Hettinga's Best of the Month

From Contributing Editor Bob Hettinga
E-mail: rah@shipwright.com
URL: The e$ Home Page

"... however it may deserve respect for its usefulness and antiquity, [predicting the end of the world] has not been found agreeable to experience." -- Edward Gibbon, 'Decline and Fall of the Roman Empire'

The Market and the Net: Personal Boundaries and the Future of Market Institutions

Philip E. Agre Graduate School of Education and Information Studies University of California, Los Angeles Los Angeles, California 90095-1520 USA
E-mail: pagre@ucla.edu
URL: http://dlis.gseis.ucla.edu/pagre/

Telecommunications Policy Research Conference Alexandria, Virginia October 1998

This is an early draft of 6 October 1998. About 3400 words. Comments appreciated. Footnotes and references to follow.

1 Introduction

The last five years have brought tremendous public visibility to issues of infrastructure. This would seem odd. If any topic should remain confined to the technical analysis of experts, it is surely infrastructure, which by definition is a means to an end, and not an end in itself. Star even makes the case that infrastructure should be understood precisely as that which disappears from view in the course of routinized social action.

The explanation for this paradox is simple enough. Public talk about infrastructure is not just about infrastructure; it is also, in many ways both acknowledged and unacknowledged, talk about fundamental social institutions. This is inevitable. A complex story about infrastructure cannot help but presuppose a story about the purposes to which it will be put: the actions it will support, the relationships it will mediate, the constraints it will impose, and the changes it will bring. As a new generation of information infrastructure now begins to mature and become integrated with institutional practice, we need to become aware of the stories that we have been telling ourselves about institutions. Our responsibility as story-tellers increases as our stories are made real in people's lives, and if we do not choose our stories consciously then all manner of cultural mythology will flow into the imaginative vacuum that any new technology opens up.

I propose to investigate the seeming convergence between two sets of stories about human relationships: those told by the most publicly visible advocates of the Internet and those told by neoclassical theorists of economic institutions. What these stories have most straight forwardly incommon is a normative picture of the interconnections among people, which, they hold, should be capable of ceaseless and costless reconfiguration. Advocates of the Internet imagine a world in which every person is, for all practical purposes, equally near to every other person, and the veryconcept of packet switching inscribes the notion that patterns of interconnection are not necessarily stable from one moment to the next. Advocates of the idealized neoclassical market, for their part, imagine the market maximizing aggregate wealth by making it possible for individuals to identify optimal trading partners, whose identities as wellmay continually change.

Obvious as it may seem, this analogy is quite complex underneath, and I propose to unpack it in stages, as follows. In section 2 I will describe two versions of the economic story, North's theory of economic history and Posner's analysis of privacy law, arriving tentatively at an apparent tension within the market advocates' notions of freedom. Section 3 will turn to the Internet, sketching and criticizing four wide spread understandings of the Internet's effects on social institutions of all sorts. Section 4 will draw on these analyses to conduct an extended comparison and contrast between the technical and economic analyses ofinstitutional life. Section 5 will use a fresh analysis of Posner's economic theory of privacy as the point of departure for a considerably more realistic normative analysis of the place of information infrastructure in social institutions. And section 6 will conclude by drawing out the consequences of this argument for the relationship between the human person and the institutional system.

2 Market institutions

In his two most celebrated papers, "The nature of the firm" and "The problem of social cost", Ronald Coase laid the foundations for a vastliterature on the nature of economic institutions. In each case, theargument took the same general form. If all of the many assumptions of classical economics were realized in the world, Coase argued, then the world would resemble Adam Smith's market of small producers engaging in optimal, wealth-maximizing exchange. Those assumptions do not entirelyhold, however, and so economists can set about explaining divergences from the ideal market in terms of divergences from the assumptions, and explaining tendencies toward convergence to the ideal market in termsof increasing congruence between the world and the classical economic assumptions.

In "The nature of the firm", Coase applied this pattern of argument to thequestion of why large business organizations, which do not exist in Adam Smith's world, nonetheless exist in ours. His answer is that firms exist because real-life market transactions are not costless, and that firms will expand until the costs of organizing economic activity by command within the firm -- so-called coordination costs -- exceed the costs of organizing economic activity by means of market exchange -- so-calledtransaction costs. Coase's many followers have argued that a decrease intransaction costs, due among other causes to changing legal rules and technologies, should disintegrate the firm and move the economic system toward Adam Smith's millennium.

Perhaps the most sophisticated of the advocates of this view has been Douglass North, whose theory of economic history has explained the wealthof nations in terms of the economic institutions that have facilitated or frustrated trade. North has influentially characterized institutions in abroad way, as the "rules of the game" -- the combination inter alia oflaws, customs, technologies, and mental models by which economic activityis coordinated. For present purposes, I want to focus on a single observation that North makes when introducing his theory.

He notes that game theorists have also sought to explain the rise of cooperative activities among individuals with otherwise potentially conflicting interests, and that they have concluded that cooperation requires a small group of individuals bound together in long-term intimate relationships. The problem with this theory, North points out, is that it heads in the wrong direction. Surely, he argues, the central datum in economic historyis precisely the passage from this kind of stable intimate group to the institutions that facilitate impersonal exchange among large numbers of relative strangers. Large-scale trade requires impersonal institutions because strangers could not otherwise negotiate and enforce every one oftheir voluminous transactions if every deal had to be built from scratch.

Coase's "The problem of social cost" addressed problems of law. When a dispute comes before a court, Coase observed, the market generally has anopinion, so to speak, about the correct outcome: if market transactions were costless, the parties would all be motivated to make a deal that maximizes their joint wealth. If they have taken their dispute to court instead, then the market resolution must be impracticably costly, and the court's job is to fashion a rule that approximates the same effect.

Richard Posner has employed this startlingly amoral argument as the basis for a sweeping program of economic analysis of law. For present purposes, I want to consider only the open comments of Posner's provocative analysis of privacy law. To apply economic analysis to questions of privacy,Posner proposes that human relationships of all sorts be understood on the market model. In entering into a relationship, be it employment or friendship or marriage, he suggests, one is effectively selling oneself,or at least trading various commitments. And if this is true, then the market will only function correctly in the presence of perfect information-- that is, if everyone can costlessly know everything about all oftheir potential partners that they require to make jointly optimaldecisions about which ones to associate with. Such a conception of human relationships is obviously at odds with many widespread intuitions about privacy. Yet even though Posner does find sufficient economic justification for certain delimited privacy rights, his point of departureis an explicitly stated assumption that, just as a merchant might misrepresent the attributes of her goods, likewise people wish to reserve privacy rights mainly in order to misrepresent themselves or otherwise manipulate the workings of the relational marketplace.

Baker has justly identified as a "mystery" the clash between Posner'sanalysis and common intuition (together with the legislation that the intution has motivated). So far as this intuition is concerned, Posner is advocating a sort of market authoritarianism. A central characteristic ofan authoritarian culture is its routine invasion of personal boundaries,and this is what Posner's panopticon marketplace would seem to require.And yet this intuition does precisely nothing to refute Posner's misrepresentation analysis of individuals' acts of personal reticence.The mystery remains, and my own analysis will be getting somewhere oncethe mystery can be resolved.

Nonetheless, these few observations do already point to a tension withinthe political project of neoclassical market advocates: a conflict betweentwo conceptions of freedom. On the first, substantive conception, freedom roughly equals prosperity and is guaranteed by the allocative efficiency of the idealized market -- in other words, by the gains to trade. On thesecond, formal conception, freedom roughly equals individual autonomy in market choices. These conceptions of freedom conflict, notoriously,because of the role of personal information: whereas substantive marketfreedom requires broad rights to reticence and the capacity to bargainover release and use of personal information like anything else.

3 The Internet and institutions

Let us leave the analysis of economic ideas and turn to prevailing ideasabout the Internet's consequences for institutions. I will considerfour of these ideas: community, cyberspace, disintermediation, and decentralization.

1. In the United States, normative ideas about the Internet's place insociety have been strongly influenced by a distinctively American conception of community. Founded in the reformed Protestant communitarianism of the utopian settlements of 17th century New England, this conception idealizes a thorough going intimacy. Religious division, urbanization, and commercialism led American culture in different directions, and yet the culture has been persistently haunted by a sense of having fallen from that original ideal. Accordingly, many American shave looked to the Internet to restore that lost perfection, whether in newly settled online virtual communities or in the revived civic life ofgeographic communities. Whether or not this ideal is something to bedesired, however, the evidence for it in reality is anecdotal at best.
2. The utopian ideal of Internet community is closely related to the notion that the Internet constitutes a qualitatively distinct sphere of human life that might be called cyberspace. Here, once again, a national cultural ideal is being projected onto technology. The concept ofcyberspace feels excitingly new precisely because it resonates with a half-forgotten ideal of days gone by: cyberspace, in short, is the cityon a hill. Legal scholars have even seriously suggested that cyberspace be treated as a distinct legal jurisdiction, and this separation isthe Internet's analogue of the hopes that were originally invested inthe New World. The very possibility of conceiving the Internet in this way, however, is rapidly passing away as the Internet becomes integrated into the institutional world around it. The Internet's governance isincreasingly affected by the strategies of the largest players in existingindustries, and the directions of Internet architecture, particularly on the applications level, are increasingly bound up with the established practices of those industries.
3. The Internet is also commonly said to affect institutional orders bycutting out intermediaries: the institutional players who mediate the relationships among other participants in the system. A paradigmatic example might be found in projects at CommerceNet and elsewhere toestablish XML-based standards for online catalogs for components in manufacturing. Assuming that vendors agree on these standardized formats,the effort of searching for parts can be shifted from dealers' personnel to buyers' Web browsers. Yet, as this example illustrates,disintermediation in practice usually turns out to be reintermediation -- the creation of a new intermediary, albeit one that is more efficient. Inthe XML case, the new intermediary is the provider of a (quitesophisticated) Web search engine service.
4. Other cases of reintermediation can be more complex. The unlamented decline of traditional stockbrokers in the face of competition from online trading services is not the elimination of the intermediary's services bu ttheir

unbundling. It is nonetheless commonly held that disintermediation is inevitable because of reductions in transaction costs. But thisargument badly misreads Coase: information technologies that reduce transaction costs commonly reduce coordination costs as well, and it isaltogether plausible that in many cases the Internet will permit existing intermediaries to grow by merging across geographic and other boundaries,thus increasing their capacity to match buyers and sellers who have no more efficient way of finding one another.

5. It is also commonly held, finally and perhaps most importantly, that the Internet will decentralized society, breaking down large organizationsand dispersing both economic and political power. This idea has virtually no basis in reality, and is founded on a much more general version of theubiquitous misreading of Coase. The Internet does often permit reductionsin transaction costs, but its contribution to reduced coordination costsare much more straightforward. To the extent that a firm standardizes itsoperations in many locations, the Internet makes it considerably easier toobtain economics of scale in the information-intensive aspects of thework; this includes the gathering of statistics, the transfer of expertise, and the distribution of information products such as policies and software. The global economy is manifestly not evolving in thedirection of Adam Smith's market, and this is one reason why. To the contrary, the clearly emerging pattern combines shrinking numbers of vast,dominant firms with large numbers of structurally peripheral firms and, of course, even larger numbers of individual workers and consumers. The predominant patterns of relationship in the new economy, in short, are highly asymmetric.

The global integration of the economy is likewise commonly held to decentralize political power by preventing governments from taking actions that can be reversed through cross-border arbitrage. But political power is becoming centralized in equally important ways: the power of nationalgovernments is not so much disappearing as shifting to a haphazard collection of undemocratic and nontransparent global treaty organizations,and the power to influence these organizations is likewise concentratingin the ever-fewer global firms. These observations are not pleasant or fashionable, but they are nonetheless true.

4 The market and the net

Despite their compelling surfaces, therefore, the institutional ideas that now surround both neoclassical economics and the Internet arecharacterized by significant internal tensions that become manifest intheir failure to correspond to reality. It remains to be determined, however, which of these difficulties reflect simple conceptual muddles and which reflect tensions in the actual material world. To make this call, it will be helpful to draw out some comparisons and contrasts between the economic ideas and the technical ideas.

To start with, notions of perfect information and transparency play different roles on the two sides. The economists have definite ideas about which information must be publicly available in order for themarket to function correctly; Internet advocates are merely confident thattheir technology will remove the last barriers to the circulation of vast amounts of useful information of all kinds. On the other hand, both sides have their own respective sense that everyone can cheaply know everything they need to know; this is roughly what perfect information means, and itis what Web search engines are supposed to provide.

Both the economists and the Internet advocates plan to demolish institutions, but the Internet advocates are particularly systematicabout it. After all, the common thread among the four concepts I surveyed is the overcoming of institutional barriers to direct, unmediated relationships among individuals. Internet advocates, in other words, viewinstitutions as antithetical to human relationships and not, as in thecase of North or to a much lesser extent in Posner, as supporting or even constituting them.

At the same time, North ought to regard the Internet advocates as striving for contradictory goals. The Internet notions of community and cyberspace appeal to the same general model of sustained intimacy as thegame theorists, and North regards this model as opposing the impersonal market institutions that would result from a thorough going program of disintermediation and decentralization as economically-minded Internet advocates use the terms.

Yet the economists are ambivalent as well. They want to create the material conditions for Adam Smith's market, and perhaps as a result theyapply Coase's theory of the firm in a profoundly tendentious way. This practice deeply affects their theory of institutions, which are assigned the clear-cut task of supporting the fully decentralized market, or at least of keeping trade going until that market can finally be put intoeffect. The world, however, does not work like that, and economics --the economics of information and its role in the evolution of coordination practices and their attendant costs -- explains why.

5 Privacy demystified

We are now in a position to dig more deeply into the mystery of the economic analysis of privacy. Comparison of the prevailing economic and Internet ideas about institutions has led to one central commonality: both of them misguidedly advocate the compulsive establishment of relationships with people one hardly knows. Psychologists refer to this unhealthy condition as "instant intimacy" and regard it as the opposite of the healthy boundaries that people require to establish genuine relationships without opening themselves unnecessarily to harm.

This suggests that adequate ideas about markets, technologies, and institutions will require more sophisticated ideas about the nature of human relationships. Some clues can be found in a fresh look at Posner. Two fallacies in Posner's analysis can now be readily identified.The first pertains to his argument that my obligation to represent myself correctly to particular individuals implies that everyone should have access at least by default to my personal information.Emerging technologies deepen the urgency of this particular issue by making personal information vastly easier to collect and circulate.Privacy-enhancing technologies, however, make it entirely feasible foran individual to hand over the keys to his or her encrypted information to only those individuals who have a reason to see it. Others, including those who would attempt to initiate marketing and other relationships against one's will, would have no such access. Although they might seem esoteric, the use of privacy-enhancing technologies simply deepens North's principle of the impersonality of market institutions.

Posner's second fallacy lies with the presumption that the participants ina relationship are related symmetrically, or more precisely that neither party has power in the relational marketplace. But this assumption is altogether false in a world of informational economies of scale andthe consequent flattening of coordination costs in monopolistic firms. The same economic analysis that counsels laissez-faire in Adam Smith's relational marketplace should counsel something different in the marketplace of actually existing capitalism. This is also the fallacy of the current unaccountable nostalgia for lex mercatoria, which anachronistically presupposes a tightly knit community of symmetrically related equals.

If the foregoing analysis is correct then we must admit as a society that, in rebuilding our information infrastructure, we are also in the business of rebuilding institutions, not tearing them down. We must also admit that, in building these new institutions, economic efficiency cannot be our only guide, or perhaps that the demands of economic efficiency are internally contradictory. We must also recognize that the principal, indeed quite overwhelming, problem with the Internet is that it is far tooeasy to breach individuals' personal boundaries. The problem is visiblein the plague of computer viruses, in spam and other out-of-controlnuisances, and especially in the tactics of aggressively antisocialindividuals who spread their emotional poison indiscriminately on the netby relentlessly gaming such mechanisms as search engines and banner ads. The solution to such problems will not be found simply in new mechanisms; any solution will have an institutional dimension as well.

Consider, for example, the problem of obnoxious Web content in libraries.The main established positions on this issue are precisely those ofCongress, which advocates mandatory use of filtering software, and that of the librarians, who reject any controls at all. Neither approach isviable. What may be viable in the long run is systematic application to the Web of the same collection development practices that librarians already apply in libraries. The accumulated wisdom of these practices will have to be generalized and reoriented: instead of being applied to the library collections of particular geographically localizedcommunities, they will be applied to the virtual collections employed by geographically dispersed interest communities. The Internet is very goodat supporting that kind of institution, and yet the Internet advocates have misguidedly set themselves against that sort of institutional mediation.

6 Conclusion

The picture of human beings and social institutions that emerges from this analysis contrasts sharply with that of the economists and the Internet advocates. It begins with the human need to negotiate relationships in anincremental fashion, maintaining their personal boundaries by using theirown judgement about who to let in, and how much, and when. A positivemodel of both technology and institutions will support this need rather than undermining it. Even though they will structure the creation of relationships, the necessary institutions will not conflict with human freedom but will provide the conditions for it. They will provide for impersonal market relationships, to be sure, but they will do so in a way that corrects for systemic asymmetries of bargaining power. This is John Commons' view of institutions as the results of collective bargaining through which the conditions of freedom are achieved.

The solution to Posner's privacy mystery is an example. Since strong incentives exist to improve economic efficiency by capturing and distributing market-relevant information, public policy should take astrong stand for individuals' control over their own information. If this principle of individual control is institutionalized in technology andlaw, then innovation will find ever more powerful ways to synthesize that principle with the efficiency imperative.

The notion of social freedom that results from this analysis is farfrom both the negative, formal freedom of contract and the positive, substantive freedom of allocative efficiency. It is, in particular, anotion of freedom marked out in the middle of institutional phenomena that are complex and contradictory by their nature. The reality of freedom is not simple. Nor is it inevitable.