The Knowledge Facebook: Insourcing vs. Outsourcing

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Agenda

• Collaboration models for innovation
• Web 2.0 & Cloud Computing tools
• Techniques for generating the “Knowledge Facebook”
**Definition of Open Innovation**

Open innovation: “Open innovation is the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. [This paradigm] assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology.”

*Henry Chesbrough*

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**Elements of a collaborative architecture**

(Source: G.P. Pisano & R. Verganti, Which kind of collaboration is right for you?, HBR, Dec 2008.)

- Open Vs Closed
- Governance (Hierarchical Vs Flat)

which in turns depend on

1. How well the problem is known/defined?
2. Trivial or hard problem
3. Whether the problem can be decomposed?
4. Abundance of the expertise
5. A firm’s capabilities (breadth Vs depth), resources (to review, select, decide), and assets
6. Accessibility of the platform for collaboration
7. Whether the best solution is needed or an average solution is good enough?
The Four Modes of Collaboration
(Source: G.P. Pisano & R. Verganti, Which kind of collaboration is right for you?, HBR, Dec 2008.)

Innovation Mall
A place where a company can post a problem, anyone can propose solutions, and the company chooses the solutions it likes best.
Example: InnoCentive.com marketplace, where companies can post scientific problems

Innovation Community
A network where anybody can propose problems, offer solutions, and decide which solutions to use.
Example: Linux open-source software community

Elite Circle
A select group of participants chosen by a company that also defines the problem and picks the solutions.
Example: Alexa’s handpicked group of 200 plus design experts, who develop new concepts for home products

Consortium
A private group of participants that jointly select problems, decide how to conduct work, and choose solutions.
Example: IBM’s partnerships with select companies to jointly develop semiconductor technologies

GOVERNANCE
Hierarchical

Flat
Seven principles of Web 2.0

1. The Web as a Platform
2. Services beyond a single (type of) device
3. Lightweight product (development) & business models
4. Rich User Experiences
5. Harnessing Collective Intelligence
6. Data is the competitive advantage
7. Leveraging the Long Tail

(Source: “Web 2.0 University”)

Major applications of Web 2.0

Blogs
- Marketing, Product Development, Project communications, Corporate Communications, Entertainment (e.g. MS Xbox 360), E-Learning, professional services, E-Mail & DMS substitute

Podcasts
- E-Learning, Tourism, Media, Public Relations, Marketing

Wikis
- Sharing of practice tips, building knowledge bases, Collaborative Authoring, Expert Directory, Community spaces, Project Management, E-Mail substitute

Mashups
- Customer distributions, crime rates, housing demand
**Definition of Cloud Computing**

A widely adopted, formal definition comes from the National Institute of Standards and Technology:

“Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”
Opportunities brought about by the cloud

Aiming beyond the primary set of benefits?

Cloud characteristics: Ubiquity, Scalability, Connectivity across platforms, Perpetual storage, Accessible by/to the masses
Secondary benefits

- Software & Upgrade management
- Spams and virus threats
- Value-add functions offered by a S-a-a-S provider
- Integrated data management
- ...

Cloud Intelligence

(Sources: Nova Spivack, presenter at The Singularity Summit, 2010 & Tom Koulopoulos, author of Cloud eBook & presenter at ILA 2010)

1. Collective intelligence
   - Crowds -> Groups -> Meta-selves

2. Re-factoring
**Cloud Intelligence expanded**

- Mining for patterns and new knowledge embedded in very large structured and unstructured datasets
- Decompose a problem into smaller ones for parallel processing (aka Grid Computing)
- Allocate/Divert resources to meet a surge in demand
- (Re-)Prioritise tasks and resources for high gain areas/applications
- Elicit human input on a massive scale (aka Web 2.0+)

**Cloud Intelligence in action**
Singapore’s Smart Traffic Cloud
(Source: FutureGov, Dec 2010)

SMART TRAFFIC CLOUD ROAD TESTED
Singapore is trialing a traffic management system that could improve the monitoring of the citystate’s roads by using geolocation data captured from drivers’ smart phones.

GPS sensors in drivers’ smart phones can determine the location, direction of travel and speed of vehicles, and the data, captured in real-time, is hosted on a cloud platform that the Land Transport Authority can use to monitor – and predict – traffic conditions.

“It would be very costly to deploy sensors all over the city. We only have sensors on highways and major roads, so why not make use of GPS sensors in drivers’ mobile handsets?” said Dr Lim Hock Beng, Programme Director, Intelligent Systems Centre, Nanyang Technological University, who leads the research team behind the initiative.

The smart traffic cloud platform, a joint effort by LTA, NTU, the Infocomm Development Authority and SingTel, will be available for government and private sector service providers to use the data to develop location-based services.

Singapore has been working in collaboration with the University of Bentley, which is testing the same concept in the San Francisco Bay area.

Amazon Mechanical Turk
Human Intelligence Tasks

Make Money by working on HITS
HITS - Human Intelligence Tasks - are individual tasks that you work on, and get paid for.

As a Mechanical Turk Worker you:
• Can work more hours
• Can work from home
• Get paid for doing good work

Get Results from Mechanical Turk Workers
Ask workers to complete HITs - Human Intelligence Tasks - and get results using Mechanical Turk. Support Now

As a Mechanical Turk Requestor you:
• Have access to a global, on-demand, 24 x 7 workforce
• Pay only when you're satisfied with the results

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Task decomposition: Elance & Livework

Cloud Marketplace: SpotCloud
Talk by Professor Eric Tsui at HKSTP on 28th March 2011

MyLinkedIn Connections

Knowledge Facebook

Group Methods/Knowledge Sharing

- Action Review
- Appreciation Inquiry
- Learning Approaches
- Conferences Making Conference Valuable

Facilitate
- Online Facilitation
- Virtual Facilitation
- E-mail Interactions
- FAQs Worth to Hold a FAQ?
- Games
- Knowledge Sharing Games
- Knowledge Capture
- Knowledge Experiential
- Knowledge Fairs
- Knowledge Mapping

Knowledge sharing
- Cross-organizational knowledge sharing
- Developing ways for the use of knowledge sharing approaches and techniques
- Creating and culture
- What incentives can help attract sharing knowledge?
- Knowledge Sharing Tools - resources on other sides
- Internet and mobile platforms (technology roadmap?)
- Internet Initiatives
- Internet Resources Tools (pass the word with that)
- Internet Impact (monitoring and evaluation)
- Knowledge Trees
- Most Significant Changes
- Open Source Technologies
- Peer-Assisted
- Reflective Practices
- Resource Centers Selling up a Resource Centre
- Role of Life
- Storytelling
- Knowledge Storytelling

- Stories
- Creating Case Solution ahead to close doors and remove duplication between this and others
- Case Studies - some examples
- Critical incident Technique (CIT)

Knowledge Sharing Technologies

- Blogs
- Open Source Intranet Software Tools
- Podcasting in Development
- Tips for recording, editing and listening to podcasts
- PowerPoint - How and When to Use PowerPoint
- Spreadsheets Shared Web Based Spreadsheets
- Technology in Support of KM
- Visualization Technologies
- Web Based Survey Tools
- Intranets
- Internet Resources and Resources
- Intranet Software Tools
- SharePoint
- Intranet Impact
- Portals
- Content Management System CMS
- Collaborative workspaces
- Collaborative technologies
- Yellow Pages
- Expertise locator systems
- Tagging
- Web 2.0
- Widgets
- Video
- Topic maps and semantic networks
Relevant KM techniques to assess self-capabilities, knowledge flows & knowledge assets

- Social Network Analysis
- Knowledge Mapping
- Knowledge Audit
- Collaborative Culture Index (CCI)
- ...

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MyLinkedIn Connections analysed
Common projects at early stage of a 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
• EDMS, Search engine, portal deployment
• Taxonomy Creation and Maintenance

Knowledge Management developments in Hong Kong: Lessons learnt from over 100 projects

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

Replay seminar at
http://kmrc.ise.polyu.edu.hk/events_past.php
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