
Current State Analysis of LMS and Web-based Tool Use in UBC Teaching and Learning Activities

Stage 1 Report: Blackboard Vista use data/data gathering on use of other tools , 2009W

Prepared by Leah P. Macfadyen, Skylight, UBC Faculty of Science
September 15th 2010

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1 Executive Summary

This Current State Analysis (CSA) provides a snapshot of use patterns of the Blackboard Vista LMS in teaching and learning at UBC, as well as an overview of usage of other LMSs, web-based tools and platforms. It is hoped that it will inform and guide the current LTAC strategic planning process.

Data presented here show Vista and other tool usage in the 2009W academic session in credit-bearing UBC courses.

It should be noted that

Highlights of Vista tool use in teaching and learning at UBC in 2009W include the following:

- A total of **18,909 course sections** (14,201 undergraduate course sections) were offered by UBC in the 2009 W1 and W2 session.
- This total includes **389 distance learning sections**, of which **305 (1.6% of all UBC sections) were offered online**, and 84 in print-based format (see Table 2). At least 4,661 (11% of UBC total) unique learners enrolled in at least one fully online section.
- **21% of all UBC course sections implemented Vista in 2009W**
- **80.3% of all UBC students were enrolled in at least one Vista-supported section in 2009W** (total UBC enrollment: 52,917)
- By enrollment, the UBC Vancouver Faculties of Arts and of Science were the heaviest users of Vista.
- Most Vista-enabled sections (61%) were employed for medium-sized course sections of 15-79 students. A further 22% of sections were employed for large classes (>80 students), mostly in Arts or in Science.
- 6.5% of Vista-implemented course sections at UBC (a total of 3309) were part of professional programs
- Available figures suggest that **at least 30% of all UBC teaching staff were active users of Vista** with 'instructor' level access or higher.
- Greater than 70% of Vista sections implemented the organizer, 'who is online', content pages, grades, mail and discussion tools. When examined by average student use time, **content pages, discussions, organizer and assessments are by far the most heavily used tools.**

Data is also presented to show distribution of Vista sections by course year level, and Vista usage time by different users (students, instructors, TAs and designers).

In addition, consultation with UBC colleagues revealed some data on implementation of the following non-Vista tools and platforms to some degree for teaching purposes across UBC: **WordPress Blogs, MediaWiki-based wikis**, the **Turnitin** originality-assessment tool, the **WebWork** mathematics homework platform, the **iPeer** platform for student peer evaluation, the **Respondus** quiz creation tool, various **ePortfolio** platforms, the **Wimba**

suite of voice and video tools, the **Vovici Web-based survey tool**, **iClickers**, other LMSs (**Sakai, Moodle, SLATE**) and course **websites**.

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4 Background

4.1 Purpose

UBC currently employs Blackboard Vista as its core enterprise Learning Management System, as well as hosting and supporting a number of other learning technology platforms (e.g. WordPress, MediaWiki), and subscribing to others (e.g. Turnitin). The LMS is therefore embedded within a wider network of platforms and systems involved in supporting UBC's teaching and learning mission: a combination of internally and externally hosted tools and systems.

This Current State Analysis (CSA) provides a current snapshot of use patterns of the Blackboard Vista LMS in teaching and learning at UBC, as well as an overview of usage of other LMSs, web-based tools and platforms. It is hoped that this snapshot will inform and guide the LTAC strategic planning process for evaluation of, and decision-making regarding future implementation of LMS and non-LMS tools and platforms at UBC.

4.2 Scope

For the purposes of preparing a meaningful snapshot of LMS and web-based tool usage at UBC, data has been mined according to the following parameters:

- Data has been mined for the 2009-2010 academic year, Winter terms 1 and 2 ("2009W")
- Only data for credit-bearing courses is included in this report. Vista and web-based tool usage by Continuing Studies and non-teaching units has been specifically excluded, as well as Vista-based 'training and orientation' modules created by a wide variety of Faculties and units.
- Data has been mined and presented for all of UBC, and, where useful, presented separately for UBC Vancouver, UBC Okanagan, or by Faculty/Division.
- Data can be further prepared by Department/Course upon request.
- Where it is informative, data is presented comparatively for fully online vs. web-supported courses; for small/medium/large courses, for courses by year level. To the extent that is possible, data has also been presented separately for 'professional programs'.
- Available data regarding implementation and use of alternate or additional web-based tools or platforms to support UBC courses was compiled in consultation with IT, OLT (CTLT) and Faculty-based administrative staff. (Because implementation of many non-LMS tools is decentralized this data is suggestive but incomplete.)

4.3 Approach and Tools

Data on the total number of courses offered by UBC in the 2009W was prepared by manual analysis of course section listings exported from UBC's SEOT database.

Data mining of Vista use patterns made use of UBC's new ELIP (eLearning Intelligence Platform) tools to extract detailed information regarding implementation and use of the Blackboard Vista LMS to host or complement UBC courses.

For complete details of analytic methods, see Appendix A.

5 Findings

5.1 Data on UBC's total course section offerings (any delivery mode) in 2009W

This report begins with an overview of all course sections (some courses have multiple sections) offered by UBC during the 2009W period of interest, to allow later analysis of the proportion of total sections implementing the Vista LMS.

5.1.1 Total number of course sections offered by UBC, 2009W

Current UBC systems are not configured to easily report data on 'total courses taught' during a given academic session. Similarly, central databases use no consistent labelling system to record whether a course is offered in fully online form, in a hybrid mode, or as a face to face, classroom-based course. However, manual sorting of SEOT output listing course sections for 2009 has allowed a reasonable assessment of 'number of course sections offered' in 2009W. See Appendix A for details of which sections were included in or excluded from this analysis.

This has yielded the following data:

- A total of **18,909 course sections** (14,201 undergraduate course sections) were offered by UBC in the 2009 W1 and W2 session.
- This total includes **388 distance learning sections**, of which **304 (1.6% of total UBC sections) were offered in fully online format**, and 84 in print-based format (see Table 2).
- Of all courses offered, 16,107 (85%) were offered by UBC Vancouver, and 2,802 (15%) were offered by UBC Okanagan.
- 8,166 sections (43%) were offered in the W1 term; 8,356 (44%) were offered in the W2 term; the remaining 13% of courses were not assigned to a term and were presumably offered across both terms, or on a non-standard timetable.
- Distribution of total course sections by year level, campus and Faculty is shown in Table 1.

Table 1. All course sections (any delivery mode) offered by UBC in the 2009W academic session

| Campus | Faculty | # of Undergraduate Course Sections (by course year/level) | | | | # of Graduate Course Sections | | | | Subtotals by Faculty |
|------------------|--|---|-------------|-------------|-------------|-------------------------------|------------|-----------|-----------|----------------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | |
| UBC Vancouver | Arts | 1688 | 885 | 1097 | 904 | 893 | 80 | | | 5547 |
| | Science | 889 | 636 | 788 | 563 | 519 | 30 | | | 3425 |
| | Applied Science | 95 | 434 | 431 | 571 | 586 | 20 | | | 2137 |
| | Education | 46 | 69 | 616 | 252 | 429 | 37 | | | 1449 |
| | Sauder School of Business | 16 | 181 | 226 | 298 | 257 | 74 | | | 1052 |
| | Medicine | | 5 | 68 | 183 | 474 | 16 | 18 | 1 | 765 |
| | Land and Food Systems | 1 | 74 | 96 | 81 | 113 | 18 | | | 383 |
| | Forestry | 11 | 61 | 83 | 123 | 98 | | | | 376 |
| | Law | 31 | 32 | 73 | 146 | 42 | 2 | | | 326 |
| | Pharmaceutical Science | | 38 | 42 | 84 | 66 | 5 | | | 235 |
| | College for Interdisciplinary Studies | | | | 4 | 211 | 9 | | | 224 |
| | Dentistry | 2 | 3 | 2 | 101 | 30 | | 14 | | 152 |
| | Graduate Studies | | | | | 21 | | | | 21 |
| | College of Health Disciplines | | 2 | 2 | 11 | | | | | 15 |
| | UBC Vancouver Subtotals by year | 2780 | 2422 | 3527 | 3325 | 3744 | 297 | 39 | 10 | 16107 |
| UBC Okanagan | Arts & Sciences | 539 | 246 | 336 | 245 | 35 | 6 | | | 1407 |
| | Creative & Critical Studies | 234 | 69 | 53 | 48 | 7 | | | | 411 |
| | Health & Social Development | 80 | 57 | 85 | 74 | 35 | | | | 331 |
| | Applied Science | 76 | 81 | 74 | 56 | 42 | | | | 329 |
| | College of Graduate Studies | | | | | 109 | 12 | | | 121 |
| | Education | | 2 | | 95 | 17 | | | | 114 |
| | Management | 4 | 3 | 33 | 49 | | | | | 89 |
| | UBC Okanagan Subtotals by year | 933 | 458 | 581 | 567 | 245 | 18 | 0 | 0 | 2802 |
| UBC TOTAL | | 3713 | 2880 | 4108 | 3892 | 3989 | 315 | 39 | 10 | 18909 |

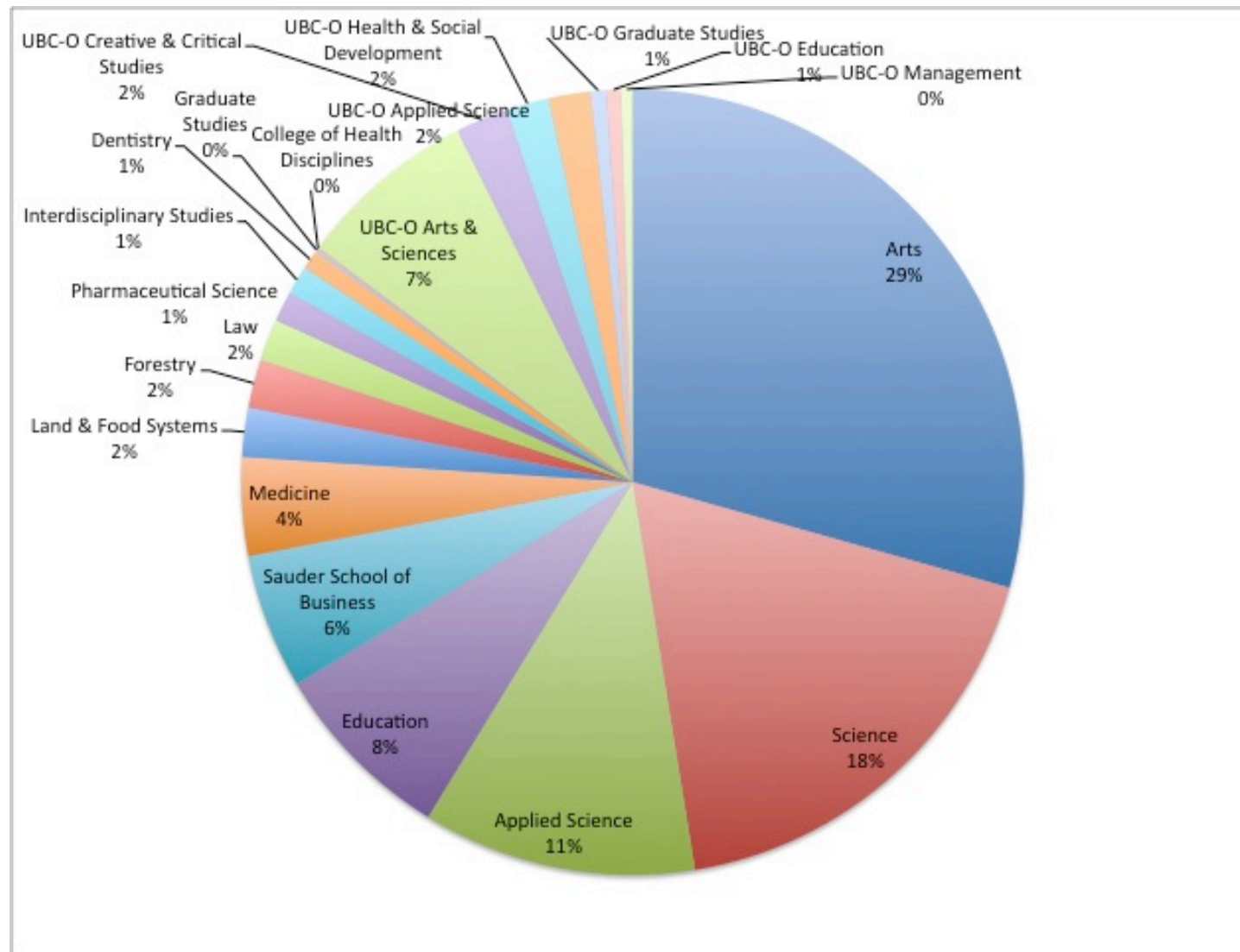


Figure 1. Relative proportions of total course sections offered (any delivery mode) by each UBC Faculty/Unit, 2009W (18,909 SIS sections total. See Table 1 for corresponding data.)

5.1.2 Total courses offered in fully online mode, 2009W

The majority of fully online courses offered by UBC are hosted by OLT (now CTLT), but a few are hosted by independent units across both campuses. By consulting with CTLT staff, and cross-referencing SEOT course codes and the CTLT Distance Education course catalogue, the following best estimates were made of fully online course offerings by UBC in 2009W.

- 305 (1.6%) course sections were offered in fully online format.
- All except 1 of these fully online courses were offered by UBC Vancouver.
- Of these, 178 were hosted centrally by the Office of Learning Technology, while 126 additional online sections were hosted by the Faculties of Arts, Education or Medicine, the Sauder School of Business or the UBC Okanagan Faculty of Creative and Critical Studies.

Table 2. Fully online course sections offered by UBC in 2009W

| Faculty | Department or Program | # Sections | Total |
|----------------|---|-------------------|--------------|
| Education | Counselling Psychology | 16 | 94 |
| | Educational Technology | 16 | |
| | Special Education | 13 | |
| | Language & Literacy Education | 12 | |
| | Adult Education & Global Change | 11 | |
| | Library Education | 8 | |
| | Early Childhood Education | 6 | |
| | Vocational Rehabilitation Counselling | 6 | |
| | Home Economics Education | 3 | |
| | Curriculum Studies | 2 | |
| | Educational Research | 1 | |
| Arts | English | 17 | 84 |
| | Psychology | 15 | |
| | History | 10 | |
| | Library & Information Science | 7 | |
| | Philosophy | 7 | |
| | Sociology | 7 | |
| | Creative Writing | 5 | |
| | French, Hispanic & Italian Studies | 4 | |
| | Family Studies | 2 | |
| | Geography | 2 | |
| | Music | 2 | |
| | Film Studies | 2 | |
| | Women's & Gender Studies | 2 | |
| | Classical, Near Eastern & Religious Studies | 1 | |
| | Social Work | 1 | |
| Medicine | Rehabilitation Sciences | 17 | |
| | Pathology | 7 | |
| | Audiology & Speech Sciences | 4 | |

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| Faculty | Department or Program | # Sections | Total |
|-----------------------------------|--|------------|-------|
| | Surgery | 3 | 31 |
| Applied Science | Nursing | 16 | |
| | Civil Engineering | 2 | 18 |
| Dentistry | Dental Hygiene | 18 | 18 |
| Land and Food Systems | Food, Nutrition & Health | 8 | |
| | Applied Biology | 7 | |
| | Land and Food Systems | 1 | 16 |
| Science | Earth & Ocean Sciences | 11 | |
| | Biology | 4 | 15 |
| Sauder School of Business | Real Estate Division | 15 | 15 |
| Forestry | Forest Operations | 6 | |
| | Forestry | 4 | |
| | Wood Products Processing | 2 | 12 |
| College of Health Disciplines | Interprofessional Health & Human Service | 1 | 1 |
| UBC Okanagan Creat. & Crit. Stud. | English | 1 | 1 |

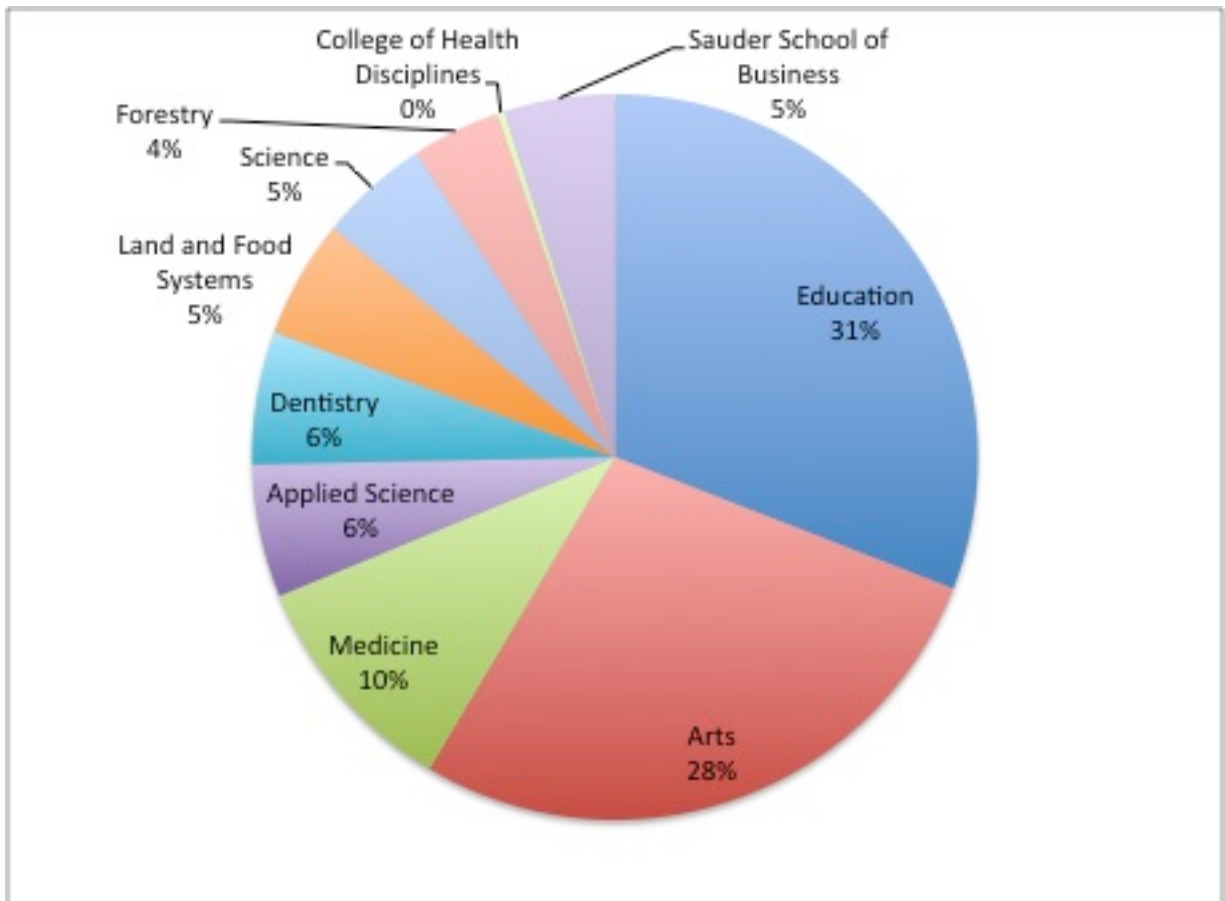


Figure 2. Relative proportion of fully online course sections offered by UBC Faculties/Units, 2009W (305 sections total; See Table 2 for corresponding data).

5.2 Vista Implementation in UBC Courses (any delivery mode), 2009W

5.2.1 Total number of course sections implementing Vista, 2009W, with student enrollment data

Table 3 shows number of course sections using Vista in the 2009W academic session, and number of unique student enrollments in these sections, by campus and Faculty. It is unfortunately impossible to determine from available data the degree to which classroom-based courses are making use of Vista (whether a course might truly be described as ‘hybrid’, or whether Vista is being used simply to host course notes or sidebar discussions, for example.)

5.2.1.1 Proportion of UBC course sections implementing Vista in 2009W

Calculation of the proportion of UBC course sections implementing Vista is complicated by the occasional combining of multiple course sections into a single Vista section (or ‘shell’). Staff at IT Services have determined that a total of 3,905 ‘SIS sections’ were linked to Vista sections in 2009W.

By comparison with total UBC course section data for 2009W shown in Table 1, these data demonstrate that:

- At least 19% of UBC Vancouver course sections implemented Vista in 2009W
- At least 31% of UBC Okanagan course sections implemented Vista in 2009W
- At least 17% of all UBC course sections implemented Vista in 2009W. (This figure reaches almost 21% if we make use of the ‘all Vista-linked courses’ data from UBC IT.)

5.2.1.2 Proportion of UBC students enrolled in Vista course sections in 2009W

UBC’s Office of Planning and Institutional Research (PAIR) gives current and historic student enrollment data at UBC¹. Their determination of 2009W enrollment numbers for both campuses allow calculation of the following:

- 77.8% of UBC Vancouver students were enrolled in at least one Vista-supported course in 2009W (total UBC Vancouver enrollment: 46,789)
- 94.7% of UBC Okanagan students were enrolled in at least one Vista-supported course in 2009W (total UBC Okanagan enrollment: 6,128)
- 80.3% of all UBC students were enrolled in at least one Vista-supported course in 2009W (total UBC enrollment: 52,917)

¹ <http://pair.ubc.ca/statistics/students/students.htm>

5.2.2 Vista course sections and student enrollment data by year level and class size

Tables 4A and 4B present section numbers and student enrollment data for Vista-implementing course sections distributed by course year level.

Table 5 presents section numbers and enrollment data for Vista-implementing sections distributed by class size, using class size definitions established by the previous LT planning process at UBC in 2005. (Small <15 students; medium = 15-79 students; Large >80 students.)

Table 3. Section and enrollment data for all UBC courses implementing Vista, 2009W

| Campus | Faculty | # Sections | % of total Vista sections | Enrollment (# unique learners) | % of total Vista section enrollment |
|--------------------------|------------------------------------|-----------------------|--|---|--|
| UBC Vancouver | Arts | 777 | 23.5% | 17,870 | 26.6% |
| | Sauder School of Business | 388 | 11.7% | 5,203 | 7.7% |
| | Applied Sci. - <i>Engineering</i> | 236 | 7.1% | 4,713 | 7.0% |
| | Applied Sci. - <i>Nursing</i> | 54 | 1.6% | 341 | 0.5% |
| | Applied Sci. - <i>Architecture</i> | 16 | 0.5% | 255 | 0.4% |
| | Science | 294 | 8.9% | 12,975 | 19.3% |
| | Education | 200 | 6.1% | 3,017 | 4.5% |
| | OLT | 184 | 5.6% | 3,855 | 5.7% |
| | Medicine | 118 | 3.6% | 2,486 | 3.7% |
| | Land & Food Systems | 88 | 2.7% | 2,228 | 3.3% |
| | Pharmaceutical Sciences | 36 | 1.1% | 610 | 0.9% |
| | Dentistry | 33 | 1.0% | 328 | 0.5% |
| | Law | 32 | 1.0% | 366 | 0.5% |
| | Library | 11 | 0.3% | 3,053 | 4.5% |
| | Forestry | 8 | 0.2% | 272 | 0.4% |
| | College for Interdisc'ry Studies | 7 | 0.2% | 72 | 0.1% |
| | Other Faculties | 4 | 0.1% | 135 | 0.2% |
| | Faculty of Graduate Studies | 1 | 0.0% | 4 | 0.0% |
| | UBC Vancouver subtotals | 2,456 | 75.3% | 36,397 | 85.9% |
| UBC Okanagan | Arts & Sciences | 349 | 10.6% | 4,257 | 6.3% |
| | Creative & Critical Studies | 151 | 4.6% | 2,499 | 3.7% |
| | Health & Social Development | 112 | 3.4% | 1,029 | 1.5% |
| | Applied Science | 98 | 3.0% | 535 | 0.8% |
| | Management | 56 | 1.7% | 775 | 1.2% |
| | Education | 42 | 1.3% | 283 | 0.4% |
| | Graduate Studies | 9 | 0.3% | 82 | 0.1% |
| | UBC Okanagan Subtotals | 817 | 24.7% | 5,805 | 14.1% |
| UBC TOTALS | | 3309 | 100% | 42491 | 100% |

Calculated totals are adjusted to take into account cross-faculty course enrollment by some students.

NB Staff from the Faculty of Arts and the Faculty of Land and Food Systems note that 30 course sections made use of an LFS instance of Sakai during 2009W (rather than Vista).

Table 4A. Student enrollment in Vista-supported course sections by year level for UBC Vancouver, 2009W

| Year Level | Unspecified | | Undergraduate | | | | | | | | Graduate | | | |
|--------------------------------|--------------------------------------|---------------------------|--------------------------------------|----------------------------|--------------------------------------|----------------------------|--------------------------------------|----------------------------|--------------------------------------|----------------------------|--------------------------------------|----------------------------|--------------------------------------|--------------------------|
| | | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | |
| | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections |
| UBC Vancouver Faculty | | | | | | | | | | | | | | |
| App. Sci.- <i>Architecture</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 1 | 249 | 15 | 0 | 0 |
| App. Sci.- <i>Engineering</i> | 1,009 | 4 | 900 | 6 | 1,459 | 35 | 1,449 | 64 | 1,529 | 87 | 473 | 40 | 0 | 0 |
| App. Sci.- <i>Nursing</i> | 0 | 0 | 0 | 0 | 0 | 0 | 103 | 18 | 134 | 17 | 110 | 19 | 0 | 0 |
| Arts | 1,289 | 17 | 7,818 | 155 | 5,125 | 130 | 8,015 | 253 | 2,817 | 165 | 455 | 55 | 25 | 2 |
| Interdisciplinary Studies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 7 | 0 | 0 |
| Dentistry | 328 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Education | 66 | 3 | 265 | 11 | 382 | 22 | 1,241 | 51 | 1,277 | 51 | 515 | 59 | 25 | 3 |
| Graduate Studies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 |
| Forestry | 0 | 0 | 85 | 1 | 25 | 1 | 57 | 1 | 106 | 4 | 9 | 1 | 0 | 0 |
| Land & Food Systems | 166 | 6 | 37 | 1 | 686 | 13 | 1,404 | 32 | 426 | 17 | 95 | 19 | 0 | 0 |
| Law | 0 | 0 | 0 | 0 | 263 | 9 | 114 | 11 | 133 | 11 | 14 | 1 | 0 | 0 |
| Library | 3,053 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Medicine | 649 | 2 | 0 | 0 | 11 | 4 | 977 | 8 | 409 | 16 | 728 | 87 | 31 | 1 |
| OLT | 76 | 1 | 955 | 17 | 654 | 20 | 1,182 | 49 | 985 | 65 | 417 | 32 | 0 | 0 |
| Other Faculties | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 1 | 116 | 3 | 0 | 0 | 0 | 0 |
| Pharmaceutical Sciences | 151 | 1 | 0 | 0 | 134 | 3 | 151 | 10 | 317 | 21 | 8 | 1 | 0 | 0 |
| Sauder School of Business | 820 | 9 | 0 | 0 | 1,800 | 48 | 2,891 | 91 | 2,647 | 103 | 662 | 131 | 35 | 6 |
| Science | 4,392 | 36 | 6,995 | 74 | 3,884 | 52 | 3,528 | 65 | 1,217 | 52 | 215 | 15 | 0 | 0 |
| UBC Vancouver subtotals | 9,538 (26%) | 123 (5%) | 12,354 (34%) | 265 (11%) | 12,288 (34%) | 337 (14%) | 16,807 (46%) | 654 (27%) | 10,993 (30%) | 613 (25%) | 3,868 (11%) | 483 (20%) | 115 (3%) | 12 (1%) |

'Unspecified year level' data is drawn from Vista 'workshop' sections that are unlinked to SIS course information. Typically these are created as alternate workspace areas for students already registered in another course or program; % of total calculations were made using UBC Vancouver totals of 2456 Vista-implementing course sections and 36,397 unique Vista-using students (see Table 3).

Table 4B. Student enrollment in Vista-supported course sections by year level for UBC Okanagan, 2009W

| Year Level | Undergraduate | | | | | | | | | | Graduate | | | |
|-------------------------------|--------------------------------|-----------------|--------------------------------|------------------|--------------------------------|------------------|--------------------------------|------------------|--------------------------------|------------------|--------------------------------|------------------|--------------------------------|------------------|
| | Unspecified | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | |
| UBC Okanagan Faculty | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections |
| Applied Science | 471 | 11 | 175 | 9 | 148 | 12 | 162 | 27 | 118 | 31 | 44 | 8 | 0 | 0 |
| Arts and Sciences | 162 | 2 | 2,934 | 96 | 1,774 | 73 | 1,433 | 113 | 594 | 62 | 21 | 3 | 0 | 0 |
| Creative & Crit. Stud. | 93 | 3 | 1,839 | 65 | 632 | 33 | 402 | 26 | 290 | 23 | 7 | 1 | 0 | 0 |
| Education | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 211 | 38 | 72 | 4 | 0 | 0 |
| Graduate Studies | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82 | 9 | 0 | 0 |
| Health & Social Dev't | 704 | 9 | 309 | 17 | 362 | 19 | 376 | 38 | 306 | 20 | 55 | 9 | 0 | 0 |
| Management | 721 | 1 | 287 | 4 | 249 | 2 | 168 | 17 | 178 | 32 | 0 | 0 | 0 | 0 |
| UBC Okanagan subtotals | 2,081 (48%) | 26 (3%) | 3,364 (58%) | 191 (23%) | 2,540 (44%) | 139 (17%) | 2,254 (38%) | 221 (27%) | 1,584 (32%) | 206 (25%) | 245 (4%) | 34 (4%) | 0 | 0 |
| UBC TOTALS | 11,619 (27%) | 149 (5%) | 15,713 (37%) | 456 (14%) | 14,822 (35%) | 476 (14%) | 19,036 (45%) | 875 (26%) | 12,565 (30%) | 819 (25%) | 4,105 (10%) | 517 (16%) | 115 (3%) | 12 (0.5%) |

'Unspecified year level' data is drawn from Vista 'workshop' sections that are unlinked to SIS course information. Typically these are created as alternate workspace areas for students already registered in another course or program. % of total calculations for UBC Okanagan were made using UBC Okanagan totals of 817 Vista-implementing course sections and 5,805 unique Vista-using students; % of total calculations for all UBC courses were made using UBC grand totals of 3309 Vista-implementing course sections and 42,491 unique Vista-using students (see Table 3).

Table 5. Student enrollment in Vista-supported course sections by class size, 2009W

| Faculty | Small (<15 students) | | Medium (15-79 students) | | Large (>80 students) | |
|--------------------------------|----------------------------|-----------------------------------|------------------------------|-----------------------------------|----------------------------|-----------------------------------|
| | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) |
| App. Sci.- <i>Architecture</i> | 1 | 11 | 15 | 255 | 0 | 0 |
| App. Sci.- <i>Engineering</i> | 25 | 218 | 141 | 2,290 | 70 | 3,988 |
| App. Sci.- <i>Nursing</i> | 17 | 118 | 28 | 277 | 8 | 100 |
| Arts | 130 | 914 | 510 | 10,803 | 130 | 12,342 |
| Interdisc'ry Studies | 4 | 29 | 3 | 49 | 0 | 0 |
| Dentistry | 0 | 0 | 21 | 266 | 12 | 282 |
| Education | 55 | 398 | 130 | 2,471 | 13 | 959 |
| Graduate Studies | 1 | 4 | 0 | 0 | 0 | 0 |
| Forestry | 1 | 9 | 6 | 184 | 1 | 85 |
| Land & Food Systems | 12 | 81 | 58 | 1,111 | 18 | 1,627 |
| Law | 15 | 120 | 17 | 327 | 0 | 0 |
| Library | 1 | 3 | 2 | 105 | 8 | 2,989 |
| Medicine | 40 | 244 | 67 | 828 | 9 | 1,738 |
| OLT | 51 | 352 | 123 | 2,722 | 9 | 1,082 |
| Other Faculties | 0 | 0 | 4 | 135 | 0 | 0 |
| Pharmaceutical Sciences | 2 | 21 | 5 | 99 | 29 | 600 |
| Sauder School of Business | 36 | 226 | 256 | 3,771 | 95 | 4,398 |
| Science | 13 | 116 | 122 | 3,409 | 158 | 11,572 |
| UBC-O App, Science | 18 | 74 | 57 | 489 | 22 | 477 |
| UBC-O Arts & Sciences | 64 | 392 | 199 | 2,921 | 85 | 3,490 |
| UBC-O Creat. & Crit. Stud. | 29 | 192 | 105 | 1,887 | 17 | 1,295 |
| UBC-O Education | 6 | 33 | 32 | 281 | 3 | 147 |
| UBC-O Grad. Studies | 7 | 42 | 2 | 40 | 0 | 0 |
| UBC-O Health & Soc. Dev. | 13 | 94 | 69 | 821 | 30 | 785 |
| UBC-O Management | 1 | 14 | 41 | 459 | 14 | 738 |
| UBC TOTALS | 551 (17%) | 3,628 (9%) | 2,020 (61%) | 30,304 (71%) | 738 (22%) | 31,519 (74%) |

% of total calculations for all UBC courses were made using UBC grand totals of 3309 Vista-implementing course sections and 42,491 unique Vista-using students (see Table 3).

5.2.3 Section and enrollment data for Vista implementation in UBC ‘professional programs’, 2009W

The definition of a ‘professional program’ is debated. This analysis makes use of the commonly used notion that ‘professional programs’ are expensive and lead to high-income professional careers. For this reason, it includes UBC’s MD (Medical degree), DMD (Dentistry degree), LLB/JD (Law degree), MBA (Masters of Business Administration programs), M. Arch. (Architecture) and M. L. Arch. (Landscape Architecture) programs. Other undergraduate and graduate courses in these areas that do not lead to professional qualifications have been excluded.

Table 6. Vista implementation in UBC ‘professional’ programs, 2009W

| Faculty | Department | # Sections | Enrollment (# unique learners) |
|---------------------------|---------------------------|------------|--------------------------------|
| Sauder School of Business | MBA Programs | 134 | 660 |
| Medicine | MD Program | 1* | 615 |
| Dentistry | DMD Program | 33 | 328 |
| Applied Science | MA Architecture | 7 | 162 |
| | MA Landscape Architecture | 9 | 116 |
| Law | LLB/JD Program | 32 | 366 |
| TOTALS | | 216 | 2,247 |

* Note that the Faculty of Medicine makes very heavy use of Vista, although this data presentation shows only ‘1 section’ in use. ‘MEDICOL’, the single online learning area of the MD program, hosts all students, multiple instructors, and materials and activities for all courses throughout a student’s MD program career.

In other words, in 2009W:

- 6.5% of Vista-implemented course sections at UBC (a total of 3309) were part of professional programs
- 5.3% of learners using Vista at UBC (a total of 42,491 learners) were enrolled in professional programs.

5.3 Vista Implementation in fully online UBC Courses, 2009W

5.3.1 Section and enrollment data for Vista-enabled fully online courses, 2009W

Although UBC registration data shows that 305 fully online courses were offered in 2009W (see Table 2), data on implementation of and enrollment in Vista-enabled online courses is only available for 249 sections during this period. Some 'missing' sections may have been offered using WebCT or other platforms for which no data is available via eLIP. 15 sections were offered by the Sauder School of Business's Real Estate Division using their own custom-built platform, RED. Others are offered on non-standard term schedules which excludes them from the search. Data offered here is therefore presented as a good overview of data from online courses.

Table 7. Section and enrollment data for Vista-enabled fully online courses, 2009W

| Hosted by... | Department | # Sections | % of total online sections | Enrollment (# unique learners) |
|--------------|-------------------------------|------------|-------------------------------|-----------------------------------|
| EDUCATION | External Programs | 54 | 21.69% | 792 |
| OLT | Educational Technology | 23 | 9.24% | 242 |
| OLT | English | 20 | 8.03% | 335 |
| OLT | Nursing | 19 | 7.63% | 262 |
| OLT | Dental Hygiene | 15 | 6.02% | 153 |
| OLT | Psychology | 14 | 5.62% | 406 |
| OLT | Land & Food Systems | 13 | 5.22% | 317 |
| MEDICINE | Rehabilitation Sciences | 11 | 4.42% | 89 |
| OLT | History | 11 | 4.42% | 192 |
| OLT | Earth & Ocean Science | 10 | 4.02% | 963 |
| OLT | Forestry | 9 | 3.61% | 39 |
| OLT | Philosophy | 7 | 2.81% | 232 |
| OLT | Sociology | 7 | 2.81% | 204 |
| OLT | Library & Information Science | 5 | 2.01% | 108 |
| OLT | Audiology & Speech Sciences | 4 | 1.61% | 58 |
| OLT | Biology | 4 | 1.61% | 83 |
| OLT | French | 4 | 1.61% | 54 |
| OLT | Pathology | 4 | 1.61% | 56 |
| OLT | Engineering | 2 | 0.80% | 146 |
| OLT | Geography | 2 | 0.80% | 40 |
| OLT | Music | 2 | 0.80% | 76 |
| OLT | Women's & Gender Studies | 2 | 0.80% | 33 |
| OLT | Film Studies | 2 | 0.80% | 89 |
| OLT | Family Studies | 2 | 0.80% | 145 |
| OLT | Social Work | 1 | 0.40% | 9 |
| OLT | Medicine | 1 | 0.40% | 12 |
| OLT | Classical Studies | 1 | 0.40% | 49 |
| UBC-O CTL | English | 1 | 0.40% | 24 |
| Total | | 249 | 100.00% | 4,661 |

In other words, at least 11% of UBC students completed at least one fully online course in 2009W.

5.3.2 Sections and student enrollment data by year level and class size, for Vista-enabled fully online courses, 2009W

Table 8 presents section numbers and student enrollment data for Vista-implementing online course sections distributed by course year level.

Table 9 presents section numbers and enrollment data for Vista-implementing online course sections distributed by class size, using class size definitions established by the previous LT planning process at UBC in 2005. (Small <15 students; medium = 15-79 students; Large >80 students.)

Table 8. Section and enrollment data by year level for Vista-enabled fully online courses, 2009W

| Year Level | 1 | | 2 | | 3 | | 4 | | 5 | |
|--------------|--------------------------|--------------------------------|--------------------------|--------------------------------|---------------------------|--------------------------------|---------------------------|--------------------------------|---------------------------|--------------------------------|
| | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) |
| Total | 17 (9%) | 955 (21%) | 22 (9%) | 672 (14%) | 60 (24%) | 1,381 (30%) | 90 (36%) | 1,423 (31%) | 62 (25%) | 684 (15%) |

% of total calculations for online courses were made using UBC grand totals of 249 Vista-implementing course sections and 4,661 unique students enrolled in online courses (see Table 7).

Table 9. Section and enrollment data by class size for Vista-enabled fully online courses, 2009W

| Class Size | Small (<15 students) | | Medium (15-79 students) | | Large (>80 students) | |
|---------------|---------------------------|--------------------------------|----------------------------|--------------------------------|-------------------------|--------------------------------|
| | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) | # Sections | Enrollment (# unique learners) |
| Totals | 75 (30%) | 538 (12%) | 163 (65%) | 3,386 (73%) | 9 (4%) | 1,082 (23%) |

% of total calculations for online courses were made using UBC grand totals of 249 Vista-implementing course sections and 4,661 unique students enrolled in online courses (see Table 7).

5.4 Vista use statistics, 2009W

In addition to students, a variety of UBC employees also access Vista-enabled course sections. Users with 'Designer' access have permissions to design, build and modify content and adjust tool settings (they may also teach). Users with 'Instructor' access have permissions to use teaching-related tools and functions within Vista, but cannot make major design changes. Users with 'Teaching Assistant' level access have more limited access to teaching tools within Vista.

Table 10. Numbers of non-student users accessing Vista-enabled course sections, 2009W

| Campus | Faculty | # Active Users by Role | | |
|-------------------|---------------------------------|------------------------|--------------|----------------------|
| | | "Designer" | "Instructor" | "Teaching Assistant" |
| UBC Vancouver | App. Sci. - <i>Architecture</i> | 12 | 4 | 4 |
| | App. Sci. - <i>Engineering</i> | 200 | 72 | 191 |
| | App. Sci. - <i>Nursing</i> | 51 | 29 | 69 |
| | Arts | 415 | 166 | 315 |
| | Interdisciplinary Studies | 7 | 3 | 1 |
| | Dentistry | 40 | 45 | 1 |
| | Education | 139 | 76 | 31 |
| | Graduate Studies | 1 | 1 | 0 |
| | Forestry | 6 | 6 | 1 |
| | Land & Food Systems | 72 | 21 | 83 |
| | Law | 23 | 10 | 8 |
| | Library | 9 | 15 | 0 |
| | Medicine | 161 | 104 | 45 |
| | OLT | 53 | 148 | 48 |
| | Other Faculties | 6 | 11 | 0 |
| | Pharmaceutical Sciences | 40 | 23 | 9 |
| | Sauder School of Business | 230 | 124 | 58 |
| | Science | 281 | 146 | 468 |
| | UBC Vancouver subtotals | 1,673 | 939 | 1,305 |
| UBC Okanagan | Applied Science | 38 | 17 | 66 |
| | Arts & Sciences | 163 | 69 | 108 |
| | Creative & Critical Studies | 54 | 30 | 30 |
| | Education | 21 | 12 | 0 |
| | Graduate Studies | 7 | 2 | 0 |
| | Health & Soc. Dev. | 92 | 51 | 12 |
| | Management | 27 | 14 | 15 |
| | UBC Okanagan subtotals | 384 | 183 | 228 |
| UBC TOTALS | | 2,053 | 1,118 | 1,532 |

5.4.1 Numbers of UBC teaching faculty and teaching assistants using Vista, 2009W

Table 10 shows a breakdown of non-student Vista users by role and Faculty in 2009W.

While it is very difficult to determine a total count of instructional staff for all of UBC, UBC's Office of Planning and Institutional Research (PAIR) reports a total count for "long-term and short-term faculty" at the beginning of the 2009W session as 3061².

This count includes part-time and full-time Full, Associate, and Assistant Professors; lecturers; instructors at all levels; and clinical, visiting, adjunct and emeritus Faculty.

If this count is considered accurate, data from Table 10 suggests that:

- 30% of all UBC teaching staff were active users of Vista with 'instructor' level access, in 2009W
- If we assume that the majority of individuals with 'designer' access are also instructional staff (rather than instructional designers in support units), this proportion may be as high as 67%.

No total data on numbers of UBC Teaching Assistants is available to allow a determination of proportion using Vista.

5.4.2 Vista use represented by average time spent online by users with different roles, 2009W

Table 11 gives a breakdown of average time spent using Vista in the 2009W for students, designers, instructors and teaching assistants in *web-supported Vista course sections*.

Table 12 shows the equivalent time use data for Vista enabled fully online courses only.

² <http://pair.ubc.ca/statistics/facstaff/facstaff.htm>

Table 11. User time online by role for all Vista-supported course sections (excluding fully online courses), 2009W

| Faculty | Designer | | Instructor | | Teaching Assistant | | Student | |
|-----------------------------------|---|-----------|---|-----------|-----------------------------------|-----------|--|-----------|
| | Average time per designer (hours) | SD | Average time per instructor (hours) | SD | Average time per TA (hours) | SD | Average time per student (hours) | SD |
| App. Sci. - Architecture | 4 | 4 | 0 | 1 | 3 | 3 | 7 | 5 |
| App. Sci. - Engineering | 13 | 14 | 7 | 11 | 8 | 8 | 43 | 26 |
| App. Sci. - Nursing | 21 | 23 | 4 | 5 | 3 | 4 | 37 | 9 |
| Arts | 11 | 13 | 7 | 14 | 12 | 42 | 16 | 10 |
| Dentistry | 13 | 11 | 4 | 12 | 0 | 0 | 25 | 6 |
| Education | 11 | 12 | 8 | 14 | 11 | 17 | 15 | 10 |
| Forestry | 10 | 15 | 6 | 12 | 3 | 0 | 10 | 16 |
| Graduate Studies | 5 | 0 | 0 | 0 | 0 | 0 | 10 | 10 |
| Interdisciplinary Studies | 1 | 1 | 1 | 2 | 3 | 0 | 3 | 3 |
| Land & Food Systems | 30 | 29 | 15 | 21 | 16 | 16 | 33 | 19 |
| Law | 7 | 9 | 9 | 11 | 2 | 3 | 14 | 14 |
| Library | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| Medicine | 12 | 37 | 11 | 19 | 8 | 13 | 34 | 33 |
| Other Faculties | 16 | 19 | 1 | 1 | 0 | 0 | 10 | 15 |
| Pharmaceutical Sciences | 3 | 3 | 7 | 20 | 2 | 1 | 24 | 6 |
| Sauder School of Business | 12 | 12 | 10 | 15 | 6 | 4 | 34 | 10 |
| Science | 21 | 26 | 13 | 25 | 11 | 14 | 52 | 17 |
| UBC-O Applied Science | 23 | 20 | 12 | 15 | 5 | 8 | 60 | 7 |
| UBC-O Arts and Sciences | 23 | 24 | 10 | 10 | 13 | 13 | 32 | 8 |
| UBC-O Creative & Critical Studies | 35 | 22 | 22 | 17 | 42 | 27 | 13 | 8 |
| UBC-O Education | 16 | 24 | 13 | 23 | 0 | 0 | 20 | 6 |
| UBC-O Graduate Studies | 8 | 7 | 7 | 0 | 0 | 0 | 10 | 7 |
| UBC-O Health & Soc. Dev. | 13 | 17 | 8 | 9 | 5 | 4 | 28 | 5 |
| UBC-O Management | 47 | 46 | 45 | 116 | 13 | 10 | 35 | 8 |
| UBC Average | 16 | 21 | 10 | 21 | 11 | 22 | 45 | 15 |

SD = standard deviation. Note that in some cases, 'designers' are also course instructors.

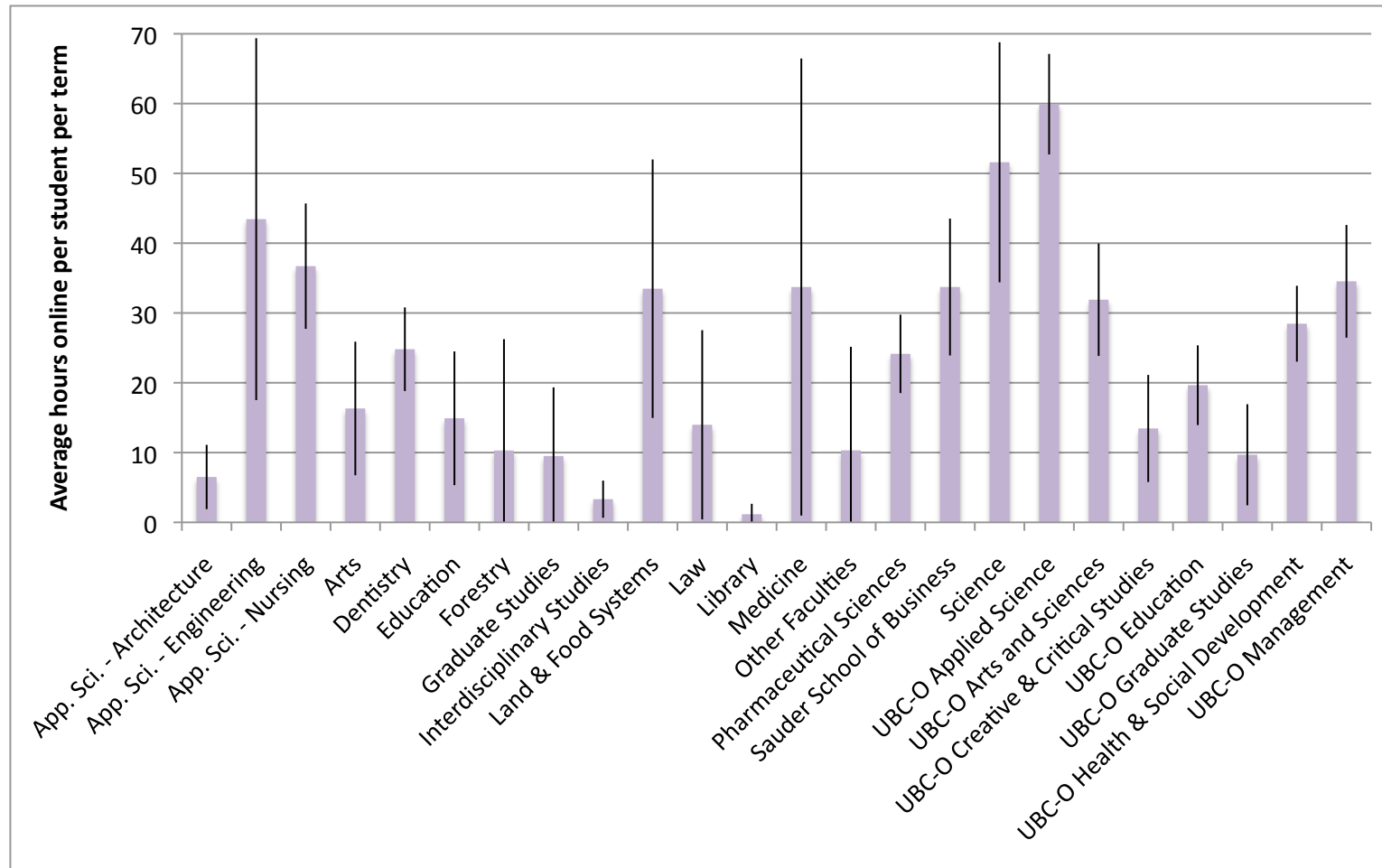


Figure 3. Average time online per student per term, by Faculty, for Vista-enabled web-supported course sections (excluding fully online courses), 2009W

Error bars show standard deviation.

Table 12. User time online by role for Vista-enabled fully online course sections, 2009W

| Department | Designer | | Instructor | | Teaching Assistant | | Student | |
|-------------------------------|---|----|---|-----|-----------------------------------|----|--|----|
| | Average time per designer (hours) | SD | Average time per instructor (hours) | SD | Average time per TA (hours) | SD | Average time per student (hours) | SD |
| App. Sci. - Engineering | 24 | 70 | 0 | 0 | 154 | 18 | 37 | 23 |
| Audiology & Speech Sciences | 26 | 29 | 25 | 49 | 0 | 0 | 70 | 39 |
| Biology | 101 | 89 | 17 | 32 | 0 | 0 | 110 | 62 |
| Classical Studies | 12 | 35 | 25 | 57 | 55 | 74 | 53 | 24 |
| Dental Hygiene | 23 | 7 | 68 | 63 | 60 | 39 | 134 | 59 |
| Earth & Ocean Science | 88 | 74 | 13 | 31 | 11 | 10 | 39 | 25 |
| Education (Ext. Programs) | 49 | 46 | 11 | 15 | 0 | 0 | 35 | 22 |
| Educational Technology | 57 | 42 | 57 | 49 | 42 | 19 | 129 | 44 |
| English | 12 | 6 | 42 | 39 | 0 | 0 | 36 | 26 |
| Family Studies | 29 | 37 | 0 | 0 | 0 | 0 | 44 | 24 |
| Film Studies | 1 | 1 | 27 | 32 | 0 | 0 | 11 | 9 |
| Forestry | 4 | 5 | 4 | 9 | 0 | 0 | 24 | 15 |
| French | 12 | 10 | 0 | 0 | 0 | 0 | 29 | 13 |
| Geography | 2 | 2 | 37 | 19 | 0 | 0 | 38 | 18 |
| History | 7 | 8 | 14 | 11 | 42 | 21 | 30 | 19 |
| Land & Food Systems | 19 | 12 | 29 | 29 | 0 | 0 | 38 | 25 |
| Library & Information Science | 12 | 17 | 76 | 194 | 1 | 1 | 51 | 34 |
| Medicine | 8 | 7 | 20 | 23 | 0 | 0 | 18 | 9 |
| Music | 1 | 0 | 2 | 1 | 0 | 0 | 44 | 28 |
| Nursing | 14 | 7 | 51 | 46 | 13 | 15 | 42 | 27 |
| Pathology | 10 | 8 | 7 | 8 | 0 | 0 | 56 | 37 |
| Philosophy | 13 | 11 | 39 | 14 | 1 | 1 | 33 | 23 |
| Psychology | 24 | 19 | 20 | 22 | 7 | 0 | 21 | 18 |
| Rehabilitation Sciences | 20 | 9 | 42 | 31 | 18 | 2 | 83 | 29 |
| Social Work | 2 | 0 | 61 | 0 | 0 | 0 | 26 | 21 |
| Sociology | 7 | 4 | 88 | 72 | 0 | 0 | 67 | 44 |
| Women's & Gender Studies | 1 | 2 | 8 | 14 | 0 | 0 | 60 | 47 |
| UBC Online Averages | 27 | | 36 | | 22 | | 47 | |

SD = standard deviation. Note that in some cases, 'designers' are also course instructors.

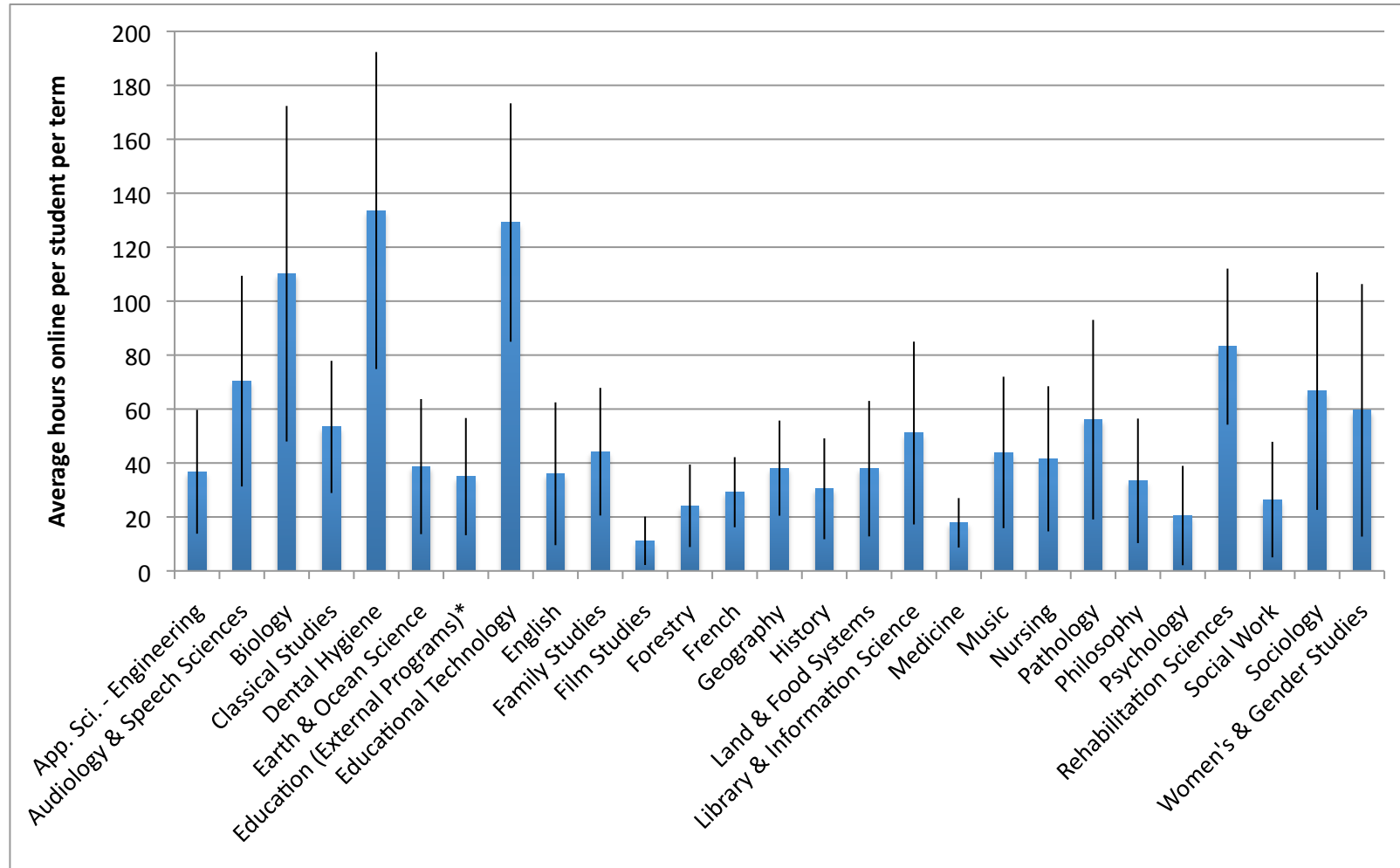


Figure 4. Average time online per term in fully online courses, 2009W
Error bars show standard deviation.

5.5 Vista tool Implementation and use data, 2009W

Blackboard Vista ‘bundles’ together a suite of tools that allow instructors to present content using a variety of media (text, image, video), create online assessments and assignment drop-boxes of various kinds, create opportunities for student-student and student-instructor engagement and communication (mail, discussions), and complete a range of course administration tasks (posting grades, making announcements) In addition, externally hosted learning technologies can be integrated into Vista using customized ‘Powerlinks’.

5.5.1 Tool implementation in Vista-enabled course sections, 2009W

Table 13 shows ‘tool implementation’ for all UBC Vista-enabled course sections during the period of interest, simply presented as ‘% of courses in which a tool was implemented’. (‘Implementation’ as determined by eLIP by learner activity in a tool. Tools that may have been present but not used are not counted.

Table 14 shows data from an investigation into whether tool implementation varies by class size. Apparently significant differences are highlighted in blue.

For explanation of tool functions, see Appendix B.

Table 13. Proportion of Vista-enabled UBC sections implementing available tools, 2009W

| Vista Tool/Powerlink | # of sections implementing | % of Vista sections Implementing |
|-----------------------------------|---------------------------------------|---|
| organizer | 3,303 | 100.0% |
| who-is-online | 3,205 | 97.0% |
| content-page | 3,060 | 92.6% |
| my-grades | 2,953 | 89.4% |
| mail | 2,630 | 79.6% |
| discussion | 2,346 | 71.0% |
| announcement | 2,199 | 66.6% |
| web-links | 2,078 | 62.9% |
| file-manager | 1,929 | 58.4% |
| calendar | 1,914 | 57.9% |
| syllabus | 1,464 | 44.3% |
| assignments | 1,436 | 43.5% |
| chat | 1,297 | 39.3% |
| assessment | 1,137 | 34.4% |
| notes | 981 | 29.7% |
| search | 972 | 29.4% |
| tracking | 852 | 25.8% |
| compiler | 709 | 21.5% |
| media-library | 563 | 17.0% |
| learning-objectives | 401 | 12.1% |
| student-bookmarks | 297 | 9.0% |
| my-vista | 258 | 7.8% |
| [Powerlink] Turnitin | 201 | 6.1% |
| [Powerlink] iClicker Registration | 180 | 5.4% |
| [Powerlink] Voice Board | 77 | 2.3% |
| [Powerlink] Live Classroom | 67 | 2.0% |
| [Powerlink] Voice Email | 32 | 1.0% |
| [Powerlink] Voice Direct | 24 | 0.7% |
| [Powerlink] MediaWiki | 24 | 0.7% |
| [Powerlink] Voice Recorder | 17 | 0.5% |
| [Powerlink] Abacus | 9 | 0.3% |
| [Powerlink] Wimba Podcaster | 4 | 0.1% |
| [Powerlink] Voice Presentation | 3 | 0.1% |
| scorm | 2 | 0.1% |

Table 14. % of Vista sections implementing available Vista tools, by class size, 2009W

| Tool | % of SMALL (<15 students) sections implementing N_{total}=544 | % of MEDIUM (15-79 students) sections implementing N_{total} =2,008 | % of LARGE (>80 students) sections implementing N_{total} =733 |
|------------------------|---|--|--|
| announcement | 62% | 68% | 66% |
| assessment | 28% | 33% | 44% |
| assignments | 44% | 45% | 41% |
| calendar | 56% | 59% | 59% |
| chat | 41% | 40% | 36% |
| compiler | 21% | 22% | 22% |
| content-page | 89% | 93% | 95% |
| discussion | 69% | 71% | 73% |
| file-manager | 54% | 59% | 61% |
| learning-objectives | 12% | 12% | 12% |
| mail | 68% | 79% | 91% |
| media-library | 18% | 17% | 17% |
| my-grades | 75% | 91% | 96% |
| my-vista | 2% | 5% | 19% |
| notes | 27% | 30% | 31% |
| organizer | 100% | 100% | 100% |
| References | 0% | 0% | 0% |
| scorm | 0% | 0% | 0% |
| search | 29% | 30% | 28% |
| student-bookmarks | 4% | 9% | 12% |
| syllabus | 43% | 45% | 43% |
| tracking | 26% | 26% | 24% |
| web-links | 54% | 63% | 68% |
| who-is-online | 90% | 99% | 98% |
| [P] Abacus | 0% | 0% | 1% |
| [P] iClicker Reg. | 1% | 2% | 17% |
| [P] Live Classroom | 2% | 2% | 2% |
| [P] MediaWiki | 1% | 0% | 1% |
| [P] Turnitin | 3% | 7% | 7% |
| [P] Voice Board | 1% | 3% | 1% |
| [P] Voice Direct | 0% | 1% | 0% |
| [P] Voice Email | 1% | 1% | 0% |
| [P] Voice Presentation | 0% | 0% | 0% |
| [P] Voice Recorder | 1% | 1% | 0% |
| [P] Wimba Podcaster | 0% | 0% | 0% |

[P]= Powerlink. Rows highlighted in blue show significant tool implementation differences between class size.

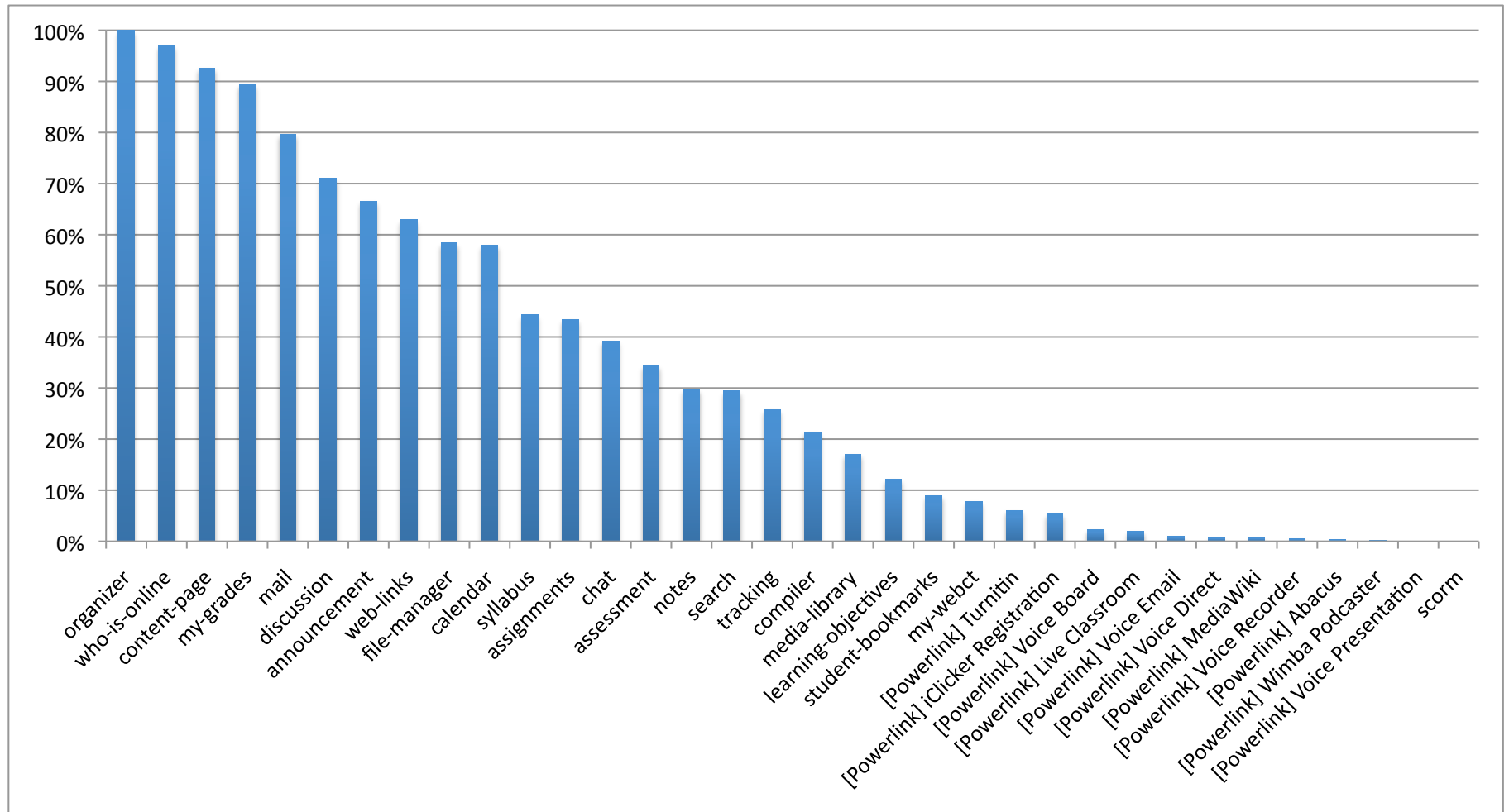


Figure 5. % of total Vista sections implementing selected Vista tools

5.5.2 Vista tool use represented by user time

Vista tools clearly have different uses, and their relative importance to learners is not necessarily determined by 'number of visits to the tool' or 'implementation of a tool in a course'. To understand which tools may be most significant to learners in the course context, the amount of time an average user spent using a tool was determined.

Table 15 presents the same list of Vista tools and Powerlinks sorted by average student use time in 2009W.

Table 15. Average use time of Vista tools by learners, 2009W

| Tool | Total Tool Users | Average Tool Usage per Unique User (min) |
|-----------------------------------|------------------|--|
| content-page | 191,716 | 1,366 (=23 hours) |
| discussion | 132,152 | 514 (=9 hours) |
| organizer | 219,714 | 409 (=7 hours) |
| assessment | 73,848 | 265 (=4.4 hours) |
| mail | 88,266 | 72 |
| web-links | 94,991 | 66 |
| my-grades | 130,986 | 60 |
| assignments | 67,352 | 47 |
| announcement | 110,793 | 26 |
| who-is-online | 68,364 | 19 |
| syllabus | 53,301 | 17 |
| calendar | 73,524 | 9 |
| compiler | 8,182 | 6 |
| [Powerlink] Turnitin | 9,186 | 5 |
| file-manager | 42,104 | 4 |
| chat | 34,233 | 3 |
| media-library | 10,416 | 2 |
| [Powerlink] iClicker Registration | 22,698 | 1 |
| [Powerlink] Voice Board | 1,224 | 1 |
| [Powerlink] Live Classroom | 1,800 | 1 |
| tracking | 20,496 | 1 |
| notes | 17,123 | 1 |
| search | 16,599 | 1 |
| [Powerlink] MediaWiki | 909 | 1 |
| learning-objectives | 9,609 | 0 |
| [Powerlink] Abacus | 367 | 0 |
| scorm | 111 | 0 |
| student-bookmarks | 1,096 | 0 |
| [Powerlink] Voice Recorder | 212 | 0 |
| [Powerlink] Voice Email | 200 | 0 |
| [Powerlink] Voice Presentation | 148 | 0 |
| [Powerlink] Voice Direct | 99 | 0 |
| [Powerlink] Wimba Podcaster | 44 | 0 |
| my-vista | 322 | 0 |
| Total | 1,724,335 | 2,911 |

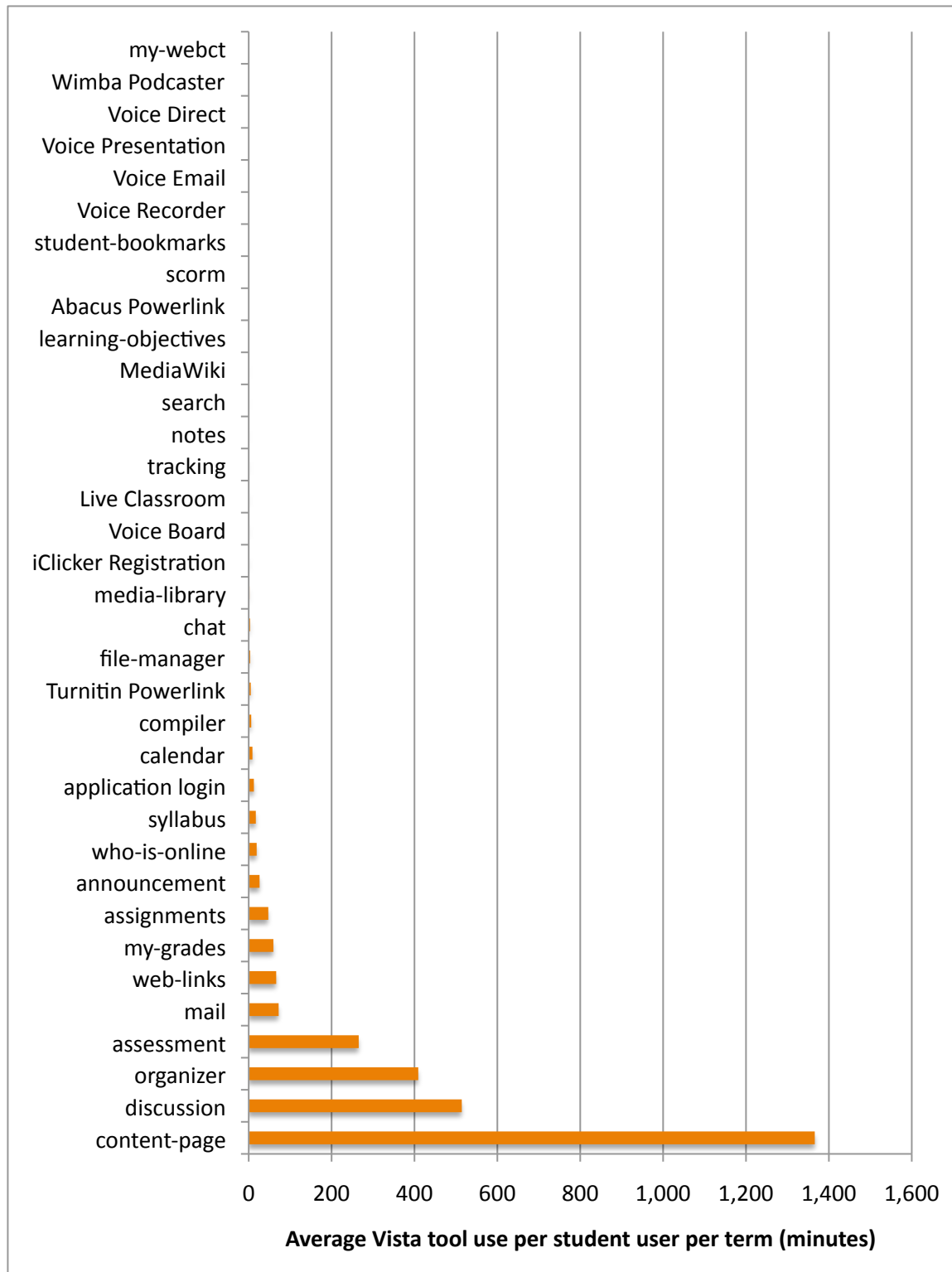


Figure 6. Average Vista tool use per student per term, 2009W

5.6 Average student time using Vista tool categories (Engagement, Content, Assessment, Administration), 2009W

Dawson et al. (2008)³ have proposed that LMS tools can be loosely organized into four categories representing core activities within web-supported and online courses:

- Engagement with learning community
- Engagement with content
- Assessment
- Administrative tasks

This categorization offers a useful approach to interpreting LMS tool use data, especially in the light of increasing evidence that student engagement with peers in a learning community has the strongest positive effective on learning success. For the purposes of this study, Vista tools were assigned to categories as follows:

Table 16. Vista tools assigned to ‘learning activity categories’

| | | |
|-------------------|--|--|
| Admin | application login compiler login my-vista tracking | calendar mail announcement learning-objectives my-grades |
| Assessment | assessment Assignments | |
| Content | search media-library student-bookmarks content-page | notes web-links syllabus file-manager organizer |
| Engagement | chat who-is-online discussion | |

Table 17, below, shows average learner time using each tool category in Vista-enabled course sections. Figure 7 represents the same data proportionately for each Faculty, regardless of absolute time use figures. This allows easy comparison of relative tool category use time per student between Faculties.

³ Dawson, S., McWilliam, E., & Tan, J. P.-L. (2008). Teaching Smarter: How mining ICT data can inform and improve learning and teaching practice. Paper presented at the ASCILITE 2008, Melbourne, Australia.

Table 17. Average learner time per tool use category (admin, assessment, content, engagement) in Vista-enabled courses, 2009W

| Faculty | Average Tool Usage per Unique Learner by Tool Category (mins) | | | |
|---------------------------------------|---|------------|--------------|------------|
| | Admin | Assessment | Content | Engagement |
| OLT | 215 | 262 | 1,392 | 1,356 |
| Land & Food Systems | 164 | 120 | 969 | 725 |
| Applied Science - <i>Nursing</i> | 196 | 115 | 1,477 | 653 |
| Science | 103 | 473 | 1,910 | 542 |
| Education | 97 | 90 | 617 | 418 |
| UBC-O Education | 234 | 53 | 325 | 409 |
| Medicine | 65 | 299 | 1,389 | 408 |
| UBC-O Management | 340 | 215 | 1,224 | 272 |
| UBC-O Graduate Studies | 41 | 6 | 192 | 252 |
| Law | 57 | 24 | 497 | 250 |
| Pharmaceutical Sciences | 52 | 85 | 1,068 | 215 |
| UBC-O Creative & Critical Studies | 168 | 70 | 359 | 193 |
| Sauder School of Business | 98 | 102 | 1,573 | 192 |
| UBC-O Arts & Sciences | 264 | 142 | 1,300 | 166 |
| Applied Science - <i>Engineering</i> | 149 | 192 | 2,047 | 165 |
| Arts | 60 | 114 | 629 | 153 |
| Forestry | 12 | 17 | 481 | 113 |
| Other Faculties | 63 | 20 | 430 | 87 |
| UBC-O Applied Science | 415 | 167 | 2,824 | 80 |
| UBC-O Health & Social Development | 403 | 33 | 1,202 | 55 |
| Dentistry | 20 | 559 | 874 | 41 |
| Interdisciplinary Studies | 4 | 0 | 144 | 17 |
| Graduate Studies | 5 | 0 | 556 | 13 |
| Applied Science - <i>Architecture</i> | 8 | 7 | 348 | 4 |
| Library | 1 | 3 | 135 | 1 |
| Total | 118 | 198 | 1,179 | 339 |

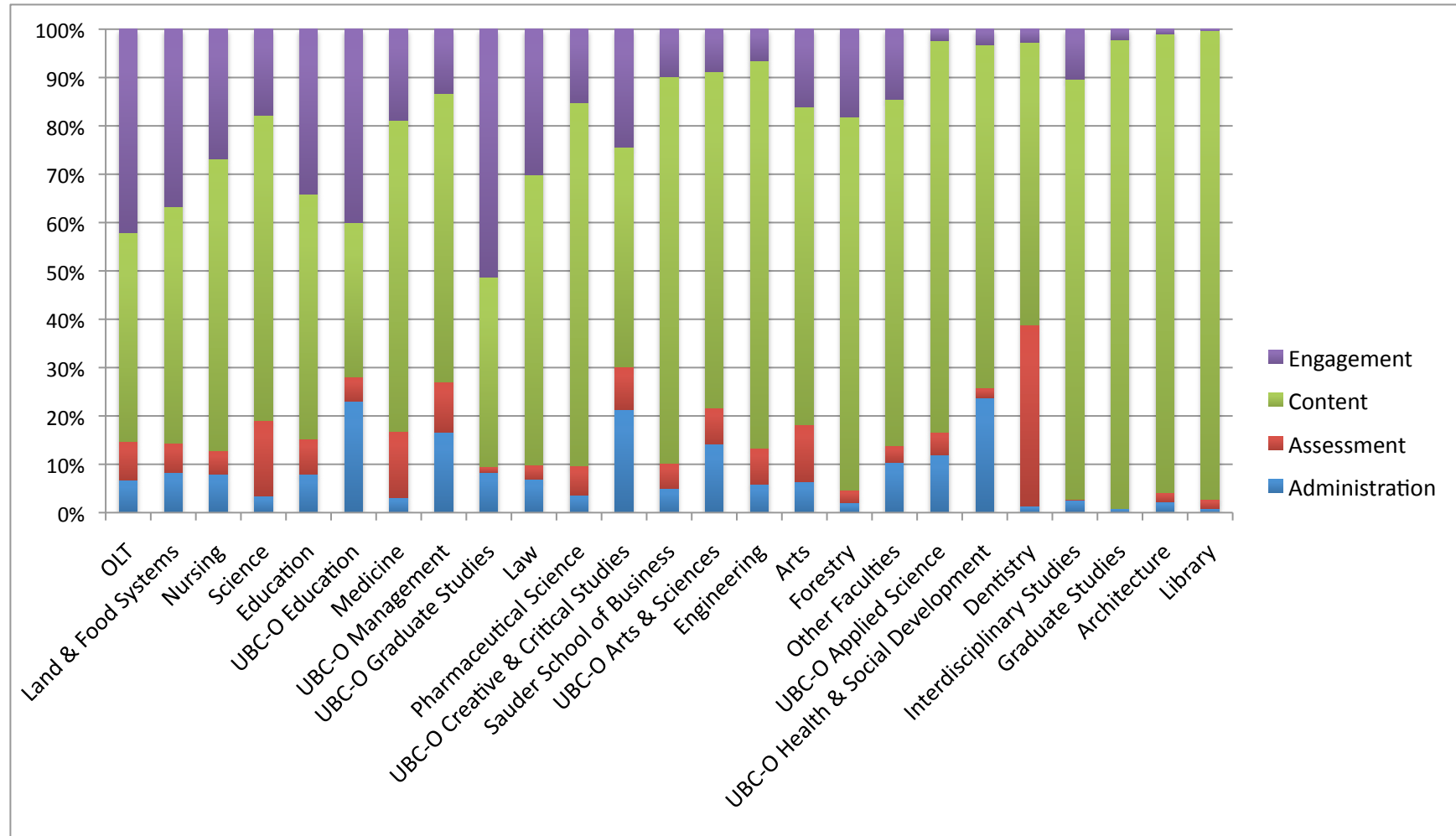


Figure 7. Distribution of student time per tool use category, by Faculty, 2009W

5.7 File types and content size in Vista-hosted courses, 2009W

Table 18 shows file numbers and content size (GB) for different categories of 'file type' in use within Vista-enabled courses during the 2009W academic session. Figure 8 shows relative numbers of files of different file types.

Table 18. Content of UBC Vista courses (file types and size), 2009W

| File Type | Number of Files | Files as % of Total Files | Content Size (GB) | Content as % of Total GB |
|--------------|-----------------|---------------------------|-------------------|--------------------------|
| Adobe PDF | 159,198 | 18.5% | 167.9 | 31% |
| Video | 8,017 | 0.9% | 77.7 | 15% |
| Other | 60,066 | 7.0% | 75.8 | 14% |
| Archive | 6,258 | 0.7% | 73.2 | 14% |
| Power Point | 25,882 | 3.0% | 72.4 | 14% |
| Audio | 45,679 | 5.3% | 27.6 | 5% |
| Image | 352,622 | 41.0% | 15.8 | 3% |
| Word | 46,349 | 5.4% | 11.9 | 2% |
| Flash | 7,243 | 0.8% | 8.6 | 2% |
| Excel | 4,728 | 0.5% | 1.0 | 0.2% |
| HTML | 138,728 | 16.1% | 1.0 | 0.2% |
| Text | 5,344 | 0.6% | 0.8 | 0.15% |
| Total | 860,114 | 100% | 533.8 | 100% |

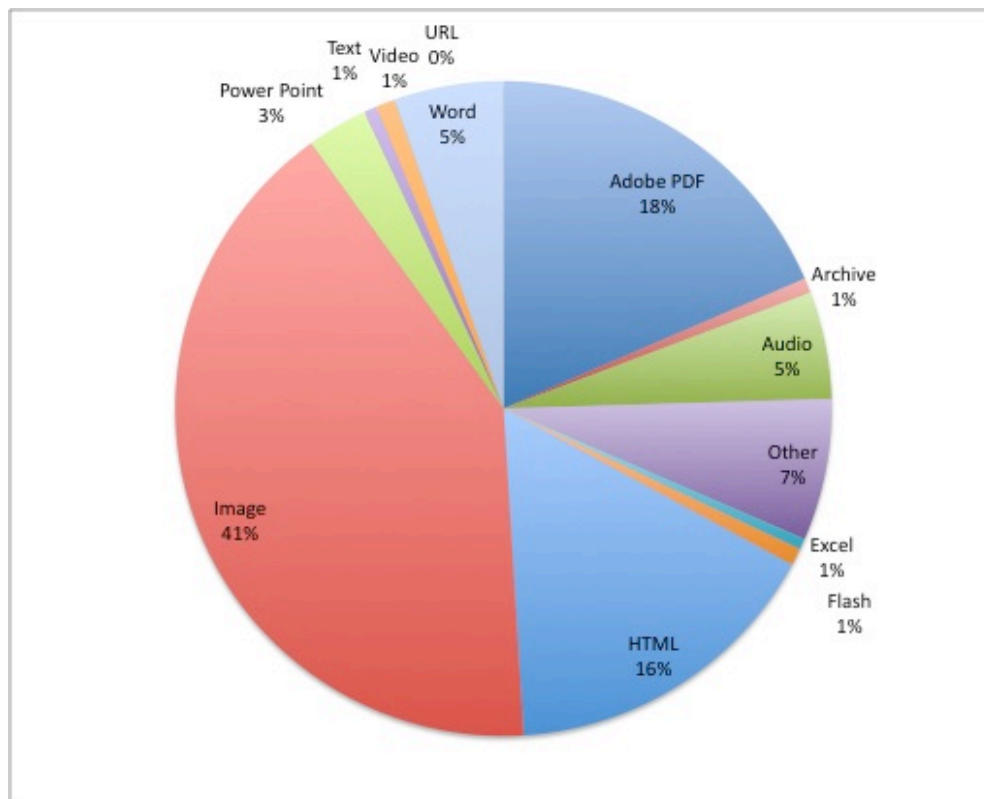


Figure 8. Relative numbers of files on Vista server, grouped by content type.

Table 19. Numbers of files of different types, distributed by Faculty, 2009W

| | (# Sections) | PDF | Archive | Audio | Other | Excel | Flash | HTML | Image | Power Point | Text | Video | Word |
|---------------------------------------|-----------------|--------|---------|--------|--------|-------|-------|--------|--------|----------------|-------|-------|-------|
| Arts | 777 | 24,599 | 668 | 40,082 | 4,991 | 295 | 181 | 12,330 | 33,650 | 3,697 | 867 | 1,510 | 8,941 |
| Sauder Sch. of Business | 388 | 16,709 | 492 | 7 | 1,382 | 1,490 | 0 | 3,698 | 9,340 | 3,991 | 350 | 53 | 6,596 |
| UBC-O Arts & Sciences | 349 | 9,680 | 508 | 408 | 5,499 | 188 | 164 | 4,776 | 37,452 | 2,493 | 452 | 313 | 3,756 |
| Science | 294 | 27,272 | 1,601 | 779 | 10,903 | 111 | 2,528 | 26,189 | 45,455 | 3,750 | 1,073 | 1,214 | 2,196 |
| App. Sci. -Engineering | 236 | 21,904 | 568 | 28 | 4,196 | 1,503 | 293 | 4,440 | 19,357 | 1,916 | 381 | 307 | 3,708 |
| Education | 200 | 7,099 | 407 | 377 | 10,641 | 142 | 784 | 14,993 | 74,512 | 2,412 | 290 | 562 | 3,571 |
| OLT | 184 | 4,012 | 872 | 358 | 5,048 | 56 | 2,016 | 40,985 | 56,258 | 118 | 653 | 3,163 | 2,834 |
| UBC-O Creat. & Crit. Stud. | 151 | 1,780 | 38 | 1,917 | 1,594 | 15 | 72 | 1,067 | 2,786 | 486 | 348 | 16 | 2,010 |
| Medicine | 118 | 25,049 | 487 | 53 | 1,954 | 162 | 702 | 9,243 | 21,281 | 1,100 | 329 | 100 | 2,147 |
| UBC-O Health & Soc. Dev. | 112 | 1,444 | 57 | 1,583 | 3,633 | 15 | 247 | 1,837 | 3,826 | 1,735 | 40 | 415 | 3,171 |
| UBC-O Applied Science | 98 | 3,673 | 58 | 21 | 7,837 | 125 | 0 | 70 | 12,116 | 325 | 110 | 140 | 787 |
| Land & Food Systems | 88 | 5,497 | 106 | 38 | 533 | 383 | 50 | 2,071 | 4,462 | 1,166 | 83 | 56 | 2,430 |
| UBC-O Management | 56 | 959 | 16 | 0 | 91 | 160 | 0 | 21 | 76 | 446 | 10 | 2 | 639 |
| Nursing | 54 | 1,249 | 63 | 18 | 273 | 27 | 78 | 759 | 2,598 | 1,105 | 66 | 22 | 1,325 |
| UBC-O Education | 42 | 395 | 0 | 0 | 18 | 1 | 0 | 75 | 343 | 167 | 11 | 1 | 671 |
| Pharmaceutical Sciences | 36 | 4,389 | 81 | 2 | 267 | 26 | 7 | 517 | 1,385 | 252 | 41 | 51 | 278 |
| Dentistry | 33 | 1,637 | 99 | 9 | 1,306 | 17 | 77 | 13,040 | 22,493 | 236 | 108 | 243 | 282 |
| Law | 32 | 751 | 3 | 3 | 43 | 3 | 0 | 717 | 164 | 239 | 109 | 18 | 911 |
| App. Sci. - Architecture | 16 | 871 | 37 | 0 | 22 | 1 | 0 | 10 | 189 | 80 | 1 | 0 | 102 |
| Library | 11 | 19 | 75 | 0 | 148 | 0 | 78 | 1,667 | 5,311 | 0 | 4 | 0 | 0 |
| UBC-O Graduate Studies | 9 | 216 | 0 | 0 | 3 | 6 | 0 | 4 | 8 | 114 | 0 | 0 | 40 |
| Forestry | 8 | 164 | 6 | 1 | 9 | 5 | 3 | 333 | 612 | 30 | 2 | 5 | 48 |
| Interdisciplinary Studies | 7 | 197 | 1 | 0 | 8 | 9 | 0 | 5 | 20 | 35 | 9 | 0 | 11 |
| Other Faculties | 4 | 86 | 17 | 0 | 5 | 0 | 0 | 136 | 180 | 31 | 1 | 0 | 87 |
| Graduate Studies | 1 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |

5.8 Implementation of UBC-hosted non-Vista platforms and tools for teaching

We know anecdotally that Individual departments, units and instructors at UBC implement, use and experiment with a wide variety of non-Vista tools and platforms in their teaching. Some of these platforms and tools are hosted centrally, allowing some tracking of use frequency and distribution. Other platforms and tools are hosted locally, or are hosted by external companies and organizations, making it difficult to gather institution-wide data on their use.

Where available, some data regarding non-Vista platform and tool usage has been collected in consultation with staff in CTLT (OLT) and UBC-IT.

5.8.1 Blogs

UBC has hosted a custom installation of the WordPress blogging platform since 2007. In the 2009W academic sessions, 158 hosted blogs - identified by the blog creator as being used for a 'Course' - showed some activity. On further investigation, a maximum of 109 of these appear to have been used for course-based teaching and learning during this academic year (this is probably an over-estimate, since a number had already been closed/erased, making function difficult to assess). Roughly 30 blogs tagged as 'course' had never progressed beyond the test establishment and displayed only the 'hello world' test post.

Of the 109 probable course-related blogs, 48 appear to be blogs maintained by individual students as part of a course assignment.

Table 20. Distribution of UBC-hosted WordPress blogs tagged as 'course' in 2009W

| Faculty | Number of blogs tagged as 'course' | Number of courses using blogs |
|---------------------------|---|--|
| Arts | 23 | 20 |
| Sauder School of Business | 53 | 6? |
| Education | 19 | 19 |
| Interdisciplinary Studies | 1 | 1 |
| Medicine | 4 | 4 |
| Land and Food Systems | 1 | 1 |
| Pharmaceutical Sciences | 6 | 5 |
| Science | 2 | 2 |
| TOTAL | 109 | 58 |

5.8.2 Wikis

UBC has hosted a custom MediaWiki installation since 2007. Currently, wiki-based sites using this platform can be accessed as 'standalone' wiki sites on the ubc server, or they can be integrated into a Vista course using a Powerlink.

In the 2009W academic session, 909 learners (Table 15) in 24 sections (Table 13) accessed MediaWiki pages via Powerlinked wiki pages within a Vista course.

Outside of Vista, an additional 258 separate MediaWiki pages were in use as part of course-related materials. Examination of page addresses shows that most of these belong to 12 separate course-related wikis. Three 'lone' pages appear to have been created by students as assignment work.

Table 21. Distribution of course wikis hosted on the UBC MediaWiki installation in 2009W

| Faculty | Department | Course with Wiki | # Course Wikis |
|------------------------------|--|---|--|
| UBC Okanagan Arts & Sciences | Economics | ECON371 | 1 |
| Science | Computer Science Earth & Ocean Sciences | ECON391 | (1 student assignment) |
| | | CPSC 320 | |
| | | EOSC475 | 2 |
| Education | External Programs & Learning Technologies | ETEC522, ETEC540 | 2 |
| Medicine | Medicine | INDE410, INDE420, MEDICOL, RSOT513 | 4 |
| Arts | Library and Information Science (History) | LBR501, LBR548F | 2 |
| | | HIST104 | (2 student assignments) |
| Education | Curriculum Studies | SSED 511 | 1 |
| TOTAL | | | 12 course sites 3 student pages |

5.8.3 Turnitin

UBC has contracted with Turnitin since 2001 and holds a site wide license for us of the Turnitin suite of tools for assessing originality of student writing, and to allow creation of student collaborative writing and reviewing activities within courses.

Currently, teaching staff can make use of Turnitin 'outside' Vista and ask students to visit a distinct Turnitin web location to submit and review work, or Turnitin can be integrated into a Vista course site using a Powerlink.

In the 2009W academic session, 9186 learners (Table 15) in 201 Vista-enabled course (Table 13) sections accessed Turnitin via the Powerlink.

During this same period, an additional 720 instructors established standalone Turnitin accounts and course sites that were used by 77,975 learners. 248,256 student papers were submitted via Turnitin during this period. (Note that this is a count of student enrollments per Turnitin course, and includes redundancies for students enrolled in multiple courses). The Sauder School of Business demonstrated the greatest increase in usage during this period.

Peter Arthur, Director, Centre for Teaching and Learning at UBC Okanagan, reports that 30+ UBC Okanagan instructors made use of Turnitin during 2009W.

5.8.4 WebWork

WebWork is an online homework system for delivering individualized homework problems over the web. It gives students instant feedback as to whether or not their answers are correct. It has been developed in an ongoing partnership between the Department of Mathematics and OLT (CTLT) and is hosted centrally.

In the 2009W academic session, the following courses (all in the Faculty of Science) made use of this tool:

Table 22. Course implementation of the WebWork Mathematics homework tool in UBC courses, 2009W

| Course/Section | Course Title |
|---------------------|--|
| MATH104 | Differential Calculus |
| MATH105 section 204 | Integral Calculus |
| MATH105 section 211 | Integral Calculus |
| MATH105 section 208 | Integral Calculus |
| MATH180 | Differential Calculus with Physical Applications |
| MATH221 | Matrix Algebra |
| SCIE001 | Science One Program |

5.8.5 iPeer

iPeer is an application that allows instructors to develop and deliver rubric-based peer evaluations, to review and release student comments, to build progress report forms online, and to analyze evaluation results. It was developed by Jim Sibley of the Centre of Instructional Support (CIS) in the Faculty of Applied Sciences, to speed up and simplify the process of collecting student peer evaluations and providing feedback. The first stable version 1.0 was released in 2003 and it has been in use by a small but consistent and growing group of courses, mostly in the Faculty of Applied Science, since then. OLT (CTLT) will be hosting and supporting iPeer centrally starting in 2010.

In the 2009W academic session, iPeer was employed in about 30 UBC courses across both campuses.

Table 23. Course implementation of the iPeer peer evaluation tool in UBC courses, 2009W

| Faculty | Course | Title |
|--|-----------------------|--|
| UBC Vancouver Applied Science | MECH 410/550W | Medical Device Development |
| | APSC 486 - COMM 466 | New Venture Design |
| | CHBE 262 | Chemical and Biological Engineering Laboratory |
| | CHBE 363 | Process Engineering Laboratory |
| | CHBE 365 | Biotechnology Laboratory |
| | CHBE 452/3/4 | Process Design Projects |
| | CHBE 564/MICB 419 | Industrial Biotechnology Laboratory |
| | CIVL 400 | Construction Management |
| | CIVL 410 | Foundation Engineering |
| | CIVL 445 | Engineering Design and Analysis |
| | EECE 201 | Electrical Engineering Project I |
| | EECE 202-203 | Electrical Engineering Project II |
| | EECE 419 | Software Engineering Project |
| | MECH 223 | Mechanical Design |
| | MECH 325 | Mechanical Design I |
| | MECH 328 | Mechanical Engineering Design Project |
| | MECH 328 | Mechanical Engineering Design Project |
| | MECH 356 | Machine Components |
| | MECH 481 - 2009W | Aerodynamics of Aircraft |
| | MECH 457/459/APSC 496 | Mechanical Engineering Design Project |
| UBC Okanagan Faculty of Health and Social Development | NRSB 211 | Health and Healing III |
| | NRSB 214 | Nursing Practice III |
| | NRSB 414 | Nursing Practice IV |
| | NRSB 414 | Nursing Practice IV |
| | NRSB 211 | Health and Healing III |
| UBC Okanagan Faculty of Arts & Science | BIOC 309 | Pharmacology II 2010 I |
| | BIOC 407 | Biochemical Basis of Disease |
| | POLI101 | Introduction to Politics and Government |
| | SUST100 | Sustainability: People, Place, and Process |

5.8.6 Respondus

Respondus is a (Windows-only) client-side software package designed for creating and managing quizzes. This tool streamlines quiz authoring and easily integrates with WebCT Vista. It allows instructors to create questions and quizzes offline using simple word processing programs and then upload them directly into your WebCT Vista course.

Unfortunately, because Respondus is client side software that integrates with Vista using webdav, it is impossible to track usage.

However, William Ono of UBC IT reports 46 unique downloads of the application in the period from June 1st 2009 – May 31st 2010.

Peter Arthur, Director, Centre for Teaching and Learning at UBC Okanagan, reports that his unit supported 12 Respondus users in the 2009W academic session.

5.8.7 Web-based ePortfolio Tools

UBC has been promoting the use of 'ePortfolios' (web-based portfolios) for reflective learning activities for several years, supported and encouraged in large part by UBC's Centre for Teaching and Academic Growth (TAG, now CTLT) and the related ePortfolio Community of Practice. Catherine Paul is the most recent coordinator of this CoP and reports that there is no single web-based platform being used for ePortfolio development. Instead, instructors and students are using a range of available tools, in different Faculties and Departments:

5.8.7.1 Blogs

- Some individual ePortfolios have been created using UBC's WordPress installation at <http://blogs.ubc.ca>

(Known use in 2009W: 90 student blogs in Commerce, increasing to 590 in September 2010)

- <http://efolio.educ.ubc.ca> is the Teacher Education Office's ePortfolio site, in the Faculty of Education.

(Known use in 2009W: about 2100 blogs (700 per year) on the site.)

5.8.7.2 Vista

- Some instructors simply use Vista for ePortfolio thinking and reflection . Two known courses (Biology and English) explicitly use Vista in this way.

5.8.7.3 Nursing's Practice ePortfolio (PeP) platform

- Nursing has developed their own ePortfolio tool and are using it for their BSN program for students and instructors

5.8.7.4 *Diastemas.net (Dentistry)*

- Dentistry collaborates in use of a web platform as part of a Universitas 21 collaboration. It allows students to create secure blogs/ePortfolios and get feedback from their peers and instructors. It can be found here: <http://www.diastemas.net/>

5.8.8 Wimba Tools

UBC currently has a site license for two Wimba products -- Wimba Classroom and Wimba Voice.

Wimba Classroom (known as “Live Classroom” within Vista) offers a ‘Virtual classroom environment’ using audio and video tools.

Wimba Voice includes

- Voice Podcaster: Users can create or upload podcasts for user subscription
- Voice Presentation: Users can add web content alongside voice messages
- Voice Discussion Board: Users can post and listen to voice messages within discussion boards
- Voice Authoring: Users can record and listen to voice on a web page
- Voice E-mail: Users can send and listen to voice through email messages
- Voice Direct: Users can communicate via synchronous text/audio chat

At UBC, Wimba Voice tools are only accessible within Vista via Powerlinks. Usage statistics for these tools are available in Tables 13 and 14.

Wimba Classroom can be used as a standalone tool, or the tool can be integrated within Vista via Powerlink. In 2009W 1800 learners made use of the integrated Wimba ‘Live Classroom’ tool integrated into 67 course sections (Tables 13, 14 and 15).

Outside Vista, records show that an additional 493 Wimba Classrooms had activity, though 141 (29%) of these ‘rooms’ registered only one user, while another 170 (34%) show only 2-10 users. A total of 15112 users are recorded as having visited these virtual classrooms (NB this total may include some redundancy if users have access to more than one Wimba classroom instance.)

In addition, it is difficult to determine from available data the purpose of standalone “live classrooms”. While some appear to be course- or teaching-related, many are in use by instructional support and administrative units across the campus (Library, Health and Wellness Centre, and so on).

5.8.9 Web-based Survey Tools

Implementation of a new Freedom of Information and Protection of Privacy Act in British Columbia has meant that public institutions such as UBC may not require students to post personal information on servers hosted outside of Canada.

This precludes teaching faculty from making use of easy web-based survey tools within their courses, since the vast majority of these services are hosted on servers in the United States.

In 2009, subscribed on a test basis to “Vovici” - a Canadian-hosted survey solution that complies with BC legislation. All data is stored and backed up in Canada.

Anne Wang from UBC IT reports that UBC users have currently created 273 accounts. Users are widely distributed across different faculties, with the Faculty of Medicine, UBC Library, Sauder School of Business, Student Systems, and Student Development having the most accounts, respectively.

5.8.10 Clickers

UBC employs the iClicker personal response system (PRS). Students register their iClicker via the iClicker Powerlink within Vista. Tables 13 and 15 show that 180 Vista course sections implemented the iClicker registration Powerlink in 2009W, and that the Powerlink was used by 22,698 student users. Peter Arthur at UBC Okanagan reports that about 25 instructors used iClickers at UBC Okanagan in 2009W.

5.8.11 Other Course Management Systems

The UBC Department of Statistics (Faculty of Science) has developed and continues to refine and use its own LMS, SLATE.

The Faculty of Land and Food Systems hosts a test instance of Sakai 2. In 2009W, one LFS course and 29 Arts courses made use of Sakai in web-supported format.

UBC Continuing Studies has a Moodle installation but no usage of Moodle for credit-level programming has been reported.

5.8.12 Websites

A variety of instructors and Departments across the campus implement websites of various kinds to host course information and materials. Data on course websites may be gathered more effectively from Faculty-wide internal surveys.

Appendix A: Preparation of raw data, and methods

Data on all UBC courses, 2009W

Output from UBC's SEOT database was used to determine a total course section count for UBC in the 2009W session. The following listings were removed before determining section counts and statistics:

- Sections listed as 2009S (summer)
- Sections tagged as EXCH - these are registration placeholders for students completing coursework on overseas exchange programs.
- Sections tagged as HXxx - these are registration placeholders for students completing coursework at the Herstmonceux Castle International Study Centre (England).
- Sections numbered 549, 599, 649 or 699 - these are registration placeholders for students completing Masters or Doctoral theses.

Possible sources of error:

- This list contains a number of 'Directed Studies' listings, whose form is difficult to determine.
- A small margin of error has likely been introduced by double listing of sections where these are co-taught by two instructors.

Data on UBC Vista-enabled course sections, 2009W

Statistics on use of Blackboard Vista in UBC course sections in 2009W were gathered and manipulated using UBC's eLIP tools, which pulls course identifier data from SIS and Vista data from a regularly updated data warehouse of UBC Vista tracking data.

To ensure that only the required data was gathered, analyzed and presented, eLIP queries were designed as follows:

- To present data for only the 2009 W1 and W2 terms;
- To present data only for learner use (except where statistics were sought on non-student users also);
- To exclude divisions and units using Vista for non-teaching purposes or for teaching non-credit courses. Therefore all Vista activity data by Continuing Studies, IT, Student Services, Human Resources, Finance, 'Affiliates and Services', or 'UBCO-Main' was excluded. Vista data from areas listed as 'Test' and 'Inactive CE courses' were also excluded.

- To exclude data from all instances of Vista whose educational purpose was listed as 'Orientation'. A large number of these exist across UBC and are used to orient students, staff and faculty to online learning.

Thanks are due to Vladimir Stoyak and the support team at AlmaLogic (who developed the eLIP suite) for the regular assistance in designing custom metrics and attributes to fit the UBC context, and for troubleshooting.

Data on UBC-hosted non-Vista web-based platforms and tools

Where possible, data on implementation or use of non-Vista technologies in teaching and learning at UBC was gathered from colleagues across the university. Thanks are due to Shane Dawson and Angela Lam (Arts ISIT); Joe Zerdin, Jeff Miller, Alison Wong and Marianne Schroeder (CTLT); Catherine Paul (TAG); Ann Wang, Sandra Yee, Lynda Cooper and William Ono (UBC IT); Jim Sibley (Applied Science Centre for Instructional Support); Peter Arthur (UBC Okanagan Centre for Teaching and Learning); Ranga Venkatachary (Land and Food Systems Learning Centre) and Rob Peregoodoff (Sauder School of Business Learning and Technology Services).

Appendix B: Vista tool functions

| Tool | Function/Use |
|---|--|
| <ul style="list-style-type: none"> • [Powerlink] Abacus | Integrates a specialized web-based platform for modelling chemical structures. |
| <ul style="list-style-type: none"> • [Powerlink] iClicker Registration | Allows students to register their iClicker for use in a course. |
| <ul style="list-style-type: none"> • [Powerlink] Live Classroom | Integrates Wimba's classroom tool (live video and audio conferencing with a group) |
| <ul style="list-style-type: none"> • [Powerlink] MediaWiki | Integrates UBC's hosted MediaWiki installation |
| <ul style="list-style-type: none"> • [Powerlink] Turnitin | Integrates the Turnitin originality checking tool for assessment of student work. |
| <ul style="list-style-type: none"> • [Powerlink] Voice Board | Integrates a Wimba tool that allows users to post and listen to voice messages within discussion forums. |
| <ul style="list-style-type: none"> • [Powerlink] Voice Direct | Integrates the Wimba tool that allows users to participate in synchronous text/audio chat |
| <ul style="list-style-type: none"> • [Powerlink] Voice Email | Integrates the Wimba tool that allows users to send and listen to voice through email messages |
| <ul style="list-style-type: none"> • [Powerlink] Voice Presentation | Integrates a Wimba tool that allows instructors to add web content alongside vocal messages |
| <ul style="list-style-type: none"> • [Powerlink] Voice Recorder | Integrates a Wimba tool that allows users to record and listen to voice on a web page |
| <ul style="list-style-type: none"> • [Powerlink] Wimba Podcaster | Integrates a Wimba tool that allows instructors to create and upload podcasts for subscription. |
| <ul style="list-style-type: none"> • announcement | Instructors can post announcements. |
| <ul style="list-style-type: none"> • assessment | Allows creation and management of quizzes and tests of various format. |
| <ul style="list-style-type: none"> • assignments | Allows creation of 'drop-boxes' for student assignments, and posting of assignment instructions. |
| <ul style="list-style-type: none"> • calendar | Course calendar. |
| <ul style="list-style-type: none"> • chat | Allows synchronous text-based chat (multiple users) |
| <ul style="list-style-type: none"> • compiler | Allows users to compile and print/save course content. |
| <ul style="list-style-type: none"> • content-page | Presents course materials, links and media. |
| <ul style="list-style-type: none"> • discussion | Allows asynchronous group text-based communications via discussion forums. |
| <ul style="list-style-type: none"> • file-manager | A private file storage area. |
| <ul style="list-style-type: none"> • learning-objectives | Allows listing of course learning objectives |
| <ul style="list-style-type: none"> • mail | Allows private communications with peers or instructors. |

| Tool | Function/Use |
|---|--|
| <ul style="list-style-type: none"> media-library | An area in which additional course materials can be collected (e.g. pdfs, media files) |
| <ul style="list-style-type: none"> my-grades | Allows students to view their own grades for assignments. |
| <ul style="list-style-type: none"> my-vista | The Vista 'entry portal' page listing all courses in which a student is enrolled, and some common information. |
| <ul style="list-style-type: none"> notes | A note-taking tool that allows students to take notes as they work with course content. |
| <ul style="list-style-type: none"> organizer | Allows indexing and navigation of course content. |
| <ul style="list-style-type: none"> scorm | Allows integration of shareable content into Vista. |
| <ul style="list-style-type: none"> search | A basic search tool for a course site. |
| <ul style="list-style-type: none"> student-bookmarks | Allows students to bookmark pages to which they wish to return. |
| <ul style="list-style-type: none"> syllabus | Allows posting of course syllabus materials. |
| <ul style="list-style-type: none"> tracking | Allows students and instructors to view a limited set of user activity tracking data. |
| <ul style="list-style-type: none"> web-links | An organizing area for relevant web URLs |
| <ul style="list-style-type: none"> who-is-online | Users can view which classmates/instructors are online |
