ARE ECONOMIC IDEAS A SUSTAINABLE COMMONS? A STUDY OF THE EXCHANGE OF CREATIVE ECONOMICS

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Abstract

In this essay I claim that productive markets need not necessarily involve clearly defined and enforced property rights, upon which a price system can be used to allocate resources. I shall pursue this thought by an examination of the mechanisms that facilitate the exchange of economic ideas, and link academic norms to the emerging theoretical justification for open source software, and "free culture".

I. Introduction

"Along with a sense of awe and gratitude for the good fortune of having received this remarkable gift from the past, we shall do well to maintain a sobering awareness of the extent to which our future welfare has come to depend upon the continued smooth workings of an intricate, imperfectly understood piece of social machinery — one that need have no adequate capabilities for self-repair, but readily may be damaged by careless interventions."

David, P, 2001, p10

In this essay I claim that productive markets need not necessarily involve clearly defined and enforced property rights, upon which a price system can be used to allocate resources. I shall pursue this thought by an examination of the mechanisms that facilitate the exchange of economic ideas, and link academic norms to the emerging theoretical justification for open source software, and "free culture".

The chain of logic will be that a relaxation of property law in the realm of culture would be efficient. I then offer evidence to suggest that journals are governed by the same "ethos and norms of disclosure" (David, 2001) as the movement behind free culture.

It is important to state that I will confine my study to the field of economics, and to analyze it *given* the institutional framework in which academic discourse resides. Alternative subjects may charge authors to submit articles – as in the case of Biology – and this might be more efficient than a system of free submissions. Indeed any efficiency within economics might not be genuine, and merely appears so due to lavish governmental subsidy of higher education. Such questions are important, but beyond the scope of this initial paper. Only once the exchange of economic ideas is better understood, can a comparative study be possible.

Part II will look beyond the ideology of open source software and suggest that it is

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comparable to economic property. By looking at the history of "open science" however, it still remains closer to communal than many economists might believe to be efficient.

Part III will explore the free culture movement by looking at the licenses that move property rights from "all rights reserved" to "some rights reserved". The Creative Commons and GNU license will be delved into. I will claim that this development is a classic solution to Hobbesian anarchy, and an attempt to voluntarily contract away from predation/ protection to enable production.

Part IV will analyze the primary means to exchange economic ideas: journals. I will claim that the principal determinant of a competitive industry is contestability, and trace a history of journal emergence to gage how responsive the market is to changing conditions. Apart from the barriers to entry I will also look at refereeing as a medium of exchange absent of pricing, and suggest reasons for its ability to contribute to the quality of articles.

Part V will look at branding in academia, given the crucial role of reputation as a substitute for pricing. In this light, much "pedantic" squabbling over terminology can be better understood.

Part VI acknowledges the opportunity for economist's to earn vast sums *per article* in non-academic exchange. I will make a distinction between "articulation" and "creation" of economic ideas and suggest that economist's can earn income from complementary, traditional exchange mechanisms.

Part VII concludes.

II. Open Science and Open Source

Open Science can be traced to relatively recent changes in the institutional structure that supports the quest for frontiers of scientific enquiry. It displaced a practice of secrecy where competing researchers attempted to hide, and internalize, their findings. The movement toward a Republic of Science¹ in the c16th and c17th:

"should be seen as a distinctive and vital aspect of the Scientific Revolution, from which there crystallized a new set of social conventions, incentive structures, and institutional mechanisms that reinforced scientific researchers' commitments to rapid disclosure and wider dissemination of their new discoveries and inventions."

David, P, 2001, p3

Open Science has an undeniably communal ethos, with the belief that the method of acquiring knowledge is a social process, a conversation characterized by universalism.

Universalism has two components. Firstly, that it must be open to entry and socially accessible; establishing the mechanism of reputations. "The norm of 'openness' is 'incentive combatable' with a collegiate reputational reward system based upon accepted claims to priority" and offers reason to willingly disperse knowledge. The other component of universalism is full disclosure of methods, so that replication and

¹ See Merton (1973).

² David (2001, p.4).

verification is possible¹. Notice the similarities to the open source coding: freedom to tinker and emphasis on reproduction. In spite of the rhetoric, however, there are reasons to believe that free and open source software, and Open Science itself is closer to a private property system than is assumed. Tellingly, the Open Source Initiative says:

"We think the economic self-interest arguments for open source are strong enough that nobody needs to go on any moral crusades about it"

Open Source Initiative²

This suggests that much "communal" rhetoric can obscure the economic functioning of the market. Precisely this study was attempted by Chiao where he advocates a distinction between legal and economic ownership:

"the exclusive right, recognized by the community at large, to re-distribute modified versions of that software ... is not inconsistent with the Alchian-Cheung general definition of property rights"

Chiao, 2003

This insight can be used to explore the transition of the Chinese economy, and view it as an increasingly market based system with communist rhetoric. One way in which free and open source software can be considered private property is the release of source code, and the retaining of trade secrets. Whilst a scientist publishes methods of research there will always be elements that can remain privately known, be they actual methods or mere peculiarities of personal style. Even these can be open to scrutiny³, and the point is to align Open Science to the Open Source methodology. Even with a full list of references and disclosure of theory, an author has an income extraction right with regard to technique. Whilst the explicit overtones overemphasize the communal nature of both, neither are traditional markets. My claim is that there are two parties, both of which are misinformed:

- Ideological collectivists, who fail to appreciate the source of efficiency is substitute mechanisms for traditional exchange
- Ideological individualists, who fail to notice the informal communal nature of scientific Enquiry

III. Free Culture

The consequences of the Internet's triumphant ubiquity are immense. Perhaps the biggest impact of the digital age has been with regard to property law: low cost replications of files, and the ability to exchange them between computers explode the instances of copyright violation. A debate on intellectual property (IP) rages, and poses an

¹ See McClosky (1997)

² Open Source Inititative, Frequently Asked Questions, 2002,

http://www.opensource.org/advocacy/faq.php, visited November 28th 2004

³ Posner has written about Coase, and Tollison about Buchanan. T. Clark Durant informs me that Adam Smith would habitually walk many miles a day to clear his head.

interesting dilemma by forcing people to choose between freedom and property. Usually property is seen as the foundation upon which freedom exists, and that the two are complements. Sometimes, however, they can conflict. It is a common mistake to associate "free" with "zero cost", and we do no such thing here. "Free Culture" is equivalent to "free trade" or "freedom" implying above all liberty and rights. In his book 'Free Culture¹' Lawrence Lessig opens with the case of the Causbys; North Carolina farmers. They made a legal challenge against government aircraft trespassing on their "land", since American law held that a property right extended to "an indefinite extent, upwards²". The verdict was:

"[The] doctrine has no place in the modern world. The air is a public highway, as Congress has declared. Were that not true, every transcontinental flight would subject the operator to countless trespass suits. Common sense revolts at the idea. To recognize such private claims to airspace would clog these highways, seriously interfere with their control and development in the public interest, and transfer into private ownership that to which only the public has a just claim"

United States vs Causby, U.S. 328,1946, 256,261

Lessig acknowledges the valid property claim regarding a decrease in property value for being in a flight path, but the point is that just as aircrafts had done before, the Internet is forcing a radical update of property law. Previously a copyright meant, "All rights reserved", meaning that permission must be acquired prior to use. The Creative Commons³ is a "some rights reserved" license where permission is implied. A contributor will choose a license based on the following criteria:

- Attribution
- Commercial use
- Modifications

The difficulty of implementing a new legal structure is the special interests of those who's property is under threat. A Free Culture is a classic example of an attempt to write a Constitutional contract to step out of a Hobbesian anarchy⁴. The extent of litigation for IP infringement, and the unseen reductions in production demonstrate a predation/protection system. Of course the problem in achieving voluntary contracting is that there is no Veil of Ignorance: the players know precisely what they stand to lose.

"Copyright may be property, but like all property, it is also a form of regulation. It is a regulation that benefits some and harms others. When done right, it benefits creators and harms leeches. When done wrong, it is the regulation the powerful use to defeat competitors"

Lessig, 2004, p194

A solution will not be easy, but the relevance to academia, and the exchange of

¹ The catalyst for the Free Culture movement

² See Lessig (2004, Introduction)

³ http://www.creativecommons.org

⁴ See Buchanan (1975)

economic ideas relates to the emergence of the Free Culture movement, and the Internet generally. Academics were instrumental in the early creation and expanse of the Internet, and there's evidence to suggest that the norms of journal debate is the driving force behind the attack on copyright. HTML links are conceptually identical to citations, and both academics and "bloggers" are habitually governed into giving credit to other sources in the belief that doing so strengthens the system.

It is my belief that the Free Culture movement, and the Creative Commons license is introducing the norms and structure of academic discourse to culture at large. When writing a paper the permission to cite a past paper is implied: you do not have to track down each individual author. This is acceptable because it won't be used for commercial gain, and/or the end product will be a sufficiently unique derivation.

In a critique of the Open Source movement Richard Epstein centers his argument on the lack of a capital structure¹. Indeed a commons will collapse when individuals realize that they cannot withdraw their productive value, but non-rivalry is the fundamental characteristic of software. The commune is no poorer from the withdrawal of the harvest. Indeed currently there is no shortage of bandwidth, so the lighthouse harbor is expandable. Demsetz may have the last laugh, and pricing per download may alter the institutional structure of Open Source software however my analysis remains firmly in the now. Besides, as Part V. will demonstrate the lack of clear property rights does not obstruct the development of capital structure.

Economists have the same incentives to contribute to economic knowledge as software developers have to create open-source programs, and the medium to do so is journals.

IV. The Mechanism of Exchange: Journals

a. Historical Perspective²

In the 17th and 18th Century political science was articulated via privately produced books and pamphlets³. The first journals, *Journal des Savants* and *Philosophical Transactions of the Royal Society* emerged in response to the abundance of thought. They did not print original essays, rather reviewed and filtered those that existed. The first journal that we would recognize was the *Encyclopedia*: it was theoretical, bound, regular, subscribed to, and offered little private pecuniary gain to the originator. The social conditions of the time played an important role in the feasibility of this journal. The enlightenment changed the nature of demand for academic thought, as educated scholars engaged in debate, and the middle classes sought to better themselves.

In the early 19th century the specialized journals for economics seems to disappear. I'm not sure why. Smith, Ricardo and Say wrote books, and there was a return to pamphlets. This precipitated the rise of the newspaper/magazines such as The Economist,

¹ See Epstein (2004).

² This chronology of Journals has been heavily influenced by The Newschool, http://homepage.newschool.edu/het/

³ Whether journals were privately or publicly produced is an interesting but irrelevant diversion to my study. I am more concerned with the actual exchange mechanism.

who spoke of economics affairs, but in a highly relevant manner.

The rise of the modern journal can be attributed to the explosion of universities and their quest for reputation. Johns Hopkins, Chicago, MIT and the LSE needed means to demonstrate their worthiness, and an in-house journal was an essential tool of controlled self-promotion. Having changed the landscape of the debate, Cambridge and Harvard were forced to respond and engage. Also, this period saw a fundamental attack on the credibility of "economics" as a discipline. The *Quarterly Journal of Economics* was launched by Harvard in 1886, in 1890 Chicago introduced *The Journal of Political Economy*, a year later the Royal Economic Society was founded who would create the *Economic Journal* and 1911 saw the American Economic Association, the controllers of the *American Economic Review*.

Going back to the origin of Open Science, intellectuals received patronage from ruling families because:

"It was very much in the interest of a patron for the reputations of those he patronized to be enhanced in this way, for their fame augmented his own"

David, 2001, p.6

Indeed there's a mutual enhancement of reputation in the relationship between scholar and institution, and creating a journal is means to bolster the reputation of faculty, and in doing so, the university as a whole.

The point was to promote their own institution, and Editors were highly selective in achieving that end. They were the voice of the institution, and intended to outperform their rivals. They were promoting their own brand, but the "market" was competitive. It was competitive, because it was contestable.

The LSE created *Economica* as a means to challenge Cambridge orthodoxy, and

the classic institutional confrontation found battleground in the journals. Keynes' revival of the EJ fortunes was a direct result of his arguments with Hayek, and then the Stockholm challenge. Other countries entered the market for ideas, and journals erupted in research institutes and indeed banks. Econometrica was entered as a vent for economists who wanted to publish more mathematical models and soon most institutions had an in house journal.

Laband and Piette found that from 1970-1990 membership of the American Economic Association rose by 14%, but the amount of articles written increased by 23% and there was a 50% rise in published pages. From 1976-85 an additional 51% of journals had entered the market; and these figures corresponded to Lovell's survey from 1850-1969. They say:

"It seems clear that market entry must be responsible for a substantial proportion of the noted growth in citations"

Laband and Piette, 1994, p652-53

Contestability remained. Specialization meant a continuing flow of new journals for several reasons. The economics profession itself was expanding, increasing the supply of

papers¹. Where professional prestige is related to publications, activity increased. Commercial houses were happy to back new entrants, because university libraries were insatiable consumers. Ever more heterodox journals were created, and as means to filter the bountiful crop, survey journals such as the *Journal of Economic Perspectives* were formed

Modern journals are now electronic, for example the Electronic Society for Social Sciences² offer a journal 50% cheaper than most, and Econ Journal Watch³ further supports the contestability claim and shows journals to be imaginative and responsive. The market seems to be contestable, but it's efficiency depends on the process of publication.

b. Editing and Refereeing

Hammermesh⁴ found that referees are heavily cited and at the peak of their careers. Editors choose to use the top people in their specialty, and those whom they have access to. Apart from when the submission comes from an elite author, there's no correlation between the citations of the author and referee. In other words, referees are not assigned to authors of similar quality. Hammermesh catalogues referees into three groups: a "doer" offers quick feedback; a "refuser" declines the invitation but does so promptly, and a "loser" who hangs on to a paper drastically slowing the review process. 5% of delinquent referees accounted for half of the 10% of articles that are held up for ten months or more. Consequently, a slow response from a referee will be either down to the bad luck of getting a "loser", or the better fortune of reaching an experienced scholar where the delay is offset by valuable feedback. Also, since the better journals will use better referees, an article submitted to a higher ranked journal will end up being a better paper.

Overall, 50% of refereed feedback is received within 6 weeks, and 75% within 10. Much of the perceived inefficiency in the system stems not from the refereeing stage, therefore, but the publishing stage. Many journals operate on a quarterly schedule, and Marshall⁵ found that there's a 3 month lag after all Editorial work is finished.

Aside from acting as gatekeepers it is important to note the middleman role of journal editors. Because economic ideas *are* such a commons, a credibility issue arises. Such vast circulations of ideas call for some institutional means to sort, and signal the appropriate ones requiring attention. With the advent of blogging, we can expect to see similar measures emerge to mimic journal editors. When opinion has such a low cost to share, those with rich things to say have an incentive to devise significantly high barriers, and form the networks that signal academic inclusion. Networks not only provide warranty against academic deceit, they offer positive returns to editors that use them to "capture" good articles⁶. Such evidence is contrary to an "old boys" story. It is also important to note the facility journals provide emerging fields.

¹ Lovell (1973) calculated output to double every 14 years

² http://www.elsss.org.uk/.

³ http://www.econjournalwatch.org/main/index.php.

⁴ Hammermesh (1994).

⁵ Marshall (1959).

⁶ See Laband, D and Piette, M. (1994).

"An important ingredient in the success of law and economics research has come from the establishment of specialized journals"

Parisi¹

That said, marginalization might stifle the creative flow of ideas necessary to nourish a field. Anecdotal evidence suggest that Vernon Smith was reluctant to establish a dedicated journal to experimental economics, and much criticism of the modern Austrian School stems from the confines of their influence. My point is that the market is ripe for entrepreneurial manipulation.

c. Suggestions

Hammermesh suggests a bribe to referees to speed up responses, but accepts that when tried they've had little impact on "losers", the main source of delay. Zetland² goes further, and proposes an auction market for journal articles. He acknowledges that forprofit publishing has had little impact thus far, and constructs a system where articles are bid for, and *citations* receive income. He wishes to better compensate the Shoulders of Giants.

I believe most of the suggestions for improvement are instigated by an assumption that a pricing system is more efficient than the current institutional structure. I am less convinced, and believe there's real evidence to suggest that the journal market is efficient as it is. Specifically, the greatest lag in bringing articles to market concerns publishing constraints. Since academia is already so well intertwined with the Internet, scholars should embrace the open content approach to generating knowledge. The journal market has proved to be very adaptable, and as researchers move away from hard copies toward digital content further change is needed. Economist's have always exchanged papers with a relaxed "some rights reserved" license, and have a significantly lower transitional gains trap compared to culture at large. J-Stors worth is not so much in its property right, rather it's central administration that facilitates search. Before a paper is distributed, however, some degree of sorting will need to take place. And there can be no mistake that the forces that have ensured the dominance of leading journals can survive in an institution of even freer exchange, and reputation mechanisms are the crucial reason why.

V. Branding and other reputation effects

One of the principle reasons for the success of the *Journal of Economic Perspectives* was the fact that the "AEA puts its credibility and reputational capital on the line with a new journal. This serves as an implicit guarantee of product quality." Not only is reputation the driving factor behind the rise and fall of journals, but no economist works in anonymity. Recognition is crucial, since the proxy for "impact" is citations. Whilst institutions are a signal about a scholars credentials, his surname carriers the weight of his reputation. The alphabetical arrangement of references is not by chance, and reflects the

¹ source currently unknown

² Zetland (2004).

³ Laband, D and Piette, M (1994, p. 653).

categorization of authors. Reputations demonstrate that there is a capital structure to economic ideas, and it can be increased by writing heavily cited articles in respected journals, or diminished by distributing it too thinly across low impact co-authorships. The economist will optimize his portfolio by choosing a combination of sole-authorship "impact" papers and investing in the capital of students by writing jointly.

A means to earn high returns on reputational capital would be to create a theory that bears your name, and then even though you receive no pecuniary income from it's application, there will be an increase in your reputation, and a corresponding prospect of tenure ship at a high ranked institution, for a large salary. But consider the distinction between "Keynesian Economics" and "The Economics of Keynes". A similar tale can be told regarding "The Coase Theory¹". In both situations, debate rages regarding the alignment of individual to theory. In light of reputation capital, this is a very important and understandable situation. Without pecuniary exchange, academic squabbles result and the competitive "expert" market of academic debate exists instead of a democratic market where rights go to the highest bidder.

Whilst not often explicitly stated, these insights are implicitly understood as some schools of thought align themselves to individual authors (and then the debate concerns "what he said" which is relatively verifiable, although then time passes and the question becomes "what he meant" or "what he would have said"). Other schools have explicit tenets or beliefs, but to function efficiently these must be common knowledge, and are open to misinterpretation. Again, as time passes the network of scholars that tacitly knew the methodological foundations dissipates and arguments are more likely to grow. To preempt this, notice how the New Institutional Economics movement attempt to define themselves clearly. As knowledge, generally, increases there are incentives to protect reputational capital by codification and formalization. Most of the economic literature on methodology falls into this category.

VI. Levels of Economic Ideas: Creation, Articulation and Repetition

Thus far we have concentrated on the exchange of economic ideas, specifically via journals, but there is a theoretical distinction between production and exchange. Journals play a significant role in the production of economic ideas, but primarily tend to exchange encapsulated works. Such works will either cement previous theory with a temporal restatement; assemble fragments of previous theory into a sufficiently original derivation, or push the frontier with genuine advancement². An individual article will therefore require a productive stage prior to submission, even in expectation of useful feedback from the refereeing process. Institutions such as seminars, conferences and private correspondence will act as the productive stage. But economist's written output extends far beyond refereed articles, and this is because the exchange of economic ideas exists

¹ This leads to the interesting case where a concept become so imbedded it no longer requires citation. Here lies the importance of the *name* since there will still be a means to arrive at the original source. Presumably the passage from requiring citation to being taken as given will have already conferred prestige upon the author. I can't think of many people who've lent their names to theorems *within their lifetime* and not received prestige.

² See Oakeshott (1975).

along a spectrum of <<knowledge>>, and maps directly into the commons/private type of market.

The *creation* of economic ideas is the academic process of production and exchange via scholarly journals. As I have demonstrated, this is currently arranged in a non-market setting and is contestable and innovative. So close to such abstract notions as "ideas" and "thought" policing of a property rights regime would be vastly expensive, and stifle creativity. Proxies such as reputation capital have emerged, to facilitate the flow. Freely available papers and pamphlets are strong examples of creativity, where the intention is a broad audience and few restrictions on replication.

The *articulation* of economic ideas spans journals and more popular press. A step away from the frontier of research, articulation moves toward a conventional market type; for example Cato use a price mechanism. At one extreme it is articulation that includes clarifications and assemblies of ideas, for example review articles, think-tank pieces and the emergence of journals that facilitate them. Another extreme is books, since these can be governed as a combination of copyright license.

The *repetition* of economic ideas concerns the introduction of settled thought into a new forum, or indeed repeating already known ideas. Many economists earn money per article, and participate in a traditional market just as most journalists do. But their audience is noneconomist, and therefore by definition op-eds are not academic. Immense private wealth can be gained by engaging in market activity like private speaking and books, but these are not efficient means at dialogue within an academic community. These are profits not for the creation of economic thought, but an ability to discuss them with a wide audience. Academic discourse is a fundamentally different type of market, and is efficiently governed by fundamentally different mechanisms of exchange.

VII. Concluding Comments

Professional attention to the governance of academia is surprisingly sparse. This has been a preliminary and speculative attempt to replace casual anecdote with an interesting theoretical understanding. In a world of such change, provincialism of time is understandable yet dangerous. In private correspondence I have learnt that Jstor will soon be cross-referencing all of it's articles, and incorporate a "track back" facility. Just as can currently be done on the Internet, an article will not only include the tradition list of references, but will include a list of articles that have since cited the original. There can be no denying that Jstor is the Napster of academia but one that falls within copyright law due to the open source foundation of modern science. As we beat on with the current, bound ceaselessly into the future... the blossoming economists will appreciate and understand the complementary means to produce and exchange economic ideas.

References:

Chiao, B, 2003, "An Economic Theory of Free and Open Source Software: A Tour from Lighthouse to Chinese-Style Socialism"

David, P, 2001, "From Keeping 'Nature's Secrets' to the Institutionalization of 'Open Science'"

Epstein, R, 2004, "Why Open Source is Unsustainable, Financial Times", October

21st 2004

Hammermesh, D, 1994, Facts and Myths about Refereeing *The Journal of Economic Perspectives*, Vol.8 ,No.1 (Winter), pp153-163

Laband, D and Piette, M, 1994, "The Relative Impacts of Economics Journals: 1970-1990" *Journal of Economic Literature*, Vol.32, No.2 (Jun), pp640-666

Lessig, L, 2004, "Free Culture. How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity", The Penguin Press, New York. Also available at http://www.free-culture.cc/freeculture.pdf

Marshall, H,1959, "Publication Policies of the Economic Journals" *The American Economic Review*, Vol.49, No.1 (Mar), p133-138

Zetland, D, 2004, "An Auction Market for Journal Articles".