipo yi)* [online]. Shanghai Securities News (Shanghai Zhengjuan Bao).

Available from: http://news.cnstock.com/industry,cyqb-197001-3940533.htm [Accessed 8 August 2018].

Hart, K., 2006. Bureaucratic form and the informal economy. *In:* Guha-Khasnobis, B., Kanbur, R. and Ostrom, E. eds. *Linking the Formal and Informal Economy: Concepts and Policies.* Oxford: Oxford University Press.

Hart, K. 2007. Money is always personal and impersonal. *Anthropology Today*, 23(5), 12-16.

Hart, K., 2008. Informal Economy. *In:* Durlauf, S. N. and Blume, L. E. eds. *The New Palgrave Dictionary of Economics.* London: Palgrave Macmillan.

Kapron, Z. and Meertens, M., 2017. *Social networks, e-commerce platforms, and the growth of digital payment ecosystems in China: What it means for other countries* [online]. Better Than Cash Alliance. Available from: https://www.betterthancash.org/tools-research/case-studies/social-networks-ecommerce-platforms-and-the-growth-of-digital-payment-ecosystems-in-china [Accessed 28 April 2018].

Kear, M. 2016. Peer lending and the subsumption of the informal. *Journal of Cultural Economy*, 9(3), 261-276.

Kear, M. 2017. Playing the credit score game: Algorithms, 'positive' data and the personification of financial objects. *Economy and Society*, 46(3-4), 346-368.

Kipnis, A. B., 1997. *Producing Guanxi: sentiment, self, and subculture in a North China village.* Durham, NC: Duke University Press.

Lahiri, T., 2018. *Read Jack Ma's letter announcing his retirement as Alibaba chairman* [online]. Quartz. Available from: https://qz.com/1384087/full-text-jack-mas-letter-announcing-retirement-from-alibaba/.

Leyshon, A. and Thrift, N. 1999. Lists come alive: Electronic systems of knowledge and the rise of credit-scoring in retail banking. *Economy and Society,* 28(3), 434-466.

Li, J., 2016. Details of more than 100 victims of ‘nude selfies for loans’ leaked online. *South China Morning Post*, December 8, p. 6.

Marron, D. 2007. ‘Lending by numbers’: credit scoring and the constitution of risk within American consumer credit. *Economy and Society,* 36(1), 103-133.

Marron, D., 2009. *Consumer Credit in the United States: A Sociological Perspective from the 19th Century to the Present.* Basingstoke: Palgrave Macmillan.

Marron, D. 2013. “Informed, educated and more confident”: Financial capability and the problematization of personal finance consumption. *Consumption Markets & Culture,* 17(5), 491-511.

Martin, E., 2014. *The Meaning of Money in China and the United States.* Chicago: Hau Books.

McFall, L., 2015. *Devising Consumption: Cultural Economies of Insurance, Credit and Spending.* London: Routledge.

Moor, L. and Lury, C. 2018. Price and the person: markets, discrimination, and personhood. *Journal of Cultural Economy,* 11(6), 501-513.

Ossandón, J. 2013. Sowing consumers in the garden of mass retailing in Chile. *Consumption Markets & Culture*, 17(5), 429-447.

Ossandón, J., 2017. 'My story has no strings attached': Credit cards, market devices and a stone guest. *In:* Cochoy, F., Deville, J. and McFall, L. eds. *Markets and the Arts of Attachment.* Abingdon: Routledge.

Peebles, G. 2010. The Anthropology of Credit and Debt. *Annual Review of Anthropology,* 39(1), 225-240.

Poon, M. 2007. Scorecards as devices for consumer credit: The case of Fair, Isaac & Company Incorporated. *The Sociological Review,* 55(s2), 284-306.

Rona-Tas, A. 2017. The Off-Label Use of Consumer Credit Ratings. *Historical Social Research-Historische Sozialforschung,* 42(1), 52-76.

Rona-Tas, A. and Guseva, A., 2014. *Plastic Money: Constructing Markets for Credit Cards in Eight Postcommunist Countries.* Stanford, CA: Stanford University Press.

Tsai, K. S. 2000. Banquet banking: Gender and rotating savings and credit associations in south China. *The China Quarterly,* 161, 142-170.

Tsai, K. S. 2004. Imperfect substitutes: The local political economy of informal finance and microfinance in rural China and India. *World Development*, 32(9), 1487-1507.

Turvey, C. G. and Kong, R. 2010. Informal lending amongst friends and relatives: Can microcredit compete in rural China? *China Economic Review,* 21(4), 544-556.

Weber, M., 1978. *Economy and Society: An Outline of Interpretive Sociology.* Berkeley: University of California Press.

Weber, M., 1981. *General Economic History.* New Brunswick, NJ: Transaction Publishers.

Wherry, F. F., Seefeldt, K. S. and Alvarez, A. S., 2019. *Credit Where it's Due: Rethinking Financial Citizenship.* New York: Russell Sage Foundation.

Yan, Y., 1996. *The Flow of Gifts: Reciprocity and Social Networks in a Chinese Village.* Stanford, CA: Stanford University Press.

Yang, M. M.-h., 1994. *Gifts, Favors, and Banquets: The Art of Social Relationships in China.* Ithaca, NY: Cornell University Press.

Yuran, N., 2014. *What Money Wants: An Economy of Desire.* Stanford, CA: Stanford University Press.

Zelizer, V. A., 2017. *The Social Meaning of Money.* Princeton, NJ: Princeton University Press.

Zhima Credit, 2019. *Zhima points (Zhima fen)* [online]. Available from: https://www.xin.xin/#/detail/1-2 [Accessed 15 February 2019].

Zhongguo Xinwen Wang, 2016. *Interviewing Jing Xiandong: His theory of evolution for Ant Financial's benefits (Zhenfang Jing Xiandong: Mayi Jinfu deli ta zhyi jinhualun)* [online]. Available from: http://www.chinanews.com/it/2016/05-10/7865039.shtml [Accessed 2 August 2018].