



# The Future of Academic MIS

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## Agenda

- Predicting the future
- Current trends in industry
- Perspective from 2004: 4 lessons
- Perspective from 2005: 3 scenarios
- Survey of AIS Presidents
- Concluding remarks

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“The future will be better tomorrow.”

Dan Quayle, VPOTUS  
1989-1993

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## (In)Famous predictions

- Watson (1943): “I think there is a world market for maybe five computers.”
- Ken Olson (1977): “There is no reason anyone would want a computer in their home.”
- Gartner (2005): “By 2015, 40% of today's IT job roles will be lost to automation.”
- Yogi Berra (year?): “It's tough to make predictions, especially about the future.”

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## Crisis? Or merely a problem?

- MIS employment levels are down
- MIS enrollments are steady
- Demand for MIS faculty is down while there are plenty of MIS PhDs
- MIS research continues to diverge from practice

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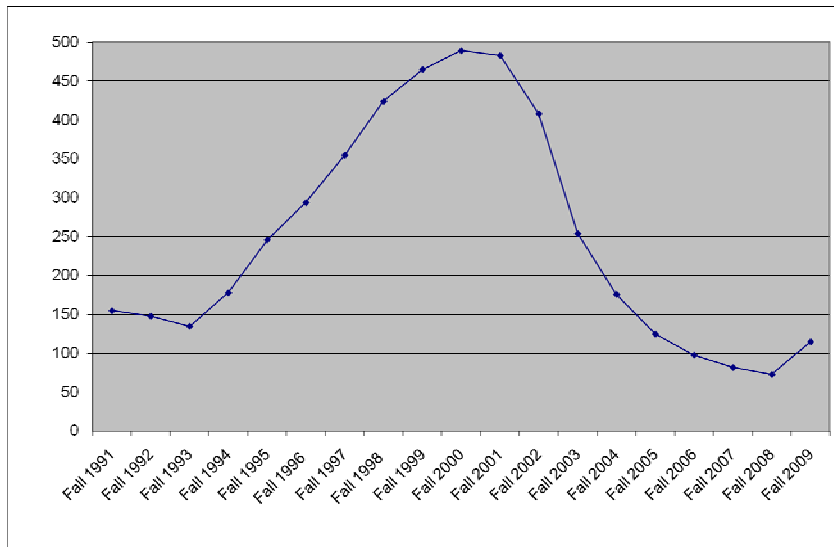
## Demand for MIS undergrads

- In 2004, the consensus was that demand was off by 50% since the peak of 2000-2001
- Why?
  - ERP explosion over
  - Y2K problem solved
  - Internet bubble burst
- From 2004 until just a couple of years ago, demand continued to fall, but things seem to have turned around

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## MIS majors at FSU



## Current US IT jobs picture

- US tech industry lost 250,000 jobs in 2009 (4% decline)
- Software services had only a 1.2% decline
  - Consider that US unemployment is now 9.5%
- Since August 2009, US economy had added 43,000 IT service jobs, with 17,300 of those added in April 2010

Sources: [http://www.computerworld.com/s/article/9176061/Final\\_tally\\_IT\\_lost\\_250\\_000\\_jobs\\_last\\_year](http://www.computerworld.com/s/article/9176061/Final_tally_IT_lost_250_000_jobs_last_year)  
[http://www.computerworld.com/s/article/9176496/IT\\_hiring\\_jumps\\_in\\_April\\_demand\\_up\\_sharply\\_for\\_full\\_time\\_workers?](http://www.computerworld.com/s/article/9176496/IT_hiring_jumps_in_April_demand_up_sharply_for_full_time_workers?source=CTWNLE_nlt_careers_2010-05-11)  
source=CTWNLE\_nlt\_careers\_2010-05-11



## Future US IT trends

- Computer systems design & related services:
  - Includes analysts, programmers, SE engineers, computer support jobs
  - From 2008 to 2018, the growth rate for these jobs is projected to be 45%, 4x as fast as the 11% growth rate projected for all industries
  - The industry will add 656,400 jobs during the decade in the US

Source: <http://www.bls.gov/oco/cg/cgs033.htm#outlook>

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## Non-US situation

- In last quarter of 2009, Wipro, Infosys & Tata Consultancy Services added 16,700 IT jobs to a total of 325,672
- For that quarter, TCS revenues were up 10.3% over the same quarter in 2008
- For the same period, Infosys' revenues were up 5.2%

Source: <http://www.computerworld.com/s/article/9147258>

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## Yet students are not interested

- In the US, projected job openings and student interests do not coincide:
  - In California, from 2006-2016, 11% of job openings are projected to be in computer/information specialties, yet only 2% of students who took the ACT test in 2009 were interested in those careers
  - In Virginia, those numbers are 23% and 3%
  - In Florida, the numbers are 10% and 2%

Source: [www.act.org](http://www.act.org)

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## 2004 Perspective

- As part of the first Senior Scholars consortium at ICIS in 2004, I wrote a paper with Joe Valacich & Josep Valor on these issues
- Our research question was:
  - What is the future nature of the IS profession and what are the educational/curriculum implications?
- In the paper, we wrote about 4 lessons we learned that would help us get through the lean years
- I think all 4 lessons still apply

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## Lesson 1

- *Programs can positively influence not only how many majors they attract, but also the demographics of those majors, by the characteristics of the person selected to lead the introduction to MIS class.*

Source: George, Valacich & Valor, ICIS, 2004

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## Lesson 2

- *Programs can influence the number of majors they attract by focusing more on why information technology is valuable to an organization rather than on what the technology is or how it works (“what every business student needs to know about information systems”).*

Source: George, Valacich & Valor, ICIS, 2004

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## Lesson 3

- *Programs can influence the number of majors they attract by focusing on improving student placement through better relationships with employers, effective instructors, and a high-quality (relevant & integrated) curriculum.*

Source: George, Valacich & Valor, ICIS, 2004

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## Lesson 4

- *Programs should carefully consider both macro market factors as well as program size and continuity factors when determining the Ph.D. program size.*

Source: George, Valacich & Valor, ICIS, 2004

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## Some things worked

- After 2004, some MIS programs applied these lessons, especially
  - Lesson 1, on the importance of who teaches the introductory MIS class
  - Lesson 2, with a focus on what IT does for organizations and not on how
- Many programs reduced or eliminated the programming requirement
- Others did creative things, like advertising on campus buses
- But while many thrived, others suffered

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## Academic MIS fallout (US), 2008-09

- Indiana: Department merged with OR/MS
- Kansas: Untenured faculty let go
- FSU: Department merged with management & some faculty fired
- Houston: MIS doctoral program eliminated
- UCF: Department eliminated & all faculty fired

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## Academic MIS fallout (non-US)

- From the AIS Enrollments wiki:
  - 2 schools in Canada, 1 in South Africa said to be 'doing well'
  - 1 program in Australia on the chopping block
  - 2 Canadian & 1 Australian program struggling due to low enrollments

Source: <http://enrollments.aisnet.org/Best%20Practices.ashx>

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## And now, back to the future...

- In spring of 2005, I gave a talk at Oklahoma State University about the future of academic MIS
- Three possible scenarios I developed then:
  - Scenario 1: Decline & Fall
  - Scenario 2: Re-integration
  - Scenario 3: Rise & Resurrection

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## Scenario 1: Decline & Fall

- Outsourcing & automation in MIS jobs grow
- Numbers of undergraduate majors continue to fall
- Demand for faculty continues to drop
- Faculty not replaced when they retire or do not get tenure
- PhD programs put on hiatus
- Deans ask provosts to eliminate MIS departments
- Faculty & their research return to referent disciplines

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## Scenario 2: Re-integration

- Outsourcing & automation grow but...
  - Demand for MIS contract managers also grows
  - Demand for agility also grows
- Numbers of undergraduate majors stabilize
- Demand for faculty stabilizes
- PhD programs suffer but survive
- Enterprising MIS department heads convince deans to allow MIS to be integrated with other departments
- MIS niche smaller but survives & prospers

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## Scenario 3: Rise & Resurrection

- Demand for contract management & agility outpaces losses due to outsourcing & automation
- MIS becomes a profession with certification
- Numbers of undergraduate majors grow
- Demand for faculty stabilizes (& grows?)
- Out of control doctoral programs reined in while others stabilize
- Continued split between research & practice
- Everyone benefits from continuing education mandated by certification

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## Which one won?

- Looks like Scenario 2
  - Stabilizing (or even growing?) numbers of majors
  - Faculty demand has stabilized
  - More mergers than eliminations
  - Comfort with niche area
- There continues to be some anxiety
- Where do we go from here?

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## POAIS survey

- I asked the 15 past Presidents of AIS for their views on the future of academic MIS (10 years out)
  - Global group: 5 from each of our 3 regions
- Responses from 8 (2 from region 1, 2 from 2, 4 from 3):
  - Niels Bjørn-Andersen
  - Ron Weber
  - Michael Vitale
  - Blake Ives
  - Rick Watson
  - Michael Myers
  - David Avison
  - Bernard Tan

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## Selected quotes

- “I think we are at a crossroad ... if we can provide value to the three stakeholders: students, industry, politicians/society, we for sure will prevail and flourish.” – **N. B-Andersen**
- “All I can predict is that technology will develop rapidly and in directions not foreseen. There will be positive and negative aspects.... In IS we are focusing on the impacts of IT and can discuss its positive use and warn of the negatives as we consider its impact on people, organizations and society. But I remain on the whole optimistic about the potential of new technology to help people.” – **D. Avison**

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## More quotes

- “What **could** IS become? With regard to **research**, IS could become more like a science, in which research leads developments in the field, rather than documenting them after they’ve happened.... With regard to **teaching**, IS could become a source of awareness and knowledge about how systems work, rather than about how to use them. With regard to **public policy**, IS could become deeply involved in shaping discussions about censorship, privacy, and other important issues, rather than standing on the sidelines observing and criticising.” – **M. Vitale**

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## Continuing...

- “I am rather pessimistic about our future as I see little change on the horizon and lack of mechanisms for innovation. I foresee:
  - We not have developed a conceptual foundation for the field
  - We will still be arguing about relevance versus rigor
  - We will still be applying social science theory to an IS context
  - We will be followers rather than leaders in the academic field
  - Will still be complaining about the quality of reviewing
  - We will still be talking about A journals, when the notion is an ecological fallacy, rather than identifying A articles
  - I will have found another 4-5 items to complain about our lack of progress and innovation”

- **R. Watson**

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## And again...

- “IS may (in the future) exert influence by bringing together knowledge and skills from several disciplines to add value (e.g., by creating innovative products and services) in ways not possible otherwise.” – **B. Tan**
- “I think we will still exist for a few reasons:
  - New information technologies continue to be developed...
  - Organizations will continue to struggle to figure out how to make the best to use these new technologies...We figure out what works and what doesn't.
  - In a few years time, there will be a new set of problems. Hence the process starts all over again.” – **M. Myers**

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## One more quote

- “I believe IS/IT resources in all forms will become a commodity... I believe fewer and fewer organizations will have their own IS/IT facility. Instead, they will purchase the services they require from providers in the 'cloud...' Business analysis, business modelling, and enterprise architecture skills will remain important. Many other IS/IT skills will be less in demand... If the IS discipline cannot offer something that is unique, it will become increasingly irrelevant... Scholars in other disciplines will have little difficult doing the job we currently do. Within business schools I see little prospect for growth of the IS discipline.” - **R. Weber**

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## The last quote

- “I think, of all the business disciplines, we are most vulnerable to: 1. Automation, 2. Off-shoring / Outsourcing, & 3. Business cycle variations in demand. We also will be plagued by the increased plug and play nature of our solutions...the ease of use and immediate access to technology makes non IT-trained b-school graduates quite capable of putting IT solutions in place... Whatever happens to us, as a discipline, will be driven by supply and demand in the market place... If we can keep bottoms in chairs, we will prosper! I don't believe...that our top tier journal attractive research is helping with the problem... As you will by now have gathered, I am not particularly optimistic. “ – **B. Ives**

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## Summarizing

- Different perspectives:
  - Watson, Weber & Ives are not optimistic
  - Avison, Myers & Tan **are** optimistic
  - Bjørn-Andersen & Vitale sound cautious notes
- Issues:
  - Enrollments
  - Everyone now thinks they are an IS/IT expert
  - Relevance of research
  - Continued rapid changes in technology

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## Source of the anxiety

- When we talk about the future of academic MIS, we start from where we are now and where we have been
- So the question really becomes “What is the future of academic MIS in business schools?”
- But are business schools really the only place we can survive as a field/discipline?
- Where is our real home?

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## An alternative? iSchools

- From the iSchools ([ischools.org](http://ischools.org)) website:
  - “iSchools promote an interdisciplinary approach to understanding the opportunities and challenges of information management, with a core commitment to concepts like universal access and user-centered organization of information.”
- There are 27 schools listed, 6 of which are outside the US
- In these & related schools, the study of information & its impact is welcome

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## Concluding Remarks

- It seems to me academic MIS has established an equilibrium:
  - We have taken some hits
  - But we are still standing
- But our critics & enemies continue to nip away at the edges
- What unique thing do we (or can we) offer that other disciplines cannot?
- I believe we will continue to exist for some time ... but will we flourish?
- And where will we finally feel at home?

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“You have a great future,  
even if the future isn't what  
it used to be.”

-- Yogi Berra

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