

Technology and Empowerment

Birmingham Unitarian Church
2008 October 7

"These networked conversations are enabling powerful new forms of social organization and knowledge exchange to emerge."

- The Cluetrain Manifesto

Technology and Empowerment

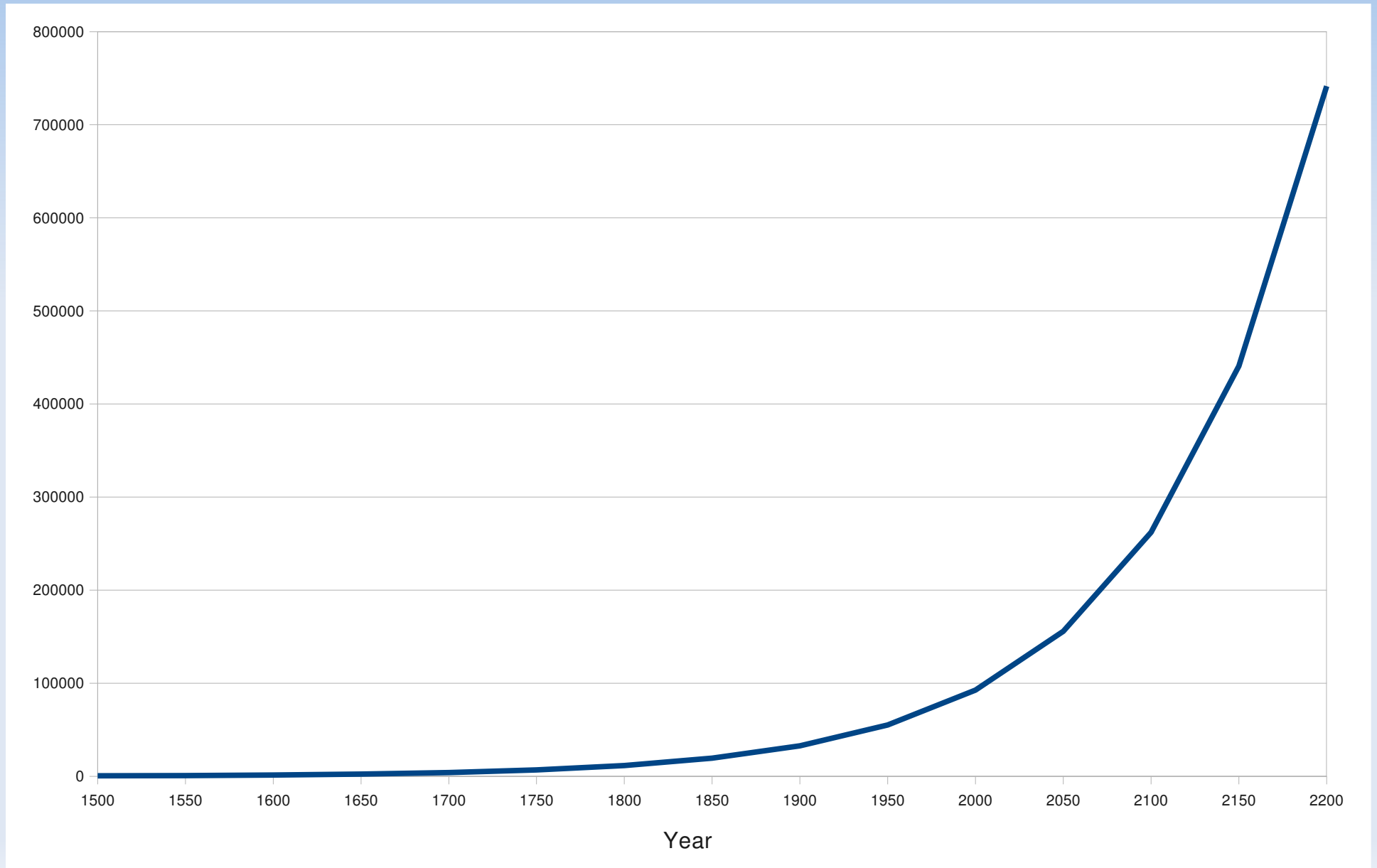
- Technology Growth
- Technology and Values
- The Open Source Movement
- Collaboration Tools
- Discussion

Technology Growth

Technology Growth

- Technology is growing exponentially
 - Increasing rate of change
 - Reduced costs
 - Increased productivity and quality
- Examples
 - Computer processing and capacity
 - 2004 World Bank Report
 - Human Genome Project
- Genetics, Nanotechnology, Robotics
- See *The Singularity Is Near*, by Ray Kurzweil

Exponential Growth



Technology and Values

Technology and Values

- Technology should be used to:
 - Improve the human condition
 - Promote community
 - Give power and autonomy to individuals
- People should be able to:
 - Know how and where technology is used
 - Participate in its use

Revealing Errors

- Failures of technology can reveal its presence
- Benjamin Mako Hill's Revealing Errors blog
<http://revealingerrors.com/>
 - Speed camera
 - Olympic blue screen of death
 - Stir-fried wikipedia
 - Tyson Homosexual
 - Predictive text

The Cluetrain Manifesto

- The Cluetrain Manifesto (<http://www.cluetrain.com/>)
- Thesis 1: Markets are conversations.
- Thesis 6: The Internet is enabling conversations among human beings that were simply not possible in the era of mass media.
- Thesis 7. Hyperlinks subvert hierarchy.
- Thesis 72: We like this new marketplace much better. In fact, we are creating it.

The Open Source Movement

The Open Source Movement

- Open Source Software
- Open Source Music and Literature

Open Source Software

- Free redistribution
- Source code is available
- Derived works are allowed
- "Free as in speech", not "Free as in beer"

Open Source Development

- "Treating your users as co-developers is your least-hassle route to rapid code improvement and effective debugging."
- "Release early. Release often. And listen to your customers."
- "Given enough eyeballs, all bugs are shallow."

From *The Cathedral & the Bazaar*, by Eric Raymond

Open Source History

- Began in universities
- Free Software Foundation (1983)
<http://www.fsf.org/>
- Linux (1991)
 - Many distributions, or "distros"
- *The Cathedral & the Bazaar* (1997)
- Open Source Institute (1998)
<http://www.opensource.org/docs/osd>

Open Source At Large

- Over 50% of the Web runs on open source
 - Apache, lighttpd, Google Web Server
- Linux distributions
 - Ubuntu, Fedora, etc.
- Firefox, Thunderbird
- Open Office
- Audacity, GIMP

Open Source Advantages

- Often better and more reliable
- Fixes and improvements occur faster
- Reduces costs
- Users can participate in the community
- Many open source projects

Open Source Disadvantages

- Large variation in
 - Features
 - Quality
 - Documentation
- Open source projects may end

Business Models

- Sell support and services
- Sell enhancements and related products
- Work with community to develop software needed internally

Open Source Licenses

- Examples
 - GNU General Public License (GPL)
 - BSD License
 - MIT License
- Commercial implications for derived works

Demo

The Making of *Technology and
Empowerment*

Open Source Music & Literature

- Creative Commons License
- Similar to open source software
- Free redistribution
- May be limits on derived works

Open Source Artists and Writers

- Jonathan Coulton – singer/songwriter
- Jamendo (<http://www.jamendo.com/>)
 - Over 12,000 albums
- Cory Doctorow – author
- Creative Commons Audio Books
 - Literal Systems (<http://literalsystems.org>)
 - LibriVox (<http://librivox.org/>)
 - Spoken Alexandra Project
<http://www.alexwilson.com/telltale/spokenalexandria.php>

Business Models

- Gain popularity via the Internet
- Make money performing
- Sell other works
- Bypass record labels – sell directly
 - Nine Inch Nails Ghosts I-IV

Collaboration Tools

Blog

- Series of posts (linear)
- Comments
- Categories
- Author-centric

Wiki

- Wiki is the Hawaiian word for "fast"
- Ward Cunningham's WikiWikiWeb
- Allows users to modify content easily
- Usually has version control
- Wikipedia

Project Tracking Systems

- Often integrate:
 - Wiki
 - Software version control
 - Bug tracking
- Examples
 - Trac
 - Sourceforge
 - Launchpad

Discussion

Trivial Questions

- Name a writer, author, or organization involved with Creative Commons.
- Name an organization that advocates for Open Source.
- In exponential growth, the rate of change _____.
- Name an Internet-based collaboration tool.
- "Wiki" is the Hawaiian word for _____.
- Name a potential advantage of Open Source.
- Name a potential disadvantage of Open Source.
- Give an example of an error that reveals technology.
- Name a book written by Eric Raymond.
- Name a book written by Ray Kurzweil.