Taking Open Source Publishing Further:
Tools from the Open Publishing Lab at the Rochester Institute of Technology
our goals for today

- Open Publishing Lab (OPL) Overview
  - Our brief history, lab model

- Current projects in the lab
  - OPG, Page2Pub, iNews, SNG and more...

- Future projects
  - Where we are looking, how you can connect
Presenters

- Pat Albanese
  - Gannett Distinguished Professor, School of Print Media
- Tona Henderson
  - Associate Professor, Information Technology
- Michael Riordan
  - Assistant Professor, School of Print Media
- Matt Bernius
  - SPM Associate, PhD Student Cornell
overview of the opl
The Open Publishing Lab (OPL)

The OPL is a cross disciplinary center researching new methods of content creation and developing innovative, open source applications for publishing across various media.

The 3E’s… solutions we create

- **Extend** existing publishing platforms
- **Enable** new publishing products and business models
- **Empower** individuals and communities to easily tell their stories as never before.
OPL Structure & Staffing

- 24 Cross Disciplinary Researchers
  - Faculty, Alumni, and Students
    - CIAS – Print & New Media
    - GCIS – Software Engineering & IT
  - Partnered with RIT Libraries, the Lab for Social Computing, the Communications Department, Photojournalism Program, the CollaboRITorium, & the Public Knowledge Project

- Currently funded by an HP Lab’s Innovation Grant, the RIT Sloan Printing Industry Center, & the School of Print Media
OPL Students

- We are powered by student energy and innovation
  - Our students have diverse backgrounds, approaches
  - They are:
    - Enthusiastic
    - Motivated
    - Dedicated

- Many students volunteer simply to participate
  - The projects draw them in

- Five of our student innovators are with us today
  - Abdul, Rachael, Guy, John, Manu
  - We highly recommend them...
our current projects
the open publishing guide (opg)

http://opg.cias.rit.edu
project overview

 Repositories

 • Website to guide users through publication process
   - Choosing the appropriate tools
   - Finding freely available, open source assets
   - Supplying ready to use templates
   - Navigating copyright and creative commons rules
   - Getting books distributed through online retailers like Amazon.com

 • Audience: people with little/no technical experience

 • Technologies
   - The Drupal Content Management System
   - Digital Video (Vimeo)
   - Adobe Flex & Flash
   - Javascript (Jquery)
the guide’s objectives

- Understand barriers to user generated productions
- Provide repository of current standards and processes in self publishing
- Develop set of processes and options to enable non technical users to self publish
- Develop asset base of freely available content for reuse in publication
Multiple modes of navigation

🔧 Publishing Phases
- Planning > Creating > Designing > Publishing > Sharing

🔧 Topic Specific
- Tools – Publishing Resources to assist publishing and enhance your publication
  - Software, Publisher Options, Distribution, Copyright
- Assets – Guide to Open Source Assets
  - Photos, Text, Templates, Reference Guides
- How to – guided steps for publishing phases

🔧 Project Specific
http://opg.cias.rit.edu
the self publishing advisor

Tools of Change Conference: Taking Open Source Publishing Further

ritopl@cia.s.rit.edu ~ http://opl.rit.edu
free templates and video tutorials
benefits

- Increase the number of authors publishing
- Map the “ecosystem” of digital publishing
- Development of research community
  - Track areas of interest
  - Survey and outreach
  - Future consumer panels
page2pub
page2pub overview

- A browser extension that collects text, images, graphs, tables, etc. from multiple online resources and transforms content into a well-formatted, ad-hoc publication for print.

  - Capture user selections
  - Preserve content structure
  - Add metadata
  - Allow user editing
  - Provide templates for formatting
  - Output to PDF

- Standards and technologies
  - ePub (Open Ebook)
  - XML/XHTML
  - XUL/Javascript
  - Flex, Flash, Java
page2pub Modular Flow

Gather
- Wiki's
- Other
- Blog
- Online Journals

Transform
- Gathered content
- Transformation phase
- Ebook Standardized XML Format

Publish
- Document Rendering Engine
- Choosing Design Template
- .epub file
- send to print on demand Vendor
- Download PDF
- printable PDF
- XHTML website
- Ebook
- PDF
- Download PDF

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ritopl@cias.rit.edu ~ http://opl.rit.edu
Open Publishing Lab
page2pub User Interface

Open Publishing Lab

The Open Publishing Lab website is currently under maintenance and will return shortly.

Tools of Change Conference: Taking Open Source Publishing Further

ritopl@cias.rit.edu ~ http://opl.rit.edu
the innovation news (iNews)
project overview

Create a virtually instantaneous, cross media newspaper platform to document events at RIT.

- Reporters and photographers must be able to submit content from the field
- Web content must be able to quickly flow to print PDF Layouts

The technologies
- Digital Printing
- Drupal content management system
- Wireless Digital Cameras
- 2-Dimensional Barcodes
- Xinet & DALiM Systems
- Javascript
- XML and GoogleEarth
- Adobe PDF and Creative Suite
Stories and photographs are wirelessly uploaded via the iNews website:

- Wireless Laptops and other input devices (iPhone) were used to report stories.
- Images are submitted via laptops and wireless camera transmitters.
- Metadata is automatically added to all assets via the iNews platform.

Reporters wirelessly file stories from the field.
Content is reviewed in a central “control room”

Content was automatically formatted by the software

ImagineRIT 2008 Editing Staff

3 Text Editors

Rotating student photo editors managed by Photojournalism Professors

William Snyder, visiting professor and Pulitzer Prize winner

5 Technical Staffers

Students who developed the platform

A view from the back of the control room
The website is automatically updated as content is published by the editorial team.

- Content and metadata is automatically tagged as it was filed.
- Website is accessible via mobile phone, iPod Touch, and traditional web browsers
- Using GPS metadata, the news is also mapped onto Google Earth.

http://inews.cias.rit.edu
Content was exported as XML and flowed, via Javascript, into InDesign templates.

- Dimensions: single sheet, 12x18 sheet, duplexed
- PDF can be printed anywhere
  - For ImagineRIT 2008, we used five devices simultaneously
  - Each run length determined dynamically based on need
- PDFs of each edition were immediately available on web
project history and future

- Spring 2008
  - Developed iNews
  - 4 editions created to report ImagineRIT 2008

- Summer 2008
  - Released iNews as a Drupal Install Module

- Fall 2008
  - Install picked up by American University, others
  - Covered RIT Brick City Weekend with 6 editions

- Winter 2008/9
  - Video Integration
  - Covering an RIT Hockey Game

- Spring 2009 and Beyond
  - Covering ImagineRIT 2009
  - Pursuing external funding
  - Partnering with outside groups
social networking game (sng)
project overview

Create a game platform that
- Is easy to learn and fun to play
- Gets event attendees to meet and interact with each other
- Automatically tie those connections back to online spaces

The technologies
- Variable data printing
- 2 Dimensional Barcodes (QR Codes)
- PHP, Java
- Social computing platforms
registration

Visitors register for the game and receive a name tag, game card, and 2d barcode stickers.

- Name tags had icons that corresponded to their interest
- QR Code contains a unique identifier for that player.
Find players who share one of their icons
Trade stickers and add to game cards.
scoring

- Collect and scan game cards
- Platform processes results
  - Scores game
  - Connects users
  - Generates web pages
  - Creates visualizations
  - e-mails players with a link to secure personal results page
- Players can visit each other’s LinkedIn and Facebook pages, and are given the option to get into e-mail contact.
trackable results

At *ImagineRIT 2008*

- 138 people played the game
  - 57 Students
  - 32 Visitors
  - 17 Alumni
  - 13 VIP Players
  - 13 Faculty
  - 6 Staff
- 1320 stickers traded

a “Connection Wheel” showing the web of player’s interconnections
interest breakdown

At ImagineRIT 2008

Player’s self selected interests

- Innovative Science and Technology - 17%
- Creative Play - 17%
- Being Green - 16%
- Communications Revolution - 15%
- Artistic Visions - 14%
- Healthy Living - 8%
- New Ventures - 6%
- A Global View - 3%
- On Stage - 1%
open innovation

- All OPL projects released open source via our website
- Why?
  - Exposes our researcher’s work to the largest possible community
  - Provides opportunities for spin-off service based businesses
  - Service to community and industry
OPL Future Ideas

- Further development/release of all current projects
  - Testing, improving, refining and releasing
  - Gathering feedback and input from broader audiences

- Smart Repositories (Metamash)
  - Centralized content with meta-use tags
  - User-customized publications as one outcome

- Closed Book Scanning
  - 3D scanning
  - Mathematical rotations and slicing
  - Faster digital conversions
get involved

♫ We’re always looking partners in our success
  ♫ Industry informs our projects and research
  ♫ Partners can (and do) collaborate with us by:
    ♫ Sharing their insight and challenges
    ♫ Sponsoring our projects and research
    ♫ Employing our students and graduates

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♫ join our facebook group
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