

The Idea of Access to Knowledge: Long Term Trends and Basic Elements

In the global networked information economy, the constituent elements of human welfare and development depend on information and knowledge. Well designed health practices, research on disease and health, and access to medical innovation and its products go directly to the ability of people to live a long and healthy life. So too, agronomic and biological research and learning, which have contributed significantly to food productivity in some regions, have the potential to reduce the prevalence of chronic malnutrition. Information and communications technology, books, educational materials, and learning practices promise improved literacy and educational attainment, so that people around the world can live a more engaged and fulfilling life. Better access to distributed media hold out the promise of a more participatory public sphere, greater accountability of governments, and at least attenuation of the hold authoritarian governments have over what their citizens know and think.

In the past few years a diverse coalition of movements, political and economic actors, NGOs, scientists and other academics have begun to coalesce around an idea, or a catch phrase, “Access to Knowledge” or A2K. The coalition is diverse. It includes activists concerned with access to AIDS treatments alongside European free software developers concerned with software patents and digital rights management. It includes large developing nations like Brazil and Argentina alongside large multinationals like Cisco and IBM. It includes scientists concerned with open journal publications and NGOs concerned with ICTs. The basic thrust of this unlikely coalition is that information policy, on a global scale, is of central importance to a wide range of human values. Economic concerns with innovation and growth, on the one hand, and the core political values of human development, justice, and freedom, on the other hand, are being affected by a set of policies historically thought of in technical terms, but now increasingly seen and engaged for what they really are: policies that are of central importance to political economy and the moral quality of contemporary society.

Why now?

The emergence of the access to knowledge movement can be understood in light of four long term intellectual and material historical trends. The first of these long term trends is the arc of self-understanding of postcolonial societies and economies. In the 1950s and 1960s, the period of decolonization led to the creation of a large number of countries, some through violent liberation fights, others through more-or-less voluntary acquiescence by colonial powers in the loss of legitimacy of empire. Throughout this period, and increasingly in the 1960s and 1970s, the question of how these newly-emerging societies were to manage their economies and societies was framed by the terms of self-determination and independence, so central to the struggle for liberation more generally. At a practical level, this led to widespread adoption of autarky—not only in the newly-independent countries, but in older, but nonetheless poorer countries, most prominently in Latin America. Import substitution and rapid industrialization were core goals, and national ownership and high tariffs were often the path chosen. Interlaced with economic self-sufficiency was the ideological battle between capitalism and communism. The latter's basic commitment to forced redistribution was, unsurprisingly, congenial to at least some segments of the impoverished former colonies. In opposition, one also saw the rise of nationalism as an alternative totalizing ideology to communism, as internal elites and popular

movements battled in many of the still-unstable new countries. The consistent use of local battles as proxies for the Cold War did not help. By the mid- to late 1980s, import substitution and self-sufficiency had come to be seen as failing strategies. Increasingly, and with greater speed after the collapse of the Soviet Union, integration into a liberal, global trading system came to be seen as the sole, or at least dominant, option open to all countries, poor as well as rich, toward growth and development. Dissenting voices continue to be heard, but very few governments followed them throughout the late 1980s and through the 1990s.

The second, much longer trend underlying the access to knowledge movement, is the shift from industrialization to information economies. The history of the Western shift from agrarian to industrial, from industrial to service-based, and from services to information-based economies has been the subject of countless books and articles. The emphases differ, but the basic arc is not contested. This longer-term history has been telescoped in curtailed form in many of the newly-independent states of the latter half of the twentieth century. Rapid industrialization was characterized by no less dislocation and misery than those typical of European industrialization in the nineteenth century. This industrialization came to fill the place of some of the production in the industrialized economies, as these economies moved toward information manipulation as their core activities. But industrial production under these terms was dependent upon the information-rich inputs—innovation, financial capital, and marketing—that dominate the wealthy economies. The more-recently emerging economies, as well as their poorer followers, are themselves trying to move into the later stages of capitalism at a more rapid pace. In a world trade system typified by industrialization of the peripheries and informationalization (as Castells called it) of the core, the rules regulating the production and exchange of information, knowledge, and culture have therefore become a major battleground over competitiveness between the already-developed and the newly developing countries, or between post-industrial and the newly-industrialized economies. The newly-installed incumbents of the knowledge economy use it to extract as much as possible of the value of the global production system—think Nike's relationship to its production plant, using the power of the symbolic manipulation of the swoosh to capture the rents. The newly emerging economies need access to the existing stock of knowledge—like the existing outputs of science and technological innovation—to speed up their ability to achieve something like parity in the global knowledge economy. Without, for the moment, claiming who, if anyone, in these battles is “right,” my point is simply to note that the long term trend to industrialization and beyond it to a global knowledge economy is at the very root of what has become the access to knowledge movement. The set of laws, in particular the exclusive rights regimes (ERRs) usually collected under the umbrella term “intellectual property,” have become a central part of the basic legal underpinnings of wealth and poverty, productivity and development in contemporary global economy.

The first two long term trends combined to underwrite the integration of the international intellectual property system into the global trade system, and have been the reason that the way information, knowledge, and culture are produced and managed has become so central to questions of global justice and development. They undergird the development of the idea of “intellectual property” and the rise of TRIPS. In brief, over the course of the late nineteenth and throughout most of the twentieth century, copyright and patents were treated, in the Berne and Paris treaties in particular, as distinct regimes, and their international enforcement was largely a system of reciprocity and mutual recognition of national policies. These were largely

peripheral to the international trade system, and had practically no teeth. In the 1970s, some of the countries that were focused on import substitution and development of local industries passed laws, like India's patent law, that withdrew patent protection in core industries, like pharmaceuticals, allowing their indigenous industries to displace imports. As Drahos and Braithwaite documented, in the 1980s and until the mid-1990s, the core industries—orchestrated primarily by the pharmaceutical industry but joined by other technology- and media players—shifted the global regulation of information and innovation away from the copyright and patent regimes and towards the trade regime. This push was concluded with the entry of TRIPS into force in 1995, as part of the Uruguay Round of GATT that created the WTO. In the decade that has followed, this push has been complemented by the internal drive in the WIPO to save itself from obsolescence by offering services to those actors who successfully pushed the TRIPS Agreement. The WIPO became, since the mid-1990s, a forum for pushing new extensive rights and to offer technical assistance that would speed up adoption of highly protective regimes throughout the world. During this period too, the TRIPS agreement became a baseline of minimal protection, rather than a standard, while the coalition that pushed for its initial adoption further pushed both through WIPO and the US bilateral free trade agreements (FTAs) for the adoption of TRIPS-plus protections. This steady trajectory is a product of the combination of, on the one hand, the increasing importance of information to growth as well as to capturing value from economic production, and, on the other hand, the wide perception that integration into the global trade regime is the only option for nations wishing to avoid stagnation and underdevelopment.

The most important institutional and intellectual moves characterized by this period were the inclusion of the idea of “intellectual property” in the trade regime, the weaving of diverse types of mechanisms to ratchet the degree of exclusivity everywhere, and the abstraction of the protected category. The former provided industries that depend on exclusivity with a stronger enforcement mechanism globally, and shifted the relevant national negotiators from the traditionally-locally-protective ministries of culture or education and development sensitive agencies to the more global-trade oriented ministries of trade and industry. The negotiating dynamics of the terms of trade therefore were easier to tilt in favor of the intellectual property exporters, in exchange for concessions, real or imagined, on agriculture, textiles, etc. The latter move consists of weaving unilateral, bilateral, and multilateral mechanisms to form a net that can be used to ratchet up the level of protection everywhere. The industries pushing for stronger ERRs were able, over the course of this period, to identify various “weak” spots, in terms of political economy, where it was possible to ratchet up protection: it might be the U.S. Trade representative, or the EU commission; it might be WIPO or the WTO, or it might be a bilateral trade agreement with a country that had much to gain in non-information-related areas from agreeing to a particularly broad set of protections. In each case, victory in one arena was available as a baseline for renegotiating the terms in other arenas and to generalize the practice globally. This playable international system assures that there is no clear bottleneck to ratcheting up protection, while at the same time placing international harmonization requirements as a backstop against “loss” of protections already agreed to in some other forum.

The final major move was an intellectual one of generalization, or abstraction: the discrete industries of Hollywood, the pharmaceuticals, or semiconductors came to be seen not as discrete industries with special issues, but as instances of “the intellectual property industries.” This in turn pushed governments to move from

seeing IP policy as involving a series of discrete policy issues that represented industry-specific tradeoffs, to viewing these problems as a broad project of setting industrial policy in a global information economy, one in which they were information exporters. And finally, this allowed the United States, the European Union, and Japan to move from seeing each other purely as competitors, to seeing themselves as having the common interest of “information exporters,” forming a formidable interest block in the institutions of the world trade system.

The rise of the information economy has also, however, played a role in fostering the counter movement that has today resulted in the emergence of the access to knowledge movement. It combined with the third and fourth trends to form a response to the rise of the global trade and IP system.

The third long term trend is the shift from mass mediated culture and monopoly telecommunications systems to the networked information society. Mass media initially emerged with the rise of electrical presses and automated setting and newspaper folding, complemented by the rise of professionalized journalism and telegraph-based news services around the middle of the nineteenth century. As rail travel and steam-based trade increased the size of the relevant societies and economies over the course of the nineteenth century, high-cost communications facilities led to the organization of communications and the public sphere around large aggregations of capital. In telegraph first, then in telephones, long-distance communications were either monopolized by market players, as in the United States, or nationalized, as in most other countries. In either case, only large organizations with capacity to amass capital were able to build systems. As radio and later television joined the press, the capital costs of producing and disseminating information, knowledge, and culture to the relevant communities continued to be high. These formed the basis for the relatively concentrated media environment typical of most countries in the world, whether the concentration was market-based or state owned. The period beginning in the late 1980s saw rapid changes in the communications and media environment. Initially, we saw the introduction of competition from new, but still large-scale players, introducing a more competitive market into telecommunications, both wired and wireless, and the cultural industries and media.

More dramatically, beginning in the mid-1990s we saw the rise of Internet-based communications and the emergence of a networked information society and economy based on radical decentralization of information production. This trend created new opportunities and new social forces that were not there before, or would not at least have been aligned before. Firms that dedicated themselves to providing communication and computation found themselves aligned with software programmers who wanted to participate in the free software movement; citizen journalists saw themselves aligned with Wikipedia editors; NGOs found themselves more effective than they were before, and aligned with scientists who found that through networked communication they could sequence and annotate the human genome faster than their commercial, proprietary competitors. The rise of decentralized peer production and nonmarket production generally, the increased efficacy and the practices of those who participated in the networked information economy provided some of the intellectual framing, as well as the surprising alliances, that seem to characterize the A2K movement.

The fourth and final long term trend is the shift in the global ideological

framing of questions of justice and human freedom. Throughout the 1960s and 1970s, with decolonization, both communism and autarkic statism provided what were considered by many to be viable and attractive alternatives to capitalist democracies. As the failures and excesses of both of these systems came to be too painful to ignore, so too did the limitations of simple Realism, in the international relations sense, of nation states interacting in a framework of *machtpolitik*. Instead, we have seen the gradual rise of human rights, human dignity, and participatory politics as the more-or-less universal ideals towards which most societies in the world aspire—if not in practice, in principle. There is, obviously, no simple, linear progression towards the adoption of human rights as a framing ideal. One need look no farther than the rise of fundamentalism as a rejection of the modern, as one sees in contemporary American politics or in the Muslim world, or as a challenge to the liberal demand of treating others with equal dignity, as demonstrated by the late 1990s rise of Hindu nationalism, to see this. But the majority of countries, and the majority of discourse focused on engagement in the global system, rather than disengagement, has had to accept some form of a human rights framework. In particular, in the last decade and a half, we have seen the rise of the idea of development as freedom, associated primarily with Sen, integrating in important and interesting ways both the political and social-economics rights of the international human rights system.

The three latter trends—the rise of information economy in the sense of the centrality of information, knowledge, and culture to welfare and growth; the rise of the networked information society, in the sense of the increased importance of internet based, radically decentralized, and non-market or small-actor information production; and the rise of human rights in general and development in particular, undergird the rise of the A2K movement.

In the more immediate history since the mid-1990s, the convergence of these three trends manifested itself in the convergence of several, initially independent and disjointed, efforts. The first of these was the access to medicines movement, which during the 1990s received a major boost in visibility by the HIV/AIDS pandemic. To some extent, this was due to the sheer immensity of the devastation. But it was also likely due to the fact that HIV/AIDS was a disease that struck not only at the poor of Africa, but at the very heart of the cultural elites of the United States and Europe. As better medicines developed over the course of the latter 1990s and early 2000s, the stark disparity between outcomes for the wealthy and the poor became harder to ignore. During the same period, but independently, the explosive growth of Internet usage spawned two movements that were, initially, only very loosely linked. These were the movements for Internet freedom, anchored in concerns over encryption, privacy, and anti-porn-regulation free speech, on the one hand, which dominated the concerns of the computer geeks, and the information commons movement, or its precursors, populated mostly by librarians and academics, on the other hand. In both cases there were relatively few companies systematically involved, although opportunistically the telecommunications carriers cooperated with these civil society efforts in order to avoid regulatory burdens aimed at forcing them to enforce the various content restrictions sought. By the late 1990s, the free and open source software development communities began to grow from the engaged technical communities they had been before into politically-mobilized groups as well. The open source community focused on expanding the acceptability of this approach among businesses, and forged the affinity alliances with business that are becoming important in the present coalition, while the free software movement focused on the political mobilization of participants and on affinity alliances with the global left.

Together these have, around questions of digital rights management and software patents in particular, become genuine grassroots movements with hundreds of thousands of participants around the world, and have played significant roles in policy making in the EU, around software patents, in the United States, around trusted systems, and in Brazil at least, around development initiatives.

As the 1990s came to a close, a completely different set of actors began to organize around the threats of enclosure that they were exposed to. Scientists, on two fronts, began to see intellectual property as a hindrance rather than a help. On one, very publicly visible front, the Human Genome Project captured the imagination, as the prospect of patenting human genes led to extensive public debate. But while the public at large was concerned with metaphysical questions of owning human beings, in some sense, scientists were mostly worried that they would be shut out of the ability to do research. A major international effort, incorporating academic scientists, government and nonprofit funders, and even some of the pharmaceutical companies worried about upstream patents engaged in an unprecedented effort to sequence as many genes as possible, as quickly as possible, and to publish them freely as quickly as possible to pre-empt their appropriation by Celera Genomics and other private, proprietary efforts to sequence all or parts of the human genome. The result was a mobilized segment of the scientific community. Over the same period, many of the same academics saw the rising costs of journals, and concluded that they, who were writing the papers and providing the peer review, were then required to pay to read the materials because of the highly concentrated nature of the journal publishing industry. Scientists began to adopt a wide range of open publishing efforts, beginning with ArXiv.org in physics, e-Biomed in science, and later the emergence of the Public Library of Science, the Budapest Open Access Initiative, and self-archiving. Parallel and independent of these, were efforts by librarians and archivists to deal with questions of digital archiving, both obtaining materials that could be archived and presenting them on the Internet.

On the infrastructure side, two distinct movements were present. The first was the more traditional, development-focused work on information and communications technologies (ICTs) for development. Here, traditional aid agencies and development economists, often under the moniker of global digital divide, were concerned with computers, kiosks, and network connections. At the same time, beginning in the late 1990s and picking up in the first half of the 2000s, a movement around open spectrum policy developed to question the whole approach of spectrum management as property. Originating mostly in the United States, and receiving a major global push with the adoption of WiFi, more municipalities, companies, and increasingly nations and aid agencies are working on solutions to provide decentralized, ubiquitous internet broadband access over wireless, using off-the-shelf equipment that uses a spectrum commons, which no one owns, rather than following the expensive traditional path of licensing, or its very close twin, spectrum auctions.

These diverse groups of actors and movements have begun, since 2004, to find common cause, to see the common themes among them, and to coalesce around a set of ideas, organizations, and conferences to form what appears increasingly like a global social movement. They interact with the growing “normalization” of cooperative, nonmarket social practices like Wikipedia, with the increasing political and practical consciousness that finds the Creative Commons initiative as its focal point, with the fact that many more commercial entities are beginning to find ways to interact productively and profitably with commons-based production, and with the

newly-envigorated efforts, headed by Brazil most prominently, of developing nations to shift the agenda of international exclusive rights regimes away from ever-increasing harmonized protection towards a more context-dependent and development-oriented policy. A major catalyst in the mutual recognition of these diverse groups and actors has been a series of conference organized by the TransAtlantic Consumer Dialogue, TACD, where these various actors have come to meet, talk, and understand their mutual agenda.

II. A2K, Cooperation, and the Information Commons

The ideas of the information commons and the rise of networked cooperation have been central to discussions within and about the emergence of the A2K movement. In the remainder of this chapter I will explore why this might be. My claim is that these ideas subvert the traditional left-right divide, form the foundation for some of the most interesting and unusual alliances, and provide the platform on which political and economic interests meet around a common institutional and organizational agenda.

Recall that the networked information economy is built on an inversion of the capital structure of production of information, knowledge, and culture. For the first time since the industrial revolution, at least, the most important inputs, into the core economic activities, are broadly distributed in the population of the most advanced economies and in significant segments of emerging economies. These inputs include computation, communications, and storage capacity, and human intuition, creativity, and wisdom, which are personal, non-fungible, and uniquely held by individuals. General Motors did not have to worry about competition from amateurs getting together on a weekend, because the cost of an assembly line was too high for their efforts to matter in the market. The same is not true of Microsoft or Britannica. The widespread distribution of material and human resources has meant that behaviors that have always been central to human sociality—from real friendship to simple decency toward a stranger in a chance encounter—moved from being socially important but economically peripheral, to being centrally effective in the economy as a modality of production.

The already-existing fact that human creativity and wisdom were distinctly individual and human, together with the new and radical decentralization of physical capital, located practical capacity to act effectively, alone and in loose cooperation with others, in the hands of individuals and groups in society. In acts ranging from individual authorship of websites or blogs, to small groups that run blogs together, to massive collaborative efforts like Wikipedia or the Linux kernel development community, production based on social motivations and signals rather than price signals or hierarchical commands, both singular and peer production, has become a significant force in economy, society, and culture.

The importance of information *commons* in particular, was anchored in the nature of the third major input into the production of information, knowledge, and culture—the existing universe of information, knowledge, and culture. In order to act effectively, both authority and practical capacity to act have to be located at the same place. Effective, large scale patterns of human action will only emerge through the actions of those actors who have both practical capacity and authority to act. And it is here that information commons enter. The newly-capable individuals need a universe of existing information resources on which they have the authority to act. Exclusive

rights, like copyrights or patents, are designed to remove general authority to act on a given information or cultural resource, and locate it in the hands of a given agent. Permissions from that agent then form the basis for a particular kind of market in permissions to use the information resource. But information is a public good, in the economic sense. It is nonrival. Its marginal cost is zero. Any market that imposes a positive price on information therefore leads to under-utilization of the information. And in a setting where the use of the information is itself as a productive input, not only an act of consumption, this underutilization is not merely “deadweight loss” in a static efficiency sense, but actually inhibits innovation and new creativity. All this is well known, but the critical point to see here is that enclosure of information through ERRs locates authority to act with and upon covered information and culture with the rights-holder, rather than with whoever has the practical capacity and insight to do something useful and interesting with the information, even if that person is entirely willing to pay the actual social cost of using the information: that is, their own time and attention to using it.

The productivity of the commons and counter-productive effects of property-mimicking regulations like ERRs; the increasing recognition of the value and importance of non-market action generally, and cooperation in particular, by commercial actors—like IBM that has developed a substantial “Linux services” business in collaboration with the free and open source software development community—civil society organizations, and loose alliances of individuals practicing these forms of social production, has created a new and interesting set of intellectual shifts.

Because of its capital cost structure, industrial economy focused a binary view of effective action around one of the two mechanisms available for raising sufficient capital to be effective: the market vs. the state. Because effective action by a significant number of people required sustained commitment of relatively large-grained contributions, often in conjunction with large scale capital investment, groups were seen as stable, and solidarism/individualism was a stable binary. The state of organization theory was such that hierarchy in the early twentieth century was seen as the epitome of effectiveness: be it Taylorism or Fordism, Weberian bureaucracy, New Deal progressivism, or Party discipline.

Commons-based information production generally, and peer production in particular, destabilize these binaries. They are neither state nor market. The most prominent among them are either structurally participatory and self-governing, like Wikipedia, or at least drastically more dialogic and persuasion-based than earlier organizational models, even when they are not formally participatory, like the Linux kernel development community. They allow much looser associations to retain efficacy, rendering the individualism/solidarism choice less stark and stable. They enable and thrive on flat organizational structures with large amounts of authority for individuals to self-assign to tasks, sense the environment for opportunities for action, act, communicate with others, and repeat. This is precisely what makes these approaches valuable—their advantage as large scale systems of learning through initiative, trial, error, communication, and adaptation. They support, indeed, require, a more cooperative view of human action, without requiring a strong commitment to a view that privileges solidarism over individualism.

The destabilization of these industrially-derived intellectual binaries makes networked cooperation, using commons-based strategies for resource management, an

attractive modality for an unusually broad range of views that characterized the political theoretical map of the 19th and 20th centuries. Almost the entire range of liberal traditions, from *laissez-faire* adherents to progressive liberals or social-democrats, can find information commons-based cooperation attractive. The left, too, can find in these practices one way out of the dead-end that state socialism proved to be. Libertarianism too, of both right-wing, market-oriented, and left-wing, anarchistic, varieties, finds attractive narratives to tell about cooperation in networked commons. This broad range of views can then, as a practical matter, ally with market actors that eschew political views altogether, and are focused on survival, innovation, and growth in an increasingly competitive global economy where learning and adaptation are a competitive imperative. Needless to say, some of this congruence is temporary and ad hoc. Some, however, represents a real change in conditions and intellectual alignments.

Take, for example, a question like the European consideration of software patents, opposed widely because of the possibilities of strategic holdup among firms, and for its effects on free software development in particular. At a basic strategic level, this aligns companies that use software services and computerized enterprise solutions, rather than selling software as “goods” (these kinds of businesses account for over three quarters of the software business; IBM is the leading example), with free and open source software developers and activists concerned with constraining the scope and extent of expansion of patents or ERRs generally. They can all converge around the basic critique of IP or ERRs in terms of efficiency and innovation policy. In this case, because the software market is so heavily pervaded by non-exclusion-based business models and because patents have been applied so poorly in the United States, the minimal, functional case forms a foundation for a broad, tactical alliance, and when enacted at a higher theoretical framing as being about “intellectual property” versus “commons-based strategies,” as it often is, this tactical alliance can be located as part of a broader strategic alliance between firms in the information technologies sector and the A2K movement. This tactical and strategic alliance is the least interesting theoretically, but is of enormous importance politically.

Moving one level deeper, free and open source software (the political and a-political names for the phenomenon, respectively), and commons-based peer production in general, can be framed as attractive to libertarians, liberals (in the American sense), the post-socialist left, and to anarchists, though in each case for different reasons, and viewed through different lenses.

Laissez-faire liberals and libertarians can see in open source software development an instance of people acting according to their own preferences, unforced, to act together. They need some more-or-less fancy story about motivation and why people would do this. They need some clear specification of how people ultimately make money. These tasks have been taken on by economists studying this problem. But the basic framing is congenial to market-centric liberalism and property-based libertarianism: people are using their property-like rights—either copyrights or simply their right to be free in their bodies to work on whatever project they choose to—to adopt business models and strategies, often implemented through licenses, with firms that engage in this activity as a strategic option, producing in ways that they deem useful. When the state comes and tries to extend patent rights that cover the object of action, particularly given the background understanding of information as a public good in the strict economic sense, patent law comes to be

framed for *lassaiz faire* liberals and libertarians as a regulatory intervention. A central part of the information commons movement intellectually was precisely to emphasize the regulatory nature of exclusive rights regimes, resisting and undermining the move to unthinking application of the “intellectual property” moniker. In other words, the state has a model of how software development goes (or encyclopedia writing; or video entertainment, in the case of copyright and paracopyright), it is intervening in what seems to be a perfectly functional innovation system, and imposing new rules that are upsetting a whole set of freely-chosen business practices already in place. Needless to say, this is not the only way to view what is happening, but it is a sufficiently plausible characterization that many libertarians and *lassaiz-faire* liberals in fact understand what is happening in these terms, and the foundation of the “open source software” move was precisely to frame the practice in these terms of free choice, innovation, and business benefits.

The Left sees in the information commons very different things. Here is existence proof that when people own their own means of production, people can cooperate together, outside of the market, without reliance on property, to achieve productive goals. It is existence proof that there is no one right path of capitalism. Here, even more importantly, is a vector through which power can be resisted: power not only in the minimal, political sense, but economic and cultural power as well. This is where the commitment to *free* software offers an important rhetorical marker of a basic underlying observation. Resistance to the dehumanizing application of power through economic production systems was the central distinctive feature of the Left, and with it power through culture and society: religion and the family being the two main loci of illegitimate power and coercion. The centrality of economic production led, however, to giving the state an enormously powerful, and ultimately corrosive role, in achieving freedom from this power. But in peer production we are seeing an avenue of resistance to power that does not flow through the state. More Kropotkin than Lenin, this source of power in the hands of people networked together is, I think, the single most attractive feature of the information commons to the Left.

For liberals, free software and open source software, the commons, and peer production offer a way of deepening individual freedom, improving democratic participation and the accountability of both government and corporate power, providing new avenues for human community and sociality without imposing the constraints of conservative social forms, and offering a basis for a more participatory public culture. All this without need to resort to rejection of the market *qua* market, or subjecting the individual to collective or solidaristic claims, at least not those that are not freely chosen, picked up, negotiated, and left when they cease to fit.

Needless to say, if cooperation in the information commons were in fact all these things to all people in all these ideological camps, then we would have indeed come to a certain kind of end of history. There are, of course, market liberals and libertarians who see peer production and the commons as the Left does, and either disbelieve it, or resist it on principle, or both at different times. There are those on the Left who emphasize the disparities of power between those few millions who are newly empowered, perhaps, and the billions for whom things have not changed at all. And there is a strong, central strand in liberalism that sees the role of an effective, constitutionally-limited, deliberatively-legitimate *state* as equally central to liberal thought as is individual freedom.

All these views, both embrace and skepticism of cooperation in the commons, are correct. All are incomplete. That is why this moment calls for a theoretical engagement with the possibility of free, non-hierarchical, flow-based networked, rather than stable-structure institutionalized, social forms. The A2K movement is at the heart of dealing with the main limitation of commons-based and peer production from both the Left and liberal perspectives—its application to justice, both local and global. How power in the market and power in the state can be re-interpreted, reconceived, and restructured as a matter of practical programme will be central to the degree to which the contemporary partial intellectual alliance with market-liberals and some libertarians can be sustained.

Freedom, justice, and efficacy are the core interfaces for a realigned map of political theory. Individual freedom is the core interface of the movement to libertarianism. The centrality of practical freedom to explore, experiment, and adapt, and hence to learn and innovate, converts freedom into efficacy, and becomes the core interface to market-liberalism. Freedom and efficacy, then, will be the interface to both liberalisms: market and social. Justice and freedom in the sense of dissipation of structured, stable power, will be the interface between liberalism and the Left. And all three: freedom, justice, and efficacy, will be the interfaces to the social, pragmatic, liberalism that has occupied the center in the United States, Europe, and gradually since the end of the Second World War, much of the rest of the world.

Looking at the long-term trends with whose description I began this essay, the conceptual integration task is neither incoherent nor impossible. The rise of networked information economy has created the material conditions for the confluence of freedom, justice, and efficacy. The decline of statism and more or less global consensus on some form of market-based economy has eliminated what was a core unbridgable gap between liberalism in its right and left forms and the Left. We have seen this in the “Third Way” literature for two decades at least now. The emergence of networked cultural and information networks has provided the mechanism for dialogue about what is to be done, and for collective action to organize to do it. And the development of the idea of freedom to cover human rights and development has created a framework for bridging justice-seeking with freedom-seeking discourses. But to say that the task is neither incoherent nor impossible is not to say that it is easy. It is, nonetheless, necessary if the alliance represented by the A2K movement, or by the information commons, free culture, and similar aligned movements, is to become the basis of a new political alignment, rather than a temporary marriage of convenience.