

Open-Source Everything

Despite decades of reading, it was not until recently, when I read Charles Eisenstein's *Sacred Economics: Money, Gift, and Society in the Age of Transition*,¹ that I made the connection between traditional gift and sharing societies, and the current modern interest in Open-Source Everything within and among the various counterculture elements of society.

The example that author used, that of child care, is compelling. In traditional societies, child care is inherent in the community, where all adults accept a responsibility for all children. Child care is, in other words, both “free” and of very high nurturing value. In modern society, where the time of all humans has been commoditized, child care is made “scarce”—it has become a “good” that must be purchased. The spiritual “cost” of this change is only now being understood by a growing number of humans interested in restoring resilient communities that are both spiritual and sustainable.

Although I have been a proponent of open-source intelligence and evolved into being a proponent of open-source everything, I had not made the deeper connection that is elucidated so well in *Sacred Economics* between the “root” nature of humanity and Earth as “open” (connected and

freely giving/exchanging) and the toxic, near-fatal nature of what we have today: banks, corporations, and governments that by being “closed” represent the death of humanity from “rule by secrecy” (however morally good the people working in these structures may be as individuals).

Others have written about the “fencing of the commons” and I recommend that entire body of literature. In pre-industrial civilization the concept of private property did not apply to Mother Earth—the land, the sea and the waterways, the air, sunlight could not be “owned,” only shared and nurtured in stewardship.

When we allowed for the “taking” of Earth resources for private profit, without regard to the true cost of the taking to the ninety-nine percent as well as future generations, we broke the Whole Earth System, literally. We began corrupting the smooth feedback loops and ecologies that had been centuries in the making, in essence poking holes in the fabric of nature within which man had been a component, but not a dominant nor even a decisive change agent.

Free/Open-Source Software

Free software, of which Richard Stallman is the recognized modern champion, was pioneered by IBM with its releases of operating system software in the 1950s and 1960s, and the associated SHARE, Inc., volunteer organization that maintained the software library and aggregated user experiences. In September 1983, Stallman launched the GNU (as in Good Not Unix) Project to create a free (openly

available source code, not free of charge) operating system intended to displace Unix. This is widely credited with being the beginning of the free software movement; in 1985 he founded the Free Software Foundation.

Stallman's brilliance and enduring contribution was the creation of a coherent mix of free software, the concept of copyleft (access is free, only financial profit is constrained), and the process for collaborative development and enhancement of software by volunteers.

In January 1998 a handful of members of the free-software movement met in Palo Alto, California, to discuss how best to announce the release of source code for Navigator. It was at this point that a consensus emerged about a need to break from the unintended intellectual implications of "free," i.e., free of cost. The heart of F/OSS is not in avoiding financial costs, but rather in avoiding opportunity costs imposed by proprietary or concealed source code that cannot be improved upon by others at will.

As related in Wikipedia (Open-Source/History), citing Michael Tiermann's "History of the Open-Source Initiative," it was Christine Peterson who suggested "Open Source" to the others, including Todd Anderson, Larry Augustin, Jon Hall, Sam Ockman, Michael Tiermann, and Eric S. Raymond. Over the next week, Raymond and others worked on spreading the word. Linus Torvalds gave an all-important sanction the following day. Richard Stallman chose to reject the term.

That same year the linguistic, intellectual, and philosophical discordance between "free" and "open source"

came to a head at the Freeware Summit organized by Tim O'Reilly. Those favoring the term "open source" over "free" were pointing out that access to the code, not free of cost, is the core requirement. In a classic demonstration of the power of open-source culture, all present discussed, voted, and adopted "open source" as the preferred alternative. The Open-Source Initiative was then established, today led by Michael Tiemann. Below is the mission statement of this very important initiative:

The Open-Source Initiative (OSI) is a non-profit corporation with global scope formed to educate about and advocate for the benefits of Open-Source and to build bridges among different constituencies in the Open-Source community.

Open-Source is a development method for software that harnesses the power of distributed peer review and transparency of process. The promise of Open-Source is better quality, higher reliability, more flexibility, lower cost, and an end to predatory vendor lock-in.²

Properly and ethically understood, the term "open-source software" refers to the complete availability of all relevant source code for public scrutiny and enhancement. This does not mean that the software must be free of charge. It does mean that those vendors who make only portions of their software available and then seek to label all their software "open source" are committing fraud.

At root, F/OSS is about preventing governments and corporations from concealed functionality (the ability to access your data and do other things without your

permission and without your knowing), and from imposing financial costs and inefficiencies (such as very badly written code that consumes hardware and energy and time) on the individual citizen. In India, Stallman succeeded in persuading the government to dispense with Microsoft products across the entire university system, using instead F/OSS. Not only have the financial savings been enormous, the constantly improving open-source software renders huge enhancements in human productivity not possible with Microsoft's somewhat retarded combinations of capabilities.

Open-Source Hardware and More

Open-Source Hardware is a direct spin-off of the Open-Source Software movement. As with software, but now in the realm of the physical, it evolves through collaboration and the use of open specifications, standards, and other freely shared details necessary to create all manner of computer-related hardware including mobile telephones, micro-processors and processors, handheld computers in their entirety, and now larger computing centers.

Although there is a broad range of open-source applications, three merit mention here: Open Data Access, Open Spectrum, and Open Tools.

Open Data Access is an open framework that allows digital data to be accessed by common applications, which is essential to scalable sharing. This is not to be confused with Open Content, which refers to content licensed in

a manner that provides users with the right to utilize the content in more ways than those normally permitted under copyright, at no cost to the user.³ For example, a professor is free to make copies for students, rather than paying a copyright fee for each individual copy of a paper. Open Data Access, in contrast, refers to digital accessibility.

Open Spectrum, pioneered by David Weinberger, is a revival of the ham radio culture, reinforced by the practical knowledge that radio and other atmospheric frequency spectrum allocation is very inefficient and often antithetical to the needs of society.⁵ The sale of spectrum creates monopolies of use, the military's being the largest, and it encourages private-sector monopolies to rely on the exclusivity of their spectrum allocation rather than on innovation since assigned spectrum does not allow for the kind of scaling of a multiplicity of applications such as are emerging today. The consequences of this can be seen in Afghanistan, where drones, normal aviation, and normal communications are all in conflict in an intense environment, because for the past several decades no one has demanded that they each be able to operate in a shared-spectrum environment.

Finally, Open Tools, starting with open farm technologies—such as creating tractors and other mechanized tools with standardized inter-changeable parts that are easy to make and not subject to royalty fees, and much cheaper than complex machines offered for sale—led to Open-Source Ecology.⁶ This network of farmers, engineers, and supporters is building the Global Village

Construction Set,⁷ which aims to include fifty different industrial machines with open specifications and interchangeable parts—one of the most breathtaking revolutionary activist initiatives that I know about.

OpenMoko, the concept of a handheld device that integrates open-source software and open-source hardware, is alive and well. When combined with OpenBTS⁸ and Open-Mesh Networks,⁹ it is the cornerstone for empowering the five billion poor—simultaneously educating them “one cell call at a time” and unleashing their entrepreneurial energies, while also creating the Autonomous Internet, one that cannot be shut down by any government or corporation.

OpenBTS is the open-source software/hardware combination that replicates cellular phone services using open spectrum, enabling free and very low-cost communications. Combined with mesh networks and other means of disconnecting from the government/telecommunications monopoly of the grid, OpenBTS is the foundation “liberation technology” and is central to the release of humanity from corrupt hierarchies and their “rule by secrecy.”

When the five billion poor receive OpenBTS and have access to the Internet, everything will change.

Open-Source Intelligence

Although Open-Source Intelligence is the best method for gathering accurate and timely information, nobody and no agency of the government is serious about collecting and

analyzing it. Consider this quote from Ellen Siedman, former member of the President's National Economic Council:

CIA reports only focus on foreign economic conditions. They don't do domestic economic conditions and so I cannot get a strategic analysis that compares and contrasts strengths and weaknesses of the industries I am responsible for. On the other hand, Treasury, Commerce, and the Fed are terrible at the business of intelligence—they don't *know* how to produce intelligence.¹⁰

Inspired by the open-source software revolution as I saw it, I came to the same conclusions as Anonymous and WikiLeaks: that the reliance by the U.S. government specifically, and all governments generally, on intelligence services that were obsessed with secret sources and methods, and oblivious to open source and its methods, were costing the taxpayer a great deal of money to very little effect.

My focus increasingly became the more open, ethical, legal alternative of creating public intelligence in the public interest. It was not hard to recognize, as an intelligence professional, that a large part of the modern open-source revolution had to focus on tailored content—i.e., Open-Source Intelligence (OSINT).

I made one big mistake that haunts me to this day. Because I had not been fully radicalized, I still believed, from 1988 to 2006, that governments were the center of gravity for achieving my vision, and that I should devote myself to helping governments get a grip on open sources of information.

The Aspin-Brown Report, more formally known as the Commission on the Roles and Capabilities of the U.S. Intelligence Community, stated in its final report that OSINT should become a top priority of the Director of Central Intelligence (DCI), and also a top priority for funding. This finding was a result of my testimony to the Commission (an exercise in which I beat the entire secret world on a challenge to report in a matter of days on Burundi, detailed in the Epilogue) and a subsequent internal staff investigation. I mistakenly believed that I had made my point at the highest possible levels and with the greatest possible effect, but a succession of directors have refused to attend to any of the Aspin-Brown recommendations, including this one.

In 1996 the DCI, then George Tenet, ordered a special study to determine what would be needed to cover for the president all the topics not properly covered by the secret world with its obsession on secrets. In June 1997 he received the report, created by Boyd Sutton, entitled “The Challenge of Global Coverage.”¹¹ To the DCI’s surprise, the report recommended a \$1.5 billion annual investment in open sources of information, calculated at \$10 million a year for each of 150 countries and issues not addressed by a system focused on seven “hard target” countries led by China and Russia. Tenet ordered the study locked up and disregarded, not to be spoken of again. However, being unclassified in draft form, the study found its way into the open and can be read online. It is an indictment of the U.S. secret intelligence community for its persistent

failure—despite entreaties from multiple stakeholders—to be responsible for “global coverage.”

On July 22, 2004, the 9/11 Commission issued its final report, which included mentions on pages 23 and 423 of a new national Open-Source Agency separate from the CIA.¹² Since then, and based in large part on the deliberate recommendations of the Aspin-Brown and 9/11 Commission reports, senior executives in the Office of Management and Budget have twice approved the establishment of an Open-Source Agency, with a first-year budget of \$125 million, and a final target budget of at least \$2 billion.¹³

The agency was never established, due to enormous hostility and opposition from the secret world, and the lack of a Cabinet-level champion for the Open-Source Agency.¹⁴ The Secretary of State would be the obvious natural leader for this proposed agency based fully in our democratic tradition and ideally suited as an engine for creating both a “Smart Nation” and a global multinational information-sharing and sense-making capability. Such an agency could help address high-level threats to humanity, in part by harmonizing how all stakeholders (not just governments) spend money across the many policy domains and political boundaries.

I have tried several times to inform Hillary Clinton, Secretary of State since 2008, about this, at one point enlisting Lawrence Lessig, with the help of Michael Tiermann (President of the Open-Source Initiative), to communicate the opportunity to Alec Ross in the Office of the Undersecretary of State for Policy. I have no direct

knowledge, but I speculate that the secret world intimidated Alec Ross and frightened him away from talking to me, because they know that the day an Open-Source Agency is fully operational, the President and Congress will be able to cut the secret budget by two thirds.¹⁵

These suggestions about implementing open-source strategies constitute my practical approach to contributing to the transformation of the Republic and the larger community of humankind. It is my personal and professional belief—as someone deeply concerned about both security and intelligence—that security can only be attained through pure transparency not secrecy. Intelligence can only be maximally effective if it is open and collective. At present, the contrast between the secret intelligence community and the alternative open-source intelligence community could not be starker. This illustrates the failure of banks, corporations, government, and non-governmental organizations (such as global charities, with the Red Cross coming to mind) to act purely in the public interest. There are two reasons for this: one, because they can hide behind secrecy and not be accountable for some or all of their acts; and two, because in the absence of public intelligence, the public is impotent.

The Open-Source Pyramid in Detail

Since the development of F/OSS in the 1980s and 1990s, and the globalization of open-source intelligence, the meme has spread. Today there is a plethora of open-source

movements and endeavors—but no one has brought them together. This manifesto seeks both to expand the open-source revolution and make it the central enabler for creating a prosperous world at peace.

On the next few pages I list a wide range of “opens” within each of the layers illustrated in the Open-Source Pyramid (Figure 1), simply to illuminate the wide-ranging, near-universal nature of this meme. This is not a complete list!¹⁶ The order below corresponds to Figure 1.

Aspects

Open Access. Generally legal right to view, read, transit.

Participation. Generally open right to contribute or utilize.

Transparency. General visibility of detail to any who wish access.

Shareability/Forkability. Peer property, sharing economy.

Enablers

Open-Access Publishing. Unrestricted public access.

Open Code. Excludes controlling or restrictive functions.¹⁷

Open Communication. Open access to communications net.

Open Data. Allows data to be integrated and exploited by all.

Open-Data Protocol. Web protocol for querying and updating.

Open Definition. Reuse/redistribute without technical limits.

Open Facilitation. Open-Space Technology (Harrison Owen).

Open Governance.¹⁸ Panarchy,¹⁹ sociocracy,²⁰ holacracy.²¹

Open Licenses. Creative Commons is an example.

Open Standards. W3C²² is an example.

Infrastructure (Physical)

Open-Source Food. Transparency of the food-supply chain.

Open-Source Agriculture. Open DNA²³ and biotechnology.

Open Global Village Construction Set. Actual generic tools.

Open Cloud. Open standards, ease of mix and match.²⁴

Open-Collaboration Platform. Technical, e.g., Wiki.

Open-Collaboration Spaces. Hacker spaces, e.g., HackLabs.

Open-Data Grid. Project underway to enhance data storage.

Open Funding. Crowd-sourcing, social lending.

Open Manufacturing. Open software creating the physical world.

Open Media. Video, audio, and text that can be shared freely.

Open Meeting. Organizational meeting open to the public.

Open Mobile. Standards and unlocked devices.

Open Spectrum. Unlicensed spectrum shared by all.

Open Territories. Regions committed to the open meme.

Practices

Open Knowledge and Science. Open Knowledge Foundation.

Open and Free Software. LINUX, Ubuntu, Debian, etc.

Open Designs. Demotech, Howtopedia, Instructables.

Open Currencies or Money. BitCoin, OpenCoin, etc.

Open Funding. Crowd-sourcing, social lending.

Open Capital. B2B sharing of risk and reward.

Open Hardware. Arduino, Buglabs, OpenMoko.

Domains

Open Education. Open Accreditation, Connectivist Learning.

Open Science. Cambia, Bios, BioBrick.

Open Government and Open Politics. Sunlight Foundation.

Open Business. Integration of buyers and suppliers.

Open Skies. National agreements to enable transparency.

Open Spirituality. Anabaptism,²⁵ Reiki,²⁶ Yoga.²⁷

Products

Open Courseware. Freely available online
(but not credits).

Open Government Data. Funded by taxpayer,
open to public.

Open Journals. Free public access to archives.

Open Textbooks. Free public access, deliberately
organized.

Open Tools. Mix and match, modular, affordable.

Movements

Open Coalition. Emerging non-partisan grassroots
concept.

Open Materials. Enable do-it-yourself (DIY)
production.

Consciousness

Open Spirituality. Integrates open, participatory,
commons.

Michel Bauwens, founder of the P2P Foundation, is a gifted author able to envision and explain the emergence and the potential end state of Open-Source Everything. He says:

... as modernity was about rigorously individualising everything, eventually reaching the current dead-end of hyper-individualism, we are now just as rigorously 'relationising' everything ... (T)he three paradigm shifts (open/free, participatory, commons), although

only emerging as seed forms at this stage, are letting themselves be felt through contemporary spiritual practices.²⁸

Bauwens is touching on what I have long considered the duality of spiritual practice: on the one hand, focusing very successfully on reconnecting individuals to one another; on the other, ignoring the proven process of intelligence, a process that connects minds to facts.

“Open Everything” *is* everything—it is our mind, our heart, our soul, our destiny. In the next chapter I outline a summary manifesto for public consideration.