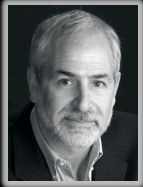


BRING DATA!
Analytics, Outcomes, and the Role of IT Leadership
Kenneth C. Green • The Campus Computing Project


EDUCAUSE

BRING DATA!
**Analytics, Outcomes, and
the Role of IT Leadership**

Kenneth C. Green
THE CAMPUS COMPUTING PROJECT
campuscomputing.net




ELI Web Seminar
7 February 2011



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Overview

- ◆ *Context:* The Continuing Conversation
- ◆ *Current:* What Do We Know
- ◆ Where Do We Go?

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Origin and Overview of The Campus Computing Project



Mission: To Bring Data

- ◆ Launched in 1990 as an IT benchmarking project to serve colleges and universities
- ◆ Initial focus on “academic” computing
- ◆ TODAY: Three national surveys
 - ❖ The Campus Computing Survey
 - ❖ Managing Online Education Survey
 - ❖ Community Colleges and the Economy

Bring Data!

“Back in Texas we like to say ‘In God we trust; all others bring data.’ ”

Margaret Spellings, Sec. of Education (2004-2009)



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TRUE SOURCE:

W. Edwards Deming is widely recognized as the “father” of statistical quality control



W. Edwards Deming


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What Have We Learned?

We Have Been Here Before

THE MORE THINGS CHANGE

- ◆ Faster, better, smarter & far less expensive
- ◆ Networks / wireless
- ◆ Imaging
- ◆ LMS
- ◆ Web 2.0 / Cloud
- ◆ Social media

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THE MORE THINGS STAY THE SAME

- ◆ IT costs/budgets
- ◆ Instructional Deployment
- ◆ Infrastructure
- ◆ Faculty Engagement
- ◆ User Support
- ◆ IT Planning & Policy

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Plus ça Change

The Quest for Accountability

We are concerned about the widespread resistance to cost effectiveness thinking in higher education because it is so profoundly anti-intellectual. It rejects reason, and it puts a low value on the time of faculty trained to reason well...

We must guard against the widespread tendency to trivialize the problem of efficiency in higher education. It is not only a financial problem but an intellectual one. The questions about efficiency lead to a host of questions about teaching and learning, and the the ultimate questions about the nature and purpose of higher education. These are too important to the colleges and universities – and too intellectually challenging – to be dismissed as illegitimate.

President's Task Force on Higher Education, 1971

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Plus ca Change

Information Systems in Higher Ed

Considerable disagreement is raging about the applicability of [information systems] to higher education administration. The primary issues are not new and have long been at the center of the ancient debate between administrators. Among these issues are the following:


- Defining and measuring education outputs are a difficult task
- The production functions of higher education are not concisely defined and there is no accepted formula to determined the resources required to produce a unit of output.
- Quantifying basically subjective concepts such as the value added by the institution is a problematical task.
- Which is best: centralization or decentralization?
- There is an inherent conflict between administrative efficiency on the one hand and academic effectiveness on the other.

Paul J Plourde, 1976
Assessing Computer-Based Systems Models
New Directions in Institutional Research

Past, Present & Prospects

KEY QUESTIONS

- ◆ Why don't faculty do more with IT and eLearning?
- ◆ Why don't colleges and universities make better use of IT resources?

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Past, Present & Prospects

KEY QUESTIONS

- ◆ Why don't faculty do more with IT and eLearning?
- ◆ Why don't colleges and universities make better use of IT resources?
- ◆ *WHY DON'T WE HAVE GOOD DATA ABOUT THE IMPACT OF IT?*

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WHAT DO WE KNOW?

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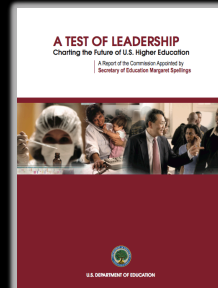
What We Do Know


- ◆ IT touches everything!
- ◆ Despite great technology and impressive gains, our reach continues to exceed our grasp.
- ◆ The consumer experience now defines expectations about campus IT resources & services.
- ◆ Continuing pressure for higher ed to provide the much promised productivity bang for the IT bucks.
- ◆ *No more epiphany:* “In God we trust; all others bring data.”

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The Spellings Commission Casts A Long Shadow

- ◆ **ACCESS:** “too few Americans prepare for, participate in, and complete higher education”
- ◆ **AFFORDABILITY:** “costs have outpaced inflation for two decades....Our higher education financing system is increasing dysfunctional”
- ◆ **ACCOUNTABILITY:** “there is inadequate transparency and accountability for measuring institutional performance”



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The Data-Quality-Outcomes (DQO) Conundrum




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The DQO Conundrum

Lower Division Service Courses

Hundreds/thousands of students take the same course (Widgets 100)

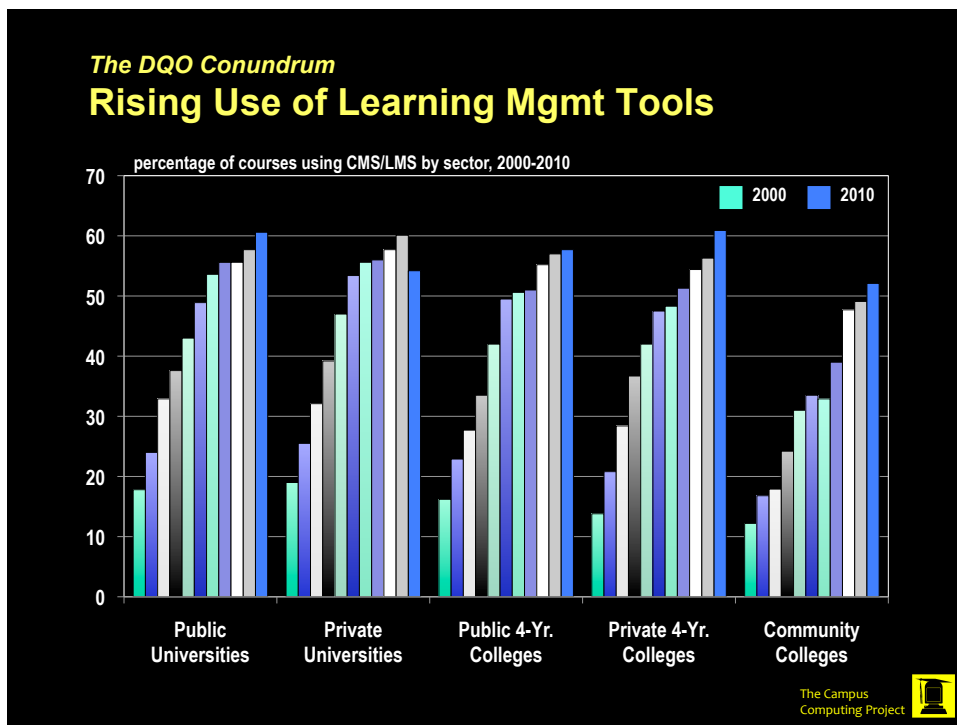
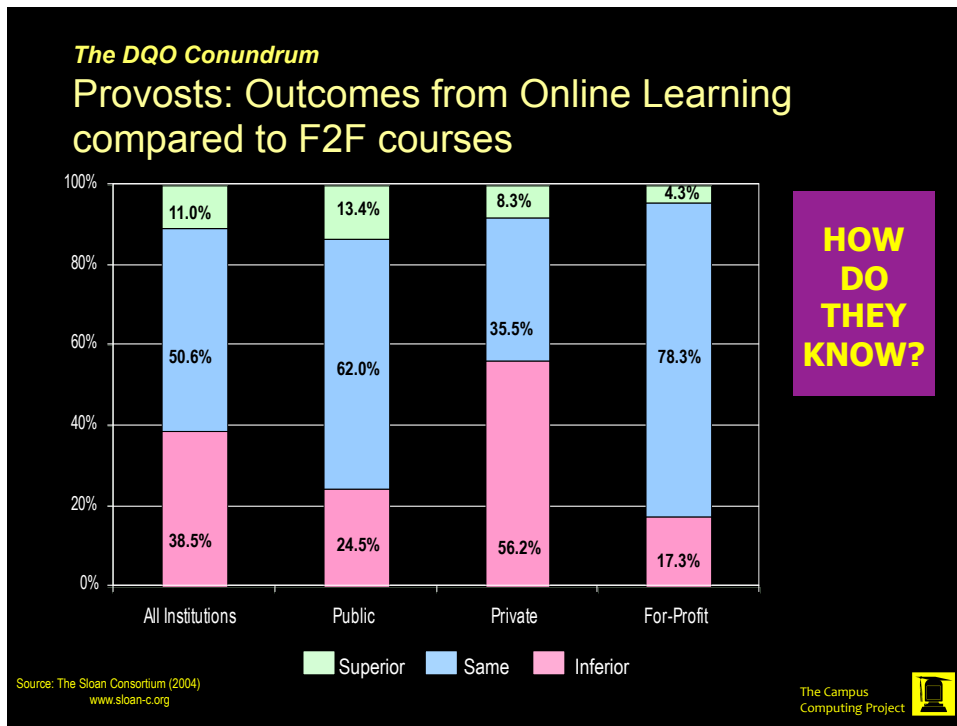
- ◆ Common curricula?
- ◆ Common assessment metrics?
- ◆ What do they learn? (Normalized data?)
- ◆ Feedback to students vs. instructors & depts
- ◆ *How do we know?*

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The DQO Conundrum

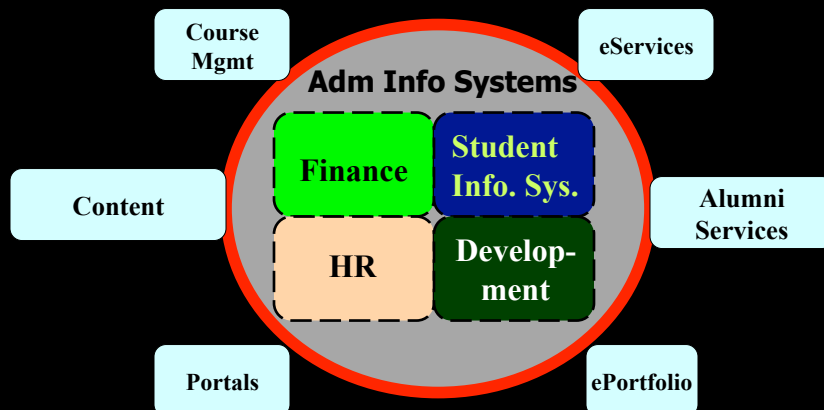
Learning Management Systems

- ◆ Whole new category of ERP software
- ◆ Annual cash paid to providers: \$340M?
- ◆ Annual institutional support exp: < \$300M
- ◆ In-kind support: < \$1B?
- ◆ Annual exp: < \$1.7B?
- ◆ Impact on instruction?
- ◆ Impact on outcomes?
- ◆ HOW DO WE KNOW?


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The DQO Conundrum

The ERP/Data Silo Turtle



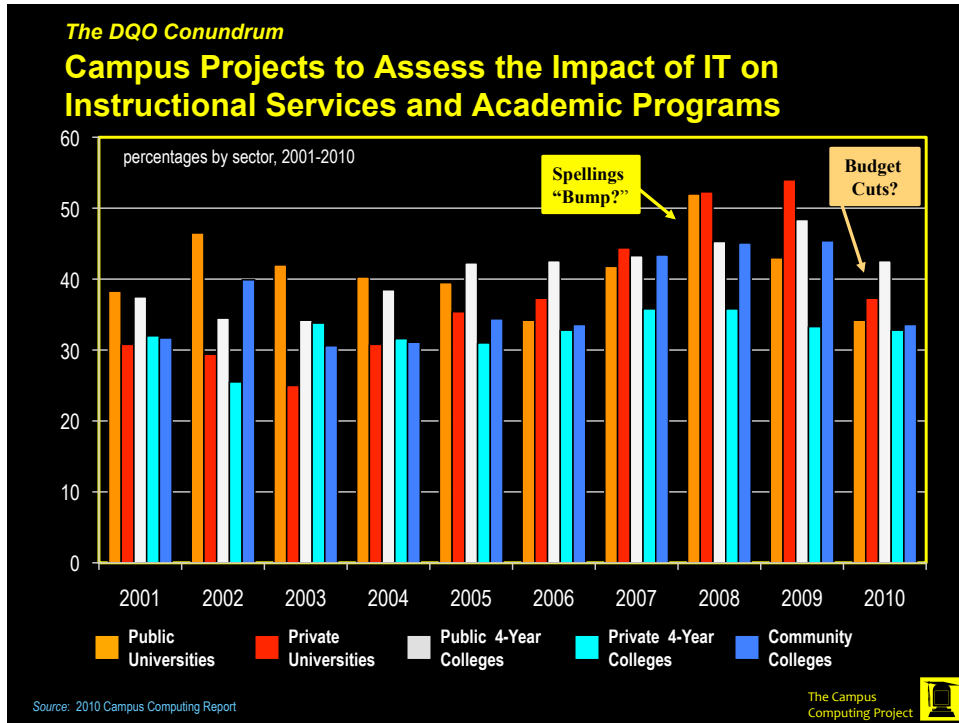
Source: Green, Prodding the ERP Turtle
EDUCAUSE Review, Nov 2007

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WHERE DO WE GO?

WHAT DO WE DO?

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Outcomes and IT Analytical Tools

A key component of the outcomes and assessment solution [mandated by the Spellings Commission] resides in the emerging analytical IT tools increasingly deployed in the corporate sector and now coming to higher education. These tools can, do, and *should* expand the mission of information technology in colleges and universities to include assessment.

Bring Data: A New Role for IT After
the Spellings Commission
Kenneth C. Green
EDUCAUSE Review, Nov-Dec 2006

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A Lesson from Wal-Mart

Three hurricanes hit South FL in fall 2004

- ◆ Wal-Mart: serving shoppers and shareholders
- ◆ Every person in / every product out
- ◆ First cut: diapers, duct tape, water . . .
- ◆ 80 hrs from the third storm, another cut at the data . . .

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The New Role for IT Leaders


The issue before us in the wake of the Spellings Commission report concerns when college and university IT leaders will assume an active role, a *leadership* role in these conversations [about assessment and outcomes], bringing their IT resources and expertise - bringing data, information, and insight - to the critical planning and policy discussions about institutional assessment and outcomes that affect all sectors of US higher education.

Bring Data: A New Role for IT After
the Spellings Commission
Kenneth C. Green
EDUCAUSE Review, Nov-Dec 2008

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Continuing Challenges

- ◆ Focusing on people, policy and planning
- ◆ Attending to tech trends
- ◆ Supporting the faculty
- ◆ Evolution of the CIO role
- ◆ Investments in infrastructure
- ◆ Bring data to address impacts and outcomes

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IT Leadership

- ◆ Transition from product-based problems
- ◆ New emphasis on people and policy
- ◆ New concern for service
- ◆ Technology is a resource

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