

E-Portfolio Initiative at Capilano University

Lessons Learned and The Future

Trula Fountaine, Web Developer

Aurelea Mahood, LSBA Degree Coordinator

Scott Robarts, Web Server Administrator

Capilano University's Liberal Studies BA

- Bachelor of Arts degree
- Individualized Majors Program (120 credits)
- Course selection driven by each student's educational and/or professional goals
- 39 common credits: Liberal Studies Core Courses plus Writing, Science, Quantitative, and Language Requirements
- 81 elective credits in Arts and Sciences (option to complete max 21 credits in other Faculties)
- Interdisciplinary degree culminates in 3 exploratory research tutorials and a graduating (or capstone) project completed one-on-one with a faculty advisor

The Liberal Studies Challenge

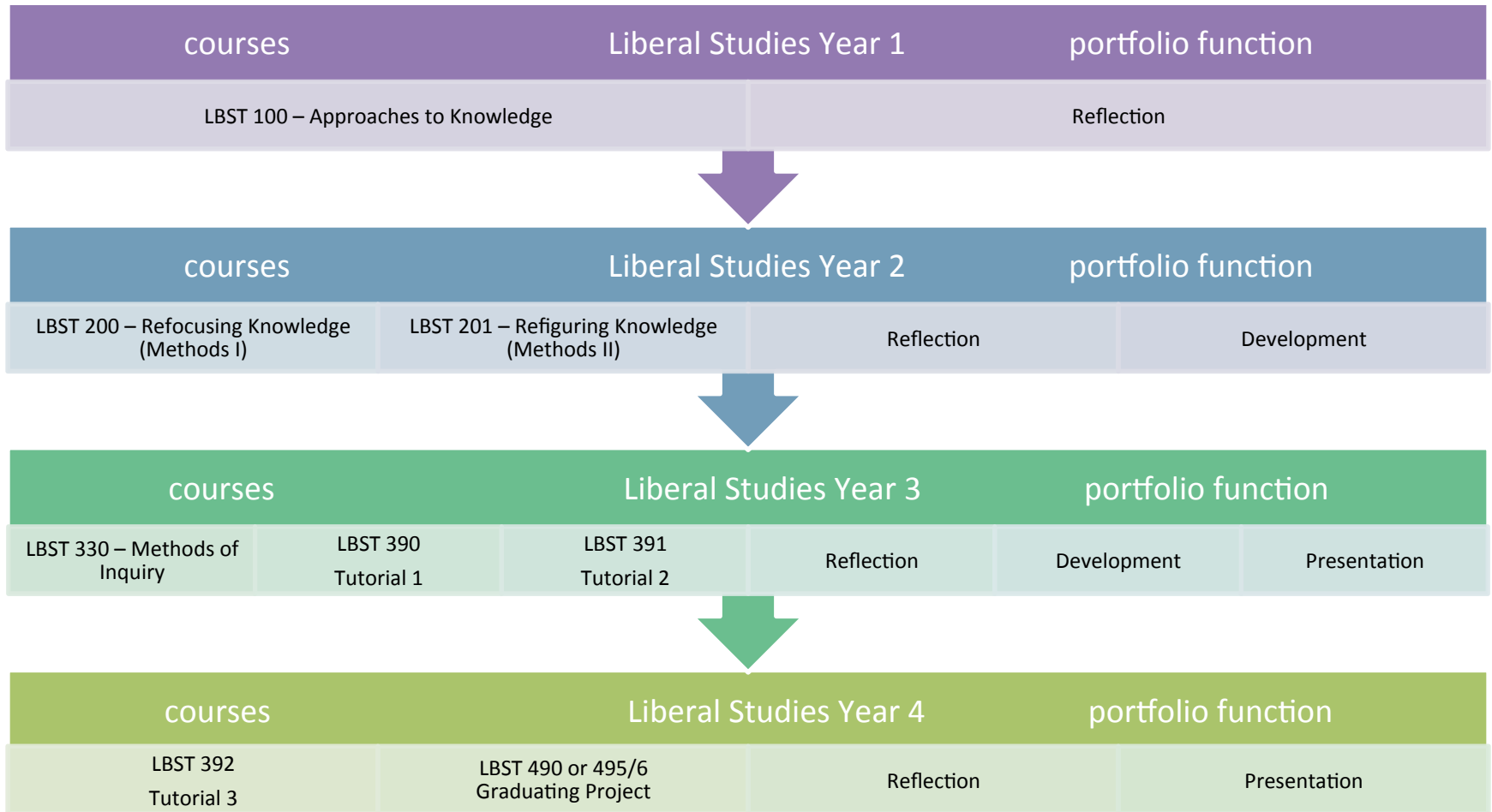
- COMMUNITY: Create a sense of community in a degree program with a high degree of student autonomy and choice
- CURATION: Ensure students have the tools to curate and archive their academic work throughout the course of their degree
- ACCESS: Provide faculty with easy access to students' signature work throughout their studies
- DISCOVERY: Permit students, faculty and other members of the university's Liberal Studies community to find and identify each other
- STORY: Ensure all Liberal Studies students have a compelling and accessible means by which to share their emerging expertise, knowledge, and skills, especially upon graduation

The ePortfolio Solution

Why ePortfolios?

- Capture student story.
- Showcase student work, reflections, and achievements.
- Student select the artifacts on display.
- Permit students to easily share their work with others, but only when they are ready to share.
- Highly adaptable.

Liberal Studies Core



Liberal Studies ePortfolios

Trula Fountaine, Web Developer
Capilano University

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Trula Fountaine

Web developer at Cap for 16 years



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Expression of Interest (EOI) for a Pilot Project

Liberal Studies Bachelor of Arts (LSBA) ePortfolio websites can:

- be used to build a **course website**
- allow **group authoring** on a blog
- provide **peer review** of authored content (editing with comments)
- provide **class webspace** development (adding annotated links/ building a shared resource for a class)
- provide a personal portfolio for **50 – 75 students**, faculty and staff (upload media – slides, video, images of your artwork)
- be available for an **unknown duration**

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Do not grieve, Admiral. It was logical. The needs of the many outweigh the needs of the few.



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Policies and Procedures

- Does marketing need to be involved – **branding**?
- How will **student privacy and permissions** be handled?
- What is our **privacy, intellectual property and copyright** statement in this situation?
- Who **owns** the ePortfolio?
- How will **site requests** be handled?
- How long will a learner's **records be retained**, so they may reflect back on progress between 'then' and 'now'?
- How long must **data be stored** after learner leaves the institution?
- What are the **institutional obligations** of stewardship?

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Technical

- What **system** should we use?
- How much **space** will be allocated?
- How do we set **privacy** controls?
- What **templates** do we make available?
- What **plugins**?
- What do we need to consider with regard to **Moodle, LDAP and other systems**?

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Support and Training

- Who will **support** the users?
- **Who** is training who?
- **When** will training begin?
- Who will write training **documentation**?

Evaluation of Pilot Project

- How do we know if this is a **successful** pilot project?

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Do we boldly go
where no man
has gone before?



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Hell no!

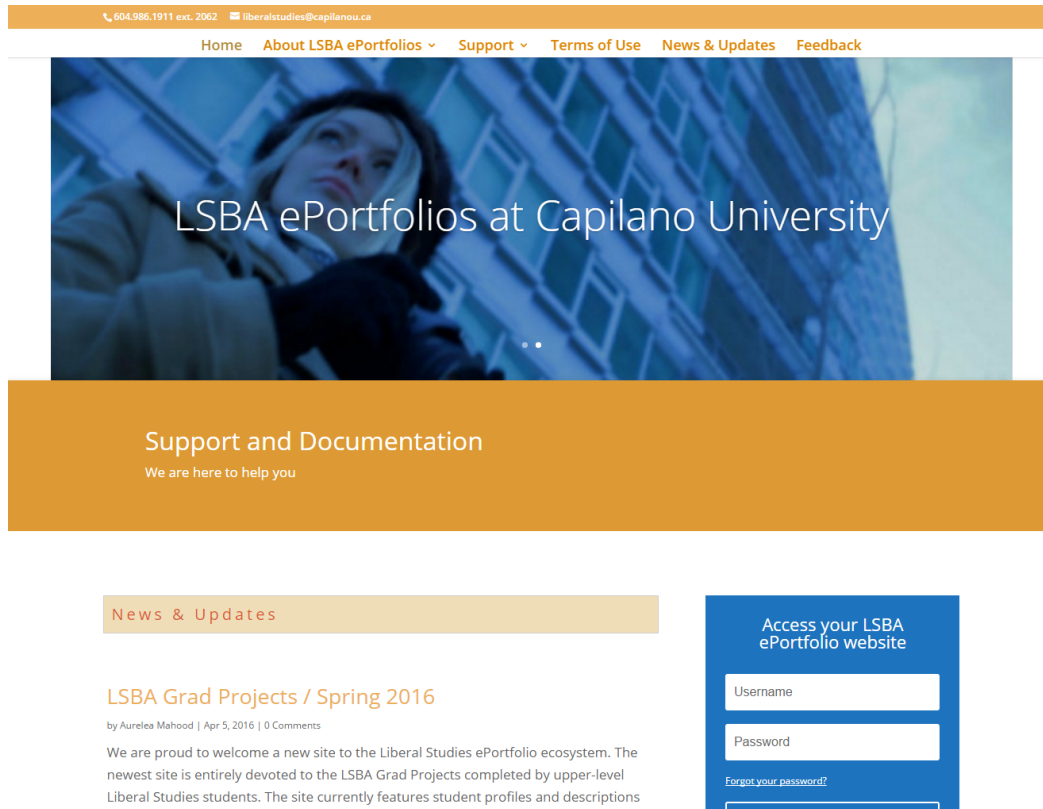


Let's see what's out there, there, there ...



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... standing on the
shoulders of giants.
~ Sir Isaac Newton

STOLEN
FROM UBC BLOGS
WITH PERMISSION
OF COURSE ...

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The Final Frontier ... of a Pilot Project

Measure for Success

- The LSBA program students were surveyed after the new sites were delivered.
 - » The feedback was **positive** and the surveys had a **high response** rate.
 - They had a **peer mentor student** available to assist with technical support during the roll out and delivery of the sites.



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Key Accomplishments:

- **Delivery** of final product occurred **prior to planned** go live date
- **Coordination and communication** between IT and Faculty was highly effective and **strengthened relationships** between the two areas
- As a pilot project, this allowed us to see how the technology works and **what to expect from future WordPress initiatives**



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Students are



And feedback is positive.



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Scott Robarts, Web Server Administrator
Capilano University

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Wordpress Multisite:



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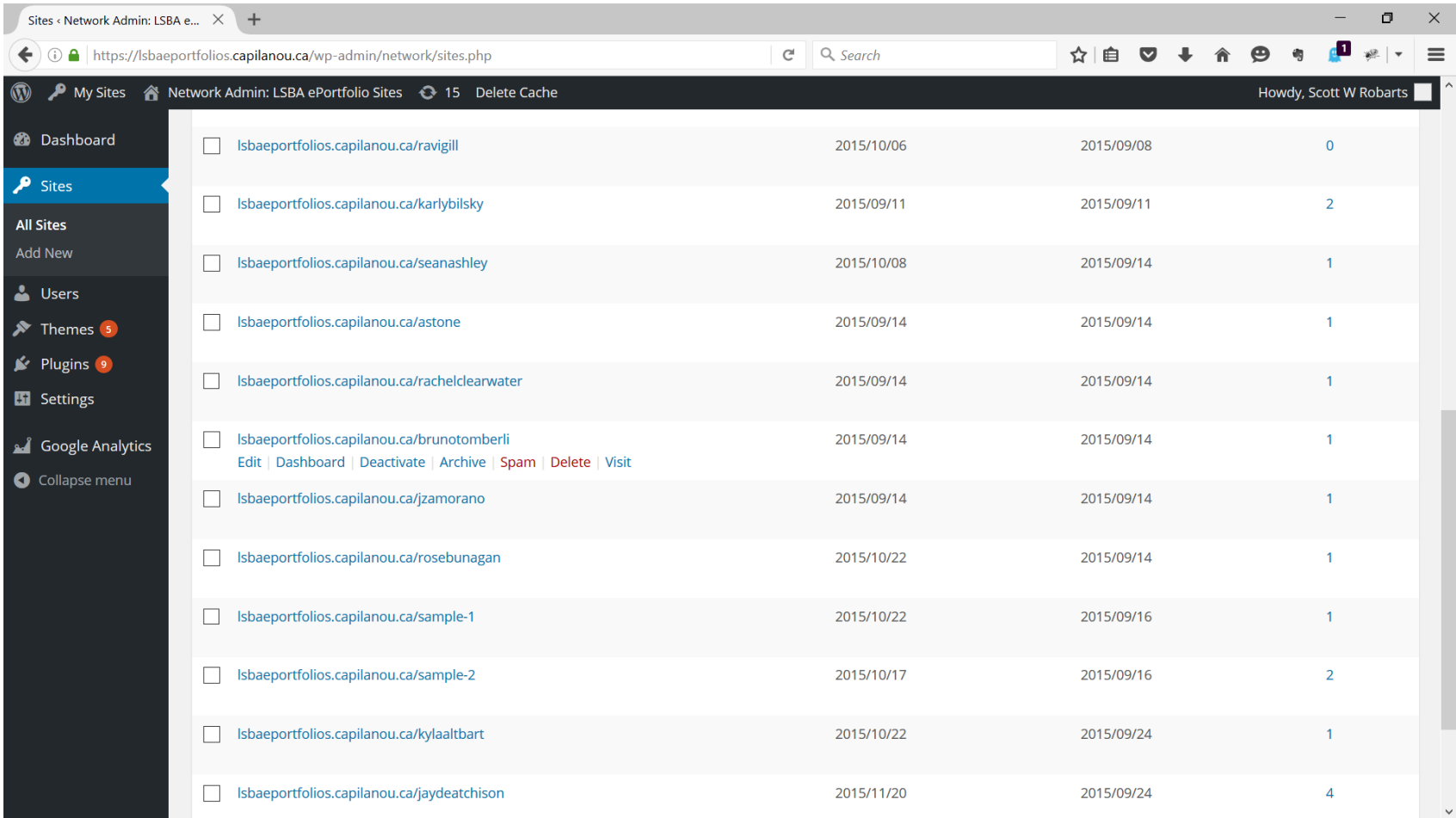
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Wordpress Multisite Concepts:

- Network versus site
 - Network of sites, rather than one site
 - Adapt administration practices
- Systems and Site Administrators
 - Network Admins
 - Admins site by site
- Subdomains or subfolders structure
 - Choose between;
 - Janedoe.eportfolios.capilanou.ca or
 - Eportfolios.capilanou.ca/janedoe
- Shared plugins and themes
 - One plugin, many sites
 - One theme many sites
- Centralized updates
 - Update Wordpress once

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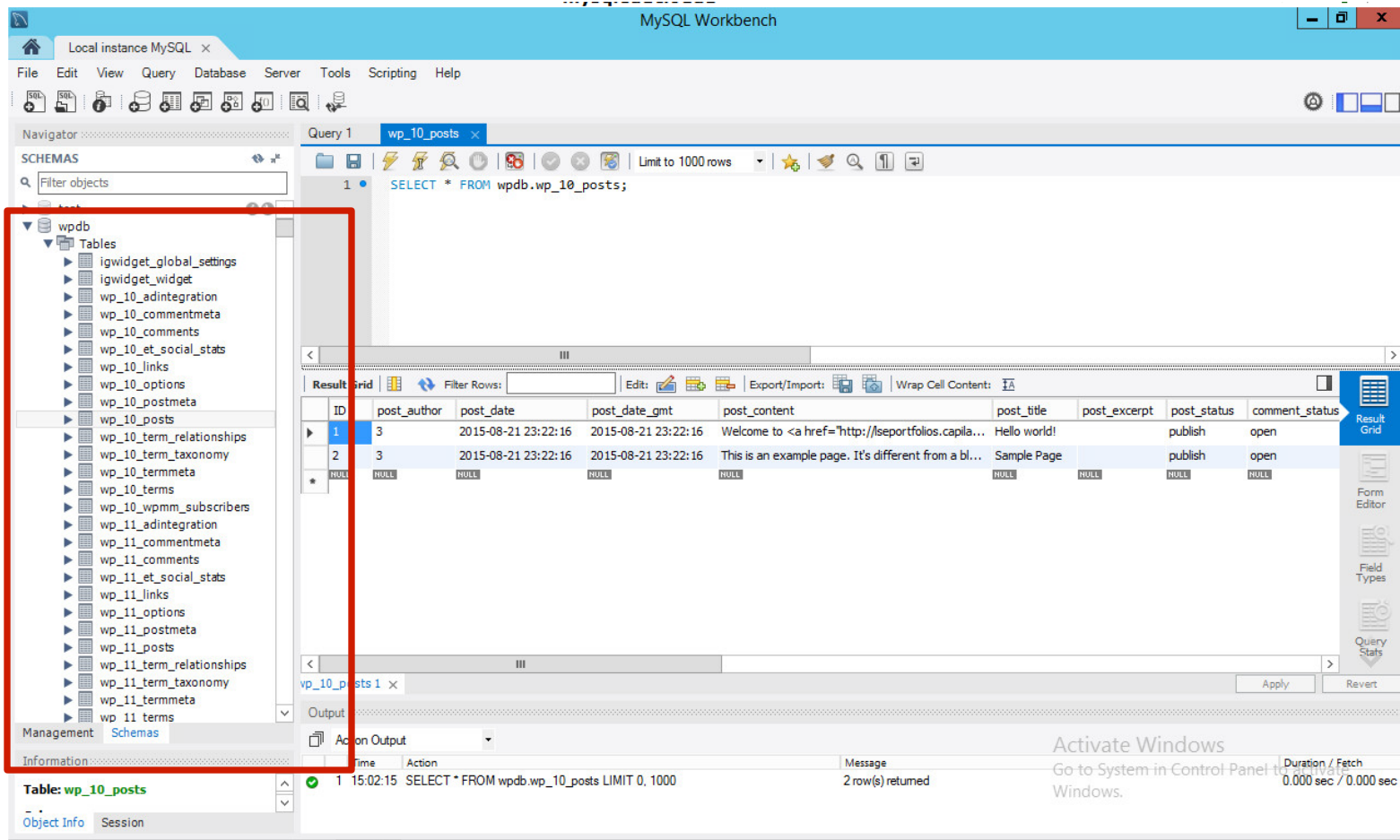


The screenshot shows the WordPress Network Admin interface for the domain lsbaeportfolios.capilano.ca. The left sidebar contains navigation links: Dashboard, Sites (selected), All Sites, Add New, Users, Themes (5), Plugins (9), Settings, Google Analytics, and Collapse menu. The main content area displays a table of sites with columns for site name, creation date, last update date, and a count. Each row includes a checkbox for site management actions.

Site Name	Created	Last Updated	Count
<input type="checkbox"/> lsbaeportfolios.capilano.ca/ravigill	2015/10/06	2015/09/08	0
<input type="checkbox"/> lsbaeportfolios.capilano.ca/karlybilsky	2015/09/11	2015/09/11	2
<input type="checkbox"/> lsbaeportfolios.capilano.ca/seanashley	2015/10/08	2015/09/14	1
<input type="checkbox"/> lsbaeportfolios.capilano.ca/astone	2015/09/14	2015/09/14	1
<input type="checkbox"/> lsbaeportfolios.capilano.ca/rachelclearwater	2015/09/14	2015/09/14	1
<input type="checkbox"/> lsbaeportfolios.capilano.ca/brunotomberli Edit Dashboard Deactivate Archive Spam Delete Visit	2015/09/14	2015/09/14	1
<input type="checkbox"/> lsbaeportfolios.capilano.ca/jzamorano	2015/09/14	2015/09/14	1
<input type="checkbox"/> lsbaeportfolios.capilano.ca/rosebunagan	2015/10/22	2015/09/14	1
<input type="checkbox"/> lsbaeportfolios.capilano.ca/sample-1	2015/10/22	2015/09/16	1
<input type="checkbox"/> lsbaeportfolios.capilano.ca/sample-2	2015/10/17	2015/09/16	2
<input type="checkbox"/> lsbaeportfolios.capilano.ca/kylaaltbart	2015/10/22	2015/09/24	1
<input type="checkbox"/> lsbaeportfolios.capilano.ca/jaydeatchison	2015/11/20	2015/09/24	4

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The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'SCHEMAS' tree with 'wpdb' expanded, listing various tables. A red rectangle highlights the 'wp_10_posts' table. The main window shows a query result for 'wp_10_posts' with the following data:

ID	post_author	post_date	post_date_gmt	post_content	post_title	post_excerpt	post_status	comment_status
1	3	2015-08-21 23:22:16	2015-08-21 23:22:16	Welcome to <a href="http://seportfolios.capila..."	Hello world!		publish	open
2	3	2015-08-21 23:22:16	2015-08-21 23:22:16	This is an example page. It's different from a bl...	Sample Page		publish	open

The bottom status bar shows the query: 'SELECT * FROM wpdb.wp_10_posts LIMIT 0, 1000' and the message: '2 row(s) returned'.

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Multisite Problems:

1. Not all plugins and themes compatible
2. User management challenges
3. Some things counter-intuitive
4. Privacy concerns

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User management challenges:

- Mapping AD groups to Wordpress roles
- AD groups for subscribers and administrators
- How to allow users to administer their own sites but not others?
- User access has to be manually elevated – not a sustainable solution

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Authentication:



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Risks:

- Significant increase in attack surface
- Responsibility for maintaining student and faculty data
- Privacy concerns – will user share too much information?
- Prevention; backups, updates, and education

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The Infrastructure: BCNet Educloud



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Educloud Features:

- Use of vApps
 - Collection of servers, easily to replicate, clone enter farm contained in vApp
- VPN integration
 - Seamless connection to CapU network
- Multiple networks
 - Can have different network for different uses, e.g. web servers on one, databases on another
 - More security by isolating servers
- Load balancing
 - Simple load balancing available right in Educloud
- Automated backups
 - Backups provided by Educloud, either local or remote

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The screenshot displays the 'Capilano University - IT Services' web interface. The top navigation bar includes 'Home', 'My Cloud', 'Catalogs', and 'Administration'. The user is logged in as 'scottrobarts' (Organization Administrator). The main content area shows a 'Quick Access' section with instructions and three buttons: 'Add vApp from Catalog', 'Add vApp from OVF', and 'Build New vApp'. Below this, four vApp thumbnails are visible: 'prod_LSBportfolio_vApp' (Partially Running), 'vApp_testing_lab' (Partially Running), 'WebFailover_vApp' (Running), and 'test_LSBportfolio_vApp' (Running). Each thumbnail includes a status indicator, a 'Lease never expires' message, and an 'Open' button. A sidebar on the right lists navigation options under 'Organizations', 'Content', and 'Users & Groups'. The bottom status bar shows '0 Running' and '0 Failed' vApps, the 'BCNET' logo, 'EduCloud Server powered by BCNET', and 'Powered by vmware'.

Capilano University - IT Services

scottrobarts (Organization Administrator) | Preferences | Help | Logout

Home My Cloud Catalogs Administration

Set up this organization

Quick Access

To start a vApp, click Start. To use a powered on vApp, click on its thumbnail.

+ Add vApp from Catalog + Add vApp from OVF * Build New vApp

prod_LSBportfolio_vApp

Partially Running Open

Lease never expires

vApp_testing_lab

Partially Running Open

Lease never expires

WebFailover_vApp

Running Open

Lease never expires

test_LSBportfolio_vApp

Running Open

Lease never expires

Organizations

- Org Settings
- Manage VDCs

Content

- Manage vApps
- + Add vApp
- + Add vApp from OVF
- * Build New vApp
- Manage Catalogs
- + New Catalog

Users & Groups

- Administer Users
- Notify Users

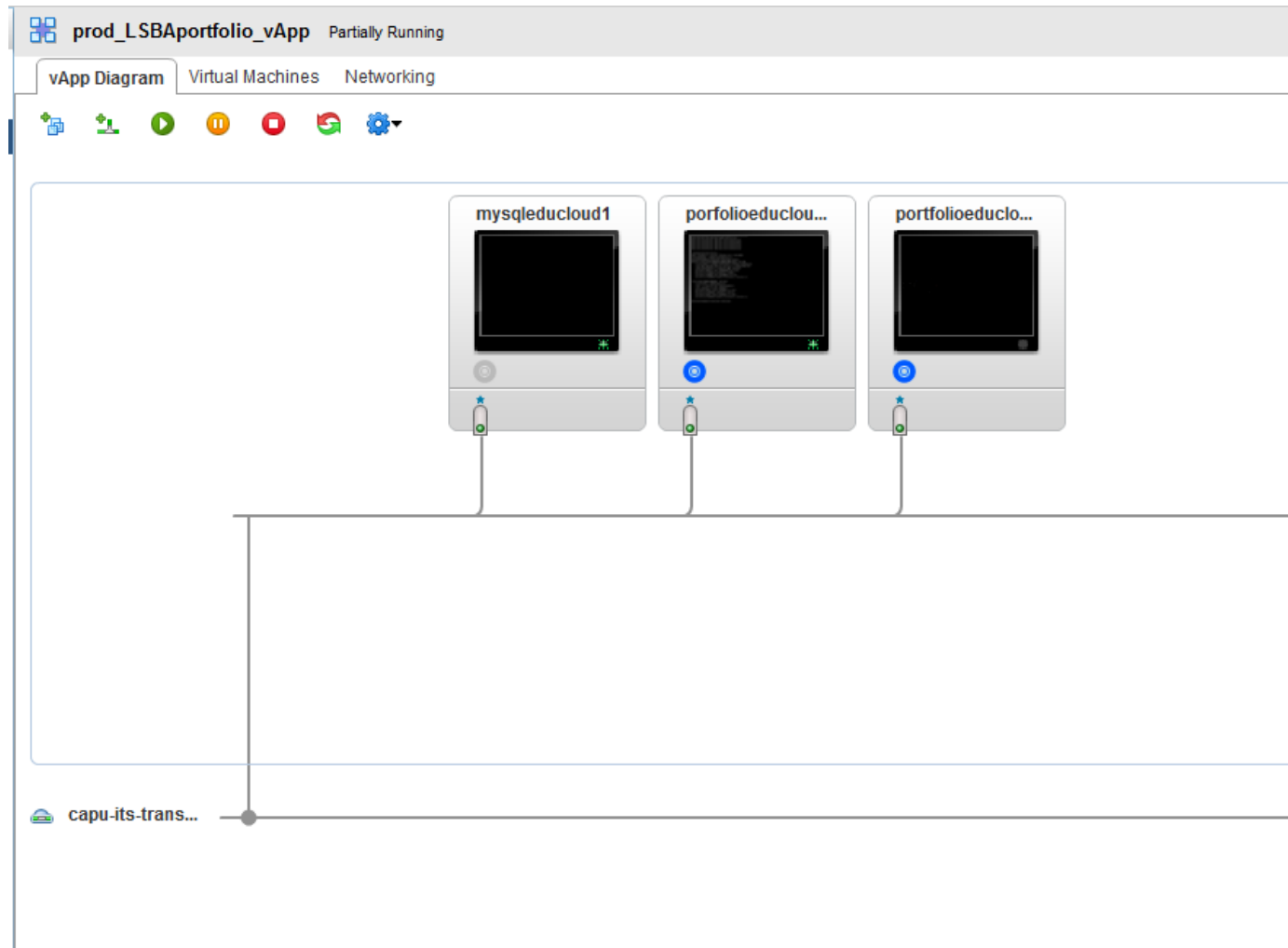
0 Running 0 Failed

BCNET EduCloud Server powered by BCNET

Powered by vmware

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What's Next?

E-portfolios or Wordpress sites
available for all students and
faculty.

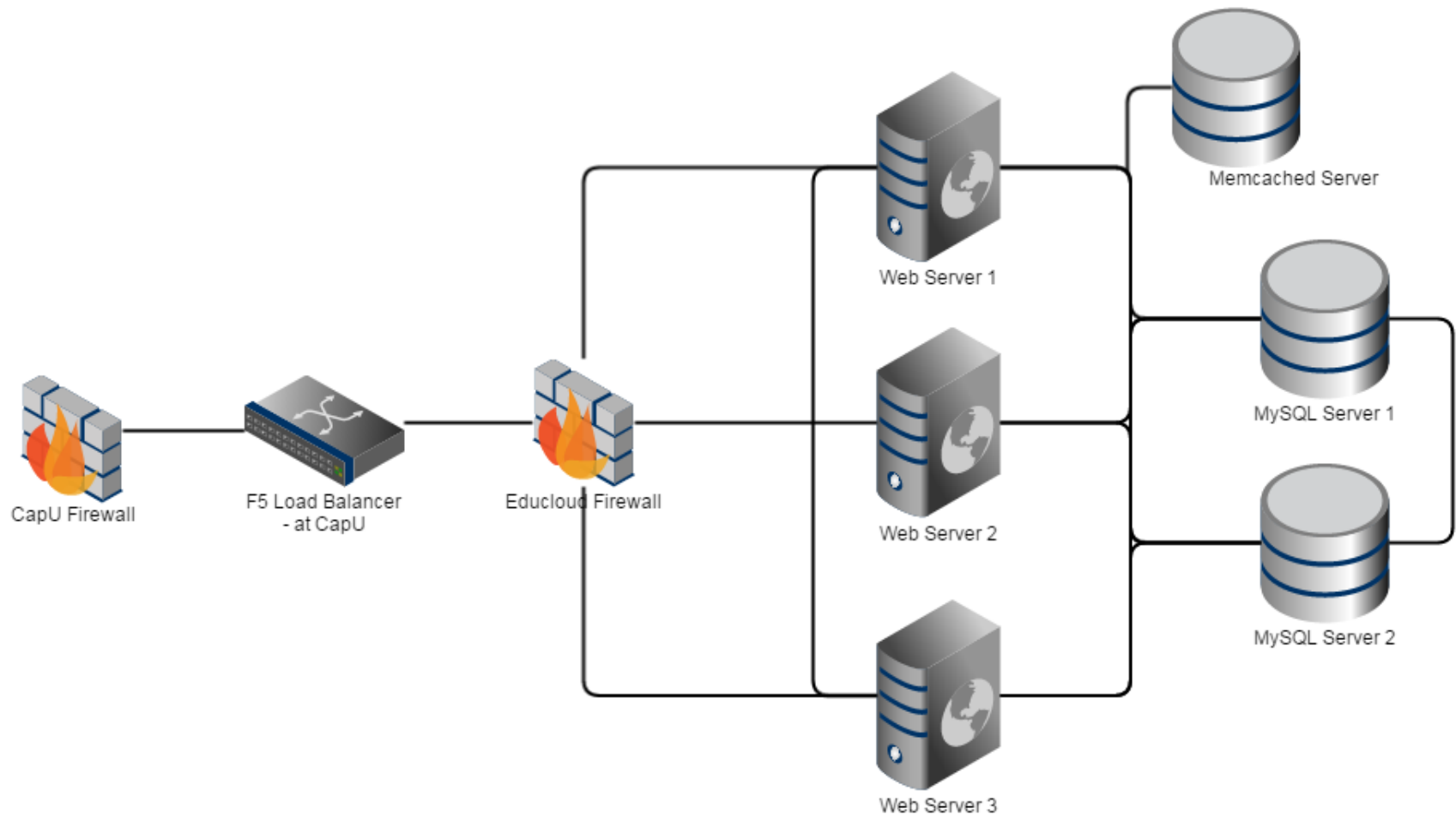
Could be thousands of sites.

How do we scale?

High-availability, redundant, load balanced Wordpress

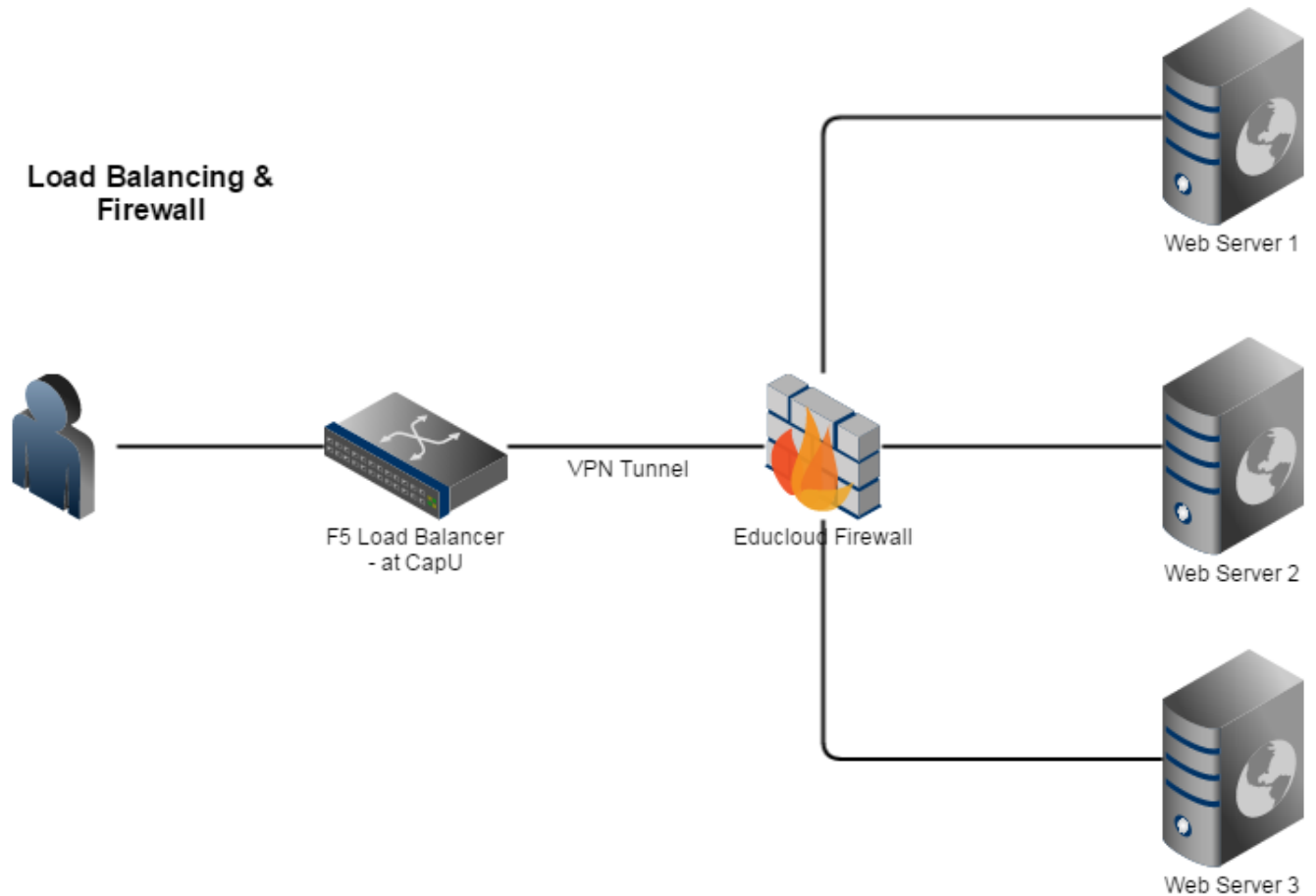
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Session Management and File Synchronization

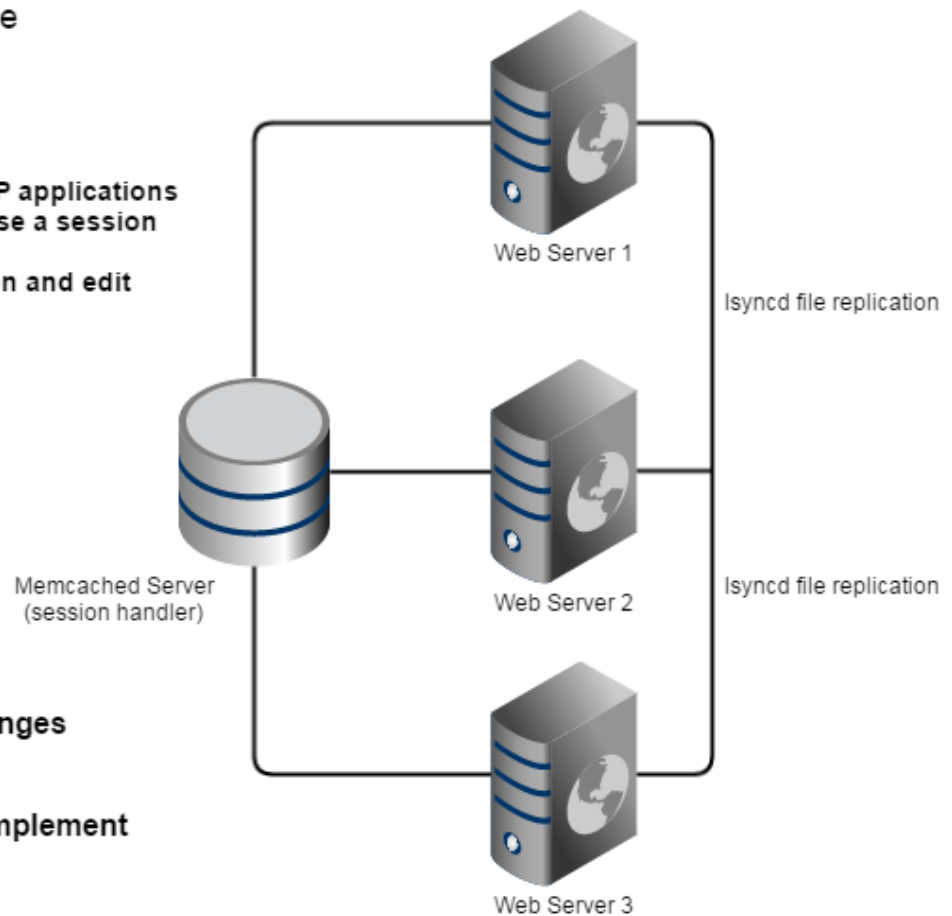
Memcached Session Handling

- Provide session handling for PHP applications
- Each node connects to server, use a session handler
- Installation= install php extension and edit php.ini

Isyncd file synchronization

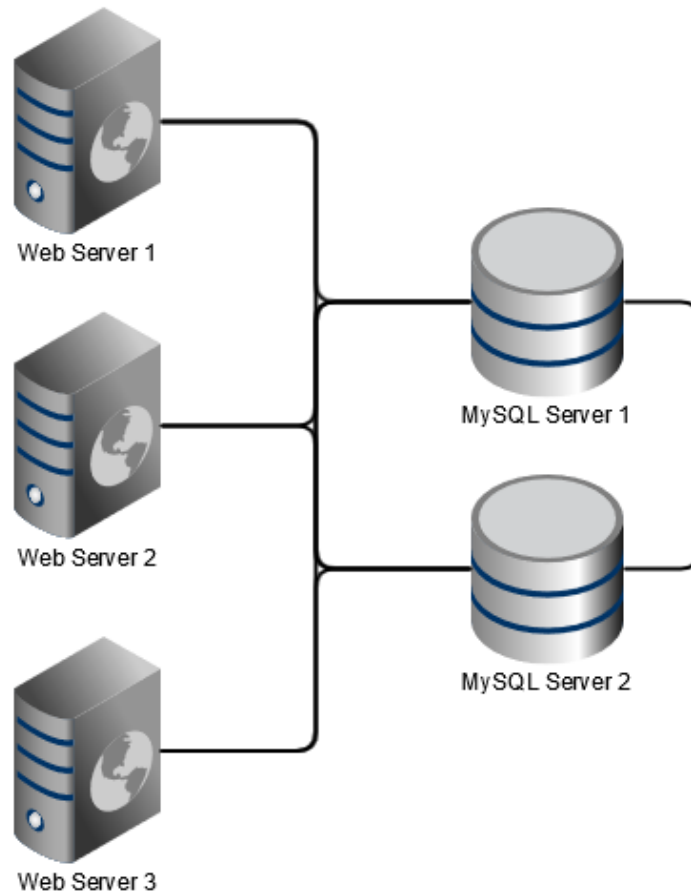
- live mirror solution for files
- monitors file systems for changes
- uses rsync

**** Still testing currently, may implement GlusterFS alternatively**



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Windows Server Failover Clustering

- One primary node, one secondary node
- Not load balanced, but allows for automatic failover to backup server
- MySQL data replicated to both servers to allow business continuity in case of failure
- Also allows maintenance without outage

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The Future

The Future: Opportunities and Challenges – A Few Examples

- Challenge 1: Scaling up
- Challenge 2: Ensure “folio thinking” is experienced as a meaningful supplement to traditional coursework by Liberal Studies students and faculty alike
- Opportunity 1: Refine and expand mechanisms for supporting students and faculty
 - Example 1: Peer Mentors
 - Example 2: Folio Thinking Campus Learning Community
- Opportunity 2: Share our experiences, models, and resources with our campus community and beyond

Liberal Studies Grad Projects

ABOUT / RESOURCES



Congratulations to all of the students presenting at this evening's Liberal Studies Grad Showcase!

🕒 2016/03/31 💬 0

Taylor / Spring 2016



Taylor Smith has served on the board of directors at the Capilano Students Union since 2013. She is a freelance writer whose work has appeared in VICE, THE CANADIAN PRESS, and the

Sarah / Spring 2016



Sarah Noon-Ward has worked as an activist and advocate with marginalized communities for over a decade. Working with organizations like the North Shore Women's Centre, North Shore Neighbourhood House, Yew Transition House, the Salvation Army, and the Sechelt Indian Band,...

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Holly / Spring 2016



Holly Tang began her studies at Capilano when it was redesignated a university. After a handful of semesters, she left to complete associate degrees in Psychology and Health Sciences at another institution. With the desire to complete a bachelor's program,...

[Continue Reading →](#)

🕒 2016/03/29

Thank you!

Aurelea Mahood : amahood@capilano.ca

Scott Robarts : scottrobarts@capilano.ca

Trula Fountaine : tfountai@capilano.ca