



Democracy Ecological Design Economics Global Systems Independent Media  
 Infrastructure Networks Collective Intelligence Social Sculpture Transparency

- >> Home
- >> Search
- >> About Us
- >> Contact Us
- >> Blog
- >> Back Issues

## Interactivity and The Open Society

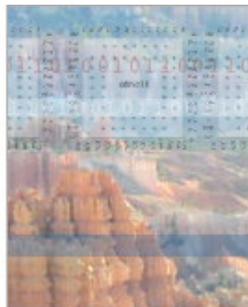
Hardin Tibbs

**In the digital age, liberal society must find new, appropriate ways to measure and value freedom.**

**Journal Newsletter:**

Sign up to hear about new issues.

The Internet opens up a host of possibilities for human interaction, enabled by an exponentially growing flow of digitally-encoded information—words, numbers, pictures, sound. It promises unlimited communication between spaces and times.



The essence of this is not really new. Cyberspace has been memorably defined as "where you are when you're talking on the telephone," and at one level the Internet is simply a better kind of telephone.

But information theory and trillions of interconnected binary logic gates give the Internet far greater potential for enhancing social interactivity. They create a new high-bandwidth mode among or between communities in real, biological space, binding and extending them, even bringing new real communities into being. This has created a shared social domain in cyberspace, a digital commons. It is an enhancement of community by the addition of rich new interaction possibilities in virtual space and time, where expanded flows of meaning and caring can be created. It is a step short of merging the mental space of individuals in a way that transforms the concept of society itself, although some might say that indeed it is a preparation for exactly this.

If every technology has the potential for both use and misuse, what are the prospects for realizing the full social potential of the Internet? Certain freedoms and guarantees are needed to ensure not just its usefulness, but its full scope for virtual enhancement of community. The early experience of unlimited Internet freedom could become a distant memory as governments and corporations refine their capacity to legislate and control. Will the digital commons become the global equivalent of the ancient Athenian agora, allowing social interaction to flourish, or will it be reduced to a giant version of the Home Shopping Network?

There can be little doubt that if the Internet is subject to excessive restriction, it will lose much of what it needs to be friendly to civil society. Thus the prospect of legally or politically imposed control is a major dimension of uncertainty as we look into the future.

The principles of openness and freedom to communicate seem basic if the Internet is to offer genuine enhancement of community. The arguments about anonymity and privacy are perhaps less clearcut. Stewart Brand has reported that in the evolution of the principles underlying the Well, the pioneering dial-up online community, a conference allowing complete anonymity had to be shut down because it rapidly got out of hand when some participants began to

impersonate others.<sup>1+1</sup>

And privacy itself is not a universal cultural concept. There is no word for it in some modern languages, such as Greek. Some cultures and historical communities have had what amounted to complete surveillance of everybody by everybody else—although this is of course a very different thing from the surveillance of everybody by a central power.

The threat to openness on the Internet is however a major issue for the survival of the digital commons and the political future of civil society. The nature of this threat can be given some precision. George Soros, the Hungarian investor extraordinaire and maverick intellectual, has championed the concept of "open society" as the key principle that can guarantee the future of free democratic society. He has given away millions of dollars of his own money through his foundation, the Open Society Institute, to protect open society wherever he perceives it to be most under threat. For many years he donated much of this money in the countries of the former Soviet empire, but more recently he has turned his attention to the United States.

**Perhaps interactivity can stand as a symbol of the conditions that must prevail on the Internet if true community is to thrive....**

The notion of the open society came originally from philosopher Karl Popper in a book written during the Second World War, *The Open Society and Its Enemies*. Soros tells us that Popper's book, "explained what the Western democracies stood for and fought for. The explanation was highly abstract and philosophical, and the term 'open society' never gained wide recognition. Nevertheless, Popper's analysis was penetrating, and when I read it as a student in the late 1940s,

having experienced at first hand both Nazi and Communist rule in Hungary, it struck me with the force of revelation."<sup>[2]</sup>

Popper contrasted totalitarian ideologies such as communism and Nazism, which claim to be in possession of ultimate truth (and have to resort to oppression to impose their vision) with, in Soros' words, "another view of society, which recognizes that nobody has a monopoly on the truth: different people have different views and different interests, and there is a need for institutions that allow them to live together in peace. These institutions protect the rights of citizens and ensure freedom of choice and freedom of speech. Popper called this form of social organization the 'open society.'"<sup>[3]</sup>

Today, after the fall of communism, Soros believes that the intensification of laissez-faire capitalism and the spread of market values around the world make capitalism itself the main enemy of the open society. In its early years the Internet has been largely open in Popper's sense, but there is no guarantee that it will remain so. Many commercial promoters of the Internet, such as Internet service

commercial promoters of the Internet, such as Internet service providers, are aware of the possible dangers of direct political control, and propose voluntary self-regulation as an enlightened way of avoiding it. But are they as concerned that commercial values might also "close" the Internet, as Soros has argued may happen in society at large?

In thinking about the way commercial dominance might rob the Internet of the properties it needs to be a fertile environment for virtual community, consider interactivity, a concept which in its deep meaning is closely related to the concept of the open society.

J.C.R. Licklider was the first to write about the possibility of human-computer interactivity in his 1960 essay "Human-Computer Symbiosis."<sup>[4]</sup> Also in the 1960s, Douglas Engelbart and his team at the Augmentation Research Center (ARC) pioneered most of the now-familiar tools for online interactivity—email, word processing, online publishing, reciprocal hyperlinks, online collaboration, and more.

Stewart Brand has given us an account of the further exploration of the idea of interactivity at MIT's Media Lab in the 1980s. In his verbatim report of a conversation with Andy Lippman at MIT, a definition of interactivity is given, along with five corollaries. The definition: "Mutual and simultaneous activity on the part of both participants, usually working towards some goal, but not necessarily."<sup>[5]</sup>

The five corollaries are: interruptibility (which distinguishes interactivity from mere alternation); granularity (the smallest element of communication which is completed before the system stops when it is interrupted); graceful degradation (how the system handles requests that it ought to be able to respond to but can't immediately); limited look-ahead (not pre-computing responses too far ahead—being able to compose responses "on the fly"); and no default (no pre-determined response pattern that the system will follow unless the user changes it).

Some of the most telling parts of the interview reveal more of the mode of thinking at work behind the definition:

"SB: Okay, this [graceful degradation] is 'not losing the thread'...

AL: No, not losing the thread has to do with having a global vision of where you really want to go, and there's no guarantee that an interaction is going to end up where it thought it would when it started, and it needed in order to be an interaction.

SB: Thread is something besides goal. Um...I'm not sure what it is yet, but maybe it'll emerge..."

and,

"AL: You can't have precomputed everything you're going to say. In a conversation, how far ahead of where you're talking are you really thinking? You have a goal, but since it's interactive, and since each one of us is going to interrupt the other, we can't anticipate ever reaching that goal or where we're going to go or how far we're going to digress, so you don't look that far ahead in composing the interaction."<sup>[6]</sup>

This represents deep thinking about what is satisfying in human terms in interacting with a computer. The definition as given refers to

interaction with a computer system, but the essence or the principles have a bearing on interaction with content or with others on the Internet. If the Internet is to be hospitable to civil society, this kind of thinking will need to be embodied in the design of any controlling legislation.

Without stretching the point too far, perhaps interactivity can stand as a symbol of the conditions that must prevail on the Internet if true community is to thrive. By extension, we could even say that the possibility of true interactivity is one of the enabling conditions for open society. So communication on the Internet would need to be not only open but truly interactive in the broadest sense, to foster healthy community. Both commercial and narrow political pressures might well not see this as an ideal situation, and might well feel a wish to close off the open-endedness it implies.

**Interactivity has not been seen as a barometer of liberal society, in contrast with metrics such as the extent of freedom of speech, prevalence of hate crimes, and income distribution.**

Nevertheless, a high level of digital interactivity is necessary to enable international civil society to reach political maturity. This level of interactivity will support rich participation and mutual engagement by nascent global citizens, progressively and responsibly transcending traditional national borders, and bringing us closer to the vision of a true global society.

This broadens the significance of interactivity beyond the formal definition that is debated in media arts circles and effectively recasts it as an extension of social policy. For example, in their introduction to the media arts anthology *Multimedia: From Wagner To Virtual Reality*, Randall Packer and Ken Jordan defined interactivity as: "The ability of the user to manipulate and affect her experience of media directly, and to communicate with others through media."<sup>[7]</sup>

Given this kind of definition, interactivity has not been seen as a barometer of liberal society, in contrast with metrics such as the extent of freedom of speech, prevalence of hate crimes, and income distribution. Since interactivity is inherent in ordinary conversation, it has been taken for granted as an expected attribute of computer-based communications networks. Consequently, political theorists and commentators have been slow to flag it as a key but potentially vulnerable attribute of a web-mediated open society.

Commercial interests hope to sell products: defined, ownable, transferable constructs which can be exchanged for money. The context in which this can be done most effectively is one of predictability, control, and the muting of dissenting voices. Interactivity, by contrast, is open-ended, out of control, and

fundamentally unpredictable. So, in thinking about the shape of future regulation, whether commercially self-imposed or politically imposed, openness and interactivity should be powerful touchstones in evaluating the options if a true digital commons is to be preserved.

Perhaps politicians may succeed in devising and imposing enlightened regulations. Maybe commercial Internet providers will succeed in devising self-imposed measures which pre-empt excessive legal controls. But as they do so, their aim needs to be high. Perhaps the highest aim of social and political Internet protocols favourable to civil society would be that they enable the fullest expression of human potential and creativity. Whether society at large can rise to this challenge is arguably the most important uncertainty now facing the future of the digital commons.

**Mapping the Future of the Digital Commons**

In addition to the issues already discussed, there are many other variables that have the potential to shape future outcomes. Some of these are listed and grouped below in the form of ranges or dimensions of uncertainty.

**Significant Dimensions of Uncertainty**

**Social and Economic Aspects:**

Commercial dominance	← →	Diversity and experiment
Economy unaffected	← →	Major economic impact (eg retail)
Organisations unchanged	← →	Reshapes organisational form
Little social change	← →	Social transformation
Built environment same	← →	Change to the built environment
High ISP diversity	← →	ISP shake out

**Accessibility of the Internet:**

High bandwidth available	← →	Restricted bandwidth
High cost of access	← →	Low cost of access
Pricing for distance	← →	No geography

**Content and Level of Interactivity:**

Passive	← →	Active
Broadcast	← →	Interactivity
Content	← →	Requests

**Regulation and Government Approach:**

Freedom	← →	Censorship
Self-Regulation	← →	Regulation
Little regulation	← →	High regulation
Privacy protected	← →	Used for surveillance

**Social Equity Issues:**

English language dominant	← →	Multi-language
Cultural bias (e.g. American)	← →	Culture-neutral
Skills needed for access	← →	Low skills threshold for access
Favours an elite	← →	Accessible to all

**Technology Change:**

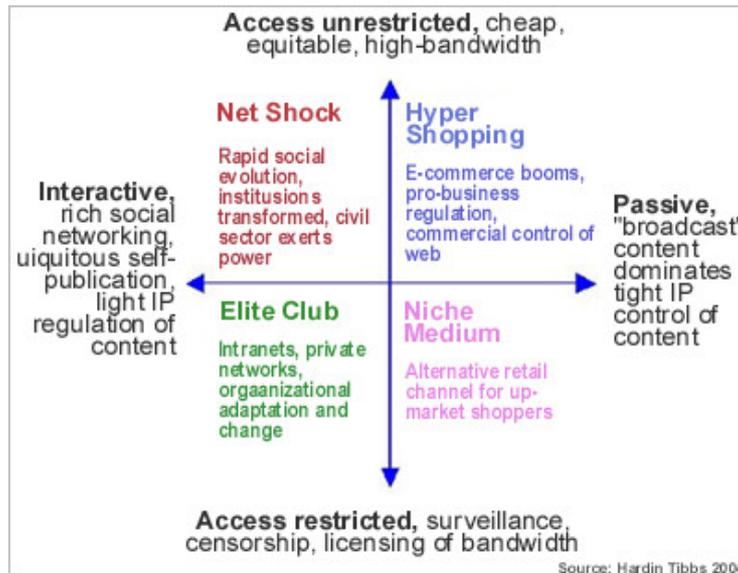
Same technology	← →	Hardware and software innovations
-----------------	-----	-----------------------------------

**Threats:**

Addiction	← →	Personal time overload
Personal development	← →	Neurological and other side effects
Continued growth	← →	Ecological crisis & collapse of the net

**A Scenario Framework**

Bearing in mind the factors discussed above, and drawing on the list of dimensions of uncertainty, two composite axes of uncertainty can be distilled that may describe the future of the digital commons. These two axes combine to form four distinct scenarios:



These scenarios provide one possible framework for assessing prospects for the future. In the upper left world, "Net Shock," there is the greatest potential for the flowering of the digital commons, with significant social and economic transformation following as a result. In the lower world on the left, "Elite Club," digital interaction is largely a private and intra-organizational phenomenon. The two future worlds on the right are largely commercially dominated with little true interactivity or political expression.

Other combinations of factors shaping the future of the Internet and virtual community are possible. The approach demonstrated here can be used with other choices from the list of uncertainty ranges to explore other scenarios, and the resulting scenarios can be used as "wind tunnels" to test strategies and policies with respect to the future of the digital commons.

**Footnotes**

[1] Stuart Brand, online presentation at the VC97 Conference on Virtual Community in Sydney, Australia, February 1997

[2] George Soros, *The Atlantic Monthly*, February 1997, p. 45

[3] *ibid*

[4] J.C.R. Licklider, "Man-Computer Symbiosis," *Transcriptions on Human Factors in Intelligence*, vol. HFE-1, pp. 4-11, March 1960

[5] Stuart Brand, *The Media Lab: Inventing the Future at MIT*, Viking Press (New York), 1987, p. 46

[6] *ibid*, pp. 47-48

[7] Randall Packer and Ken Jordan, eds., *Multimedia: From Wagner to Virtual Reality* (expanded edition), W.W. Norton (New York), 2002, p. xxxv. Chapter 2 features seminal essays by engineers and artists that trace the historical development of interactivity in digital communications and media art. See also <http://www.artmuseum.net/w2vr>

**Activism** | **Modeling** | **Perspectives** | **Policy** | **Prototype** | **Research**

---

PlaNetwork Journal

§

Except where otherwise noted, this site is licensed under a Creative Commons License

§

email: [journal@planetnetwork.net](mailto:journal@planetnetwork.net)