EXPERIENCE MONEY

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Appification

Industry researchers and anthropologists in the ‘payment space’ are talking of a ‘Cambrian explosion of payments’.¹ The explosion is Cambrian, explains Bill Maurer, ‘in that new body forms, adaptations of existing structures, and novel relationships in a variegating ecology of retail payment are coming into being all at once’.² Readers with an interest in the payment space are no doubt familiar with some of these ways to pay (or otherwise transfer), from M-PESA to Venmo, Bitcoin to Alipay, and while not all rely on the bundle of technologies we (still) call the phone, it is doubtful there would be talk of such an explosion without the prior explosion of these digital devices.

Part of what is happening with payments is a becoming-money-like of phones, of phones substituting for other money artefacts such as cash or card. Of course, it is by no means a straightforward substitution: the becoming-money-like of phones is equally a becoming-phone-like of money. And since the phone is always already a bundle or stack of technologies, what is happening with money and what that might mean more generally in terms of (political) economy is anything but clear.

As Maurer points out, payments made through phones involve ‘adaptations of existing infrastructures’. Just at the level of phone hardware, for example, he points out how payment software variously makes use of the phone’s camera, display and earphone jack, none of which were intended for payment. In addition to these novel material adaptations, something (at least) as significant is happening as money-practices — paying, transferring, budgeting, converting, investing, and so on — are increasingly encoded as software. Money is becoming ‘appified’.

Another way to get at this ‘explosion’ in the payment space is precisely to look to the major app stores — and indeed one does find rapid growth in money-related apps over the last five years.³ In the form of applications, internet banking services from Natwest, Barclays or Lloyds (in the UK) sit alongside payment processors such as Paypal. There are any number of Bitcoin wallets, and the new generation of ‘smart’ or ‘challenger’ banking and payment apps such as Monzo, Monese, or Yolt. Then there are the 1st party platform apps, such as Android Pay and Google Wallet, or Apple Pay and Apple Wallet. As a further, fractal, iteration on this platform-app dynamic, Apple Wallet is also fashioned as its own mini-platform of sorts, a kind of wallet-as-

³ Of course, both the Apple App Store and Google’s Play Store have experienced significant app growth in general.
platform, where users can connect to other apps (British Airways, Starbucks, Hotels.com, Expedia, Airbnb, Eventbrite, etc.). Wallet will ‘store your boarding passes, tickets, reward cards, coupons and gift cards in one place’.4

These money apps push and pull money in different directions. They code its functionality in different ways, ways that ‘operationalise’ the sociological theories of money as ‘marked’ developed by writers like Viviana Zelizer:5 apps for moving money across borders; for saving and managing finances; for gift-giving; for playful gestures; for gambling; for retail payments; for specific platform transactions; for spending in this space, this store, this thing, now, for you and you only.6 The notion of money as ‘universal equivalent’ is superseded by money as situated, ‘embodied interaction’.7 And thus, the spectrum of monetary situations become available for appification. There is much to be said about monetary appification: how it reconfigures hardware and infrastructures; how it realigns industries and industry players (banks, mobile network operators, software companies, merchants and so on), creating new allegiances and competitors; how it is part of a privatisation of money-space; or, indeed, how it expands money’s materiality and augments its functionality (or not), while blurring the distinction between money as artefact and process or milieu, for example. In what follows, we limit ourselves to a discussion of what we see as the becoming experiential of money; that is, of money becoming subjected to specific design techniques and framings as experience. As we shall see, experience (design) informs how the vast majority of money-related apps are made. It is a way of doing things; a set (or sets) of principles and corresponding methods. Experience is also the criterion upon which apps are evaluated and the ‘value proposition’ upon which new apps are brought into being. A turn to experience, then, helps us understand something of the cultural logics of this so-called Cambrian explosion. It provides one way into thinking about what is happening to money as it is remediated through phones, and where we might look to gain a critical purchase on the present in terms of political and cultural economy.

**Experience**

While money has long been the subject of design (in terms of materials, preventing counterfeit, or for symbolic ends), as app the entire money-sphere is subject to a particular kind of design mediation. Money is becoming a subset of the user experience. Understood through the lens of user experience, money’s commonly-attributed functions — as medium, measure, store, etc. — persist, but only inasmuch as money is now also something else. This new experience ‘layer’ of mediation does not cancel

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4 As much as Android and Apple Pay have a significant competitive advantage as the native offerings of their respective appospheres, neither has made inroads comparable to their Chinese counterparts. Alipay, for example, reportedly has 450 million users, and a 54% share of China’s $5.5 trillion mobile payments market. Alipay’s main competitor is WeixinPay (or WeChat Pay), which currently has 37% of the market. See Louise Lucas, ‘Ant Financial claims doubling of daily users’, Financial Times, 17 May 2017, https://www.ft.com/content/8925ad98-3add-11e7-821a-6027b6a20f23?mhq5j=e2.


out other functions, although, as we will see, it is not the case of money-as-usual. What is experience in this context? There are at least two trajectories that converge in money-as-experience, one economic and one design-based.

The significance of experience as an economic concept was perhaps first explored by Alvin Toffler in *Future Shock*. Toffler wrote of the rise of the ‘experiential industries’, which specialises in neither goods or services but experiences, experiences which in turn becomes central to the mediation of these other sources of value (goods and services):

Bankers and brokers, real estate and insurance companies will employ the most carefully chosen decor, music, closed circuit color television, engineered tastes and smells, along with the most advanced mixed-media equipment to heighten (or neutralize) the psychological charge that accompanies even the most routine transaction. No important service will be offered to the consumer before it has been analyzed by teams of behavioral engineers to improve its psychic loading.

Experience, in this regard, pans much of the contemporary ‘culture industries’, and is always explicitly part of an economic relation. It appears as a kind of extra layer (similar to how design itself was understood at the time), but Toffler also imagines such experiences floating more freely: ‘The experience is, so to speak, the frosting on the cake. As we advance into the future, however, more and more experiences will be sold strictly on their own merits, exactly as if they were things’.

Roughly 30 years after *Future Shock*, Joseph Pine and James Gilmore wrote their influential book, *The Experience Economy*. These authors similarly distinguish experience from goods and services:

Experiences represent an existing but previously unarticulated genre of economic output. Decoupling experiences from services in accounting for what businesses create opens up possibilities for extraordinary economic expansion just as recognizing services as a distinct and legitimate offering led to a vibrant economic foundation in the face of a declining industrial base.

For these authors, experience is separated out as a new ‘unit of value’, which emerges through ‘mass customization’ and where ‘every business is a stage, and therefore work is theatre’. Mass customization is achieved through different forms of ‘staging’. If this sounds like an operationalization of Erving Goffman’s seminal *Frame Analysis* — where theatre is used as a primary example to elucidate the ‘framing’ of everyday experience — it is because it is. *The Experience Economy* reads like a

9 Ibid., p. 228.
10 Ibid.
12 Ibid.
13 Ibid.
business undergraduate mistakenly took a course in sociology, and read Goffman as if he were a business guru. The result is employees and managers reimagined as actors and places of work reimagined as different types of theatre. Find yourself in a dynamic environment? Strategy: Improv Theatre. How about a familiar, routine situation? Platform Theatre. As industrial production retreats from the overdeveloped nations and services reach their limits, the staging of experiences, Pine and Gilmore suggest, ‘provides the key to future economic growth’.15

By the time The Experience Economy was reissued in 2011, the authors could write of Apple as the new masters of experience: ‘what store is now the envy of every mall owner and developer? Apple. Why? Customers clearly flock there not only for the goods but also the store experience...’.16 A year after this reissue, Carmine Gallo published her book length account of this development in The Apple Experience.17 Gallo continues to rely on theatrical metaphors, with discussions of scripts and stage setting, heroes and villains, but also give experience an expanded set of coordinates. In a chapter dedicated to creating ‘wow moments’, for example, readers are treated to an opening epigraph from neuroscientist John Medina: ‘The brain remembers the emotional components of an experience better than any other aspect’.18 The staging of experiences comes to refer explicitly to a cognitive and emotional actor, with the task of experience design, in this chapter at least, to create ‘emotionally charged events’. Apple’s famous Super Bowl ad ‘1984’ is reframed as the prototypical ‘wow moment’. Whatever else there is to say about this ad, it certainly can be read as a kind of experience proposition (as the voiceover proclaims): ‘And you’ll see why 1984 won’t be like 1984’.19

It is with Apple that the two trajectories of experience as designed encounter and source of economic value reach their apotheosis. Of course, experience as ‘unit of value’ and as design practice are deeply interwoven, but they can be separated out. Designing for ‘the user experience’20 is precisely a practice, a way of designing that differs from other design traditions, and one in which economic considerations (of experience) become backgrounded and only re-enter at specific moments of the design process.

User experience (UX) design falls within what has been called the ‘third paradigm’ of Human-Computer Interaction (HCI) as influentially described by Steve Harrison, Deborah Tatar, and Phoebe Sengers.21 These authors summarise the first paradigm as engineering and ‘human factors’ led, with a focus on ‘optimizing man-machine fit’; the second was based in cognitive science and focusing on how the computer

16 Pine and Gilmore, The Experience Economy.
18 Ibid., 143.
and ‘human mind’ interact; while the third paradigm is described as a ‘phenomenological matrix’, one which takes into account things like affect, embodiment, situated meaning, values and social issues.\textsuperscript{22} In a different take on this history, Microsoft researcher Jonathan Grudin defines the third ‘face’ (in his terms) through the rise of ‘discretionary use’.\textsuperscript{23} His idea correlates with the rise of the PC (and later mobile devices), which place computers outside the workplace and the practice of work itself. Discretionary use is use beyond work; use that, at least in some aspects, is reconfigured as consumption.\textsuperscript{24}

Research under the ‘third paradigm’ attained heightened influence as computational objects increasingly entered the everyday – the becoming ‘ubiquitous’ of computing.\textsuperscript{25} Pioneering work by HCI researchers at Xerox PARC, including Lucy Suchman on ‘situated action’ and Paul Dourish on ‘embodied interaction’, offered convincing criticisms of the instrumental and Cartesian underpinnings of earlier approaches to HCI, while also drawing on sociological and phenomenological insights to advance their own agendas.\textsuperscript{26} Donald Norman, who was foundational to the second ‘cognitive’ paradigm of HCI, revised his earlier position and also began focusing on things like ‘emotional design’.\textsuperscript{27} In this third paradigm, the user of technology was thoroughly reworked; now depicted in situations closer to Geertz’s Balinese Cockfights than the formalised cognitive task and office workflows of days past.\textsuperscript{28}

The term ‘user’ itself came under attack by Norman and others as being too tainted by these older paradigms. Norman started championing ordinary ‘people’ and suggesting technology ‘should get out of the way’ — the so-called invisible paradigm — while others suggested UX should lose its ‘U’ and focus solely on experiences. So, users and situations become decidedly thicker, and claims to knowing the user attained new empirical coordinates. Users were now placed in ‘user scenarios’ within larger ‘user journeys’; they were now in a world full of rich experiences and the task of design was to focus on these. Even when ‘real’ users were missing in action, designers invented detailed but effectively fictitious characters or ‘personas’. While products and services remain important throughout these changes, experience design begins from this position (of experience) and works backwards through to the product or service.

Drawing insights from behavioural psychology, cognitive approaches to interaction design had already assumed users were not rational and this assumption was carried into the experience paradigm. It’s not to say that cognitive approaches

\textsuperscript{22} Harrison, Tatar, and Sengers, ‘The Three Paradigms of HCI’.
presumed an irrational user, but rather a full spectrum of cognitive ‘behaviours’ were put on the table. Indeed, the very premise of the second paradigm was that designers and engineers could not assume in advance that users would use as intended by design; Engelbart-style ‘augmenting’ of the human intellect through the interface was not a given. Industry books like Don’t Make Me Think and Designing with the Mind in Mind provided practical advice on designing for the cognitively-flawed user.

This a-rational or behavioural user underpins much contemporary interaction design, where creating a desired experience is evaluated in terms of its capacity to elicit specific behaviours. Here, the design of experience to shape behaviour explicitly blends socio-cultural, psychological and behavioural-economic insights, as seen in the well-documented form of ‘nudging’. The most sinister of the cognitive-behavioural approaches at the level of experience design are manifested as ‘dark’ design patterns, which deliberately aim to trick and misguide users by preying on their cognitive weaknesses. However, deliberate attempts to nudge and deceive are only the most obvious instances of experiences that are always already designed to direct cognition.

Thus, while there is a thickness to the imagined, designed and real experiences of the user, a lingering instrumentality necessarily exists in the user experience as subject of design. Experiences are designed to ‘act upon’ the user to enact a change or achieve a designed outcome. While cognition is not the only target of design, as the locus of decision-making and other, lower-level responses, the cognitive element is often privileged. The behavioural economists, for example, are now inclined to speak of designing ‘choice architectures’, material environments constructed to encourage specific choices (over others), while also producing an active, decision-making user – a user understood as decision-maker, and one who must decide in order to validate the premise of the (choice) architecture.

This cognitive-behavioural user has its roots in behavioural psychology, where the mind or psyche were black-boxed. The psychological way of knowing came to revolve around creating controlled experiments, which focused on observing the cognitive behaviours of subjects. This black-boxing of the mind and privileging of a peculiar form of empiricism proved attractive to a generation of economists who had become interested in testing the presumed utility-maximising individual underpinning neoclassical economics.

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economics and they used experiments to undermine this rational figure at the heart of economics.\textsuperscript{36} Such a black-boxing of the mind attains a new specificity and a new function in the experience paradigm.

While the process of design may well involve qualitative or even ethnographic modes of inquiry, the actual interfacing of user and experience, when people use money apps, for example, lends itself to behavioural insights (and methods) because the actual user is generally only registered as a series of digital traces. That is, while the user may be ‘in’ an experience in all its symbolic richness, the interaction is fed back through the interface as a string of data signals.\textsuperscript{37} While early web design was barely conscious of the ‘informating’\textsuperscript{38} dimension of digital communication, today experiences come jam-packed with any number of behavioural data points and these are used to measure the performance of the experience (in terms of conversion rates, for example), but also as a set of coordinates for conducting experiments.\textsuperscript{39} A/B and multivariate testing, which roll out subtly different versions of an interface to different users and then measure the resulting behaviours against a predefined criteria, are based precisely on the experience as an unfolding experiment, and as constituted through behaviours which are not only the basis of ‘knowing’ but also acting. This post-ethnographic and post-demographic\textsuperscript{40} user (as data signals) moves to the centre of design considerations as the actual users of applications scales into the millions. Indeed, as initially designed experiences (and their ethnographically thick users) are set wild into the digital everyday, the scaling of behavioural data and re-framing of experience as experiment suggest the third paradigm may be morphing into something else. These hybrid \textit{experiments}, increasingly form the modus operandi of innovation in platform capitalism. In the case of data-driven \textit{experiments}, we are literally talking about quasi-blind innovation. A data-design hybrid authority replaces the Schumpeterian heroic entrepreneur. The experience economy is guided by the invisible hand of behaviour.

The Cambrian explosion in the ‘payments space’ is an implosion of money as exchange and a rebirth of money as experience. Experience becomes a distinct value proposition — indeed, a selling point — upon which any number of money-sphere applications can lay claim. Experience is staging, performance, scripting, instrumentalized Goffmanian framing; it is a new ‘unit of value’, a 1984 ‘wow moment’. But it is also a worldview of ethnographic thickness attached to design practice. Experience is where people are (embodied, situated), what they have (affects, emotions, behaviours) and what design actively (re)creates, acts upon and experiments on; experience hovers between methodology and worldview.


Apple Pay
To consider this recasting of money as experience, let’s return to Apple. Apple Pay was publicly introduced at the launch event for the iPhone 6 in 2014. After a general introduction to the then new iPhone 6, Apple CEO Tim Cook strolls (back) onto the stage and announces that he’d ‘like to talk about an entirely new category of service’.41 After a lengthy pause, he continues, ‘And it’s all about the wallet’. A bulky black leather wallet appears on the screen behind Cook; it is held slightly ajar to reveal a couple of bank cards and some unruly bills. ‘Our vision’ he continues, ‘is to replace this.’ Apple Pay is presented as the first step in this vision. The audience is given an overview of the payments industry in the US (four trillion US dollars annually, 200 million transactions processed daily), after which Cook’s rhetoric takes a turn: ‘That’s 200 million times we scramble for our credit cards, and go through what is a fairly antiquated payment process’. He provides a short and somewhat elaborate video of a woman paying for a store purchase using a Visa bank card: she fumbles around with her purse; the card is difficult to pry out of its slot; ID is required; the magstripe doesn’t read; the card is returned with a receipt, and both need to be sorted away. The bank card — and its magstripe technology — come under full attack: it’s ‘five decades old’; ‘outdated and vulnerable’; ‘it’s so easy to lose your card or have it compromised’.

Cook goes on to acknowledge that many have already tried and failed to create a mobile wallet which gains a foothold in the payment business. ‘Why is this?’, he ponders,

It’s because as it turns out most people that have worked on this have started by focusing on creating a business model that was centred around their self-interest, instead of focusing on the user experience. We love this kind of problem. This is exactly what Apple does best.

The audience is reintroduced to the scenario of the woman paying in store. This time she is equipped with Apple Pay. At the register, the store keeper once again announces the total. The woman holds her phone to a wireless payment terminal and presses her thumb on the iPhone’s fingerprint scanner. A small beep confirms the transaction is complete. ‘That’s it!’, Cook announces. And again, ‘That’s it!’ He shows the video again, in case the audience ‘blinks’ and missed it. At that point, Cook leaves the stage to Eddy Cue (Senior VP of Software and Services) to go through all the technical details. While these details surely matter a great deal when it comes to evaluating the actual functioning of Apple Pay, the main work is already done. ‘That’s it’ is Apply Pay’s ‘wow moment’.

In the first video Cook establishes payment as a theatre of experience. It is a woman in a store, with a handbag and a purse. It is a shopkeeper, a bench, goods and bags, swipe terminals and cash registers. It involves communication, both verbal and gestural, and a range of bodily movements — grasping, sorting, swiping, pulling, glancing, reading, and so on. Swipe cards appear as the main villains, sup-

41 Apple, Apple - September Event 2014, 2014, https://www.youtube.com/watch?v=38lqQpwPe7s; Note: all subsequent references to Tim Cook are taken from this video. The relevant section begins at the 43-minute mark.
ported by purses, swipe terminals and ID checks. Apple Pay emerges as the under-stated hero; it rewrites the script, taking the user on a new, simpler journey.

We will not speculate too much on the strategic behavioural dimensions of this re-scripted experience, but the temporal changes alone — That’s it! — is presumably relevant to the so-called purchase or conversion ‘funnel’, particularly at the final point of purchase. It would also presumably impact the user’s ‘present bias’ (a privileging of the present when making decisions), by reducing opportunities for consumer reflexivity. Such speculation is in fact not necessary as Apple overtly advertises the behavioural dimensions of Apple Pay on the company’s developer site, where early adopters provide testimony of the benefits of switching to Pay. Consider a selection of these testimonies:

A product manager from Groupon: ‘Apple Pay has facilitated greater real-time commerce, improved conversion and enhanced the overall Groupon mobile experience.’

A product director from Indiegogo: ‘We’ve seen a 250% increase in our conversion rate with Apple Pay.’

A ‘VP of Product’ from Chairish: ‘With Apple Pay, our conversion rate has tripled.’

The CEO of Fancy: ‘Apple Pay customers have a 30% higher purchase frequency than other users.’

Each of these testimonies is followed with further elaboration from Apple’s copy writers: ‘new customers can purchase a deal with a single tap’; ‘the DoorDash team removed friction from the checkout experience for new users’; ‘With Apple Pay, there’s no need for payment method selection or data entry, resulting in an optimal customer experience’; and ‘With a better first time experience, customers come back more frequently.’ The ‘value proposition’ of Apple Pay is an improved payment experience resulting in higher sales conversion rates. That is, as experience money, Apple Pay promises to leave its owners hands (or phones?) more often and more efficiently than other ways to pay.

**Critical Coordinates**

Whether or not Apple Pay (Android Pay, Samsung Pay, Alipay, WeChat Pay, Paypal, or the like) will establish itself as the *killer app* for payments is secondary to the general rise of experience money. Competition in the payment space and the larger app ecology is being forged in terms of this re-scripting of experience. What to make of this experience money?

Experience money should trouble classical and neoclassical economists because it introduces a behavioural, a-rational, actor into the market, *a priori*. That is, experience money *acts on* users through the very process of facilitating market activity. The behavioural approach to economics also finds itself in an odd situation: the insight it

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borrows from behavioural psychology to better account for empirical economic activity (with regards to neoclassical approaches) is now already written into the empirical. Attempts to explain economic realities from this position therefore suffer from a type of ontological circularity. In other words, behavioural economics is having its ‘engine not a camera’ moment. This should not trouble too many readers of MoneyLab, who hail from more critical and creative horizons. Indeed, it suggests the empirical realities of experience money can be used as ammunition against attempts to explain economic activity by the means just mentioned. But we might also ask some more fundamental questions.

As Apple, Google, Alibaba, Tencent and others continue the march into banking, payment, transfer and other services traditionally the preserve of banks and credit card companies, the distance between global finance and digital cultures further collapses. What would it mean to take these players and their experiential interventions as the basis for a critique of political economy? When four of the top five most valuable public companies (Apple, Alphabet, Microsoft and Amazon) are all experimenting with experience money, this question is pressing. What does criticism look like, when its object is an economy of experiences? What can we learn from these experience-mongers? Future interventions must learn from and act upon this experiential state of the art.

References
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