## Social Forces and the Broadcasting Revolution

Ilkka Tuomi

### Introduction

- "I'm going to tell a story about a revolution. As you know, a revolution is a social phenomenon, where the underlying structures of the society change. It is not just a coup, where everything stays the same, expect that where yesterday the prime minister was a business man today the prime minister is a retired general.
- Revolutions are social transformations, where social institutions, production processes and our everyday life change.
- According to this demanding definition, we are now in the middle of such a revolution.
- This revolution is deeply connected with technical developments, and a rather unique historical trend, where digital technologies have for half a century advanced at a pace never seen in any technology before.
- Technologies enable new social orders and structures, but they do not cause them.
   Technology is about engineering things that someone wants.
- The real revolution occurs in human interactions and communication media.
- I will tell a story about a revolution that is still going on. The story still has open endings, and the history is still being written, as we sit here.
- I may need to ask your help to fill in the blanks.
- You are in the center of this revolution. You will have the opportunity to shape this revolution."

## **Modernity According to Durkheim Norms and Networks**



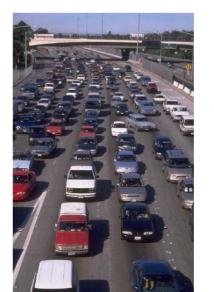
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# **Door-to-Door** Somerstown, London 19<sup>th</sup> century © I. Tuomi 4 Oct. 2006 page: 4

### "And the world became modern,...







...with bridges, flows, and networks"

### **Place-to-Place Communities**



- Place-to-place connectivity became possible when transportation and communication technologies became widely available
- Place-to-place communities were traditionally based on households
- Relatives and "family friends" were important sources of knowledge and support; instead of connecting with neighbors, people started to connect with remote nodes

 In the industrial era, there existed strong positive feedbacks between globalization (expansion of capitalism through networks), development of transport and communication technologies, and the emergence of remote social interactions



### "Door-to-Door"?

 Something strange happened to doors as industrialization proceeded

> Nakagin Capsule Mansion Ginza

### Role-to-Role

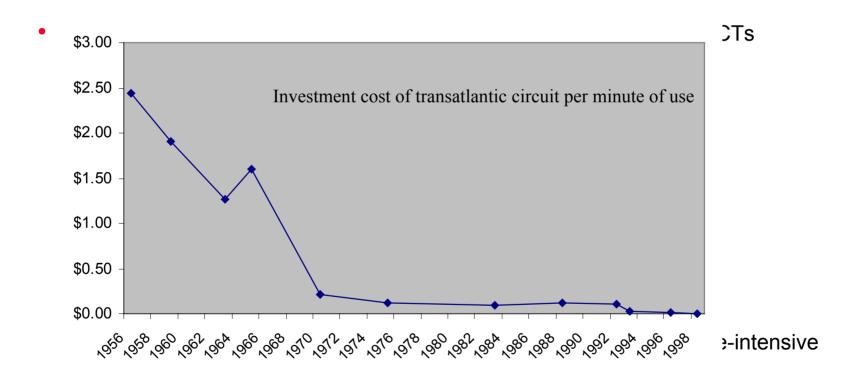


- In the intersection of networks of production and personal connectivity, a new role-based connectivity is emerging
- People are accessed as individuals, but they function as specialists with given roles
- A single individual may have many roles and several specialties
- Role-to-role connectivity has interesting characteristics:
  - It makes high demands on individual cognitive skills
  - It generates a need to actively manage social networks
  - It requires active management of identity information (representations of "who I am")
  - It is psychologically demanding, as the individual may have problems in constructing a coherent identity

## Communication media made this possible

... and the story does not end here ...

### The Third Globalization



### The Third Globalization

De-location, fragmentation and recombination of value chains using ICTs

- Second phase 1992-02
   8-bit email, intra-firm collaboration, Internet, ERP
- Third phase 2003 real-time fragmentation (call centres, eCommerce), knowledge-intensive collaboration & co-production



## The Dynamics of Innovation: Schumpeter I-II

- 1. Scientists and innovators create technological opportunities
- 2. Entrepreneurs see the profit potential of technological opportunities and grab them
- 3. Followers swarm in and erode profits
- In the process, investments are made in the emerging technologies, and industry and market structure change

(Theory of Economic Development, 1912)

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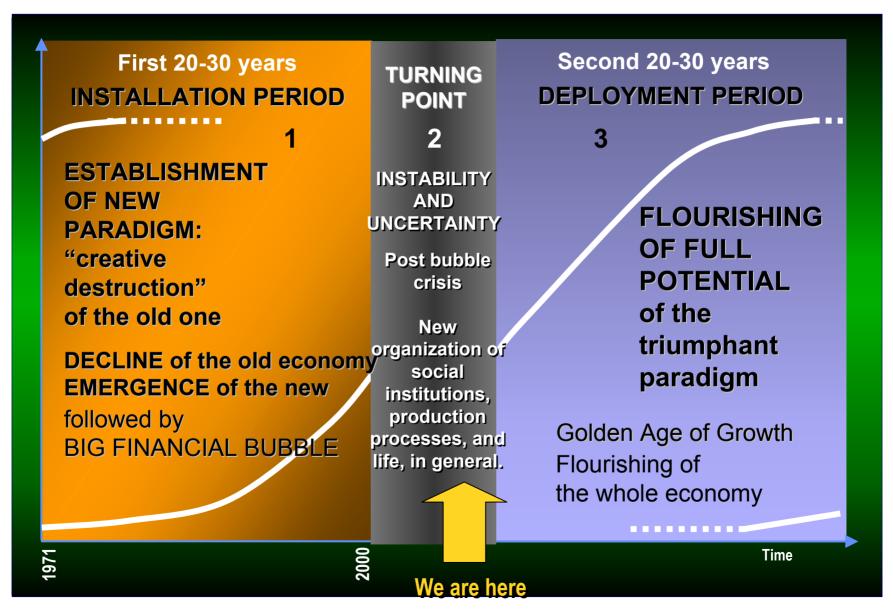
- Big corporations become main investors in technology creation
- Innovation becomes mechanized and routinized in corporate R&D laboratories

(Capitalism, Socialism and Democracy, 1943)

### The World Wide Network, 1935

- From afar anyone would be able to read any passage, expanded or limited to the desired subject, that would be projected onto his individual screen. Thus in his armchair, anyone would be able to contemplate the whole of creation or particular parts of it.
  - Paul Otlet (1935). *Monde: Essai d'Universalisme*.
- ...From his armchair, everyone will hear, see, participate, will even be able to applaud, give ovations, sing in the chorus, add his cries of participation to those of all the others.
  - Paul Otlet (1934), Traité de Documentation. Le Livre sur le Livre: Théorie et Pratique.

### The rise of the knowledge society



### "Schumpeter" III-IV

### Ш

- A global sphere of financing emerges, loosely coupled to technology creation
- Venture capitalist become an important engine of re-engineering
- Investments "swarm" to fastest growing industries
- Equity-based incentives (=options) are invented
- Big corporations try to renew by acquisitions, internal venturing, and new innovation management models

### IV (circa 2000)

- Internet changes the balance between labor and capital
- Mature industries live in Schumpeter II (+III)
- New businesses emerge in Schumpeter III
- Social institutions are adapted to Schumpeter II, except in Silicon Valley
- Important new technologies are created in Schumpeter V

### "Schumpeter" V

- Collective production of technology and experience
  - open source software, blogs, social software with images, music, games...
- Loosely coupled to economic investments and interests
- Requires broadband networks
- New rules for competition
- "Symbiotic economy"
- New "medieval villages" of the Internet

### **Towards the New Economy of Meaning**

- The social and cultural infrastructure is becoming increasingly important
- Diversified communities interact across global networks
- Value is created by communications that produce meaningful social interactions
- The traditional information processing paradigm will be replaced by a new paradigm
  - It will be based on theories of social construction, hermeneutic phenomenology, linguistic genres, communities of practice, situated & distributed cognition, socio-cultural activity theory...
- The design of future information and communication architectures and applications will require new types of knowledge and new types of collaboration across scientific disciplines

### But the meaning of things depend...



### **Genesis**

- 1:24 And God said, Let the earth bring forth the living creature after his kind, cattle, and creeping thing, and beast of the earth after his kind: and it was so.
- 1:25 And God made the beast of the earth after his kind, and cattle after their kind, and every thing that creepeth upon the earth after his kind: and God saw that it was good.

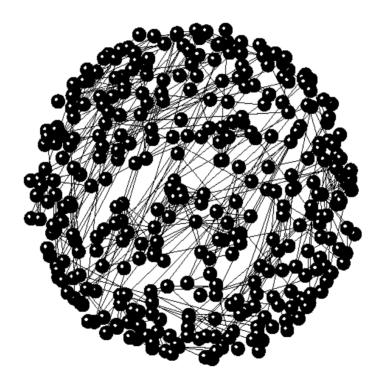
## The social foundation of knowing and innovation

### Knowledge is practice-related and activity-oriented

- •articulated in a social process,
- •learned through socialization,
- •reflected in the conceptual systems that are used in interpreting the world,
- •partially embedded in material and technical artifacts, and physical spaces
- •and often not explicitly articulated

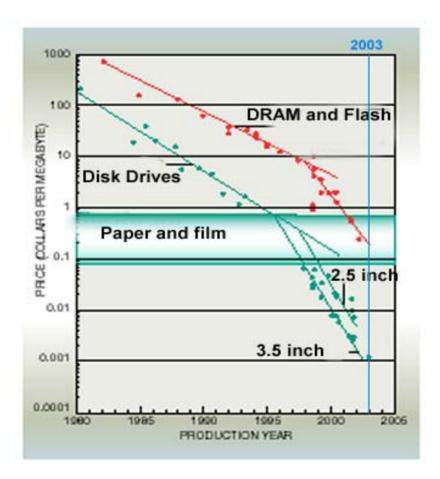
- M. Bakhtin (1930's): linguistic "genres" and "chronotype"
- L. Fleck (1935): "thought communities"
- D. Schön (1983): "communities of reflective practitioners"
- E. Constant (1980, 1984, 1987): "communities of practice"
- Y. Engeström (1987): "activity systems"
- Lave & Wenger (1991): "communities of practice"
- Brown & Duguid (1991, 2000): "communities of practice," "networks of practice"

## The founders of Silicon Valley semiconductor firms



Castilla, E.J., Hwang, H., Granovetter, E., & Granovetter, M. (2000). Social networks in Silicon Valley. In C.-M. Lee, W.F. Miller, M.G. Hancock, & H.S. Rowen (Eds.), *The Silicon Valley Edge* (pp. 218-247).

### Price per Megabyte



Source: Grochowski & Halem (2003) Technological impact of magnetic hard disk drives on storage systems. IBM Systems Journal 42(2).



"I have a long commute each day and listening to audiobooks helps the drive-time fly by."

— Bruce P.

### **Assumptions of the Old Media**

- producer and consumer are separate
- only the end product is visible
- production is an industry
- content reflects reality

### ...and blogs

- user is the producer
- backstage is the frontstage
- production is expression
- content reflects interpretation
- implicit narrative



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- 2. comedy (1270) 3. podcast (1122)
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- 5. radio (893)
- 6. rock (875)
- 7. technology (754)
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#### **TUNING IN**

To fully enjoy what podcasting is all about, you will need to download special software to "tune in" to these podcasts. Links to software for various operating systems can be found below. After installation, come back here to Podcast net for links to add shows to customize the reception of your personalized podcast station.

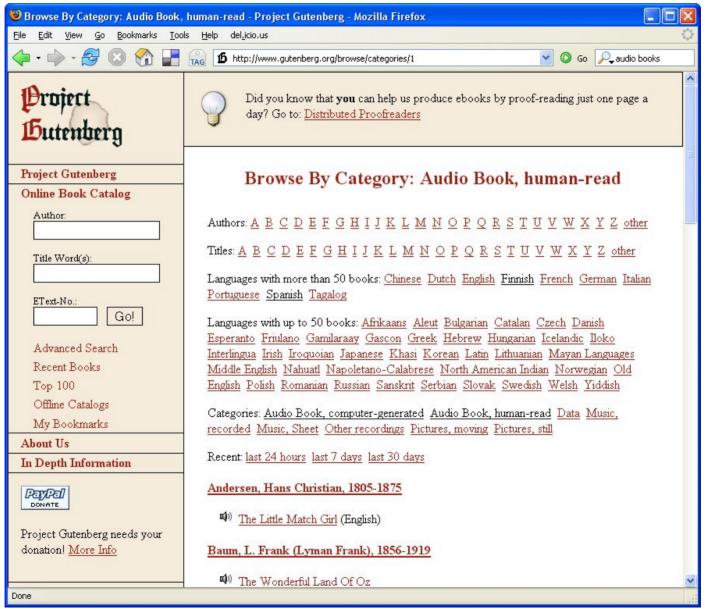
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### "Linguaphone strikes back"



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"If you were to list all the adjectives available in all the languages on earth, it will still not explain completely the user's feelings after viewing this Web site... Hats off to each and everyone involved in this novel project!" - Sathappan Ramaswamy, self-learner from India Read more World Reaction...

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### The changing business model

Posted on Mon, Sep. 18, 2006

YouTube signs deal with Warner
WILL DISTRIBUTE MUSIC VIDEOS
By Ryan Blitstein
Mercury News

YouTube's deal to distribute the Warner Music Group's library of music videos represents a milestone in the video-sharing site's progress toward a business model and the music industry's shift toward the Internet.

Under the revenue-sharing agreement announced Monday, New York-based Warner Music became the first major label to license its songs to the millions of ordinary people who upload their homemade videos to the San Mateo-based YouTube.

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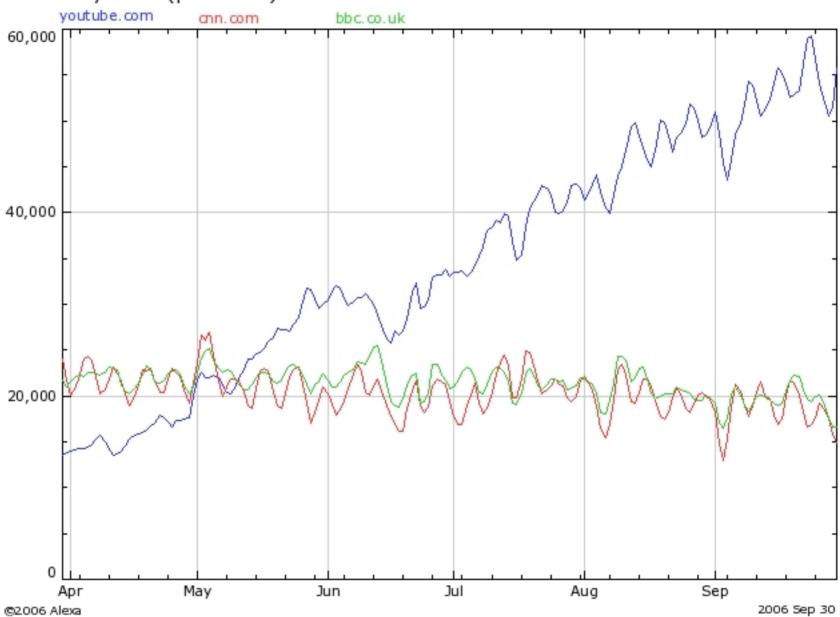
The Associated Press reported late Monday that both Universal Music Group and Sony BMG Music Entertainment are in negotiations for distribution deals with the company.

"Partnering with Warner Music Group is one of the most significant milestones for our company and our community, and shifts the paradigm in this new media movement," said Chad Hurley, chief executive and co-founder of YouTube said in a statement.

Privately-held YouTube is hoping the Warner Music deal will serve as a springboard for similar alliances with other long-established music labels and film and television studios looking to connect with the Web site's audience, which watches more than 100 million videos per day.

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### "Pensioner becomes latest YouTube star"

Will Head, vnunet.com 15 Aug 2006

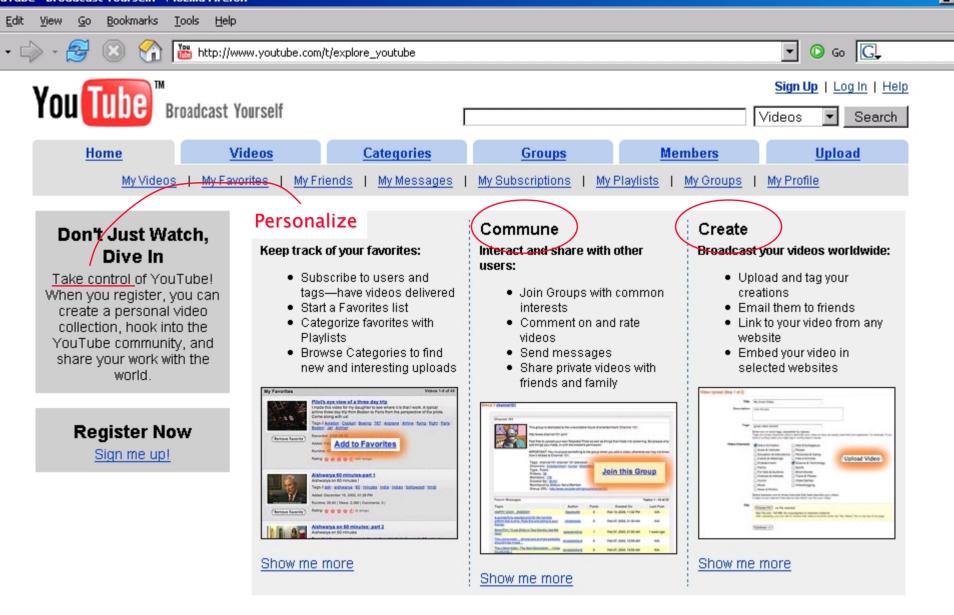
An old age pensioner has become the latest star of teen-oriented video sharing site <u>YouTube</u>.

'Peter', who goes by the username <u>Geriatric1927</u>, is a 78 year-old widower from England who promises "geriatric gripes and grumbles".

His <u>first video</u> has been viewed over 850,000 times since it was uploaded on 5 August.

"I got addicted to YouTube. It's a fascinating place to go to see all the wonderful videos young people have produced. So I thought I'd have a go at doing one myself," Peter said in his first video.

Over 14,000 people have subscribed to Peter's video feed and he is ranked among the top users currently on the site. His video feed is the third most subscribed to in the history of YouTube.



### Long tail or global megabrands?

- The long tail facts:
  - Over half of the books sold through Amazon.com are books that Barnes & Noble does not have in its 130,000 book catalogue.
  - Over half of the songs downloaded from Rhapsody.com are not in its top-10,000 list.
- Small micromarkets are now possible. You can set up a fan-club with all the 10 persons on earth who love the same band or the same brand.
- The future of the long tail can lead to "democracy of consumers," where everyone is a producer.
- Or it will lead to Hollywood economy, where, because everyone can be a producer, only superstars will be visible.
- Or it may lead to an endgame where content aggregators are the only ones making money.
- But, for sure, it will lead to completely new advertisement models.

### Searching for a new google

New York Times, September 13, 2006

"Hoping to profit from the fragmented market for video on the Internet, NBC Universal has created a new company that will distribute video programming to various Internet sites."

"The new venture, called the National Broadband Company, or NBBC, will have content from NBC's networks and local stations as well as from other companies. That programming will appear on NBC's own Web sites as well as other sites.

Commercials will be inserted before each video segment, with the revenue split among the program's creator, the Web site owner and NBBC."

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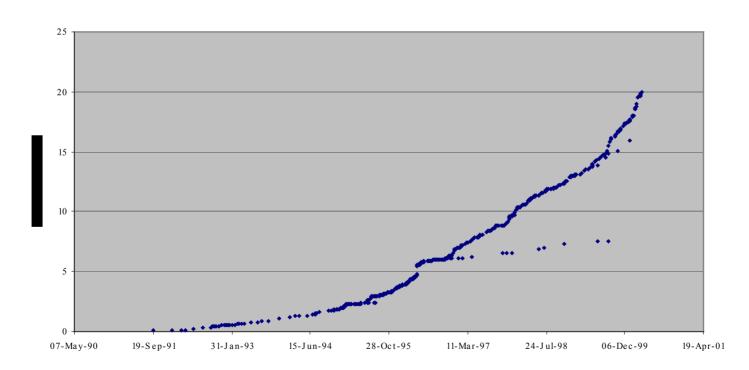
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## Rapid Growth is Possible in the Organic Innovation Model

### Kernel distribution size (compressed)



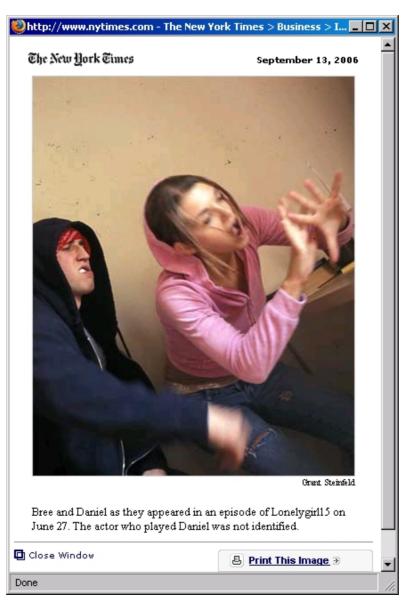
Source: Tuomi, I. (2002) Networks of Innovation.

### And then comes the lonelygirl

A scandal on YouTube



### Lonelygirl15 and Daniel have a party



### The Lonelygirl That Really Wasn't

By VIRGINIA HEFFERNAN and TOM ZELLER Jr.

Published: September 13, 2006

A nearly four-month-old Internet drama in which the cryptic video musings of a fresh-faced teenager became the obsession of millions of devotees — themselves divided over the very authenticity of the videos, or who was behind them or why — appears to be in its final act.





Grant Steinfeld

The woman who plays Lonelygirl15 on the video-sharing site YouTube.com has been identified as Jessica Rose, a 20-ish

resident of New Zealand and Los Angeles and a graduate of the New York Film Academy. And the whole project appears to be the early serialized version of what eventually will become a movie.

Matt Foremski, the 18-year-old son of Tom Foremski, a reporter for the blog Silicon Valley Watcher, was the first to disinter a trove of photographs of the familiar-looking actress, who portrayed the character named Bree in the videos. The episodes suggested Bree was the home-schooled



### **Korea: Social and cultural factors**

	Lee, O'Keel				
Socio-cultural environmen	2003 t -				
demography		unique urban geography	80% in urban areas; 48% in large	80% in urban areas, 49% in large apartment buildings	urban structure, high- rise apartment buildings close to switching
purchasing power	low subscri flat fee subs		apartments	•	stations
	cost access Bangs		high level of education	PC Bangs as a location of skill development	
geography	high-density closeness t		eddcallon	orskin development	
	exchanges			PC Bangs as commercial market for	
human capital	dial-up user Bangs; onli			content de velopers	
absorptive capacity	existing dia				
/alues	"keeping ur neighbors"; enthusiasm children's e preference t Internet for				
	communica	demand for		education, games,	1998 Miss Korea sex
latent demand	-	entertainment and network games; existing dial-up users		access to information, financial transactions, time-shifted TV content, on-line communities	video
timing	1997 financ			on-line communities	

### **Keywords**

- narrativity, stories
- identity, "digital me"
- community, peer-group
- tags
- location
- user-produced content
- mods, customization, personalization
- social networks
- brand, reputation
- feed aggregation, integration and mashups (open API, RSS, Atom, Ajax, open content)
- distance and proximity; boundary, transparency and visibility of social and physical space
- novelty

### Public media as revolution

- Media historians argue that the modern society emerged because of new communication media made new social, political, and economic institutions possible.
- The printing press and newspapers created a public sphere of shared communication and meaning production, which evolved into the modern democracy.
- Without this public sphere, modern politics would not exist. Public media is, therefore, a precondition for politics. It is not political, as such, but it enables common meanings to be created, expressed and negotiated.
- But now we are moving towards knowledge society and innovation-based economy. New communication technologies will restructure social visibilities, transparencies, and boundaries. A new type of public sphere is emerging.
- The broadcasting industry will be restructured. Commercial players will have hard times in adjusting to the new revenue generation models.
- Public media is in a privileged position, and it can become a key element in this social, economic, and political transformation.