Enhancing Student Engagement with Open Source Software

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Why are we here today?

- Technology can be leveraged to reengage unmotivated and underperforming students. With that said, we will discuss how educators can introduce technology into the curricula that enhances the student experience, not trivialize it.

- While access to technology is expensive, recent advances in open source technology have leveled the playing field to a degree. We will investigate open source alternatives to expensive commercial programs and discuss how educators can locate and make use of legal software.

- This session will be valuable for any educator interested in reengaging unmotivated students with technology infused curricula, but is concerned about the rising cost of software.
What Motivates Students

- To paraphrase Deci and Ryan’s Self Determination Theory (SDT), all student motivation can be allocated to three main categories:

  - Amotivation – Students that tend to avoid acting in their best interest by either not placing value on a given task, or not having the self-confidence to believe that they are capable of accomplishing the specific task.

  - extrinsic motivation – Students that only work towards achievement if a reward, or threat of a negative outcome, is deemed great enough to warrant taking action. This would include the child that works hard in school to get straight A’s only because their parents promised a reward for such an outcome.

  - intrinsic motivation – Students that are academically engaged without the promise of external rewards. These students are motivated by an innate satisfaction derived from learning.
Countering Low Motivation: Mapping the Plan of Reengagement

- Identify what each student values on a personal, cultural, or inspirational level.

- Find a way to bring those elements into the classroom and map them to the core academic skills and course/program learning objectives.

- Finally, whenever possible, tie student interests to technology infused curricula which lead to definitive career or life goals.

- The ultimate goal of the reengagement plan is to help move students down the SDT scale from amotivated to intrinsic.
Why Choose Open Source

- High priced commercial packages
  - Most software suites costs as much if not more than most entry-level computers

- Software piracy
  - Peer-to-Peer networks like Bit-torrent
    - Illegal and morally dubious
    - It can lead to fines and other troubles if you are caught
The Software

Writing and Publishing
Web Development
Graphics, Drawing and Animation
Video and Sound Design
Mobile App and Game Design
Writing and Publishing
Celtx

- Pre-production and scheduling application for movie, TV, and theater
  - Screenplay writing
  - Storyboarding
  - Shot Scheduling
  - Plot outline and treatment development
  - Character development and motivation
  - Huge forum community for feedback and collaboration

- The open source world's answer to Final Draft

- Available for the Windows, Mac and UNIX/Linux

http://www.celtx.com/
Sigil is a multi-platform EPUB eBook editor and builder developed by Google.

- Create eBooks for many popular e-readers such as the iPad and iPhone.
- Available in multiple languages
- Available for the Windows, Mac and UNIX/Linux

http://code.google.com/p/sigil/
Scribus

- Open Source Desktop Publishing software
- The open source world's answer to Quark and Adobe InDesign
- Available in multiple languages
- Available for the Windows, Mac and UNIX/Linux

http://www.scribus.net/
LibreOffice

- The open source world's answer to Microsoft Office for the Mac.
- Based on the Open Office engine.
- Runs on Windows, Mac OSX, and Linux.
- Fully functional suite of office "like" apps
  - Writer - Word processor
  - Base - Database application
  - Calc - Spreadsheet application
  - Impress - Presentation software
  - Draw - Vector Drawing application
  - Math - Powerful GUI based math equations editor
- Available in multiple languages

http://www.libreoffice.org/
Web Development
Kompozer

- Kompozer is a complete web authoring system that combines web file management and easy-to-use WYSIWYG web page editing.

- Kompozer is designed to be extremely easy to use, making it ideal for non-technical computer users who want to create an attractive, professional-looking web site without needing to know HTML or web coding.

- An open source answer to Adobe Dreamweaver. Available only for Windows.

http://www.kompozer.net/
Aptana Studio

• Aptana is professional level open source web development tool. It was designed to be a single development environment for HTML5, CSS3, JavaScript, Ruby, Rails, PHP and Python.

• The free open source software eliminates Java coding for building Web 2.0 applications, allowing developers to focus on solving business problems.

• It is available for Windows, Mac OS X, Linux , or as a plugin for Eclipse.

http://www.aptana.com
Blue Griffon is a new HTML5 and CSS3 visual editor currently in beta and powered by Firefox’s Gecko rendering engine.

The open source world's answer to Adobe Dreamweaver and it is available for Windows, Mac OS X, and Linux.

This application will allow users to edit Web pages in conformance to the latest standards. HTML5 CSS3, XML, and JavaScript support is included.

http://www.bluegriffon.org/
WordPress is a state-of-the-art personal publishing system with a focus on aesthetics, web standards, and usability.

- Free and popular blogging software

- Very customizable via themes and templates

http://www.wordpress.org/
Graphics, Drawing and Animation
GIMP
(GNU Image Manipulation Program)

- Image and graphical editing software.
- The open source world's answer to Adobe Photoshop.
- Available in multiple languages.
- Available for the Windows, Mac and UNIX/Linux.

http://www.gimp.org/
Lightzone

- Lightzone is an open source photography workflow application, a virtual darkroom for photographers. It manages your digital negatives in a database and enhance raw images.

- An open source answer to Adobe Lightroom.

- Available for the Windows, Mac and Linux.

http://lightzoneproject.org/
• Vector-based drawing and graphical design program

• The open source world's answer to Adobe Illustrator

• Available in multiple languages

• Available for the Windows, Mac and UNIX/Linux

http://www.inkscape.org/
Pencil is an animation/drawing application for Mac, Windows, and Linux. It lets you create traditional hand-drawn cartoons using both bitmap and vector graphics. Pencil is free and open source, and similar to Flash and Toon Boom in functionality.

- It is primarily an animation tool
- Easy to use
- Available in multiple languages
- Available for the Windows, Mac and UNIX/Linux

http://www.pencil-animation.org/
Synfig Studio (also known as Synfig) is a free and open source 2D vector graphics and timeline-based computer animation program similar to Flash and Toon Boom.

- It is primarily an animation tool
- Available in multiple languages
- Available for the Windows, Mac and UNIX/Linux

http://www.synfig.org/
Video and Sound Design
Audacity

- Open source audio editor
- Excellent for podcasting
- Imports and exports most audio file formats (wav, aif, mp3, vorbis, etc.)
- Available in multiple languages
- Available for the Windows, Mac and UNIX/Linux

http://audacity.sourceforge.net/
Frinika is a free open source music workstation developed to be a complete platform for making music on a computer, able to run on several operating systems, and being open source to be able to embrace the best technology being available at any time.

- Contains sequencers, midi support, soft synthesizers, audio recorders, piano roll/tracker/notation editing and more.

- Runs on Windows, Mac and Linux.

http://frinika.appspot.com/
LMMS (Linux Multi-Media Studio)

- LMMS is a free cross-platform open source music creation program similar to Pro Tools, Logic Pro and Fruity Loops.
- Available for Windows and Linux
- [http://lmms.sourceforge.net/](http://lmms.sourceforge.net/)
Blender

- 3D modeling and animation software
- Imports and exports most 3D file formats
- The open source world's answer to Maya and Lightwave
- Large developer and user community
- Available in multiple languages
- Available for Windows, Mac, and Unix/Linux systems

http://www.blender.org/
The open source world's answer to Final Cut Pro and Adobe Premiere. There are two levels of service for the program, Lightworks Free and Pro.

Currently available for Windows, Mac and Linux.

http://www.lwks.com/
Pencil Project, not to be confused with Pencil animation, is a free open-source GUI tool that can be used to prototype mobile apps, web sites, and desktop applications.

- It is primarily a prototyping tool that people can easily install and use to create mockups.

- Available for the Windows, Mac and UNIX/Linux

http://pencil.evolus.vn/
Xcode

Xcode is an integrated development environment (IDE) containing a suite of software development tools developed by Apple for developing interactive software for OS X and iOS.

- It is a free download from the Apple Apps store and is available in multiple languages

- Available only for Mac

PhoneGap is an open-source mobile development framework developed by Adobe Systems to enable programmers to build applications for mobile devices using JavaScript, HTML5 and CSS3, instead of often less-known languages such as Objective-C.

- It is both a standalone framework and included in Dreamweaver 5.5 and later.
- Capable of exporting applications for Apple, Android, Blackberry, Nokia, Windows, and HP tablets and phones. Available in multiple languages
- Available for the Windows, Mac and UNIX/Linux

[http://www.phonegap.com](http://www.phonegap.com)
Android Studio

Android Studio is an Android development environment that provides integrated tools for development and debugging of mobile apps. It was designed as Android answer to Apple’s Xcode IDE.

- It is a free download from the Android.com and is available in multiple languages

- Available for Windows, Mac, and Linux

Thanks for listening

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