

Open

Using

Source

by Leon Shiman

- The FOSS Model.
- Role of Government and Industry.
- Case 1: Accessibility.
- Case 2: The Boston (USA) Challenge.
- Case 3: **XO – One Laptop Per Child**

Paradigm for a New Technology

- Software: Process, Technology, and infrastructure.
- Every technology is governed by and dependent on its infrastructure.
- Many layers of infrastructure are required for the creation, deployment, maintenance and operation of software.
- Successful employment of Free and Open-Source Software requires an appropriate infrastructure.

A Perspective on Infrastructure

- Source code providing complete, readable text, disclosing all content and logic.
- A Source code license granting cost-free rights (and conditions on) modification, distribution and use of source code.
- Issues concerning “Free” vs. “Open-Source” software: not all Open-Source software is Free.
- Software development and deployment models

Free/Open-Source Software (FOSS)

- Accessible for collaborative development.
- Low Cost to end-user, who can modify, customize, fix bugs, update, and re-publish, subject to license conditions.
- Growth of open, volunteer code-specific “communities” of contributors, who take collective and public responsibility to test, maintain, distribute, support a code base.
- Proven stability of code and community

Characteristics of the FOSS model

- Project (network) home.
- Project owner(s).
- Communication: lists, irq, wiki,
- Versioning source code repository.
- Code maintenance.
- Code release and distribution.
- Bug management.
- Copyright policy.

A Typical FOSS Project

- Characteristics
- Origins
- Dependencies
- Development
- Management
- Maintenance
- Costs
- Deployment

Proprietary Software Models

- The “Community”.
- Projects and project communities.
- Corporate role in the community.
- Common infrastructure and tools.
- Standards organizations.
- Trade and industry (sponsored) organizations and shows.
- Contributor (“developer”) meetings.
- Dedicated media and communications

The world of FOSS

- Development of common standards, with review policies and practices.
- Open publication and critical public review.
- Assured stable process through open development, critical collaboration, and exchange of knowledge.

Evolutionary path of open technologies

- Software as technology: Software is the frozen logic of process mechanization and control.
- Where does software come from? How and by whom has software been created?
- Paradigms: a “paradigm shift” driven by human creativity and common purpose.
- The economic and political infrastructure of the new technology is still maturing.

A Technology Revolution

- Government policy is a major determiner of the structure of a software industry.
- IT-dependent operations are a primary responsibility and a major fiscal cost center of government at all levels.
- IT-dependent, and government-supported, education, research, business, and industry are major contributors to the social and economic health of a country and its global

The Role of Government IT Policy

- Reshape local internal government IT Infrastructure to fit the Open Paradigm.
- Acknowledge the impact on staffing, software acquisition, maintenance, development, and hardware acquisition and maintenance.
- Develop and support local policies which enable the inter-governmental and international cooperation which are natural to the Open Paradigm.

A Challenge to Government

- Establish procurement and staffing policy which supports FOSS technology.
- Create and fund education policy which promotes active participation in projects and events of the new global technology.
- Support public and corporate centers to work in common to adopt and take competitive advantage of this technology.
- Learn from others: support participation in regional or global meetings and

Critical First Steps

- Use of FOSS web servers/clients.
- Some deployment of FOSS thin clients in schools, globally.
- Retention of Microsoft desktops by most governments and schools, globally.
- Some support of ODF standard, globally, to support document archiving.
- In Massachusetts: “open standards” vs. “open source”.
- Some interest in OLPC.

Some Current Government Practices

- **IF** the software most advanced functionally and operationally,
- most closely matched its target host hardware,
- were best tested, maintained, secure,
- and best fit your needs
- —
- **AND** were openly published and free?

Think what you would say (*and do*)

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- IT Needs of the Disability Community
- Current (Proprietary) Solutions.
- FOSS Community solutions development.
- The promise of FOSS: The users create their own solutions.
- Boston Community actions.
- Response of the major vendors.

Accessibility

- Developing a FOSS policy.
- Historical documents. Legal status of documents depends on format.
- Training requirements and costs.
- Public access to government documents and processing pathways.
- Government structure and process.
- Developing new infrastructure for corporate contracts.

FOSS in Boston (Massachusetts, USA)

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"OLPC" : The Project

- A means to implement Constructivist Learning Theory by giving computers to all children in a third world community.
- Optimal use of new technology.
- Low-cost means for state support of education.

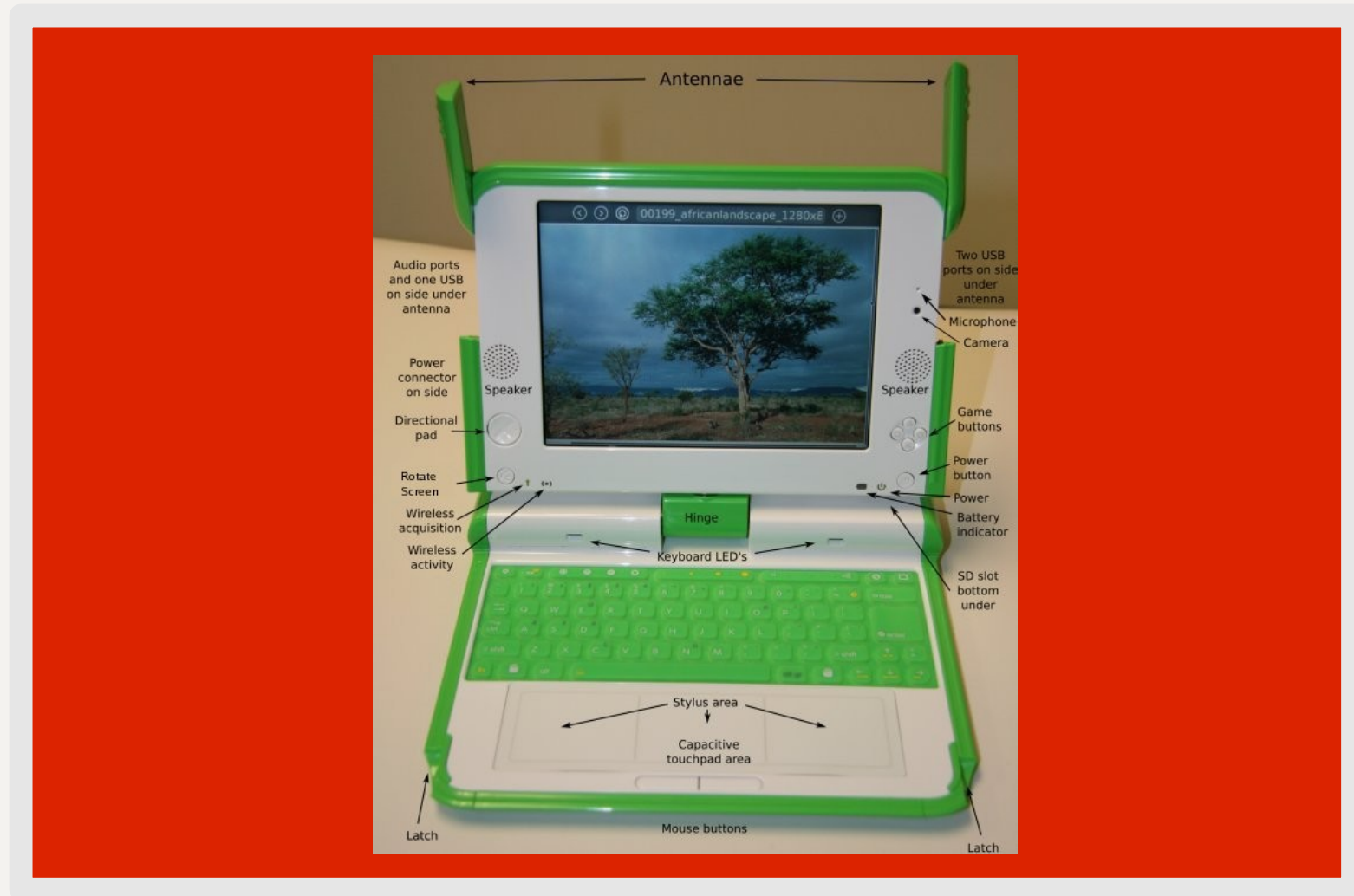
"OLPC" : Goals

- Cabinet
- Display
- Network
- FOSS
- Functionality
- Industry partnerships

"OLPC" : Platform

- Testing, updates, backward compatibility.
- “Give One – Get One” \$400 US-Canada release through 23 November 2007.
- Manufacturing begun November 2007.
- General availability only through “Developing” countries Government purchase.
- Restricted and limited distribution for testing.

“OLPC” : S t a t u s



"OLPC" : The "XO" Laptop



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Questions

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Thank you !