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# “Weak Signals” for Burning Issues

**European  
Millennium  
Project Nodes  
Initiative**

**The Futures of Europeans in  
the Global Knowledge Society  
A Meeting Place for  
Europeans creating Futures**

April, 13-14, 2005 - Louvain-la-Neuve, Wallonia, Belgium



# Shocks out of the blue!

- Can we prepare?
- Are there **weak signals** before the event?
- How can we identify them?
- Which ones are relevant?

Or:

- Being wise after the event...





# The Future: A Blind Spot?

The observer  
doesn't see  
that he doesn't see  
what he doesn't see.

© Heinz von Foerster

Is the future developing behind the backs of the futurists?



# Portents of the Future

## “On the radar”

- Continuities (“trends”)
- Shifts in the markets
  - Demographic change

### Discontinuities

- Change of government after an election
- Merger of companies
- Road mapped innovations

## “Not on the radar”

- Continuities (Hidden long term change like)
- Hormones in the environment
  - De-secularisation

### Discontinuities

- Breakdown of US economy
- Disruptive innovations and their impacts
- Decline of life expectancy

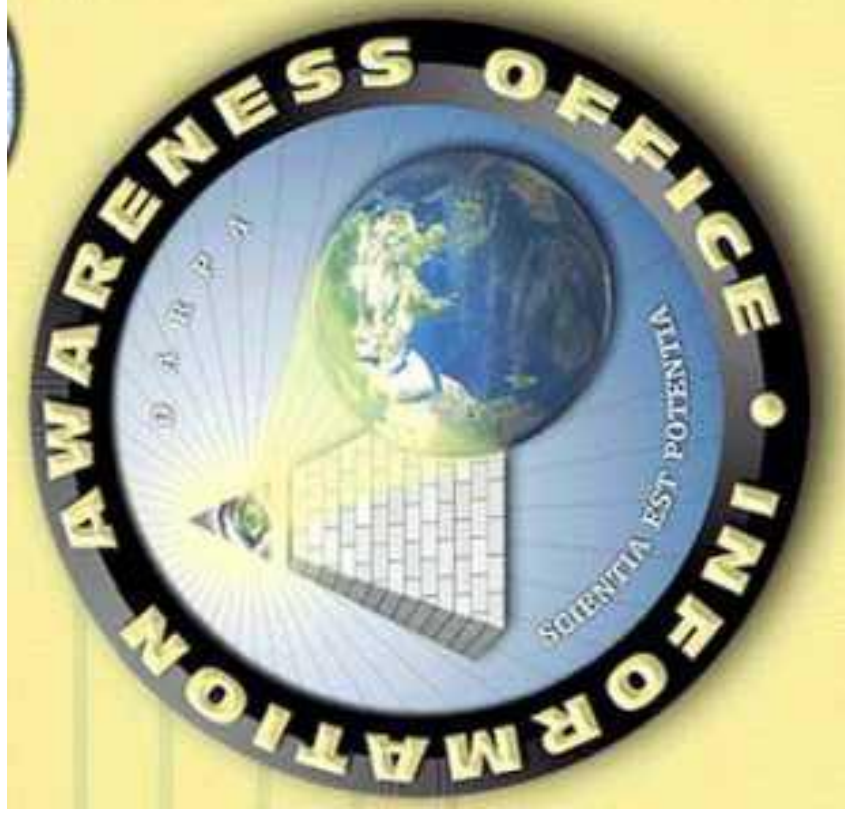
**Two kinds of weak signals?**



# Weak signals on the radar

- Large quantity of diverse, sometimes unstructured data
- Use of filters and evaluation
- Intelligent, automated systems?

The more narrow the scope, the better automated systems work.





# Weak signals for emergent developments (not on radar)

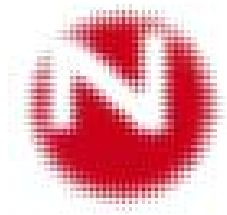
## Problems

- Recycling of ideas: futurists quoting futurists
- Lack of concepts and notions for new developments
- Lack of monitoring / analytic methods

## One approach:

- Observe marginal ideas & groups!
  - “Trendsetters“
  - Artists
  - Science Fiction
  - Socially excluded persons
  - Youth
- Give room for crazy ideas!

“This is a good idea – but is it crazy enough?“

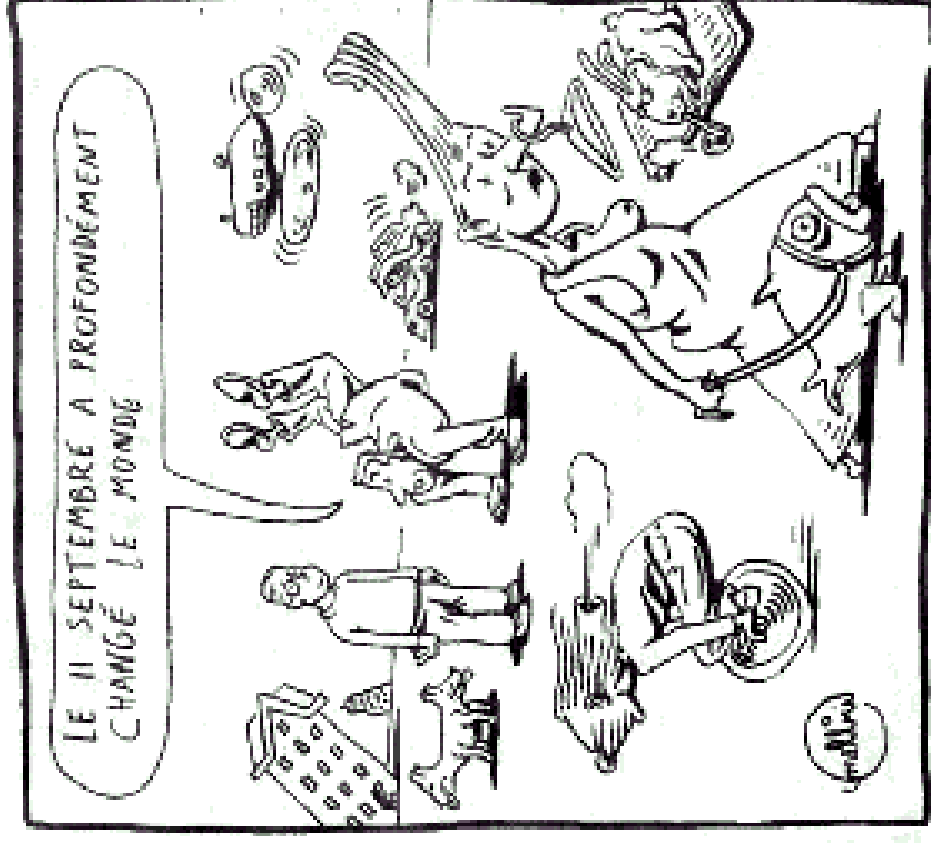


# Wild Cards – unexpected discontinuities

**Weak signals** may herald  
the advent of a  
**wild card!**

Sudden events with:

- Low probability  
(less than 0.1)
- High impact
- Surprising character



Wild cards are earthquakes of the mental landscape!



# Problems with identifying weak signals

- Where to look?
  - How to go beyond a perhaps too narrow horizon?
  - What are appropriate filters for a monitoring?
  - All systematic approaches may exclude the most interesting emergent things!
- Does it make sense to look for implausible or impossible things?
  - And how could I communicate them?



**There are too much and never enough weak signals ....  
Not even the strong signals are listened to!**





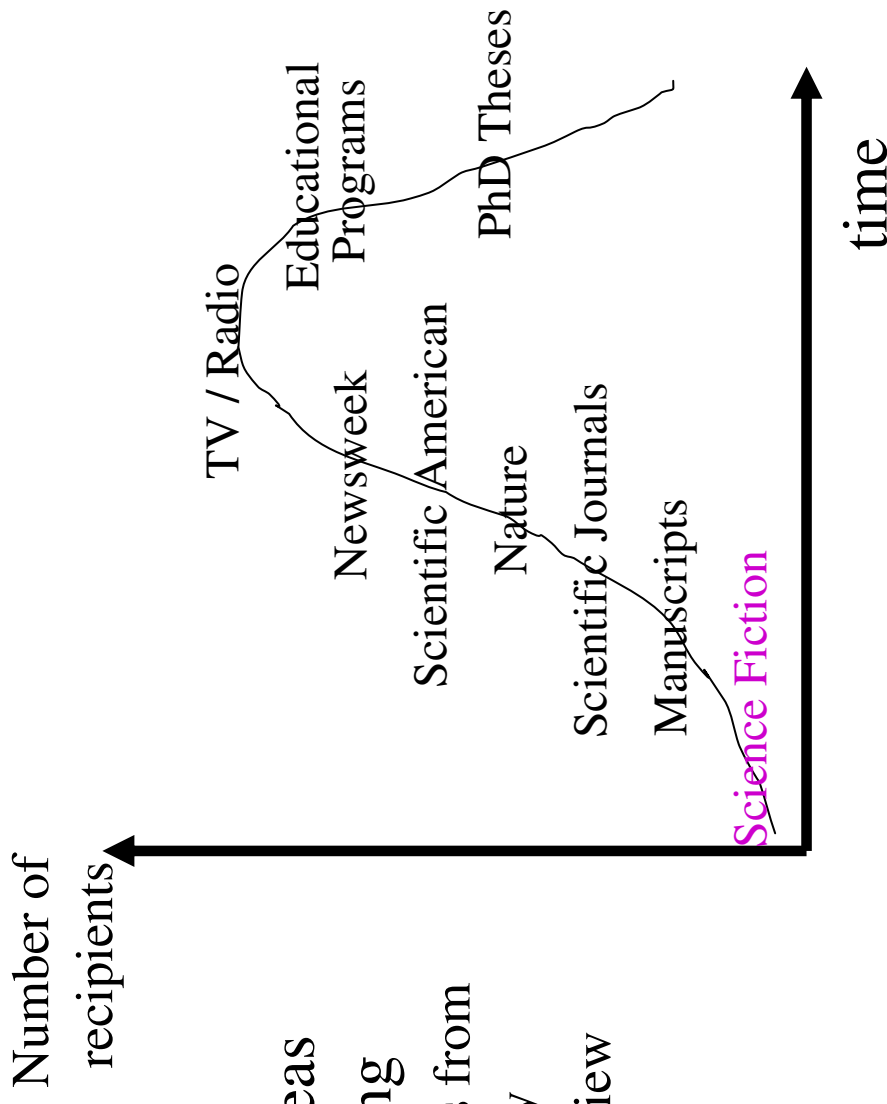
# Science fiction as an early warning system

Working hypothesis:

- SF writers use new ideas which are just emerging
  - Concepts, speculations from science and technology
  - New social points of view

Reasons:

- Quest for originality
- “Sense of Wonder”
- “What if” - Principle

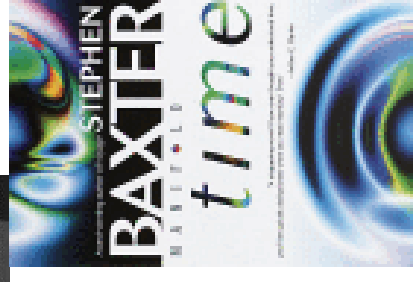
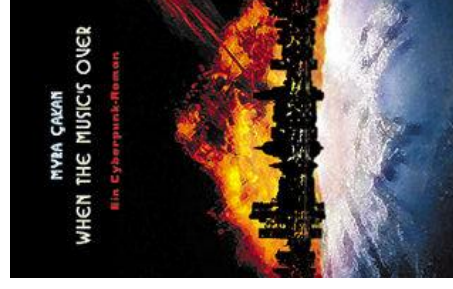
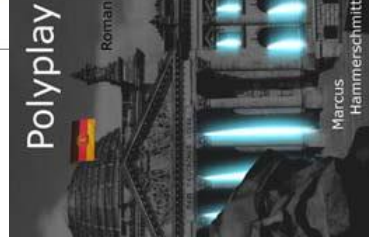


Adapted from Krampe 1983



# Weak signals from science fiction?

- Some topics:
- Many alternative history novels
  - Birth of a new human race within the old
  - New cults of irrationality
  - Europe is nearly absent
    - No positive vision of Europe!

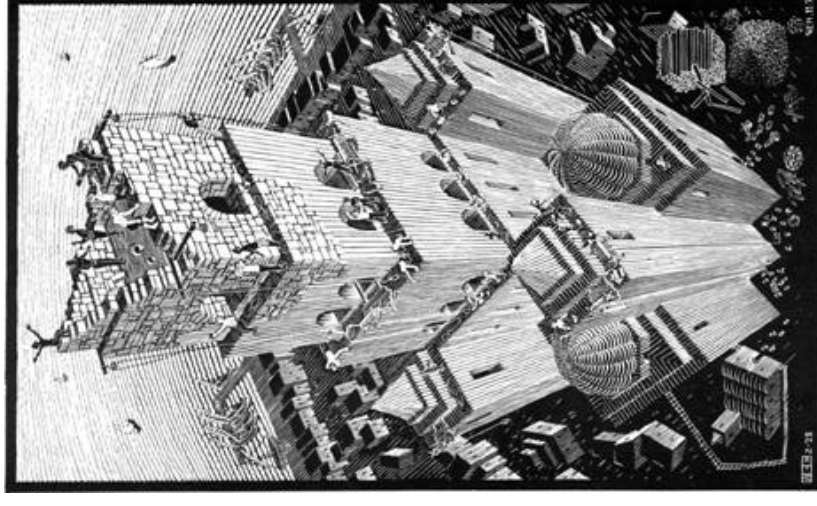




# Weak signals to burning issues?

## Some recent **news**:

- Failure of EU service directive
- Rising opposition to EU constitution
- Quarrel on Turkish candidature
- Failure of Germany, France, Italy to comply to Maastricht criteria
- Growing intra-European disparities
- Goodbye to Lisbon goal
- ...
- **BUT:** Jeremy Rifkin: “The European Dream” (2004)



Escher: Tower of Babel

## Questions:

- Are these weak signals?  
(Or strong signals?)
- What is their message?
- Is there anybody to listen?



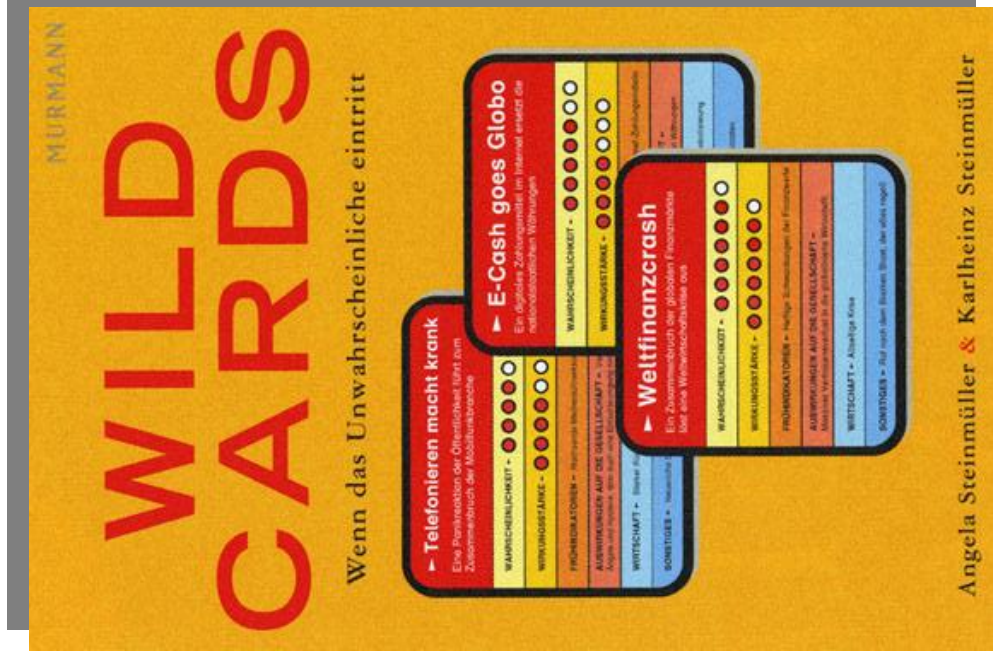
# Conclusion

## Mark Twain:

“Forecasting is very difficult, especially about the future.”

## Steinmueller’s Rule:

“The easier forecasting is, the lower is the intellectual and practical benefit of it.”



**Action, Not Prediction Matters!**



**Thank you for your attention!**

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