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Participation as Commodity

There exists a rhetoric of participatory culture that fosters the concept that, through globally networked computers, cultural production is now in the hands of more individuals than ever before. That we will be free to participate in producing software and culture–the two becoming increasingly intertwined–in non-market collaborative modes constructing a new ownership model structured around distribution rather than exclusion. Law Professor Yochai Benkler's The Wealth of Networks offers a sophisticated analysis exemplifying this cultural shift. Benkler contends that we currently are "in the midst of a technological, economic, and organizational transformation that allows us to renegotiate the terms of freedom, justice, and productivity in the information society." (Benkler, 27)

Benkler establishes a trajectory wherein peer production outside of market forces can contribute to greater swaths of our social and material lives, and ultimately asserts that the reality of networked cyberspace is a net empowering force for individuals in society and economy. He highlights the Open Source software movement as a core example of peer production where all peers contribute to a shared product that none directly own, a movement that has created the complex public goods of GNU/Linux, the Apache web server and Wikipedia, among others.

Against the backdrop of the heavy centralization inherent in the industrial information economy of the 20th century, Benkler conceptualizes the networked information economy as driving the rise of a "networked public sphere" and makes a bold claim: "The networked public sphere enables many more

individuals to communicate their observations and their viewpoints to many others, and to do so in a way that *cannot be controlled by media owners and is not as easily corruptible by money as were the mass media*." (Benkler, 12)

However, Benkler published his work in 2006. His account of the comparative position of the participatory peer production, or "networked information economy" as he terms it, has a distinctly naïve tone when viewed from 2014. Much has shifted in the landscape of peer-produced culture; in 2005 Facebook and YouTube were launched worldwide with Google acquiring YouTube in 2006. These sites rose quickly to dominance on the overall landscape of networked culture, and today they are clear monopolies. While different from the mass media companies of old, they are still also disproportionately powerful.

The entire Web 2.0 movement changed the value dynamic of peer production. Now user activity in the "networked public sphere" actually takes place inside of proprietary standard platforms, and their contributions aggregate to capital wealth for the owners of said platforms. We have peer production of culture and participatory modes of production, but somewhere the utopian ideals professed by Benkler went off course. Open Source is not dead, but the ideal that vast swaths of humanity would work together in an open source modality has not come to pass; proprietary standards have emerged and drew users in across the Internet.

With this shift in the landscape, we must re-evaluate Benkler's premise in a critical light. Are the most recent digital monopolies flukes, or are monopolies

still an overall feature of the networked world? Despite early proclamations that the Internet could resist monopoly, is there some broader systemic reason why monopoly has re-emerged at this juncture of the Internet?

To explore these questions and better understand this monopolistic trend, Tobias Schäfer's Bastard Culture! provides an updated account of the market forces appropriating participatory peer production. Schäfer challenges Benkler's notions of participatory culture as empowering offering cogent pushback against rhetoric of participation as leading directly to democracy and empowerment. He offers hard challenges countering Benkler's optimism by highlighting newer business models; Schafer-writing from 2011-possesses a grasp of Web 2.0 and expresses the paradigm shift underway that strains Benkler's notions of participatory culture outside of market frameworks.

To provide deeper theoretical understanding of the trend, David Singh Grewal's book and theoretical framework Network Power provides a powerful conception of how networks and standards exert influence and gain hegemonic monopoly power in a broader landscape. Finally, Fernand Braudel's seminal work on the emergence of capitalism provides a deep historical context and useful working understanding of capitalism. His analysis paints a picture of capitalism as being at its heart resilient, mobile and opaque; an analysis that remains true as capital floods into the Internet.

Network Power and the Gravity of Standards

Upfront, it is important to keep David Singh Grewal's formulation of Network Power in mind as an analytical tool. He formulates a "standard" as a coordination tool, or interface, between individuals and information that forms a network. Network Power provides a lens to observe the potential for individual actions–such as choosing to join Google or Amazon– to aggregate into a hegemonic network power effect. "The most interesting feature of standards— and the one that gives rise to what I call 'network power'— is that they can 'spread,' propelled by people's desire for access to members of a network.(Grewal, 23) A standard often begins life having some intrinsic benefit; some reason to employ it to reduce the cost of coordination and create a network that shares the convention. However past a certain point, a standard can begin exerting extrinsic power wherein the draw of embracing the standard, and gaining access to the network it has created, becomes a powerful pressure rendering the intrinsic value of a standard largely irrelevant; past a certain point, individuals simply must choose to use a certain standard.

Grewal presents standards as often adopted through relations of sociability. "In relations of sociability, everyone is understood as a private person, whether non- or pre-political, and whatever we pursue together results from the exercise of our individual choice to participate (or not) in a common enterprise." (Grewal, 46) In order to function in society and markets, individuals must coordinate. They do this through standards, and often without being directed from the top down. Network power allows an understanding of how choices made by aggregate individuals–the dimension of sociability–can manifest as

hegemonic by constraining possible options. As a standard network grows, other networks can fade from relevance; individuals will use the most popular standard. Grewal argues that, while choices made by individuals in this modality can appear "free" they are subject to network power. That is, the choice whether to adopt a standard or not might exist in a purely theoretical sense, but in practical terms certain standards simply must be engaged with.

Using the coordinating power of standards is a double-edged practice: "it offers coordination among diverse participants but it does so by elevating one solution above others and threatening the elimination of alternative solutions to the same problem."(Grewal, 5) The primary feature of standards is that their network power grows at a potentially exponential rate, referred to as "network effects" in economics. "Standards attract new users in proportion to the size of the network they underlie, and sometimes in greater proportion."(Grewal, 27) This creates feedback loops that constrain the possible choices the users or actors may make. While choice remains whether or not to engage with a particular standard, when one is exerting network power the choice not to join quickly becomes unfeasible. "Where we can identify a pattern of consistent social behavior that operates like a standard— regulating access to others by providing a framework for social coordination through conventionality—we should expect to see a positive feedback dynamic that makes it increasingly attractive for outsiders to adopt the same behavior." (Grewal, 66) Standards exert a gravity that pulls individuals into their orbit; this gravity grows with the size of the network.

Grewal offers the power of sovereignty–the top-down actions of law and policy–as a counter for sociability that has gone awry. This concept is important, as Grewal uses it to talk to Benkler directly, and will be re-addressed later. For now, let us better understand Benkler's assertions and why he thinks that the potentials opened up by networked computers offer new possibilities for broader society and economy.

New Possibility for Paradise

What features of production and collaboration do Benkler observe that are unique to the "networked information economy?" Why does he think that, this time, things will be different? Primarily Benkler is intrigued by the potential of aggregate modularized contributions of many disparate individuals coalescing into a complete product. "What we are seeing now is the emergence of more effective collective action practices that are decentralized but do not rely on either the price system or a managerial structure for coordination." (Benkler, 12) What characterizes the networked information economy is that decentralized individual action […] plays a much greater role than it did, or could have, in the industrial information economy." (Benkler, 3)

He points to Open Source software as the archetypal example of the possibilities of this new mode of production. "Free software, or open source, is an approach to software development that is based on shared effort on a nonproprietary model. It depends on many individuals contributing to a common project, with a variety of motivations, and sharing their respective contributions

without any single person or entity asserting rights to exclude either from the contributed components or from the resulting whole." (Benkler, 12)

As Benkler elaborates, "the rules of property are circumscribed and intended to elicit [the] willingness and ability to pay for exclusive control over a resource. They constrain what one person or another can do with regard to a resource." (Benkler, 24) Yet open source rejects this notion of property, instead choosing to effectively reverse the flow of ownership from private to public, all while ensuring access as the standard. As Stephen Weber describes in The Success of Open Source, "property in open source is configured fundamentally around the right to distribute, not the right to exclude." (Weber, Kindle Loc. 237)

The Internet allows many disparate contributions to conglomerate into a cohesive whole much larger than the sum of its parts; the Open Source standard license allows those contributions to remain public and accessible. The legal innovation that empowered the open source production modality to thrive arose from Richard Stallman's clever assertion of his copyright to create a license chain, called the GNU Public License or GPL, where each person who modified his software had to release his or her version to the world under the same license. Stallman "released pieces of his code under a license that allowed anyone to copy, distribute, and modify the software in whatever way they pleased. He required only that, if the person who modified the software then distributed it to others, he or she do so under the exact same conditions that he had distributed his software." (Benkler, 65) If someone did not distribute their modified version of the software to others they would then be in violation of

Stallman's copyright. "This legal artifice allowed anyone to contribute to the GNU project without worrying that one day they would wake up and find that someone had locked them out of the system they had helped to build." (Benkler, 65)

Open source is not some fluke or science project; out of this licensing paradigm arose the ongoing projects of Apache web server and GNU/Linux, among many others. Apache runs a large percentage of the global web providing an open standard that allows anyone to set up a server and host a website. The GNU/Linux operating system is astronomically complex, and continues to grow more so every day. Large swaths of the Internet and various embedded systems in commercial products run a version of GNU/Linux. As of 2014 97% of the top 500 supercomputers on Earth run a form of Linux as their operating system. The wildly popular Android operating system that Google maintains is also based on GNU/Linux. The open source mode of production has also given the world Wikipedia, which continues to enjoy a top 10 ranking on the most popular websites in the world as reported by Alexa's top 500.

Benkler sees this possibility as fitting into a general trend in the macroeconomic landscape of the developed world. There are, he contends, two "moves" afoot in the landscape. "The first move, in the making for more than a century, is to an economy centered on information (financial services, accounting, software, science) and cultural (films, music) production, and the manipulation of symbols (from making sneakers to branding them and manufacturing the cultural significance of the Swoosh)." (Benkler, 3) The second move is what has been described, the new possibilities afforded by networked

computers. These machines and the information reality they create when they are networked together present new opportunities of near zero marginal cost creation and transmission of information to a global audience.

"The declining price of computation, communication, and storage have, as a practical matter, placed the material means of information and cultural production in the hands of a significant fraction of the world's population—on the order of a billion people around the globe." (Benkler, 3) Essentially, "as computers become cheaper and as network connections become faster, cheaper, and ubiquitous, we are seeing the phenomenon of peer production of information scale to much larger sizes, performing more complex tasks than were possible in the past for nonprofessional production." (Benkler, 68) Benkler is arguing that non-market production is offering up products that are of comparable, if not superior, quality to market-based production.

However, while Open Source projects generate large useful products that can serve as alternatives to some market-derived products, there is a limit. Benkler himself admits as much. "While creative capacity and judgment are universally distributed in a population, available time and attention are not, and human creative capacity cannot be fully dedicated to nonmarket, nonproprietary production all the time. Someone needs to work for money, at least some of the time, to pay the rent and put food on the table." (Benkler, 100) Open source is embedded inside of a capitalist world. How is this embedded nature affecting the general prospect of participatory peer produced culture?

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Paradise Threatened

Benkler's writing came before Web 2.0 and as such his conceptions require updating. Schäfer describes the broad architecture and general network power dynamics of Web 2.0 well:

> "Users became explicitly active participants in the cultural production thanks to the last WWW developments. The buzzword 'Web 2.0', coined by publisher Tim O'Reilly in 2005, actually described a set of web technologies, often abbreviated as AJAX for 'asynchronous Java and XML', that facilitate easy publishing and content sharing, as well as the establishment of social networks. Web 2.0 applications have been attracting a multitude of users, pushing trends toward socialization and the creation of 'user-generated content' (UGC). In 2010, about 73 percent of American teenagers and young adults online use social networking sites (SNSs) […](Lenhardt et al. 2010). As early as 2006, every third American Internet user had participated in categorizing or organizing online content by adding meta-data (Rainie 2007). These figures seem to confirm the perception of the increased capacity of users to participate in cultural production." (Schafer, 10)

At first glance this seems to align with Benkler's conceptions of a networked information economy; Web 2.0 appears as a scaling up of the idea of peer production. This is precisely the deceptive appearance Schafer is attacking. "A constant problem with the discourse around Web 2.0 and participatory culture is the ultimately rather myopic idea that participation by many users somehow equals democracy." (Schafer, 45) Schafer mentions frequent misunderstandings in the discourse on participation, and two are particularly important: "assuming that participation is only explicit, community-based and primarily intrinsically motivated." (Schafer, 45) Also, "neglecting the fact that participating in cultural production does not mean participating in power structures or benefiting from generated revenues." (Schafer, 45) The first challenges that Open Source is the

norm. While the communities Benkler describes are still active–Wikipedia and Linux are still growing– new systems have emerged that involve user contribution in a much more opaque manner. "New information management systems, as employed in popular Web 2.0 applications, reveal an implicit participation, which exists below the threshold of explicit participation and goes beyond mere participation in a surrounding culture: social interaction and user activities are channeled and controlled by design." (Schafer, 44)

User contribution, in the form of data particularly, has emerged as a commodity like any other throughout history. Pure enthusiasm over user activity is problematic, since the "underlying power structures are not necessarily reconfigured." (Schafer, 11) While the new media practices of peer production challenge some established business models, they do not make monopoly power disappear. In fact user participation has actually lead to vast new monopolies. "New enterprises emerge and gain control over cultural production and intellectual property in a manner very similar to the monopolistic media corporations of the 20th century." (Schafer, 11) New business models thrive off implicit user participation, transforming the activities of users inside of the network into commodity data. "Simply through using platforms such as Flickr, YouTube or Facebook, or services such as Google and Amazon, users create value and often actively contribute to the improvement of services and information management." (Schafer, 12)

Viewed from a Network Power perspective, and redefined in Grewal's terms, Schafer is observing the standard of capitalism exerting network power

over open source through productizing user contribution. "While user activities constitute a significant loss of control for certain sectors of traditional media industries […] the larger cultural industries benefit from user-driven innovation through the appropriation of corporate design." (Schafer, 12) Industrial media production is not disappearing; instead it is undergoing a transformation from creating content to providing platforms for user-generated content. (Schafer, 12) These platforms are means of interface between individuals and information. This feature sees them enjoy network effects while exerting network power, leading to a landscape fraught with immensely powerful players.

The Google Standard – Network Power in the Real World

The arrival of the Internet carried with it immense potentials for individual contribution to carry more meaning than before, and for individual users to derive value through externalities opened up by joining a global network of their peers. "Information access and communication could bypass old boundaries and be reconfigured to suit any need. Here finally was experience how I want it, where I want it, when I want it. There was a presumption that the adversarial rules from the 'old world' of 20th century commerce did not apply. This was a new 'networked public sphere,' as legal scholar Yochai Benkler called it. There was no looking back." (Zuboff) However, the Internet was not insulated from profit-driven motives for very long. It generated immense value through access to users and near zero marginal cost data transfer.

Google and other actors rushed into this new space adding immense value by structuring the sea of data that users were generating, "and for a while it seemed that they were aligned with the popular expectations of trust and collaboration. But as pressures for profit increased, Google, Facebook, and others shifted to an advertising model that required the covert capture of user data as the currency for ad sales. Profits rapidly materialized and motivated ever more ruthless and determined data collection. The new science of data mining exploded, driven in part by Google's spectacular success." (Zuboff) Despite high-tech roots and early high-minded rhetoric, the network power of profit motives exerted pressure, morphing these companies into very traditional capitalist monopolies.

"The whole topography of cyberspace then began to morph as Google and Facebook shifted away from the ethos of the public web, while carefully retaining its rhetoric. They began to develop a new logic of operations in what had until then been a blank area." (Zuboff) What emerged did not resemble the physical world of commerce, nor did it follow the norms of the open web. The new business model combines the participatory and intimate logic of the early web with the conventional logic of corporate capitalism. Wrapped up in the price of "free," the product confused users into easily clicking "accept" to troubling terms and conditions. "The outcome was the elaboration of a new commercial logic based on hidden surveillance. Most people did not understand that they and their friends were being tracked, parsed, and mined without their knowledge or consent." (Zuboff)

Google was a first mover with intrinsic benefits to their search service. Quickly they were able to harness network effects and exert extrinsic pressure on the landscape. "Network effects are one reason for which we may see "path-dependence" in the economy. Path-dependence expresses the idea that one's current 'path' is a function of where one has been— or, more simply put, that history matters."(Grewal, 64) The mass adoption of Google as a primary mediator of information on the web has created a troubling monopoly. "With a seventy-percent global market share, Google defines the infrastructure on the Internet. The next largest search engine is Baidu in China with 16.4 percent – and that's because China is a dictatorship which prohibits free access to Google. Then there are search engines with market shares of up to 6 percent. These are pseudo-competitors. The market belongs to a single company." (Döpfner)

The hegemonic effects of network power are perfectly exemplified in Google's position in the landscape. As Döpfner writes of his journalistic world:

> We know of no alternative, which could offer even partially comparable technological prerequisites for the automated marketing of advertising. And we cannot afford to give up this source of revenue because we desperately need the money for technological investments in the future. Which is why other publishers are increasingly doing the same. We also know of no alternative search engine, which could maintain or increase our online reach. A large proportion of high quality journalistic media receives its traffic primarily via Google. In other areas, especially of a non-journalistic nature, customers find their way to suppliers almost exclusively though Google. This means, in plain language, that we – and many others – are dependent on Google. At the moment Google has a 91.2 percent search-engine market share in Germany. In this case, the statement "if you don't like Google, you can remove yourself from their listings and go elsewhere" is about as realistic as recommending to an opponent of nuclear power that he just stop using electricity. He simply cannot do this in real life – unless he wants to join the Amish." (Döpfner)

Google has emerged as the de facto standard for search on the Internet, a troubling situation as Google is hardly open and non-proprietary. In practical terms, Google is the mediator that websites use to interface with individuals and, through its AdSense product, extract revenue. This absence of competition allows Google to act essentially without major constraints while exerting powerful influence of the entire media landscape. Döpfner writes, "When Google changed an algorithm, one of our subsidiaries lost 70 percent of its traffic within a few days. The fact that this subsidiary is a competitor of Google's is certainly a coincidence." (Döpfner)

Google's services are "free" to users, and they partner with companies for advertising deals in a manner that sees very low upfront costs to the parties wishing to monetize. The problem is that "free" somehow is converted into over $59 billion dollars of revenue. Every interaction a user engages in with Google's platforms is tracked and collated becoming the new commodity of Big Data. The rush and sheer volume of peer-generated content in the early days of the web necessitated the need for a standard way to structure and search this landslide of information resulting in the immense network powerhouse known as Google.

Considering that Google has branched out far beyond Search and into mobile devices in the form of Android (itself a capture of open source software for commercial purposes), web browsers in the form of Chrome, desktop operating systems in the form of Chrome OS, even home automation hardware under its Nest acquisition, the ramifications of this kind of power are clear: Google is in an incredible position to influence what the majority of Internet users see and how

they interact with it. This is a kind of monopoly that seems beyond Benkler's conceptions: an entirely new form of cybernetic media empire. Unlike the one-way broadcast-based 20th century media empires that are fading, the new empires are fueled by participation by peer production and form an intimate bond with their users. Indeed users have become the product. Benkler saw the contours of the relationship, but either did not or could not accept that capitalist profit motives could so thoroughly twist the empowerment potential of peer production.

From Grain to Data The Strength of Commodity Capitalism

What is the true driver of monopolization? A primary lesson from Braudel's historical analysis is that capitalism is happily and powerfully mobile, it can utilize any commodity. Now data has emerged as a new commodity, and capitalism is quickly moving to the forefront.

The "networked information economy" and Open Source mode of production emerged out of a Capitalist system. As complexity theory rightly understands, history matters. Thus it becomes paramount to understand the root characteristics of the capitalist system if we are to understand how its architecture will influence the "networked information economy." A turn to the past through the seminal work of Fernand Braudel allows a reconceptualization of capitalism and provides an example of a true phase transition: the move from feudalism to capitalism. Braudel's understanding of capitalism reveals a different picture than is typically put forth: the capitalist not as market actor, but as

functionally above the market. "Braudel starts with an analogy of a house with three stories: a ground level of material life 'in the sense of an extremely elementary economy' (Braudel, 2:21); a second story that he usually calls 'economic life'; and a third or top story that he designates as 'capitalism,' or sometimes 'true capitalism.'" (Wallerstein)

This is an important distinction as it allows a comparison between the observable features of the networked information economy that Benkler is describing, while also highlighting a shadowy space where the dynamics of Network Power manifest. "The market economy was a world of "transparent' visible realities' and it was on the basis of 'the easily observed processes that took place within them that the language of economic science was originally founded.'" (Wallerstein) This is much the same world that Benkler is describing. Peer production happens in the light, often under Open Sources licenses that demand all contributions be made publicly viewable and distributable. However in capitalism, whenever we arrive at the level of large-scale actors we have always found opacity. The zone of capitalism was opaque, a zone in which "certain groups of privileged actors were engaged in circuits and calculations that ordinary people knew nothing of." (Braudel, 1:23-24)

Since its emergence, Capitalism has proven to be endlessly resilient in its ability to create a scale above the "normal" realms of material and economic life. Take for instance the staple commodity grain.

> "Even grain, a commodity present all over Europe, can be fitted without difficulty into our three-fold schema: it was consumed on the spot, staying at the lowest level of material life; it was marketed in a regular way over short distances, from the usual granaries to the nearby town, which had 'the

advantage over them of situation'; it was the object of a less regular and occasionally speculative trade between provinces; and finally, during the recently repeated famine crises, it was a highly speculative commodity, and its transport over long distances was big business. With every change, one moves up the rank in the hierarchy of trade, as new economic agents and participants take the stage." (Braudel, 2;457).

Capitalism has always been a big game played above the small games of the markets. With data we see the story of capitalism's scale played out once more. Inside of the modern participation-driven platforms there is the small-scale material sharing of information, likes on Facebook, Tweets on Twitter, emails sent through Gmail. Then above that, exist the economic activity of some entrepreneurial individuals using social media platforms to engage in branding efforts and marketing of small business, in addition to micro-capitalism platforms like Amazon or eBay where individuals sell physical goods to one another. These are largely transparent interactions taking place at the atomic scale of markets. Overarching all this activity are the platforms themselves. These entities are essentially creating the markets for the individuals playing the small games below. Everything users do inside of the platforms is collected, pooling into the new commodity often called "Big Data."

The key to capitalism is that its purview contains large risks on an immense scale. It also creates a world unto itself through that scale. "For [large scale] trade […], the most powerful hands and the longest arms must be sought out from the whole body of traders.' Only these powerful men are well-informed. Only they can afford the risk and 'since the glimpse of risk makes the crowd shrink' they become 'monopolists', with 'profits in proportion to the risk'." (Braudel, 2;457) Just as it has always been, there are a few actors who can harness the

full potential of the commodity of data. These actors are rewarded with monopoly status through network power; they must achieve vast interconnected networks.

Despite the high-tech glitz of Google or Facebook or Amazon, these companies are no different than the old capitalist trading empires of yore. They form massive networks trading commodities operating at a scale above the market. As Luciano Floridi stated recently on Twitter, "The future is the place where the past happens again, with a twist." There are striking parallels between the data giants like Google and Facebook and the earliest conceptions of capitalist activity. The twist this time is that this monopolistic tendency of capitalism now has a standardized global network already in place where transferring data commodity has a near zero marginal cost. Forget networks of sailing ships and immense risk, modern capitalism is a slick digitally mediated affair where power laws abound.

Reinserting Politics and Sovereignty

Network power has seen new monopolies emerge in place of the old media monopolies. This much is understood, the next step comes in understanding how to reverse this monopolistic trend, or at least curtail it. How can we combat the network power of the new global monopolistic potential of the capitalist Internet?

Grewal suggests we turn to sovereignty. He rejects Benkler and others who look to sociability to carve out enough network power to resist the gravity of the giant players. Instead Grewal suggests we appeal to politics directly. "Pretending that globalization is on the verge of eliminating the need for politics will not help

us to think clearly about that reassertion of politics when it occurs, and may, in

fact, mean that we end up promoting ugly and virulent political forms—fascism,

say, as opposed to resurgent democracy—without necessarily intending it.

(Grewal, 295) Toward the end of his book, Grewal speaks directly to Benkler and

urges a more nuanced consideration of the role of politics. He criticizes Benkler's

functionalist economic assertion that the sheer fact that the capital required for

production is becoming more distributed in the network will lead to superior

outcomes.

"Benkler seems to have missed (or else is content to neglect for some other

reason) the vigorous and lively debates that occurred in early industrialism over

the justice and efficiency of capitalist production." (Grewal, 219) Grewal

continues:

Indeed, for the utopian radicals, Lockean socialists, producerists, anarcho-syndicalists and others who featured in the varied and dramatic world of early labor radicalism seen in novel cults of production and science, free-labor communes, and unions, the industrial age promised a new form of production in which the constraints of the past might give way to the solidarity of laboring men. This new age of industrial technology (that Benkler claims was fixed within given economic parameters) seemed as promising to them then as the information economy does to us today. These men had all they needed—so their story went, much as Benkler's goes now— to realize a new world of social production: they had their labor. Grewal, 219-220)

Grewal is highlighting that with each new technological revolution come with

it new conceptions of what will be possible. "People with the practical skills to

participate in the vanguard form of production of their age, whether industrial

laborers in the past or computer programmers in the present, often feel

empowered and deeply involved in what they experience as a new age of

emancipated work— at least, that is, until this kind of work, too, becomes

routinized and alienated." (Grewal, 220) The dynamic expressed in Schäfer's

work fills in the story: Benkler is talking of a time that is fading. The vanguard of

Open Source hackers and tinkerers is no longer in control of the digital

revolution, capital and private property has re-exerted control over cyberspace.

Thus Grewal advocates turning toward the state, rather than away. Only

through organized political power can aggregate choices of sociability be revoked

or modified. (Grewal, 222) Grewal contends that, while the new digital economy

may very well offer objectively more promising non-dominating work relationships

than 19th century factories or pre-industrial capitalism, the realities of the new

mode of production are also more distant for the majority of non-technical

individuals. (Grewal, 222) The Open Source movement is not a cohesive political

movement; it has no clarity of focus or plan of action to protect its way of

conceptualizing property and work arrangements. It needs an element of

sovereignty, of political unity; now Open Source is threated by large political-

capital entities. As Grewal warns:

"The open-source movement should not suppose that it can forever counter
private economic power with private virtuous action —whether in the egalitarian
social relations of online collaboration or through loosely coordinated attacks by
hackers on monopolistic corporations— lest it end up, like anarcho-syndicalism in
the early twentieth century, ceding the organized power of the state to its
capitalist opponents. Then all that would remain of this latest producerist initiative
would be to reflect nostalgically on the free Internet of the 1990s in the way that
anarchists once looked back to the Barcelona of 1936: there, once and briefly,
we ran things ourselves. (Grewal, 222-223)

Paradise Modified

It is easy to simply dive into an overall pessimism about the current

trajectory of the Internet. Until sovereignty over the network power of digital

monopolies is established, the landscape looks decidedly and worryingly unequal. However, turning to the emergence of capitalism itself provides a brutal yet soothing context. Capitalism emerged out of feudalism; it emerged out of an inherently unequal world. "In a context where other structures were inflexible (those of material life and, no less, those of ordinary economic life) capitalism could choose the areas where it wished and was able to intervene, and the areas where it would leave to their fate, rebuilding as it went its own structures from these components, and gradually in the process transforming the structures of others." (Braudel, 1;562)

Despite the now hollow ring of Benkler's tone, his core observations are instructive. There are indeed more potentials for cultural production than ever before. The problem exists at the level above the transparent realm of interpersonal and economic markets. Yet more actors have the chance to play the big game of capitalism above the market; new apps can emerge creating entirely new markets and riding network effects high above the messy interactions of the market. Many of these apps and platforms are simply purchased by incumbent capitalists for enormous sums that instantly grant their inventors capitalist mogul status. Google acquired YouTube in 2006 for $1.65 billion and Facebook acquired the mobile-messaging entity WhatsApp in 2011 for $22 billion. These platforms utilized the free-flowing nature of the web aligned with luck and good timing to harness network effects and rise to the top. They became standards, and existing Network Power monopolies bought the privilege to merge their networks with theirs. The growth in these payments over the

course of 5 years is instructive. The information economy is massive business for capitalism.

As capitalism shifted the landscape for some lucky, privileged or brave (or all three) actors to create new material realities, the "networked information economy" represents a broadening of that trajectory. Not a radical shift or phase transition, at least not yet, but a broadening. There are new potentials now for more people to choose more possibilities. The modern monopolies like Facebook, Google and Amazon emerged out of the new techno-capitalist class. In the modern era, ideas are becoming increasingly implementable with the potential to reach global audiences. Monopolistic tendencies have not faded, we are not in a utopian paradise where anyone can make it if they try hard enough; there are immense systemic barriers and leviathans just as there have always been. Yet for a new class of brilliant programmers and savvy entrepreneurs, possibilities are opening up to try their hand at the big game being played at the top levels of society.

History matters, as Braudel summarizes, the unequal feudal system that capitalism emerged from powerfully shaped its character.

> "[Pre-capitalism] was the origin or the signal for all major material profess and for all the most oppressive exploitation of man by man. Not only because of the appropriation of the surplus value of man's labour, but also because of those disparities of strength or situation which meant that there has always been on a national scale or on a world scale, one stronghold waiting to be captured, one sector more profitable to exploit than others. The choice may have been a limited one sometimes, but what an immense privilege to be able to choose!" (Braudel, 1;563)

New actors can make these choices; more individuals have the privilege now. Even if these new individuals belong to a relatively minority class of technically minded people, it still represents a broadening. The architecture of capitalism and its monopolistic tendencies is as strong as ever, but perhaps we are seeing the glimpses of something new. Out of the architecture of capitalism could emerge a new form, yet the new form will be far shy of paradise. Collaborative peer production will not survive in the raw idealistic form that writers like Benkler extol, it will co-evolve with the system it emerged from. We have the potential to shape better outcomes, but first we need to see problems. We must be willing to engage with the old systems along with working to build new sovereign power to check the network power of various actors–existing or yet to emerge–in the networked economy. The Internet is the native home of the mind as John Parry Barlow famously stated, but it is also now the native home of capitalism. Its network structure allows the monopolistic tendencies of capitalism's architecture to shine through ever more brightly than before. The role of the capitalist is not to ensure fairness or egalitarian modes of production; their role is to extract profit. Thus we must rebuild checks to the network power of capitalism that can scale to the global reach demanded by the new era. The Internet is growing up, and it will be up to all of us to guide it along its path.

Works Cited

Benkler, Yochai. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven: Yale UP, 2006. Print.

Braudel, Fernand. *Civilization and Capitalism, 15th-18th Century*. New York: Harper & Row, 1985. Print.

Döpfner, Mathias. "An Open Letter to Eric Schmidt: Why We Fear Google." *Mathias Döpfner's Open Letter to Eric Schmidt*. Frankfurter Allgemeine, 17 Apr. 2014. Web. 19 Nov. 2014.

Grewal, David Singh. *Network Power: The Social Dynamics of Globalization*. New Haven: Yale UP, 2008. Web.

Schäfer, M. T. *Bastard Culture! How User Participation Transforms Cultural Production*. Amsterdam: Amsterdam UP, 2011. Web.

Wallerstein, Immanuel. "Braudel on Capitalism, or Everything Upside Down." *The Journal of Modern History* 63.2 (1991): 354. *JSTOR*. Web. 30 Oct. 2014.

Weber, Steve. *The Success of Open Source*. Cambridge, MA: Harvard UP, 2004. Kindle.

Zuboff, Shoshanna. "Response to Mathias Döpfner: Dark Google." *Dark Google*. Frankfurter Allgemeine, 30 Apr. 2014. Web. 20 Nov. 2014.