

# IT Leadership

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VISION, FOCUS, AND EXECUTION:  
“EASIER SAID THAN DONE”

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# Topics

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- Role and Qualifications of IT Leaders
- Top Issues (Higher Education and IT)
- Vision, Focus and Execution in Action
- Q&A

# The Role of an IT Leader

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“The role of a CTO/CIO is not about technology itself; rather, it is about the ability of a campus to achieve its goals and objectives *through* technology.”

Brian Hawkins, A framework for the CIO position, *EDUCAUSE Review*, November/December 2004, p. 94

# Qualifications of IT Leaders

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- Broad knowledge of IT
- A *vision* for advancing higher education with technology and the ability to *focus* on and *execute* that vision
- Outstanding communicator and a constructive, effective collaborator
- Developer, mentor, and motivator

# Qualifications of IT Leaders

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- Passionate and positive about work; treats people with respect
- Rolls with the punches and doesn't give up
- Willing to take *reasonable* risks
- Enjoys his/her work and has a sense of humor

# Reasonable Risk?



# Reasonable Risk?



# Sense of Humor

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John ...  
Don't Worry

# Sense of Humor

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"Be willing to laugh at yourself, before someone does it for you."

Attributed to Jerry Niebaum, CIO, Kansas University by Jeff Russell, University of Indianapolis (July 24, 2007)

# What Most Worries Presidents\*

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- A balanced budget
- Excellence of educational programs
- Quality of faculty
- Meeting fund-raising goals

Jeffrey Selingo, Leaders' views about higher education, their jobs, and their lives, *The Chronicle of Higher Education*, November 4, 2005.

# Top Issues in Higher Education

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- Being competitive—attracting *and* retaining students, faculty and external support
- Being strategic—implementing initiatives that give the institution a *competitive advantage*
- Being accountable—assessing effectiveness, efficiencies and other expected outcomes

# Top IT Issues in Higher Education

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## RESULTS FROM THE 2007 EDUCAUSE CURRENT ISSUES SURVEY\*

\* Survey response rate:  
33 percent (591) of 1,785 institutions

# Top 5: Critical for Strategic Success\*

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1. Funding IT
2. Security
3. Administrative/ERP/information systems
4. Identity/access management
5. Disaster recovery/business continuity

\* John S. Camp and Peter DeBlois, Top 10 IT Issues 2007, *EDUCAUSE Review*, May/June 2007, p. 16.

# 2007 Survey Resources

Resource Center

 [Current Issues](#)

[2007 Survey Resources](#)

[2006 Survey Resources](#)

[2005 Survey Resources](#)

[2004 Survey Resources](#)

[2003 Survey Resources](#)

[2002 Survey Resources](#)

[2001 Survey Resources](#)

[2000 Survey Resources](#)

## 2007 Survey Resources

### Resources on this page

- ❖ [Current Issues Articles](#)
- ❖ [Recommended Reading and Resources](#)
- ❖ [Comprehensive Resources](#) (articles, books, conference sessions, contracts, plans, policies, position descriptions, and blog content) at EDUCAUSE Connect
- ❖ [Slide Presentations on Current Issues](#)

### Current Issues Articles

- ❖ [EDUCAUSE Quarterly \(Vol. 30, No. 2, 2007\) – “Current Issues Survey Report, 2007”](#)  
*The complete article written by the Current Issues Committee, including all tables and figures, demographic breakdowns, and issue definitions and questions.*  
[HTML format](#) | [PDF format](#) [PDF 216 KB]
- ❖ [Table 3 Expanded](#) (2007 Current Issues Survey Choices)
- ❖ [EDUCAUSE Review \(Vol. 42, No. 3, May/June 2007\) – “Top-Ten IT Issues, 2007”](#)  
*This is a digest of the EQ article, focusing on the top-ten issues in 2007 that IT leaders identified as the most important for their institutions to resolve for strategic success.*  
[HTML format](#) | [PDF format](#) [PDF 682 KB]

### Recommended Reading and Resources

Items below that are two or more years old have been judged to still have relevance to the higher education IT community, either for general principles or specific guidelines. In addition to the cited readings, nearly all of the top-ten issues are also covered in recent conference presentation materials (typically PowerPoint presentations) that you can access by browsing and searching particular issues/topics at [EDUCAUSE Connect](#).

1. [Funding IT](#)
2. [Security](#)
3. [Administrative/ERP/Information Systems](#)
4. [Identity/Access Management](#)
5. [Disaster Recover/Business Continuity](#)
6. [Faculty Development, Support, and Training](#)
7. [Infrastructure](#)

# Other EDUCAUSE Resources

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- **EDUCAUSE Center for Applied Research (ECAR)**—high-quality research on top higher education IT issues
  - [www.educause.edu/ecar](http://www.educause.edu/ecar)
- **EDUCAUSE Learning Initiative (ELI)**—teaching and learning programs and resources
  - [www.educause.edu/eli](http://www.educause.edu/eli)
- **Net@EDU**—advanced networking and policy resources
  - [www.educause.edu/net@edu](http://www.educause.edu/net@edu)
- **Security Task Force**—news, effective practices, discussion groups, meetings, and more
  - [www.educause.edu/security](http://www.educause.edu/security)

# Vision, Focus and Execution

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## Administrative/ERP/information Systems:

- Vision—deciding where you want to go *and* how you will get there
- Focus—selecting the right projects *and* initiating them well
- Execution—successfully completing major projects *and* managing IT's entire portfolio of projects

# Fact of Life

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“Self-service will emerge as the key competitive differentiator of this decade.”

Gartner Research, “The transformational effects of self-service,” May 11, 2001.

# Fact of Life

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“Technology has raised the expectation among today’s young and not-so-young students for convenience and flexibility in the delivery of academic and administrative services.”

William Graves, Convenience, quality and academic return on investment, conference keynote address, May 1, 2003

# Fact of Life

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“Technology permeates all aspects of student life, but its use as a tool has become paramount. ... Students look to IT for convenience and to make it easy to connect with others.”

Caruso and Kravik, “ECAR Study of Students and Information Technology, 2005: Convenience, Connection, Control, and Learning,” EDUCAUSE, October 2005.



# More Facts of Life

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When critical IT systems fail:

- The activities of students, faculty and staff are disrupted
- The reputation of the institution suffers

# Vision in Action

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- Successfully complete the ‘right’ IT projects/systems
- When “going live” with new or upgraded IT systems, disruptions to services will not occur
- Whenever a major disruption occurs, we’ll know about it and solve it quickly

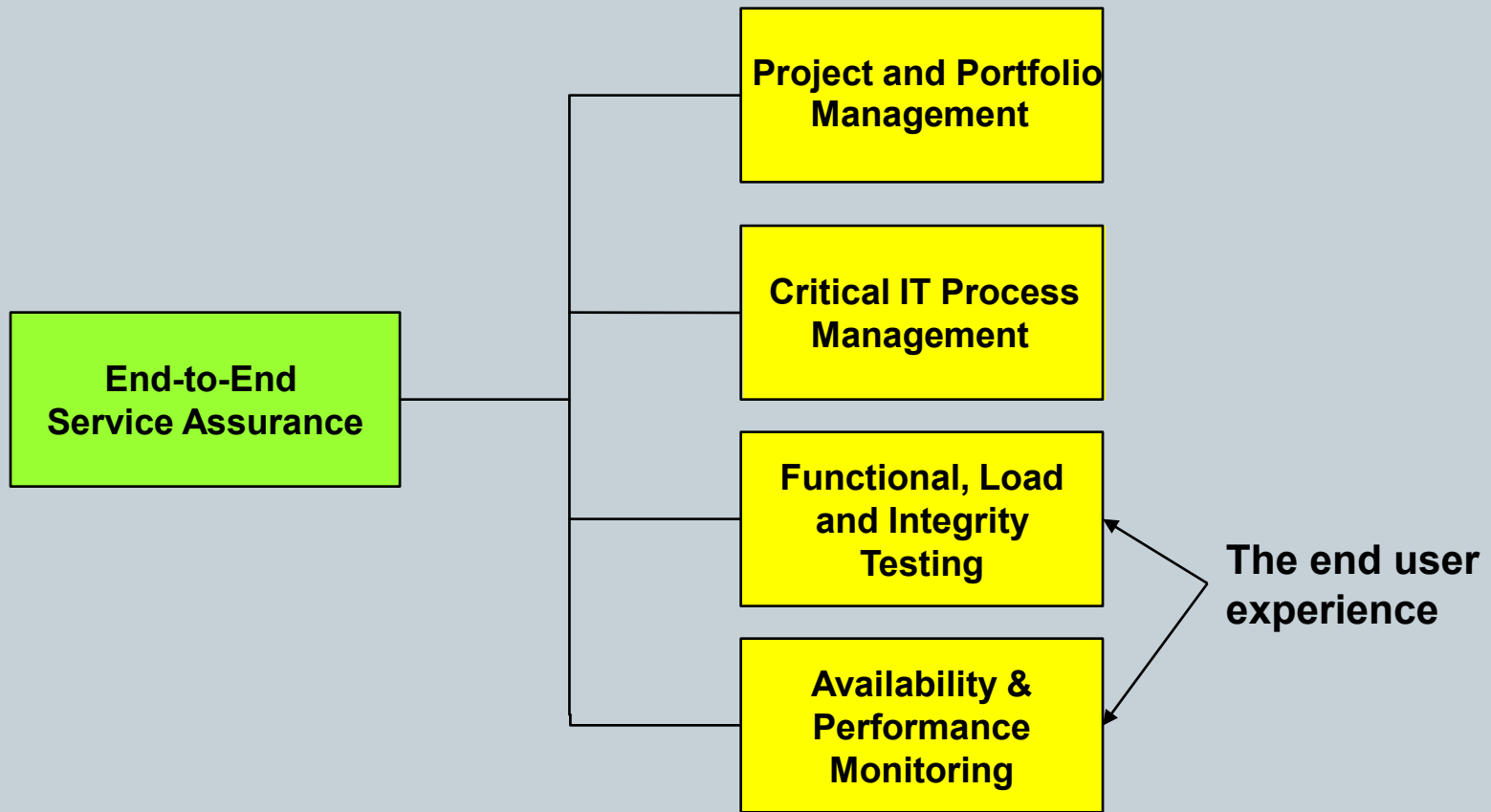
# Vision in Action

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Ensuring that IT systems perform effectively requires testing, testing and more testing. And then after IT systems go live, you have to monitor services end-to-end (i.e., from customer perspectives)

# Holistic Approach to Vision

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# F&E: Functional Testing

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Goal: develop *repeatable, automated* testing scripts that:

- Reduce the effort/cost of testing systems
- Reduce “go-live” problems by
  - Ensuring that what worked before continues to work
  - Finding functional changes, functions that do not work, and functions that no longer exist

Script Name	Command	Check Name	Result	Date / Time	Run Number	Test Run
*BAN_SFARGFE_ST	UserCheck	SFARGFE - Assessment type set properly.	Pass	Feb 06, 2006 11:38:15	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_TBBDETC_LOV	Pass	Feb 06, 2006 11:38:18	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVCOLL_LOV	Pass	Feb 06, 2006 11:38:26	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVLEVL_LOV	Pass	Feb 06, 2006 11:38:32	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVMAJR_LOV	Pass	Feb 06, 2006 11:38:38	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVCLAS_LOV	Pass	Feb 06, 2006 11:38:44	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVPTRM_LOV	Pass	Feb 06, 2006 11:38:50	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVRATE_LOV	Pass	Feb 06, 2006 11:38:56	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVCAMP_LOV	Pass	Feb 06, 2006 11:39:02	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVDEPT_LOV	Pass	Feb 06, 2006 11:39:07	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVSTYP_LOV	Pass	Feb 06, 2006 11:39:13	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVATTS_LOV	Pass	Feb 06, 2006 11:39:19	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVGMOD_LOV	Pass	Feb 06, 2006 11:39:25	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_GTVNSM_LOV	Pass	Feb 06, 2006 11:39:30	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVSCHD_LOV	Pass	Feb 06, 2006 11:39:35	151	Oracle
_BAN_STU_REG_function_1	UserCheck	SOATERM - F9 produced term list.	Pass	Feb 06, 2006 11:39:41	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_SMRPRLE_PROGRAM_LOV	Pass	Feb 06, 2006 11:39:46	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVRESL_LOV	Pass	Feb 06, 2006 11:39:51	151	Oracle
*BAN_SFARGFE_ST	Check	BAN_STU_STVDEGC_LOV	Pass	Feb 06, 2006 11:39:57	151	Oracle
_BAN_function_library	UserCheck	SFARGFE - Able to add new rule.	Pass	Feb 06, 2006 11:40:01	151	Oracle
_BAN_function_library	UserCheck	SFARGFE - Able to modify new rule.	Pass	Feb 06, 2006 11:40:07	151	Oracle
_BAN_function_library	UserCheck	SFARGFE - Able to delete new rule.	Pass	Feb 06, 2006 11:40:11	151	Oracle
_BAN_function_library	UserCheck	SFARGFE - Able to delete all records in 900009.	Pass	Feb 06, 2006 11:40:29	151	Oracle

QARun - [BanFinRAPP-fortransfer72.mdb] - [Log View - Passed and Failed Checks]

Run Number	Test Run	Script Name	Date / Time	Notes	Command	Command Detail	Check Name	Result	Check Generation	Result Generation
422	Oracle	*reqCreate driver	Mar 21, 2006 15:38:46		UserCheck	Banner Logon Form has appeared.	bnFormLoad	Pass	0	0
422	Oracle	_Requisitions	Mar 21, 2006 15:38:54		UserCheck	Banner General Menu Form has appeared.	bnFormLoad Ch	Pass	0	0
422	Oracle	_bnCommands	Mar 21, 2006 15:39:06		UserCheck	Did not find FOIAINP. Did nothing.	FOIAINP Check	Pass	0	0
422	Oracle	_Requisitions	Mar 21, 2006 15:39:09		UserCheck	Banner FPAREQN Form has appeared.	bnFormLoad Ch	Pass	0	0
422	Oracle	_Requisitions	Mar 21, 2006 15:39:58		UserCheck	Req # formatting is good.	reqNum Check	Pass	0	0
422	Oracle	_bnCommands	Mar 21, 2006 15:40:01		UserCheck	Banner General Menu Form has appeared.	bnFormLoad Ch	Pass	0	0
422	Oracle	_bnCommands	Mar 21, 2006 15:40:04		UserCheck	Banner Exit Confirmation Form has appeared.	bnFormLoad Ch	Pass	0	0
422	Oracle	*apv driver	Mar 21, 2006 15:40:25		UserCheck	Banner Logon Form has appeared.	bnFormLoad Ch	Pass	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:40:34		UserCheck	Banner General Menu Form has appeared.	bnFormLoad Ch	Pass	0	0
422	Oracle	_bnCommands	Mar 21, 2006 15:41:01		UserCheck	Did not find dialoge form. Did nothing.	Bat Proc NF Ch	Pass	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:41:08		UserCheck	Banner General Menu Form has appeared.	bnFormLoad Ch	Pass	0	0
422	Oracle	_bnCommands	Mar 21, 2006 15:41:13		UserCheck	Found FOIAINP and closed.	FOIAINP Check	Fail	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:41:16		UserCheck	Banner FOAUAPP Form has appeared.	bnFormLoad Ch	Pass	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:41:23		UserCheck	Requisition found for approval, reqNum: R0029758	bnApvUser Cher	Pass	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:41:29		UserCheck	Req # formatting is good.	Apv reqNum Ch	Pass	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:41:29		UserCheck	Expected and Actual requisition numbers are the same.	mAct Check	Pass	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:41:30		UserCheck	Expected and Actual login IDs are not the same.	lidAct Check	Fail	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:41:36		UserCheck	Found Forms dialog box for approval confirmation.	lidAct Check	Pass	0	0
422	Oracle	_Approvals	Mar 21, 2006 15:42:08		UserCheck	Banner General Menu Form has not appeared.	bnFormLoad Ch	Fail	0	0

# F&E: Load Testing

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Before hardware and/or software changes are implemented, tests determine:

- How many users can connect at one time
- How many users can search the database at one time
- How many transactions can occur at once
- How long does it take to do a task

# End-to-End Monitoring

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“... to support mission-critical applications, e-mail, databases and Web sites, IT departments need up-to-the-minute information on what's working and not working. Traditional network monitoring systems (NMS) designed for static data centers are simply no longer adequate for today's rapidly and constantly changing networks.”

Cameron Crotty and Jamie Lerner, Network Monitoring Systems, Online Seminar, July 26, 2007

# F&E: End-to-End Monitoring

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- Completed proof-of-concept (2006)
- Deployed four robots in four locations to monitor four major services
- Implemented location-based, operations and publicly available dashboards

# Wayne State Operations Dashboard

	Client Availability	Client Performance	Server Alert
<b>Applications</b>			
Banner	<span style="color: green;">●</span>	<span style="color: green;">●</span>	
Banner JobSub Verify	<span style="color: green;">●</span>	<span style="color: green;">●</span>	
Banner Servers			<span style="color: green;">●</span>
<hr/>			
Blackboard	<span style="color: green;">●</span>	<span style="color: green;">●</span>	
Blackboard Servers			<span style="color: green;">●</span>
<hr/>			
CIS-EAA	<span style="color: green;">●</span>	<span style="color: green;">●</span>	
CIS Servers			<span style="color: green;">●</span>
<hr/>			
Cognos-ODS	<span style="color: green;">●</span>	<span style="color: green;">●</span>	
Cognos Servers			<span style="color: green;">●</span>
<hr/>			
Pipeline	<span style="color: green;">●</span>	<span style="color: green;">●</span>	
Pipeline Servers			<span style="color: green;">●</span>
<hr/>			
<b>Email</b>			
MirraPoint Webmail	<span style="color: red;">■</span> <span style="color: red;">■</span> <span style="color: red;">■</span>	<span style="color: green;">●</span>	
ListServ	<span style="color: green;">●</span>	<span style="color: green;">●</span>	
Mirapoint / Listserv Servers			<span style="color: green;">●</span>
Microsoft Exchange Environment			<span style="color: green;">●</span>
<hr/>			
<b>Vantage</b>			
Vantage Systems			<span style="color: green;">●</span>
ServerVantage Health(ecouser)			<span style="color: green;">●</span>
<hr/>			

	Client Availability	Client Performance	Server Alert
<b>Ping Test</b>			
UNIX All Hosts Ping(CITMRTREUSC)			<span style="color: green;">●</span>
Windows All Hosts Ping(CITVFSMITH)			<span style="color: green;">●</span>
<b>Server Alerts - Windows</b>			
Windows Application			<span style="color: green;">●</span>
Windows Infrastructure			<span style="color: green;">●</span>
<hr/>			
<b>Server Alerts - Unix / Linux</b>			
Unix Application			<span style="color: green;">●</span>
Unix Infrastructure			<span style="color: green;">●</span>

# National Recognition\*

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“The university’s holistic approach to testing, highly unusual in higher ed, involves both pre-production load, functional and integrity testing, and pre- and post-production service monitoring from customer locations.”

\* Wayne State University received *Campus Technology’s* award for innovative work in information technology, one of just sixteen universities honored in 2006.

# Wrap Up

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- An effective IT leader has and can articulate his/her vision for using IT to advance their institutions
- Having a vision without being able to focus and execute isn't enough
- Focusing and executing without the 'right' vision can be fatal

# Wrap Up

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- True IT leaders also have a combination of styles and behaviors worth emulating:
  - Constructive , collaborative and communicative
  - Treat people with respect; have a passion for their work; persistent
  - Willing to take reasonable risks; sense of humor

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# Contact Information

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