Knowledge Management Education, Adoption and Research in Hong Kong: The KMRC Perspective

Prof. Eric Tsui
Associate Director, Knowledge Management Research Centre
The Hong Kong Polytechnic University
&
Vice President, Hong Kong Knowledge Management Society

My Career so far
Agenda

1. Introduction of the KMRC
2. KM Adoption Metrics
3. The “KM Landscape” in Hong Kong
4. Overview & observations on KM projects
5. Selective KM project(s)
6. The Real World as an “Open Laboratory”
7. KM Tool Demonstrations (optional)
Vision & Mission of the KMRC

1. To conduct research in the interdisciplinary area of KM, develop various methods and tools for the implementation of affordable KM program and systems in various industrial sectors, organizations and communities.

2. To promote and disseminate the practice of knowledge management through delivering of consultancy, training and benchmarking not only on Hong Kong but also mainland China.

3. To offer advice to practitioners by promoting KM in Hong Kong.

4. To liaise with local KM bodies and similar bodies in other countries and participate in the formulation of various KM practices and standards.

Core activities of the KMRC

• Teaching
  – Certified Knowledge Professional (CKP), Custom design in-house training
  – Undergraduate Final Year Projects (FYPs)
  – Postgraduate Diploma in KM, M.Sc. in KM

• Research
  – MPhil
  – PhD
  – Doctor of Engineering

• Consultancy
  – Project-based, Strategic Planning, Assessments, Advisory, Contract Research

• Events
  – Seminars, Workshops, Conferences, HK MAKE etc.
Training
HKCyberU Master of Science in Knowledge Management
• Blended online & classroom environments
• Unique in Asia Pacific
• 6th year in operation, 130+ participants & 90+ graduates
• Participants from mainland, Australia, US, Canada, Thailand, Italy, and HK

Training (cont.)
Over 100 seminars and workshops conducted
• Regional coverage with attendees being professionals and executives from Hong Kong, mainland China, Singapore, Malaysia, Brunei, and Australia
• Customized workshops for Civil Services Training, HKSARG & China Space Research Agency
• In-house workshops for Land Registry, Environmental Protection Department, OGCIO, Health Department, CLP Power, Leo Paper Group

Over 1000 people have attended these seminars and workshops
HK’s transformation into a KBE

Hong Kong’s competitiveness

HK’s changing workforce

The economy is in stagnation, caused by Hong Kong’s competitive disadvantage. The role of China as the world’s factory is taken over by China’s competitors, such as Vietnam, Indonesia, Cambodia, and Laos. Hong Kong’s competition is still high, but the China’s advantage is more competitive. The role of China as the world’s factory is taken over by China’s competitors, such as Vietnam, Indonesia, Cambodia, and Laos. Hong Kong’s competition is still high, but the China’s advantage is still more competitive.

Preparing HK for disruptive growth

Preparing HK for disruptive growth

Preparing HK for disruptive growth

Preparing HK for disruptive growth

Preparing HK for disruptive growth
**Key Adoption Metrics**

1. **Projects and Programs**
   - Commercial, Government & Academic
   - No of projects & rate of increase
   - Nature and continuation of the projects
   - KM Maturity

2. **KM roles and job opportunities**
   - KM job roles & duties
   - Positions advertised & rate of increase
   - Salaries

3. **Education and training**
PolyU conducted a survey on how the adoption of KM Systems supports knowledge processes in several HK government departments in 2008.

An appropriate balance of people, process & technology is the key to success in KM.
**Survey on the use of Knowledge Management Systems for leveraging knowledge processes within the government departments in Hong Kong**

Date of survey: From Dec-2007 to Mar-2008  
Total no. of participating departments: 6 (7 different groups)  
Total no. of survey respondents: 83

**Objective:**

To study the use of different knowledge management systems for leveraging knowledge processes and identify the potential improvements to facilitate knowledge processes that are applicable in the government departments in Hong Kong.
Methodology: A mixed approach of quantitative and qualitative methods

For quantitative analysis, the method of questionnaire (both paper-based and electronic) was adopted in the survey while focus group discussions was chosen as the qualitative method to allow probing of information and development of insights among respondents which can help to explain the special findings generated from the quantitative analysis.

Design of Survey:

Covering letter for background of research and confidentiality information
Part A: Knowledge processes and their related activities
Part B: Motivational factors and knowledge transfer environment
Part C: Utilization of knowledge management systems (KMS)
Part D: Satisfaction of KMS in facilitating knowledge processes
Part E: Background information of respondents
Explanatory notes for definitions of KM terms and concepts

Knowledge Management Systems for leveraging knowledge processes

Knowledge creation:
- Data Mining, Web 2.0 – Wiki
- Knowledge community building tool
- Taxonomy tool

Acquisition:
- Search engine

Dissemination:
- E-learning system, Podcasts, Knowledge base, Lesson learned/ Best practice/ After action database

Exchange:
- E-mail, Web 2.0 – Blogs, Video/web conferencing tool, Instant messaging/ Online chat, Social bookmarking system

Storage:
- Document Management System, Shared drive

Application:
- Customer Relationship Management System (CRM), Intranet, extranet/ enterprise information portal
Q9. Please indicate how important are the following knowledge processes contributed to your daily work.

Importance of knowledge processes (average scores of all respondents)

<table>
<thead>
<tr>
<th>Knowledge Process</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Application</td>
<td>4.17</td>
</tr>
<tr>
<td>Knowledge Creation</td>
<td>3.63</td>
</tr>
<tr>
<td>Knowledge Acquisition</td>
<td>4.24</td>
</tr>
<tr>
<td>Knowledge Exchange</td>
<td>4.05</td>
</tr>
<tr>
<td>Knowledge Dissemination</td>
<td>4.01</td>
</tr>
<tr>
<td>Knowledge Storage</td>
<td>4.11</td>
</tr>
</tbody>
</table>

Note: 5-Extremely important, 4-Very important, 3-Somewhat important, 2-Not very important, 1-Not at all important

Q10. Please rate your satisfaction level towards the knowledge processes, based on your impressions of their performance in your work environment.

Satisfaction level towards knowledge processes (average scores of all respondents)

<table>
<thead>
<tr>
<th>Knowledge Process</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Application</td>
<td>3.48</td>
</tr>
<tr>
<td>Knowledge Creation</td>
<td>3.27</td>
</tr>
<tr>
<td>Knowledge Acquisition</td>
<td>3.59</td>
</tr>
<tr>
<td>Knowledge Exchange</td>
<td>3.19</td>
</tr>
<tr>
<td>Knowledge Dissemination</td>
<td>3.25</td>
</tr>
<tr>
<td>Knowledge Storage</td>
<td>3.40</td>
</tr>
</tbody>
</table>

Note: 5-Very satisfied, 4-Satisfied, 3-Neutral, 2-Dissatisfied and 1-Very dissatisfied
Q14. part (i), the level of KMS use is based on the following scale:
1. **No use** - system is not being used
2. **Utilization** - individuals utilize the system but not as the primary information source
3. **Infusion** – individuals are beginning to routinize the technology and use the system equally along with alternative information source
4. **Integration** – individuals have integrated the KMS into the work environment to the extent that if the system is unavailable, the productivity diminishes
5. **Expansion** – it has the same characteristics as “Integration” except that individuals have now expanded their use of KMS to include technology-based information sources outside their work environment

Q14. part (i), for each type of KMS deployed in your work environment, please indicate its “level of use (1-5)”. 
Potential solutions to facilitate knowledge processes

- Knowledge Café for knowledge creation
- Training on the use of KMS to facilitate all knowledge processes
- Job rotation for knowledge exchange
- Communities of Practice for knowledge creation and exchange
- Training on brainstorming techniques for knowledge creation
- Provide feedback channels for better dissemination of knowledge

UG Students’ Final Year Project

KMRC Final Year Projects (FYPs)

<table>
<thead>
<tr>
<th>Year</th>
<th>No of FYPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>15 (all filled)</td>
</tr>
<tr>
<td>2007</td>
<td>30 (all filled)</td>
</tr>
<tr>
<td>2008</td>
<td>80+ (half 50 filled)</td>
</tr>
</tbody>
</table>
### Custom design training for FYP Students

<table>
<thead>
<tr>
<th>Date</th>
<th>Training</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>21st May, 08</td>
<td>General Briefing to FYP Students By Prof. Eric Tsui</td>
<td>All Final Year Project Students 08/09 Selected Final Year Project Students 07/08</td>
</tr>
<tr>
<td>12th June, 08</td>
<td>Training on KM Frameworks By Prof. WB Lee</td>
<td>Selected Final Year Project Students 08/09</td>
</tr>
<tr>
<td>17th June, 08</td>
<td>Training on Knowledge Audit (STOCKS Methodology) By Ms. Vivien Shek</td>
<td>Selected Final Year Project Students 08/09</td>
</tr>
<tr>
<td>20th – 21st June, 08</td>
<td>2 Days of Introduction to KM By Prof. Patrick Lambe from Singapore</td>
<td>All Final Year Project Students 08/09 Company Representatives / Project Mentors from: Cathay Pacific, HACTL, Hospital Authority, Adidas, HSBC, Hoh Fuk Tong College, Child Assessment Service in Department of Health, Gold Peak Ltd, British Council</td>
</tr>
<tr>
<td>30th June, 08</td>
<td>Training on Collaboration Tools and SharePoint By Prof. Eric Tsui and Mr. Ming Chow</td>
<td>Selected Final Year Project Students 08/09</td>
</tr>
<tr>
<td>15th July, 08</td>
<td>Training on Taxonomy and RSS By Prof. Eric Tsui</td>
<td>Selected Final Year Project Students 08/09</td>
</tr>
<tr>
<td>22nd July, 08</td>
<td>Training on Knowledge Audit (Practical Training – PHASE I)</td>
<td>Selected Final Year Project Students 08/09</td>
</tr>
<tr>
<td>28th July, 08</td>
<td>Training on Knowledge Audit (Practical Training – PHASE II)</td>
<td>Selected Final Year Project Students 08/09</td>
</tr>
</tbody>
</table>

### Companies offering Final Year Projects 08/09

<table>
<thead>
<tr>
<th>Type of Company</th>
<th>Project Scope</th>
<th>Study Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation, Manufacturing</td>
<td>Capture Tacit Knowledge</td>
<td>Measuring Team Performance, Team Building Development</td>
</tr>
<tr>
<td>Financial Services, Logistics, Government Department, Non-Government Organisation</td>
<td>Various</td>
<td>Taxonomy &amp; Search, Document Management, Soft KM tools, Communities</td>
</tr>
<tr>
<td>Financial Services, Manufacturing</td>
<td>IC Assessment</td>
<td>IC Indicators and Measurements</td>
</tr>
<tr>
<td>Financial Services, Logistics, Government Department</td>
<td>KM Feasibility Studies</td>
<td></td>
</tr>
<tr>
<td>Financial Services, Logistics, Government Department, Non-Government Organisation, Secondary School</td>
<td>Knowledge Audit</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>Intranet site analytics</td>
<td></td>
</tr>
<tr>
<td>Government Department, Non-Government Organisation</td>
<td>Sharing Platform</td>
<td>Data Mining, Portal Development</td>
</tr>
<tr>
<td>Sportswear</td>
<td>Raising the User Awareness, Rewards &amp; Recognition, E-Learning</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>Collaboration Tools and Culture</td>
<td></td>
</tr>
<tr>
<td>IT Outsourcing</td>
<td>Technologies</td>
<td>Knowledge-enabled CRM System</td>
</tr>
<tr>
<td>Government Department</td>
<td>Web 2.0 Technologies, RSS</td>
<td></td>
</tr>
</tbody>
</table>
## “Continuing” Final Year Projects (FYP) 08/09

<table>
<thead>
<tr>
<th>FYP Company Name</th>
<th>Project Scope</th>
<th>Study Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Outsourcing</td>
<td>Technologies</td>
<td>K-enabled CRM System</td>
</tr>
<tr>
<td>Transportation</td>
<td>Collaboration</td>
<td>Collaboration Tools and Culture</td>
</tr>
<tr>
<td>Government Department</td>
<td>Knowledge Management System</td>
<td>Web 2.0 Technologies</td>
</tr>
<tr>
<td>Government Department</td>
<td>Sharing Platform</td>
<td>Various</td>
</tr>
<tr>
<td>Government Department</td>
<td>Knowledge Management System</td>
<td>Various</td>
</tr>
<tr>
<td>Government Department</td>
<td>Sharing Platform</td>
<td>Portal Development</td>
</tr>
</tbody>
</table>

Keynote Address at I-KNOW09 on 3-9-09 by Eric Tsui
Creating an environment for knowledge sharing

Knowledge management is a business solution – even though technology is important

- Not just a technical solution, but mostly a business solution
- Impacts all dimensions of the business
- KM implementation is a program of business change requiring
  - Clarity of vision and objectives
  - Management commitment
  - Business ownership
  - Rewards & Recognition
  - Resource availability
  - Appropriate infrastructure
**Project and Job trends**

**KMRC Final Year Projects (FYPs)**

<table>
<thead>
<tr>
<th>Year</th>
<th>No of FYPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>15 (all filled)</td>
</tr>
<tr>
<td>2007</td>
<td>30 (all filled)</td>
</tr>
<tr>
<td>2008</td>
<td>80+ (half filled)</td>
</tr>
</tbody>
</table>

**Job Advertisements placed in Classified Post, Recruit, JobsDB, Career Times, Job Finder, CareerJet, Headline jobs, Jobstreet**

<table>
<thead>
<tr>
<th>Year</th>
<th>No of KM-related job ads</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>19</td>
</tr>
<tr>
<td>2006</td>
<td>82</td>
</tr>
<tr>
<td>2007</td>
<td>293</td>
</tr>
<tr>
<td>2008 (till end of October)</td>
<td>148</td>
</tr>
</tbody>
</table>

**Job duties listing KM skills**

The hospital authority will collaborate with other health care services and comes to the community to share knowledge and disseminate useful health-care websites and real community experiences. We would work closely with clients and offer training for and coaching opportunities.

Senior Manager (Knowledge Management) HOSPITAL AUTHORITY

**Job Description:**

Reporting to the Knowledge Manager, the Knowledge Manager is responsible for developing and implementing the Knowledge Management program. The Knowledge Manager will be responsible for ensuring that all KM-related policies and procedures are followed and that KM initiatives are aligned with the overall business strategy. The Knowledge Manager will also work closely with the IT department to ensure that IT systems support the KM program.

**Job Duties:**

1. Develop and implement knowledge management strategies to support the organization's strategic goals.
2. Oversee the implementation of KM initiatives and processes, including knowledge capture, sharing, and transfer.
3. Develop and maintain a knowledge management system to support the organization's needs.
5. Develop and deliver knowledge management training to support the organization's needs.
6. Collaborate with other departments to ensure that KM initiatives are aligned with the overall business strategy.
7. Work with the IT department to ensure that IT systems support the KM program.

**Requirements:**

1. A Bachelor's degree in a related field, with relevant knowledge and experience in knowledge management.
2. A minimum of 5 years of experience in knowledge management, with a strong background in project management.
3. Excellent communication and interpersonal skills, with the ability to work effectively with a diverse range of stakeholders.
4. Strong analytical and problem-solving skills, with the ability to develop and implement effective solutions.
5. Strong attention to detail, with the ability to work accurately and efficiently.
6. Strong presentation and facilitation skills, with the ability to communicate complex ideas in a clear and concise manner.

The hospital authority will collaborate with other health care services and comes to the community to share knowledge and disseminate useful health-care websites and real community experiences. We would work closely with clients and offer training for and coaching opportunities.

Senior Manager (Knowledge Management) HOSPITAL AUTHORITY

**Job Description:**

Reporting to the Knowledge Manager, the Knowledge Manager is responsible for developing and implementing the Knowledge Management program. The Knowledge Manager will be responsible for ensuring that all KM-related policies and procedures are followed and that KM initiatives are aligned with the overall business strategy. The Knowledge Manager will also work closely with the IT department to ensure that IT systems support the KM program.

**Job Duties:**

1. Develop and implement knowledge management strategies to support the organization's strategic goals.
2. Oversee the implementation of KM initiatives and processes, including knowledge capture, sharing, and transfer.
3. Develop and maintain a knowledge management system to support the organization's needs.
5. Develop and deliver knowledge management training to support the organization's needs.
6. Collaborate with other departments to ensure that KM initiatives are aligned with the overall business strategy.
7. Work with the IT department to ensure that IT systems support the KM program.

**Requirements:**

1. A Bachelor's degree in a related field, with relevant knowledge and experience in knowledge management.
2. A minimum of 5 years of experience in knowledge management, with a strong background in project management.
3. Excellent communication and interpersonal skills, with the ability to work effectively with a diverse range of stakeholders.
4. Strong analytical and problem-solving skills, with the ability to develop and implement effective solutions.
5. Strong attention to detail, with the ability to work accurately and efficiently.
6. Strong presentation and facilitation skills, with the ability to communicate complex ideas in a clear and concise manner.

The hospital authority will collaborate with other health care services and comes to the community to share knowledge and disseminate useful health-care websites and real community experiences. We would work closely with clients and offer training for and coaching opportunities.

Senior Manager (Knowledge Management) HOSPITAL AUTHORITY

**Job Description:**

Reporting to the Knowledge Manager, the Knowledge Manager is responsible for developing and implementing the Knowledge Management program. The Knowledge Manager will be responsible for ensuring that all KM-related policies and procedures are followed and that KM initiatives are aligned with the overall business strategy. The Knowledge Manager will also work closely with the IT department to ensure that IT systems support the KM program.

**Job Duties:**

1. Develop and implement knowledge management strategies to support the organization's strategic goals.
2. Oversee the implementation of KM initiatives and processes, including knowledge capture, sharing, and transfer.
3. Develop and maintain a knowledge management system to support the organization's needs.
5. Develop and deliver knowledge management training to support the organization's needs.
6. Collaborate with other departments to ensure that KM initiatives are aligned with the overall business strategy.
7. Work with the IT department to ensure that IT systems support the KM program.

**Requirements:**

1. A Bachelor's degree in a related field, with relevant knowledge and experience in knowledge management.
2. A minimum of 5 years of experience in knowledge management, with a strong background in project management.
3. Excellent communication and interpersonal skills, with the ability to work effectively with a diverse range of stakeholders.
4. Strong analytical and problem-solving skills, with the ability to develop and implement effective solutions.
5. Strong attention to detail, with the ability to work accurately and efficiently.
6. Strong presentation and facilitation skills, with the ability to communicate complex ideas in a clear and concise manner.

The hospital authority will collaborate with other health care services and comes to the community to share knowledge and disseminate useful health-care websites and real community experiences. We would work closely with clients and offer training for and coaching opportunities.

Senior Manager (Knowledge Management) HOSPITAL AUTHORITY

**Job Description:**

Reporting to the Knowledge Manager, the Knowledge Manager is responsible for developing and implementing the Knowledge Management program. The Knowledge Manager will be responsible for ensuring that all KM-related policies and procedures are followed and that KM initiatives are aligned with the overall business strategy. The Knowledge Manager will also work closely with the IT department to ensure that IT systems support the KM program.

**Job Duties:**

1. Develop and implement knowledge management strategies to support the organization's strategic goals.
2. Oversee the implementation of KM initiatives and processes, including knowledge capture, sharing, and transfer.
3. Develop and maintain a knowledge management system to support the organization's needs.
5. Develop and deliver knowledge management training to support the organization's needs.
6. Collaborate with other departments to ensure that KM initiatives are aligned with the overall business strategy.
7. Work with the IT department to ensure that IT systems support the KM program.
Sample KM job titles in HK
Sample KM job titles in HK

Selective KMRC projects
Projects in the KM Research Centre

EPD Intelligent Taxonomy (InTaxon) project 2007-2008

Project Methodology
1. Workshops
   - Mini-lecture
   - Project Briefing
   - Survey
   - Hands-on exercises
   - Group discussions
2. Interview/questions to directorates
3. Generate core requirements for enhancements to the search engine
4. Draft taxonomies created after extensive consultations
   • Research-oriented person
   • Staff who performs highly unstructured and/or knowledge-intensive tasks
Overview and Observations on KM projects

Common projects aligned with stage of KM journey

For organizations which are new to KM
- Awareness raising / Readiness Assessment
- Strategy Formulation / Strategic Planning
- Identify, rank and pilot of KM initiatives
- Knowledge Audit, Social Network Analysis
- Taxonomy Creation and Maintenance

For organizations that have already started KM
- Sustainability of KM programs
- Knowledge Audit & Knowledge Management Audit
- Culture Building
- Soft KM tools/skills
- Health checks
- Benchmarking
Common elements in KM projects

- Cultural Assessment
- Formulation of a KM Strategy, Framework & Strategic Planning
- Knowledge Audit
- Change Management
- KM Assessment, define metrics and reporting of Intellectual Capital (IC)
- Communities / Special Interest Groups (SIG)
- Search Engine
- Taxonomy
- Collaboration System(s)
- Enterprise Portal
- Electronic Document Management System (EDMS)
- Knowledge / Information Repositories
- Content Management System (CMS) and Applications (CMA)
- Business Intelligence
- Business Process Management (BPM) System
- E-Learning
- Intelligent System(s)
- Intranet / Extranet
- Blogging / Weblogs / RSS Readers / Wikis
Common encounters in KM projects in HK

- Low awareness about KM and unsure where to start
- Past experience still haunting
- Confusing KM with document management, information management, training and development, and quality
- Overly rely on IT as the sole “entry point”
- Lack of a holistic strategy when planning a KM journey
- Many assume KM needs “deep pockets”
- “Knowledge is Power” mentality; fear of losing power
- Myth – “KM is only for large organisations”
- Short of KM resources and expertise
- “Baby boomers” retirement syndrome very real in engineering services firms
- Demanding hard ROI justifications

Common encounters on deployment & adoption of KM technologies in HK

- Business, IT divide – insufficient end-user, Subject Matter Expert input
- KM systems treated as only static repositories
- Under-leverage of collaboration software
- Over-governance on security and access control
- Multi-lingual support can tip the balance
- Inadequate user training/awareness on search engines
- Lack of enterprise/departmental-wide focus on taxonomy
- Time lag between requirements elicitation and procurement
- Content Management not treated as a lifecycle process
- Over emphasis on the containers rather than the identification of critical knowledge assets/flow and people connections
- Commitment on some out-dated technologies
Experience sharing by PolyU’s KMRC

Teaching
- M.Sc. in KM
- Certified Knowledge Professional (CKP)
- Dissertations Projects
- Final Year Projects (FYP)

Events
- In-house training
- Strategy Formulation
- Framework Assessment
- Strategic Planning
- Taxonomy Creation & Maintenance
- IC Audit & Benchmarking
- Knowledge Audit
- Knowledge Retention
- Consultancy

Research
- Master of Philosophy
- Doctor of Philosophy
- Doctor of Engineering
- Teaching Company Scheme (Scholarships)
- Areas: Organizational Learning, Knowledge Audit, Narratives, Intellectual Capital, Patent Search, Taxonomy/Folksonomy, Knowledge Communities, E-Learning

Certified Knowledge Professional (CKP)
- Dissertation Projects
- Final Year Projects (FYP)

KM Tool Demonstrations

Knowledge Management Research Centre
I discover Japanese website is found on HDTV website.

I have attained the learners competencies.

It is so easy to make a scenario now.

I can list the learners competencies.

Page 26
Knowledge Management
Research Centre (KMRC)

Knowledge Management
Education, Adoption and
Research in Hong Kong: The
KMRC Perspective

Prof. Eric Tsui
Associate Director, Knowledge Management Research Centre
The Hong Kong Polytechnic University
&
Vice President, Hong Kong Knowledge Management Society

Keynote Address at I-KNOW09 on 3-9-09 by Eric Tsui
Contact details for Eric Tsui

Eric Tsui, B.Eng.,PhD, MBA
Professor of Knowledge Management
Department of Industrial and Systems Engineering

Hung Hom  Kowloon  Hong Kong
Tel (852) 2766 6609  Fax (852) 2774 0308
Email Eric.Tsui@polyu.edu.hk