Early Results from the CGS Study of
the ProQuest/Bepress Online Submission Application

ProQuest/UMI Dissertations Publishing introduced its on-line ETD submission application in late 2003. UMI asked CGS to conduct a survey of students submitting manuscripts and of the administrators who control the sites to determine where improvements could be made and to make best practice recommendations. The first part of that survey, the survey of submitting students, has been completed. The preliminary survey results seem to indicate that the on-line submission application has succeeded in providing authors with a simple, yet effective, means of submitting electronic documents for publication. At the same time, the results suggest some interesting avenues for future research.

There were 17 total questions. Ten questions were used to rate the ETD submission process. Ratings were from 1, Very Difficult, to 5, Very Easy. Five questions were used to solicit opinions on statements about ETD submissions. Opinions were rated from 1, Strongly Agree, to 5, Strongly Disagree. Lastly, there were two open ended questions where authors could suggest steps to be added or deleted from the submission process and to provide additional comments. The following results present a compilation of the two parts of this survey. The first student survey of 410 subjects was conducted without institutional or discipline identifiers. The second survey of 135 responses was conducted with institution and discipline identifiers.

1. Establishing a student account	77.8% rated it as very easy
2. Completing submission agreement	87.4% rated it as somewhat to very easy
3. Completing contact information screens	88% rated it as somewhat to very easy
4. Completing submission screens	84% rated it as somewhat to very easy
5. Copying abstracts	78% rated it as somewhat to very easy 11.1% rated it somewhat to very difficult
6. Reformatting to PDF	53% rated it as somewhat to very easy 13.7% rated it as somewhat to very difficult
7. Uploading PDF documents to the site	Nearly 80% rated it as somewhat to very easy
8. Uploading Supplementary Files	74.7% registered no response

	Of the 25.3% who did respond, 62.8% rated the process as very easy
9. Reviewing Reformatted PDF Documents	37.4% registered no response. 48% rated the process as somewhat to very easy
10. Correcting the Submission	58% registered no response. 25% found the process to be somewhat to very easy.
11. Clear & easy Grad School guidelines	70.4% agreed or strongly agreed that campus guidelines were easy to follow.
12. Quality of on-line technical help	41.8% provided no response. 33.5% agreed or strongly agreed that online help was sufficient. 12.5% neither agreed nor disagreed. 12% disagreed.
13. Communication with Grad School	49.8% agreed or strongly agreed that there was adequate communication. 21.2% expressed no opinion. 13.9% neither agreed nor disagreed. 9.5% disagreed. 5.6% strongly disagreed.
14. Distribution options met authors' needs	45.6% expressed no opinion. 38.9 % agreed or strongly agreed. 4.6% disagreed.
15. Recommend to other students?	67.4% would recommend using the software to other students. 25.6% either registered no response or neither agreed nor disagreed. 2.1% disagreed. 4.4% strongly disagreed

Recommendation of software to others by field:

Business	88%
Education	80%
Engineering	81%
Life Sciences	63%
Physical Sciences	86%
Social Sciences	62%
Humanities	42%

Ease of reformatting by field:

	Somewhat–Very Easy	Neither - Nor	Somewhat-Very Hard	No Response
Business	37 - 50%	0%	0 - 13%	0%
Education	15 - 50%	15%	0 - 5%	15%
Engineering	11 - 41%	5%	8 - 3%	32%
Humanities	8 - 17%	25%	0 - 42%	8%
Life Sciences	21 - 42%	5%	5 - 16%	11%
Physical Sciences	7 - 57%	0%	0 - 14%	21%
Social Sciences	10 - 52%	10%	14 - 0%	14%

Review of questions and suggestions:

A number of authors had questions about copyright. From those questions and from a general uncertainty about manuscript distribution, it appears that authors had a less than adequate understanding of their rights as authors or their responsibilities as researchers who use materials created by others. Obtaining permission to use previously copyrighted material was another area where students were unclear as to what their responsibilities were.

The difficulties of reformatting were particularly evident in responses from Humanities students. In the second part of the survey where institutions and disciplines were identified, 42% of Humanities students found reformatting very difficult while the majority of Business and Education students found it relatively easy. In addition, questions concerning reviewing reformatted documents and correcting submissions garnered minimal responses from all authors. Were authors so unfamiliar with the submission software or with PDF that they were reluctant to review and correct their submissions?

Another survey question that produced interesting results concerns the inclusion of supplementary materials in the digital document. Almost 75% of authors who submitted manuscripts did not respond to the question. From this, one would assume that these authors did not submit additional electronic materials. We might then want to ask, when they began writing the dissertation, did those authors envision the document as a digital document with all its attendant functionality or as a simple paper document in digital form? Would students have benefited from a brief tutorial on some of the features a digital document could provide?

This survey also generates questions concerning misalignments or a lack of continuity between the formal and informal aspects of the educational process, between what takes place in the informal process of socialization into a scholarly discipline and what standards govern the educational process.

The development of information technologies and their adoption by the academic community have proceeded at such a rapid pace they have outstripped institutional ability to codify practice and standards. A student's presence in the classroom or lab practically guarantees exposure to the information technology that is the norm for the discipline. To complete her class work, to communicate with others, she should avail herself of the appropriate word processing applications, spreadsheets, graph and visualizing applications, Internet search utilities, professional society websites and specialized databases, university web-environments with course tools, or course packs, library utilities, e-mail, etc. While activity in an academic environment presupposes use of information technologies, are there departmental requirements identifying a level of expertise in tools that are the disciplinary norm? In some cases, there are; in others, there are none. Sometimes, it seems as if there is little more than a broad assumption that, as the student is socialized into the discipline, she will gain sufficient mastery of required information technologies.

In part, this is an instructional issue. Assuring a minimum level of professional training, acquiring expertise in information technology, is an area for departmental or program oversight. It is an issue that involves successful testing and/or the passing of core courses as a requirement for advancement. Professional activity in many disciplines, particularly the sciences and engineering, requires the use of specific applications. NSF, NIH, and other federal granting agencies, for example, require grant proposal submission using Adobe PDF forms. A student's success in her future professional career will depend on her familiarity with and skill level in using information technologies. Departments are best positioned to identify those technologies and to provide practical instruction.

However, it is also important to appreciate the extent to which we are surrounded by information technologies. Information technology has become as much a part of the process of education, of learning, research and scholarly communication, as language itself. So, perhaps it might be useful to re-phrase these questions in terms of fluency. Does a student's education provide sufficient fluency in information technologies? Is the student adequately prepared to function in the digital environments that are found in industry or the academy? From this perspective, information technology fluency becomes part of a broader educational mission. The informed citizen, the life-long learner, draws on these technologies as she navigates her way through life in the twenty-first century. Here, the university and the graduate school do have a role to play. It is the role of higher education to draw attention to the digital environment in which much of our lives now takes place and to highlight the need for mastery of the tools necessary to function in that environment.