

Faculty Technology Use Patterns: Comparing HBCUs and PWIs

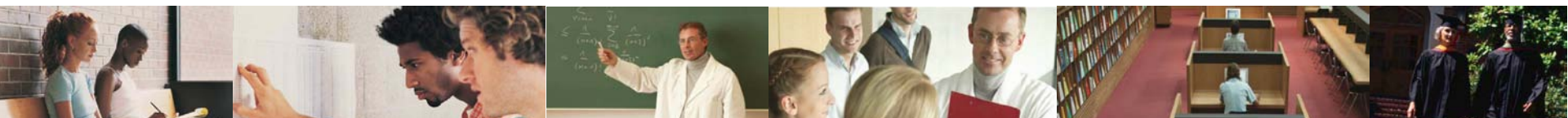
Eddie R. Cole

Cameron J. Harris

Indiana University Center for Postsecondary Research

Presentation Outline

- Overview of HBCU Benefits and Outcomes
- Purpose and Research Question
- Information Source, Sample Characteristics
- Findings: Patterns in Faculty In-class and Out-of-class Technology Use
- Observations, Implications, Feedback, and Discussion





HBCU Benefits and Outcomes

- HBCU campuses tout higher levels of student-faculty interaction and active and collaborative learning experiences (Nelson Laird, Bridges, Morelon-Quainoo, Williams, & Salinas Holmes, 2007).
- Literature suggests that educationally purposeful activities are occurring at higher rates at HBCUs



HBCUs and Technology Use

- Lack of literature regarding institutional type and technology use in the classroom (Gasman, Lundy-Wagner, Random, T. & Bowman, 2010).
- Suggestion that HBCU students have lesser familiarity with technology (United States Department of Commerce, 2002).

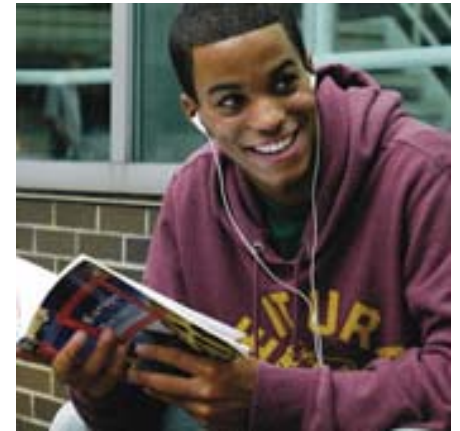




Our Purpose

- To better understand...
 - What patterns, if any, exists in technology usage among faculty on HBCU and PWI campuses
 - Institutional and faculty characteristics that may influence the use of technology in classrooms
- Research Question: How does technology use differ between faculty at HBCUs and PWIs?

Gathering the Data



Information Source: FSSE

Faculty Survey of Student Engagement:

- Annual spring survey of faculty members
- Assesses faculty perceptions and encouragement of student engagement
- Designed to complement the National Survey of Student Engagement (NSSE), which is administered to undergraduate students

www.fsse.iub.edu

2009 FSSE Administration

- 148 Institutions
 - 133 PWIs, 14 HBCUs, 1 TCU
- 18, 736 Faculty Respondents

2009 Technology Item Set

- 50 Institutions
 - 41 PWIs, 9 HBCUs
- 2,079 Faculty Respondents, after deleting cases for missing data.





Sample characteristics

2,079 faculty members

- 54% Women
- 73% White
- 10% African American
- 5% non-U.S. citizens
- 20% Lect/Inst
- 30% Assist, 26% Assoc
- 24% Full Professor

LD or Mostly FY – 47%

- HBCU Respondents – 44%
- PWI Respondents – 48%

UD or Mostly SR – 48%

- HBCU Respondents – 52%
- PWI Respondents – 47%

Course Size (% HBCU / % PWI)

- 1-19 students enrolled (23% / 32%)
- 20-49 students enrolled (65% / 56%)
- 50 or more students enrolled (12% / 12%)

Technology Question Set

During the current school year, how often did you use the following in your courses:

(5 = Very often; 4 = Often; 3 = Sometimes; 2 = Never; 1 = I do not know what this is)

- Course management systems (WebCT, Blackboard, Desire2Learn, Sakai, etc.)
- Student response systems (clickers, wireless learning calculator systems, etc.)
- Online portfolios
- Blogs
- Collaborative editing software (Wikis, Google Docs, etc.)
- Online student video projects (using YouTube, Google Video, etc.)
- Video games, simulations, or virtual worlds (Ayiti, EleMental, Second Life, Civilization, etc.)
- Online survey tools (SurveyMonkey, Zoomerang, etc.)
- Videoconferencing or Internet phone chat (Skype, TeamSpeak, etc.)
- Plagiarism detection tools (Turnitin, DOC Cop, etc.)

Grouping Technology Use

During the current school year, how often did you use the following in your courses:

Asynchronous Use (alpha .83, 6 items)

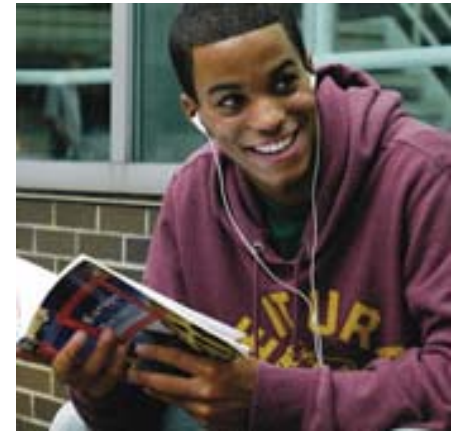
- Course management systems (WebCT, Blackboard, Desire2Learn, Sakai, etc.)
- Online portfolios
- Blogs
- Collaborative editing software (Wikis, Google Docs, etc.)
- Online survey tools (SurveyMonkey, Zoomerang, etc.)
- Plagiarism detection tools (Turnitin, DOC Cop, etc.)

Synchronous Use (alpha .82, 4 items)

- Student response systems (clickers, wireless learning calculator systems, etc.)
- Online student video projects (using YouTube, Google Video, etc.)
- Video games, simulations, or virtual worlds (Ayiti, EleMental, Second Life, Civilization, etc.)
- Videoconferencing or Internet phone chat (Skype, TeamSpeak, etc.)



Findings



In-Class Technology Use

HBCU

PWI

Used the following “sometimes,” “often,” or “very often”:

Student response systems

12%

Online student video projects

20%

Video games, simulations, or virtual worlds

8%

Videoconferencing or Internet phone chat

8%

In-Class Technology Use

HBCU

PWI

Used the following “sometimes,” “often,” or “very often”:

Student response systems

14%

12%

Online student video projects

25%

20%

Video games, simulations, or virtual worlds

8%

Videoconferencing or Internet phone chat

8%

In-Class Technology Use

HBCU

PWI

	HBCU	PWI
Used the following “sometimes,” “often,		
or “very often”:		
Student response systems	14%	12%
Online student video projects	25%	20%
Video games, simulations, or virtual worlds	11%	8%
Videoconferencing or Internet phone chat	8%	8%

Out-of-Class Technology Use

HBCU

PWI

Used the following “sometimes,” “often,” or “very often”:

Course management systems

71%

Blogs

10%

Collaborative editing software

12%

Online Survey Tools

13%

Plagiarism detection tools

23%

Online portfolios

15%

Out-of-Class Technology Use

HBCU

PWI

Used the following “sometimes,” “often,” or “very often”:

Course management systems

66%

71%

Blogs

14%

10%

Collaborative editing software

16%

12%

Online Survey Tools

13%

Plagiarism detection tools

23%

Online portfolios

15%

Out-of-Class Technology Use

HBCU

PWI

Used the following “sometimes,” “often,” or “very often”:

Course management systems

66%

71%

Blogs

14%

10%

Collaborative editing software

16%

12%

Online Survey Tools

18%

13%

Plagiarism detection tools

26%

23%

Online portfolios

18%

15%

Mean Comparison

PWI Mean (SD)	HBCU Mean (SD)	Mean Diff.	Effect Size	Effect Size with Controls
---------------	----------------	------------	-------------	---------------------------

In-class Technology

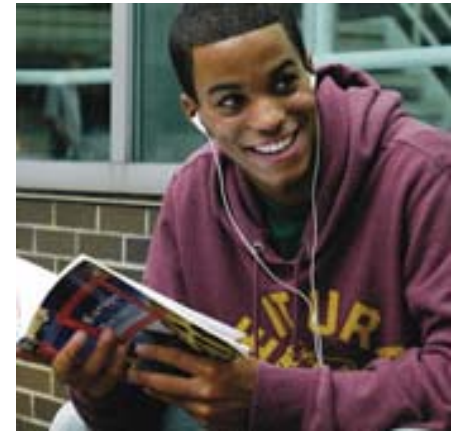
1.58 (1.42)	1.68 (1.61)	0.10	0.07	0.01
--------------------	--------------------	-------------	-------------	-------------

Out-of-class Technology

1.82 (1.25)	1.86 (1.36)	0.04	0.03	-0.01
--------------------	--------------------	-------------	-------------	--------------



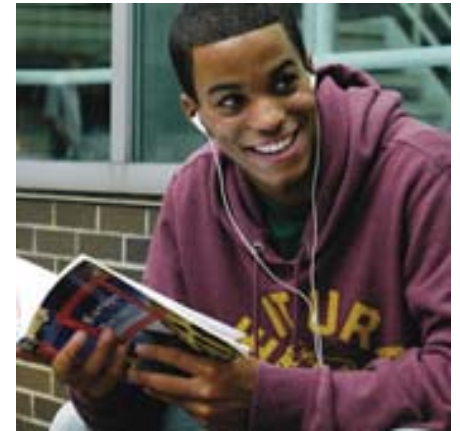
Observations & Questions



Our Observations

- In-class technology use is low on both types of campuses
- HBCU faculty use technology slightly more than their PWI colleagues in everything except course management systems and video conferencing
- Faculty of courses via distance education or at auxiliary locations (e.g., satellite campus) use technologies than faculty of courses in traditional, on-campus classroom formats

Implications & Ideas for Moving Forward



Moving Forward

- Understanding what ways faculty access technological tools
- Examining the use of technology in the classroom by institution type
- Considering whether these patterns in technology use change over time
- The roles of technology in faculty development

Thank you for attending!



PENCILS
&
PIXELS



21ST CENTURY PRACTICES IN HIGHER EDUCATION
37th Annual POD Conference | Seattle, Washington | October 24–28, 2012

For more, contact us by:

- E-mail: fsse@indiana.edu
- Web site: fsse.iub.edu
- Telephone: (812) 856-5824
- POD Resource Fair: Today at 5:15 p.m.