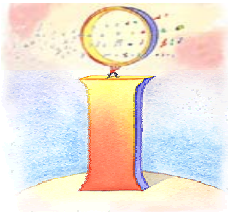


# *Evolution of Knowledge Management Education*

3. Why has the subject of "managing knowledge" emerged as a significant area of study during the past two decades?



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# Dominant Business Trends

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- Volatility of product-markets.
- Pervasive influence of political, social & economic environment → increasingly turbulent product-markets.
- Increasing globalization of:
  - companies
  - supply-chains
  - product-markets.
- Radical customer and client expectations.
- Dis-intermediation.
- Short-term employment associations with firms → “disenfranchised” aspirations of employees.

# The objects of knowledge management

	INTANGIBLE	TANGIBLE
ENTITY	Information-as-knowledge Knowledge	Information-as-thing Data, document
PROCESS	Information-as-process Becoming informed	Information-processing Data processing

Source: Buckland, M. K. (1991) 'Information as Thing', *Journal of the American Society for Information Science (JASIS)*, 42 (5), 351-360.

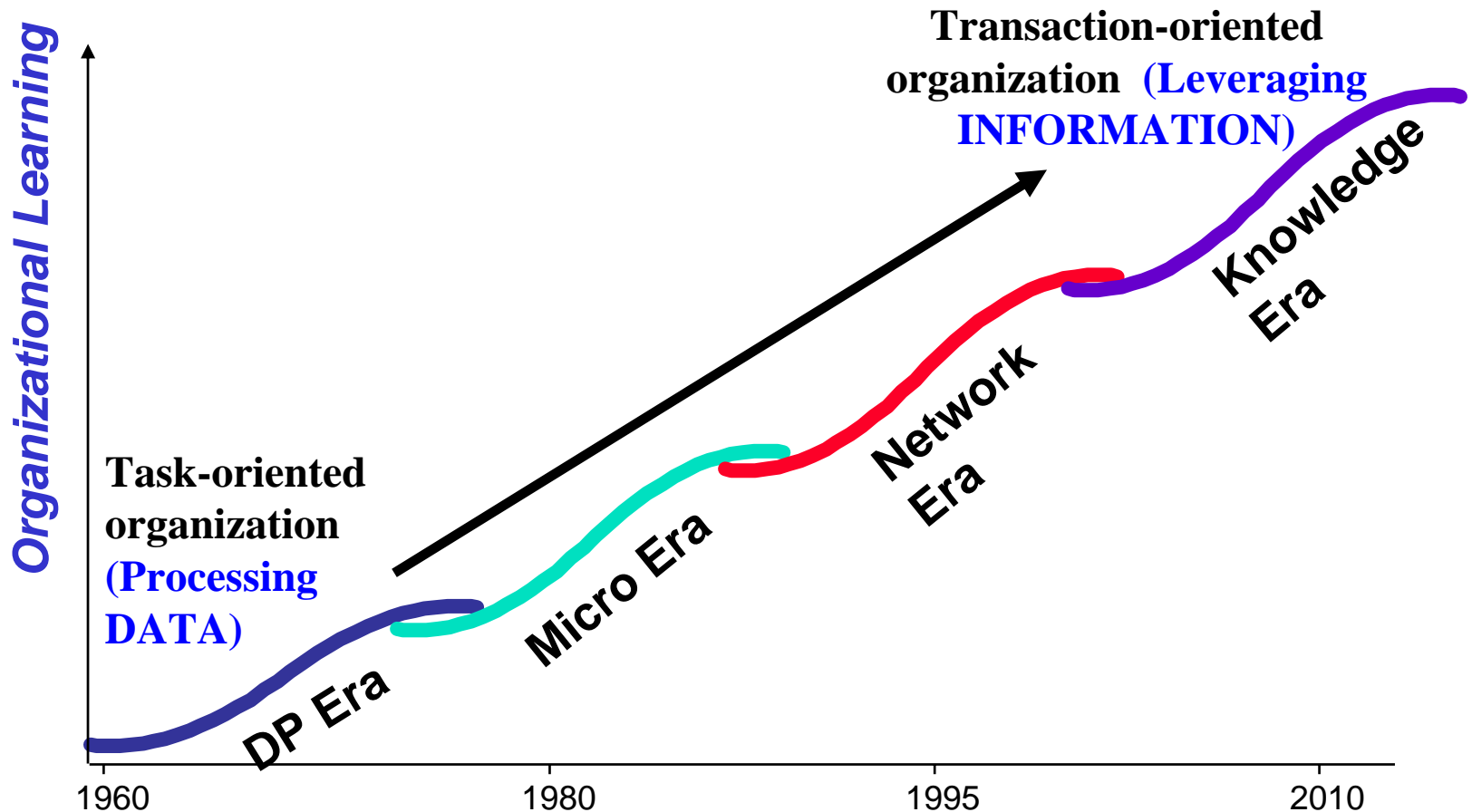


## What does Knowledge Management mean to organizations?

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- Exploiting external and internal information, in the form of “competitive intelligence” and “business intelligence”.
- Strengthening core competencies with information to support coordinated, real-time management action and decision-making
- Making local knowledge available globally, to both participants in both formal and informal information systems
- Accessing the tacit knowledge and expertise of knowledgeable decision-makers
- Managing information overload with artificial intelligence.

# “Computing eras”... and the strategic shift: - from *make-&-sell* to *sense-and-respond*



Adapted from Richard L. Nolan and Steven P Bradley, *Sense and Respond: Capturing Value in the Network Era*, Harvard Business School Press, Boston, 1998.



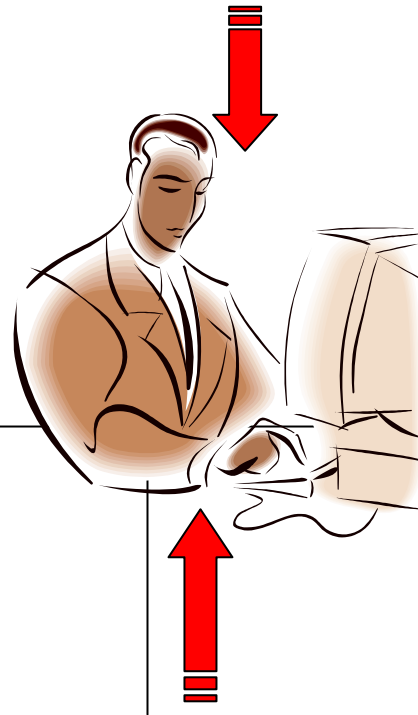
# Technology Developments

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- Advances in artificial intelligence and natural language processing
- E-business infrastructure development
- Co-operation in global networking and security standards
- Real-time integration of corporate information
  - Enterprise systems

Weak Link: **HUMAN ANALYST**  
Reasons: **INSIGHT, EXPERTISE AND TIME**

Dynamic, global change:  
Increasingly novel areas of  
decision-making



Lack of Access to  
Information or  
Knowledgeable  
Decision-Support

Real-Time  
Decision-making:  
Increasingly  
small amount of  
time to devote  
to each decision

Boundary Spanning Needs:  
Local knowledge from other areas of organization  
Cannot effectively coordinate decision-making with other  
knowledgeable decision-makers



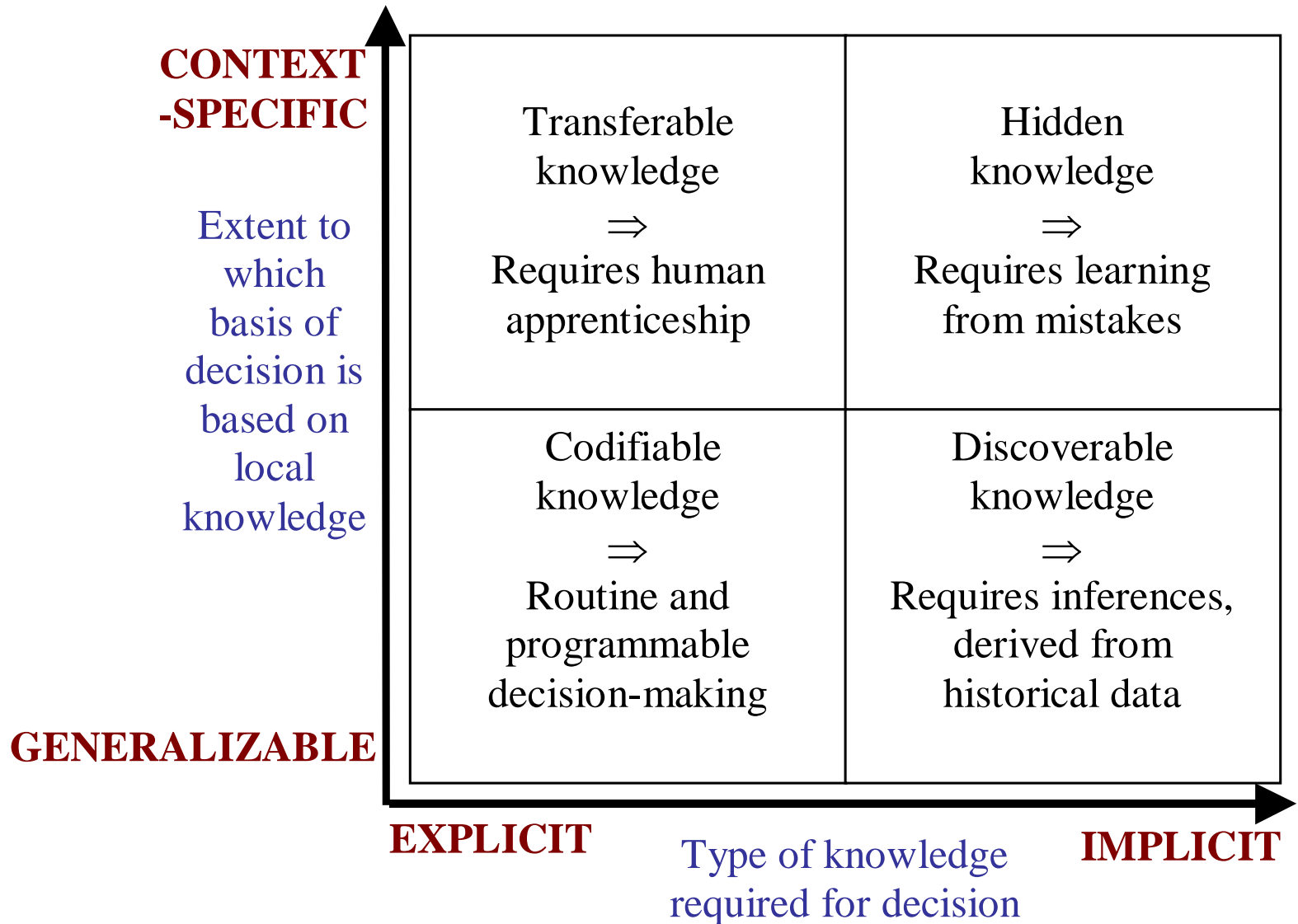
# The promise of knowledge repositories

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- Document, message and media management
- Transfer of expertise-related information
- The 3 'C's: coordination, collaboration and control
- Managing complexity
- Managing knowledge in all of its forms



# Knowledge Management Processes





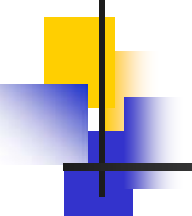
*Oh, brave new world, that hath such people in it ....*

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- **Chief Knowledge Officer**

*noun.* A corporate executive in charge of structuring a company's store of technical and business knowledge, and ensuring that employees have access to that knowledge.

- "The hot new job title being batted around in information technology circles these days is **chief knowledge officer.**"  
— Bob Weinstein, "Chief knowledge officers in big demand," *Chicago Sun-Times*

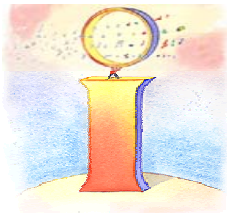


# Why has the subject of "managing knowledge" emerged as a significant area of study during the past two decades?

- Push factors:
  - Global competition
  - Increasingly turbulent social and political environments
  - Short-term ROI
  - The emergence of "real-time" technical infrastructures
- Pull factors
  - Information vs. automation
  - IT system potential (especially Knowledge Portals and AI)
  - The desire to control knowledge "assets"
  - Increasingly distributed decision-making across the organization
  - Need to manage complexity within and external to the organization.

# *Evolution of Knowledge Management Education*

5. How are the concepts associated with KM and knowledge science being arranged into a stable base of knowledge, or are they continuing to be transformed?
  - If unstable, what influences may be barring stability?
  - Can the transformations be described in a meaningful manner?

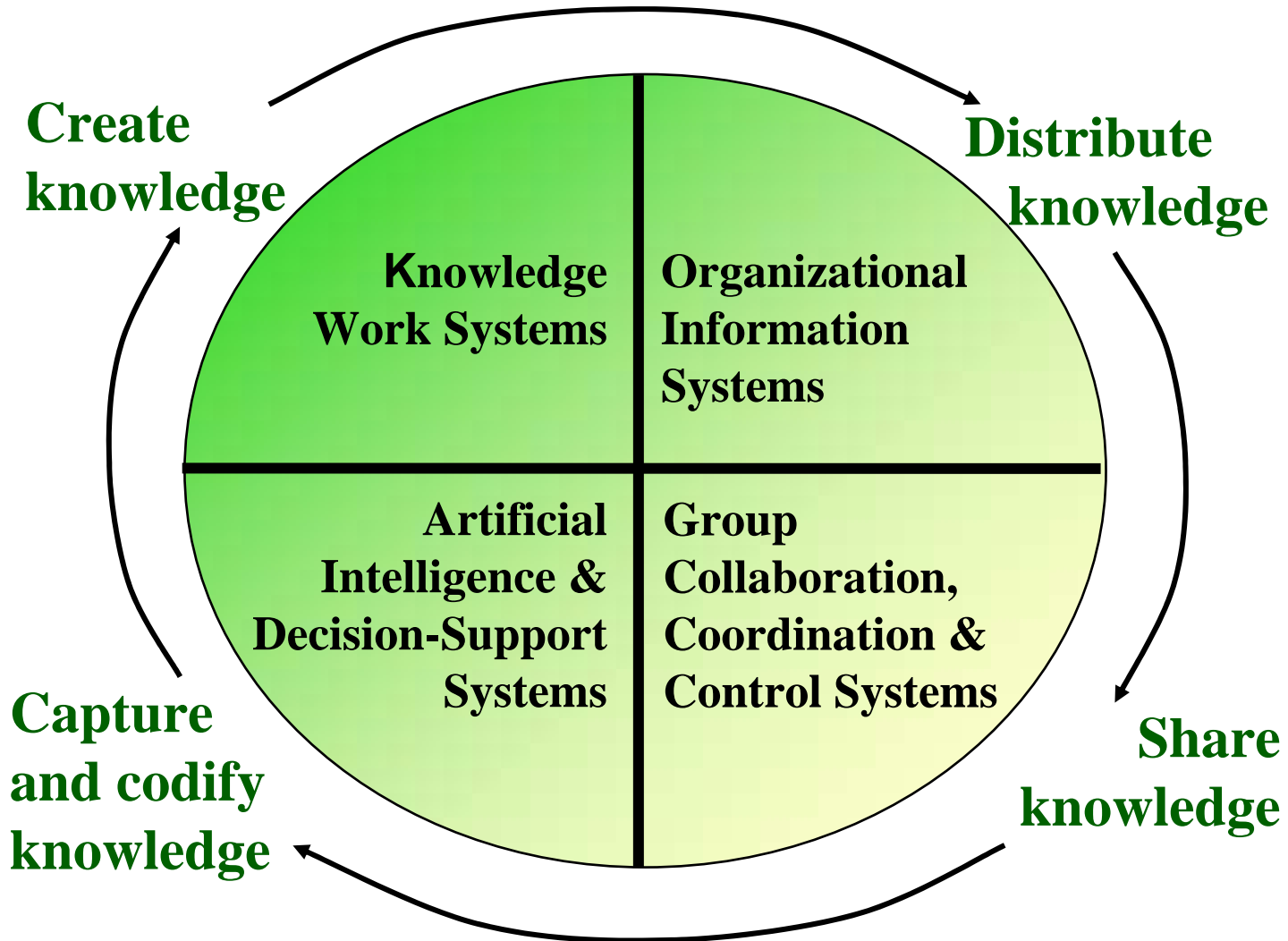


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# What is knowledge management? ... *it depends* ...

	<u>IT Management</u> Knowledge = Data Object	<u>Information Management</u> Knowledge = Basis for decisions/action	<u>Organizational Management</u> Knowledge = Basis for process improvement	<u>Business Management</u> Knowledge = Basis for value added
<b>Traditional Roles</b>	Database Administrator, IT Manager	Corporate Librarian	Quality Improvement	Business Analyst
<b>Organizational Task</b>	Knowledge-base admin.; KM systems "support"	Information and knowledge management	Workflow management; knowledge-flow management	Business intelligence; Competitive intelligence
<b>New Job-Title</b>	Knowledge Engineer; CIO	Information analyst; Chief Knowledge Officer (CKO)	Business process improvement specialist	Business intelligence analyst; Chief Knowledge Officer (CKO)

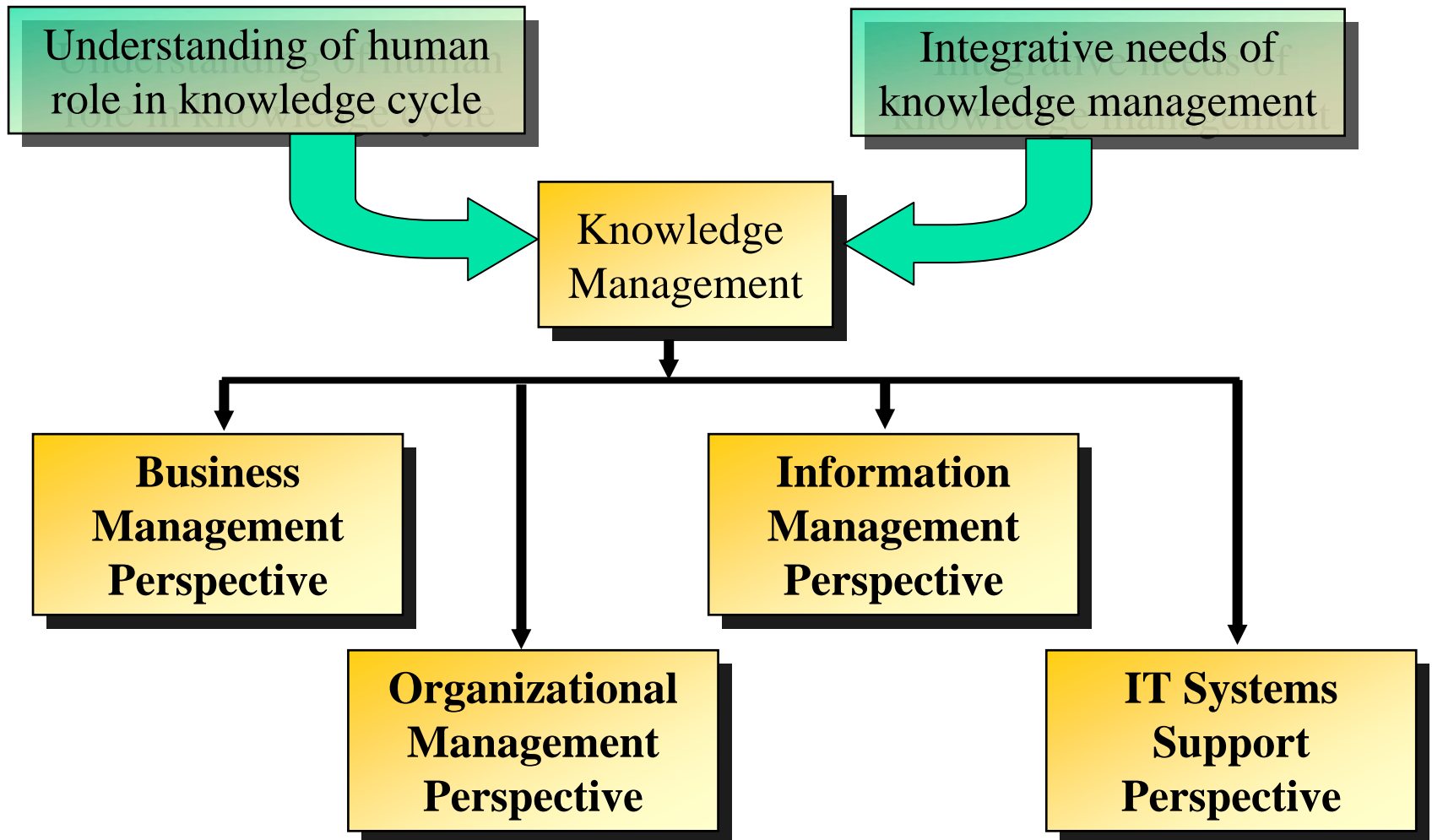
# Stability Through Knowledge Management Technologies



Adapted from: Laudon, K.C. & Laudon, J.P. (1998)  
*Management Information Systems*, Prentice Hall

# Knowledge Management Education

- Integrating perspectives in a classroom setting:



# Is technology driving the agenda?

- “How do you do an enterprise-scale content repository as well as collaboration space?”
  - Modeling “meta-data”: mapping the contents of email, documents, databases and knowledge-bases into one huge information portal.
  - Developing user-applications that are independent of the data.
- “Customers want an enterprise collaboration solution that has elements of portals, elements of team-based collaboration, and elements of knowledge management in a platform. We think the winners that are going to be standing out are going to be a broader-based platform.”
- People have realized that the next generation of portals has to have a rich collaborative and KM component. Most vendors are realizing that it is easier to partner with KM vendor experts than to attempt to do this themselves.
- “As people look for different ways to do business -- other than jump on a plane – KM technology applications like Intraspect are going to be top-of-mind for people. I think anyone in this collaboration space is going to be a net beneficiary because there is heightened awareness of finding creative ways to do work.”

*Source: ‘Intraspect execs explain why knowledge management is critical to the enterprise’, by Michael Vizard, February 1, 2002, INFOWORLD, URL: <http://www.infoworld.com/articles/hn/xml/02/02/01/020201hnintraspect.xml>*





## Forces For Stability

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- Developments in knowledge-based IT systems
- Developments in understanding how expertise is transferred
  - c.f. Lave & Wenger (1991): “Legitimate Peripheral Participation”
- Vendor-driven, integrated “business intelligence” systems
- Developments in understanding our limitations in managing complexity
  - e.g. knowledge management at KPMG



# Forces For Instability

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- Developments in artificial intelligence and the continual drive to codify tacit knowledge
- Disputes between the various perspectives on knowledge management
- Proprietary IT system vendor standards (e.g. ontologies embedded in XML)
- Faddism
- Things change ... ☺

- Our original interest:
  - How are the concepts associated with KM and knowledge science being arranged into a stable base of knowledge, or are they continuing to be transformed?
  
- A refined question:
  - How will Universities challenge the market-driven, technology-vendor perspective of knowledge management?