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**THE HONG KONG POLYTECHNIC UNIVERSITY**  
 香港理工大學

**KMRC 知識管理研究中心**  
 Knowledge Management Research Centre

# HK's transformation into a KBE

## Hong Kong's competitiveness

**ALTERED STATES**  
 How Hong Kong fared in competitiveness indices relative to selected economies.

**Hong Kong's changing workforce**  
 Economic opportunities created by Hong Kong's deepening integration with mainland China... A study by McKinsey and the Hong Kong Foundation finds that... more than 100,000 jobs in the territory's trade sector face relocation to the mainland within five years with costs.

**HK employing more researchers**  
 Hong Kong is developing as a knowledge-based economy, with the number of researchers per 1,000 people in the labour force growing from 2.08 in 1998 to 5.39 in 2007, the Census & Statistics Department says.

**Digital 21 Strategy**  
 The Government of the Hong Kong Special Administrative Region

**2008 Digital 21 Strategy**  
 > Foreword  
 > Executive Summary  
 > Chapter 1: Where We Are  
 > Chapter 2: The Challenge  
 > Chapter 3: Envisioning a Digital Economy  
 > Chapter 4: Promoting Advanced Technology and Innovation  
 > Chapter 5: Developing Hong Kong

**Progress Report on the 2008 Digital 21 Strategy (February 2009)**  
**Action plan for building an inclusive, knowledge-based society**

The desired outcome of the action area of building an inclusive, knowledge-based society is "Residents, businesses, and voluntary organisations in Hong Kong are all able to create, access, utilise and share information and knowledge as well as entertainment, so that they can achieve their full potential in improving their quality of life and ethical use of ICT".

**CE outlines HK's way forward**  
 In his Policy Address to the Legislative Council today, Chief Executive Donald Tsang has set out strategic directions for Hong Kong's economic development and sustainable growth, and laid out his vision to improve the city's quality of life.

**Ground breaking: Chief Executive Donald Tsang presents his 2009-10 Policy Address to the Legislative Council.**

**"HK's appropriate policies to remove obstacles to their development, the six industries will enter a new phase of development, propelling Hong Kong towards a knowledge-based economy."** - Mr Tsang said

# Baby boomers retirement syndrome

## South China Morning Post

see live updates at www.scmp.com

HK\$7.90



### Builders say ageing workforce adds to problem but importing workers a tough option

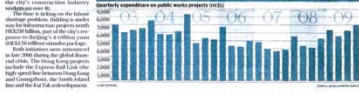
### Labour shortage to delay mega projects

By Alan Chan

While builders are heading for a boom in 2011, they face a major problem: a shortage of workers. The industry is expected to see a 10 per cent increase in new projects, but the number of workers is expected to fall by 10 per cent. This is due to the retirement of baby boomers and the slow growth of new entrants into the industry.

Contractors face pressure on earnings as they struggle to find workers. The industry is expected to see a 10 per cent increase in new projects, but the number of workers is expected to fall by 10 per cent. This is due to the retirement of baby boomers and the slow growth of new entrants into the industry.

Contractors face pressure on earnings as they struggle to find workers. The industry is expected to see a 10 per cent increase in new projects, but the number of workers is expected to fall by 10 per cent. This is due to the retirement of baby boomers and the slow growth of new entrants into the industry.



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### Policy review urged as record numbers enter retirement age

## HK braces for ageing baby boomers

By Alan Chan

The government has urged a review of its ageing policy as a record number of baby boomers enter retirement age. The population is expected to see a 10 per cent increase in new projects, but the number of workers is expected to fall by 10 per cent.

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# Nature of Knowledge Work

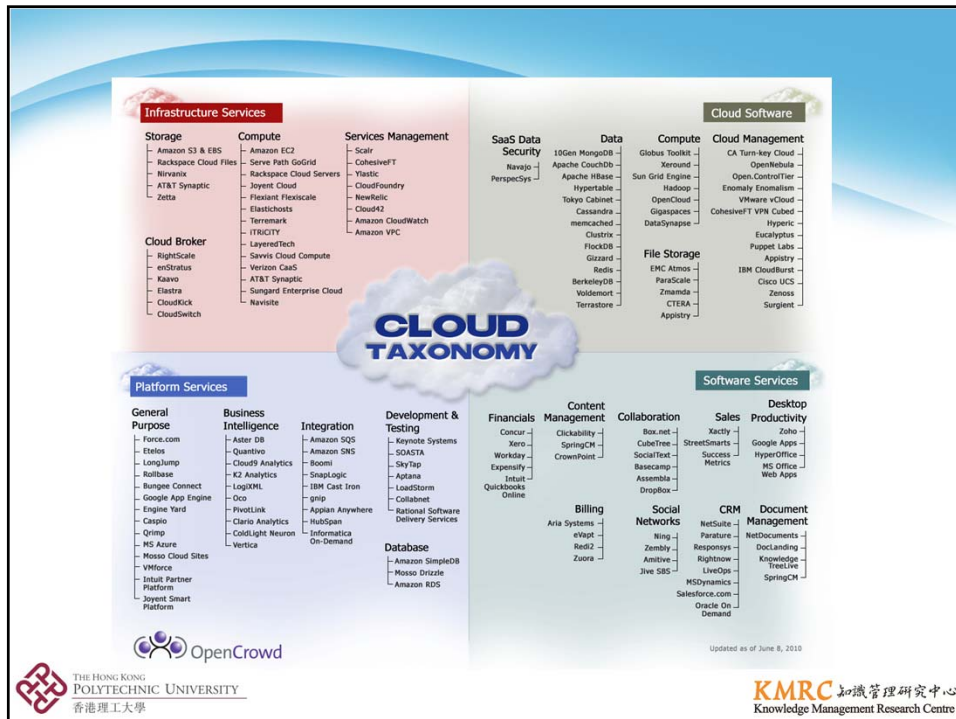
- Increasingly less routine, more analytical and need to be more collaborative
- Highly unstructured, unpredictable, disruptive yet often come with a sense of urgency
- Requires a different set of metrics for performance measurement
- Not only requires data and information but also knowledge and experience of the individual
- Group/Collaborative task execution, decision making and problem solving
- A huge amount of data and information to deal with
- Often more than one way to solve a problem, reflection and a learning environment are crucial

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## Support for performing Knowledge Work

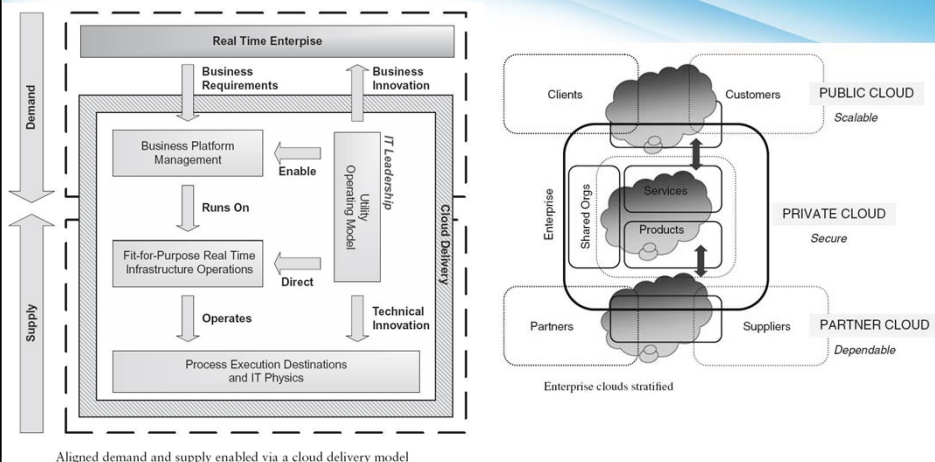
- Automate routine tasks as much as possible
- Tools to coordinate ad hoc tasks among workers
- Tools to identify and connect with subject matter champions; codify and share tacit knowledge
- Tools to discover, aggregate, analyse and visualise document/information/discussion summary, trends, work tasks etc.
- Leverage on input and preferences from trusted peers
- Knowledge Repository for keeping core assets
- Powerful Search mechanisms (proactive, multi-modal, multiple search modes, visualisation,...)
- Create a Personal and Organisational Learning Environment
- Personalisation (role type, multi-generational workforce, mobile workers etc.)



## The Changing Landscape

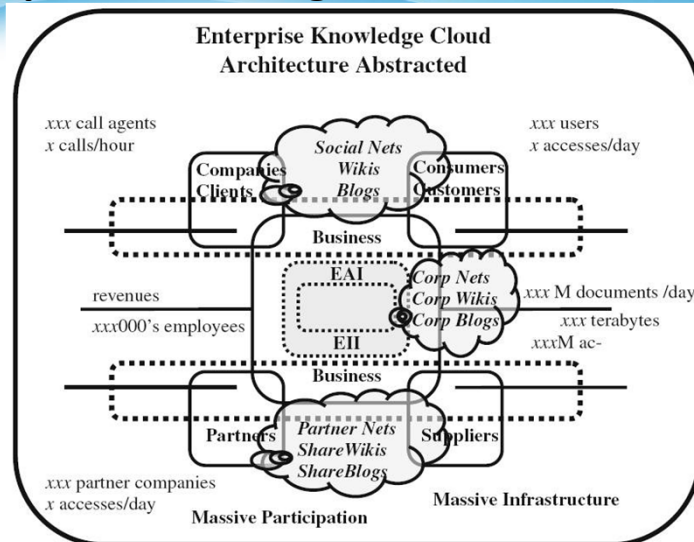
- In every hour, 1005, 4110 and 5925 babies are born in the US, China and India
- Last year, there were 70k, 600k and 300k engineering graduates from the US, China and India
- It only took 4 years for Twitter to generate 10 billion tweets
- Internet devices increased from 1000 in 1984 to 1 Trillion in 2010
- There are 1.4b and 1.2b online communities in China and India
- The percentage of workers doing manual work in the US fell from 70% in 1900 to 35% in 1990 and to 15% in 2000.
- Approximately 75% of the economic activities in advanced countries is generated by service industries, where knowledge is the primary resource or ingredient

## Real Time Enterprise & Enterprise Cloud (Source: Delic & Riley)





## Enterprise Knowledge Cloud (Source: Delic & Riley)



Enterprise knowledge cloud: architectural view



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## Opportunities and impact of CC on

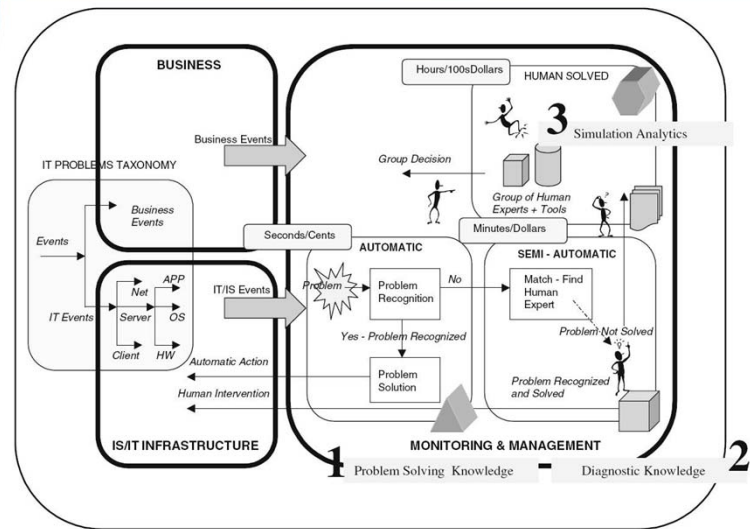
1. Business Process Management
2. Taxonomy building and maintenance
3. Personal Knowledge Management Personal Learning Environment



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Source: Furht & Escalante, Handbook of Cloud Computing

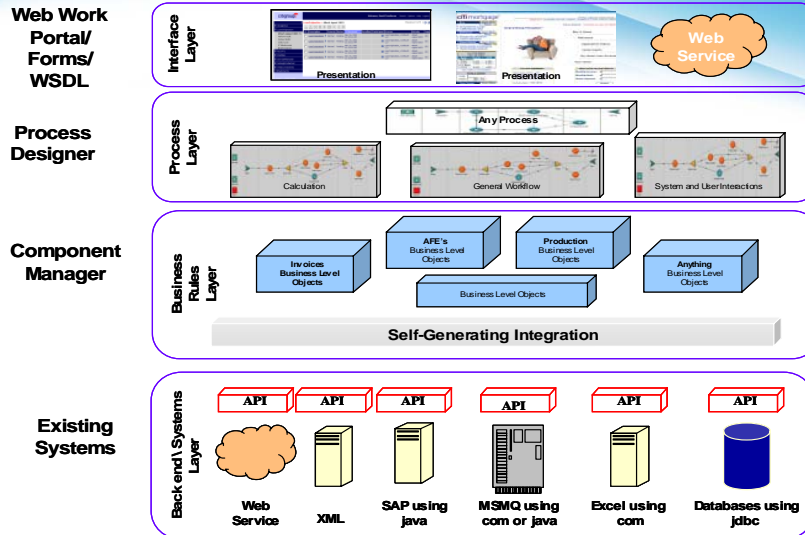


Knowledge for IT problem solving



# BPMS: Under the hoods

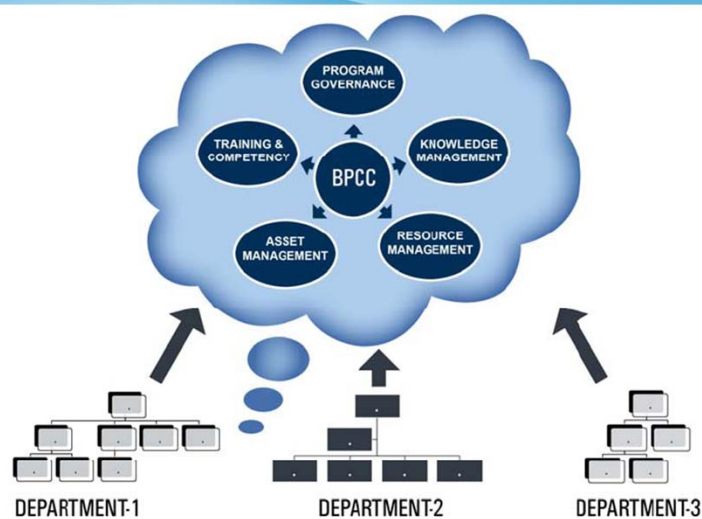
(Source: Sarbashrestha Panda)



## Cloud-based BPM enables

- The creation of ad hoc as well as formal/structured processes
- Processes to be more adaptive
- Fusion of business processes with personal processes (aka Social BPM)
- Analytics to be collected and analysed by individual knowledge workers
- SMEs to leverage on process management and create new opportunities

## Cloud-based BPM Competency Centre (Source: Vitusa)



*Business Process Competency Center (BPCC) on Cloud*

### Knowledge Rules Implements Innovative Cloud Computing Solution to Refactor Legacy Applications for BNP Paribas Global Banking Network

Pega Services Partner, Knowledge Rules, rapidly accelerates project delivery time



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Press Release Source: Knowledge Rules, Inc. On Wednesday September 8, 2010, 7:00 am EDT

PHILADELPHIA, Sept. 8 /PRNewswire/ -- Knowledge Rules, Inc., the leading business process management service provider supporting legacy system refactoring, announced today that it has implemented its cloud computing software services delivery model for BNP Paribas, one of the largest global banking groups in the world. BNP Paribas worked with Knowledge Rules to use SmartPAAS, the cloud-based software offering from Pegasystems. Deployment of SmartPAAS allows the flexibility necessary to do the rapid application refactoring necessary to keep rules-based BPM (Business Process Management) applications growing. "Refactoring multiple applications into a single scalable asset requires systems agility unthinkable with traditional platforms," said Tim Panagos, Chief Business Technologist for Knowledge Rules. "By leveraging Knowledge Rules' Cloud (EC2) with Pegasystems' SmartPAAS to power our BPM applications, we have been able to accomplish in weeks what would have otherwise taken months."

Faced with the complexities of working across multiple geographical regions, Knowledge Rules and BNP Paribas have enabled collaboration for the development of distinct applications from various regions. "BNP Paribas has a highly diverse user base across multiple European countries. Knowledge Rules was able to help us reduce time and costs by providing a single, installing development environments and they worked like hand-in-glove to deliver and innovate in a SOA solution," said Manuel Restrepo, BNP Paribas' IT CoE (Centre of Excellence) mainly dedicated to managing IT technologies at Cardiff Assurance, the BNP Paribas Insurance Division.

**DocuLex launches hosted document and information management in the cloud**

06 August 2010

Submit to digg

DocuLex has launched a hosted document management service in the cloud for firms.

The offering is based on DocuLex's cloud/software-as-a-service (SaaS) WebSearch program, coupled with the company's automated paper and electronic document capture module Goby Capture.

The DocuLex document service offering can be scaled for multiple organisations and users, with a monthly fee structure based on storage volume.

The browser-based content management program provides remote document access, permissions, and printing and distribution, enabling secure document warehousing and sharing for knowledge management and collaboration.

Users are presented with a custom portal design addressed to their content management needs, including scanned paper converted to EDE and electronically created files in their native formats. Email and attachments are supported.

There is encrypted site access with SSL protection.

0 tweets

Tweet



### Taxonomy – The Art & Science of Information Classification





# Cloud-based taxonomy tools and services



## Products for building taxonomies

Synaptica has product solutions for small and large businesses. We support cloud-computing solutions and behind-the-firewall enterprise solutions.



**Synaptica Enterprise**  
Synaptica Enterprise is our behind-the-firewall solution for larger organizations. Enterprise systems are available with either perpetual or subscription licenses. They are designed to support multiple users with role-based permissions as well as content categorization and collaboration capabilities. They also provide services for a suite of integration tools, including database APIs and Web Services.

**Synaptica Express**  
Synaptica Express is our cloud-computing solution for individuals or small-business users. Business systems are hosted on secure servers and available as a subscription service. They are designed for a single authorized user account, providing a streamlined, drag system that allows users to be up and running with minimal training. With Business users can benefit from the Synaptica Security Management tools without expense of the IT infrastructure.

**Synaptica IMS**  
Synaptica Imaging Management System (IMS) is currently shipping its V7.1 version, packed with major new tools and features. Synaptica IMS is a comprehensive suite of tools designed to support the human reduction of content using taxonomies stored in Synaptica. [More...](#)

**Synaptica SharePoint**  
Synaptica SharePoint Integration is an add-on module enabling taxonomies being managed within Synaptica to be applied as metadata to content being stored in SharePoint document libraries. As well as allowing for these same taxonomies to be used for search. [More...](#)

**Latest Product Releases**  
Synaptica is currently shipping its V7.1 version, packed with major new tools and features. [More...](#) V7.2 scheduled for release in Q3 2010. The annual maintenance package ensures that perpetual license holders receive a COMPLETE annual update with all the latest features.

## Achieving Data Harmony in the Cloud

Access Innovations, Inc. ([www.accessinc.com](http://www.accessinc.com)) announced it is making its Data Harmony suite of software products and services available to clients through software as a service (SaaS) and cloud technology.

Jay Ven Eman, CEO of Access, noted, "Cloud computing was very much a buzzword of 2009, but the trend is expected to expand widely this year as more companies seek to make data and applications available from anywhere instead of relying on desktops and network servers. Amazon, Google, and Microsoft are already offering or scheduled to begin offering cloud platforms this year; cloud computing is also being pushed by the U.S. government."

Ven Eman continued, "We're not doing this to be trendy. We believe that SaaS and cloud computing are reliable and ready for customers now. By making our software available over the internet either using a client or a browser, we are making it more convenient for our customers to use. They no longer need to purchase up front and then find a server, IT support, etc. They can begin using products such as Data Harmony and its suite of taxonomy management tools including Thesaurus Master, Migrate, and XIS immediately," he explained.

Ven Eman said SaaS and cloud can also potentially save clients money. "Infrastructure spending to support locally installed software can actually exceed the cost of the initial software purchase. IT support can also add to the burden. By using remotely hosted software solutions, users can transfer much of the heavy lifting and costs to the vendor. The initial cost of entry is significantly lower, opening up software opportunities to small and medium sized businesses that were previously unaffordable," he said.

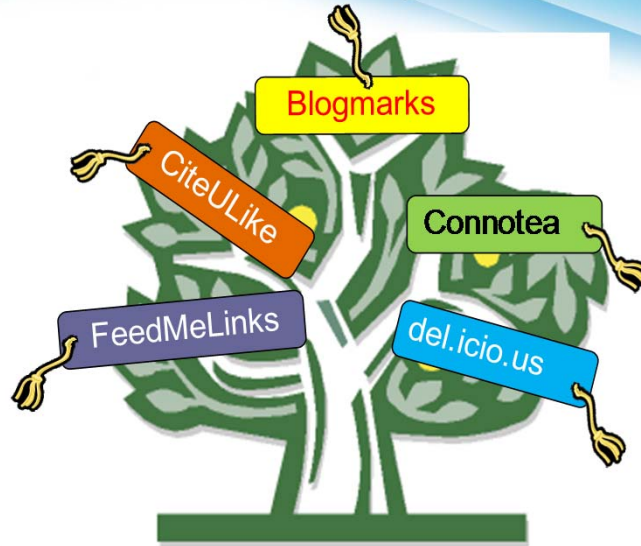
Ven Eman said Access hopes moving its products to a SaaS/cloud delivery model will open them up to a wider audience by providing the means to create smart content. For broader distribution through a web browser, clients can use the cloud computing model and encourage widespread use of the software and the data they add to the system.

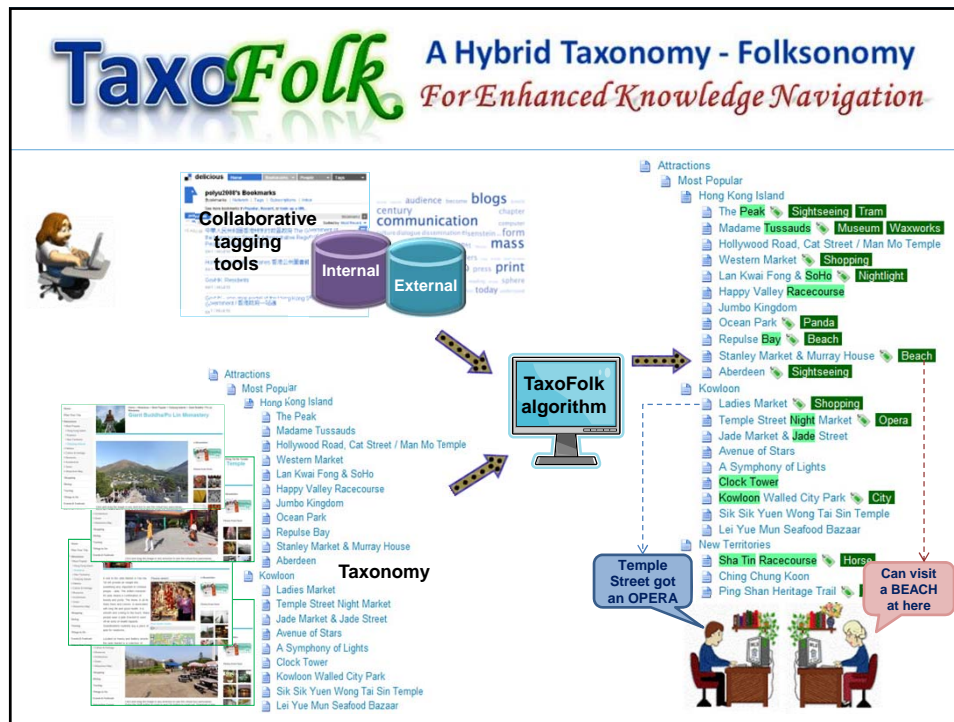
Access Innovations offers 90-day free trials of its Data Harmony software through remote access models, allowing qualified organizations and clients to try the software before deciding to purchase it.

Source: Access Innovations, Inc.



# Use of Social Bookmarking and Mashups to enhance knowledge navigation





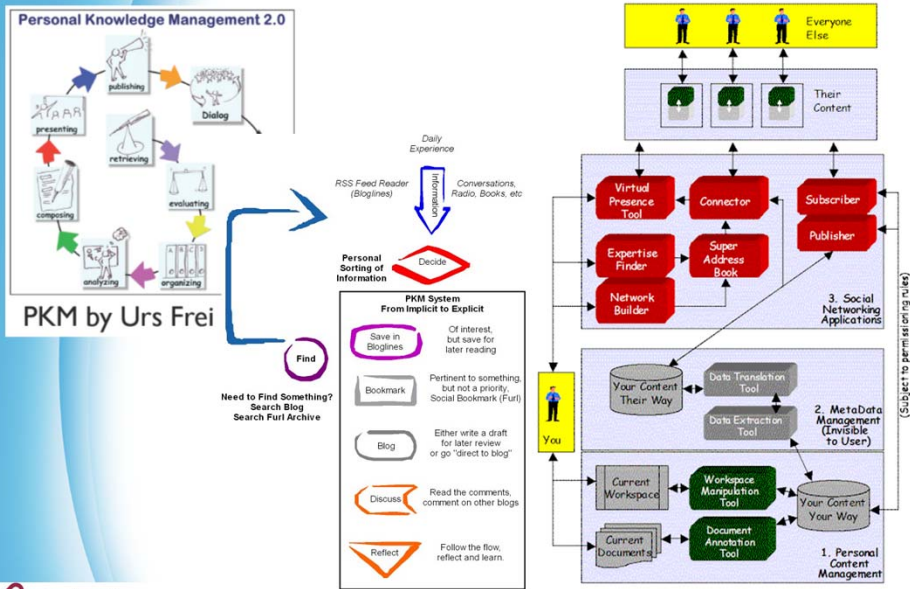
## Cloud-based Taxonomy tools enable

- A decentralised, bottom up approach to taxonomy development and maintenance
- A higher consensus among knowledge workers about the meaning and use of terms
- The co-existence of corporate, group and personal taxonomies with fast adaptations
- A holistic way to build and maintain all taxonomic components in an organisation
- Faster, ubiquitous and accurate access to knowledge assets

# Knowledge Management Vs Personal Knowledge Management

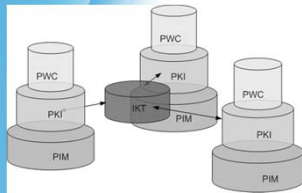
	Google Search "Knowledge Management"	Google Search on "Personal Knowledge Management"
2001	About 500,000	18
March 2010	About 8,400,000	About 39,400

## PKM and Web 2.0



## A PKM 2.0 model

(Source: R. Cheong and E. Tsui (2010); The roles and values of personal knowledge management: An exploratory study, VINE Journal of Information and Knowledge Management Systems.)



PKM 2.0 Components	Personal Information Management (PIM)	Personal Knowledge Internalization (PKI)	Personal Wisdom Creation (PWC)	Inter-Personal Knowledge Transferring (IKT)
Skill / Competence	Retrieving Evaluating Organising	Analysis Learning / Self-Development Reflection	Problem Solving Creativity Mental Agility	Securing Presenting & Communication Collaborating
DIKW Transformation Layer	Data ↔	Information ↔	Knowledge ↔	Information / Knowledge ↔ Information / Knowledge
Knowledge Conversation	Information ↔	Knowledge →	Wisdom ↔	Explicit / Tacit ↔
KM Process	Explicit Capture / Locate	Tacit Create	Tacit/Explicit Apply	Explicit / Tacit Transfer / Share

PKM 2.0 Conceptual Model

## Some challenges in a PLE/VLE

- Information Overload
- Sustainability & quality of contributions
- Knowledge Classification & Navigation
- Content authoring by the masses
- Development & tracking of personal competencies
- Lifelong learning



## Use of RSS feeds, tagging, Google Buzz to create a co-learning environment

- Selective RSS feeds, filters & aggregators to supplement static content
- Tagging & annotation of articles
- Sharing, searching & navigation of articles by tags
- Ongoing discussions in Google Buzz

The screenshot displays the Google Reader interface. The main content area shows a list of articles under the 'BPM' category. The left sidebar lists various subscriptions, including 'Business Process Man...', 'Alert cannot be found', 'BPM Focus', 'BPM Research', 'BPMS Watch', 'ebizQ - BPM in the Re...', 'Jim Sinur', 'News', 'Process for the Enter...', 'ProQuest: "business p...', 'Thoughts on Collabora...', 'BPM.com - the Resourc...', 'Business Process Mana...', 'Column 2', 'ProcessModeling.info', 'Anne Stuart's BPM in ...', 'BPM Blog | BPM.com', 'Clay Richardson's blog', 'Google Alerts - "busi...', and 'business process mana...'. The main article list includes titles such as 'Enterprise governance guide for CIOs and IT executives', 'Great Galway Goslings: Organizational Context of Managerial Accounting', 'Towards a formal definition of goal-oriented business process patterns', 'Empowering collaborative commerce with Web services enabled business process management systems', 'ONE STOP SERVICE: THE CASE OF SENAO INTERNATIONAL CO., LTD.', 'Business process modelling using diagrammatic and tabular techniques', 'WHY Risk Failures Occur and HOW TO Prevent Them', 'A knowledge centred framework for collaborative business process modelling', 'Business Process Semantics -- an Opportunity for Convergence', 'From business process management to business process ecosystem', 'Putting Process Into Play', 'Lean Six Sigma An intelligent Business Process Management asset', 'The Meaning(s) of Trust. A Content Analysis on the Diverse Conceptualizations of Trust in Scholarly', 'Jump and volatility risk premiums implied by VIX', 'Stock market bubble effects on mergers and acquisitions', 'Accenture plc. - Corporate Philanthropy Report', 'A burst of business continuity, disaster recovery planning', 'Profitshare and Marketshare', and 'AmersourceBergen Recognized for Business Process Management Initiatives Built on Metastorm BPM'. Each article entry includes a star icon, a source name, a brief description, and a timestamp.

## Ongoing discussions in Google Buzz

 [BPM ISE457](#) - [Google Reader](#) - [Private](#)  
ISE457  
True or not? What do you think? Eric.

[BPM Makes the Workplace More Stressful](#) - [On Collaborative Planning » BPM Makes the Workplace More Stressful](#)  
Admittedly, a controversial title, but st. being successful, and not any kind of  [Eric Tsui](#) - [Google Reader](#) - [Private](#)  
ISE457  
Emphasises social BPM is more important that the notation and languages for representing business processes. I agree with it. Eric.

[BPMN 2010 Keynote](#) - [On Collaborative Planning » BPMN 2010 Keynote](#)  
I just sat through the BPM 2010 keynote speech given by Phil Gilbert which I thought was worth a quick note here. He was asked to talk on the future of BPM, but clarified that he would really just...  
[Expand this post »](#) [Delete](#)

Johan Svård - It's an interesting text autonomous tasks, that earlier was simple but also unsatisfying. I little power to affect their work situat creates unhappy workers and hence  
Of course the pressure to be creativ to choose I would go for the knowler

 [Eric Tsui](#) - [Google Reader](#) - [Private](#)  
ISE457  
An example of Adidas' own framewor  
[Bridging Process Modeling and I](#)  
Tweet Eduardo Gonzalez of the adid organization, particularly the transiic  
[Expand this post »](#) [Delete](#)

Elliott Ng - At the end kswenson mentioned that "It is clear that empowering business users is key to a large increase support for business work."  
I believe this is what the goal of an agile organization, everyone/business users are able to adjust process for the benefit of the business. Sep 16 [Delete](#) [Report spam](#)

James Wong - ISE457  
For "It is clear that empowering business users is key to a large increase support for business work", I think the "business users" would need to involve business partners, suppliers, employees and customers. Empowering them to participate significantly in refining business processes of a company is important to embrace the trend of "collaborative marketing", i.e. co-creating value for services' processes through the collaboration of "business users". For example, in the new process design of a service designers may regard more for the ideas generated from customers' discussion through social BPM. I think it is necessary for a firm to keep up with the market trend by allowing different stakeholders to contribute significantly to the firm's business in order to pursue for "agility". Sep 16


Samuel Lai - I think BPM third wave with both top-down and bottom-up participation could facilitate the approach described above. The top management defines the high-level processes and requirements, which serve as the objectives for the operational teams to configure their respective executable processes. Obviously, the efficiency of changes in processes could be enhanced. Oct 1

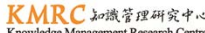
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## The Personal Learning Environment (PLE)

- Leverages on public domain tools to combat information overload, filter information and foster ongoing collaborations
- Takes minutes to set up and minimal maintenance activities
- Is highly personalised to suit the individual
- Harness the collective wisdom of all participants (novices, experts)
- Is ongoing and perpetual
- A core intellectual asset of the organisation

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## Challenges in delivering knowledge services in the cloud

- Security / Privacy
- Integration
- User customisation of vendor-specific tools and applications
- Portability of applications across clouds (especially PaaS and SaaS)
- Discovery, de-duplication and selection of services and data
- Advancements and adoption of Semantic Technologies and e-Discovery
- Paradigmatic change to work style and workplace

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- ...

# Delivering Knowledge Services on the Cloud

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