OSS Software Engineering meets Social Networking: Building Communities

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Centre for Research in Open Source Software

University of Lincoln

presented at OSSG Requirements Elicitation Workshop 8 January 2009

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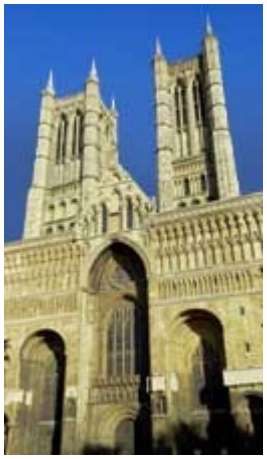

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Successful OSS Projects

Meeting users' needs effectively

Openness – Communication and Networking

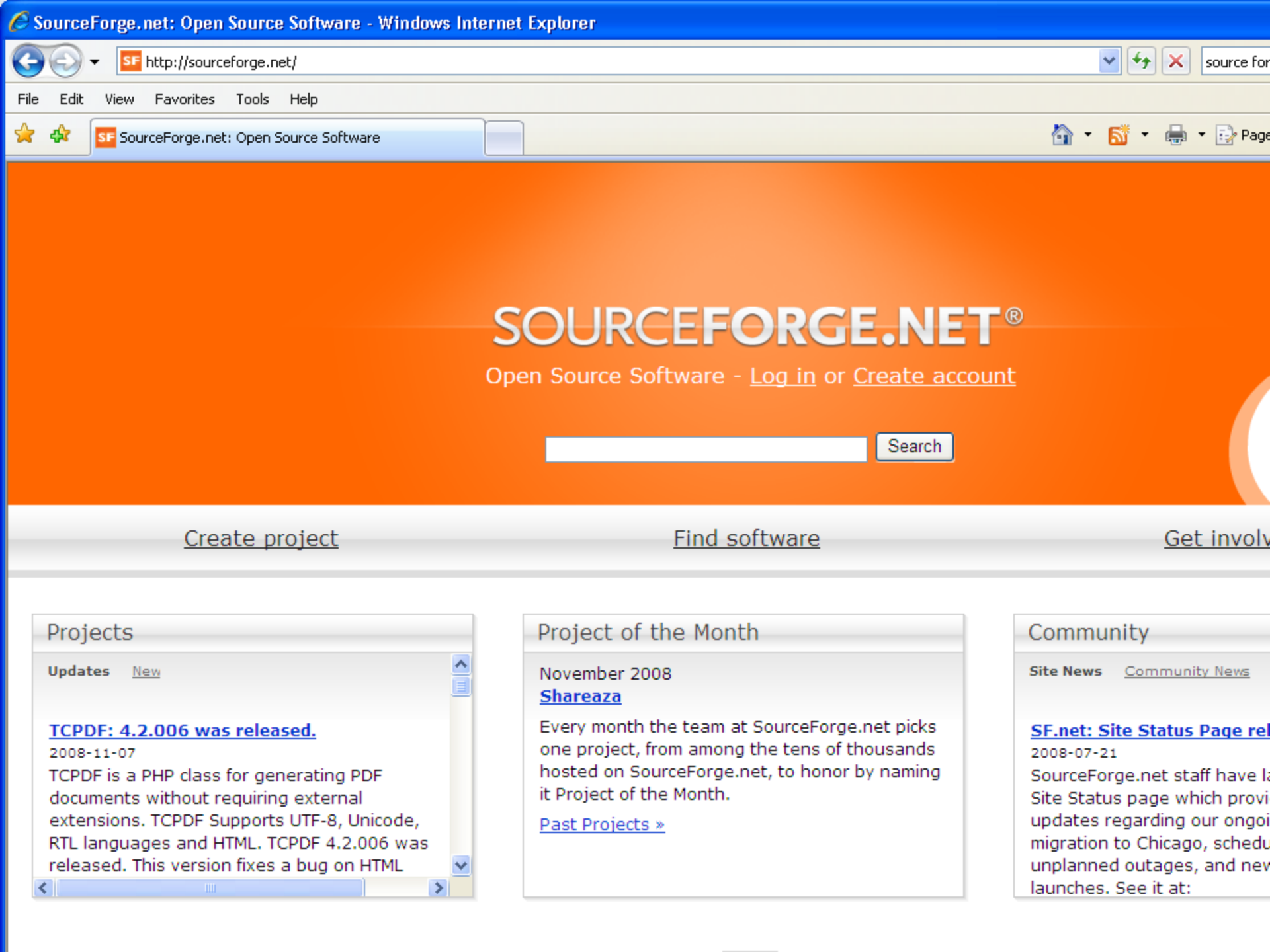
Transparency – Sharing process knowledge as well as outputs

Intellectual Accessibility

Sustainable developer community

The Role of Web-based Communities

- **Accessibility offered by the web has been a key factor in OSS success, also cheap laptops and budget airfares!**
- **Web-based OSS SEEs such as SourceForge offer project hosting and a basis for community building.**
- **Other OSS projects are clustered around major Linux distributions, Desktop distributions.**
- **Wider distribution results in more users and potentially larger development communities.**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Find software
Projects
Updates New
TCPDF: 4.2.006 was released.
2008-11-07
TCPDF is a PHP class for generating PDF documents without requiring external extensions. TCPDF Supports UTF-8, Unicode, RTL languages and HTML. TCPDF 4.2.006 was released. This version fixes a bug on HTML
Project of the Month
November 2008
Shareaza
Every month the team at SourceForge.net picks one project, from among the tens of thousands hosted on SourceForge.net, to honor by naming it Project of the Month.
Past Projects »
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Site News Community News
SF.net: Site Status Page rel
2008-07-21
SourceForge.net staff have l
Site Status page which provi
updates regarding our ongoi
migration to Chicago, schedu
unplanned outages, and new
launches. See it at:

debian

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W3C CSS

What is Debian?

Debian is a free operating system (OS) for your computer. An operating system is the set of basic programs and utilities that make your computer run. Debian uses the Linux kernel (the core of an operating system), but most of the basic OS tools come from the GNU project; hence the name GNU/Linux.

Debian GNU/Linux provides more than a pure OS: it comes with over 18733 packages, precompiled software bundled up in a nice format for easy installation on your machine.

Read more...

Getting Started

The latest stable release of Debian is 4.0. The last update to this release was made on December 18th, 2008. Read more about available versions of Debian.

If you'd like to start using Debian, you can easily obtain a copy, and then follow the installation instructions to install it.

If you're upgrading to the latest stable release from a previous version, please read the release notes before proceeding.

To get help in using or setting up Debian, see our documentation and support pages.

Users that speak languages other than English should check the international section.

People who use systems other than Intel x86 should check the ports section.

News

[29 Dec 2008] Debian mourns the loss of Thiemo Seufer
[18 Dec 2008] Debian GNU/Linux 4.0 updated
[12 Dec 2008] DebConf 9 to take place in Extremadura, Spain in July 2009
[23 Oct 2008] Debian GNU/Linux 4.0 updated
[08 Aug 2008] Mar del Plata to host 8th Debian conference
[26 Jul 2008] Debian GNU/Linux 4.0 updated and support for newer hardware added

For older news items see the News Page. If you would like to receive mail whenever new Debian news comes out, subscribe to the debian-announce mailing list.

Security Advisories

[02 Jan 2009] DSA-1695 ruby1.8, ruby1.9 - memory leak
[02 Jan 2009] DSA-1694 xterm - design flaw

K Desktop Environment - Be free - Windows Internet Explorer

http://www.kde.org/

kde

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K Desktop Environment - Be free

Page

K Desktop Environment

KDE Homepage | Sitemap | Contact Us

About KDE

- What is KDE?
- Screenshots
- Try KDE
- Announcements
- General Information
- Documentation
- Supporting KDE
- Merchandise
- History

Download

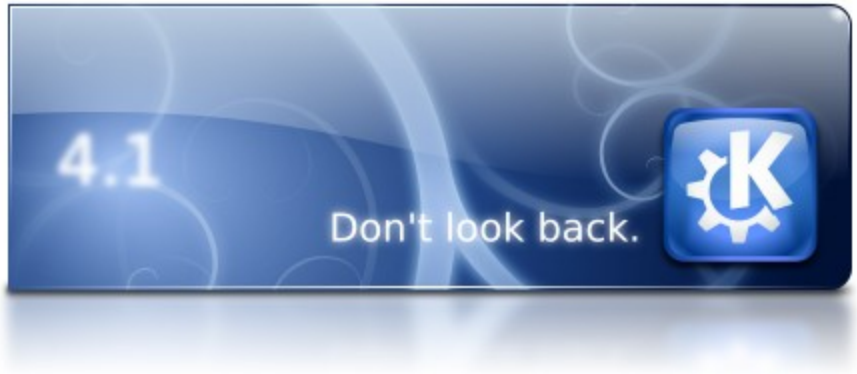
- Stable Version
- Source Code
- FTP Mirrors

Community

- Code of Conduct
- Users
- People
- Mailing Lists
- Forum

Be free

KDE is an international technology team that creates Free Software for desktop and portable computing. Among KDE's products are a modern desktop system for Linux and UNIX platforms, comprehensive office productivity and groupware suites and hundreds of software titles in many categories including Internet and web applications, multimedia, entertainment, educational, graphics and software development. KDE software is translated into more than 60 languages and is built with ease of use and modern accessibility principles in mind. KDE4's full-featured applications run natively on Linux, BSD, Solaris, Windows and Mac OS X. More...



Latest Announcements

KDE 4.1.3 released.

SUPPORTER OF KDE

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OSS is Community based Development

- These are truly web-based communities.
- Software development projects require collaborative working; SD is a paradigm case of CSCW.
- OSS projects similarly offer exemplars of CSCW applied to SE.
- OSS projects must actively address community development!

Case Study OLPC

- “an education project” with a social context bringing together educationalists, software engineers, hardware engineers in one large community – reflected in the OLPC web presence .
- OLPC is based on “learning by making/doing” and its software base is OSS.

One Laptop per Child (OLPC), a low-cost, connected laptop for the world's children's education - Windows Internet Explorer

http://laptop.org/

olpc

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One Laptop per Child (OLPC), a low-cost, connected l...

Page

one
laptop
per
child

ways to give getting started languages

give a laptop. get a laptop. change the world.

coming nov 17 at amazon.com/xo

sign up to receive updates: your email here subscribe

The OLPC Wiki - OLPC - Windows Internet Explorer

http://wiki.laptop.org/go/Home

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The OLPC Wiki - OLPC

translate

page | discussion | view source | history

The OLPC Wiki

(Redirected from Home)

This page is monitored by the OLPC team.

english | پښتو | عربي | български | deutsch | español | français | kreyòl ayisyen | italiano | 日本語 | 한국어 | монгол | नेपाली | norsk | português | română | русский | kinyarwanda | türkçe | 中文 | 繁體中文

Welcome to the **One Laptop per Child** Wiki, a collaborative site about the OLPC project and related communities. We are cur pages in over twenty languages.

Learn More · **Get Involved** · **What's New** · **About this wiki**

One Laptop per Child association is developing a low-cost laptop—the "XO Laptop"—to revolutionize how we educate the world's children. Our goal is to provide children around the world with new opportunities to explore, experiment, and express themselves.

Why children need laptops : laptops are a window and a tool: a window into the world and a tool with which to think. They are a wonderful way for children to learn learning through independent interaction and exploration.

Mission Statement: One Laptop educational opportunities for the children by providing each child cost, low-power, connected lapt software designed for collaborati empowered learning.

What's new

Weekly **current events** · OLPC Planet · Current events archive

- The XO Software Release 8.2.0 is out: with a redesigned interface, software updater, and 19 languages. *Read the release notes.*

Latest Releases: OS images

one laptop per child

Search

Google search

Wiki search

About OLPC

- Home
- Community news
- Contact us
- Email lists and IRC
- Recent changes
- Ways to participate

About the XO

- Help using the XO
- Support for the XO

Projects

- Educators
- Software
- Emulation
- Hardware
- Activities
- Content
- Testing
- Peripherals

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Linking our CS students into OSS

- Using OSS in teaching CS e.g. Linux in OS module
- Student studies of OSS projects in SE module
- Student projects use OSS and contribute to OSS projects.
- Development of support for students to contribute to OLPC – CODEX project.

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CODEX

- **Supporting collaborative development for the XO laptop.**
- **UROS project in Summer 2008**
- **Student researcher embedded in CROSS.**
- **CODEX LiveCD has been produced with wiki based tutorial support but major outcome has been confidence gained by student through interaction with wider OSS community and their encouragement and help.**

UROS - Windows Internet Explorer
http://www.lincoln.ac.uk/cerd/uros.htm
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UROS

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Centre for Educational Research and Development

UROS

UROS 2008

The **UROS** Research Event will take place on 12 November 2008 in the EMMTEC and MHT Buildings, 12.00 - 4.00. The event will start with a buffet lunch and poster display at 12.00 followed by short individual presentations on the different research projects. Further programme details will be posted nearer the time.

Visit http://www.lincoln.ac.uk/conferences to book your place.

- UROS 2008 blog pages
- Subscribe to the UROS 2008 blogs.
- UROS 2008 projects page
- UROS 2008 project booklet (pdf)

What is UROS?

The Undergraduate Research Opportunities Scheme (UROS) aims to enhance the links between teaching and research in the undergraduate curriculum. UROS provides students with the

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Photo 1 of 7 | Back to Group | See All Photos Previous Next

Collaborative Development for the XO-1 laptop (CODEX) - Learning Lab Wiki - Windows Internet Explorer
http://learninglab.lincoln.ac.uk/wiki/index.php/Collaborative_Development_for_the_XO-1_laptop_%28CODEX%29
codex wiki
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Collaborative Development for the XO-1 laptop (COD...
Page

Collaborative Development for the XO-1 laptop (CODEX)

Undergraduate Research Opportunity Scheme Project Proposal [edit]

Collaborative Development for the XO laptop (CODEX) [edit]

The primary objective of CODEX is carry out research in support of the Level 2 Group Projects found on all courses for students in the Department of Computing and Informatics (DCI) so that all Level 2 student project groups can undertake projects developing applications suitable for the XO laptop – the principal system at the heart of the One Laptop Per Child (OLPC) project and to produce a tutorial for students on the XO software providing guidance for the development of XO applications by the various group projects which are related to student's degree course within DCI.

The OLPC project is seeking to engage children globally in this enterprise of "learning to learn" by equipping them with networked laptops. The XO laptop has explicit support for collaboration and sharing of activities through its SUGAR user interface and mesh view which focuses on the activities of its networked users making real things directly supporting the evolution of knowledge as a collaborative enterprise. Education is necessarily a collaborative enterprise with a need for both repositories and also active support for the educational processes as learners engage with one another and their teachers. There is scope for our group project students to develop applications for the XO and make a significant contribution.

All the software associated with the XO is built upon Open Source Software (OSS) and there are already projects within the OSS community to develop further applications for the XO. So in the initial research, the student can survey these and evaluate the current tools being used in these projects as well as investigate the current application program interfaces (APIs) of the software currently available for the XO. The Centre for Research in Open Source Software (CROSS) directed by Professor Boldyreff has already begun some preliminary research into the software potential of the XO and last summer an

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CODEX Blog

Collaborative Development for the XO Laptop (CODEX)

CODEX LiveCD Sampler Available

without comments

Good news! You can download a 'taster' of the CODEX LiveCD without the need for a BitTorrent client. There are some known issues with this CD but it is still a good way of testing the basics of the Sugar interface without having to install anything on your PC.

Known issues include:

- 'Browse' activity not working as intended.
- Multiple XFCE menu shortcuts not present.
- Untested on various hardware platforms (should work wherever Xubuntu Linux works!)
- Sugar packages need updating.

Unfortunately due to a busy schedule with the final year of my degree, I don't have the available time to devote more attention to this project. Perhaps someone might be able to continue the work in the future? I am not turning my back on the project, I just don't have much time to dedicate in recent weeks.

Apologies for the free hosting service, if you would like to help with hosting the CD please contact me.

Obligatory screenshot: (Running in VirtualBox)

Download HERE (Hosted by MEGAUPLOAD).

Written by James
October 27th, 2008 at 11:41 pm

Posted in Uncategorized
Tagged with BitTorrent, CODEX, LiveCD, Sampler, VirtualBox, XFCE, Xubuntu

Tags

Activities Aside BitTorrent Browse Code Development Eclipse Emulation Fedora Feedback Firefox Hardy Heron Launchpad Lincoln Lincolnshire Lincs LUG Linux LiveCD Login LUG Mailing-list OLPC OSS Packages Plan Portal PPA Progress Python Repository Research Resources Scribd Script Seminar Source Sugar sugar-jhbuild Syntax Ubuntu UROS VirtualBox WebKit XO-1 Xubuntu

2 topics

Search for:

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Recent Posts

CODEX LiveCD Sampler Available

Here is the UROS 2008 poster. The dimensions of the poster are quite large (A1) and so you will need to zoom in to see the detail clearly.

Scribd iPaper 1 / 1 Search

CODEX

Collaborative Development for the XO-1 Laptop

Department of Computing and Informatics, University of Lincoln

Janine Nunro & Camelia Boldyreff

Introduction

Here at the University of Lincoln we identified the OLPC project as a potentially excellent way of getting students involved in collaborative software development within the open-source community and as a way of allowing students to contribute to an ethical and worthwhile cause. We aimed to determine a suitable environment in which students can collaborate and develop software for the XO laptop. XO software applications are known as 'activities' for the laptop's Sugar interface. Like the XO hardware, Sugar is designed specifically for the children of developing countries.

The Sugar emulator in action.

Research

The key processes of CODEX involved:

- Identifying current Sugar development tools and techniques.
- Considering the efficiency and viability of existing tools.
- Choosing the most suitable option.
- Producing / adapting an the environment.
- Producing documentation and tutorial content.
- Sharing results with the open-source community.

Results

The result of the research is the '*CODEX LiveCD*':

- A self-contained development environment.
- Excellent hardware support (thanks to Ubuntu Linux)
- Integrated Sugar tools:
  - Required Python bindings and libraries.
  - Sugar emulator (run activities without XO hardware).
  - Example Sugar activities.
- Useful menu shortcuts (reduces unnecessary typing).
- Tutorial content and resources.

See right-hand side of poster for screenshots.

Collaboration between Sugar emulator instances.

xubuntu

1 → sugarlabs python

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CODEX Blog - Windows Internet Explorer
http://learninglab.lincoln.ac.uk/blogs/jmunro/
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Collaborative Development for the XO Laptop (CODEX)

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Abstract

The OLPC XO laptop is an interesting and simplistic system to develop applications for; however, there is a lack of information and resources from a university student's perspective. The CODEX project aims to research and produce a collaborative development environment for use by students wishing to create applications for the OLPC XO laptop system. Different platforms and environments were researched to determine the most suitable candidate. The end result of this project is the CODEX LiveCD, a usable self-contained development environment specifically catering for students developing software for the XO laptop. Students can now potentially use the LiveCD to collaboratively develop software for the XO laptop.

1 Introduction

The XO laptop is the unique system at the heart of the OLPC project. The laptop is specifically tailored and designed for use by children in developing countries. With its simplified Sugar interface the XO has stepped away from the traditional desktop-computing metaphor that we've grown to rely on.

All of the software associated with the OLPC project is built upon Open Source Software (OSS) and is freely available to anyone in the world. Much of the development effort is undertaken by the open-source community entirely for free; and this

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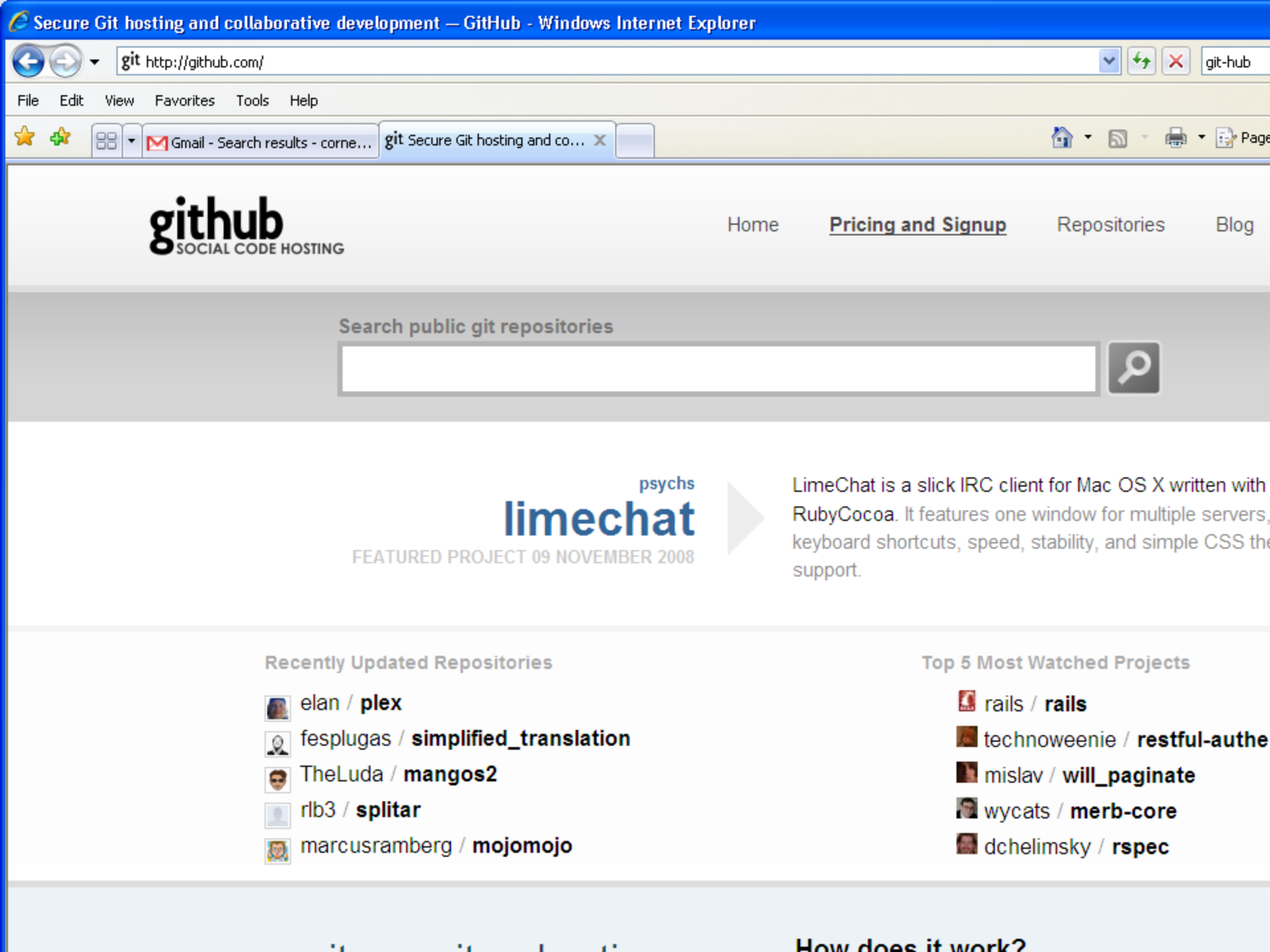
On-going Developments

- Current student projects developing “serious games” for the XO.
- Exploring a new forge with our 2nd year student group projects – github which has been described as FaceBook meets SourceForge!
- Further research on OSS communities and their development.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Blog
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psychs
limechat
FEATURED PROJECT 09 NOVEMBER 2008
LimeChat is a slick IRC client for Mac OS X written with
RubyCocoa. It features one window for multiple servers,
keyboard shortcuts, speed, stability, and simple CSS the
support.
Recently Updated Repositories
elan / plex
fesplugas / simplified_translation
TheLuda / mangos2
rlb3 / splitar
marcusramberg / mojomojo
Top 5 Most Watched Projects
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technoweenie / restful-authe
mislav / will_paginate
wycats / merb-core
dchelimsky / rspec

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Take Home Message

- **OSS projects need to plan to build both a user community and a developer community to ensure their long term sustainability.**
- **OSS projects can learn from web-based communities, especially social networking!**
- **Encouraging students as researchers and producers rather than consumers has benefits for both the student and the wider academic community as well as society at large.**

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Further Reading

- **Andrea Capiluppi, Martin Michlmayr: From the Cathedral to the Bazaar: An Empirical Study of the Lifecycle of Volunteer Community Projects. OSS 2007: 31-44**
- **Karl Beecher, Cornelia Boldyreff, Andrea Capiluppi, Stephen Rank: Evolutionary Success of Open Source Software: an Investigation into Exogenous Drivers. ECEASST 8: (2007) – Debian study**
- **Karl Beecher, Andrea Capiluppi, Cornelia Boldyreff, Identifying exogenous drivers and evolutionary stages in FLOSS projects, Journal of Systems and Software (In press)**