

JUST ANOTHER FREE SOUL

An Interview with Joi Ito

This interview was conducted by
Christopher Adams and Chiang Hwei-Hsien
in Tokyo on 5 February 2008.

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website: joi.ito.com photostream: [flickr.com/photos/joi/](https://www.flickr.com/photos/joi/)

From Wikipedia, the free encyclopedia

IN HIS FOREWORD TO THE BOOK, LESSIG WRITES THAT YOU UNDERSTAND YOUR SUBJECTS “BY LEARNING TO SEE THEM IN A CERTAIN WAY.” WHAT IS THAT CERTAIN WAY?

I think I'm trying to get a mental image of a person, certain expressions, or what I think that person is about. I'm trying to capture what I think they look like, which is many times a minority of their typical expressions, or their typical stance. So, if I'm taking pictures of Larry [Lessig], I want to have his signature hand gestures, and not just random ones.

I think I'm trying to capture pictures of people that help others see what they're about. Some photographers will make someone look the way the photographer wants them to look, and not the way they appear, so they'll pick the one picture out of 100 where the guy looks more egotistical than he really is. Some photographers are almost medical, and are going after a perfect portrait. I'm somewhere in between.

It's amazing how many people will upload snapshots of people where the pictures don't look like them at all. To me, uploading a picture that is not an easily recognizable picture of that person defeats the point, which I'm working toward, to try to express who they are. On the other hand, professional photographers usually have a subject whom they don't know personally, so they end up having to try to capture an image that they've created based on who they think the person is or how they want that person to appear. **You know how sculptors often say that they're just freeing an image from a block? What I'm trying to do is free someone's soul from his or her image.**

There are a lot of things that make this hard. A lot of people are uncomfortable in front of a camera, or might make expressions that aren't very natural for them. And if the person is nervous, it's very difficult to try to see what it is that you're trying to capture.

A lot of what I'm doing is, I just start shooting photos. After half an hour of having their picture taken, people start to ignore you. Or I'll take pictures when I'm talking to people about what they're doing, so after a while they get distracted by the conversation and forget about the camera. That's something that I'm not perfect at, but I'm getting better.

I think good photographers are also able to disarm people through conversation, but still, it's difficult to have a disarming conversation with somebody you don't know, or to make them laugh. Many times people make a face for me that they wouldn't make for a professional photographer.

For instance, a board meeting picture, like the one with Eric Saltzman: that was during a very tense discussion. I've found that people are at their most animated at these kinds of meetings, and look the most alive when they are under a lot of pressure, and super-focused. But usually if an outsider is in the room, they won't get into that. I mean, it would be difficult for a cameraman to be in a room where a board is having a heated debate.

But those are the things that I'm trying to capture, because most people don't get to see that. At the Creative Commons board meeting, Larry asked me to put the camera away after awhile [laughs] because it was distracting. We were having a very heated discussion and I was taking all of these pictures. But he credited me later because afterward those pictures turned out the best.

IN YOUR MIND, WHAT IS A FREESOUL?

A freesoul is somewhat of a pun. On the one hand it means you are free, liberated. You, as a human spirit, are open. And then, it also has the meaning that you are unencumbered legally, that you are free, as in "free software."

There's a paradox: with many people's Wikipedia articles to which I've contributed, when it comes to the picture, many of these people don't have any free photos of themselves on the web, so while they are "notable" on Wikipedia, their images aren't free of the copyright of the photographer, or the institution who hired the photographer to take the picture. Often, even the subject of the article can't make an image available to the Wikimedia/Wikipedia community.

This means that a lot of people who have a Net presence have a legally encumbered Net presence. People who are invited to conferences get asked all the time, "By the way, do you have a photo that we can use?" But they don't. By making these pictures available under a Creative Commons license, now they do. This is solving the issue of legal freedom.

The third part of the pun is that, since I'm asking for a model release from the subjects, I'm asking everyone to be much more open and giving about their image than most people typically are. I'm giving, you're giving, we're all giving to participate and to try to create this wonderful work, and allow others to create derivative works.

Of course people can abuse that, just like they can abuse anything. But I want people to see the value in sharing over the fear in sharing. The fact is, it's much more likely that somebody is going to use these pictures for something positive, rather than for something negative. The benefits greatly outweigh the risks. I think we spend way too much of our lives worrying about the risks, at the cost of a lot of the benefits.

This is a celebration of all of the people who are willing to give. In a way, giving up your image and allowing anyone to use it: it's the ultimate gift. In one way it's kind of vain. [laughs] But in another way it's wonderful. A Wikipedia article on some person but with no picture is sad.

BESIDES WIKIPEDIA, HOW DO YOU IMAGINE THESE PHOTOS BEING USED?

They can be used in textbooks and in mainstream media articles about the person. Now they can get a picture that represents the person, at least from my perspective. That said, I shouldn't be the only person doing this. More people should do the same, and make the photographs available freely. For one, I feel that "free" CC-licensed photos have a much higher chance of not disappearing. But I don't know exactly how these photos are going to be used, so in a sense I'm curious. For example, recently I received the Harvard Berkman Center pamphlet. It was a report of what they're doing, and they also had a bunch of my pictures in there. They all had attribution, and it made me feel really good. There were pictures of different Berkman Center members that I had taken in various places all over the world. I think that the subject is probably happy with this, and I'm happy, and the Berkman Center's happy because they're not all pictures of people sitting at desks in the Berkman Center.

There's one more important thing: Creative Commons is great for original creative works or derivative creative works, but when it involves human images, it gets very complicated. We all know the Virgin Mobile case, where Virgin used CC-licensed images in an advertisement without getting permission from the models, and got in trouble.^{1,2} What we're trying to do here is to expand beyond just copyright, to make it more thorough from a legal perspective. It's also an important educational point, so people understand that, in addition to the Creative Commons licenses, we need people to provide other rights in cases where the law requires such rights to be cleared before reuse.

WHAT HAVE YOU LEARNED FROM YOUR NETWORK THIS PAST YEAR?

That's a good question. I think that at least Creative Commons has become much more mainstream. Creative Commons has moved from a fringe academic discussion to a boardroom

1. Mike Linksvayer, *Lawsuit Against Virgin Mobile and Creative Commons - FAQ*. Creative Commons. 27 September 2007. <http://creativecommons.org/weblog/entry/7680/>

2. Andrew D. Smith, *Bedford Mom sues Virgin Mobile over teen's photo in ad*. The Dallas Morning News. 21 September 2007.

discussion. Yahoo announced that it will be using Creative Commons for all of their basic infrastructure, and integrating it all. Google has CC search in their advanced search.

Microsoft is working with CC as well and have a plug-in. Nine Inch Nails released their album, *Ghost*, under a Creative Commons license. The list goes on. Many people are asking: can you make money and share? The answer is, yes. CC is becoming an important part of the business discussion.

But one thing that happens when a movement like CC becomes a business thing, is that a lot of the pioneers fade into the background, and it becomes a part of industry. This happened to the Internet. And so while you still have the core people who still remember and hold the torch for the philosophical side, the Internet has become much more of a business. Now, when you go to many Internet conferences, it's mostly salesmen in attendance.

I believe that the success of the Internet has two parts. The first part is the market-driven business side, which has made the Internet affordable and ubiquitous. The second part is the strong movement of participants who fight to keep the Internet open and try to prevent the business side from corrupting the fundamental elements that make the Internet great. The Net Neutrality or Open Network discussion going on right now is a good example of the importance of continuing to balance these principles with business interests.

Similarly, I think that business interests can help make Creative Commons ubiquitous and more easily accessible to everyone. However, I think it's important to remember to keep pushing to make content more "free" and not allow businesses to use Creative Commons in exploitive or destructive ways.

In addition to the business side, Creative Commons is being used by educators to create open courseware around the world and in the area of science and technology to promote sharing in research. And as of now, we have the license ported to at least 44 jurisdictions, and the number of countries with projects continues to grow. In many ways, the movement outside of the United States has become much bigger than the movement in the United States. Although the United States is still slightly farther ahead in terms of commercialization, the size of the whole free culture movement outside of the United States is huge now. The CC China Photo exhibit³ was just amazing. There were some great images, and a lot of the photographers were professionals. This is beyond what anybody has done in the US. A lot of the progress that we're making is international.

3. 首届知識共享攝影大賽, Nphoto. Creative Commons China. 5 December 2007. <http://cc.nphoto.net/>

WHAT ARE YOUR PERSONAL REALIZATIONS OR EXPERIENCES?

Well, we're all getting old, if you look at these pictures. But there's another thing, though, about this book: the number of professional-quality amateurs has increased significantly due to the importance of digital in both professional and high-end amateur photography. I hate to say it, a lot of people love the darkroom, but it really feels like the death of the darkroom with this year.

With new 22-megapixel cameras coming in under \$10,000, and Lightroom and some of this software at a couple hundred dollars, it doesn't really make sense, except for particularly fussy artists, to do wet-work anymore. If you're a commercial photographer or a high-end amateur, you can do anything you used to do in the darkroom. I think it has really lowered the bar. I don't know how that affects the industry directly, but for me, it bridged a huge gap.

I used to be darkroom geek. I loved my darkroom, and even when I didn't have my darkroom anymore, I still was shooting 6x6 Hasselblad 120 film and processing it in a special lab, and then digitizing it. For me, that film was it. You could never get as good as medium-format film or large-format film.

At the time, the digital Hasselblad backs were too expensive, and were still not as good as 8x10 film. So there was this whole period where the darkroom was not all that exciting, but the digital wasn't perfect. I went through a limbo period. I had invested so much in my Hasselblad system, and my Leica M6 set. I had bought the Leica R8, but I was kicking myself because it was terrible. But then the Leica M8 came out, and I bought one at the beginning of 2007. The M8 really got me to where I could use my old gear, and it had enough megapixels to be as good as some film.

Another way of saying it was that there was a gear breakthrough at the beginning of last year. Okay, that's pretty materialistic! So there was a technology breakthrough, let's call it that, that allowed me to switch completely away from film, and I think this happened to a lot of photographers. It caused an explosion of content and an increase in the quality of content on sites like Flickr.⁴ It has allowed amateurs to create a business model with professionals.

4. <http://flickr.com>

Interestingly, I think these new high-end amateurs are buying more photography books and photographs and are probably providing an increasing revenue stream for professional photographers. I think most amateurs, including myself, are paying homage to the professionals and not trying to “compete” with them.

DESPITE THE EXISTENCE OF SOCIAL SOFTWARE, WHAT IS STILL IMPORTANT ABOUT MEETING PEOPLE FACE-TO-FACE?

5. <http://dopplr.com>

6. Full disclosure: Joi Ito is an investor in Dopplr.

For me, the right way to use a lot of the new social software is by making it easier to spend more physical time with the people you like best. Dopplr⁵ is a great example.⁶ When I visit a city, I will see all of the people who are in the city at the same time. When I went to London awhile ago, there were 47 people I knew in London, and a huge percentage of those people don't live there. I would bet that more than half of the photos in this book are pictures of friends, and they're not in their hometown.

That's the really interesting thing that is happening right now: it's really increasing your ability to spend quality time with, actually, a smaller number of people. It allows you to actively filter. Your meetings don't have to be random. If I look at the list of people in this book, although there are some obvious people missing whom I didn't see last year, I probably met more of my friends last year, my real friends, than I've met in any other year. I know my travels were crazy, but I think that the online world has allowed me to do that.

What's great about photography is that it captures the moment that I was sharing with that person. It's not just a connection on a social network online, which is really pretty binary. I can look at all these photos and remember exactly what we were doing, what we were eating, what we were drinking, what we were talking about, and to me that's a much more rich experience.

It's the combination of social software and photography. For me, reality is “the present” plus what you remember from the past. I think this project is really sharing memories with people. Blog posts contribute as well, but to me photography is a really good way of doing that. When I look at the expressions, I remember the moment and get a sense of presence.

I think the main problem for me is the environmental impact of flying around. Just as I never believed that we would have a paperless office, being able to connect with people through social software mostly increases your travel, it doesn't decrease it. It is great because you get to meet all these people. But it is bad for the environment, and bad for our jet lag.

HOW WOULD YOU CHARACTERIZE YOUR CONTRIBUTIONS TO FREE CULTURE?

I think it's mostly incremental. I think there is very little we actually do all by ourselves, and I hate saying, “I did this” or “I did that.” I think that in most cases, focusing on individual contributions or achievements undervalues the importance of everyone else involved.

Having said that, I think my main contribution is probably in supporting Creative Commons as a fan, board member, chairman of the board and now CEO. I think CC has a significant role, and helping to keep it on track and growing is probably the single most important role that I have in Free Culture.

Specifically, I think that trying to keep an international focus and a balance between business and the non-business elements of the movement is essential. My job is to keep that focus and maintain that balance. Also, CC needs to run smoothly as an organization and there is a lot of operational work that we all need to do. My photography is a way for me to participate in a small measure on the creative side of the Free Culture movement, and helps me see things from that perspective as well.

However, I believe in emergent democracy and the importance of trying to celebrate the community more than the heroes. Of course, I'm a huge fan of Larry's and I have great respect for the leaders of our movement. But more than anything, I'm thankful for and respectful of all of the participants who aren't so well known and who are essential to moving everything forward.

Personally, I don't think it's ultimately meaningful to talk about one individual's personal contribution to any movement. The real meaning is in the whole movement. I'm just one participant. Just another free soul.

PARTICIPATIVE PEDAGOGY FOR A LITERACY OF LITERACIES

by Howard Rheingold

Howard Rheingold is a critic and writer; his specialties are on the cultural, social and political implications of modern communication media such as the Internet, mobile telephony and virtual communities (a term he is credited with inventing). He is the author of *The Virtual Community* and *Smart Mobs*.
website: rheingold.com vlog: vlog.rheingold.com

From Wikipedia, the free encyclopedia

People act and learn together for a rich mixture of reasons. The current story that most of us tell ourselves about how humans get things done is focused on the well-known flavors of self-interest, which make for great drama—survival, power, wealth, sex, glory. People also do things together for fun, for the love of a challenge, and because we sometimes enjoy working together to make something beneficial to everybody. If I had to reduce the essence of *Homo sapiens* to five words, “people do complicated things together” would do. Online social networks can be powerful amplifiers of collective action precisely because they augment and extend the power of ever-complexifying human sociality. To be sure, gossip, conflict, slander, fraud, greed and bigotry are part of human sociality, and those parts of human behavior can be amplified, too. But altruism, fun, community and curiosity are also parts of human sociality—and I propose that the Web is an *existence proof* that these capabilities can be amplified, as well. Indeed, our species’ social inventiveness is central to what it is to be human. The parts of the human brain that evolved most recently, and which are connected to what we consider to be our “higher” faculties of reason and forethought, are also essential to social life. The neural information-processing required for recognizing people, remembering their reputations, learning the rituals that remove boundaries of mistrust and bind groups together, from bands to communities to civilizations, may have been enabled by (and may have driven the rapid evolution of) that uniquely human brain structure, the neocortex.⁷

7. R.I.M. Dunbar, (1993) *Coevolution of neocortical size, group size and language in humans*. Behavioral and Brain Sciences, 16 (4): 681–735.

But I didn’t start out by thinking about the evolutionary dynamics of sociality and the amplification of collective action. Like all of the others in this book, I started out by experiencing the new ways of being that Internet social media have made possible. And like the other Freesouls, Joi Ito has played a catalytic, communitarian, Mephistophelian, Pied-Piper-esque, authority-challenging, fun-loving role in my experiences of the possibilities of life online.

FRIENDS AND ENTHUSIASTS

8. Howard Rheingold, (2000) *The Virtual Community: Homesteading on the Electronic Frontier*; cf. <http://www.rheingold.com/vc/book/>

9. Fred Turner, (2005) *Where the counterculture met the new economy: the WELL and the origins of virtual community*. Technology and Culture, 46 (3): 485–512.

10. Ronald S. Burt, (2004) *Structural holes and good ideas*. American Journal of Sociology, 110 (2): 349–399.

11. Malcolm Gladwell, (2003) *The Tipping Point: How Little Things Can Make a Big Difference*.

12. *The Whole Earth 'Lectronic Link* (Ed.)

To me, direct experience of what I later came to call *virtual communities*⁸ preceded theories about the ways people do things together online. I met Joi Ito in the 1980s as part of what we called “the Electronic Networking Association,” a small group of enthusiasts who thought that sending black and white text to BBSs with 1200 baud modems was fun. Joi, like Stewart Brand, was and is what Fred Turner⁹ calls a network entrepreneur, who occupies what Ronald Burt¹⁰ would call key structural roles—what Malcolm Gladwell¹¹ called a connector. Joi was also a believer in going out and doing things and not just talking about it.

Joi was one of the founders of a multicultural BBS in Tokyo, and in the early 1990s I had begun to branch out from BBSs and the WELL¹² to make connections in many different parts of the world. The fun of talking, planning, debating and helping each other online came before the notion that our tiny subculture might grow into a worldwide, many-to-many, multimedia network of a billion people. We started to dream about future cybersocial possibilities only after

personally experiencing something new, moving and authentic in our webs of budding friendship and collaboration. In recent years, cyberculture studies has grown into a discipline—more properly, an *interdiscipline* involving sociologists, anthropologists, historians, psychologists, economists, programmers and political scientists. Back when people online argued in 1200 baud text about whether one could properly call what we were doing a form of community, there was no body of empirical evidence to serve as a foundation for scientific argument—all theory was anecdotal. By now, however, there is plenty of data.

One particularly useful affordance of online sociality is that a great deal of public behavior is recorded and structured in a way that makes it suitable for systematic study. One effect of the digital Panopticon is the loss of privacy and the threat of tyrannical social control; another effect is a rich body of data about online behavior. Every one of Wikipedia's millions of edits, and all the discussion and talk pages associated with those edits, is available for inspection—along with billions of Usenet messages. Patterns are beginning to emerge. We're beginning to know something about what works and what doesn't work with people online, and why.

Does knowing something about the way technical architecture influences behavior mean that we can put that knowledge to use? Now that we are beginning to learn a little about the specific sociotechnical affordances of online social networks, is it possible to derive a normative design? How should designers think about the principles of beneficial social software? Can inhumane or dehumanizing effects of digital socializing be mitigated or eliminated by better media design? In what ways does the design of social media enable or prevent heartfelt *communitas*, organized collective action, social capital, cultural and economic production? **I've continued to make a direct experience of my life online—from lifelong friends like Joi Ito to the other people around the world I've come to know, because online media made it possible to connect with people who shared my interests, even if I had never heard of them before, even if they lived on the other side of the world.** But in parallel with my direct experience of the *blogosphere*, *vlogosphere*, *twitterverse* and other realms of digital discourse, I've continued to track new research and theory about what cyberculture might mean and the ways in which online communication media influence and are shaped by social forces.

THE VALUES OF VOLUNTEERS

One of the first questions that arose from my earliest experiences online was the question of why people in online communities should spend so much time answering each other's questions, solving each other's problems, without financial compensation. I first encountered Yochai Benkler in pursuit of my curiosity about the reason people would work together with strangers, without pay, to create something nobody owns—free and open source software. First in *Coase's Penguin*,¹³ and then in *The Wealth of Networks*,¹⁴ Benkler contributed to important theoretical foundations for a new way of thinking about online activity—"commons based peer production," technically made possible by a billion PCs and Internet connections—as a new form of organizing economic production, together with the market and the firm. If Benkler is right, the new story about how humans get things done includes an important corollary—if tools like the PC and the Internet make it easy enough, people are willing to work together for non-market incentives to create software, encyclopedias and archives of public domain literature. While the old story¹⁵ is that people are highly unlikely to cooperate with strangers to voluntarily create public goods, **the new story seems to be that people will indeed create significant common value voluntarily, if it is easy enough for anybody to add what they want, whenever they want to add it ("self election").** There is plenty of evidence to support the hypothesis that what used to be considered altruism is now a by-product of daily life online. So much of what we take for granted as part of daily life online, from the BIND software that makes domain names work, to the Apache webserver that powers a sizable chunk of the world's websites, to the cheap Linux servers that Google stacks into its global datacloud, was created by volunteers who gave their creations away to make possible something larger—the Web as we know it.

To some degree, the explosion of creativity that followed the debut of the Web in 1993 was made possible by deliberate design decisions on the part of the Internet's architects—the end-to-end principle, built into the TCP/IP protocols that make the Internet possible, which deliberately decentralizes the power to innovate, to build something new and even more powerful on what already exists. Is it possible to understand exactly what it is about the web that makes Wikipedia, Linux, FightAIDS@Home, the Gutenberg Project and Creative Commons possible? And if so, can this theoretical knowledge be put to practical use? I am struck by a

13. Yochai Benkler, (2002) *Coase's Penguin, or Linux and the Nature of the Firm*. Yale Law Journal, 112 (3): 369–446.

14. Yochai Benkler, (2006) *The Wealth of Networks*.

15. cf. Mancur Olson, (1971) *The Logic of Collective Action: Public Goods and the Theory of Groups*.

phrase of Benkler's from his essay in this book: "We must now turn our attention to building systems that support human sociality." That sounds right. But how would it be done? It's easy to say and not as easy to see the ways in which social codes and power structures mold the design of communication media. We must develop a participative pedagogy, assisted by digital media and networked publics, that focuses on catalyzing, inspiring, nourishing, facilitating, and guiding literacies essential to individual and collective life.

A PARTICIPATIVE PEDAGOGY

To accomplish this attention-turning, we must develop a participative pedagogy, assisted by digital media and networked publics, that focuses on catalyzing, inspiring, nourishing, facilitating, and guiding literacies essential to individual and collective life in the 21st century. Literacies are where the human brain, human sociality and communication technologies meet. We're accustomed to thinking about the tangible parts of communication media—the devices and networks—but the less visible social practices and social affordances, from the alphabet to TCP/IP, are where human social genius can meet the augmenting power of technological networks. Literacy is the most important method *Homo sapiens* has used to introduce systems and tools to other humans, to train each other to partake of and contribute to culture, and to humanize the use of instruments that might otherwise enable commodification, mechanization and dehumanization. By literacy, I mean, following on Neil Postman and others, the set of skills that enable individuals to encode and decode knowledge and power via speech, writing, printing and collective action, and which, when learned, introduce the individual to a community. Literacy links technology and sociality. The alphabet did not cause the Roman Empire, but made it possible. Printing did not cause democracy or science, but literate populations, enabled by the printing press, devised systems for citizen governance and collective knowledge creation. The Internet did not cause open source production, Wikipedia or emergent collective responses to natural disasters, but it made it possible for people to act together in new ways, with people they weren't able to organize action with before, in places and at paces for which collective action had never been possible. Literacies are the prerequisite for the human agency that used alphabets, presses and digital networks to create wealth, alleviate suffering and invent new institutions. If the humans currently alive are to take advantage of digital technologies to address the most severe problems that face our species and the biosphere, computers, telephones and digital networks are not enough. We need new literacies around participatory media, the dynamics of cooperation and collective action, the effective deployment of attention and the relatively rational and critical discourse necessary for a healthy public sphere.

MEDIA LITERACIES

In *Using Participatory Media and Public Voice to Encourage Civic Engagement*, I wrote:

If print culture shaped the environment in which the Enlightenment blossomed and set the scene for the Industrial Revolution, participatory media might similarly shape the cognitive and social environments in which twenty-first century life will take place (a shift in the way our culture operates). For this reason, participatory media literacy is not another subject to be shoehorned into the curriculum as job training for knowledge workers.

Participatory media include (but aren't limited to) blogs, wikis, RSS, tagging and social bookmarking, music-photo-video sharing, mashups, podcasts, digital storytelling, virtual communities, social network services, virtual environments, and videoblogs. These distinctly different media share three common, interrelated characteristics:

- *Many-to-many media now make it possible for every person connected to the network to broadcast as well as receive text, images, audio, video, software, data, discussions, transactions, computations, tags, or links to and from every other person. The asymmetry between broadcaster and audience that was dictated by the structure of pre-digital technologies has changed radically. This is a technical-structural characteristic.*
- *Participatory media are social media whose value and power derives from the active participation of many people. Value derives not just from the size of the audience, but from their power to link to each other, to form a public as well as a market. This is a psychological and social characteristic.*

- *Social networks, when amplified by information and communication networks, enable broader, faster, and lower cost coordination of activities. This is an economic and political characteristic.*

*Like the early days of print, radio, and television, the present structure of the participatory media regime—the political, economic, social and cultural institutions that constrain and empower the way the new medium can be used, and which impose structures on flows of information and capital—is still unsettled. As legislative and regulatory battles, business competition, and social institutions vie to control the new regime, a potentially decisive and presently unknown variable is the degree and kind of public participation. Because the unique power of the new media regime is precisely its participatory potential, the number of people who participate in using it during its formative years, and the skill with which they attempt to take advantage of this potential, is particularly salient.*¹⁶

16. Howard Rheingold, (2007) *Using participatory media and public voice to encourage civic engagement*. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning: 97–118.

17. Jenkins, H., Clinton, K., Purushotma, R., Robison, A. J., & Weigel, M. (2006) *Confronting the challenges of participatory culture: Media education for the 21st century*.

Like Yochai Benkler and Henry Jenkins,¹⁷ I believe that a participatory culture in which most of the population see themselves as creators as well as consumers of culture is far more likely to generate freedom and wealth for more people than one in which a small portion of the population produces culture that the majority passively consume. The technological infrastructure for participatory media has grown rapidly, piggybacking on Moore's Law, globalization, the telecom bubble and the innovations of Swiss physicists and computer science students. Increasingly, access to that infrastructure—the ability to upload a Macaca video or uncover a threat to democracy—has become economically accessible. Literacy—access to the codes and communities of vernacular video, microblogging, social bookmarking, wiki collaboration—is what is required to use that infrastructure to create a participatory culture. A population with broadband infrastructure and ubiquitous computing could be a captive audience for a cultural monopoly, given enough bad laws and judicial rulings. A population that knows what to do with the tools at hand stands a better chance of resisting enclosure. The more people who know how to use participatory media to learn, inform, persuade, investigate, reveal, advocate and organize, the more likely the future infosphere will allow, enable and encourage liberty and participation. Such literacy can only make action possible, however—it is not in the technology, or even in the knowledge of how to use it, but in the ways people use knowledge and technology to create wealth, secure freedom, resist tyranny.

FREE AS IN SOUL: THE ANTI-IMAGE POLITICS OF COPYRIGHT

by Lawrence Liang

Lawrence Liang is an Indian legal researcher and lawyer of Chinese descent, based in the city of Bangalore, who is known for his legal campaigns on issues of public concern. He is a founder of the Alternative Law Forum, and, as of 2006, has emerged as a prominent spokesperson against concepts like “intellectual property.” He is the author of *A Guide to Open Content Licenses*.
website: altlawforum.com

From Wikipedia, the free encyclopedia

There is a moment in the film *Closer* when Jude Law, a photographer, is asked by Julia Roberts how he feels stealing the lives of people. He replies that he does not steal their lives, he merely borrows them. This idea of borrowing as it seems to reside in the world of images is an interesting entry point for us to think about the relationship between the image, borrowing and the language of intellectual property.

Digital technology has made photography more accessible to people, and we have seen a proliferation in image-making capacity. At the same time, the increased restrictions imposed on the still and moving image reveal the intense anti-image politics of copyright. Thus images come with legal restrictions, technological barriers and moral injunctions, all of which act against, rather than in favor of, the image. In a sense the commodification of image-making through copyright threatens to render it a commercial activity, one with no soul. Joi Ito's collection *Freesouls* seeks to challenge the anti-image tendency of copyright, and it is interesting that he uses the metaphor of the soul in relation to photography, since the history of copyright's relation to the camera has always been on the contested terrain of the “soul.” I will take this opportunity to reflect on the history of photography in copyright law as it emerged in the twilight of the 19th century and on the changes that we see at the dawn of the 21st.

A PORTRAIT OF THE CAMERA AS A YOUNG ARTIST

It is well-documented that the philosophical justification of copyright is premised on the idea of the romantic author, the sole suffering genius sitting in isolation and producing works of genius. The first serious challenge to the idea of the romantic author emerged with the invention of photography. Bernard Edelman states that “the eruption of the modern techniques of the reproduction of the real – photographic apparatuses, cameras – surprises the law in the quietude of its categories.”¹⁸ Initially the law was not ready for the challenge that would be posed to it by this new technology. Faced with the question of whether a photograph could be considered on the same plane as a painting, the initial response of the courts was in the negative. For French law, the crucial question was whether or not the mechanical product could be said to have anything of the soul in it at all. An authored work (it was argued) is imbued with something of the human soul, but a machine-produced work is completely soulless.¹⁹

Yet, this soulless craft had at the same time also become an important economic activity, with thousands in France making a living through photography and photographic technologies. France itself was exporting photographic images, and demands were soon made for the protection of these images, predicating that “the soulless photographer will be set up as an artist and the filmmaker as a creator since the relations of production will demand it.”²⁰

In the US, there were similar questions being asked of this new technology in so far as it came as a surprise to copyright law. In *Burrow-Giles Lithographic Co. v. Sarony*,²¹ the Supreme Court

18. Bernard Edelman. *Ownership of the image: elements for a Marxist theory of law*. Quoted in Jane Gaines, *Contested Culture: The Image, the Voice, the Law* (1991), 45–46.

19. *Ibid.*

20. *Ibid.*

21. 111 U.S. 53(1884).

was faced for the first time with the issue of whether amending the Copyright Act to include photographs was constitutionally valid. The pictures in dispute were that of Oscar Wilde taken by Sarony and reprinted by Burrow-Giles without the permission of the photographer.

The Supreme Court held that the amendment was valid and within the constitutional powers granted to Congress. However, to arrive at this conclusion the Court had to argue that photography could be protected in the same manner as any other work of creation that emerged from an "author." How does the Court make this argument?

The Court observed that: *An author in that sense is 'he to whom anything owes its origin; originator; maker; one who completes a work of science or literature.'* So, also, no one would now claim that the word 'writing' in this clause of the constitution, though the only word used as to subjects in regard to which authors are to be secured, is limited to the actual script of the author, and excludes books and all other printed matter. By writings in that clause are meant the literary productions of those authors; and Congress very properly has declared these to include all forms of writing, printing, engravings, etchings, etc., by which the ideas in the mind of the author are given visible expression. The only reason why photographs were not included in the extended list in the act of 1802 is, probably, that they did not exist; photography, as an art, was then unknown, and the scientific principle on which it rests, and the chemicals and machinery by which it is operated, have all been discovered long since that statute was enacted. We entertain no doubt that the Constitution is broad enough to cover an act authorizing the copyright of photographs, so far as they are representatives of original intellectual conceptions of the author.

The first move is therefore to equate the photographer, and what he does with photographic technology, to the status of an author—a concept which the law is very familiar with and can grasp without too much difficulty. But that does not automatically solve the Court's difficulty, as it is still faced with the question of the role that technology plays in this production process.

In the words of the Court: *But it is said that an engraving, a painting, a print, does embody the intellectual conception of its author, in which there is novelty, invention, originality, and therefore comes within the purpose of the Constitution in securing its exclusive use or sale to its author, while a photograph is the mere mechanical reproduction of the physical features or outlines of some object, animate or inanimate, and involves no originality of thought or any novelty in the intellectual operation connected with its visible reproduction in shape of a picture. That while the effect of light on the prepared plate may have been a discovery in the production of these pictures, and patents could properly be obtained for the combination of the chemicals, for their application to the paper or other surface, for all the machinery by which the light reflected from the object was thrown on the prepared plate, and for all the improvements in this machinery, and in the materials, the remainder of the process is merely mechanical, with no place for novelty, invention, or originality. It is simply the manual operation, by the use of these instruments and preparations, of transferring to the plate the visible representation of some existing object, the accuracy of this representation being its highest merit. This may be true in regard to the ordinary production of a photograph, and that in such case a copyright is no protection.*

The answer is to distinguish between the mere mechanical technology that the camera seems to be and the transformation of that technology by the investment of the soul of the author. In this case the court poetically describes the photograph in dispute in the following way: *...It is a "useful, new, harmonious, characteristic, and graceful picture, and that plaintiff made the same... entirely from his own original mental conception, to which he gave visible form by posing the said Oscar Wilde in front of the camera, selecting and arranging the costume, draperies, and other various accessories in said photograph, arranging the subject so as to present graceful outlines, arranging and disposing the light and shade, suggesting and evoking the desired expression, and from such disposition, arrangement, or representation, made entirely by plaintiff, he produced the picture in suit."*

These findings, we think, show this photograph to be an original work of art, the product of plaintiff's intellectual invention, of which plaintiff is the author.

So, photography graduates from a soulless technology undeserving of the protections of copyright law, and is elevated to the same status as a painting or any other great “work of art,” a status symbolizing the unique creativity of the author. What then is the crucial legal innovation that was required for the law to understand this new technology and translate it within the terms of copyright law?

In order for copyright law to be able to accept the claims of the photographer as a co-equal author, it becomes important to resurrect the creative subject who had disappeared into the machine. A soul has to be found in a mechanical act, the soulless labor of operating a camera. But this soul or personality cannot flow through the apparatus, and so the apparatus must be circumvented—otherwise authorial credit would be void. Creative genius therefore must navigate its way through the apparatus and make its mark without actually touching the apparatus. It therefore must provide a mere imprint of personality—and this is never really found in the work but present everywhere else—in choice, technique, artistic practice, *etcetera*.

The result of this creative subject’s interaction with the mechanical device is a wholly new object, one which is now protected by copyright law. It is protectable because the new technology has been given an “imprint of personality,” and is converted into an act marked by the sign of the author. Thus, the initial surprise felt by the law in its encounter with technology is now rendered familiar and understandable. So “new technologies may ‘surprise’ old categories, but only to be reformed according to existing conceptions of the world. Science and engineering may produce technologies that outstrip human capabilities, but these strange inventions are soon reconceived—domesticated and humanized—as they are put to use.”²²

However, even after copyright demanded that of the soul of the author be infused into photography for it to be protectable, subsequent developments in copyright have shown scant regard for the soul of the photographer and have focused instead on the exchange value of the photograph-as-commodity. Joi Ito’s photographic contributions will significantly aid our understanding of the anti-image politics of copyright, and to enable a greater reflection on the future of the image as being one in which the image is free as in soul.

22. Janes Gaines. (1991) *Contested Culture: The Image, the Voice, the Law*: 47.

YOU CAN'T OWN KNOWLEDGE

by Cory Doctorow

Cory Doctorow is a Canadian blogger, journalist and science fiction author who serves as co-editor of the blog Boing Boing. He is an activist in favor of liberalizing copyright laws and a proponent of the Creative Commons organization, using some of their licenses for his books. He is the author of *Down and Out in the Magic Kingdom* and *Little Brother*.
blog: craphound.com group blog: boingboing.net

From Wikipedia, the free encyclopedia

23. <http://www.wipo.int>

“Intellectual Property” is one of those ideologically loaded terms that can cause an argument just by being uttered. The term wasn’t in widespread use until the sixties, when it was adopted by the World Intellectual Property Organization (WIPO),²³ a trade body that later attained exalted status as a UN specialized agency. WIPO’s case for using the term is easy to understand: “people who’ve had their property stolen” are a lot more sympathetic in the public imagination than “industrial entities who’ve had the contours of their regulatory monopolies violated,” the latter being the more common way of talking about infringement before the ascendancy of “intellectual property” as a term of art.

Does it matter what we call it? Property, after all, is a useful, well-understood concept in law and custom, the kind of thing that a punter can get his head around without too much thinking.

That’s entirely true—and it’s exactly why the phrase “intellectual property is, at root, a dangerous euphemism that leads us to all sorts of faulty reasoning about knowledge. Faulty ideas about knowledge are troublesome at the best of times, but they’re deadly to any country trying to make a transition to a “knowledge economy.”

READ IT, OWN IT

Fundamentally, the stuff we call “intellectual property” is just knowledge and information—ideas, words, tunes, blueprints, identifiers, secrets, databases. This stuff is similar to property in some ways: it can be valuable and sometimes you need to invest a lot of money and labor into its cultivation and development in order to realize that value.

But it’s also dissimilar from property in equally important ways: most of all, it is not inherently “exclusive.” If you trespass on my land, I can throw you out (exclude you from my home). If you steal my car, I can take it back (exclude you from my car). But once you know my song, once you read my book, once you see my movie, it leaves my control. Short of a round of electroconvulsive therapy, I can’t get you to un-know the sentences you’ve just read here.

It’s this disconnect that makes the “property” in intellectual property so troublesome. If everyone who came over to my flat physically took a piece of it away with them, it’d make me bonkers. I’d spend all my time worrying about who got to cross the threshold, I’d make them sign all kinds of invasive agreements before they got to use the loo, and so on. And as anyone who’s bought a DVD and been forced to sit through an insulting cack-handed “*You wouldn’t steal a car*” anti-piracy short film knows, this is exactly the kind of behavior that property-talk inspires when it comes to knowledge.

IDENTITY, THEFT

But there’s plenty of stuff out there that’s valuable even if it’s not property. For example, my daughter was born in February, 2008. She’s not my property. But she’s worth quite a lot to me. If you took her from me, the crime wouldn’t be “theft.” If you injured her, it wouldn’t be “trespass to chattels.” We have an entire vocabulary and set of legal concepts to deal with the value that a human life embodies.

What's more, even though she's not my property, I still have a legally recognized interest in my daughter. She's "mine" in some meaningful sense, but she also falls in the scope of many other entities—the governments of the UK and Canada, the NHS, Child Protective Services, even her extended family—they can all lay a claim to some interest in the disposition, treatment and future of my daughter.

Trying to shoehorn knowledge into the "property" metaphor leaves us without the flexibility and nuance that a true knowledge rights regime would have. For example, facts are not copyright-able, so no one can be said to "own" your address, the number on your license plate or the PIN for your ATM card. Nevertheless, these are all things that you have a strong interest in—and that interest can and should be protected by law.

There are plenty of creations and facts that fall outside the scope of copyright, trademark, patent and the other rights that make up the hydra of Intellectual Property, from recipes to phone books to "illegal art" like musical mashups. These works are not property—and shouldn't be treated as such—but for every one of them, there's an entire ecosystem of people with a legitimate interest in them.

OWNING (UP TO) HISTORY

I once heard the WIPO representative for the European association of commercial broadcasters explain that, given all the investment his members had put into recording the ceremony on the sixtieth anniversary of the Dieppe Raid, that they should be given the right to own the ceremony, just as they would own a teleplay or any other "creative work." I immediately asked why the "owners" should be some rich guys with cameras—why not the families of the people who died on the beach? Why not the people who own the beach? Why not the generals who ordered the raid? When it comes to knowledge, "ownership" just doesn't make sense—lots of people have an interest in the footage of the Dieppe commemoration, but to argue that anyone "owns" it is just nonsensical.

Copyright—with all its quirks, exceptions and carve-outs—was, for centuries, a legal regime that attempted to address the unique characteristics of knowledge, rather than pretending to be just another set of rules for the governance of property. **The legacy of forty years of "property talk is a endless war between intractable positions of ownership, theft and fair dealing.**

If we're going to find a lasting peace in the knowledge wars, it's time to set property aside, time to start recognizing that knowledge—valuable, precious, expensive knowledge—isn't owned. Can't be owned. The state should regulate our relative interests in the ephemeral realm of thought, but that regulation must be about knowledge, not a clumsy remake of the property system.

The point is that if you try to own your knowledge, it might end up owning you.

STEAL THIS STORY, SELL SOME BOOKS

Let me see if I can make this point clear, even to you punters out there. Joi Ito's book is an *existence proof*—since everyone is all over this term of art—that knowledge can't be owned. And maybe your image shouldn't be, either. So I gave Joi my image. Joi gave me this book. So I guess I'll have to up the ante.

Maybe this book has a statement to make about the future of publishing. Maybe. I was once asked to write about what bookselling might be like in the future. So I'll give you one piece about how I imagined life in a bookstore from now(ish) to 150 years from now(ish).²⁴ **My story used to be my property—until I went and had it published—and it will always be part of my knowledge. Now it's part of yours. Now you own it, just as much as I do.**

And don't worry. You aren't scheduled for an electroconvulsive therapy session any time soon.

NOW (ISH)

The thing that Arthur liked best about owning his own shop was that he could stock whatever he pleased, and if you didn't like it, you could just shop somewhere else...

24. "the story so far... and beyond" originally appeared in *The Bookseller: 150 Years*. 20 June 2008.

75 YEARS FROM NOW (OR SO)

The kids in the shop were like kids everywhere. That weird, hyperaware thing that came from the games they played all the time, even in their sleep; the flawless skin and teeth (because no parent would dare choose otherwise at conception), the loud, hooting calls that rippled through the little social groups whenever a particular *bon mot* vibrated its way through their tight little networks, radiating at the speed of light...

150 YEARS FROM NOW (ISH)

The young man blinked at the coruscating lights and struggled into a seated position, brushing off the powdery residue of his creation.

"The Story So Far?" he said. "The Story So Far," a voice agreed with him from a very long way off and so close in, it was practically up his nose.

"Better than Great Expectations again," he said, getting to his feet, digging through the costumes on the racks around him. Knowledge slotted itself in his head, asserting itself. Plots, other characters, what had come before, the consensus about where things might go next. He didn't like the consensus. He began to dress himself.

"Tell me about the reader," he said. The voice was back in an instant, describing the child (four), the circumstances of his birth and life, his interests. "So I'm a picture book?"

"No," the voice said. "He's reading in chapters now. It's the cognitive fashion, here." **At here, more knowledge asserted itself, the shape of the comet on which they all resided, their hurtling trajectory, a seed-pod of humanity on its way elsewhere.**

"Right," he said, putting on gloves, picking out a moustache and a sword and a laser-blaster. "Let's go sell some books."

COMPLEXITY AND HUMANITY

by Yochai Benkler

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From Wikipedia, the free encyclopedia

“There is always a little bit of heaven in a disaster area.”

—Wavy Gravy

We have all seen the images. Volunteers pitching in. People working day and night; coming up with the most ingenious, improvised solutions to everything from food and shelter to communications and security. Working together; patching up the fabric that is rent. Disaster, natural or otherwise, is a breakdown of systems. For a time, chaos reigns. For a time, what will happen in the next five minutes, five hours, and five days is unknown. All we have to rely on are our wits, fortitude, and common humanity

Contemporary life is not chaotic, in the colloquial sense we apply to disaster zones. It is, however, complex and rapidly changing; much more so than life was in the past; even the very near past. Life, of course, was never simple. But the fact that day-to-day behaviors in Shenzhen and Bangalore have direct and immediate effects on people from Wichita to Strasbourg, from Rio de Janeiro to Sydney, or that unscrupulous lenders and careless borrowers in the United States can upend economic expectations everywhere else in the world, no matter how carefully others have planned, means that there are many more moving parts that affect each other. And from this scale of practical effects, complexity emerges. New things too were ever under the sun; but the systematic application of knowledge to the creation of new knowledge, innovation to innovation, and information to making more information has become pervasive; and with it the knowledge that next year will be very different than this one. The Web, after all, is less than a generation old.

These two features—the global scale of interdependence of human action, and the systematic acceleration of innovation, make contemporary life a bit like a slow motion disaster, in one important respect. Its very unpredictability makes it unwise to build systems that take too much away from what human beings do best: look, think, innovate, adapt, discuss, learn, and repeat. That is why we have seen many more systems take on a loose, human centric model in the last decade and a half: from the radical divergence of Toyota’s production system from the highly structured model put in place by Henry Ford, to the Internet’s radical departure from the AT&T system that preceded it, and on to the way Wikipedia constructs human knowledge on the fly, incrementally, in ways that would have been seen, until recently, as too chaotic ever to work (and are still seen so be many). But it is time we acknowledge that systems work best by making work *human*.

MODERN TIMES

Modern times were hard enough. Trains and planes, telegraph and telephone, all brought many people into the same causal space. The solution to this increased complexity in the late 19th, early 20th century was to increase the role of structure and improve its design. During the first two thirds of the twentieth century, this type of rationalization took the form of ever-more complex managed systems, with crisp specification of roles, lines of authority, communication and control.

In business, this rationalization was typified by Fredrick Taylor’s Scientific Management, later embodied in Henry Ford’s assembly line. The ambition of these approaches was to specify

everything that needed doing in minute detail, to enforce it through monitoring and rewards, and later to build it into the very technology of work—the assembly line. The idea was to eliminate human error and variability in the face of change by removing thinking to the system, and thus neutralizing the variability of the human beings who worked it. Few images captured that time, and what it did to humanity, more vividly than Charlie Chaplin's assembly-line worker in *Modern Times*.

At the same time, government experienced the rise of bureaucratization and the administrative state. Nowhere was this done more brutally than in the totalitarian states of mid-century. But the impulse to build fully-specified systems, designed by experts, monitored and controlled so as to limit human greed and error and to manage uncertainty, was basic and widespread. It underlay the development of the enormously successful state bureaucracies that responded to the Great Depression with the New Deal. It took shape in the Marshall Plan to pull Europe out of the material abyss into which it had been plunged by World War II, and shepherded Japan's industrial regeneration from it. In technical systems too, we saw in mid-century marvels like the AT&T telephone system and the IBM mainframe. For a moment in history, these large-scale managed systems were achieving efficiencies that seemed to overwhelm competing models: from the Tennessee Valley Authority to Sputnik, from Watson's IBM to General Motors. Yet, to list these paragons from today's perspective is already to presage the demise of the belief in their inevitable victory.

The increasing recognition of the limits of command-and-control systems led to a new approach; but it turned out to be a retrenchment, not an abandonment, of the goal of perfect rationalization of systems design, which assumed much of the human away. What replaced planning and control in these systems was the myth of perfect markets. This was achieved through a hyper-simplification of human nature, wedded to mathematical modeling of what hyper-simplified selfish rational actors, looking only to their own interests, would do under diverse conditions. This approach was widespread and influential; it still is. And yet it led to such unforgettable gems as trying to understand why people do, or do not, use condoms by writing sentences like: "The expected utility (EU) of unsafe sex for m and for f is equal to the benefits (B) of unsafe sex minus its expected costs, and is given by $EU_m = B - C(1-P_m)(P_f)$ and $EU_f = B - C(1-P_f)(P_m)$," and believing that you will learn anything useful about lust and desire, recklessness and helplessness, or how to slow down the transmission of AIDS. Only by concocting such a thin model of humanity—no more than the economists' utility curve—and neglecting any complexities of social interactions that could not be conveyed through prices, could the appearance of rationalization be maintained. Like bureaucratic rationalization, perfect-market rationalization also had successes. But, like its predecessor, its limits as an approach to human systems design are becoming clear.

WORK, TRUST AND PLAY

Pricing perfectly requires perfect information. And perfect information, while always an illusion, has become an ever-receding dream in a world of constant, rapid change and complex global interactions. What we are seeing instead is the rise of human systems that increasingly shy away from either control or perfect pricing. Not that there isn't control. Not that there aren't markets. And not that either of these approaches to coordinating human action will disappear. But these managed systems are becoming increasingly interlaced with looser structures, which invite and enable more engaged human action by drawing on intrinsic motivations and social relations.

Dress codes and a culture of play in the workplace in Silicon Valley, like the one day per week that Google employees can use to play at whatever ideas they like, do not exist to make the most innovative region in the United States a Ludic paradise, gratifying employees at the expense of productivity, but rather to engage the human and social in the pursuit of what is, in the long term, the only core business competency—innovation. Wikipedia has eclipsed all the commercial encyclopedias except Britannica not by issuing a large IPO and hiring the smartest guys in the room, but by building an open and inviting system that lets people learn together and pursue their passion for knowledge, and each other's company.

The set of human systems necessary for action in this complex, unpredictable set of conditions, combining rationalization with human agency, learning and adaptation, is as different from managed systems and perfect markets as the new Toyota is from the old General Motors, or as the Internet now is from AT&T then. The hallmarks of these newer systems are: (a) location of authority and practical capacity to act at the edges of the system, where potentialities

for sensing the environment, identifying opportunities and challenges to action and acting upon them, are located; (b) an emphasis on the human: on trust, cooperation, judgment and insight; (c) communication over the lifetime of the interaction; and (d) loosely-coupled systems: systems in which the regularities and dependencies among objects and processes are less strictly associated with each other; where actions and interactions can occur through multiple systems simultaneously, have room to fail, maneuver, and be reoriented to fit changing conditions and new learning, or shift from one system to another to achieve a solution.

Consider first of all the triumph of Toyota over the programs of Taylor and Ford. Taylorism was typified by the ambition to measure and specify all human and material elements of the production system. The ambition of scientific management was to offer a single, integrated system where all human variance (the source of slothful shirking and inept error) could be isolated and controlled. Fordism took that ambition and embedded the managerial knowledge in the technological platform of the assembly line, guided by a multitude of rigid task specifications and routines. Toyota Production System, by comparison, has a substantially smaller number of roles that are also more loosely defined, with a reliance on small teams where each team member can perform all tasks, and who are encouraged to experiment, improve, fail, adapt, but above all communicate. The system is built on trust and a cooperative dynamic. The enterprise functions through a managerial control system, but also through social cooperation mechanisms built around teamwork and trust. However, even Toyota might be bested in this respect by the even more loosely coupled networks of innovation and supply represented by Taiwanese original-design manufacturers.

But let us also consider the system in question that has made this work possible, the Internet, and compare it to the design principles of the AT&T network in its heyday. Unlike the Internet, AT&T's network was fully managed. Mid-century, the company even retained ownership of the phones at the endpoints, arguing that it needed to prohibit customers from connecting unlicensed phones to the system (ostensibly to ensure proper functioning of the networking and monitoring of customer behavior, although it didn't hurt either that this policy effectively excluded competitors). This generated profit, but any substantial technical innovations required the approval of management and a re-engineering of the entire network. The Internet, on the other hand, was designed to be as general as possible. The network hardware merely delivers packets of data using standardized addressing information. The hard processing work—manipulating a humanly-meaningful communication (a letter or a song, a video or a software package) and breaking it up into a stream of packets—was to be done by its edge devices, in this case computers owned by users. This system allowed the breathtaking rate of innovation that we have seen, while also creating certain vulnerabilities in online security.

These vulnerabilities have led some to argue that a new system to manage the Internet is needed. We see first of all that doubts about trust and security on the Internet arise precisely because the network was originally designed for people who could more-or-less trust each other, and offloaded security from the network to the edges. As the network grew and users diversified, trust (the practical belief that other human agents in the system were competent and benign, or at least sincere) declined. This decline was met with arguments in favor of building security into the technical system, both at its core, in the network elements themselves, and at its periphery, through "trusted computing." A "trusted computer" will, for example, not run a program or document that its owner wants to run, unless it has received authorization from some other locus: be it the copyright owner, the virus protection company, or the employer. This is thought to be the most completely effective means of preventing copyright infringement or system failure, and preserving corporate security (these are the main reasons offered for implementing such systems). Trusted computing in this form is the ultimate reversal of the human-centric, loosely-coupled design approach of the Internet. Instead of locating authority and capacity to act at the endpoints, where human beings are located and can make decisions about what is worthwhile, it implements the belief that machines—technical systems—are trustworthy, while their human users are malevolent, incompetent, or both.

REINTRODUCING THE HUMAN

Taylorism, the Bell system and trusted computing are all efforts to remove human agency from action and replace it with well-designed, tightly-bound systems. That is, the specifications and regularities of the system are such that they control or direct action and learning over time. Human agency, learning, communication and adaptation are minimized in managed systems, if

not eliminated, and the knowledge in the system comes from the outside, from the designer, in the initial design over time, and through observation of the system's performance by someone standing outside its constraints—a manager or systems designer. By contrast, loosely-coupled systems affirmatively eschew this level of control, and build in room for human agency, experimentation, failure, communication, learning and adaptation. Loose-coupling is central to the new systems. It is a feature of system design that leaves room for human agency over time, only imperfectly constraining and enabling any given action by the system itself. By creating such domains of human agency, system designers are accepting the limitations of design and foresight, and building in the possibilities of learning over time through action in the system, by agents acting within

To deal with the new complexity of contemporary life we need to re-introduce the human into the design of systems. We must put the soul back into the system. If years of work on artificial intelligence have taught us anything, it is that what makes for human insight is extremely difficult to replicate or systematize. At the center of these new systems, then, sits a human being who has a capacity to make judgments, experiment, learn and adapt. But enabling human agency also provides scope of action for human frailty. Although this idea is most alien to the mainstream of system design in the twentieth century, **we must now turn our attention to building systems that support human sociality—our ability to think of others and their needs, and to choose for ourselves goals consistent with a broader social concern than merely our own self-interest. The challenge of the near future is to build systems that will allow us to be largely free to inquire, experiment, learn and communicate, that will encourage us to cooperate, and that will avoid the worst of what human beings are capable of, and elicit what is best.** Free software, Wikipedia, Creative Commons and the thousands of emerging human practices of productive social cooperation in the networked information economy give us real *existence proofs* that human-centric systems can not merely exist, but thrive, as can the human beings and social relations that make them.

SHARISM: A MIND REVOLUTION

by Isaac Mao

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From Wikipedia, the free encyclopedia

With the People of the World Wide Web communicating more fully and freely in Social Media while rallying a Web 2.0 content boom, the inner dynamics of such a creative explosion must be studied more closely. What motivates those who join this movement and what future will they create? A key fact is that a superabundance of community respect and social capital are being accumulated by those who share. The key motivator of Social Media and the core spirit of Web 2.0 is a mind switch called Sharism. Sharism suggests a re-orientation of personal values. We see it in User Generated Content. It is the pledge of Creative Commons. It is in the plans of future-oriented cultural initiatives. Sharism is also a mental practice that anyone can try, a social-psychological attitude to transform a wide and isolated world into a super-smart Social Brain.

THE NEURON DOCTRINE

Sharism is encoded in the Human Genome. Although eclipsed by the many pragmatisms of daily life, the theory of Sharism finds basis in neuroscience and its study of the working model of the human brain. Although we can't entirely say how the brain works as a whole, we do have a model of the functional mechanism of the nervous system and its neurons. A neuron is not a simple organic cell, but a very powerful, electrically excitable biological processor. Groups of neurons form vastly interconnected networks, which, by changing the strength of the synapses between cells, can process information, and learn. A neuron, by sharing chemical signals with its neighbors, can be integrated into more meaningful patterns that keep the neuron active and alive. Moreover, such a simple logic can be iterated and amplified, since all neurons work on a similar principle of connecting and sharing. Originally, the brain is quite open. A neural network exists to share activity and information, and I believe this model of the brain should inspire ideas and decisions about human networks.

Thus, our brain supports sharing in its very system-nature. This has profound implications for the creative process. **Whenever you have an intention to create, you will find it easier to generate more creative ideas if you keep the sharing process firmly in mind. The idea-forming-process is not linear, but more like an avalanche of amplifications along the thinking path. It moves with the momentum of a creative snowball. If your internal cognitive system encourages sharing, you can engineer a feedback loop of happiness, which will help you generate even more ideas in return. It's a kind of butterfly-effect, as the small creative energy you spend will eventually return to make you, and the world, more creative.**

However, daily decisions for most adults are quite low in creative productivity, if only because they've switched off their sharing paths. People generally like to share what they create, but in a culture that tells them to be protective of their ideas, people start to believe in the danger of sharing. Then Sharism will be degraded in their mind and not encouraged in their society. But if we can encourage someone to share, her sharing paths will stay open. Sharism will be kept in her mind as a memory and an instinct. If in the future she faces a creative choice, her choice will be, "Share."

These mind-switches are too subtle to be felt. But since the brain, and society, is a connected system, the accumulation of these micro-attitudes, from neuron to neuron and person to person,

can result in observable behavior. It is easy to tell if a person, a group, a company, a nation is oriented toward Sharism or not. For those who are not, what they defend as “cultural goods” and “intellectual property” are just excuses for the status quo of keeping a community closed. Much of their “culture will be protected, but the net result is the direct loss of many other precious ideas, and the subsequent loss of all the potential gains of sharing. This lost knowledge is a black hole in our life, which may start to swallow other values as well.

Non-sharing culture misleads us with its absolute separation of Private and Public space. It makes creative action a binary choice between public and private, open and closed. This creates a gap in the spectrum of knowledge. Although this gap has the potential to become a valuable creative space, concerns about privacy make this gap hard to fill. We shouldn't be surprised that, to be safe, most people keep their sharing private and stay “closed.” They may fear the Internet creates a potential for abuse that they can't fight alone. However, the paradox is: The less you share, the less power you have.

NEW TECHNOLOGIES AND THE RISE OF SHARISM

Let's track back to 1999, when there were only a few hundred pioneer bloggers around the world, and no more than ten times that many readers following each blog. Human history is always so: something important was happening, but the rest of the world hadn't yet realized it. The shift toward easy-to-use online publishing triggered a soft revolution in just five years. People made a quick and easy transition from reading blogs, to leaving comments and taking part in online conversations, and then to the sudden realization that they should become bloggers themselves. More bloggers created more readers, and more readers made more blogs. The revolution was viral.

Bloggers generate lively and timely information on the Internet, and connect to each other with RSS, hyperlinks, comments, trackbacks and quotes. The small-scale granularity of the content can fill discrete gaps in experience and thus record a new human history. Once you become a blogger, once you have accumulated so much social capital in such a small site, it's hard to stop. We can't explain this fact with a theory of addiction. It's an impulse to share. It's the energy of the memes that want to be passed from mouth to mouth and mind to mind. It's more than just E-mail. It's Sharism.

Bloggers are always keen to keep the social context of their posts in mind, by asking themselves, “Who is going to see this?” Bloggers are agile in adjusting their tone—and privacy settings—to advance ideas and stay out of trouble. It's not self-censorship, but a sense of smart expression. But once blogs reached the tipping point, they expanded into the blogosphere. This required a more delicate social networking system and content-sharing architecture. But people now understand that they can have better control over a wide spectrum of relationships. Like how Flickr allows people to share their photos widely, but safely. The checkbox-based privacy of Flickr may seem unfamiliar to a new user, but you can use it to toy with the mind-switches of Sharism. By checking a box we can choose to share or not to share. From my observations, I have seen photographers on Flickr become more open to sharing, while retaining flexible choices.

The rapid emergence of Social Applications that can communicate and cooperate, by allowing people to output content from one service to another, is letting users pump their memes into a pipeline-like ecosystem. This interconnectedness allows memes to travel along multiple online social networks, and potentially reach a huge audience. As a result, such a Micro-pipeline system is making Social Media a true alternative to broadcast media. These new technologies are reviving Sharism in our closed culture.

LOCAL PRACTICE, GLOBAL GAIN

If you happened to lose your Sharism in a bad educational or cultural setting, it's hard to get it back. But it's not impossible. A persistence of practice can lead to a full recovery. You can think of Sharism as a spiritual practice. But you must practice everyday. Otherwise, you might lose the power of sharing. Permanently.

You might need something to spur you on, to keep you from quitting and returning to a closed mindset. Here's an idea: put a sticky note on your desk that says, “What do you want to share today? I'm not kidding. Then, if anything interesting comes your way: Share It!

The easiest way to both start and keep sharing is by using different kinds of social software applications. Your first meme you want to share may be small, but you can amplify it with new

technologies. Enlist some people from your network and invite them into a new social application. At first it might be hard to feel the gains of Sharism. The true test then is to see if you can keep track of the feedback that you get from sharing. You will realize that almost all sharing activities will generate positive results. The happiness that this will obtain is only the most immediate reward. But there are others.

The first type of reward that you will get comes in the form of comments. Then you know you've provoked interest, appreciation, excitement. The second reward is access to all the other stuff being shared by friends in your network. Since you know and trust them, you will be that much more interested in what they have to share. Already, the return is a multiple of the small meme you first shared. But the third type of return is more dramatic still. Anything you share can be forwarded, circulated and republished via other people's networks. This cascade effect can spread your work to the networked masses.

Improvements in social software are making the speed of dissemination as fast as a mouse-click. You should get to know the Sharism-You. You're about to become really popular, really fast.

This brings us to the fourth and final type of return. It has a meaning not only for you, but for the whole of society. **If you so choose, you may allow others to create derivative works from what you share. This one choice could easily snowball into more creations along the sharing path, from people at key nodes in the network who are all as passionate about creating and sharing as you are. After many iterative rounds of development, a large creative work may spring from your choice to share.** Of course, you will get the credit that you asked for, and deserve. And it's okay to seek financial rewards. But you will in every case get something just as substantial: Happiness.

The more people who create in the spirit of Sharism, the easier it will be to attain well-balanced and equitable Social Media that is woven by people themselves. Media won't be controlled by any single person but will rely on the even distribution of social networking. These "Shaeros" (Sharing Heroes) will naturally become the opinion leaders in the first wave of Social Media. However, these media rights will belong to everyone. You yourself can be both producer and consumer in such a system.

SHARISM SAFEGUARDS YOUR RIGHTS

Still, many questions will be raised about Sharism as an initiative in new age. The main one is copyright. One concern is that any loss of control over copyrighted content will lead to noticeable deficits in personal wealth, or just loss of control. Five years ago, I would have said that this was a possibility. But things are changing today. The sharing environment is more protected than you might think. Many new social applications make it easy to set terms-of-use along your sharing path. Any infringement of those terms will be challenged not just by the law, but by your community. Your audience, who benefit from your sharing, can also be the gatekeepers of your rights. Even if you are a traditional copyright holder, this sounds ideal.

Furthermore, by realizing all the immediate and emergent rewards that can be had by sharing, you may eventually find that copyright and "All Rights Reserved" are far from your mind. You will enjoy sharing too much to worry about who is keeping a copy. The new economic formula is, the more people remix your works, the higher the return.

I want to point out that Sharism is not Communism, nor Socialism. As for those die-hard Communists we know, they have often abused people's sharing nature and forced them to give up their rights, and their property. Socialism, that tender Communism, in our experience also lacked respect for these rights. Under these systems, the state owns all property. Under Sharism, you can keep ownership, if you want. But I like to share. And this is how I choose to spread ideas, and prosperity.

Sharism is totally based on your own consensus. It's not a very hard concept to understand, especially since copyleft movements like the Free Software Foundation and Creative Commons have been around for years. These movements are redefining a more flexible spectrum of licenses for both developers and end-users to tag their works. Because the new licenses can be recognized by either humans or machines, it's becoming easier to re-share those works in new online ecosystems.

THE SPIRIT OF THE WEB, A SOCIAL BRAIN

Sharism is the Spirit of the Age of Web 2.0. It has the consistency of a naturalized Epistemology and modernized Axiology, but also promises the power of a new Internet philosophy. Sharism will transform the world into an emergent Social Brain: a networked hybrid of people and software. We are Networked Neurons connected by the synapses of Social Software.

This is an evolutionary leap, a small step for us and a giant one for human society. With new “hairy” emergent technologies sprouting all around us, we can generate higher connectivities and increase the throughput of our social links. **The more open and strongly connected we social neurons are, the better the sharing environment will be for all people. The more collective our intelligence, the wiser our actions will be. People have always found better solutions through conversations. Now we can put it all online.**

Sharism will be the politics of the next global superpower. It will not be a country, but a new human network joined by Social Software. This may remain a distant dream, and even a well-defined public sharing policy might not be close at hand. But the ideas that I’m discussing can improve governments today. We can integrate our current and emerging democratic systems with new folksonomies (based on the collaborative, social indexing of information) to enable people to make queries, share data and remix information for public use. The collective intelligence of a vast and equitable sharing environment can be the gatekeeper of our rights, and a government watchdog. In the future, policymaking can be made more nuanced with the micro-involvement of the sharing community. This “Emergent Democracy” is more real-time than periodical parliamentary sessions. It will also increase the spectrum of our choices, beyond the binary options of “Yes” or “No” referenda. Representative democracy will become more timely and diligent, because we will represent ourselves within the system.

Sharism will result in better social justice. In a healthy sharing environment, any evidence of injustice can get amplified to get the public’s attention. Anyone who has been abused can get real and instant support from her peers and her peers’ peers. Appeals to justice will take the form of petitions through multiple, interconnected channels. Using these tools, anyone can create a large social impact. With multiple devices and many social applications, each of us can become more sociable, and society more individual. We no longer have to act alone.

Emergent democracy will only happen when Sharism becomes the literacy of the majority. Since Sharism can improve communication, collaboration and mutual understanding, I believe it has a place within the educational system. Sharism can be applied to any cultural discourse, CoP (Community of Practice) or problem-solving context. It is also an antidote to social depression, since sharelessness is just dragging our society down. In present or formerly totalitarian countries, this downward cycle is even more apparent. The future world will be a hybrid of human and machine that will generate better and faster decisions anytime, anywhere. The flow of information between minds will become more flexible and more productive. These vast networks of sharing will create a new social order—A Mind Revolution!

INTELLIGENT TRAVEL

by Marko Ahtisaari

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From Wikipedia, the free encyclopedia

"Sometimes one must stop and sit by the roadside, and wait for the soul to catch up."

—African proverb

For me, and certainly for many many others, Joi Ito is the model of the intelligent, social traveler. Whenever we think of Joi, we wonder what interesting city he might be in today, what great people he must be sharing a meal with, or whose photographic soul he is freeing at this very moment. But in the end we know we can always follow his digital traces online, and find the answers.

Tokyo today, San Francisco tomorrow, Amsterdam next week. And now playing: the first verse of *Airport City* by Giant Robot, singing a scene of cosmopolitan jet speed:

*Career is alright thank you for asking
Short notice no time for packing
Shuttle to the terminal traveling light
Last on the plane timing is right*

Right now—seated as I am in business-lounge suburbia in the airport city of Heathrow, waiting for the flight home to finally board (not having quite the right timing *à la* Giant Robot)—right now seems a fitting time to reflect on the joy of travel, but also to imagine how much better it can get. In many ways, I want to celebrate the world that travel brings to me, as well as how happy I am to be going home.

HIGH-VELOCITY LIFE

Following the twitter jet stream of friends around the world, I wonder about life lived at such high velocities—velocities that are physical, mental, emotional—and what effect this must have on one's soul. I wonder whether our souls aren't getting left behind, and whether we should wait for them to catch up, rather than catch the next flight. Having myself lived a life quite like Joi's, off and on, I do worry about how living the fast life—if not suffering from jet lag—might dampen our senses and alienate us from everything we hold dear. Every now and again when I find myself in the company of a well-traveled Helsinki clergyman, he often turns to me and asks, "So, how is your soul doing?" The question always makes one pause.

Yet to be completely emotionally and intellectually honest, at the beginning of my travels, I am not paralyzed with concern about a life lived at high velocity. I am energized. Joshua Cooper Ramo (whose portrait features in this collection and who is no stranger to this mode of living) writes about this kind of life with beautiful optimism:

What happens with a high-velocity life is that some of the strictures of reality begin to fade away. It is not that the hassles and problems of ordinary travel disappear. What is really disappearing is the sense of connectedness to anything other than what you can take with you when you travel. And those things are your ideas, your dreams, your hopes and your senses.... You find at a certain speed that you can slip without ripples into each of these new pools of experience and come out feeling more refreshed than when you went in.²⁵

25. Joshua Cooper Ramo, *Living at Jet Speed*. Newsweek. 15 May 2006.

I do believe that we all feel concern for our souls, and that the question asked by my clergyman friend is one that we should ask ourselves, and each other, every day: “How is your soul doing?” But I also feel a real enthusiasm for the sentiment that Joshua expresses so beautifully, and which Joi embodies so perfectly: that we travel, and live, with the very best of our senses, our ideas, our hopes, our dreams.

One question that I am trying to answer, both professionally and personally, is how to manage a new kind of travel—a better experience of travel that refreshes. A style of travel “without ripples.”

The answer to this question may well lie in a new breed of online informatics that extends the experience of intelligent travel beyond the small society that you can find in this book. Is it possible that the golden age of travel is not a thing of the past, but the way of the future?

ENGINEERING SERENDIPITY, PROMOTING SUSTAINABILITY

A new system of intelligent travel is already being imagined, and built. But the prospects of developing online, interconnected systems—ones based on the principle of shared intelligence and joined through trusted social networks—is not unique to one website or a single start-up. It is a global movement of world travelers sharing local information with friends, acquaintances, and everybody else.

We are all accustomed to sharing travel tips, but the future will find a way to bring this insider knowledge to everyone, whether on a public *wiki* or a private network. Intelligent travel can leverage the shared experience and combined intelligence of everyone living at jet speed, as well as those who just happen to love the place they call home.

But the greatest social benefit of intelligent travel is what I like to call “engineered serendipity.” The system should help lead us to the happy accidents that make life so exciting, like meeting up with long-lost friends in exotic locales. Travel has always been linked to adventure, but in the future we won’t have to leave everything to chance.

And a system that has more awareness—of people, of places, of processes, of distances—can also make us more aware of what travel is doing to us, and especially what it is doing to our planet. There is no excuse for not building systems that help inform us about our carbon footprint, whether we are flying from Narita to Helsinki or just living a life online. A system as I describe it might nudge us, but it won’t judge us. What we do with this information is up to us.

THE RETURN HOME: THROW OUT THE CLOCKS

In the world of intelligent travel, information will no longer be hard to find. Information will find us. The only thing that will be hard is finding the time to use it well. Time is the ultimate scarce resource of the information age. It is the subject of endless pop-song wish lists ranging from *turnin’ it back to makin’ it (or dis moment) last forever*. The desire to master time has always been with us, and the conveyor belt lyrics of today have a deep ancestry. But let us listen again to the recently deceased Pakistani master singer Nusrat Fateh Ali Khan:

*Throw out the clocks,
My lover comes home
Let there be revelry.
My lover comes home,
Let there be revelry.*

In this excerpt from a characteristically moving *Qawwali*, “*Mera Pia Ghar Aaya*” (“My Lover Comes Home”), Nusrat interprets time differently when it is a question of love. (As is often the case in Sufi *Qawwali*, the object of love remains ambiguous between the divine and the human.)

Either way, we’d like the clocks thrown out. After a fulfilling and serendipitous journey, we would like nothing more than for every homecoming to be a time of celebration. Then we will be ready to stop and sit for a while, and wait for the soul to catch up.