



# Blackboard CourseInfo at Duke University: Faculty and Student Feedback for 2000-2001

*Lynne O'Brien, Director, Center for Instructional Technology and  
Amy Kenyon Campbell, Senior Academic Technology Consultant, CIT*

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## Executive Summary

Duke University began offering Blackboard's CourseInfo software to faculty in Fall 1999. The software in use during the 2000-2001 academic year was CourseInfo version 4.0 (now called Blackboard Level 1). At the conclusion of the 2000-2001 Academic Year, the Center for Instructional Technology (CIT) sent a survey to all instructors who had set up at least one Blackboard CourseInfo website during the Fall 2000 or Spring 2001 semester. Of the 593 instructors polled, 111 (19%) completed the survey. The CIT sent a separate survey to a random sample of students who were registered in a Fall 2000 or Spring 2001 course. Of 2181 students polled, 296 responded (14%).

This report summarizes the key findings from these faculty and student surveys. Detailed information about the surveys and survey results are available on the CIT's website: <http://cit.duke.edu/about/reports.html>.

### *Key findings:*

Instructors and students were generally positive about using the Blackboard CourseInfo software.

Instructors generally found Blackboard easy to use, thought the features were useful, and made positive comments about using it. Students also were generally positive but rated the software features as less useful than faculty did and frequently mentioned that the software was only used in a very limited way.

Instructors varied in the extent to which they used the full range of Blackboard CourseInfo features in their courses.

Fifty-nine percent of instructors had used one to three features of the software and 41 percent had used between four and eight features. Instructors who used more features tended to have been using Blackboard for more semesters. Both groups of instructors rated themselves generally comfortable with technology.

The majority of instructors maintained their Blackboard course site themselves. Instructors who used a wide range of features were more likely to have a teaching assistant or departmental staff to help maintain the website than instructors who used only a few features.

Instructors and students agreed that Blackboard was easy to use and was very useful for providing convenient access to information.

Instructors were most likely to use Blackboard features related to disseminating information to students. Almost all instructors used Blackboard for providing course information, posting announcements and course documents and sending course-related email. Instructors and students rated those features as highly useful.

Instructors are not using Blackboard to its full capacity. Students would like professors to make greater use of Blackboard's features.

Instructors were less likely to use features that required more interaction with students and more frequent updating, such as the discussion board or assessment tools. Instructors indicated only modest interest in using interactive features such as the discussion board, assessment tools and file exchange tools. Students would like to see faculty make greater use of these features.

Instructors who use a limited set of Blackboard features are not especially interested in attending training sessions and would rather have individual training in their offices.

The only training option rated highly by professor using limited aspects of Blackboard was "individual training by a student worker at your office." The CIT offered such a service during the Fall 2000 and Spring 2001 semesters, and the few instructors who took advantage of it were pleased. For instructors who did express an interest in training sessions, the preferred format was a short session right before the start of classes or during the summer. Eighty-three percent of instructors who were using Blackboard extensively said they taught themselves to use the software.

Instructors' recommendations for encouraging Blackboard use focused on having student workers or staff create and maintain course sites, or on offering incentives to instructors who attended training.

Instructors felt the best strategies for supporting Blackboard were having someone else create and maintain course sites and improving classroom presentation technology. The incentives faculty listed as most likely to encourage them to use Blackboard were receiving laptop computers or cash for attending training, or having student workers or a TA to help them convert materials to a course web site.

### *Conclusions*

Overall faculty and students were pleased with CourseInfo and its capabilities. Some of the respondents' negative comments have been addressed (regarding password issues, offering one-on-one training) or will be addressed with the implementation of the enterprise version of Blackboard 5.5 in Spring 2002 (integration with other University systems, automatic creation of course sites with basic data populated).

Some additional issues and concerns could be addressed with better communication of CourseInfo/Blackboard capabilities, which is one goal of the new, enhanced Blackboard support web site being created for January 2002 at <http://blackboard.duke.edu>. The CIT will strive to provide just-in-time, on-demand, convenient training and help to faculty and other instructors through departmental training sessions, group training, offering one-on-one training, searchable FAQ at the Blackboard web site and other means.

In addition, CIT intends to reach out to non-users through targeted mailings to instructors not using their Fall 2001 course sites, aggressive advertising about Blackboard beginning in January 2002, and promotion of a customized CD profiling Duke faculty using Blackboard successfully. We will evaluate our users' satisfaction again at the end of Fall 2001 and Spring 2002 semesters.

## Faculty Survey Responses: Details

The CIT sent an email to all instructors who had set up at least one Blackboard course website during the Fall 2000 or Spring 2001 semesters asking that they complete a survey about their use of Blackboard's CourseInfo software. The survey is available at: [http://cit.duke.edu/cgi-bin/ci\\_faculty\\_survey\\_2001.pl](http://cit.duke.edu/cgi-bin/ci_faculty_survey_2001.pl).

We were interested not only in faculty members' general reaction to this software, but also in different patterns of use and the factors that influenced those different patterns of use. Our goal was to use this information from faculty to plan future support services for Blackboard CourseInfo.

### *Who responded to the survey?*

Of the 593 instructors polled, 111 completed the survey. The response rate from each school roughly reflected the number of CourseInfo web sites for each school.

**Table 1: Respondents by School and Department (Total N= 111)**

	# BB course sites for F2000-Spr 2001	% BB sites	# survey respondents	% survey respondents
Arts & Sciences	273	83%	72	65%
Business	0	0%	0	0%
Divinity	4	1%	2	2%
Environment	18	5%	7	6%
Engineering	16	5%	16	14%
Graduate School *	0	0%	0	0%
Law	0	0%	0	0%
Medicine	19	6%	14	13%
Nursing	0	0%	0	0%
Total	330	100%	111	100%

\*32 individuals taught Graduate courses; their data was combined with the data from their school

### **Patterns of CourseInfo usage**

All survey respondents answered a set of ten questions about their use of Blackboard. Then, respondents were directed to different sets of questions depending on the number of Blackboard features they had used.

#### a. CourseInfo Non-Users (0%)

Instructors who had requested a CourseInfo account but were **not using any features**, were directed to the **Non-User** survey. Questions to this group focused on learning:

- what deterred the instructor from using Blackboard CourseInfo
- what actions the instructor took to learn about Blackboard CourseInfo.
- what Duke could do in the future to make it easier for this instructor and others like her/him to use the program.

There were no respondents who fell into the Non-User category and thus we were not able to gather information about this group. It will be important to reach out to this group and well as to instructors who have never requested a CourseInfo site to find out how we could help them get started.

#### b. CourseInfo Partial Users (59%)

Instructors using **1-3 features** were directed to the **Partial User** survey. Questions for this group focused on learning:

- what these instructors have found useful in Blackboard CourseInfo
- whether these users are interested in using more of the program's features
- what training, services or incentives could be offered to expand use

c. CourseInfo Extensive Users (41%)

Instructors using **4-8 features** were directed to the **Extensive User** survey. Because instructors in this group were using the software more extensively, we wanted to:

- learn how the instructor was able to arrive at high level of use
- determine which features they found most useful
- identify additional needs the instructor has
- gather suggestions for enhancements to the Blackboard platform
- identify experienced Blackboard users to participate in a focus group to discuss the implications for the upgrade to Blackboard 5.

**Table 2: Usage Patterns, By School**

School	All Respondents (N=111)	Partial Users (N=64)	Extensive Users (N=47)
Arts & Sciences	36%	36%	36%
Business	0%	0%	0%
Divinity	2%	0%	4%
Environment	6%	5%	9%
Engineering	13%	14%	11%
Graduate	27%	31%	21%
Law	0%	0%	0%
Medical	13%	11%	15%
Nursing	0%	0%	0%
No response	2%	3%	0%
Other	2%	0%	4%
	100%	100%	100%

**Table 3: Motivation for Creating Blackboard Site**

(Check all that apply)

Answer	All Respondents (N=111)	Partial Users (N=64)	Extensive Users (N=47)
Improve student access to information	93%	94%	91%
Desire to utilize technology to facilitate learning	55%	47%	66%
Ease of use of the program	54%	48%	62%
Direct students to information on the web	42%	31%	57%
Desire to increase interaction outside of class	32%	23%	45%
Students' interest	30%	23%	38%
Department goals and priorities	24%	19%	32%
Recommendation of colleague	12%	13%	11%
Advertising or publicity put out by the CIT	12%	13%	11%
Availability of on-line help resources	12%	8%	17%
Availability of training	9%	6%	13%
Appeal of on-line quizzes and surveys	5%	0%	11%
Availability of trained student visits to my office for one-on-one assistance	5%	5%	4%

**Table 4: Number of semesters using Blackboard**

Semesters	All respondents (N=111)	Partial Users (N=64)	Extensive Users (N=47)
1	40%	47%	30%
2	33%	33%	34%
3	16%	16%	17%
4	6%	3%	11%
5 or more	3%	2%	4%
Did not use	1%	0%	2%
No response	1%	0%	2%
Total	100%	100%	100%

**Table 5: How would you assess your general comfort with technology?**

Comfort level	All Respondents (N=111)	Partial Users (N=64)	Extensive Users (N=47)
Not at all comfortable	2%	2%	2%
Somewhat uncomfortable	9%	11%	6%
Comfortable	25%	25%	26%
Very comfortable	44%	45%	43%
Completely comfortable	20%	17%	23%

**Table 6: Who was responsible for maintaining the Blackboard site? (Check all that apply)**

	All Respondents (N=111)	Partial Users (N=64)	Extensive Users (N=47)
The course instructor	74%	72%	77%
A Teaching Assistant	35%	30%	43%
Departmental staff	12%	8%	17%
Other: -Course director -Course administrator	5%	5%	4%

**Table 7: Which of the following Blackboard features did you use? (Check all)**

Answer	All Respondents (N=111)	Partial Users (N=64)	Extensive Users (N=47)
Course Documents, Course Information, and/or Staff Information	95%	91%	100%
Announcements	85%	75%	98%
External Links	48%	25%	79%
Gradebook	46%	33%	64%
Discussion Board	25%	8%	49%
Group Tools	22%	6%	43%
On-line quizzes and/or surveys	14%	0%	32%
Virtual Chat	2%	0%	4%

**Table 8: Usefulness of CourseInfo features**

Respondents rated the usefulness of features they had used from 5 (extremely useful) to 1 (not useful). Average usefulness scores exclude respondents who indicated they had not used the feature.

	Partial Users (N=64)		Extensive Users (N=47)	
	Average usefulness	% did not use feature	Average usefulness	% did not use feature
Course Information	4.7	13%	4.5	2%
Course Documents	4.6	11%	4.5	2%
Email	4.5	31%	4.4	11%
Announcements	4.4	15%	4.3	0%
File exchange	4.1	41%	3.3	56%
Staff Information	4.0	29%	3.9	18%
Automated course roster population	3.9	51%	3.9	36%
Gradebook	3.8	56%	4.2	35%
External links	3.8	66%	4.1	23%
Discussion Board	3.4	86%	3.8	38%
Assessment tools	3.3	86%	3.6	65%
Group tools	3.2	86%	3.5	55%
Virtual Chat	2.5	93%	2.5	77%

**Table 9: Instructor interest in learning to use additional features**

Respondents checked all the features they were interested in learning to use in the future.

	Partial Users (N=64)	Extensive Users (N=47)
Discussion Board	33%	19%
Gradebook	30%	21%
Assessment tools	20%	21%
External links	19%	4%
Virtual Chat	16%	45%
File exchange	16%	32%
Announcements	14%	0%
Automated course roster population	14%	21%
Email	13%	4%
Course Documents	8%	0%
Group tools	8%	34%
Course Information	6%	0%
Staff Information	6%	4%

**Table 10: Partial Users' interest in training**

Partial Users indicated how interested they were in attending training on Blackboard.

	Partial Users (N=64)
Very interested	11%
Somewhat interested	36%
Not very interested	16%
No interest	37%

People choosing "no interest" in training were asked to skip the next four questions as they asked about training preferences.

**Table 11: Rate the proposed training options below from 5 (most beneficial) to 1 (least beneficial)**

Excludes individuals (37% of 64 partial users, or 24) who indicated no interest in training

	Partial Users (N=40)
Individual training by a student worker at your office	4.2
"Drop-in sessions" for individual assistance on West Campus	3.1
Group training on West Campus	3
Department training	2.7
"Drop-in sessions" for individual assistance on East Campus	1.7
Group training on East campus	1.6

**Table 12: What time of year would training be most helpful? (choose up to 3)**

Excludes individuals (37% of 64 partial users, or 24) who indicated no interest in training

	Partial Users (N=40)
Just before the beginning of Fall semester	49%
Summer	41%
During the first few weeks of Spring Semester	31%
Sporadically throughout the academic year	26%
During the first few weeks of Fall semester	23%
Winter break	18%
I am not interested in attending training sessions	10%

**Table 13: What format of training would you be most likely to attend? (check all that apply)**

Excludes individuals (37% of 64 partial users, or 24) who indicated no interest in training.

	Partial Users (N=40)
Half-day hands-on training where you could work with your own materials	61%
One hour presentation and demonstration of features	61%
One day hands-on training where you could work with your own materials	11%
Multi-day workshop over the summer where you were given a cash incentive to attend	11%

**Table 14: Which of the following training session topics would most interest you? (check boxes)**

Excludes individuals (37% of 64 partial users, or 24) who indicated no interest in training

	Partial Users (N=40)
Communication Tools: Making use of the file exchange and discussion board tools in Blackboard	63%
Assessment Tools: Using the on-line grade-book and creating quizzes and surveys in Blackboard	53%
Adding Course Content: Uploading and displaying information in Blackboard.	50%
Virtual Chat: Holding real time classes using Blackboard	18%

**Strategies for encouraging more active use of CourseInfo in future semesters**

**Table 15: What is the most effective action Duke could take to support your use of Blackboard in future semesters? (check boxes, choose any 3)**

	Partial Users (N=64)	Extensive Users (N=47)
Automatically create a Blackboard site for every Duke course populated with a course description, staff information, electronic reserves, and a syllabus	53%	51%
Have staff available to digitize print materials and upload them to my site	41%	36%
Improve classroom technology to make it easier to present information from a laptop, CD-ROM, or diskette	27%	38%
Offer trained Blackboard student office visits to get me started	17%	13%
Have staff available to maintain my course	17%	13%
Other	16%	13%
Offer technical training on searching the web, using email, word processing and PowerPoint to increase my general level of technical proficiency	11%	17%
Offer Blackboard training courses more frequently	11%	15%
Staff the help desk in the evenings and on weekends	3%	6%

**Table 16: Which incentives would be most likely to encourage you to use Blackboard? (check all that apply)**

	Partial Users (N=64)
Laptops in exchange for attending training sessions	60%
Cash stipends paid in return for attending training sessions	38%
Student labor for materials conversion	33%
Adding a technology-trained TA to your course	19%
Other	
1. none	
2. Especially student assistant help.	
3. Don't need to be bribed.	
4. being able to upload documents with Cyrillic, and to enter Cyrillic in quizzes, etc.	
5. Any of those are great but I'll use it regardless	
6. Knowing what to do!	

**Table 17: General Comments about Blackboard**

Enter any additional comments you have about Blackboard, or the way in which Duke is supporting this software package in the box below.

Tally of comments by category	Partial Users (N=64)	Extensive Users (N=47)
General positive comment	12	9
Problems with class roster, adding & deleting students	3	
Need better understanding of what can be done with BB, value of BB	3	
Improve certain feature or functions	4	3
Negative comment about gradebook	3	
Need more help/training	1	
Want materials to be open & public rather than password protected	1	
Encountered tech problem		3

**Group 3: The questions below were only answered by the 47 people who were using more than three Blackboard features**

**Table 18: How did you learn to use Blackboard? (check all that apply)**

	Extensive Users (N=47)
Self-taught	83%
Attended group training	31%
Used on-line resources available at <a href="http://courseinfo.duke.edu">http://courseinfo.duke.edu</a>	21%
Took the tutorial(s) available on the Blackboard.com site	6%
One-on-one training with support staff	6%
Scheduled an appointment with a student technology assistant	4%

**Table 19: What enhancements should Blackboard make to improve the course management system?**

Category of Comment	Extensive Users (N=47) # of Comments
General positive comment	3
Better ways to add/drop students, change student info	5
Suggestion for feature, functionality improvement	9
Improve gradebook	3
Instructor wants to use software more fully, learn more	1

Would you be willing to participate in a focus group to discuss how Duke can better support a campus wide course management system? (20 people said yes and provided contact information).

**Table 20: Do you have future plans for further incorporation of technology into your teaching? What help would you need to implement these plans?**

Comments by category	Extensive Users (N=47) # of comments
Yes, will use tech in future	12
No, will not use	2
Maybe will use	1
Want to use projection in class	3
No help needed	4
Not sure, need ideas	2
Need consulting or help with specific task (not BB)	3

## Student Survey Responses: Details

Approximately 10,905 users were designated as students who were registered in a fall 2000 or spring 2001 course. Email notification of the survey was sent to a sample of 2181 students; 296 students responded (14%). Approximately 75% of the respondents had been using the program in 1-3 courses. Most were accessing the application from campus connections in dorms or clusters. While students found it easy to learn to use the program (4.4/5 on ease of learning), they only found it moderately useful (3.3/5 rating on benefit of using the program). They commented that it was convenient having access to course material and grades. Many students criticized the password system and the inconsistency with which different professors are using the program.

**Table 21: Student Respondents by School**

Trinity College of Arts and Sciences:	62%
Pratt School of Engineering:	16%
Graduate School	5%
Divinity School	4%
Medical School	3%
Nicholas School of the Environment	3%
Other	1%
Did not answer	6%
Total	100%

**Table 22: Rate your proficiency with the following technologies (1= no experience; 5= much experience)**

Using e-mail	4.8
Surfing the web	4.7
Using a course web page to access course materials or locate information for academic work	4.4
Downloading files that were created using many different file formats (i.e., pdf, word, powerpoint)	4
Listening to, watching, or downloading multimedia files (i.e., Real Audio, MP3, Quicktime)	4
Exchanging files via FTP or another file program	3.2
Taking quizzes or tests electronically	2.9

**Table 23: In how many courses did you use CourseInfo this year?**

Number of courses	% responding
0	3%
1	29%
2	31%
3	18%
4	11%
5	3%
6	1%
7	1%
Other	1%

**Table 24: How frequently did you use CourseInfo?**

Several times a day	6%
About once a day	18%
3-5 times a week	32%
Once a week	26%
Less than once a week	17%

**Table 25: How did you access your CourseInfo course (check all that apply)**

Through public clusters at Duke University	60%
From a computer on campus through a direct network connection (e.g., office or dorm)	86%
Through a 28.8k or 56k dial-in modem	12%
Through a cable modem or DSL connection	12%

**Table 26: How useful were the following components in CourseInfo (1= not useful at all; 5= very useful)?**

	Mean	Did not use
Course Information or, Course Documents	4.3	5%
Announcements	3.8	10%
File Exchange (digital dropbox)	3.4	54%
External Links	3.2	39%
Assessment	3.2	47%
Group tools (discussion board, virtual chat, email)	2.9	40%

**Table 27: How easy was it for you to learn how to use CourseInfo? (1= very hard; 5 = very easy)**

Mean = 4.4 N=291

NA	2%
1	>1%
2	2%
3	10%
4	35%
5	52%

**Table 28: Your experience working with different types of file formats in CourseInfo could be best described as:**

Trouble free, I viewed or downloaded multiple different types of files without any trouble.	47%
Inconsistent, some of the files were easy to work with while others gave me trouble.	28%
Difficult, I had difficulty working with the files in CourseInfo.	1%
None of the above, I did not work with different types of files.	24%

**Table 29: How beneficial was CourseInfo in helping you to learn your course material?**

(1-5; 1= not beneficial at all; 5 = very beneficial)

mean = 3.3

1	7%
2	13%
3	33%
4	33%
5	13%

**Table 30: Categorized open ended comments about CourseInfo from students**

	Number	% (of N=296)
CourseInfo was easy to use and provided convenient access to course materials.	174	59%
Students felt instructors did not use CourseInfo enough.	80	27%
CourseInfo facilitated interaction between instructors and students.	54	18%
Students disliked having a separate password for CourseInfo and getting frequent prompts for passwords.	40	14%
Criticisms of CourseInfo interface.	35	12%
CourseInfo made it easy to check grades.	34	11%
Students encountered problems with downloading files or found file downloading slow.	25	8%
CourseInfo performance was slow or unreliable.	9	3%
Students had to search for their CourseInfo site.	8	3%
Students would have liked more training or initial help with CourseInfo.	7	2%
Unspecific negative comments.	6	2%
Unspecific positive comment.	5	2%
CourseInfo reduced use of paper.	5	2%
Students did not like having to print course documents.	4	1%