

The Open Knowledge Economy



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Public Citizen
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- Consumer advocacy organization based in Washington, D.C. 300,000 members & supporters.
- 40-year history working for the public interest, including consumer litigation, pharmaceutical health & safety, internet speech and trade, more
- Our Global Access to Medicines Program provides technical assistance to public agencies and civil society groups around the world to help overcome patent and other pharmaceutical monopoly barriers and improve access to medicines



The Knowledge Based Economy

OECD definition: “an expression coined to describe trends in advanced economies towards greater dependence on knowledge, information and high skill levels, and the increasing need for ready access to all of these by the business and public sectors.”

Knowledge-based goods: texts, arts, high technology, folklore

Question: Moving forward, do we want to further close or further open the knowledge economy?

Open

- * Appropriate limits to patents, copyright, TM
- * Development agenda
- * Internet
- Open source software
- * Creative Commons
- Medicines Patent Pool
- Open Innovation

Closed

- * IP maximalism
- * USTR TPP proposal

Pharmaceuticals

Government-funded research



The NIH is the largest investor in medical research spending over **\$30.9 billion annually**

Key catalyst of early HIV/AIDS drug research

NIH provided Abbott Laboratories with approx. **\$3.5 million to finance R&D for Ritonavir**, a key HIV/AIDS treatment

- Ritonavir generates billions for Abbott
- USG receives zero royalties



Walter Reed Army Institute of Research (WRAIR) and Naval Medical Research Center (NMRC)

-Dept. of Defense spends \$15 million annually on malaria research. 2004: Government facilities were funded to conduct almost \$30 million malaria R&D

-WRAIR has played a key role in malaria research since 19th century. (mefloquine, halofantrine, and tafenoquine)

Open Source Drug Discovery (OSDD)

- A **publicly funded** Indian open source research consortium with global partnership
 - Receives about \$12 million from Indian Government
- **Collaborative effort** that comprises of researchers, students, organizations across the world. More than 6,000 users of the portal from 130 countries
- All drugs, diagnostics and delivery mechanism are **licensed non-exclusively** to allow for market-driven reductions in price
- Hundreds of volunteer scientists and students at universities collaborated online to re-annotate the *Mycobacterium tuberculosis* genome in just 4 months



Public Citizen study: Pharmaceutical Industry is Biggest Defrauder of the Federal Government under the False Claims Act, 2010

- Pharmaceutical cases accounted for at least 25% of False Claims Act payouts over the past decade, compared with 11% by the defense industry
- More than one-half of the industry's fines were paid by four companies — GlaxoSmithKline, Pfizer, Eli Lilly and Schering-Plough

“Desperate to maintain their high margin of profit in the face of a dwindling number of important new drugs, these figures show that the industry has engaged in such activities as dangerous, illegal promotion for unapproved uses of drugs and deliberately overcharging vital government health programs, such as Medicare and Medicaid.” --Sidney Wolfe, director of the Health Research Group, Public Citizen

The
Economist

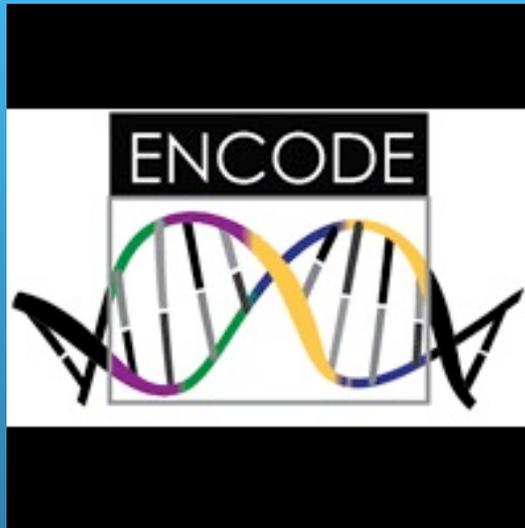
“America should not use trade deals to swaddle drugmakers in excessive patent protections.”

September 8, 2012

<http://www.economist.com/node/21562204>



Scientific Research Human Genome Project



Human Genome Project

- 13-year project coordinated by the U.S. Dept. of Energy and the NIH
- Discovered 20,000-25,000 human genes and 3 billion DNA subunits
- Information accessible for further study
 - Over 30 research papers and a wealth of data freely available online
- Federal government transferred technology to private companies and awarded millions in government funding annually

ENCODE: The Encyclopedia of DNA Elements

- Linked more than 80% of the human genome sequence to a specific biological function. Mapped more than 4 million regulatory regions where proteins specifically interact with DNA
- More than 440 researchers in 32 labs around the world

Internet & Copyright

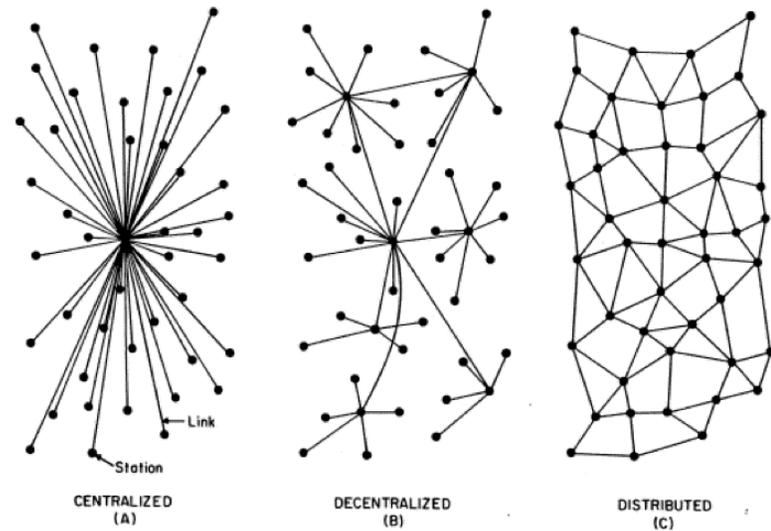
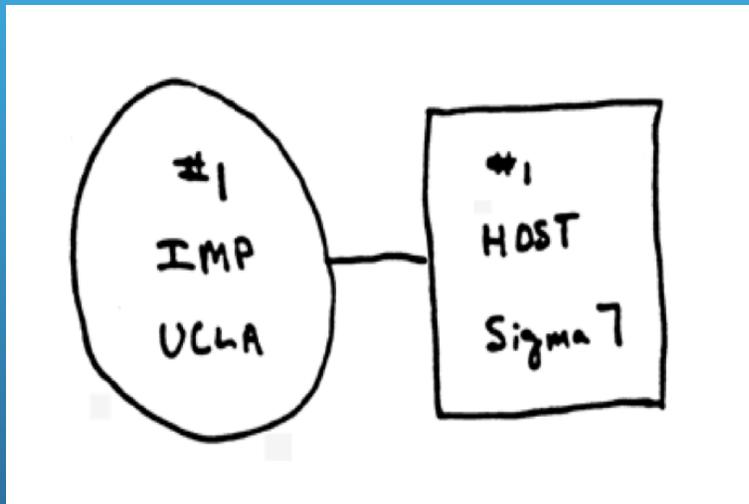


FIG. 1 - Centralized, Decentralized and Distributed Networks

Open Source Software



Flickr, opensourceway

Culture



“Our vision is nothing less than realizing the full potential of the Internet — universal access to research and education, full participation in culture — to drive a new era of development, growth, and productivity.”



KICKSTARTER

Kickstarter is the world's largest funding platform for creative projects. Every week, tens of thousands of amazing people pledge millions of dollars to projects from the worlds of **music, film, art, technology, design, food, publishing** and other creative fields.

“As an independent artist, you are primarily fighting obscurity—not piracy”

Trademarks, criticism & health regulation

“The international trade legal regime was never envisioned to preclude governments from protecting the health of their people.
“The tobacco industry should not be permitted to abuse the international legal system in an effort to intimidate governments.”
--Chris Bostic, Deputy Director of Action on Smoking and Health.

The Reverend Dr. Jerry Falwell and The Liberty Alliance v. Gary Cohn, Prolife.net, and God.info

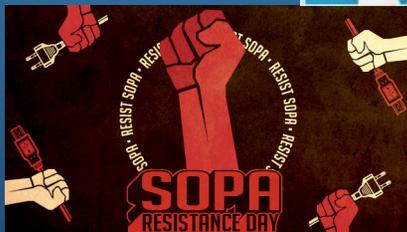
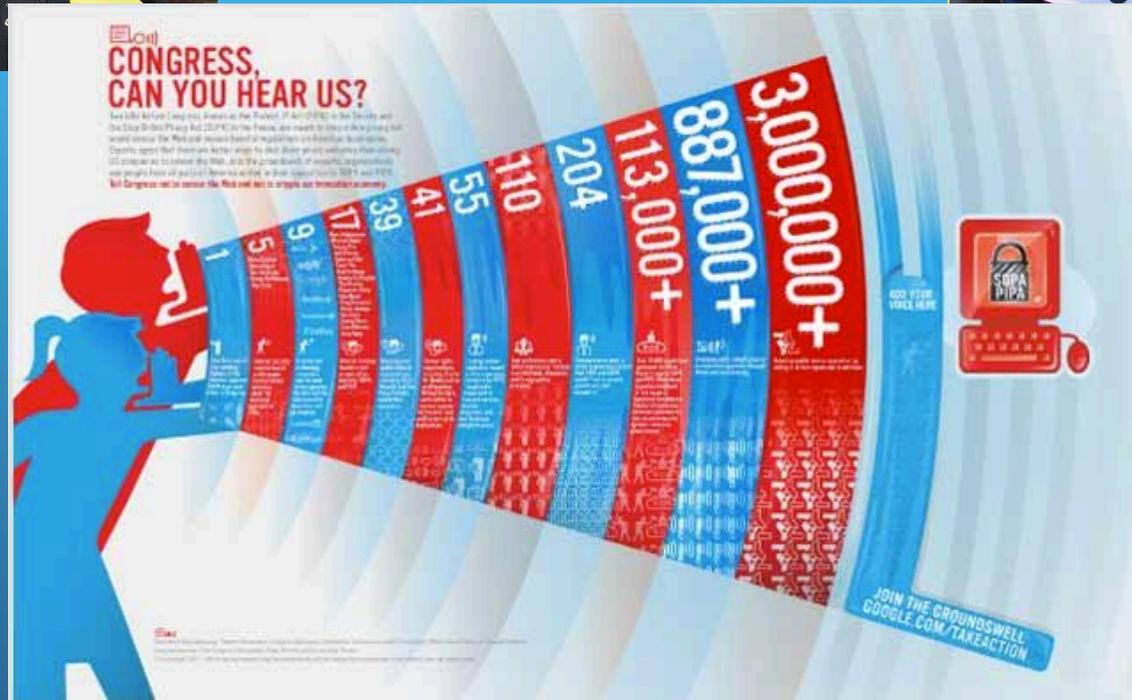
“In a 2-1 vote, a WIPO mediation panel today ruled against Falwell, saying that Falwell had failed to show that his name – even though well-known – has been used as a trademark to label particular goods or services. Without trademark status, the use of a name in a Web site is considered a legitimate, noncommercial fair use.”—Public Citizen press release

"This is a victory for First Amendment rights on the Internet," said Paul Alan Levy, the Public Citizen attorney who represented Cohn in the case.

Clean Energy



Flickr, [_LakwatserO_](#)



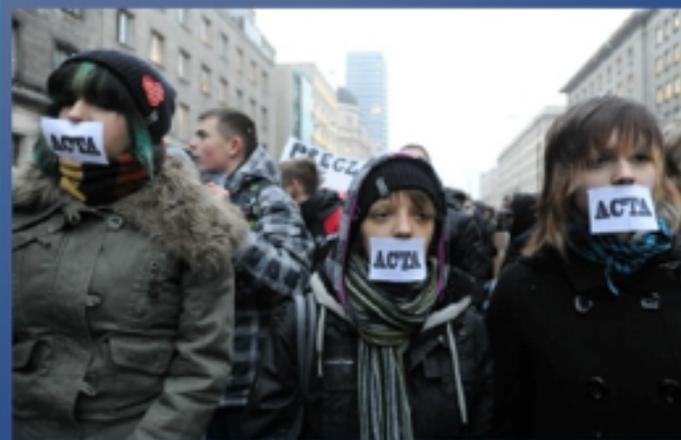
Protests Against ACTA



Polish parliament members protest ACTA



European parliament members protest ACTA



ACTA protesters in Europe

Many ways to facilitate the development of new artistic works, new technologies and platforms.

US IP proposals for the TPP represent an outdated model.

Revolutionary advances of the past twenty years are leading us toward a more open knowledge economy. In designing rules for the future, the TPP should reflect the trends of our present, and its possibilities.