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T-86.5300 Information and Communication Technology Enabled Commerce (ICTEC)

Services and Service Innovation in Today's Business and Economy
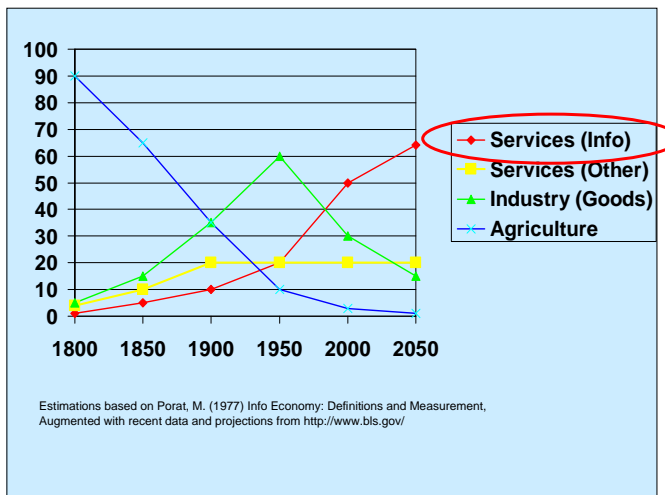
Matti Hämäläinen
Department of Computer Science and Engineering
Software Business and Engineering Institute (SoberIT)
Helsinki University of Technology

matti.hamalainen@soberit.hut.fi

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Transitions: Towards (Information) Services Economy

Estimations based on Porat, M. (1977) Info Economy: Definitions and Measurement,
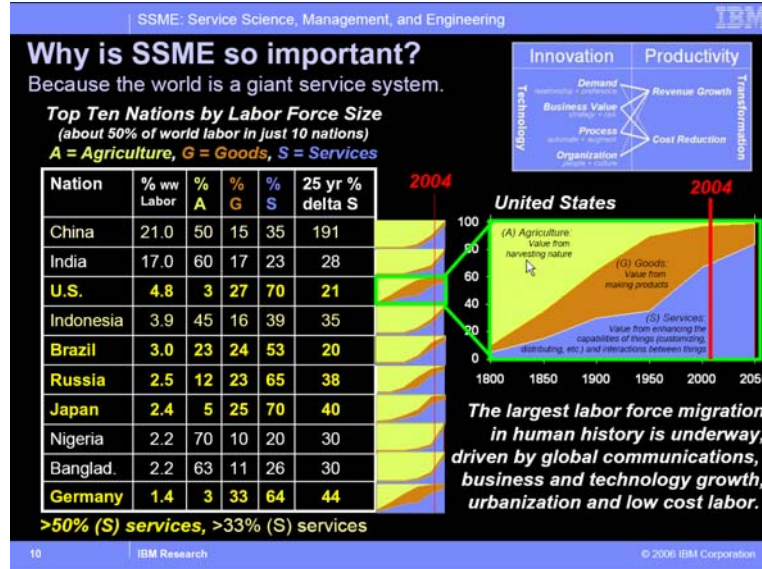Augmented with recent data and projections from http://www.bls.gov/

Source: Dr. Jim Spohrer, IBM Almaden Research Center
Service Science, Management, and Engineering (SSME):A Next Frontier in Education, Employment, Innovation, and Economic Growth
Lecture at ICTEC course, Helsinki University of Technology, April 2006

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A global trend – not only in advanced economies

Source: Service Science, Management, and Engineering (SSME):A Next Frontier in Education,
Employment, Innovation, and Economic Growth, Dr. Jim Spohrer, IBM Almaden Research Center   3/16/2008

From push to pull approaches &
from closed to open and user driven innovation

The traditional **manufacturing-centric "push model"** is based on anticipating demand and carefully planning the use of resources with tightly scripted specifications of activities.

In the **emerging** service economy we need **"pull approaches"** that are user driven, flexibly accommodate diverse providers and consumers of resources, are open-ended and evolve based on the learning and changing needs of the participants.

Challenge is to **complement** the **closed, rigid and centrally controlled approaches** by **open, flexible, networked and distributed models**!

Adapted from:John Hagel & John Seely Brown, "Push to Pull- Emerging Models for Mobilizing Resources", Working Paper, Oct 2005
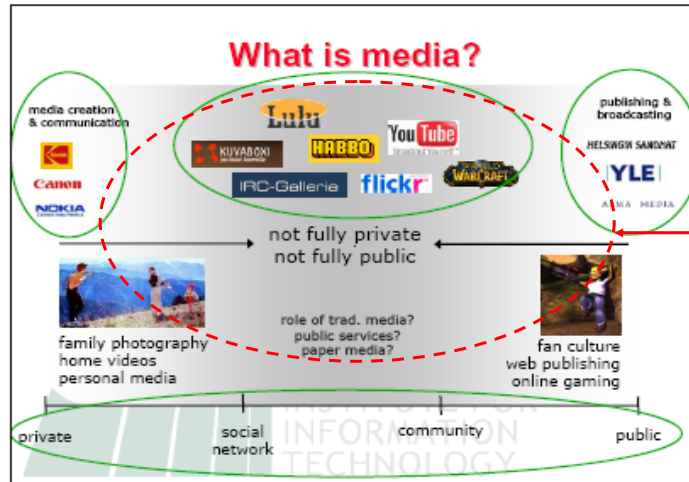

Open Source

Open Content

Open Standards

Open Access

Open Technologies

Open Services

-> Open Innovation

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Example: users as co-producers - people creating media

What is media?

media creation & communication

Kodak
Canon
NOKIA

Lulu
KUVABOXI
HABBO
You Tube
IRC-Galleria
flickr
WARCRAFT

publishing & broadcasting
HELSINGIN SANOMAT
YLE
ALMA MEDIA

not fully private
not fully public

family photography
home videos
personal media

role of trad. media?
public services?
paper media?

fan culture
web publishing
online gaming

private
social network
community
public

Source: Risto Sarvas, HIIT & TKK
Self-made Media: Regular people creating digital content
T-86.5300 ICTEC lecture, Helsinki University of Technology, spring 2007

Interesting area for new services business: combining individuals, communities and professionals as co-producers:

This approach may be generalized to services (beyond content) by/for people, public and companies – but there are challenges like, new licensing and biz models, quality, trust, etc

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Need to understand the transition ...

Programmable web eclipsed **static web** in 2006

→ **Flickr** beat Webshots
→ **Wikipedia** beat Britannica
→ **Blogger** beat CNN
→ **Epinions** beat Consumer-Reports
→ **Upcoming** beat Evite
→ **Google Maps** beat MapQuest
→ **MySpace** beat Friendster
→ **Craigslist** beat Monster

Why?
→ The losers launched Web sites
→ **The winners launched vibrant communities**
→ The losers built walled gardens
→ **The winners built public squares**
→ The losers innovated internally
→ **The winners innovated with their users**
→ The losers jealously guarded their data and software interfaces
→ **The winners shared them with everyone**

Business models and incentives:
People as active producers also – not just passive consumers.
What kind of business models (and licensing models) would emerge?
The role of incentives: financial rewards vs. emotional rewards.

Local Services
Google Ads
Google Maps
Car Rental
Travel Cheap
Amadeus
Airline #1
Hotel #1
Local News
Weather Service
Credit Card
Book Store
Local Tours
Ticket Office

"On the Internet, nobody knows you're a dog."

Service architecture and designs to:
• **find, connect, agree, use, & compensate** for services/elements
• **customize** and adapt existing service instance for novel uses
• **compose** own services from pre-defined service elements
• easily **establish** new "lightweight" **contracts** & **business models**

Trust and quality:
How to develop trust?
How to propagate trust among partners?

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Linking education and research to study these challenges

Case:

**OtaSizzle Project -
Ubiquitous Social Media for Urban Communities**

**SizzleLab -
the LivingLabs environment for experimentation and research in
user driven innovation of mobile and ubiquitous services**

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Case OtaSizzle & SizzleLab

- A long term project of TKK to provide experimental facilities for developing and studying innovative (social media) services and in mobile and ubiquitous environment.

- Develops **a Living Lab** environment that provides an **open co-creation environment** for **services research** and **innovation** in **real-life settings**.

- Properly **instrumented** for **collecting experimental data** for multidisciplinary research in mobile service innovations.

- **Open** for collaboration with research institutes, public actors, industry and individuals to enable experimentation both locally - and also at a global scale

- Further **co-developed with international partners** in Europe, US and China … to be **provided** to **regional, national and international partners** as well as to global **companies** (e.g. Nokia, IBM) and **SMEs.**

- An environment for **services design and engineering education** and research (e.g. for the new MSc program and PhD programs).

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OtaSizzle Research themes – to be supported by SizzleLab

- With **quantitative measurements** and **qualitative analysis** of **actual service use**, we aim at studying key service features contributing to the service innovation, adoption, diffusion and use:

  - The impact of **social networks** on service diffusion, use and on user experience - and social impact of services in general

  - The role of **user innovations** and **emergent everyday practices** in adapting services for novel/unforeseen uses

  - **Incentives** of various stakeholders in service provision, and in general the digital service economy and **local service ecosystems**

  - **Privacy** and **trust** of mobile social media services, and **security** issues in general

  - **Scalability** issues of the technical service platform, especially emergent bottlenecks

  - **Service creation, adaptation** and **configuration models and tools**..

- One of the scientific challenges is to clarify the **concept of Living Labs** and provide an implementation of it that is adaptable to other environments. 3/16/2008

Thank You!

For more information, please contact:

Prof. Matti Hämäläinen
Helsinki University of Technology (TKK)
Department of Computer Science and Engineering
Laboratory of Software Business and Engineering (SoberIT)
matti.hamalainen@soberit.hut.fi

3/16/2008