

## Design av Samverkande System D-kurs, 5p



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## Emergenta Interaktionssystem

Bakgrund

•A kind of *environment* in which a number of individual actors share some experience/phenomenon.

•Data originating from the actors and their behaviour is collected, transformed and fed back into the environment.



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## Interaktion

Bakgrund

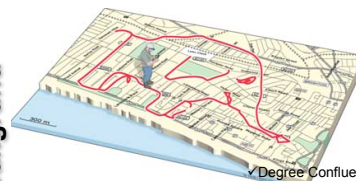
- The defining requirement of emergent interaction is that this feedback has some noticeable and interesting effect on the behaviour of the individuals and the collective
  - That something **'emerges'** in the **interactions** between the **individuals**, the **collective**, and the shared phenomenon as a result of introducing the feedback mechanism.
- The immediate effect may be enhancement of the individual **experience**
  - With resulting effects on the individual's behaviour, choice of action, and so on.
- The immediate effect can also be some kind of **change** in the observed, shared phenomenon.



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## Influenser

Bakgrund



- ✓Degree Confluence
  - <http://www.confluence.org/>
  - <http://www.utsidan.se/gps/rt90/>
- ✓Art
  - <http://www.gpsdrawing.com/>
- ✓Treasure hunting
  - <http://www.geocaching.com/>
  - <http://www.utsidan.se/gps/cachelista.htm>



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## Influenser

Bakgrund

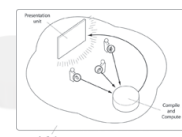
- 1945: **Vannevar Bush** article In *Atlantic Monthly* about a photo-electrical mechanical device called a **Memex**, for memory extension, which could make and follow links between documents on microfiche
- 1989: "**Information Management: A Proposal**" written by **Tim Berners-Lee** and circulated for comments at CERN.
- 1990: The first weblog was the first website, <http://info.cern.ch/>, the site built by **Tim Berners-Lee** at CERN. From this page TBL pointed to all the new sites as they came online.
- Today: "Everyone" are publishers on the web, personal web pages, [blogs](#), etc



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## Tillämpningar

Bakgrund




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## Design

**Bakgrund** Is it really possible to design emergence?  
Is it possible to design the unexpected?

It may seem that "designed emergence" is a contradiction in terms.

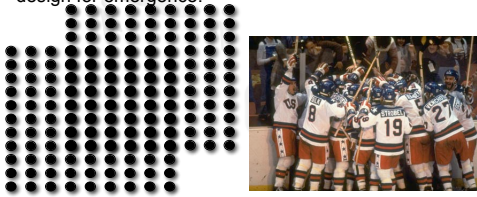


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## Design

Unpredictable outcome is inherent in the concept of emergence, but what we might be able to do is to design for emergence.

**Bakgrund**



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## Implikationer

**Bakgrund**

- ✓ Emergent interaction systems are hard to design
  - ✓ High Costs
  - ✓ Technical hard
  - ✓ Foresee the resulting behaviour
- ✓ Worries about A "1984" or Big Brother Scenario
  - ✓ Security issues
  - ✓ Integrity issues
  - ✓ Misuse of the basic techniques
- ✓ Critical Mass
  - ✓ Shared phenomena

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## Fokusområden

**Bakgrund**

● Main topic  
● High relevance  
● Relevant  
● Unclear

Focus Areas	Applications	Representation	Interaction	Technical System Aspects	Sociological Aspects	Design for Emergence
Application areas	●					
Categories and characteristics		●				
Communication			●			
Communities				●		
Computability Aspects					●	
Data Collection				●		
Democratic and Undemocratic systems					●	
Feedback						●
Model						●
Physical/Virtual Systems				●		
Presentation and Interaction					●	
Sociological Aspects						●
Control Systems						●
Scenarios						●
Security						●
Simulation						●
System Architecture						●
System Awareness						●
Timing						●
Traffic Patterns						●
User Awareness						●

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**Bakgrund**

Iterative design      Participatory design

Focus on the overall behaviour      Designers as "on-line" actors

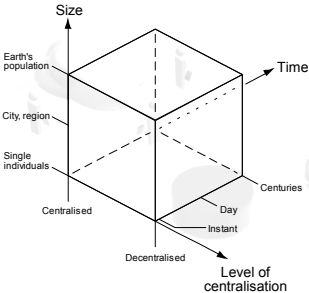
Simulation as a tool for designer

Simulated behaviour as natural part of the system

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## Designrummet

**Bakgrund**



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## Kurslitteratur

**Kursupplägget**

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## Referenslitteratur

**Kursupplägget**

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## Kursstrukturen

**Kursupplägget**

- Föreläsningar
  - Kursansvarige (Anders Broberg ca: 10 föreläsningar)
  - Gästföreläsare (6 stycken)
  - Studenterna (8-10 stycken)
- Projekarbete
- Workshop
  - "Kick-off" för projektet
- Tentamen

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