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# Community of Practice Panel

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# The Contribution of Interdisciplinary Academic Programs to the Triple Helix

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# Impact of the information explosion

Need for workers who:

- understand the social and organizational uses of technology
- are literate and articulate.
- have knowledge of
  - computing tools and systems,
  - global communications networks
  - interactive information resources



# Value of Interdisciplinary Relationships

- Superior Academic Productivity
- Accelerated Knowledge Advancement
- Increased Intellectual Property (IP)
- Enhanced Technology Transfer
- Accelerated Technology Implementation
- Synergy between disciplines promotes
  - scholarly innovation
  - discovery



# Barriers to interdisciplinary collaboration

- Different goals and expectations
- No common language
- Different methods of conducting data collection, coding and analysis
- Lack of transparency
- conflicts in collaborative output
  - Authorship
  - Intellectual property
- Lack of necessary infrastructure



# More interdisciplinary barriers

- Academic institutions
  - generally do not have the resources to plan from basic research to commercialization
  - take the risk of translating discoveries to products
- Industry
  - R and D investments focused on fast returns
- Government
  - focus not on basic research



# Interdisciplinary programs at UH

Topics in ICS at UH include:

artificial intelligence, computer graphics and animation, high speed networking, game programming, software engineering, multimedia, distributed computing, computer security, digital libraries, bioinformatics, medical informatics, genetic algorithms, databases, human computer interaction, user modeling, information systems



# Interdisciplinary programs at UH

## Degrees within ICS Department

- Computer Science
  - BS, MS, PhD
- Information Technology
  - BA, MLISc, PhD in CIS



# Interdisciplinary programs across UH

Interdisciplinary PhD in Communication and  
Information Sciences (CIS)

College of Natural Sciences

ICS Department

computer science

library and information science

College of Social Sciences

School of Communication

Shidler College of Business

Dept. of Information & Technology Management



# Interdisciplinary programs across UH

## Information technology alliance

- Arts & Humanities (music, art, theater)
- Business Administration (information technology management)
- Education (educational technology)
- Engineering (electrical engineering)
- Natural Sciences (information & computer sciences)
- Social Sciences (communications)



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