


MA MAJOR RESEARCH PAPER

FROM FACEBOOK TO 'PLACEBOOK':
A CRITICAL APPROACH TO MOBILE NETWORK LABOUR

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Abstract

This paper puts forth a critical interpretation of Facebook Inc.'s mobile growth strategy within a present mobile network society. Using Facebook's own promotional and platform policy texts – many authored at a time when the company prepared for public trading – a promotional rhetoric inviting mobile users to actively partake in the site's 'engaging experiences' will be surveyed. The analyst adopts a view that engaging Facebook on mobile devices can be interpreted as an emerging form of hyper-mobile net *work* generating surplus value filtered towards particular interests (network 'nodes'). I argue that Facebook's source code can be likened to a worksite, albeit a highly decentralized one that, through mobile, bridge virtual influence to physical spaces. To meet such a task, end-users' mobile-specific technical rights will be discussed so far as they interface with other revenue-generating actors. Using a critical discourse analysis framework, this paper explores a grammar of interests portrayed at a key point in Facebook's company history, connecting Facebook's imagined mobile landscape to its initial public offering period.

Keywords: Facebook Mobile, mobile network society, mobile form factor, network labour, technical rights, property rights

Introduction

When Motorola released the DynaTAC 8000X¹ to a small number of consumer markets in 1983, this analog cellular telephone was a novelty in every sense of the word. In those early years, the five-pound “mobile” handset, with its thirty minutes of airtime² (Farman, 2012), permitted voice communication while also *communicating* economic wealth. Nearly thirty years later, the mobile landscape is hardly recognizable. Motorola and its patents have been acquired by Google, mobiles phones fit inside pockets and these “affordable” miniature computers are no longer the status symbols they once were (Contarello, Fortunati, & Sarrica, 2007). Courts have now heard cases of unpaid ‘electronic overtime’ (Silvergate & Salner, 2011), and congressman Anthony Weiner has resigned from his position after a very public ‘sexting’ scandal dubbed ‘Weinergate’.

As digital handsets and mobile networks have become the norm, notions of Information and Communications Technology “progress” have also changed (ITU, 2011). Mobile phone networks have permitted developing markets to bridge the ‘digital divide’; many emerging markets have quickly ‘leapfrogged’ wired (Internet) infrastructures once limited to wealthy markets. In this vein, the Internet is appearing to be less-and-less of a desktop network: this proliferation of Internet-connected mobile devices caused the ITU, in 2008, to upgrade from the telephone number to the Internet protocol (IP) address as a basic measure of “progress” (ITU, 2011).

¹ DynaTAC stood for **D**ynamic **A**ddaptive **T**otal **A**rea **C**overage

² This would seem to be rooted in a patent filing for ‘cellular’ communication networks. This paper makes a conscious decision to avoid the term ‘cellphone’ used in American markets (Farman, 2012)

Admittedly, the preceding account offered a technically deterministic portrayal of mobile phones, framing these devices as ‘instrumentally’ compressing space and time while entirely ignoring participant interests (Feenberg, 2001) shaping technology. Mobile phone technology, I argue, must be considered beyond material levels of access. Instead, dimensions of skill and motivation must factor into a discussion of how consistently particular interest groups harness technology (and for what ends). Increasingly, the ‘killer app’ of mobile has transitioned away from voice to the web. As it does so, *physical spaces* are converging with software-mediated *virtual places* in new ways. Such features as high resolutions cameras and embedded GPS radio now have the potential to encode our surroundings into the [web 2.0 data] ‘cloud’ (Castells, 2007; Deuze, 2011; Lüders, 2008; Montenegro, 2009). Data networks now extend into our immediate surroundings, paling in comparison to the ringtones, vibrations and blinking ‘missed call’ indicator lights of yesteryear.

This paper focuses on one web 2.0 application, Facebook, and how its owners promote their techno-social vision of mobile growth. I argue that we must look beyond the mobile as a set of neutral features, that such hardware features – especially when connected to a web 2.0 platforms – both *encode* and *decode* influence into physical spaces. Increasingly, such platforms are becoming less and less like closed virtual circuits; the mobile handset emerges as a gateway of sorts to extend platform owners’ levels of influence beyond the virtual. Thirty years ago, it might have been unimaginable to conceive of a mobile application like ‘Girls Around Me’ – an iPhone app combining GPS data alongside Facebook profiles for effortless (and contextual) flirting (Paul, 2012). In this light, some level of web 2.0-mobile literacy is needed, particularly when ‘personal media production’ (Luders, Proitz, & Rasmussen, 2010; Luders et al., 2010) has become so commonplace.

My work critiques Facebook's mobile strategy, describing how this 'populist' platform addresses the role users play in growing Facebook Mobile. While Facebook is the most popular social networking website at present (Alexa, 2012), minimal work has gone into connecting Facebook's uniquely mobile features to the rest of the platform³. Moreover, at a time when many industry players are speculating that the company has reached a state of maturity, I see a need to discuss a grammar of mobility alongside market struggles faced by the company after going public. Such a task becomes especially relevant at a time when Facebook's advertising revenues have been decreasing, yet the company's total revenues continue to increase (Facebook, Inc., 2012). Recognizing Facebook's belief that mobile is "critical to maintaining user growth and engagement over the longer term" (Facebook Inc., 2012, p. 4), my work explores how this mobile social networking site invites users to trade away control in exchange for a highly personalized media experience.

To undertake a critical discourse analysis of Facebook Mobile, my work uses gaps in the promotional rhetoric to achieve two key benefits. On the one hand, such gaps provide opportunities with to generate a critical language that can be used to critique company influence over users' mobile devices. To do this, I use a socio-spatial approach (Castells, 2007) to rights (Feenberg, 2001) that address issues of 'immaterial labour' (Lazaratto, 1996) within the platform. Central to my work is the notion that capital has both immediate and delayed levels of gratification (Bourdieu, 1986). My work then discusses to what extent users may reverse structural restraints that regulate the flow of capital within Facebook's enclosed space.

³ This keyword is frequently taken for granted. See literature review for a thorough discussion of the term.

This paper builds its rights-based approach to mobile social networking sites with a fairly straightforward agenda. I first present some basic background information describing a ‘mobile network society’. Later, a literature review surveys descriptive projects conceiving of capital and labour relations within an emerging network society. The second portion of this text undertakes a critical discourse analysis of key Facebook Mobile texts to later critique influence within the company’s rhetoric. A pursuant discussion section contextualizes issue of power and influence steered within Facebook’s discourse network.

The crux of my argument is that software can regulate users’ choices. At a time when the company has been criticized for not having its mobile strategy firmly in place, my work suggests that gaps in Facebook’s definition and negotiation phases present opportunities to observe how this mature service is reinventing itself to survive in a mobile network society.

Background: a multilayered mobile network society

Mobiles help in part to visualize the nodal nature of a decentralized network society, but we also need to consider how such devices interface with a larger socio-technological arrangement (Castells, 1999; Barry, 2004; Wellman & Rainie, 2012). Moreover, an understanding of the multiple levels of this assemblage – the network infrastructure, client devices and popular applications, as well as the forces regulating this network – are desperately needed. Admittedly, if new media is an ephemeral moving target (Chun, 2004), such a project must sustain attention to the current state of this assemblage, even if decreasing this paper’s level of novelty by the time it is published. The following subsections present a brief map of four human and non-human layers that compose a larger mobile network assemblage.

Recognizing that mobile Internet subscriptions overtook their wired counterparts globally in 2008 (ITU, 2011, p. 87), we must reconsider how to approach network access in a Castellan network society. Historically, it must be noted that the majority of Western users have been introduced to the Internet through the desktop personal computer (Moll, 2008, p. 28). Resultantly, legacy attitudes taking fixed connectivity for granted have been built in to the Internet studies academic genre. We must respect that for an increasing number of international users, the physically gratifying act of “jacking in” (Chun, 2002) to the Internet Service Provider becomes an obsolete practice in a wireless space of persistent connectivity (Deuze, 2011). An additional bias to keep in mind is that many scholars engage the field from a position of privilege, owning multiple personal computing devices connected to redundant Internet subscriptions. Conversely, in Kenya where 98.8 Internet subscriptions pass through wireless GPRS/EDGE and 3G infrastructure (ITU, 2011, p. 91), unpredictable network access may impede true ‘migratory’ connections (Jenkins, 2006, p. 2). When considering mobile Internet, a second wave digital divide characterized by lower Internet speed, capacity and dependability (ITU, 2011, p. 4) should not go overlooked by researchers.

The question of what characterizes a device as inherently ‘mobile’ deserves critical reflection in the broader discourse of the network society. Consider that in many hospitals, staff members roll “COWS” (computers-on-wheels) into patients’ rooms, allowing them to instantly update electronic medical records. However, these desktop computers, equipped with battery and wireless network connectivity (Menzes, 2009), become mobile not because of their form factor, but through practice. In contrast, many otherwise portable company laptops are literally locked onto desktop-mounted docking stations, only to be used in a stationary manner.

To add more precision to the term ‘mobile’ we must consider how imagined uses are modeled. A prevalent “anytime, anywhere” mobile marketing discourse (Tarkka, 2010) allows us to acknowledge that Internet-connected smartphones have been played a large role in popularizing the mobile form factor. Central to this claim is the idea that smartphones act as personal ‘extensions’ enabling Shelly Palmer’s idea of a “What I want, Where I want it, When I want it” media space. Consumers, then, can ‘individualize’ (read: personalize) these devices with cases, unique Blackberry Messenger PINs and unique phone numbers (Castells, 2006, p. 173, Elmer, 2010; Groggin, 2008). As a technology that reduces eavesdropping and encourages physical mobility (Groening, 2010, p. 1339), mobiles can therefore be regarded as ‘extending’ private identities (Case, 2011; Groening, 2011). In this vein, the claim that the ‘individual’ is the nomadic ‘place’ of mobile media (Fortunati in Castells, 2006, p. 173) is one hinged on network connectivity. Such networked individuals ‘roam’ freely when in the presence of a transmitter tower — accessing and being accessed by their social networks (Montenegro & Deuze, 2009).

Indeed, not all smartphones have the same feature set: some have global positioning functionality while others might boast near-field mobile payment technology. Security conscious owners might have even disabled such features for privacy reasons or just to save on battery drain. Regardless, mobiles are a sort of “small tech” (Hawk, Rieder, & Oviedo, 2008) in the sense that they can miniaturize many previously separate technologies into one form factor (Baym, 2010; Herring, 2010). In this vein, scholars must employ a level of feature specificity when discussing mobile, expanding mobile literacy with use-specificity.

A 2010 Neilson-PEW Internet and American Life Survey indicated that some 35% of Americans accessed ‘apps’ on their mobiles – 47% of which fell under the category of ‘social networking site’ apps (Purcell, Entner, & Henderson, 2010, p. 6). Moreover, from 2010 to 2011,

mobile users accessing social networking sites increased from 30% to 46%⁴ (TNS, 2012).

Younger users tend to fuel much of this activity (ITU, 2011, p. 3), generally accessing social networking services, particularly in developing markets, from their mobiles. Yet, for all of the attention surrounding adoption rates, a common consensus defining mobile social networking sites has yet to be reached.

Broadly speaking, the software category of Mobile Social Software (“MoSoSo”) permits ‘networked individuals’ (Wellman & Rainie, 2012) to selectively ‘reach out’ to their extended social networks. A general assumption of MoSoSo is that that users share content amongst interconnected profiles (Lugano, 2008). Indeed, Foursquare (location check-ins), Instagram (social photo sharing), and Twitter (micro blogging) are all MoSoSo in that a mobile interface can be used to share content with contacts. However, one implication of MoSoSo is that network participation is entirely hinged on a persistent data connection. As the social content shared exists in a decentralized ‘cloud’ beyond the device (O’Reilly, 2005; Wellman & Rainie, 2012), users can be thought of as ‘uploading’ content away from their immediate surroundings.

There is some tension between ‘meta platforms’ (Scolari, Aguado, & Feij, 2012) such as Facebook and Google+ that converge a number of multimedia features into one website and single-feature, natively mobile social services like Foursquare. Work into “locative social networks” has added some element of location-based specificity to MoSoSo (Farman, 2012, p. 74), but a better working definition is needed.

This author’s own approach is to define mobile social networking sites as cloud-based platforms that a) connect registered users together and b) afford opportunities to post and

⁴ The survey also equated social networking with progress, indicating that emerging markets had “leapfrogged” those of the developed world, increasing from 26% in 2010 to 50% in 2011

respond to content that can be uploaded from either mobile devices or stationary desktop PCs. As technologies such as cameras, microphones and proximity sensors in mobiles are increasingly “becoming the eyes and ears of the Web” (O’Reilly & Battelle, 2009, p. 8), I recognize that mobiles play a key role in allowing users to easily upload rich media content to share with their own social networks.

Technology is not always left to deterministically self regulate, particularly when it infringes on external (human) interests. Regulation in this complex space of overlapping actors and interests is hardly a simple affair. In the electronic media age, the state upheld a prominent role in regulating the broadcast system as a ‘public good’ (Duso & Seldeslachts, 2009). Conversely, the decentralized or constantly reproducing ‘generative internet’ (Zittrain, 2008) has made state regulation of the Internet difficult, even when content is exchanged through segments of the network subject to a particular state’s laws (Lessig, 2006, p. 23). If the Keynesian State removed risks that could be faced by both individuals & markets, the present neoliberal information economy transfers ‘risk management’ onto platform operators in a decentralized, global market economy.

Since AT&T’s natural monopoly began to dissolve in the eighties (Mosco, 1989, p. 116), mobile telecommunications industries have inherited a legacy of a “fast and radical liberalization process” (Duso & Seldeslachts, 2009, p. 200). Similarly, as largely self-regulating bodies, social networking sites too have been able to benefit from minimal Internet regulation (Fuchs, 2011) alongside this legacy of telecommunications deregulation. Accordingly, command and control attitudes towards regulation have given way to self-regulating websites that use software ‘code’ (Lessig, 2006) to gently steer unorganized (Duso & Seldeslachts, 2009, p. 200) ‘crowds’ (Tapscott & Williams, 2006, p. 45) without the interference of legal ‘code’.

Literature Review: Capitalist-market relations 'at' the platform

The 'anytime, anywhere' promotional discourses attached to mobile (Fallman, 2006) may certainly prove impressive, but they fail to sustain critical attention beyond the device-spectacle. Bypassing the fetish object, the mobile form factor (Elmer, 2010), a more useful project would be to consider what actors assemble to create a 'social' web. In other words, looking beyond neutral data packets to consider the powers that productively steer packets. Such a project would take us further beyond the humanistic 'people and places' conception of mobile networks (Galloway, 2010), permitting an analysis of the interface elements that *cue* web 2.0 participation.

An understanding of how web 2.0 platform operators (capital) use the regulating technologies of 'protocol' to productively channel users' "*network*" [emphasis added] (Quan-Haase & Wellman, 2005; Wellman & Rainie, 2012) is particularly useful for organizing a broad field of research caught up in its own definition phase. The following literature review surveys the contours of an emergent body of literature in which unpaid users perform work-like activities in a convergent, increasingly mobile, network labour site. Using Marxian conceptions of power and class struggle, a body of literature dealing with capital ownership and network labour activities will be thematically approached. Such an approach will survey the descriptive projects that characterize this field and attempt to describe contemporary forms of online labour. Along the way, discussions of desktop and, where possible, mobile media will be used to ground an abstract network labour debate.

Resource ownership in virtual architectures

In the industrial mode of production, the factory symbolized a privately owned worksite empowering management to efficiently 'skim' off surplus value generated by paid labourers

(Brenkert, 1976; Bruns, 2008; Wittel, 2012). However, a transition from Marx's physical workplace to more abstract virtual work *places* need not hinder value production. More specifically, if we consider that many web 2.0 platforms and their enabling software code (read: intellectual property) are privately owned, these 'social services' are hardly an extension of a Habermasian public sphere. Rather, these 'spaces of enclosure' regulated by 'protocolological management' (Galloway, 2001) and 'code' (Beer, 2009; Van Dijck & Nieborg, 2009, p. 866; Galloway, 2006; Hayles, 2004; Lessig, 2006) productively steer value generation. Such coded environments 'lawfully' arrange space (Stromer-Galley & Martey, 2009, p. 1047) to the benefit of those closest to their source code – site owners.

The term 'platform' – better known in technical circles as [a] 'software [as] service' (Andrejevic, 2011, O'Reilly, 2007) – can be thought of as a watchword, a speech unit negotiated in relation to where a particular stakeholder sits to code (Gillespie, 2010, p. 359). While the status quo might be to conceive of a computational *platform* as capable of "supporting the design and use of particular applications", architectural, figurative and political connotations to the term also exist (Gillespie, 2010, p. 349). In other words, platforms describe influence. For , this level of programming permits the platform to exist as a Marxian "means of production" (2009, p. 151) whose control is overseen by capital. In social media, this hierarchal arrangement then 'separate[s] users from the means of produc[ing] online sociability' (Andrejevic, 2011, p. 186), effectively alienating users. Though embedding a certain level of scepticism, it would not be out of the question to state that much is hidden from the end-user by the time the website arrives to their device. In the case of the abstract 'platform', users emerge as cut off from the algorithms that present the interface and filter information. Thatcher, describing location-based mobile media, outlines one example of such invisible logic, a "ghetto-avoiding" Microsoft system that

connects GPS data to *protocollogically* route drivers around particularly high urban crime areas (Thatcher, 2012). In a pervasive media space, mobile form factors provide tools for ‘doing’ and contents for ‘knowing’ existing as ‘meta tools’ (Scollari et al, 2010, p. 36) that have the capacity to extend the hidden logics of protocol beyond the desktop and into the life world.

Such notions of code and protocol, although serving as excellent tools to steer productive activities downplay issues of consent. If code underpins the architecture that dictates potentialities, then end user license agreements (read: contracts) serve as the ‘framework’ that protects code’s influence (Banks & Humphreys, 2008). Such policies are on par with employment contracts, prioritizing some rights (generally those of the owners’) over others.

To date, much of the present body of literature deals with an imbalance of power between users and the beneficiaries of these restrictive participatory agreements. Zittrain advises that the ‘public’ (read: end users) occupy a confusing position as “creator, beneficiary, and victim” of a surveilling gaze that “[draws] upon the labors of many to greatly impact rights otherwise guaranteed by a legal system” (Zittrain, 2008, p. 216). Similarly, others have stated that website owners such as Facebook benefit from corporate privacy arrangements protecting their private property while surveilling users so that they can extract the ‘rent’ necessary to freely subsidize services (Fuchs, 2011; Rey, 2012a, Rey, 2012b; Rigi, 2012). Discussions of consent are necessary, but there is little in the way of a scholarly dialogue that looks beyond users simply ‘accepting’ these agreements in exchange for immediate access to a particular social service. Particularly, work on some of the consultation processes that many web 2.0 operators undertake when updating their privacy policies could add to the debate, challenging the total exploitation loop repeated in many works.

The question of how capital might motivate users to 'accept' or 'agree' to terms and conditions requires some consideration. A common point of entry into this hegemonic production system is through analyzing industrial discourse in a self-reflexive (read: performative) media industry (Thrift, 2005). If Benkler and Surowiecki establish 'collective interaction' to be an 'invisible hand' necessary to reach market success (Schäfer, 148), this 'strategic genre of communication about architecture' is necessarily one about leveraging resources in a 'risk society' (Beck, 1997). Users' attentions spans can be thought of as a productive resources in a web 2.0 database. How designers imagine users becomes key (Massanari, 2010; Tarkka, 2010, p. 131). Issues of software designers designing for what might be considered the prototypical 'stupid user' (systems-centred design) versus 'users as victims of bad design' (user-centred design) (Massanari, 2010, p. 404) suggest a sort of 'customer relationship management' (Potts, Cunningham & Harley, 2008). In this respect, an emergent discourse of users as co-creators speaks to the imaginative potential of capital to codify social expectations into design (Plenser & Horst, 2011, p. 51). While there has been much reading into collaboration within particular platform sites, the user-centric perspective has largely been overlooked by Marxian analysts critical of web 2.0. Exemplifying this, Facebook's contract offers users a way to voice their disapproval of new features, should at least 7000 vote their disapproval on a proposed change. It would be most useful to consider how platform-to-user communications about architecture factor into design web 2.0 architectural strategies.

Lacking is a serious discussion of Goggin's concept of a 'mobile commons' (Goggin 2008). On the one hand, much work has gone into describing how web 2.0 social services incrementally reach the status of 'de facto' standards (Lanier, 2010) commonly used by large numbers of users to engage a 'common software space' permitting for group interaction (Schäfer, 2009, p. 155).

However, one dimensional discussions of strong ‘network effect[s]’⁵ and ‘killer apps’ tend to focus on particular platforms while overlooking mobile devices and the various levels of network infrastructure that allow for services to operate. On this point, tightly controlled mobile networks can be thought of as impeding what could otherwise be argued is an ‘open’ web (Benkler in Goggin, 2008).

Similar to the notion of protocol, the question of who (read: interests) the Internet is ‘open’ to becomes a particularly useful to consider. On the one hand, this kind of debate is useful because it recognizes that standards “never fully meet the needs of all users” (Coyne, 2010, p. 22). Even though much of the Internet and the World Wide Web has been built on top of open source standards, we have to consider who helps to produce these software tools available and motivations for doing so. Indeed, Google and Facebook both contribute their own skilled programmers to open source projects such as PHP (a general purpose scripting language) that are made publically available (Wittel, 2012, p. 324), but it would be useful to consider why these companies might see value in using an existing project to grow their operations. Conversely, tightly guarded data centres house servers that in turn run much of this ‘open source’ code and deliver web 2.0 services. If the wireless spectrum is read as a ‘finite resource intended for public communication’ (Herman, 2011, p. 195), then further work into how such a resource is privatively utilized is needed.

From the architectural perspective, capital can best be described as ‘designing’ interactivity for users via highly regulated software environments. The proceeding section tackles both what constitutes a ‘user’ and the many types of activities such agents engage in.

⁵ An economic theory stating that the value of a network increases the larger its total user base becomes (Liebowitz, 2002).

Towards a definition of web 2.0 labour

There is a general consensus that web 2.0 design practices more or less rely on users to actively produce content (Ganaele Langlois, 2009; Langlois, McKelvey, Elmer & Werbin, 2009; O'Reilly, 2007; Warschauer & Grimes, 2008). Beyond this, the role of the proverbial 'user' is essentially contested, as open to interpretation as the many bidirectional web 2.0 platforms available online. A clever assortment of portmanteaux and jargon suggest that both academic and industrial speech communities are still caught in a definition phase of sorts. 'Producers', 'prosumers', 'user-creators', 'user-generated content producers', 'wise crowds' and 'smart mobs' are a handful of the terms that have come and gone over the years.

Labels may vary, but a common thread connecting all these terms is that they place the user engaging in unpaid, value-producing activities (Mosco, 2009) lying somewhere in-between production and consumption (Ritzer & Jurgenson, 2010). On this point, Lazzarato's oft-cited concept of 'immaterial labour' exists as something of a cannon that has been built-in to web 2.0 labour studies. Writing from a pre-web 2.0 time (1996), Lazzaratto frames a labour *process* producing "informational and cultural content of the commodity" (Lazzarato, p. 132). In line with Lazzarato, unpaid users who trade their "surplus" cognitive capacity in exchange for free platform access are frequently lumped under a "crowdsourcing" category (Howe, 2009; Shirky, 2009). A common political economy approach identifies that consumers 'contribute' to another party's economic capital and producers profit from the wealth generated (Bruns, 2008, p. 12). Continuing Marxian themes of power and class inequality, the proceeding section provides a thematic review of a selection of texts, all dealing with the present theoretical state of unpaid web 2.0 networked labour activities.

On the one hand, questions of conscious production activities steer much of the discussion into network labour. A difference between ‘content providers’ and ‘data providers’ exists (Van Dijck, 2009, p. 47) – the latter referring to ‘explicit participation’ (authoring original content) and the former referring to ‘implicit participation’ (metadata or ‘data trails’ created by software defaults) (boyd, 2011; Geist, 2012; Mayer-Schönberger, 2009). Both terms essentially see communication as a process, problematizing distances between users and the artefacts they consent to produce (Schäfer, 2009). Either way, user-producers emerge as a source of “free labour” defined by Terranova as the “moment when this knowledgeable consumption of culture is translated into productive activities that are pleurably embraced and at the same time often shamelessly exploited” (2004, p. 37).

Terranova’s emphasis on free labour as a ‘moment’ is intriguing, particularly as a large body of literature has been inspired by Dallas Smythe’s notion of advertising time (1977). For Smythe, the broadcast era audience served as a commodity sold to advertisers who, in turn, subsidized broadcast undertakings in exchange for ‘ad time’. In this sense, all ‘non-sleeping time’ defaulted into a never-ending capitalist workday. Regardless of whether or not one is at their employer’s worksite they produced and then proceeded to consume commodities (Smythe in Hesmondhalgh, 2010). Although this perspective locks us into a looping Marxian circuit of total exploitation, Smythe’s highly normative conception of time has still proven seductive to scholars captivated by the idea of a ‘virally’ self-replicating Internet.

It might be less than surprising that the bulk of critical theorists discussed here tend to provide highly normative conceptions of online labour explained through the rhetorical commonplace of time. Though somewhat imprecise, the user-generated content platform can be used – through the logic of protocol – as a timed ‘human resource management’ site (Van Dijck, 2009, p. 50)

enforcing bureaucratic cultures (Kreiss, Finn & Turner, 2010). In such an environment, software-generated hooks could be thought of as steering (or defaulting) users into participation (Petersen, 2008). While useful work has gone into the political economy implications of Facebook's cultural labour site (Fuchs, 2011; Jurgenson, 2012b; Roosendaal, 2012), the bulk of it has looked at privacy and is mute on mobile form factors and their features. Some work has been done on mobile social networks sites as a platform to synchronize employees together for meetings (Coyne, 2011) or to assist persons with "severe mental disabilities" with work-life time management (Yao-Jen Chang, Hung-Huan Liu, & Tsen-Yung Wang, 2009), but none explicitly connect amateurs and their variety of motivations to mobile production sites.

Adding an element of 'place' to the mobile peer production debate allows us to 'ground' the material supports of time. If network-connected data subscribers become the 'place' of mobile media (Castells, 2007; Rainie & Wellman, 2012, p. 101; Kopomaa, 2000, p. 112) then their mobiles that allow for 'personal media' (Luders, 2010) or 'self mass media' (Castells, 2007) productive activities require analysts to consider where user engage the medium from. If space is a material support that hosts media (Castells, 2007; Hayles, 2004), then the mobile phone emerges as a sort of gateway device between the virtual and the real (Malpas, 2009). Mobile social networking sites like Foursquare can be thought of as 'collecting space' – as using users to map locations without having to pay employees (Elmer, 2010; Gazzard, 2011). For device users, mobiles can be thought of as an extension beyond the confines of the desktop computer, a way to access a 'cellspace', 'interspace' or 'third space' between home and work, public and private (Hulme & Truch, 2006, p. 46; Korhonen, 2000). For users, devices afford mobility, a sense of "media mobility" (Montenegro, 2009) to tap into identities located *between* multiple fields (Hulme & Truch, 2006) or identities (Turtle, 2011).

Such between spaces can be thought of as the basis of a mobile work site. Writing in 2001, Putnam, posits that commuting [from work to home] time translates into a social capital decline (2001). Conversely, Groening's notion of the 'gap' created when employees commute from work to home is one of opportunity, "a period that is not highly valued by employees" – a "refuge from work and the hyperstimulus of the urban environment" (Groening, 2010, p. 1341). Between the two, an urban-suburban spit begins to emerge. Similarly, a large portion of the literature on mobile social networking sites focuses on the carnivalesque city as a site of social experimentation (Eaket, n.d.; Humphreys & Banks, 2007; Josgrilberg, 2008). In this sense, it could be argued that these scholars, in picking these small-scale, ethnographic-type interview projects of early adopters unintentionally build in an urban bias into mobile social networking sites literature by way of research design.

A discussion of networked labour would be incomplete without reference to Negri's 'social factory'. The crux of this grand theory is that "work processes have shifted from the factory to the society" (Negri in Terranova, 2004, p. 33; Dyer-Witheford, 2005). If everyday social participation is redoubled (Andrejevic, 2011, p. 94), 'captured' by organizations and media (Grimes & Feenberg, 2009, p. 108), no longer must value-producing activities necessarily be classified as paid work. On one end of the extreme, projects like Galaxy Zoo ask users to classify Hubble Space Telescope images using spatial reasoning skills that computer presently lack. Alternatively, 'lurking' a Facebook friend's profile page can be used to present contextually relevant ads that command a higher price for the platform owner. From such a perspective, surplus value creation reaches near perfect levels (Bruns, 2008; Fisher, 2012, p. 178; Land & Böhm, 2012; Ritzer & Jurgenson, 2010, p. 26). Or, as Bermejo (2011) posits, social media 'harnesses Marx's 'naturally unproductive' moments of the leisure world and converts them into

‘productive opportunities’ that allow advertisers can deliver (Bermejo, 2011) targeted advertising customized to users’ histories (Roosendaal, 2012).

Marx’s image of the industrial era factory was inherently gloomy: workers were confined to a bounded space in which they were instrumentally de-skilled to increase production line efficiencies. However, the ‘social factory’ does not have to sacrifice worker happiness for productivity’s sake. Users “self-valorize” themselves as post-industrial subjects, extending the production cycle beyond the factory walls (Lazzarato, 1996, p. 136). Advancing the argument that knowledge work is being systematically degraded (Dyer-Witheford, 2004) – or more appropriately, ‘de-skilled’ – then the next state target of exploitation might be considered the unpaid amateur producer. Continuing the portmanteaus, the mobile workspace, marked by a convergence between personal and private spheres (Atkinson, 2008; boyd, 2008; Fisher, 2012, p. 179), becomes a site of ‘playbour’ in which play activities become work-like in function. In the case of social networking and Facebook in particular (Fuchs, 2011), the site blends play and labour together in an arrangement where labour time is not merely reduced, but entirely disguised as play time. Wittel describes this practice as the “assimilation of work and play” (in Hesmondhalgh, 2010, p. 270). However, there is more to the argument than simply stating that ‘play’ and ‘leisure’ have been “assimilated” into the “realms of production and consumption” (Grimes & Feenberg, 2009, p. 107). Positing that play is entirely non-market and that leisure has a market dimension, Rey views ‘playbour’ as exploitative in the sense that it is an experience one would least suspect to be captured by the capital (Rey, 2011). Similarly, a Forrester survey advising that entertainment was an “overwhelmingly driving force” in mobile media (Van Dijck and Nieborg, 2009, p. 862) acknowledges this view that mobiles serve as a perfect ‘place’ for converting play to work.

Deuze's idea of a "life lived in media" advises that social media users (2011) can face material consequences stemming from their otherwise 'virtual' exchanges. Perhaps unsurprisingly, Deuze and his contemporaries respond to the Marxian conception of life serving for "conversion into capital" (Marx, 1844). With this 'conversion', virtual power may not be, as Baudrillard argues, "confined" to virtual environments (2002). A shift to 'individualized' (Deuze, 2011) or autographic forms of content (Elmer, 2010, p. 21) thus allows users and their devices to be directly addressed when mobile (E.g., Facebook accounts tied into iPhones and Blackberry PINs), by both humans and automatic software reminders.

If advertising-supported social media platforms commodify users' exchanges into data objects (Farman, 2012, p. 611; Fuchs, 2011, p. 147), then it might be argued that new techniques are necessary to describe immaterial value. Michele Foucault's concept of biopower, the capacity to force life and prevent death, has increasingly gained traction to confront value in an immaterial digitalized network environment (Karppi, 2011; Susman, 2012; Wittel, 2012). Roosendaal's research into Facebook's targeted advertising practices found that Facebook registered identifying information from a user's device through websites that implemented its 'like' feature – even when users were logged out or non-members of the website (Roosendaal, 2012). Moreover, she also found that should a user register later for Facebook, these 'dataveillance' practices could link back to the identity they never had, thus enforcing biopower-by-default.

For some, the Foucauldian concept of biopower emerges as one method to maintain "permanent communicative flows" (Fuchs, 2011, p. 48), or constant productivity within social media websites whose owners fear anti-social behaviours (Papacharissi & Easton, Forthcoming). To encourage this, various cues train users to keep their profile somewhat current to prevent becoming a 'no body' (in Farman, 2012, p. 69). Websites such as Twitter and Google+

exemplify this sense of fear, regularly sending emails with missed content or connections to users who have not logged in to their services⁶.

Admittedly, notions of biopower have not yet been extended to mobile's unpredictable spaces (Josgrillberg, 2008, p. 4). Necessarily, scholars considering issues of social media biopower will have to adapt beyond the bounded qualities afforded by desktop computers and consider less predictable 'flows' of mobile peer production.

For Lazaratto, the "self-employed" worker defined a class of "intellectual proletarian[s] [...] recognized as such only by the employers who exploit [them]" (Lazzarato, 1996, p. 136). However, the classic Marxian notion of exploitation is one that has recently come under fire as a shortcut of sorts used pack in notions of class division, labour and compulsion (Hesmondhalgh, 2010, p.274). Andrejevic, acknowledging that exploitation requires both a coercive element *and* loss over one's control (Andrejevic, 2011), sees 'exploitation' giving way to appropriation 'caught' in a 'monitoring-based economy' that *captures* personal information beyond the factory. Such practices build on workplace monitoring efforts (Coyne, 2011; Fuchs, 2011), but interestingly, both contexts have a voluntary component as the users submit to either an employment contract or end user license agreement to engage the worksite.

David Hesmondhalgh has recently dismissed the use of exploitation in discussions of networked labour, suggesting that users consciously engage in these activities to better their own interests (Hesmondhalgh, 2010). He proceeds to frame highly skilled labour such as open source developers as engaging in a "deferred wage" that qualifies them with additional 'experience'. Admittedly, Hesmondhalgh's emphasis is on professional working conditions, similar to what

⁶ This has been a problem for grieving families and friends when loved ones die. Steps to 'prove' a death to many social media sites are posted on their respective websites.

Andrew Keen has also dismissed as a 'cult of the amateur' on par with Huxley's 'infinite monkey theorem'. A critical response to Hesmondhalgh might ask the author to consider how one's status as an intermittent Facebook user helps them acquire increased flexibility, or, how often 'amateur' users are invited to join web development teams⁷.

In response to Hesmondhalgh, I would stress that playbour conceals one key exploitative element: surveillance in a system of knowing capitalism. Precisely because we inhabit the pay-per [transaction] society (Mosco, 1989), the personalized appearance of customizable web 2.0 services, combined with vague contracts mask what is being exploited and who benefits from a particular exchange in the longer term. In this sense, users who conspicuously prove consumptive desires through partaking in social media 'work' or 'self-directed activity', immaterial benefits/motivations; Immaterial benefits have real value for users (Rey, 2012).

While this discussion of network labour has been broad, it has provided a space with which to treat knowledge in relation to social class. In this vein, Marx's ideal of a classless society has often been touted as one of the benefits of a horizontalized user-to-user production spaces that reduces the role of the 'network entrepreneur' who is able to manage (read: appropriate) others' creative labours (Arvidsson, 2007, p. 21). That these individuals require other jobs to survive (Arvidsson, 2007, p. 21), in order to give 'free gifts' subsidized indirectly by free time and the material devices necessary to maintain a consistent network connection suggests some level of inequality in a 'high tech gift economy' (Barbrook, 2004).

⁷ Facebook posts programming challenges on the website and promises those who pass them a phone interview.

Theoretical Approach

The proceeding case study is motivated by a relatively simple purpose: to describe mobile labour activities taking ‘place’ in Facebook’s code environment by way of company-authored promotional and policy documents. Adding an element of medium-specificity (Hayles, 2004) to the network labour debate, my work documents how an established actor (Facebook) engages a mobile ecosystem to grow value-producing activities beyond the fixed nature of the personal computer screen. Building upon the work of Andrew Feenberg, I describe how Facebook attempts to productively steer mobile users reflexes, skills and attitudes (Feenberg, 2009, p. 3) towards value-producing activities confined to a closed source platform.

A number of texts confronting network labour already exist, but they more or less suffer from two key setbacks. On the one hand, these works lack an element of “medium specificity” (Hayles, 2004), focussing broadly on describing particular platforms – sometimes even ‘web 2.0’ – in totalizing terms. Such work often turns a blind eye to device-owner agency, particularly in a mobile media environment. Additionally, such works tend to repeat a grand narrative in which the propertied are divided from the property-less (Brenkert, 1979), bypassing resistance strategies that might imagine how work can become more fulfilling (Feenberg, 2001).

In describing Facebook’s use of promotional texts to imagine mobile growth, my approach is not to use labour to confirm a presupposed belief that capital is interested in reducing labour time to increase production activities (Dyer-Witheford, 1999, p. 4). A key premise to my work is that ‘producers’ are more than endless surplus value creators and that their online identities have meaning beyond virally reproducing ‘friction free capitalism’. As a critical analyst, I look beyond a closed circuit of total exploitation, one that is too often ‘upgraded’ with a sense of 1:1 cybernetic transmitter-receiver perfectionism (Lanier, 2010). My objective then is not to

continue trends of mapping influence with advertising revenues, but to use a theory of critical usage to map how Facebook's bidirectional platform interfaces with physically located realities.

Mobile specific analysis

Rather than focus on the 'weisure' crowd – those who have been provided a smartphone so that they can be 'on call' away from the worksite (Rey, 2011) – my research has a more voluntary dimension to it; I am interested in how Facebook engages users who divert their own time and capital resources into mobile access. In technical terms, my project descends from the [data] cloud⁸, discussing how the mobile device helps channel surplus value creation. My own approach is consciously indirect: to stay clear of actual user-to-user Facebook Mobile exchanges. Instead, I undertake a close reading of a small number of core documents that connect mobile devices to the Facebook Platform.

Several key advantages stem from such a textual approach. Firstly, the problem of Facebook becoming a convergent 'meta platform' (Scolari et al., 2012) folding in many types of asynchronous media (Herring, Forthcoming) can be entirely bypassed. Moreover, as Facebook's graphical user interface is only the topmost layer (Hayles, 2004, p. 78) of many other code extracts and sorting algorithms (Beer, 2009; Galloway, 2001; Galloway & Thacker, 2004), I avoid a false sense of security. Code that is beyond the level of a single mobile device (O'Reilly, 2007) is, as Andersen & Pold succinctly describe "not *as* accessible or readable as the texts in books or on signs" (2011, p. 113). Conversely, text-based promotional materials are readily available, especially at a time when the company has recently prepared for public trading. My own approach uses discourse to critically 'read' into the material consequences (Tarkka, 2010) of

⁸ The distant Facebook platform spread out across multiple servers farms.

mobile through self-reflexive promotional documents accommodating software code and features to lay audiences.

Literacy

In recent times, digital divide literature has gradually shifted from a focus on accessing material resources (read: technology) to more abstract *skill* (technical) and *motivation* (non-technical) dimensions. My own approach is to apply an ‘access 2.0’ perspective to mobile phones used to access Facebook. In line with Feenberg’s (2009) work, my own approach to rights goes beyond the property-based bias of economics (Akerlof & Kranton, 2000) and examines workers rights as technical possibilities. In other words, my work is more interested in the extent to which workers occupy a space between efficiency and autonomy (Feenberg, 2001, p. 181-182). The crux of my argument is that, in order to source content, mobile social networking sites steer conceptions of human worth in their design arrangements (Feenberg, 2001, p. 183). Such arrangements, over time, then come to bridge less-tangible forms of social and cultural capital into economic capital (property) (Bourdieu, 1986).

In discussing Facebook Mobile, design arrangements are regulated by the logic of software code. Resultantly, “private fences” can overtake “public law” (Lessig, 2006, p. 175); site owners capable of modifying source code need not fully justify their “private choices” and strategies (Feenberg, 2001, p. 187) to end users. To a large extent, my work invites readers to consider ‘rights’ as non-economic in character, downplaying economic notions of [financial] ‘privacy’ (Fuchs, 2011) to emphasize gaps in autonomy.

Gaps in the network

Feenberg's understanding of a 'capitalist literacy' as one in which the bourgeois were familiar with 'two worlds of knowledge' (Feenberg, 2009, p. 6) suggests that power does not merely come from access to resources, but that it must be informed through observation. However, the weapons of the powerful can also be leveraged by the weak; only those *literate* with their immediate context are capable of advancing their own 'participant interests' (Feenberg, 2001, p. 188) in this reflexive process. Thus, while Facebook Mobile might serve as a 'space of enclosure, it is an enclosure that end-users can change, 'structuring structures' (Bourdieu, 1986) that may be used to improve working conditions (Feenberg, 2001).

Accordingly, we need to shift from conceptions of informational labour as being systematically de-skilled (Feenberg, 2009; Dyer-Witheford, 1999; Dyer-Witheford, 2004) to how we can re-skill ourselves. Particularly when Facebook is attempting to expand its influence through mobile, what are the potential gaps in its mobile strategy that might accommodate additional user control? To this avail, gaps in mobile connectivity – whether they be in terms of network access or an end user simply ignoring the Facebook Mobile app indicate choice, especially in a highly monitored advertising space.

Mobile 'extensions' do not exist in a vacuum, particularly if we consider Facebook as a 'way in' to a broader network of interests. In this vein, Frederick Kittler's conception of a 'discourse network' as "a network of technologies and institutions that allow a given culture to select, store, and process relevant data" (Kittler, p. 68) allows us to direct our attention beyond human agents as the only units of change. As a de facto institution, mobile end users must factor how much agency they command when choosing to let their interactions flow' through the network. Particularly in an entrepreneurial culture of risk management algorithms and 'knowing

capitalism' (Thrift, 2005), trends are ephemeral; the rules "for translating such meanings between the language of social actors and the technical languages of the day" (Feenberg, 2009, p. 8) come and go – presenting possibilities for change.

Methodology

From the period of September 2011 to August 2012, I collected documents publically acknowledging Facebook's mobile platform. This window, although short, captured a considerable amount of attention as the company prepared for public trading. Appropriately, a large portion of my analysis is hinged on examining the narrative of the S-1 filing, a document that outlines Facebook's prospectus and risk factors to potential investors. My work also read this strategic document alongside Facebook's Statement of Rights and Responsibilities ("Statement") that users, developers and advertisers must consent to when registering for the site. Additional primary documents such as news releases and web pages for relevant mobile features were used (to a lesser extent) to contextualize themes analyzed in the core documents.

To interrogate Feenberg's conception of technical rights within my dataset, I have adopted a critical discourse analysis (CDA) methodology. As an analytic method, CDA permits researchers to take a stance on imbalances in social power⁹ that create conditions of 'inequality' and social 'injustice' (Van Dijk, 1993, p. 252). In discussing CDA, it is worth noting that it is an *attitude* towards textual analysis, not a step-by-step framework (Huckin, 1997, p. 78) to mechanically make power relations visible. That said, CDA's emphasis on how dominance can be reproduced through linguistic structures is central to my approach. In my own case, 'discourse markers' will

⁹ Let power be described as "control by one group over another" (van Dijk, 1993, p. 54) and includes access to resources of discourse production.

be limited to instances where material and immaterial privileges are traded, either by Facebook or users. Accordingly, the Gramscian notion of hegemony in which individuals please those in power voluntarily (Van Dijk, 1993, p. 55) can become a central point of analysis to discern collaborative exchanges between property owners and users. Connecting back to Feenberg's conception of technical rights, forms of dominance can then be "jointly produced" (van Dijk, 1993, p. 55) to permit power holders the ability to competitively reproduce influence. In my own case, I posit that power lies in the Facebook source code that permits Facebook to deliver mobile features to users.

Within the 'recruiting' genre of the S-1 and the Statement, participants can be thought of as exchanging particular rights for others (Feenberg, 2001) in a sort of negotiation that is later converted by software code. My interest lies in using rights to describe the circumstances of these transactions. In the context of Facebook, the company comes to emerge as a 'power elite' (van Dijk, 1993) as its shareholders steer capital. These two documents then come to structure how capital is communicated to actors, with particular emphasis on mobile strategies.

Connecting with Feenberg's conception of rights imagination, language describing practice provides a useful artefact in the sense that it is used strategically, particularly within promotional genres. If language gains power over others based on who is excluded from a particular group (van Dijk, 1993, p. 60; Wodak, 2001, p. 10), particular applications of it can permit us with opportunities to trace rich relationships. However, language is also inherently abstract; even the best rhetoricians do not automatically transmit 'influence' to receptive audiences without some degree of misunderstanding. My work is thus ephemeral in nature, using discourse units to freeze mobile growth into stasis.

My own application of critical discourse analysis to rights-based literature is one that somewhat exploits Facebook's mobile growth strategy, one that has been a point of concern for investors (Bilton, 2012). I examine gaps in the 'flow of knowledge' to challenge the view that the dominant "discourse create the conditions for the formation of subjects and the structuring and shaping of societies" (Jager, 2001, p. 35). My analysis of discourse is thus rooted in the negotiation phase and uses ephemeral documents to describe power relations between an actor-network of mobile interests.

Research questions:

The following questions will be used to discuss influence as it concerns Facebook's mobile growth strategy:

- RQ1: How does Facebook anticipate gaps in network connectivity (either lost or unpredictable access)? How does the company approach the issue of regulating a particular software experience on mobile hardware and software beyond its control?
- RQ2: How is value rewarded across the platform? Is this consistent for mobile?
- RQ3: How are mobile features differentiated from desktop versions of the platform? What unique skillsets (if any) are required for mobile?
- RQ4: What controls impede or encourage user movement through the platform?
- RQ5: How are users measured for advertisers and/or platform owners?

Challenges

Such research, while not directly involving human subjects does have a research ethics dimension. As a researcher accessing documents via the platform I critique, I run the risk of having my interactions with the platform tracked. Even if I remain logged out of my own personal Facebook account, identifying information concerning my device and pages visited is

still sent to Facebook (Fuchs, 2011; Roosendaal, 2012). One solution would be to use the freely available, anonymous browsing service Tor (originally developed by the US Naval Research Laboratory) to cloak my interactions with the site.

Another issue with hypertext resources is that they can change at any moment (Halavais, 2008). My own strategy was to freeze key texts to ensure that I was indeed citing an original document and not an update. I used the *Site Sucker* software package to copy web page resources to my computer to undertake this ‘stasis’ portion of my research. In some cases, I also used *Evernote* to ‘clip’ pages from my web browser.

A Short History of Facebook

To consider Facebook as more than a catchy web 2.0 buzzword of the day, it is particularly important that the company’s history not be overlooked. Admittedly, there exists in new media studies a tendency to focus on current and future uses of media at the expense of historical developments (Chun, 2004). The constant push to upgrade to the latest hardware or software – must not overlook the fact that to move forward, one has to come from a particular point in time¹⁰. Appropriately, history can be used to describe a perceived need to act – an ‘exigence’ in rhetorical studies – seized by rhetors to further their own position. What follows is a concise history of Facebook emphasizing the company’s organizational culture and mobile efforts. Such a discussion of organizational ‘features’ describes a process of ‘built-in’ that has allowed the company to strategically grow to its present state as the most-used social networking site.

There exists little debate about the possibility of Facebook serving as a social network site, but the broader question of what qualifies this web 2.0 catchall term deserves reflection. Danah

¹⁰ I have left out space in favor of Castell’s idea of ‘timeless time’ (2007).

boyd and Nicole Ellison's (2007) oft-cited criteria for the social networking site genre will be used to this avail. The two define such platforms as “[W]eb-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection and view and traverse their list of connections and those made by others within the system” (boyd and Ellison, 2007). Within this bounded database system, four key affordances must all take place: [information] *persistence* (the capacity to ‘save’), *replicability* (being able to copy), *scalability* (being able to share) and the capacity to ‘search’ user profiles (Boyd, 2011, p. 46). Over the years, Facebook has struggled to negotiate an approach to each of boyd and Ellison’s criteria.

To gain some insight into Facebook and the company’s history with social structures, it is necessary to recognize its academic origins. The precursor to Facebook, Facemash, was essentially an ad-hoc ‘hot or not’ rating service ‘hacked’¹¹ together by Mark Zuckerberg while attending Harvard University. The system scraped each of the residence houses’ decentralized face books¹², that lived on multiple web sever ‘silos’ spread out across the campus. Although the an academic committee ultimately threatened Zuckerberg with expulsion – leading to the site’s ultimate closure – the defunct site presented undergraduate student images side-by-side for users to rate in terms of sexual appeal (Tabak, 2004).

Later precursors to Facebook gradually grew beyond the academic community. thefacebook.com invited users holding a Harvard email addresses to register for the site in exchange for a profile page. The email verification component is worth noting as the service was restricted to an offline, “geographically-bound” campus community (Ellison, Steinfield &

¹¹ See case study for a further discussion of the “hacker way”.

¹² A ‘Face book’ is a publication released internally at universities by a given department/group, essentially connecting names to images.

Lampe, 2007). Since 2005 Facebook has gradually matured beyond its exclusive initial community, extending from Harvard to Boston area universities to Ivy League schools to worldwide places of higher learning. Membership soared dramatically with the decision to open the platform up in 2006. At this time, a “mass migration” of users, the bulk of which came from MySpace, registered for Facebook (Farman, 2012, p. 59). At present, any user who meets the company’s membership conditions¹³ can register for the website,.

At the time of writing, Facebook was the most popular social networking site accessed on the web, and the second most popular site accessed worldwide, second only to Google (Alexa, 2012). The company's May, 18, 2012 public offering reflects the success it has had in expanding its total network effect, stating that some 901 million users engaged the platform on a monthly basis (as of March 31, 2012), up 33% from March 2011 (Facebook Inc., 2012, p. 1). Of those 901 million users, some 488 million used the company's mobile products as of March 2012.

Facebook’s key feature, the social graph, is a protocol that maps users in relation to their social network(s): each user is required to provide “[a] real name and information” (Statement, 2012). A profile ‘page’ hosts each users’ identity, centralizing “real information” for friends to conveniently access. The users’ offline “community” connections thus serve as the dominant source of ‘content’ ported over to Facebook (Ginger, 2008). The website offers user the ability to personalize their social network by adding ‘friends’ to the system who exchange content ranging from a ‘like’ to commenting to tagging photos. In late 2006, Facebook came under fire by many users for sharing these exchanges via the ‘newsfeed’ feature. In response to the negative attention, Facebook introduced a series of privacy controls that could let privacy-minded

¹³ Those convicted of a sex offence may not register for Facebook. The same applies to those under age 13.

individuals “control” which type of information would be made public and to whom (boyd, 2008). Facebook currently boasts a content notifications feature that alerts a user to content posted by their friends, groups, applications, or pages they have ‘liked’. Of particular note, content users posts and content that is posted on behalf of others to their page appears on their ‘timeline’ – a sequential index of their exchanges with the website.

To make many of its services available such as payments and video chat, the company has engaged in a number of strategic agreements and acquisitions, acquiring features from such companies as Instagram (photo sharing), Rel8tion (mobile advertising) and face.com (domain name). The company also ‘shares’ its common login system with other websites, inviting website owners to use Facebook Connect so that users can login with a particular website without having to register for a new account¹⁴. Facebook also invites external developers to use its tools to create games and applications that run inside its own app store accessed from the platform.

Since 2007, users have had the ability to export and import SMS text messages to and from their Facebook ‘Messages’ (a feature not unlike email). At present, Facebook has placed great emphasis on supporting a range of popular smartphones in addition to its desktop website. iOS users can download four mobile applications (“apps”) from Apple’s proprietary App Store: Facebook Camera, Messenger, Pages and the core Facebook social networking app. Similarly, Google Play (Android’s equivalent of the app store) has a Facebook for Android app and a Facebook Messenger app is available for download. Third party ‘partners’ also have the capacity to develop Facebook-connected apps that interface with the platform through tools the company releases. Research in Motion (RIM) presently offers a Facebook for Blackberry app in their

¹⁴ See (Roosendaal, 2012) for a critical surveillance studies analysis of these features.

Blackberry App World store, and there exists a Facebook for Windows Phone, and an HP-released Facebook for webOS app.

In addition to releasing apps hosted in proprietary 'closed' app stores, the company has used open standards to grow mobile adoption. m.facebook.com uses open HTML5 standards to allow users to access the website without having to install an app on their smartphone. Such a technique allows Facebook to overcome some of the contractual obligations it must meet in order to register apps in third party-operated app stores. Moreover, a Java-compatible version of Facebook for feature phones (read: users who do not have a smartphone) can also be accessed through m.facebook.com. The company has used Java to create a faster experience that similar to the same apps available to smartphone users (Murlidhar, 2012). The same Java-compatible version of the software is also accessible via 0.facebook.com, provide free Facebook access in locales where Facebook has arranged such subsidies with carriers.

Social networking site competitors to Facebook include LinkedIn, Diaspora and Google+ — all of which presently threaten both Facebook's desktop and mobile user shares. Google+ is Facebook's most formidable competitor, open to anyone with a Gmail account. The site boasts 250 million users, with over half accessing the Google+ platform via the company's mobile app. Similarly, LinkedIn offers a social network site, but one aimed at the 'professional web' composed of its 161 million worldwide users ("iPhone App Store"). The application emphasizes being able to traverse 'your' professional network and keeping abreast of current job updates. In contrast, the open source, decentralized 'Diaspora platform' was created explicitly to move users' data away from advertisers. Diaspora users can either host their own 'pod' (server) or join another's pod. Pods aggregate to the larger Diaspora network, existing much like a common protocol. Like Google and LinkedIn, Diaspora has a mobile app and a mobile version of the

website permitting users to share locations, make new friend connections, and traverse friends' updates.

In his recent IPO letter to potential investors, Facebook founder Mark Zuckerberg wrote, "We don't build services to make money; we make money to build better services" (2012, p. 81). Indeed, the company commands an impressive amount of capital to deliver its socially oriented 'software as service' business model (O'Reilly, 2007). At the time of valuation, the company indicated its net worth to be at \$104 Billion (Facebook Inc., 2012).

The company offers its services to users for free, but its revenue comes from developers and advertisers who pay for varying levels of access to the platform. The company's newsroom succinctly describes that: "Showing ads is how Facebook continues to support its growth and development" (2012). A sizeable portion of Facebook's revenue – 82% in the first quarter of 2012 – came directly from advertising initiatives on the site (Facebook Inc., 2012, p. 13). Advertising value is extracted from the users by selling advertisers one of two levels of advertising: cost per 1000 impressions or, alternatively, a cost per click (Facebook Inc., 2012). Much like Google's page rank protocol, Facebook can either connect users to targeted advertising through their profile data, or allow advertisers and marketers to reach broader markets with its ad 'serving' mechanisms. Moreover, as the company continues to diversify its incoming revenues, 15% of its first quarter earnings in 2012 came from virtual payments made on Facebook through a business partnership with Zynga. In said arrangement, Facebook takes up to a 30% commission on payments exchanged to developers when its users make payments for such for in-game services (Facebook Inc., 2012, p. 1). Interestingly, Facebook is phasing out credit card payments to ensure that users must by its virtual currency (Facebook, Inc., 2012).

At present, Facebook services sold to advertisers and developers allow the company to employ 3976 employees as of June 2012 (“Newsroom”). In its Menlo Park, California location, only 3500 employees occupy open concept office space built to hold 6600 bodies – suggesting that the company expects to continue growing its paid workforce (Simonite, 2012).

In the oft-cited *Design Patterns and Business Models for the Next Generation of Software*, Tim O'Reilly characterizes web 2.0 as the 'end of the software release cycle' (2007, p. 30). Similarly, Facebook can be thought of as part of this ‘permanently in beta’ (Ginger, 2008; O'Reilly, 2007) web 2.0 design genre. The company releases minor revisions to its code daily; major updates take place once a week (Simonite, 2012). Facebook's wealth of servers mean that any open Facebook session on a computer or other device can be forwarded on to a different server if the original one they were using is in the process of being updated. The frequent release cycle puts Facebook on par with similar web 2.0 websites, such as Flickr, which O'Reilly states updates releases up to every half hour (2007, p. 30). Conversely, Facebook's mobile applications are updated much less frequently: every 4-6 weeks for Google Android (a number the company hopes to expand to Apple's app store in the near future) (Darwell, 2012).

Although much Facebook's source code remains closed to the general public – even third party developers who only have access to a small subset of features (Langlois, McKelvey, Elmer, & Werbin, 2009) – it is worth noting that key aspects of its computing infrastructure have been made possible through open source software tools that are freely available. In addition to using open source software such as PHP and BitTorrent to operate its web servers, the company also has contributed some improvements like HipHop (a tool reducing PHP's impact on the computer's CPU consumption) back under an open source software license. In this sense,

Facebook 'volunteers' waged labour to the open source community, while concurrently expanding its brand in the open source software development community.

Since 2004 when Zuckerberg faced an academic disciplinary committee at Harvard for 'hacking' into the University's network, both the current president and the company he partly founded have experienced varying degrees of regulatory oversight – despite being described by many as a largely “self-regulating” entity (Fuchs, 2011; Roosendaal, 2012). In order to understand how regulators may engage the company, we must identify where it is physically located, its 'material jurisdiction' (Facebook, Inc., 2012, p. 28). At present, Facebook's revenues are subject to taxation in one of two places: Dublin, Ireland and Palo Alto, California (Facebook, Inc., 2012, p. 28). The company takes advantage of a loophole in US tax law otherwise known as the “double Irish” (Keena, 2012). This strategy permits Facebook to legally (for now) filter its international advertising revenues through its Dublin office – a strategy allowing the company to benefit from Ireland's 12.5% corporate tax rate (Keena, 2012).

In addition to taxation concerns, controversy into the company's use of user data has sparked the attention of regulators. In 2009 the company made information available to advertisers that it had led users to believe would only be shared to 'Friends only' (Papacharissi, 2010). Facebook agreed to pay \$20 million in fines to the federal trade commission for “unfair and deceptive practices”, in addition to submitting to external security audits every two years (Simonite, 2012). Similarly, Ireland's Data Protection Commissioner has audited the company's security practices at its Irish data centre. Resultantly, Ireland's privacy regulator has required Facebook to give users greater control for limiting what data they share with advertisers and has advised the company to delete data sooner (Bodoni, 2012). Should Facebook continue its present growth

trajectory, there is little doubt that the public company will continue to be used by regulators to symbolically model privacy best practices to industry.

Analysis

Facebook Inc. has strategically expanded into new markets since 2004, but what might be said of the company's current initiatives to engage mobile users? In particular, how does Facebook seize the intellectual and economic 'resources' at its disposal to avert risk while expanding its mobile product line-up? To answer such questions, we must look at Facebook as an assemblage of actors, a 'network' of human interests and technological intermediaries. Specifically, relationships between mobile device owners, mobile service providers, hardware vendors, shareholders and Facebook employees must all be considered as a *network of interests* shaping the adoption of the broader 'Platform'. Assessing how the company's products and services meet the needs of multiple interest groups in the immediate present is significant, particularly when considered that present needs have long term implications affecting technological rights. Throughout this critical discourse analysis, I look at how power factors into Facebook Mobile, examining notions of economic value, immaterial value, individual autonomy and how these concepts apply to a 'feature rhetoric' promoting the company's mobile products.

In his letter to investors (contained within the S-1 filing), Zuckerberg describes personal relationships as the "*fundamental unit of our society*" [emphasis added] (Facebook, Inc., 2012). The 'open' society this rhetorician commonplaces readers into is broad, supposedly opening up everything from jobs, government, education, the economy and health care (Facebook, 2012, p. 68). At the core of Zuckerberg's statement is the idea that access to Facebook is empowering: the — company "gives" users a particular form of connective capacity, the "power to share" (Facebook,

Inc., 2012). However, as users must voluntarily submit to this intermediary's terms and conditions, Facebook's services are hardly neutral. The obligations (read: proverbial 'strings') it attaches to its service agreement add an element of stability that helps to regulate and make predictable the dialogical exchanges taking place within a bounded platform. In practice, such strings have the effect of a) reducing interruptions in others' rights and b) consistently/reliably reproducing the platform's services (Facebook, 2012). Depending on where one sits, these 'community standards' can be organized, sharing influence at a granular level through technological protocols.

Paying for free access

The S-1's narrative indicates that Facebook brands itself as a social utility 'sharing' features that allow "everyone" to have a "voice" (Facebook, Inc., 2012, p. 1). However, to suggest that everyone can, or, even aspires to access the platform, can be thought of as imposing a certain worldview onto users. The use of such inclusive language downplays a sense of peer pressure: without a Facebook account or a device to access this service on, users become a "no body" (Farman, 2012), cast out from the social flows of the social network site.

The issue of who subsidizes the mobile device needed to access this social utility offers a useful entry point to discussions of network access. The S-1 and Statement indicate that Facebook provides mobile services to users free of charge, but both also gloss over the total network of actors and devices responsible for delivering the service. Providing slightly more details, the Statement document further reminds users that while Facebook does not charge them directly for access to the platform, they have to be able to afford a mobile data plan in order to — engage Facebook's mobile products. The Statement and its plainly-worded contractual language

go on to absolve Facebook of any responsibility for fees users may incur while accessing the platform. However, outside of the contract, Facebook does take an active role in making the network freely accessible.

Because it is in Facebook's best interest to broaden its total user base, the risks of alienating users with text messaging and data subscription fees have the potential to scare prospective frequent users away from the platform, thus preventing the "world" from becoming "more connected [to Facebook]". In other words, expensive service fees could reduce the company's ideal of offering social services to 'everyone'. Agreements between Facebook and mobile providers allow users in select markets to freely engage the site without expense (Murlidhar, 2012). However, a listing of providers indicates that few industrialized countries (with the exception of a handful of European countries on the list) have arrangements in place for users to access Facebook 'anytime, anywhere [at] 0.facebook.com" (2011).

From this perspective, it can be seen that Facebook commits itself to growing its network effect (Liebowitz, 2002) by making its 'social' platform widely available to the greatest number of users possible. Likewise, the company sees itself as appealing to developing markets offering a "Facebook for Any phone". This 'any phone' reference – the rhetorical equivalent of the 'everyman' image leveraged by politicians during election campaigns – is hardly a neutral term. In practice, smartphone subscribers will not need to take advantage of the Java interface as their operating systems have been designed for Facebook's more sophisticated and featured-packed apps or HTML5 web app. Thus 'any phone' is a keyword designed to describe users who lack the funds to procure a smartphone.

In addition to subsidizing developing markets, the company also 'loses' money on mobile users in general – even those accessing its products on expensive smart phones. Returning to the

S-1, a sense of free riding is present in that “[mobile users] do not currently directly generate *meaningful* revenue, particular to the extent that mobile engagement is substituted for engagement with Facebook on personal computers where we monetize usage by displayed ads and other commercial content” [emphasis added] (Facebook Inc., 2012, p. 13). In this case, ‘meaningful’ revenues are those producing value through advertising revenues, not simply social connectivity. In this vein, the S-1 implies that desktop users are productive in the sense that they subsidize mobile users’ ad-free social experiences. Yet, Facebook is also quite aware of the issue, particularly at a time when it has been scrutinized for its lack of a mobile strategy and limited mobile advertising revenue. More recently, the company updated its S-1 filing to include a newly developing sponsored story feature for advertisers that will place ads in users’ news feeds (Bilton, 2012; Ingram, 2012). In sum, a discourse of unproductive users begins to emerge, one in which a two-to-one ratio of desktop-to-mobile users commands considerable influence over the company’s business strategy.

Skill levels

Users may be able to participate within the Facebook platform, but they are not able to openly manipulate the site’s source code after ‘agreeing’ to the Statement presented during registration. Within the S-1, three types of users begin to emerge: end users, (p. 2), developers (p. 3), and advertisers and marketers (p. 3) (Facebook, 2012). While the latter two have access to tools such as application programmable interfaces and data reports, end-users can be thought of as ‘engaging’ experiences, but not necessarily authoring the environment and applications that host these experiences. In contrast, Facebook software engineers and designers benefit from an elite status as they move about the Facebook ecosystem.

The Statement glosses over the role of employees, simply stating that ‘users’ may not “do anything that could disable, overburden, or impair the proper working or appearance of Facebook” (Facebook, 2012). However, the S-I is a little more explicit concerning who may structure value-producing activities. Zuckerberg’s vision of competitive ‘hackathon’ sessions where staff have produced such features as the timeline and mobile framework is telling. He pitches a hacker culture’ in which ‘code’ wins arguments, but one that also implies those not versed in code lack a basic capacity to change the world. In this sense, users ‘permission’ are highly structured, despite the network’s horizontal rhetoric (Facebook Inc., 2012).

In a space where agency is subject to technical literacy, Zuckerberg’s letter sells a particular conception of talent to investors. In this letter, technical skill and agency are mutually imbricated; Zuckerberg pitches Facebook professionals as a unique ‘feature’ of the company’s culture to potential investors. Furthermore, when considering Zuckerberg’s note that the company is only going ‘public’ for the sake of the workers and investors who have been promised future value, this approach can be understood as delimiting community membership. Investors who do not support an “extremely open and meritocratic” (Facebook Inc., 2012, p. 82) culture are cast outside of the company’s organizational culture. In practice, the power to code emerges as qualification promising some level of upward mobility. Somewhat unsurprisingly, mobile devices have few software features that allow for reverse engineering apps and web pages. In contrast, development generally takes place at a personal computer and passes through Facebook in a fairly closed loop transmission model with minimal interference from outside the Platform.

Personalizing mobiles with a Facebook identity

To say that Facebook is a network composed of individuals might seem obvious, but within this decentralized, networked organization, individuality itself is highly regulated through a system of software cues and defaults. At a fairly broad level, Facebook's Statement [of rights and Responsibilities] indicates that users are not permitted to share passwords or permit others to access their account. While not sharing one's account makes sense when read alongside Facebook's real name policy, to what extent do Facebook's mobile 'apps' permit users to easily log off so that another individual may log in to their own account?

Western countries tend to see mobiles as a very personal extension of the self, with Facebook's S-1 indicating that the mobile is a space for "personalized experience" (2012, p. 88). However, a survey of Facebook's present mobile apps offered for smartphones indicated that a 'log out' button was buried underneath the user interface, hidden at the bottom, or absent altogether in the case of downloadable apps. In contrast, users accessing the 0.facebook.com or m.facebook.com website could easily scroll down and find a 'log out' button placed at the bottom of the page. While somewhat trivial, this design decision has implications for shared cellphones. On the one hand, a design decision to hide a log out button on smartphones applications inhibits 'user switching', underscoring a consumerist discourse that mobiles are private and not meant to be shared. Conversely, in situations where a family might share the mobile as their 'home phone' – 0.facebook.com's primary user base – a 'log out' button is prominently displayed for these feature phones (also considered 'dumb phones' by industry insiders).

Value circulation

Facebook's mobile strategy engages with financial capital, but it is by no means a closed circuit separate from the broader economy. On the one hand, Facebook provides a mechanism for mobile and desktop users to purchase (using their country's currency) and receive virtual currency used for additional services (think additional game levels, more points, etc...) within Platform. While said dollars can be purchased or rewarded to users by developers, Facebook reminds users that even their purchased credits have restrictions: "You do not own credits because if you were to leave Facebook, you cannot take them with you" ("Payment Terms," 2009). In the economic community regulated by Facebook, value cannot be transferred 'away' from the company, it is not owned by end-users. Capital and the basic *potential* for paid experiences are locked in to Facebook's closed network.

Facebook also seems intent on normalizing the idea that its marketplace mirrors the logic of 'your' country's economy: users displeased with a virtual good should, it notes, "talk to the merchant—just like you would in the real world" ("Payment Terms," 2009). However, by encouraging Facebook users to connect with virtual brands rather than space-based retailers in the 'real world', immediacy is removed from Facebook's virtual marketplace. Unlike group buying websites like Groupon and Living Social where users can use their phone as actual currency at a physical venue with a customer service agent, there is no such direct interaction in Facebook. Facebook's 'economy' has not grown out of the virtual platform (despite encoding real world dollars); users merely interact with software-mediated brands lacking a human face.

The term 'payments infrastructure' (Facebook Inc., 2012, p. 26) is somewhat misleading in the sense that it technologizes the software elements of Facebook's mobile currency while obfuscating some of the strategic business relationships the company must engage in to support

— this ‘infrastructure’. On the one hand, the document is clear that Facebook and partner Zynga are locked into a partnership together to deliver in-app payments, for desktop and mobile users.

What is not highlighted in the IPO is the widespread recognition that Apple tightly regulates its own proprietary App Store and so does Google Play. Despite 7 out of 10 iOS apps having direct Facebook integration and the platform having referred 83 million Facebook users through apps links posted on Facebook timelines in May 2012 (Thomas, 2012), the Facebook is still limited ‘downstream’ by Apple’s app store. To compete with third parties that inhibit the company’s autonomy, Facebook has, as of late, put a considerable amount of effort into promoting its own ‘app’ store locked into Platform. These mobile apps created by developers to run inside Facebook’s iOS app cannot ‘reference, use, or otherwise encourage’ payment methods that have not been approved by Apple at present (“Platform Policies”, 2012). In this sense, the self-regulated Apple software ecosystem can hinder Facebook’s growth potential – a problem when it has been attempting to phase in its own payment system in a space of standards and operating system restrictions the company admits are beyond its direct control (Facebook Inc., 2012, p. 5). Interestingly, the Facebook Credits page indicates that a loop around this problem is for users to use the HTML5 ‘web app’ so that they can avoid Apple’s closed ecosystem (2012). In doing so, users can use their mobile phone number and be billed for Facebook credits directly through their mobile service provider. Admittedly, such a market-based system – even when created using open standards – can be thought of as incredibly biased towards near-perfect surplus value production.

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Usage quantified

It would hardly be an unfair statement to suggest that Facebook is interested in growing its own network effect¹⁵. A fear that “new products and changes to existing products could fail to attract or retain users” (Facebook Inc., 2012, p. 17) is prominently featured within the S-1 filing’s ‘Risk Factors’ section. Within this same document, users become census-based metrics, described in terms of how “active” (read: frequent) they are when engaging the platform. Daily active users (DAUs) are seen as much more preferable over Monthly Active Users, especially for advertisers and marketers. Although the question of accurate metrics seems largely neutral, this might be considered quite intentional. The S-1’s admission that Facebook’s “ability to monetize [on mobile users] is unproven” (2012, p. 14) represents a nominalization depriving this particular extract of agency. In removing risk through a lack of agency, such a statement can be read to connect into a perceived threat on the part of Facebook.

Notably, the form factor users engage Facebook from (or more correctly, that which the browser identifies itself as coming from¹⁶) is addressed within the S-1, also as a ‘risk’. Facebook’s ability to deliver accurate, census-based metrics – particularly to advertisers paying for performance-based, personalized ads that connect ‘authentic identities’ (read: users) to their products (Facebook, 2012, p. 89) – is a key point of interest. The issue of automatically updated software counting as a false positive (Facebook Inc., 2012, p. 24) underscores a certain amount of precision in the ratings industry behind this leisure technology. Even though a firm mobile advertising strategy is not in place, users still emerge as a source of content for three classes of

¹⁵ Facebook’s data science team released a report in November 2011 using metrics to test out the ‘six degrees of separation’ theory. Researchers found that, due to network expansion and high usage rates, four degrees was a more realistic number (Backstrom, 2011).

¹⁶ Facebook for Mobile applications are not prone to the user agent issue as they are controlled by Facebook.

actors: “advertisers, developers, or investors” – all of whom require accurate “user metrics” (Facebook Inc., 2012, p. 25). Particularly in an emerging mobile market, one in which Facebook pitches ‘sponsored content’ (read: product placement) appearing in user’s timelines between friends’ content, accurate metrics sell potential audiences. In the case of an “unproven” (Facebook Inc., 2012, p. 5) mobile market, numbers emerge as imaginative: occupying a fine line between possibilities and unproven guesses.

A third wheel – keeping up with users?

The S-1 indicates that users may ‘substitute’ mobile versions of Facebook in lieu of PCs (Facebook Inc., 2012, p. 5), but the question of how voluntary this course of action is requires some unpacking. On the one hand, the iTunes Facebook app page portrays a “faster, fuller Facebook for iPhone” (“App Store – Facebook”, 2012). The emphasis on improvements can be thought of as implying that Facebook Mobile somehow lacks features or is less useful than its desktop counterpart. Although less features may impede users’ capacity to “keep up with friends’ photos and status updates” (“App Store – Facebook”, 2012), or, to quickly launch the app, there are greater implications beyond speed and immediacy. For users who want to flexibly engage the platform, on their own terms, less features – particularly when it comes to privacy – do have very real implications.

The Google Play version of Facebook also stresses that users can “Keep up with friends, wherever you are” (“Facebook Google Play,” 2012), but in the context of this peer surveillance space, it might be better to consider how software keeps track of mobile users launching such apps. In the context of the application, space is already monitored by the platform. On the one hand, Google Play’s app store makes this clear with a granular listing of what software and

hardware features the Facebook app has access to – in essence, the control that the user gives away. Conversely, the iOS version buries a link to Facebook’s own privacy policy and skips much of Android’s extra details. Additionally, mobile versions of the software also have been known to lack critical privacy features present in the desktop version of the website. On iOS, Version 4.1.1 allows mobile users the choice to be able appear as ‘offline’ during a chat session (“App Store – Facebook”, 2012), a feature that has long existed in the desktop version of the site. While this could certainly be dismissed as a case of the mobile app simply not having caught up to its desktop counterpart, the ‘default’ to be accessible (read: gazed upon) by others restricts choice while coincidentally increasing Facebook traffic.

If Facebook’s goal is to motivate users to engage its platform, even on mobile devices, then it must work to ‘update’ its software to meet this need. In particular, if mobile users employ out-of-date versions of the software, then the capacity to synchronize a ‘common mobile language’ via a common stock of software features is disrupted. Synchronizing users through de facto standards – so that “users can bring Facebook with them on mobile device wherever they go” (Facebook Inc., 2012, p. 2) suggests that ‘apps’ need to accurately reflect the platform’s newest social features. The Statement references this directly, reminding users that the mobile software can automatically update itself on a routine basis. To this avail, Facebook does not force connectivity, but the company does make great efforts to force brand consistency through consistent social features.

Discussion

In exploring Facebook's S-1 statement alongside documents describing seemingly neutral platform features, Facebook Mobile begins to emerge within a field of struggle, one that is collectively negotiated by end users, employees, investors, advertisers and developers. Within this assemblage, there exists a massive tension between the company's ability to 'train' users to habitually engage its mobile products (Castells, 2007; Turkle, 2011) and a capacity to generate "meaningful" (Facebook, 2012) mobile revenues. The preceding discourse analysis examined how rights were traded at both conscious and unconscious levels between actors composing distributed actor network. In this vein, it would be useful to pause and consider the material-immaterial aspects of Facebook's struggles to 'mobilize' its influence into the physical world, much as Apple and Research in Motion have done with their mobile 'lifestyle' brands.

The individualized Facebook profile tailor-made to 'fit' each user can be thought of embedding the "worker's soul" (Lazzarato, 1996, p. 133) into the work process. Users can then be thought of being given an "interface" (Lazzarato, 1996, p. 133) into an imagined community. However, the devices they access said communities from are anti-social by design. A device like the iPhone is single-user and does not easily permit users to log off and share the device with family or friends. This resultant outcome – what I would call a 'device division' – undoubtedly individualizes, allowing mobile users to be 'alone [while] together' (Turtle, 2011). Importantly, we might consider how collective bargaining rights 'take place' in a mobile platform controlled largely by a private company. The following discussion entertains the idea of user-worker agency within Facebook's expanding mobile assemblage.

To date, it has been particularly fashionable to consider Facebook as a zero sum game, an experience in which we completely transfer away our ability to control data for the privilege of group communication. From this vantage point, data would be ‘locked in’ to Facebook and users would trade away autonomy in exchange for free access to the platform (Rey, 2012b). However, as atoms meet bits (Jurgenson, 2012a), there must be a level of medium specificity surrounding such exchanges, one that recognizes the role of the smartphone. In particular, users must not overlook the physical bodies that are essentially self-surveilled (Crawford, 2012) using a blend of Facebook and mobile phones.

Considering agency further, ‘small’ data types – pictures, videos, location ‘check ins’ – can quickly add up incrementally to form a much larger profile (Mayer-Schönberger, 2009). Anyone who has ever seen their own Facebook timeline will know what I am describing. In such cases, one’s life history with the Facebook – long forgotten, ephemeral moments – are mediated vis-à-vis the Facebook timeline, what Jurgenson aptly describes as ‘The Facebook Eye’ (2012b). That said, Facebook should also be praised in the sense that it makes such data archives visible to users. It might be argued then that we are no longer as alienated from our data footprints (boyd, 2008; Papacharissi, 2010) as we once were. In other words, Facebook’s centralized platform provides a common interface to self-reflexively view our object-selves, encoded from a mix of desktop and mobile form factors.

Facebook has received serious criticism in the past for ‘locking away’ users data, but the platform has recently released a ‘Download Your Data feature’ (strategically publicized days before the company went public) (Couts, 2012). Essentially, this feature permits users to download a partial archive of their history with the platform, a portfolio of sorts. However, to what extent this folder highlights content uploaded from mobiles is something of an indifferent

point in the company's promotional literature. While photos, video and even internet protocol 'address' information is caught by the company's servers from mobiles, the data portability policy is mute on how it differentiates between desktop data and mobile data. We do know that some 39 of a minimum of 84 data categories are exported (Couts, 2012), but mobile-specific rights need to be built-in to the system. That this data archive cannot be downloaded from the company's mobile products, only through the desktop website, is telling. From this perspective, it could be argued that mobile moments are an easy target for the platform: caught and processed algorithmically, only to remain in a massive 'big data' (Simonite, 2012) pool beyond the user.

On a critical note, it could be argued that Facebook's current data portability initiatives represent a minimal level of risk to the company; users only have a limited cross section of their profile (life story) to take to competing social networking sites. In this sense, users have achieved the basic right to transfer data away from Facebook, but they still lack total autonomy. French sociologist Pierre Bourdieu's Forms of Capital permit some explanation of this transfer. Such a partial archive of users' 'cultural capital' ('experiences' to adopt Facebook's own term) can be exported via Facebook. Additionally, 'social capital' can even be exported with a basic listing of friends. However, 'economic capital' (Bourdieu, 1986), generated by the platform in exchange for the user's participation is transferred exclusively to the company through advertising revenues and virtual payment arrangements. For Facebook, rights are both imagined and defined within and closed (yet open source) space of possibilities.

Mundane cyborgs

In line with others who have argued against a virtual and actual split, I too would also suggest that there is a collapsing distinction between users' physical lives and virtual lives (Farman,

2011; Jurgenson, 2012a; Malpas, 2009; Tarkka, 2010), particularly as smartphones are increasingly used to capture such ‘offline’ moments. Cyborg anthropologist Amber Cases’ provocative statement that “we are all cyborgs” now (2011), increasingly using our ‘external brains’ (read: mobile phones) to carry around social networks (2011) is telling. In line with Case, I would characterize mobile Facebook users as ‘platforms’ (in the sense that we are all grounded) that voluntarily host the Facebook application, even if sporadically.

At present, while 3G and (increasingly 4G) network connectivity may be at near-ubiquitous levels in populous areas (at least for those of us in wealthy nations), platform access has yet to fully connect the human body to a larger network. I would argue that regularly updated smartphone features may offer some light into cyborg-minded debates that deserve consideration. Exemplifying this, users who install Facebook for Android agree to have the software automatically update itself to the most recent version (“Facebook Google Play,” 2012). Such an app might be thought of as continuously training (Terranova, 2004) users with the current features (read: skills to learn) necessary to encode a digital life into Facebook. In other words, each software update steers mobile users to find more moments to encode with new features. With Apple’s latest iOS mobile operating system natively integrating Facebook features (Fingas, 2012), I would stress that it is becoming even easier to feed into such compulsions. This kind of ‘deep integration’ represents a blurring line between the fetish device and a digital life: especially as users will be able to ‘like’ new forms of “content” such as Apps, and, easily post images without actually opening up a Facebook app. In this sense, a larger division between the value-producing Facebook environment and mobile worker may fade away from consciousness. Users will be able to transparently engage ‘playbour’ activities, being routed past the Facebook logo to experience a lifestyle brand directly by way of mobile features. A conditioned sort of

cyborg attuned to the features of Facebook's mobile interface emerges. In the always-on, Facebook 'place' such social cyborgs come to mirror the platform's own protocols: persistently on high alert for moments to encode new content away from the life world (Jurgenson, 2012b).

Experimentation

Privacy offers some capacity to 'try out' identities before users face the risks of making them public (Goffman in Ginger, 2008), yet the World Wide Web has, for much of its short history, been largely public by default. As much as Facebook can host a users' content, so too can that content be copied off of the platform without any degradation – effectively limiting a biologically pre-programmed right to forget (Chun, 2004; Mayer-Schönberger 2009). Admittedly, Facebook's real name and data policies force 'autographic content' (Elmer, 2010) by default, but we also have the increasing resolution of technology to blame, particularly as physically located bodies (with valid contact information entered into Facebook during the registration process) converge with Facebook.

Strangely, the type of sensuous division (Marx, 1844) I speak of is taking place at a time when users have never been so close to media – literally holding mobiles and transferring their body's electrical currents to capacitive touchscreens that 'sense' touch (Crawford, 2012; Lanier, 2010). From this vantage point, Facebook on the mobile does not merely serve as a tool; it counts on the body to extend a type of 'playbour' into a slowly emerging mobile workplace. From this perspective, the user becomes not alienated from their work but emerges as something of a digital 'artisan' intimately connected to *their* personal media content while disconnected from ephemeral bits of a larger data trail. Strangely, Facebook work – when reduced to a sequence of 'likes' or total location check-ins – would hardly be considered as a form of skilled

labour. Living, then can also become monotonous to the point where self-creators merely “regulate” their own work process (Marx, 1844), but do so within the confines of mobile Facebook’s “closed viral loop” (Facebook, 2012).

Admittedly, much of the challenge in discussing Facebook labour surrounds the idea that this immaterial labour site is inclusive – “open” – by default. A better approach might be to compare immediate user-to-user contact with an eye towards future implications of such exchanges in a system of object-based time¹⁷ (Lanier, 2010). Indeed, users might be attracted to sites like Facebook to meet a ‘natural’ social need (Andrejevic, 2011), however, this immediate gratification has implications beyond the present. With Bourdieu’s notion that capital takes time to accumulate, networks that ‘collect’ (Gazzard, 2011) interactions are not simply confined to real-time data processing (Lugano, 2008). Data lives and is forced to live on beyond the present (Mayer-Schönberger, 2009), suggesting that social media translates individual autonomy into bio-power – forced life hegemonically steered by the invisible protocols of the Platform and its hidden ‘relational databases’ (Beer, 2009).

As Facebook becomes a de facto social standard to many – a common language to influence others with – there runs a danger that the company will ‘lock’ users in, particularly if it fails to provide users with adequate data export features to archive/claim their virtual life. Perhaps unsurprisingly, Facebook fears ‘passive’ experiences that devalue content for advertisers and threaten the company’s already significant network effect. Yet, within this tightly monitored Facebook environment “inaction” (read: avoiding Facebook) can produce poor metrics that can

¹⁷Mobile devices like the iPhone think in terms of ‘objects’, not chronological (sequential) time.

‘speak’ to capital through the language advertising revenues. Questions of media engagement – hot and cold media to borrow Marshall McLuhan’s terms – need then to be considered as the basic skills defining unpaid Facebook labourers to the platform.

Conclusion

At first impression, Facebook’s mobile products would seem to represent a subset of features that pale in comparison to the desktop version of its website. In spite of this difference, the platform’s software environment still has the potential to productively channel value-generating activities away from use-producers and to the benefit of shareholders. In this vein, this paper has argued for a conception of Facebook as a mobile work ‘place’ – a productive environment travelling along with users on mobiles and smartphones. It cannot be stressed enough that Facebook Mobile is hardly a mature product, nor has a mobile specific branch of internet studies or critical software studies emerged to host works such as my own. As such, this analyst’s work has attempted to freeze Facebook Mobile into a rhetorical stasis, documenting a social networking site that incrementally processes (Galloway, 2001) users’ social and cultural capital exchanges (Bourdieu, 1986).

At the present time, the mobile labour argument can be a difficult sell, particularly when Facebook’s mobile services are made free of charge with minimal advertising. Yet, users can be thought of indirectly paying to access Facebook, transferring considerable time, money and cultural resources to the company in exchange for social services. However, such services granularly trade off autonomy in exchange for increased influence – even words like “face” and “wall” are subject to the company’s terms within its platform (Statement, 2012). Facebook ‘engagement’ can be considered a form of post-industrial ‘activity’ (Mosco, 1989) set outside of

the workspace proper. A conception of labour on Facebook is thus one that concerns technical rights as potentialities (Feenberg, 2001) that shape users' abilities to leverage 'personal media genres' (Luders, 2009). In Facebook, such rights are largely invisible: taking place not in the play-like activities of the end-user, but at the moment in which the platform's protocols translate such exchanges into surplus value with a space of network time. Recognizing that mobiles upload content into a data cloud, this exchange is both technical and social in nature. Yet, it cannot be underscored enough that the *potential* for future data 'exploitation' does not lock users into a pre-determined looping circuit of total exploitation. As the company struggles to articulate its mobile growth strategy to investors, this present point in time invites users' to advocate for additional control of their working conditions through feature like data portability and privacy defaults.

This paper has also seen mobile devices as 'mediating' influence beyond virtual networks. Although Marx wrote much of his manuscripts at a time of industrial production when walls bound the factory to a physical space, today's 'social factory' (Negri, 1989) has become an increasingly mobile place of immaterial labour production (Lazzarato, 1996). However, rights permit critical theorists with a way of connecting physical presence to virtual identities, negating the idea of a digital dualism – a concept Facebook filters out with design techniques to keep dialogical exchanges constantly flowing.

However, to what extent are the concepts this paper has considered portable outside of closed academic discussions? At a time when voter turnout is at an all time low and brands have become the new social movements (Thrift, 2005), how can we extend a critical awareness of mobile labour rights beyond scholarly communities or their open access journals? Murmurs of a quiet revolution can be heard around the Internet, exposing many non-programmers to the power

of Facebook's tightly structured software environment.

Outside of the closed 'circuit' of the Facebook Platform, there have been some particularly useful endeavours to 're-mediate' Facebook power in terms the platform does not command. To borrow upon McLuhan's idea of the artist as an 'early warning system', there has been some fruitful discussion of the reconfiguring potentials of social media in relation to individual identity construction. Karppi's discussion of Facebook's legal actions against the Facebook Suicide Bomb project (2011) offers some hope to reform. Although breaking the platform's condition of not sharing passwords, users of this online suicide machine provide their passwords and proceed to watch their Facebook lives disintegrate before their eyes. Such resistance initiatives overthrow capital by overloading its circuits with "demands and requirements contradictory to the imperatives of profit" (Dyer-Witheford, 1999, p. 217). In addition to privacy regulations, 'do not track' browser features in Firefox (Geist, 2012) are limiting to what extent sites like Twitter monitor users. However, tracking cookies are not necessary in an identity based-passport system in which users log in to engage with their semi-private (authenticated) social network through their account (boyd, 2008). Thus the identity becomes not unlike a passport, with identifying information tied to a physical body. Regardless of their form, efforts to add 'noise' competing with Facebook's brand experience are ones that are inherently concerned with demonstrating a sense of network literacy that concentrates on how data is rarely neutral.

Throughout this paper there have undoubtedly been several issues that I have avoided acknowledging. Most noticeably, my focus on ubiquitous connectivity downplays the very real digital divide separating developing nations from their privileged counterparts (ITU, 2011). Admittedly, the idea of Western users complaining that they 'work' too hard while 'playing' on

Facebook suggests a level of privilege overlooking the deplorable working conditions of Foxconn's iPhone assembly lines (Qiu, 2012). To what extent this privilege might become more expensive in the future might draw issue to this overlooked class of workers. Recently, Bolivia cancelled South American Silver Corp's exploration license to find key minerals used in tablets and phones. An additional element has overlooked to what extent Facebook identities impact paid employment practices. Recently, the state of Maryland introduced a law preventing employers from obtaining employees' social media passwords (Geist, 2012). Bridging these two very different sets of privileges together in a unified text will certainly be an issue for Facebook scholars, one that I have been unable to target in my own work.

Should consumers continue current trends of trading in laptops and desktops for mobiles, a totally pervasive computing environment will call for new types of research methods. An interesting project would be to consider how Netflix accounts and e-readers connect to Facebook and automatically communicate metadata to users' timelines. Such a project might be approached from a critical theory perspective capable of critiquing software 'defaults' and to what extent they self-reproduce network influence. Moreover, a number of single-feature apps have crept up on to mobiles, balancing a fine line between productivity, control and less ambient distraction. Particularly useful would be a discussion of the role of such single function apps Instagram¹⁸ and social bookmarking service Spool, two recent Facebook acquisitions that that will likely be incorporated into the company's larger platform. More recently, Facebook competitors app.net and Diaspora have publically rejected advertising revenue in favour of increased control. However, such sites reject the idea of abolishing private property (Marx's

¹⁸ At the time of writing, the Instagram deal was under negotiation.

‘Aufhebung’) and invite users to invest capital into operating either a web server (Diaspora) or to purchase a membership (app.net). Discussing how money can purchase social media rights certainly emerges as an area of study worth examining.

New media may train us with new habits (Castells, 2007), but we must consider how habits are structured through mobile social networking sites like Facebook Mobile. Failing to overlook rights can only lead to sensuous alienation, particularly when we are being indirectly trained to act as mobile social software cyborgs. In this vein, Jurgenson’s fear of developing a "Facebook Eye" in which our brains rate lived experiences as potential posts (Jurgenson, 2012) is anything but unwarranted. In a pervasive media space, the right to pause, to temporarily disconnect from the constant flows of a convergent work-play medium, represents an opportunity to exercise agency, not one that should induce fears of “ringxiety”. Indeed, if Facebook’s algorithmic processing tools extract labour from unpredictable mobile ‘playbour’ moments, we must train ourselves to pause so that we may – regardless of the platform – consider larger questions of work-life balance in a pervasive media climate.

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