Peer Production, Collective Intelligence, and Open Communities: Issues for Researchers and Educators
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Peer Production & Curriculum

- Information Systems Curriculum
  - Lacks focus on open source, peer production, collective intelligence, and open communities
  - Like the emergence of enterprise systems, openness is becoming an important ‘business truth’
  - Provided in an example of open source
Open Source & Curriculum

• College of Business Core
  – Introduction to Information Systems
• Open Source as a Business Model
  – One-week
  – Intro Slide Deck Available at:
Open Source is Like a Natural Resource

- Think of open source as a “commons” of code similar to a natural resource
- Any Open Source project requires an ecosystem to survive
- Many businesses utilize the “commons” to bring products to market in some way
- Businesses that try to take without concern for the overall ecosystem get repelled by others
  - Organizations exist for the sole purpose of protecting the commons (such as SFLC, OSI, FSF, Apache, LF, OW2, Eclipse)
  - To succeed as a continuing resource, the “commons” must be protected from bad actors (poachers) and replenished over time (repopulation)
- A company’s relationship should be a symbiotic one
Open Source & Curriculum

• Information Systems Core
  • As a technique in a systems analysis and design approach
  • As a technique for designing and developing applications
  • As a source of parallel, unevaluated data streams

• Open source as three things
Open Source & Curriculum

- Open Source as a Business Model
  - One-week
  - Intro Slide Deck Available at:
    - [http://tinyurl.com/d8yu64h](http://tinyurl.com/d8yu64h)
Open Source Methodology

- Communal, shared development
- Various projects each with their own subculture
- Very few roadmaps, but some projects are starting to publish them
- Influence and control is achieved by being involved
- Individuals are largely in control, not companies

Open source governance models vary widely, some autocratic, others consensus based
Open Source Licenses

- More than 70 licenses today as recognized by OSI
- Two basic types of licenses
  - Reciprocal licenses that require code changes to be returned to the community at large. This type of license is also called a Copyleft license.
  - Licenses that permit modified versions to be retained as proprietary and permit arbitrary integration into proprietary software.

Copyrights are still a core foundational element of all Open Source licenses.
Open Source Community

- Any collection of developers with a common interest
- Historically made up of free agents
- Increasingly funded by large companies sharing development costs
- Governments and academia also contributing at an increasing pace
- Membership & “rank” within community based on individual’s reputation
- Corporate reputation plays a significant, yet secondary role

Open Source Communities are a meritocracy in the sense that reputation and influence are measured by sustained individual contributions rather than corporate directives.
Collectively: Open Source

- **Licenses**: Obligations set forth by owners of a particular work – such as software – that govern the use of their work.

- **Community**: An Open Source Community is a collection of developers and users with a common interest in the creation, enhancement, and support of a specific piece of Open Source software.

- **Methodology**: Working with Open Source software requires a general methodology that guides Open Source development by the community. Although there is more than one Open Source methodology, most share certain characteristics such as open development.

- You can use all three as a competitive advantage
- The business model shifts to contribution and support
- The more you get involved, the more you can influence/control
- If you don’t understand the licensing, you may expose proprietary information unintentionally
Peer Production & Curriculum

• We traditionally teach development as beginning from the ‘upper left corner’ of a blank sheet of paper.
  – While this may hold true, ask your students how they navigate the development process

• Peer Production requires new development techniques
  – License Compliance and Risk
  – Resource management and distribution

• Peer Production requires new considerations of parallel, communal data streams
  – Inaccuracy
  – Validation/Data Quality
Why Should We Care?

• We consistently consider the advancement of IS curriculum
  – e.g. SAP/Visual Studio/Agile Development

• Peer production is a *real* business practice and we must be attentive to our constituents

• Our students become our faculty

• Our students become our research partners