



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

Trends in Services Innovation with Focus on Internet and Mobile Services

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Outline

- **From Push to Pull** in service creation and delivery – “old” telco & broadcasting mindset vs. “new” Internet/Web 2.0 mindset
- Towards **user driven service innovation**: consumers/citizens are becoming active co-producers of services
 - Media segment is already user driven
- **Innovation in business models** – agile & on-demand solutions
- The focus of innovation ... is **moving (back) to Asia**
- **Possible roles of users** in the innovation process
- Examples:
 - **Users as co-producers** - people creating media
 - Users creating services for **emergent needs**
- Some of the **elements enabling the transition**
- **Open Source approach** as an enabler for service innovation
- Moving **beyond operator centric model** in service creation - from Push to Pull revisited



From Push to Pull in service creation and delivery – “old” telco & broadcasting mindset vs. “new” Internet/Web 2.0 mindset

Push Programs	Pull Platforms
Demand can be anticipated	Demand is highly uncertain
Top down design	Emergent design
Centralized control	Decentralized initiative
Procedural	Modular
Tightly coupled	Loosely coupled
Resource centric	People centric
Participation restricted	Participation open
Few participants	Many diverse participants
Efficiency focus	Innovation focus
Limited number of major re-engineering efforts	Rapid incremental innovation
Zero sum rewards	Positive sum rewards
Extrinsic rewards dominate	Intrinsic rewards dominate

Source: John Hagel III & John Seely Brown, “Push to Pull- Emerging Models for Mobilizing Resources”, Working Paper, October 2005

In the pull model “everybody” can become a content provider, a service provider – even an operator ...

This could enable dramatic scalability in creation of useful and relevant services based on everyday and situational needs.

- In the **emerging** open and user driven 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 the changing needs of the participants.
- These “pull approaches” may also **complement**– not only replace - the **closed, rigid and centrally controlled approaches** by **open, flexible, networked and distributed models!**



Towards user driven service innovation: consumers/citizens are becoming active co-producers of services

- The idea of involving users in services co-creation has been proven on the Web
 - Social computing, communities, Web 2.0
 - Initially based on content publishing & sharing - services creation also coming
 - Implies changes to mass user behavior that can challenge traditional business models “controlled” by established industry players (eg. VoIP, P2P downloads, Social networking).

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?

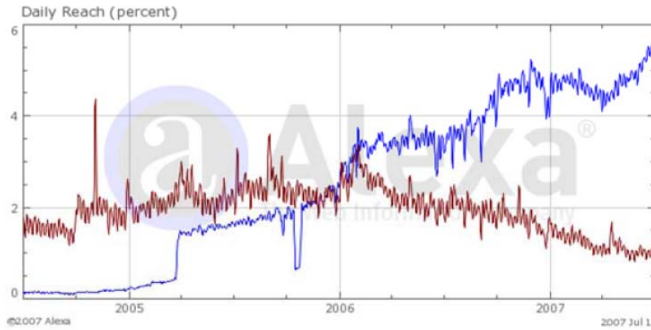
- The losers launched Web sites
- The winners launched vibrant communities
- The losers built walled gardens
- The winners built public squares
- The losers innovated internally
- The winners innovated with their users
- The losers jealously guarded their data and software interfaces
- The winners shared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

The ability for users to be involved in creating useful services to their specific local needs – at a very low cost – is crucial for developing scalable solutions for the emerging markets and for enabling new businesses to emerge.



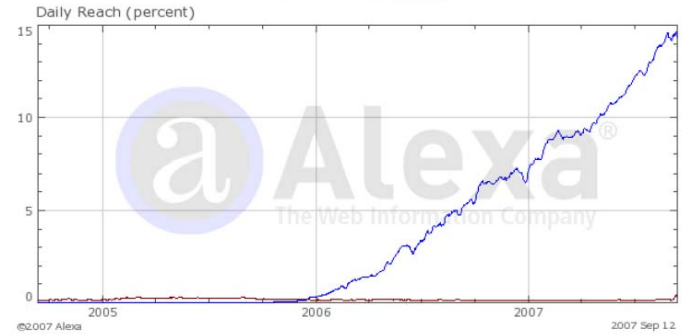
Media segment is already user driven

Blogger.com beats CNN.com



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YouTube beats MTV

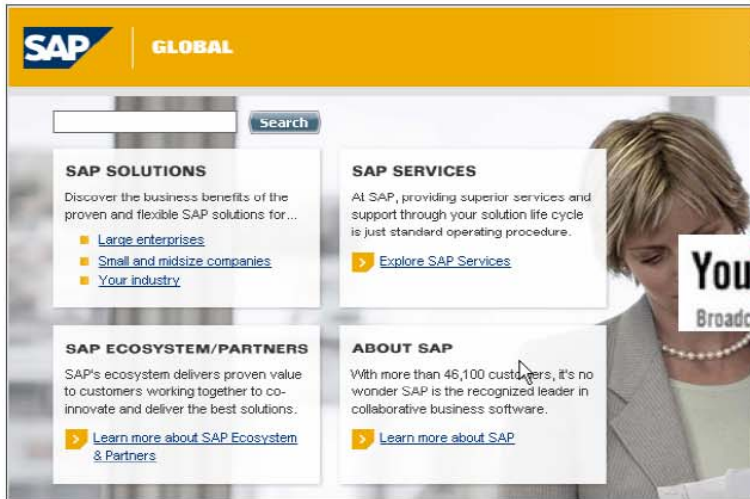


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Source: Wikinomics, The User Revolution – Setting the Stage
Don Tapscott, FASTforward 08, February 18, 2008

Innovation in business models – agile & on-demand solutions

Web Based Agility Enables new Winning Business Models



- Proprietary ERP software platform with traditional licensing and consulting services model
 - Quarterly revenue growth n/a (low one digit)

- On-Demand platform environment for fast deployment without upfront investments
 - Quarterly revenue growth 50% (YoY)

The focus of innovation ... is moving (back) to Asia

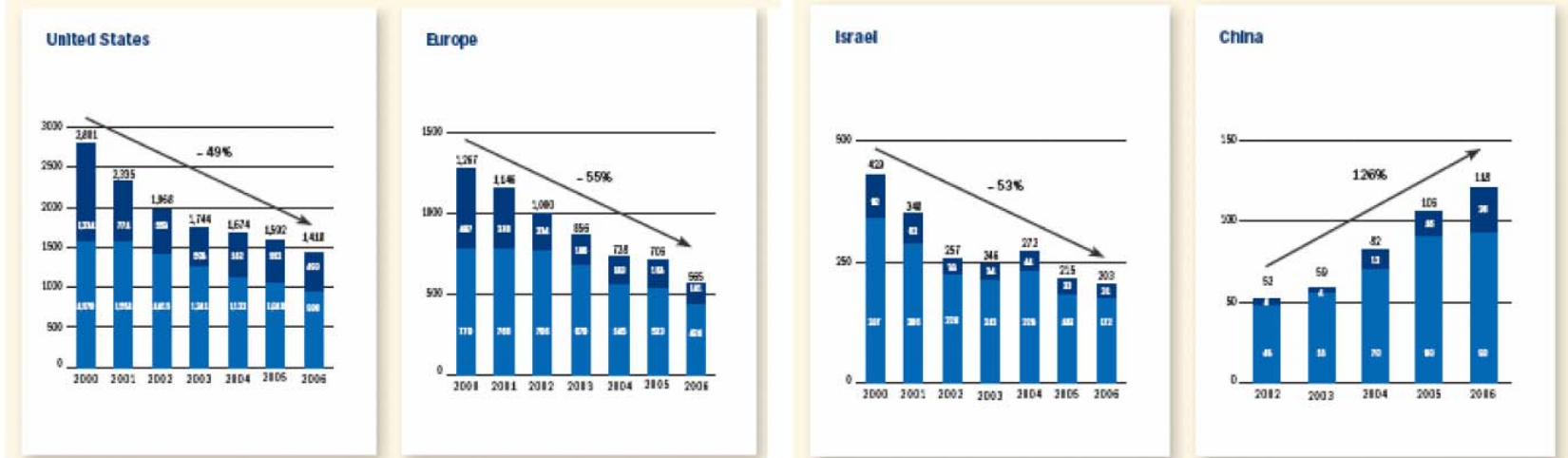
Venture Capital Money is Focusing on Growth and Talent Markets

- Leading investment geographies are China, India and South America with exceptional portion of OSS companies

Figure 1: Number of Active Firms

■ Number Firms: Four or more deals in a year
 ■ Number Firms: Less than four deals in a year

Inclusion in Investor Pool: Made at least one round of equity financing in a VC-backed company in the given year.
 Source: Dow Jones VentureOne



* Ernst & Young: Global Venture Capital Insight Report 2007



Possible roles of users in the innovation process

The “1 – 9 – 90 Rule”:

Social Media Value Creation Pyramid

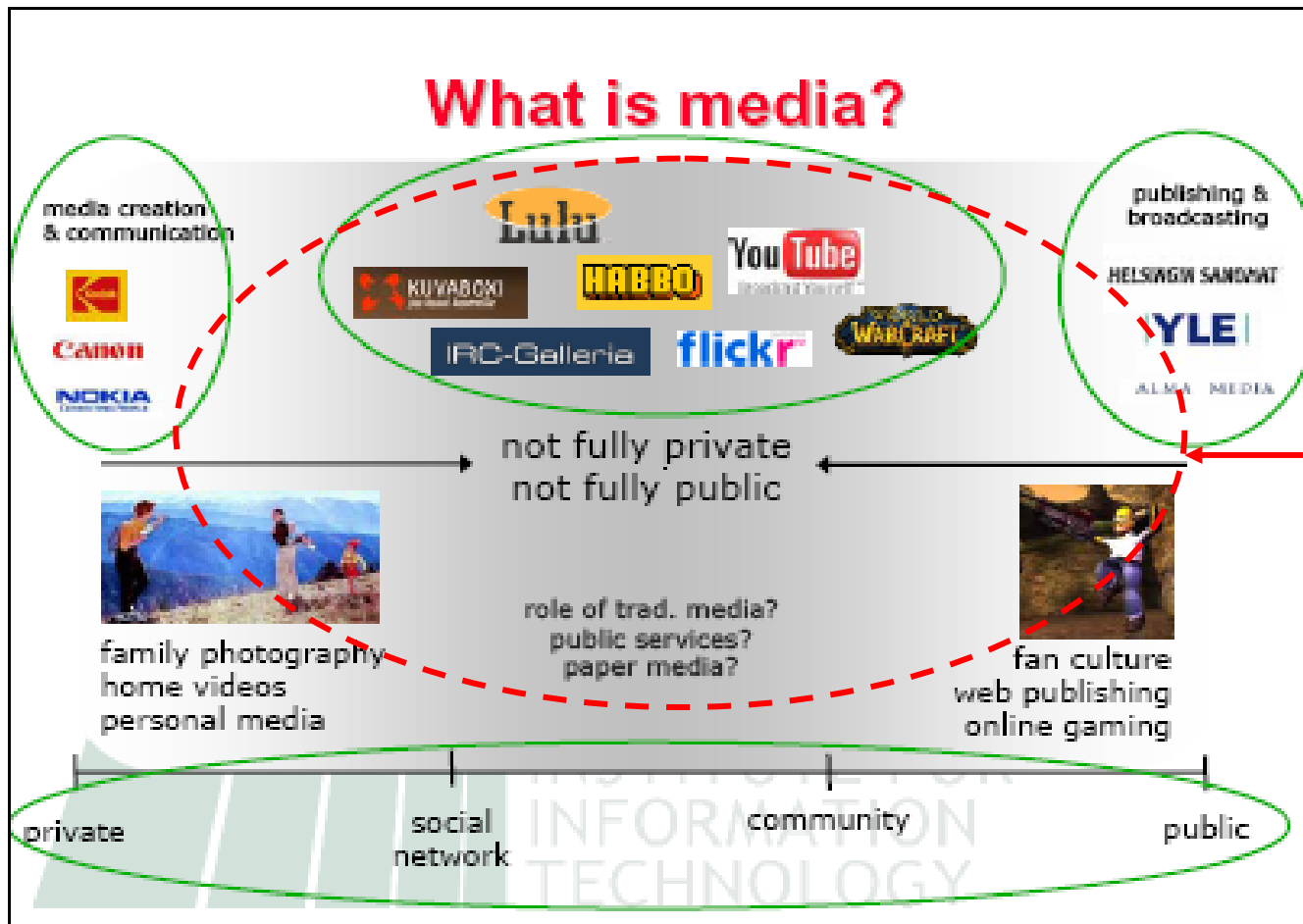


- **Wikipedia**
 - 0,5% starts a new entry ('stub')
 - 2,5% edits entries ('editors')
- **Open Source**
 - 0,5% starts a new project ('charismatic leader')
 - 5% edits source code ('contributors')

- **Type 1 Users - USING PRODUCERS = 1%**
 - Strategic role
 - Framework and core content
 - New areas for active innovation: Co-design
- **Type 2 users - PRODUCING USERS = 9%**
 - Tactic role
 - People actively participating by authoring and share content
 - New areas for active innovation: Web 2.0 applications
- **Type 3 users - EVERYDAY USERS = 90%**
 - Managing technologies & objects in daily relationships with others = *Everyday life innovations*
 - Users not passive recipients of predefined technologies, but actors who collectively create the circumstances, contexts and consequences of technology use (Dourish, 2006)
 - Domestication perspective = Innovation reveals itself in *new social practices*
 - **Examples: use of SMS, MP3, etc**
 - Creativity through daily acts of 'innovativeness': no 'end' use

By empowering and supporting the groups of “everyday innovators”, new social practices, and new business models, we may see new successful services emerging.

Example: users as co-producers - people creating media



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

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

Example:

Users creating services for emergent needs

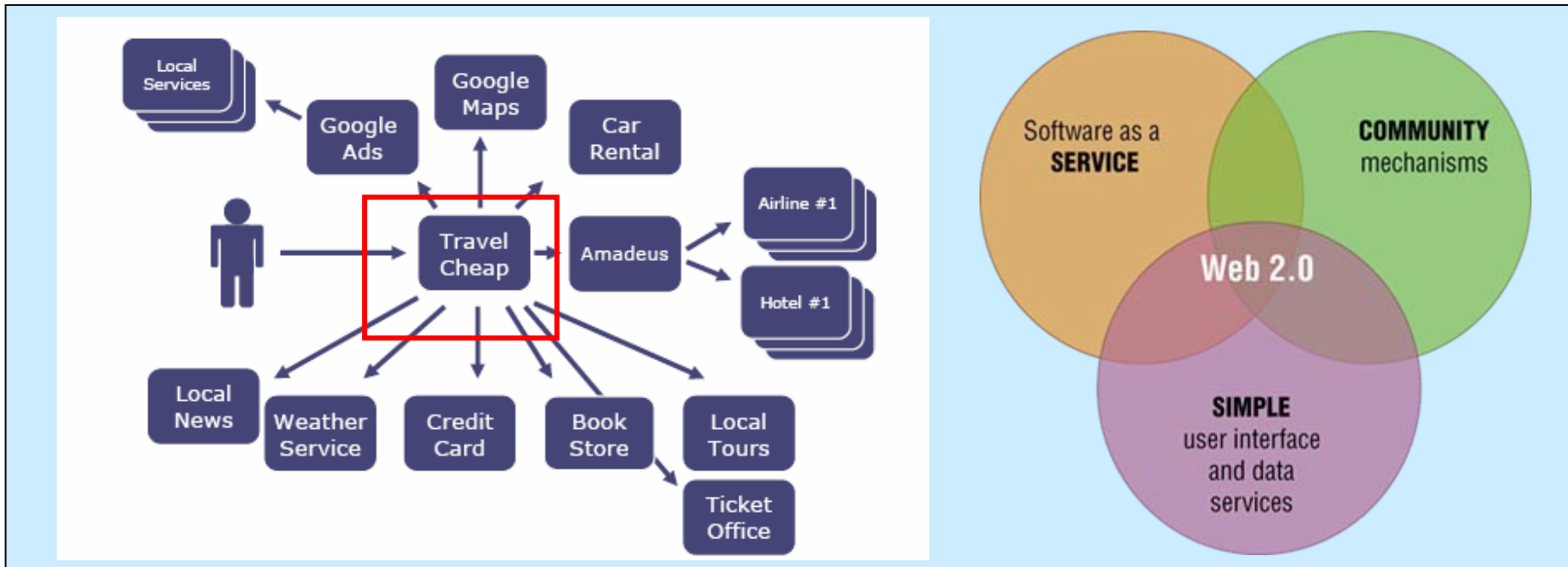
- Habbo Hotel (by Sulake), is an **online game environment** and a of **global teen brand** built upon an online community.
- Business model based on selling virtual items (virtual furniture, game enhancements, tickets, features etc) and on advertising (in-game & banners)



- Intentionally "plain" environment provides basis for users to interact and create. Lacks high end graphics but allows/calls for stimulating interaction.
- Much content and **many "service concepts"** are created by the users.
- Many of these represent **completely unanticipated solutions that could not have been envisioned by the service provider** (Ugliest Habbo contest, horse race, ...)

-> Implement this approach also in needs based situational services (e.g. health, small business, ...)

Some of the elements enabling the transition



Service architectures and tools to help to:

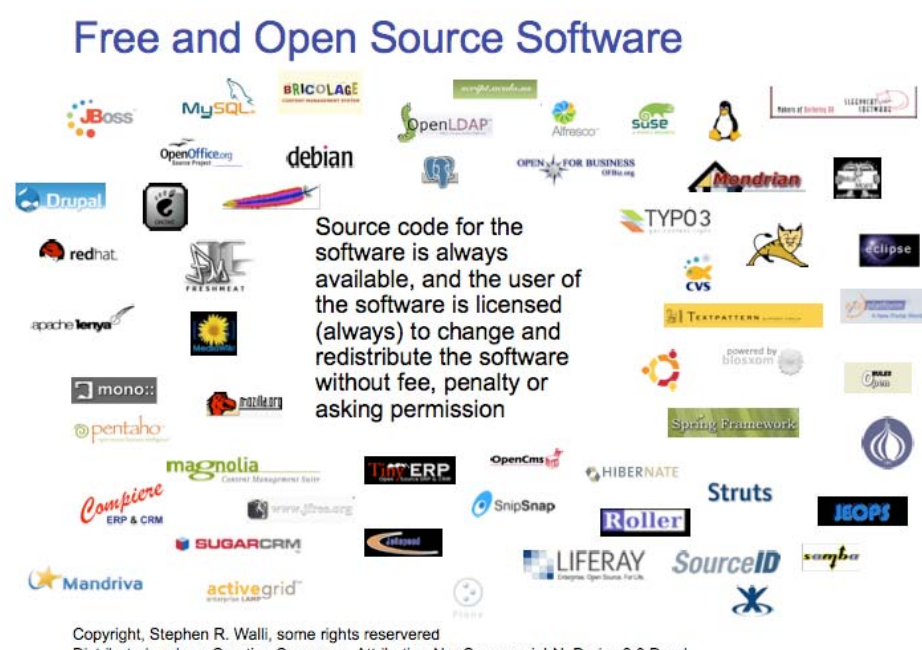
- **find, connect, agree, use, & compensate** for services/elements
- **customize** and adapt existing service instance for novel uses
- **compose** own services from pre-defined service elements and
- **"mis-use"** and **adapt** existing services for new needs

Contracting, trust and business models:

- Make it possible to easily **establish** very "lightweight" **contracts & business models** among various parties
- Develop **mechanism** for **trust** and enable propagation of trust among network of partners
- Develop **payment solutions**

Open Source approach as an enabler for service innovation

Free and Open Source Software



Source code for the software is always available, and the user of the software is licensed (always) to change and redistribute the software without fee, penalty or asking permission

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1. Open Source
2. Open Content
3. Open Standards
4. Open Innovation
5. Open Access
6. Open Collaboration
7. Open Technologies
8. Open Hardware
9. Open Services
10. Open XYZ

- **Open Source Software (OSS)** will be one of the main “game-changers” in software driven industries and related innovations.
- Incidentally, Europe - **Finland** in particular - has cultural heritage and track record in developing open source platforms (**Linux, mySQL**). Interesting opportunities may emerge when linked with countries like **China** that has probably the greatest interest and potential in open source software, (one of) the largest talent communities - universities, science institutes and growing number of companies - to provide together foundation for OSS based service innovation.



Moving beyond operator centric model in service creation - from Push to Pull revisited

	Today – Operator Centric Model	Future – Ecosystem for User Driven Creation
Service Production	<i>“Rigid, expensive arrangements”</i>	<i>“Everybody can become a service-content producer by using service-components produced by others”</i>
Service Delivery	<i>“Controlled by mobile operators</i>	<i>“Everybody can become a mobile service provider”</i>
Service Consumption	<i>“Use what you get”</i>	<i>“Customize or compose your own services”</i>
Business Models	<i>“Controlled by dominating partners”</i>	<i>“Markets for services. Competition establishes fair prices”</i>
Enabling Software	<i>“Every service provider does everything from scratch”</i>	<i>“Free access to core tools and components which can be used to implement mobile services”</i>

This model is based on "vision" of an environment that would enable the creation of new types of services and applications for the mobile user in a simple and inexpensive manner – developed by Shosta Sulonen, Matti Hämäläinen, Juha Laine and their colleagues at Helsinki University of Technology/SoberIT and Christer Carlsson & colleagues at Åbo Akademi/IAMSR in 2004



Thank You!

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