



SUBJECT	LEARNING TECHNOLOGY ENVIRONMENT RENEWAL PROJECT (WAS NGDLE)
SUBMITTED TO	Learning & Research Committee
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LEAD EXECUTIVE	Andrew Szeri, Provost and Vice-President Academic, UBC Vancouver
PRESENTED BY	Simon Bates, Associate Vice-Provost Teaching and Learning (Vancouver)
SUPPORTED BY	n/a

PRIOR SUBMISSIONS

The subject matter of this submission has been considered previously by Learning & Research Committee on the following occasions:

1. June 14, 2017 Closed Session
 2. June 14, 2016 (Open) – presented for information
(http://bog3.sites.olt.ubc.ca/files/2016/05/1.5_2016.06_Next-Generation-Digital-Learning.pdf)
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EXECUTIVE SUMMARY

The Learning Technology Environment Renewal Project (LT Renewal) sought to replace the core of UBC's ecosystem of tools and applications to support teaching and learning, previously Blackboard (locally called *Connect*) with a system that takes advantage of improvements in scalability and usability.

This project took a very different approach to engaging faculty and students in the assessment of needs, by involving them directly in the project. Faculty members were hired (through course buy-out) to consult with their peers about their needs; likewise students were hired through co-op, to do the same. The consultations indicated that usability was the #1 priority for both groups.

After a multi-phase procurement process, UBC selected Canvas by Instructure, and on June 12, 2017, signed a three-year agreement (with renewal options). Canvas was made available to faculty members in July and to students on September 5, 2017. UBC completed the transition to Canvas by September 2018. Connect was permanently decommissioned on February 1, 2019.

In 2014, in a benchmarking survey, fifteen percent (15%) of UBC faculty members indicated that they were satisfied with Blackboard ease of use, compared to 48% of faculty at peer institutions (and 56% of all faculty who participated in the survey). At present, 72% of UBC faculty rated overall usability and experience as positive; more than 80% of students agreed.

The final overall project cost was \$4.31 million, which was within the \$6.0 million budget approved at Board 3 (\$4.6M + 1.4M contingency).

SUPPLEMENTAL MATERIALS

1. Post-Completion Report Learning Technology Environment Renewal Project (LTE Renewal)



Post Completion Report

Learning Technology Environment Renewal Project (LTE Renewal)

LT Hub: Centre for Teaching, Learning & Technology and UBC IT

9/1/2019

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Table of Contents

- 1.0 Executive Summary..... 2
- 2.0 Business Outcomes..... 2
 - 2.1 Background and Business Need..... 2
 - 2.2 Project Scope 3
 - 2.3 Project Benefits..... 4
- 3.0 Change Management..... 5
 - 3.1 Strategy and Plan 5
- 4.0 Project Outcomes 7
 - 4.1 Lessons Learned..... 7
 - 4.2 What went really well 8
- 5.0 Sustainment..... 9
 - 5.1 Governance..... 9
 - 5.2 Data Governance 9
 - 5.3 Ongoing Costs 9
- 6.0 Outstanding Issues..... 10
- 7.0 Outstanding Risks 10
- 8.0 Project Performance..... 10
 - 8.1 AEV – Aggregate Estimated Value..... 10
 - 8.2 Under-budget Amounts and Unused Contingency..... 10
 - 8.3 Schedule 11
- 9.0 Future Plans..... 11



1.0 Executive Summary

The Learning Technology Environment Renewal Project (LT Renewal) sought to replace the core of UBC's ecosystem of tools and applications to support teaching and learning, previously Blackboard (locally called *Connect*) with a system that takes advantage of improvements in scalability and usability.

This project took a very different approach to engaging faculty and students in the assessment of needs, by involving them directly in the project. Faculty members were hired (through course buy-out) to consult with their peers about their needs; likewise students were hired through co-op, to do the same. The consultations indicated that usability was the #1 priority for both groups.

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2.0 Business Outcomes

2.1 Background and Business Need

Learning technology is increasingly seen as a key enabler for teaching and learning innovation and enhancement. UBC faculty have been using a learning management system (LMS) since 1996, when WebCT was created by a UBC computer science professor. That product was sold to Blackboard in 2005, and Blackboard ended support for the product in January 2013. In 2012/2013, UBC implemented Blackboard Learn (called *Connect* at UBC) after a two year community evaluation process.

Stability and performance issues at the start of the 2013-14 academic session caused significant disruption to faculty and students, eroding trust in the application and its performance. Data collected six months later from the 2014 ECAR benchmark survey of faculty and technology demonstrated widespread dissatisfaction with the system, in terms of availability, response time and ease of use. A wide-ranging consultation with faculty further confirmed this dissatisfaction.

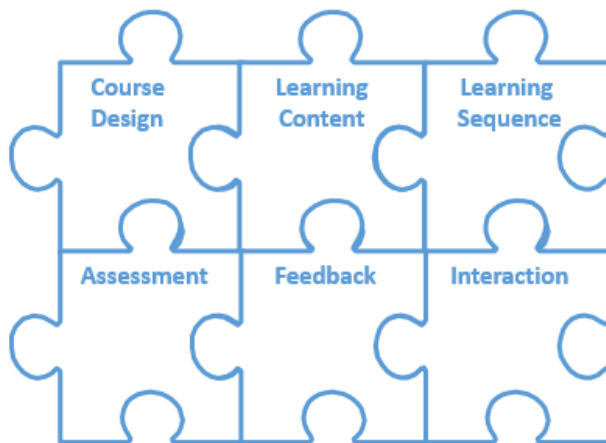
As a result, we undertook a short, focused Learning Technology Ecosystem Project (LTEP) to create a vision for learning technology at UBC, to provide clarity on the current state of tools and services, to envision what a future state might look like, and to outline a roadmap to achieve the future state. Replacing the LMS was the first item on the resulting three year roadmap.

2.2 Project Scope

The tools and technology used to support teaching and learning have changed dramatically in the last decade and have gone from being ‘nice to have’ optional extras to essential elements of modern pedagogy. Faculty have been reconsidering how to make the very best use of class room time, blending in-person and online activities and interactions with course content and assessments. Hardware delivery platforms have changed: mobile has become important and will soon become the dominant channel for interaction with learning content. Learning management systems have evolved and become digital learning platforms, environments that integrate a wide variety of other tools and applications that share data. Ease of access to the data generated in learning interactions in various systems, so as to be able see progress and make near-real-time adjustments, is becoming more of a priority for faculty and learners.

As a consequence, UBC sought a solution that contained the core functionality required. At minimum, the system was required to have the ability to store and provision access to content; tools for communication within a course, between instructor and students and between students; tools for assessment and grade management; and a framework for integrating third party tools.

The following functions were within scope of the LT Ecosystem:



Function	Description
Course Design	<ul style="list-style-type: none"> Planning and conceptual design of a course by working backwards from the intended learning outcomes
Learning Content	<ul style="list-style-type: none"> Selection, development and management of learning content to be delivered in a course
Learning Sequence	<ul style="list-style-type: none"> Development and delivery of the sequence of learning activities that take place during a course
Assessment	<ul style="list-style-type: none"> Development, delivery and management of assessment methods and tools to measure students understanding
Interaction	<ul style="list-style-type: none"> Formal and informal Interactions between faculty and students as well as interactions amongst peers during a course delivery
Feedback	<ul style="list-style-type: none"> Feedback delivered from faculty to students as well as feedback provided by students to faculty (not part of formal evaluation processes)
Evaluation	<ul style="list-style-type: none"> Formal and informal evaluation of an instructor, course, peer and /or learning experience

- In scope of the LT Ecosystem Project
- Out of scope of the LT Ecosystem Project



At the beginning of the project, we worked closely with the Student Academic Systems Initiative (SASI) team to ensure that there was no unnecessary duplication in functionality, and will continue to work with the Integrated Renewal Program during the Workday Student implementation. At present, the decision is that all assessment activities, as well as the grades associated with them, will be part of the learning technology ecosystem. The results of those assessments will be passed automatically, though the level of detail in the grades transfer has not yet been decided.

Activities within scope of the LTE project were:

- Transition courses from Blackboard to Canvas through migration or redesign;
- Provide training for transition of course content and use of Canvas;
- Establish a pipeline for the Student Information System (SIS) and Scientia to automatically accept add/drop of students, teaching assistants and instructors into Canvas;
- Integrate learning tools into Canvas via the Learning Tools Interoperability (LTI) standard; and,
- Decommission Blackboard.

All items within scope have been achieved.

2.3 Project Benefits

Benefit	How was this demonstrated?
Able to take advantage of technological advances such as mobility and cloud.	Canvas has Student & Instructor Apps for mobile delivery; it is cloud native.
Improves usability for faculty & students.	Canvas was selected for usability. Survey results demonstrate that this has been achieved. (See below)
Provides easier access to data on learning events.	Canvas provides ability for student / instructor access to learning data and emits standard learning events in real time, which are consumed in a UBC learning record store for later analysis.
Supports and facilitates easy integration of a wide variety of tools and applications.	Canvas is extensible; keeping up to date with interoperability standards is a contractual requirement.
Supports emerging pedagogical priorities.	Canvas is flexible; where further flexibility is required, applications can be integrated easily to provide a seamless experience.



3.0 Change Management

3.1 Strategy and Plan

Faculty, Department, Unit or Group Impacted	Number affected	Impact	High Level Strategy and Plan
Academic Administrators	80	Low – Medium (depending on role)	High level communication and engagement through regular updates, as well as meetings with two of Jennifer Burns, Simon Bates, Claudio Pini or Marianne Schroeder; gave Deans ability to determine how courses in their Faculty would transition.
All faculty	6,057	High	Hire faculty to talk to their peers; these faculty became champions in the implementation. Communication through web, social media, through email at all levels, through town hall and ability to ask questions directly of shortlisted vendors. Ten active courses in pilot across the institution in both systems. Faculty representation on the RFP selection committee. Website tailored to their needs. Regular input, surveys, invitations to talk directly to the vendor. Professional development opportunities (formal, drop-in, 1:1). 24/7 Tier 1 support for 24 months following launch.
All students	64,822	High	Hire students to talk to their peers; hire students to assist with course migration. Student created videos for their peers. Communication through web, social media, through email at all levels, through town hall and ability to ask questions directly of shortlisted vendors. Ten active courses in pilot across the institution in both systems. Website tailored to their needs. Student representation on the RFP selection committee. Formal usability testing. Regular input, surveys, invitations to talk directly to the vendor. 24/7 Tier 1 support for 24 months following launch.
Teaching Assistants	~9,000	High	Communication through web, social media, through email at all levels, through town hall and ability to ask questions directly of shortlisted vendors. Ten courses in pilot across the institution. Regular input, surveys, invitations to talk directly to the vendor. 24/7 Tier 1 support for 24 months following launch.
Instructional support staff	~80	High	Participation in procurement activities. Formal monthly meetings, information communication channel (slack), formal communication. Website tailored to their needs. Representation on the RFP selection committee.

Impact Legend

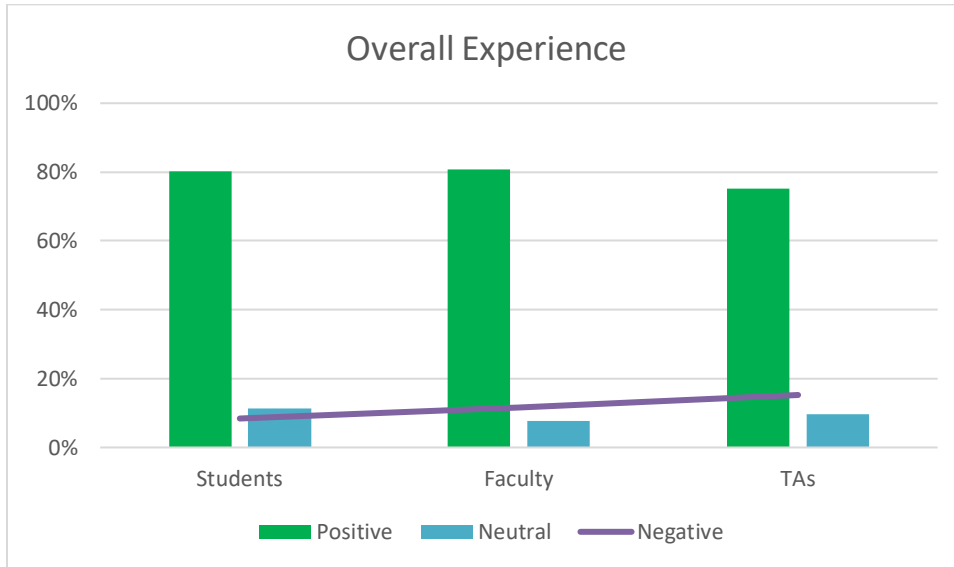
High – significant change in process, technology or behavior affecting over 50% of the stakeholder’s job. Significant impact

Medium – a change in one of the above areas affecting between 25 and 50% of the stakeholder’s job. Moderate impact

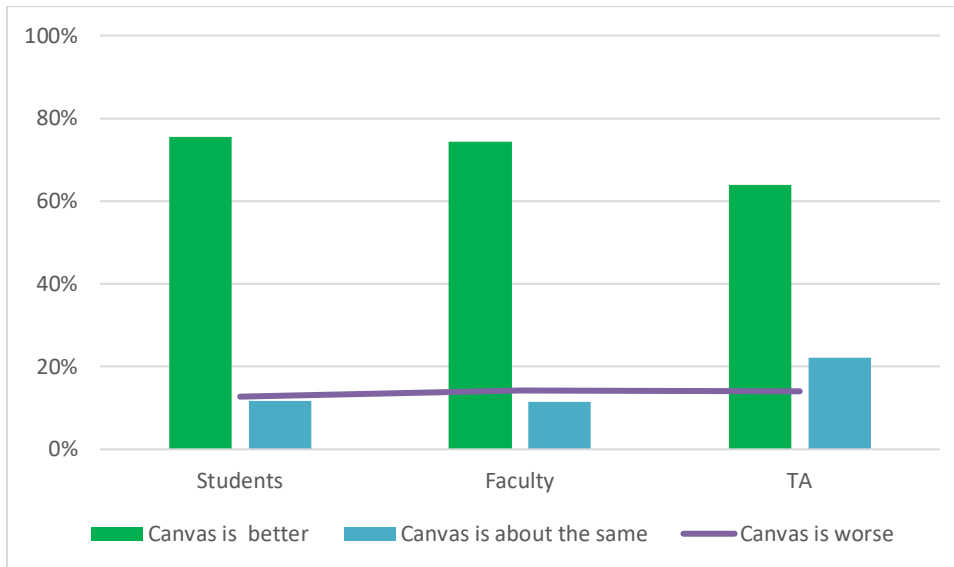
Low – a change in one of the above areas affecting less than 25% of the stakeholder’s job. Minimal impact

3.2 Client Survey

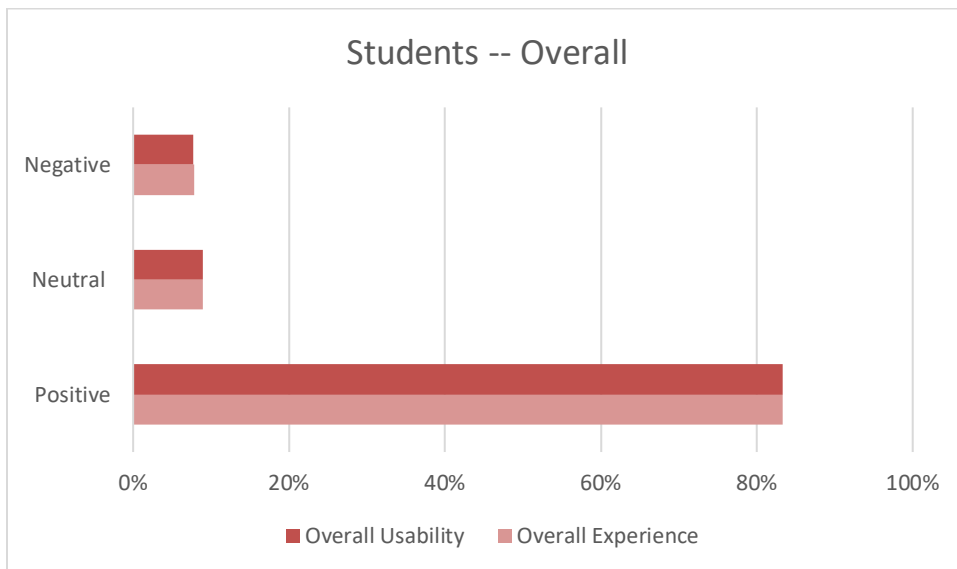
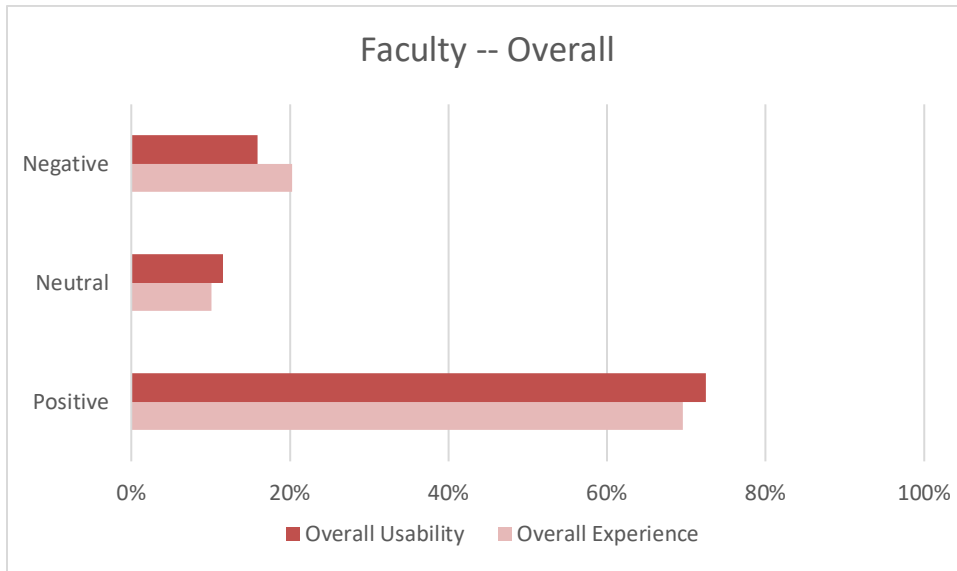
In May 2018 (1 year after launch) we surveyed students, faculty and teaching assistants to determine whether they had a positive, neutral or negative experience with Canvas.



We also asked them to compare their experience to the previous LMS.



Approximately one year later we surveyed faculty and students again, this time requesting information about usability their overall experience, as well as satisfaction with frequently used tools.



4.0 Project Outcomes

4.1 Lessons Learned

Use past learnings to Guide Strategy

- Emphasis on technology and functional parity with existing system
- Input from faculty members and students limited to functional testing
- Implementation support focused on producing exact replicas
- Disproportionate input from technical and instructional support staff
- RESULT: end users were frustrated (15% of faculty were satisfied with ease of use)

**With Canvas, the team took a new approach**

- Emphasis on pedagogy and on the needs of faculty and students
- Input from faculty and students led by peers seconded to the project
- Implementation support allowed for pedagogical transformation
- Appropriate level of input from all stakeholders, with faculty / student needs paramount
- RESULT: end users are satisfied (72% of faculty & 83% of students satisfied with ease of use in first year)

Keys to Success

- Peer-to-peer needs assessment
- Faculty and student involvement in the formal procurement process
- Selection focused on usability in a system designed for interoperability
- Faculty members encouraged try new functionality
- Faculty Deans' offices drove implementation priorities
- Aggressive timeline to ensure deployment appropriate to the academic calendar

Demonstrated Results

- Positive feedback
- Increased user satisfaction (for faculty from 15% to 72% in one year; 80% of students describe Canvas as usable)
- Unanimous agreement that engagement and user input of the project made it a success (and we “can’t go back”)
- Demonstrated that with resolve, projects can be completed on a short timeline
- Community-wide adoption of Canvas

4.2 What went really well

As indicated in brief above, the engagement of faculty and students in peer consultation made a significant and positive contribution to this project, in part because it caused change management to begin with the launch of the project. Through this process, we were able to engage faculty in departments previously inaccessible to us, and the seconded faculty members, even post selection, were advocates both for the process and for the product.

The functional footprint from a single learning management system has decreased over time, with the addition of integrated tools that provide additional capability or flexibility. Faculty desire a greater choice of tools, so the one with the best fit for the pedagogical purpose can be selected. In this project, we looked only for core functionality, required at the centre of the ecosystem. This included the ability to store and provision access to content, tools for communication within a course, between instructor and students and between students; tools for assessment and grade management, and a framework for integrating third party tools. Structuring the procurement this way enabled us to concentrate on what matters, and allowed for flexibility (i.e., it did not lock us into doing what we’ve always done).



In addition, the speed with which the project was completed contributed to its overall success. Though the university is not set up for rapid deployment of this nature, the project team delivered according to the milestones set in advance.

Though not anticipated, contractual negotiations were also successful in that we achieved UBC’s first SAAS contract in a relatively short period, and we were able to get some contractual language that benefits not only UBC, but all higher educational institutions. It is now standard language for almost every vendor contract in the learning technology space.

5.0 Sustainment

5.1 Governance

Governance for Learning Technology was established as part of the 2014 community consultation mentioned earlier. Responsibility for learning technology is shared between CTLT and UBC IT, with operational staff co-located to ensure continuity and consistency of service. The LT Leadership Team (Deans/Associate Deans) provides high level guidance; other committees provide input to improve current operations, or to plan for the future. Detailed information is available at lthub.ubc.ca/governance.

For issues which require additional input and advice (e.g., the LTE project) IT Governance processes are also engaged.

5.2 Data Governance

The LTE project began just as data governance was initiated at the University. Throughout the life of this project, as well as the learning analytics project, we have worked collaboratively within the university data governance framework. The Learning Data Committee is the acting steward for learning data, and the principles established by this committee have been endorsed by the University Data Governance Committee. See learninganalytics.ubc.ca/ethics-policy.

5.3 Ongoing Costs

Costs are in US dollars and exclude taxes.

Description of on-going cost	Cost	Funding
Canvas Cloud Subscription Year 1	US\$ 1,061,721	Project
Canvas Cloud Subscription Year 2	US\$ 1,156,173	GPO
Canvas Cloud Subscription Year 3 (no Tier 1 24/7 support)	US\$ 1,045,000	GPO
Canvas Cloud Subscription Year 4 (no Tier 1 24/7 support)	US\$ 1,045,000	GPO



6.0 Outstanding Issues

None.

7.0 Outstanding Risks

None.

8.0 Project Performance

8.1 AEV - Aggregate Estimated Value

	Business Case AEV	Implementation Strategy and Plan AEV	Ongoing Costs AEV	Final AEV
Project Costs				
Internal UBC Resources	4.6M	4.31M	0	0
Other Costs	0	0	0	0
Contingency 30%	1.4M	0	0	N/A
Total Project Costs	6.0M	4.31M	0	4.31M
Sustainment Costs				
Internal UBC Resources		0	0	0
Other Costs	0	0	2.09M	2.09M
Contingency 10%	0	0	0	N/A
Total Sustainment Costs	0	0	2.09M	2.09M
TOTAL (no contingency)	4.6M	0	2.09M	6.69M
Contingency	1.4M	0	0	N/A
TOTAL (with contingency)	6.0M	0	2.09M	N/A

8.2 Under-budget Amounts and Unused Contingency

The project was funded by internal loan.



8.3 Schedule

High Level Milestones, Approvals, and Gates	Implementation Strategy and Plan Dates (mm/yyyy)	Change Request 1 Dates (mm/yyyy)	Change Request 1 Dates (mm/yyyy)	Actual Dates
Hire faculty / students	07/2016	n/a	n/a	07/2016
Issue RFP Stage 1	10/2016	n/a`	n/a	10/2016
Pilot (with live courses)	01/2017 – 04/2017	n/a	n/a	01/2017 – 04/2017
Issue RFP Stage 2	03/2017	n/a	n/a	03/2017
Decision	05/2017	n/a	n/a	05/2017
First courses offered	09/2017	n/a	n/a	09/2017
All courses transitioned	09/2018	n/a	n/a	09/2018

9.0 Future Plans

Current contract is for four (4) years. There is an option to renew (at fixed price) for two additional years. A re-evaluation is expected to occur during year 4.