The Vectoral Class and its Antipodes
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[draft only. Please don’t circulate]

Each era in the development of the commodity economy has its emblematic business. Think of the dark satanic mills of laissez faire capitalism, or the Fordist assembly line that replaced it. Each has its typical products, from the cheap cotton goods of the former to the T-model of the latter. What then might be the emblematic firms, products or processes of commodity production in its vectoral stage?

Put the terms “chinese factory” into your search engine and it yields pictures recognizably connected to earlier ones of the satanic mills or the assembly line, but with one small difference. The pictures often have the industrial-sublime aesthetic of images of Fordist factories – the repeated rows of machines and workers stretching into infinity. If anything the factories are a bit smaller than the blast furnaces and refineries one can also easily find in digital pictures with a bit of searching. The difference is that the Chinese workers are often elaborately clothed not only to keep hair from getting caught in machines, but to keep any detritus of the body from flaking off into the sometimes minute labors they are performing. While the factory itself remains vast and orderly, at least part of the object of labor becomes minute and delicate.

Consider for a moment not these images but the fact that one can so easily search for them. What makes that possible? Search for the term “server farm” and the results show a similar industrial sublime to the rows of Chinese factory workers, but now the difference is that in pictures of server farms there’s rarely any humans visible at all. Just rows and rows of servers and cables, as if they worked all by themselves. As if they weren’t themselves made in factories, by intricate meshings of flesh and machine. As if they weren’t kept running by other hands and brains.

If you want pictures of how or where things are made, you have to search for them, even if you don’t have to search very far. If you want pictures of the emblematic products and their logos that these factories make – those are probably visible right now, where ever you are. If you are reading this book, chances are you live in a world where the names of Google, Apple, Nokia and their rivals and competitors swim by the eye on most days.

In an odd loop back to the vectors of the eighteenth century, Google filed a patent for server farms of the seas. If the overdeveloped world needs fish farms, then why not nautical server ‘farms’? The ideas seems to have a few benefits. One is getting the servers closer to customers, overcoming certain geopolitical limits that still remain to the trajectories of vectors. The floating farms also generate their own power from the motion of the sea. The brilliant brands of third nature would like us all to think they are different from the nature-destroying industries of old industrial order, but this is hardly the case.

Considered as an emblem of the vectoral class, how does Google’s business actually work? Google is the prime example of how the vulture industry supplants the culture industry. Google doesn’t make all that much information that is either useful or entertaining. It just connects you to it. It takes a vast industrial infrastructure to do it – witness the server farms, floating or not – but it doesn’t involve actually making the information you desire. Google’s business is in that sense parasitic. It sells advertising, like the broadcast version of the culture.
industries. But it doesn’t offer any entertainment to attract its flickers of neural presence. It really assumes we will entertain each other, while Google collects the rent.

This is very different to the strategy pursued by Apple. Famous for its beautifully designed computers, laptops, phones and other devices, the problem for Apple is that the production of these sorts of machines – in China and elsewhere – has become something of a commodity business. It’s hard to charge a premium for such devices when ones that as good or almost as good can be bought “off-brand” for less. So Apple has to invest in its brand. Apple has to become meaningful in the ‘discourse’ of the time.

Apple’s other strategy is to make the devices portals to a marketplace. The device connects you seamlessly to a world of movies, tunes, books and games, not to mention ‘apps’ that do all sorts of handy things. It is not free, but its convenient, and that is worth something. Meanwhile, Apple extracts a rent from all the third parties who want to sell stuff in their marketplace.

Both Google and Apple are *Fortune* 500 companies. In 2011 Apple was ranked number 35 and Google was 92. The list is a mix of mostly familiar names, some of whom grew to massive size in a previous era – ExxonMobil (at number 2), General Motors (8) – and some of whom got big precisely at the transition toward third nature: Hewlett Packard (11), Verizon (16). Some are identified with brick-and-mortar second nature economy but got big at this through the power of the vector. Walmart (1) is a key example. The comparative advantage of Walmart, besides ruthless control of labor costs, was logistics. The company was built around control of the whole supply chain, from pulling a carrot out of the dirt or a t-shirt off a loom, all the way into the hands of the customer.

Some of the top companies owe their fortunes to control of strategic space more than commodity space: Boeing (36), United Technologies (44), Lockheed Martin (52). These companies still make incredibly expensive things using the most sophisticated manufacturing technologies, but in order to make them, the whole process, from design to project management to the control of machine tools is increasingly digital.

Some companies aren’t obviously in the information business: Proctor & Gamble (26), Pfizer (31), Merck (53) are mostly in the drug business. The drug business, like the chemical business, is only partly about making things. It is also about the manipulation of the chemical and biological worlds to produce compounds that can be patented, and which can be shown to have some therapeutic or industrial use. Some companies have survived through the whole development of the ruling class through three phases, from pastoralist to capitalist to vectoralist. Archer Daniels Midland (39) would be a classic example. Once it was in the food business, then it was in the processed food business, then it was in the genetically modified organism business.

Each of these companies is a fascinating story, even more amazing than the business press generally makes out. It’s a see-saw saga of luck and talent, of competition and coercion, of business acumen and state subsidy, of inter-corporate shenanigans and class conflict. Each company has particular interests tied to its perceived vulnerabilities. Sometimes these interests conflict with each other. Old style culture industries such as News Corp (83) are hardly fans of the vulture industry strategies of Google. News Corp is still interested in ways to rope
off its ‘intellectual property’ so that it can sell its own ads alongside it, rather than have Google pirate that content and sell the ads for its own benefit.

On the other hand, Google has had to move fast to keep up with the refinement of the vector as the devices become more portable and cellular telephony replaces landlines. Hence its investment in Android, which it intends to be to Apple’s closed world of hardware and software what Windows by Microsoft (38) once was. Needless to say, Microsoft has its own ideas, and has an operating system for handhelds to rival Apple and Google, and tried to take on Google’s search engine with one called Bing.

Companies also form shifting alliances and mount expensive campaigns against each other using their vast portfolios of patents as pawns in the game. These are not unlike feudal titles, which the courts rather than the Court is obliged to adjudicate. A minor industry sprang up just around opportunistic legal challenges to the ownership of intellectual property. Given how arcane and expensive this can be, open source licensing can in some situations be a viable business strategy, even a political strategy. It works to create a space between competing interests to grow a market for services, but it also works to create a *modus vivendi* with the hacker class.

The struggle between capital and labor produced its own compromise formations, of which the welfare state is the key instance. Labor forced capital to socialize part of the surplus. Much of this came under the heading of mutual interest. The rentier class of urban landlords might not like it, but social housing keeps down a key component of labor costs for everyone else. Education and healthcare likewise maintained the quality of labor at a time when capital was held captive to some extent within national boundaries.

The virtuous circle of Fordism could accept partial socialization of the surplus, so long as rising productivity of labor could supporting rising wages, with gave labor the purchasing power to clear the markets by buying back the larger portion of what it had itself made in the first place. All of which went swimmingly until the rate of improvement of productivity went into decline, leading among other things to the temporary return of The Political around 1968.

The solution to the problem was, in a word, *telesphesia*. The vector becomes much more flexible, elaborate, refined in its flows of data. It is no longer necessary to cluster related parts of the production process physically near each other. The vector opens the way to a spatial disaggregation of production. It isn’t the multitude that fled the scene. It was capital.

With capital no longer captive within the same spatial envelope of the nation-state as labor, the ruling class has less and less interest in its life support systems. There is always another pool of labor, elsewhere. In the overdeveloped world, the welfare states slowly unravel. Meanwhile whole new manufacturing economies bloom, on an unprecedented scale, but elsewhere. In this sense the great age of capitalism only just gets going as the twentieth century ends.

Capital still produces its familiar landscapes only now in gigantic form: container ports, road and rail links, industrial parks, dormitory suburbs with their serried rows of tower blocks. Tributary towns manufacturing components cluster around transport links. Other transport links bring in raw materials. Follow back along these lines and there are the vast open cut mines for coal or iron ore or bauxite.
Far from going away in the postmodern age, all this is being built on a bigger scale than ever before. If you have ever seen an open cut coal mine, like a city in negative, building down rather than up, it is hard to take seriously too much talk of the Political (or of Culture). Politics is to mining what a butterfly is to a dragline.

And yet this vast production of second nature, and the extraction of resources out of what was once nature that it entails, is in turn the object of a more fluid but pervasive third nature. That the vectoralist class has replaced the capitalistic class as the dominant exploiting class can be seen in the form that the leading corporations take. These firms divest themselves of their productive capacity, as this is no longer a source of power. They rely on a competing mass of capitalist contractors for the manufacture of their products.

Their power lies in monopolizing intellectual property -- patents, copyrights and trademarks -- and the means of reproducing their value -- the vectors of communication. The privatization of information becomes the dominant, rather than a subsidiary, aspect of commodified life. Naomi Klein: "There is a certain logic to this progression: first, a select group of manufacturers transcend their connection to earthbound products, then, with marketing elevated as the pinnacle of their business, they attempt to alter marketing's social status as a commercial interruption and replace it with seamless integration."

As private property advances from land to capital to information, property itself becomes more abstract. Capital as property frees land from its spatial fixity. Information as property frees capital from its fixity in a particular object. This abstraction of property makes property itself something amenable to accelerated innovation -- and conflict. Class conflict fragments, but creeps into any and every relation that becomes a relation of property. The property question, the basis of class, becomes the question asked everywhere, of everything. If 'class' appears absent to the apologists of our time, it is not because it has become just another in a series of antagonisms and articulations, but on the contrary because it has become the unacknowledged structuring principle of a third nature that organizes the play of identities as differences.

The hacker class arises out of the transformation of information into property, in the form of intellectual property, including patents, trademarks, copyright, publicity rights, and the moral right of authors. The vectoralist class goes out of its way to court the hacker class ideologically, to insist on the essential complementarity of the ownership of information and the production of new information.

This might lead some -- such as Kroker -- to blur the distinction between the hacker class and the vectoralist class. One can recognize the contours of this ideology in the fetishizing of the entrepreneur and of technology, where the whole question of labor is ignored, or sublimated into a discourse on 'creativity', of work as play, play as work. As Kirschbaum's case makes clear, hackers and vectoralists are far from sharing a common interest.

There is an essential difference between the hacker class and the vectoralist class. The hacker hacks, producing new knowledge, new culture, new science -- but does not own the means of realizing the value of what it creates. The vectoralist class produces nothing new. It's function is to render everything equivalent, to commodify the new. It owns the means of realizing the value of the new. The hacker ends up selling his or her labor, one way or another, to the vectoralist class.
Intellectual property, while it is presented as the defense of the rights of producers of the new, is in actuality about maintaining the rights not of producers but of owners of information.

The hacker class includes anyone who creates new information, in any media. It includes not only musicians, writers, film makers, but also chemists, biologists, philosophers – anyone who produces new information – including Marxist or post-Marxist theorists. The products of hackers’ labor may be even more differentiated than the products of workers’ labor or farmers’ labor, but the commodity form renders them equivalent. X words from my book are worth Y tunes from your album are worth Z amount of the royalties on your patent. To the vectoralist class, all these things are merely part of a portfolio of intellectual property that these days often accounts for a substantial part of the ‘assets’ of a company.

The hacker class makes new information; the vectoralist class turns it into private property. Information is a strange thing, as theologically subtle as the commodity was to Marx. It has a peculiar ontological property. Information is never immaterial. Information cannot not be embodied. It has no existence outside of the material. It is not an ideal or a ghost or a spirit. (Although it may give rise to these as mystifications...) And yet information’s relation to the material is radically contingent. This contingency is only now starting to be fully realized. The coming of the digital is the realization, in every sense of the word, of the arbitrary relation between information and its materiality, of which the arbitrary relation of signifier to signified is but a special case.

Everyday life confirms this. I could make you a copy of this text, and the information in it, or rather the potential for information in it, would then be on a cd in your possession. And yet, it would still be ‘right here’, on my hard drive. Now isn’t that strange? My possession of information does not deprive you of it. Whatever information is, it escapes the bounds of any particular materiality. That is its unique ontological promise, now fully realizable in the digital. As much as it may alarm Polity Press, chances are you downloaded this text for free as a pdf from the internet.

Information has then at least one very strange property. It can escape scarcity. And it is this property that makes it very troubling for that other kind of property -- private property -- which is all about the maintenance of scarcity. Information is what economists call a ‘non-rivalrous good’ – a term that is clearly an oxymoron. Information poses not only an intellectual challenge but an historical challenge to economic thought. The challenge is not only to think what else it could be, but to practice the production and reproduction of information otherwise.

The new ontological properties that information introduces into the world bring forth, as a reaction, new kinds of property relation in the legal sense -- what we now call ‘intellectual property’ -- another oxymoron. As I would understand it, intellectual property grows out of, but is distinct from, patents, copyrights and trademarks. Intellectual property is the tendency to turn this socially negotiable rights into private property rights. The enormous ramping-up of intellectual property talk results from the contradiction between the newly realized potential of information to escape from scarcity and those with an interest in stuffing it back into the limits that scarcity and the commodity would impose.

The ontological property form of information is as socially produced as
its legal property form. The question is how and why these two senses of ‘property’ have come into conflict. The question is why, if “information wants to be free” in the ontological sense, it is “everywhere in chains”, in the legal sense. Coming from a certain mode of the Marxist tradition, I can’t help but see the law as superstructural, as reactive, and most particularly as a terrain upon which class interests negotiate. In particular, I am interested in law as a terrain where successive ruling class interests manage the transition from one mode of production to another. This might sound rather ‘vulgar’, but perhaps in this case it is the reality of the situation that is vulgar, not the theory.

Where the capitalist class found it useful for information to remain relatively free, in the interests of the expansion of production and consumption as a whole, the vectoralist class initially insisted on the enforcement of strict private property rights over information. One might gauge the relative strengths of these rival ruling classes by looking at the state of intellectual property law. One might gauge the preponderance of capitalist and vectoralist interest within a given firm by looking at its policies on the technical and legal enforcement of intellectual property law. One might gauge the place in the development process of a particular country by the way it responds to the demands from the overdeveloped world for the enforcement of international agreements on these ‘rights’. In short: by extending the logic of class analysis, one can show how, far from being relegated to the dustbin of history, class is alive and well in our times, even if in forms we have hardly begun to name.

We can account for the obsession with enforcing intellectual property law in class terms. It is in the interests of an emerging ruling class. We can account then for the ideologies of information as property also. James Boyle suggests that there is a tension between the idea of maximizing the ‘efficiency’ of the economy as a whole and producing ‘incentives’ for information creators/owners. To be ‘vulgar’: the shift from the former to the latter is the shift from capitalist to vectoralist thinking about the place of information in the economy, from peripheral to central. But what is striking is that despite legal and ideological coercion, information still wants to be free. Its legal properties clash with its ontological properties. So on the one hand, we see increasingly vigorous attempts to outlaw the free sharing of information; and on the other, we see the persistence of file sharing and piracy. How can we account for this tension?

This is the nexus where one might reinvent a kind of critical theory. A critical theory is one that thinks in terms not only of the actual but also of the virtual. The virtual could be thought of as the grounds of possibility the ‘possible’ in the most material sense. Where this critical theory might begin is by saying that perhaps what this tension over information signifies is that we have finally found the point where we can escape from material scarcity, and from all economies of scarcity. Perhaps we have found the one domain in which we could realize a certain ‘utopian’ promise: “to each according to their needs; from each according to their abilities.”

That is what I believe. And I don’t think I am alone. There is, as Marcel Mauss observed a long time ago, a latent class instinct that all the products of science and culture really ought to belong to the people as something held in common, indeed as what is common. Mauss: "One likes to assert that they are the product of the collective mind as much as the individual mind."
Everyone wishes them to fall into the public domain or join the general circulation of wealth as quickly as possible. “The public is not ‘pirating’ anyone else’s property. It simply does not recognize the new enclosures of information within private property as legitimate.

File sharing is a social movement in all but name. It rarely announces itself as a social movement, but then I don’t think that is uncommon. Likewise, I think that the gift relation in culture and knowledge has been alive and well and resisting commodification for centuries. Only now it may finally have found an ally in the digital means for reproducing information, so that one’s possession of it can be the possession of all. The technicity that makes possible the abstraction of information from its material substrate is not only calling into being something that can be captured by regimes of economic value or legal jurisdiction, but something that can escape them.

Which brings us back to the hacker class. If there is a gift exchange that is alive and well among the people, will the producers of information as property side with that people, or with the vectoralist class? That is the question for our times. This is what is at stake in the struggle between the principle that “information wants to be free”, and all that ideological talk about ‘incentives’ versus ‘efficiencies’ and other attempts to deny the radical ontological nature of information itself. The hacker class has a choice to make. Either it sides with the vectoralist class, or it realizes that intellectual property does not protect producers of information, it protects owners of information. And who -- in the long run -- comes to own information? Those who own the means of production, the means of realizing its value. The ideological move is to blur this distinction between producer and owner, when in reality the hacker, like the worker or the farmer, has to sell the product of her labor to those who own the means of realizing its value.

As those of us from the antipodes know: commodification has always been global. ‘Globalization’ is nothing new -- except perhaps to those in the overdeveloped world who have started to feel the effects of it only lately, with the breakdown of the Fordist or corporatist state and its attendant Keynesian class compromise between capital and labor. But I think that the rise of the vectoralist class gives us a handle on the form that the globalization of the commodity form took in the late 20th century.

It is the vectoralist class that produces the means of establishing a global division of labor. It develops the vectoral production process, where information is separated from its material embodiment, thus allowing the materiality of production to be spatially separated from the information that governs its form. And so we end up with a new global division of labor, in which the old capitalist firms of the overdeveloped world mutate into vectoralist firms by shedding their productive capacity. Manufacturing becomes the specialty of the underdeveloped world; the overdeveloped world manages the brands, husbands the patents and enforces the copyrights. Unequal exchange is no longer between a capitalist economy in the north and a pastoralist economy in the south; it is between a vectoralist economy in the north and a capitalist economy in the south. But the vectoral goes one better: it scrambles the once relatively homogenous economic spaces within various nation states. One can find the underdeveloped world now in Mississippi, and the overdeveloped world in Bangalore.

This process is complex and contradictory. The paradox of our
times is that both the privatization of information, and the expansion of an informal commons, are happening at the same time. What might give us hope is the very fragility of the vectoralist position, which runs counter to the ontological properties of information itself, and can only protect its interests by a massive ramping up of the level of legal coercion. Where land lends itself to ‘natural monopoly’ and the extraction of rents, this gets harder and harder as property becomes more and more abstract. And now we arrive at the very brittle monopolies of the vectoral economy. The very means of producing and reproducing information that it creates are the forces of its own undoing.

There is an alternative model to both the absolute commodification of information and its piracy. (Piracy, after all, is merely the reversal of Proudhon’s dictum “property is theft” - - it makes theft property.) The alternative is the gift economy. As John Frow has argued, rather than the gift being a pure, ideal and harmonious state existing prior to the commodity, it is the commodity’s necessary double.\textsuperscript{viii} But I think that the coming of the digital opens up a new possibility for the gift to distance itself from the commodity. What one can create, on the internet, for example, is the abstract gift relation. If the traditional gift always involved a giver and a receiver who are known to each other, who obligate each other, the abstract gift involves no such particular obligation. When one gives information within the networks, the obligation one invokes is something common, not something particular. One invokes the gift as something abstract. This is the as yet unrealized potential of third nature.

This seems to me to point towards an ethics -- a hacker ethics -- and also a hacker politics. If critical theory is to resist becoming merely hypocritical theory, it has to engage with its own means of production and distribution. A hacker politics is one of participating in, and endeavoring to create, both technically and culturally, abstract gift relations, within which information can not only want to be free, but can become free.

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\textsuperscript{iv} McKenzie Wark, \textit{A Hacker Manifesto}, op cit, s. 126.
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