Final Paper

Digital media are an egalitarian force in American society

Communication 220

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Couldn't find an envelope; will coordinate to meet next quarter (if acceptable)

May 19, 2016

Introduction

Since — and indeed before — the 90s, digital media have promised to unburden participants of the baggage of conventional cultural mores [5]; Barlow in particular describes a very crystallized notion of "cyberspace" and its "independence of the tyrannies . . . impose[d] on" its denizens, independence from conflicts inherent to embodied existence, and finally a space to form a culture of universal human equality — to foster an egalitarian culture that transcends geographic space, as well as the holdovers of culture from which he and others like him wished to break.

But the track records of digital media have been mixed, at best; even in cases where we see what appears, at first glance, to be the emergent characteristics of egalitarianism, closer inspection reveals sexist, racist, and variously exclusive communities that are ultimately prohibitively difficult for outsiders to penetrate. More troubling, deeper consideration reveals worrying parallels with the counterculture movement of the 60s, namely the trend of experimenting of with nominally egalitarian communes, which ultimately proved to be sites of intense sexually & racially charged practices of exclusion.

At another level, we see that digitally–mediated sites of emergent culture are being substantively designed and shaped by certain groups of people and, importantly, occupied and used by other groups of people, leading to a worrying stark hierarchy — that is, people largely divided according to whether they control digital media or are controlled by them.

I will attempt to argue that digital media and the sites that emerge therein are at least potentially similar to the communes of the counterculture era, and that the evidence suggests that many of these sites have similarly paralleled the egalitarian communities from decades past. I will go further, however, to offer a more optimistic outlook: that the sites of interaction mediated by digital media can more easily be informed by one another, and that the failures of one community to empower its members equally need not necessarily repeat themselves across communities, as so many communes often did.

To make this argument, we need first to make the case that digital media have been egalitarian forces in at least some facets of society, which we will attempt to illustrate through 1) peer production work such as the Free Open Source Software (FOSS) movement & Wikis, and 2) efforts toward collective action and solidarity in online communities. These cases will make a very simple argument at face value — that digital media are monotonically egalitarian forces — but we will explore these cases in depth and identify problems these systems have faced, and sometimes caused, for participants.

We will also explore the much broader case of systems themselves as tools used to separate users from builders. Namely, we will look to 1) the oppressive nature of "crowdwork" and the broader "gig labor" — novel names for a well–established practice of speculative work which started at least as early as the turn of the 20th century (but which has found new purchase in the last 10 years), and 2) the use of "big data" to track and analyze users, and the power system designers wield over their users by tracking people as data.

Peer Production: FOSS and Wikipedia

Numerous examples come to mind in making the case that digital media generate egalitarian communities; perhaps the most compelling examples are those of peer production and in particular the decentralized organization that typifies many Free Open Source (FOSS) projects as well as the ethos of Wikipedia and the many "Wikis" which have emerged since.

Suffice it to say that many have pointed to Linux and other open source projects, in Raymond's case identifying these as illustrative of an alternative to the "cathedral" organizational paradigm by offering access to a sometimes hectic, ad–hoc "bazaar" instead [35, 44, 12]. The influence of open source software has been well–documented, and certainly it represents a compelling counter–argument to the proprietary ownership paradigm which has otherwise dominated software [19, 44].

It seems, however, that open source projects often have complicated levels of involvement — if not explicitly named, then certainly implied by varying levels of engagement and interaction [12, 31]. Kelty points out that, in the community of developers he studied, most developers were male, into heavy metal, and culturally relatively homogeneous — an issue that will resurface later in our analysis of big data, but is worth pointing to here in our consideration of whether and to what extent FOSS is in fact egalitarian [19]. Another issue, that many of these open–source projects are so sparsely engaged that it may be difficult to assess whether these *would* be sites of egalitarianism, is difficult to speak to, but worth noting [4].

Wikipedia, by contrast, deliberately affords participants varying levels of commitment to take on, and importantly almost any person with access to the Internet and an ability and willingness to write can participate in the community. This peer production model, described by Howe and others as similar but subtly different from crowdsourcing, theoretically allows all to come, make edits and suggestions, and debate edits on their merits rather than the status of the proponent [16, 2, 6]. Here then we see at least a somewhat viable argument that digital media facilitate the formation of egalitarian communities.

Shirky makes a similar point toward crowdsourcing in his discussion on the observation that "everyone is

a media outlet" in this new setting [40]. His outlook is less optimistic — that the *professions* involved in journalism and media have changed in their mixing with "amateurs" — but if nothing else this contributes to a broader argument that digital media have democratized the ability to publish content[1].

Unfortunately, again we find that reality differs from the promise; researchers have discovered over the years that significant, often implicit barriers to participation exist without sufficient explanation for potential new editors [14, 45]. Keegan & Gergle in particular highlight the hypocrisy of Wikipedia's stated "egalitarianism" in contrast to the reality that new editors experience [18]. This backlash that users often face has been documented and, used to conclude that "Wikipedians are **born**, not made" (emphasis added) [34].

Collective action

Given the problematic nature of FOSS projects and Wikipedia's enduring challenges to encourage new users to participate as editors, one might conclude that digital media unequivocally results in these problematized instances of egalitarianism. Instead, I suggest we look further for evidence that digital media represent forces toward egalitarianism, if not egalitarianism itself.

Collective action coordinated by digital media has, Shirky and others argue, at least the potential for democratized organization and planning [40, 11]. Here then, in some limited (and even stretched) sense, digital media as democratized tools to facilitate collective action become egalitarian influences in their own rights. Miller in particular illustrates this notion through the use of the "rhizome" as a way of describing networked societies [30].

Further, the tools needed to expose mistreatment of pieceworkers at the turn of the 20th century — namely, the camera Jacob Riis brought into the homes of workers — were made more accessible through the propagation of digital media and the tools needed to make them, to say nothing of distributing that media, made dramatically easier by blogging such as WordPress and other systems like it [36, 3]. Further, communities like Turkopticon & Dynamo afford members some sense of equality among one another, structured by guidelines on behavior to ensure equal opportunity to present views and separation from risk of controversial or contentious views affecting them outside of the context of that forum [17, 38].

Crowdwork, gig labor, and ties to piecework

Having briefly mentioned communities of crowdworkers, we should acknowledge the unique role that

[1] Mackinnon (2012) discusses this effect to some extent through her analysis of WordPress as well, but her discussion is largely set in China; while her findings are arguably still relevant to American society, Shirky's general discussion above suffices [28].

crowdwork and gig labor play in this argument, and in particular use this to segue from the notion of digitally–situated communities of egalitarianism (or, as I have argued, *not*) toward a much more general critique of these communities as the boundary itself between the user and the builder.

Nominally, the gigwork enabled by Amazon's Mechanical Turk platform (and other systems such as Upwork, Elance, etc…) make it possible for workers — who otherwise could not participate in the economy — to engage meaningfully, even earning a living. In practice, however, these workers struggle to make ends meet [37]. These markets for "information work" are, it turns out, far from unique; markets for drivers for hire, cleaners, movers, and other various tasks prove stifling and challenging for workers to benefit from.

Cynically, one might argue that the case for egalitarianism is still being made within the context of this workforce; that is, everyone is struggling roughly equally compared to one another[2]. This argument is specious, but it might be pernicious enough to merit addressing; simply, the notion of a community achieving egalitarian ideals must be met entirely. Amazon Mechanical Turk — and indeed *all* of the marketplaces which promote piecework — relies on gross information asymmetry between the worker and the employer. [17, 41]. That information asymmetry prevents participants from interacting as equals, fundamentally preventing this and any market like it from being a site of egalitarianism. Indeed, even communities *connected to* these markets potentially suffer the hazards of preferential statuses in these markets, especially illustrated by heterarchical relationships, such as seeking support in one context given high status in another [38].

Further, the challenges these workers face sometimes come from the system itself, but crucially from the finite designs of engineers, causing its own form of oppression that differs from the kinds of coercive forces that offline markets — often the results of innumerable influencing factors — in that we can trace and even design responses to these issues [26, 17].

Big Data

In the previous section, we considered the effect that human–made systems such as Uber, Lyft, etc…have on workers, and the potential to track the design choices of system–engineers compared to the confluence of broader marketplaces. In this section, we'll explore another aspect of human–engineered systems that separates and devalues some classes of people from others — the use of "big data" as a lens to consider the implications of how imbalanced the power is between users of a digitally mediated system and the designers

[2]This, it turns out, is not true; Irani et al. found that payment stratification benefits more senior Turkers, a finding that has been corroborated incidentally by others [17]. Still, we could cede this argument entirely in favor of the larger one to be made, that egalitarianism must take into account the steep inequalities between various stakeholders.

of that system.

Two issues come to light in this discussion prompted by big data. The first is the general issue that system–designers have control over the architecture of a digitally–mediated environment in only vaguely similar ways to a conventional architect's control over a physical, embodied space. Lessig (2006) describes a useful mental model wherein four forces act on a body: 1) architecture, 2) market, 3) norms, and finally 4) laws [27]. As we will soon come to realize, these forces are largely consolidated into the agendas of system–builders.

It's important to acknowledge that developers of digital systems have enormous control over the **architecture** of that system (e.g. designing a user's interaction with a space in such a way that it encourages or discourages certain behavior, going as far as influencing "emotional contagion" [22]). Additionally, markets such as Uber, Lyft, Amazon, and others demonstrably have almost — and perhaps effectively — unilateral, complete control over the **markets** which they expose through tools such as data lock–in and threats of banishment for violating their own terms. Norms, it would seem, are more difficult for a system–designer to influence; deeper consideration reveals, however, that system–designers take insights from myriad fields such as psychology, anthropology, and sociology, to inform the architecture of their system and encourage the emergence of **norms** preferred by *them* [1, 24].

We return to Kelty's observation that developers have been a relatively homogeneous community of people; notable exceptions aside, most developers in contemporary Silicon Valley have been, and continue to be, male and relatively culturally homogeneous [43, 19]. It would be challenging even for culturally–minded people to appreciate the differing world–views expressed around the world; for people whose fields of study range engineering and computer science — and especially those with minimal to no training in the study of, or exposure to various cultures — deep, *emic* understanding of the cultures of the people who use their systems may be impossible for the engineers who build these major sites of social interaction.

Given that cold reality, to say nothing of the interpersonal relationships that take place on digital media, it's perhaps unreasonable to claim that the designers of systems and the users of systems are ever part of a single egalitarian society. Those that build systems are fundamentally more empowered than those that use them, and with little to no understanding, and limited interaction between these two groups, it seems unlikely that the characteristics of egalitarianism — for instance, mutual respect and understanding — will emerge. I will continue to argue that this power imbalance is further skewed in favor of those that design, implement, and

control systems, due to their necessary access to (and *de facto* ownership of) users' data.

The second issue that emerges is the core topic of "big data" — that users' collections data often become hostage to system–designers, and that this fundamentally disrupts any endeavor toward an egalitarian society, especially in the case to which Barlow attempts to speak (that of cyberspace) [5]. While Bush (1945) predicts a future where the transmission of information might be reduced to a triviality in cost, he seemed not to consider the circumstances in which we find ourselves — that the information itself might be worth too much to trivialize its free transmission [9].

Indeed, information has become a cornerstone of many of the companies which drive digital media spaces [39, 29]. It should not, then, be surprising that companies as diverse as driver–for–hire companies like Uber & Lyft, social networking sites such as Facebook & Twitter, and providers of services throughout (Google, Apple, & Microsoft) all generally maintain as secretly as possible both the nature and content of what they track, even from the subjects of said tracking. Lanier (2014) argues interestingly that perhaps companies should be obligated to compensate people for the value extracted from data collected on them, but this proposition — while interesting — is both economically infeasible and technically challenging [25].

Potential to be different

Thus far, I've described an almost dystopian outlook on the prospects of digital media being egalitarian forces in society at all, let alone American society[3]. There is however, reason to be hopeful, if not optimistic. To say nothing of the efforts described earlier to enable discussion among people as equals [17, 38], the broader field of Human–Computer Interaction benefits from insights both in design — leading realizations of the benefits of "participatory design", wherein users and builders of systems work collaboratively — as well various fields of social and cultural inquiry [8, 24].

Where Turner points out how the counterculture revolution and communes in particular invariably became sites of implicitly defined prejudices, I argue that our ability to learn from other communities rapidly and freely makes it possible to avoid sliding into the same causes of failure which almost invariably struck communes [42]. Dynamo learned from Turkopticon and Wikipedia [38, 17]; bodies of literature are largely

[3]I've avoided discussing this issue until now, except here to say that efforts toward global egalitarianism are qualitatively — not quantitatively — more complicated. That is, the myriad political regimes attempting to moderate and legislate the use of technology (discussed to varying degrees by Goldsmith & Wu, King et al., and others) are in themselves challenges similar in complexity to those we discuss here [13, 20, 21]. Finding ways to relate these political and cultural contexts holistically, emerging with a comprehensive world–view on digital media's ability to affect egalitarian influence on various cultures and global culture as a whole, therefore, would fall far outside the scope of this paper.

informed by existing communities, the results of this literature often becoming the basis for new endeavors [7, 15, 32, 34].

All of this is to say that, when we — in particular, researchers, but also system–designers and *people* in general — recognize subtle, pervasive barriers discouraging people from participating in editing Wikipedia, we can leverage mountains of research into encouraging participation, leading to design interventions that precipitate and facilitate more inclusive environments. Indeed, we can point to research on various fronts which corroborates this potential, the most salient of which being the efforts to change Wikipedia's administrative practices — as well as the design of the system itself — to "steer" more constructive moderation of edits [10, 23, 33].

Closing thoughts

I've attempted to articulate a complicated perspective on, and in fact relationship with, digital media through their ability to be an egalitarian influence on American society. Ultimately, my arguments attempted to illustrate that numerous examples ostensibly settling this debate exist, but that each of those examples is problematized by deeper, underlying complications to the relationships between stakeholders.

I chose to end, however, with a call toward optimism to suggest that it is not built *into* digital media that egalitarianism is, at best, a false promise; that instead, it may be possible to achieve the egalitarianism Barlow wishes to see in his declaration, but that it will — as always — take our best efforts to avoid making the same mistakes we've made in the past, marginalizing people and imposing our own world–views in an attempt to homogenize cyber–culture as it forms. I believe, with care and consideration of the past — a skill admittedly all too rare among those who need it most — system–designers can help construct a cyberspace that welcomes all as Barlow wrote in 1996.

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