#### Online communities

## Learning Outcomes

- After attending this lecture and reading the additional literature, you should be able to:
  - Explain what an Online community is
    - Technical and social definition
    - Different types of communities
  - Understand what type of problems can raise in online communities
  - Understand how to design for sociability

## What is an online community?

- Depends on who you talk to
  - Sociologists
  - Computer scientists
  - E-commerce entrepreneurs
  - Community members.....

#### **Broad definition**

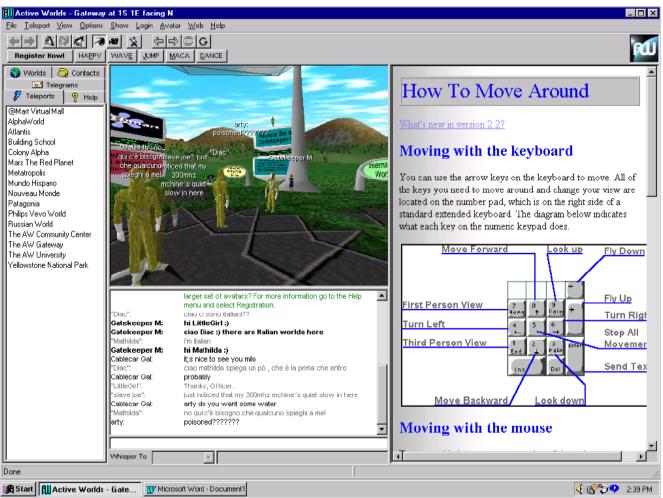
- On-line communities have a <u>purpose</u> are supported by <u>technology</u> and are guided by <u>policies</u>
- Important dimensions are
  - Where does the community exist?
    - only virtually or has a physical presence
  - Why does the community exist?
    - Primary purpose
  - How does the community exist?
    - Type of software
  - What is the community history?
    - Size and for how long the community has existed

# Technology oriented definitions

- Online community are described by the software that supports them
  - Chat
  - Bulletin board
  - Mailing lists Listserver
  - UseNet Newsgroup
  - MUDs (Multiuser dungeons)
  - MOOs (Object-oriented MUDs)
  - Immersive graphic environment
  - Social Network Platform (more recently)
  - Mobile Network Platform (NOW)

## Synchronous

Chats, MUDs, MOOs, Immersive graphic environment



# Synchronous

- Characteristics
  - Messages are short and conversation moves on quickly
  - May accommodate large numbers of participants
  - May accommodate for private conversations
  - Participants register
- Advantages
  - Sense of immediacy
  - Real time
  - Newcomers can learn easily
  - Good for brainstorming (generating tasks)
- Disadvantages
  - Must be on-line at specific time
  - No time to reflect
  - Several conversations may appear at the same time and messages can get inter-twined
  - May require special download and configurations
  - There is no log

## Asynchronous

- Bulletin board; UseNet Newsgroup (pull technology)
- Mailing lists Listserver; (push technology)
- Characteristics (push technology),
  - visitors have to register
  - List may be hosted by company/institution or individually purchased and supported
  - Messages can be delivered as they arrive or collected into a digest by a moderator
- Advantages
  - easy to use,
  - no special equipment needed,
  - time to reflect,
  - registration may create a feeling of community
  - useful in the consolidation of the results from a brainstorming session and ideas evaluation, intellective tasks, and Judgement tasks
- Disadvantages
  - registration may discourage participation,
  - lists with large number of posting may be overwhelming to users,
  - everything posted come to everybody,
  - context for responses have to be provided by including part of previous messages
  - Difficult to respond to a particular message in a digest

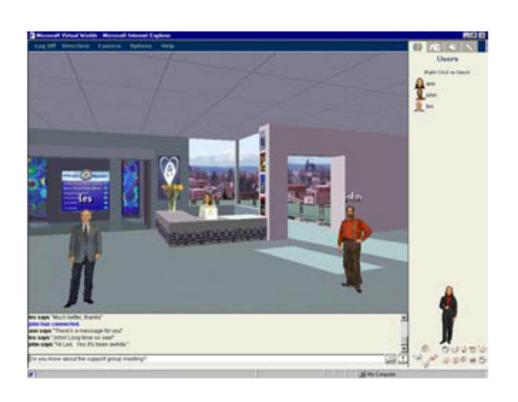
#### Social definition

- On-line communities are social congregations of individuals which meets and Interact on the Internet.
  - Members have a shared goal, interest, need or activity which provides the primary reasons for belonging to the community.
  - Members engage in repeated active participation and there may be strong emotional ties between participants.
  - Members have access to shared resources and there are policies for determining access to those resources.
  - There is a shared context of social conventions, language and protocols.

## Relationship

- The strength of a relationship can be measured by
  - the amount of time invested in maintaining it,
  - the emotional intensity and degree of intimacy
  - The level of reciprocal services
- Strong tie: parent-child partners friends
- Weak tie: classmates, theatre groups, mailing lists
- Online communities tend to generate weak ties, but can also support strong ones

#### HutchWorld





#### HutchWorld

- Virtual Worlds to enhance social support and information exchange among caregivers and patients
  - Information services: contact information, links to the institution's web site and related web sites, Seattle guides for transportation, shopping and restaurants.
  - Social services Bulletin Board Service, notes, gifts and email exchange, real time communication in 3D environment and text chat area.
  - Diversionary services users can make music together by interacting with sculptures in a 3D environment, create a personal journal, web browse and play games.
- Microsoft Research & Fred Hutchinson Cancer Research Center



# HutchWorld (2)

#### Concept evaluation

- Meetings with patients, caregivers & medical staff early in design
- Observations in hospitals, schools, and research facilities
- What: functionality, usability, individual and group effects
  - Physical world metaphor, social support, restricted entry

#### Prototype evaluation

- Early prototype tested on site with real users
  - Organisational effect: problems with technology deployment (staff training)
  - Functionality: chat-room did not achieve critical mass, asynchronous communication was needed
  - Individual/group effect: users felt obliged to talk
- Later prototype tested at Microsoft
  - Usability

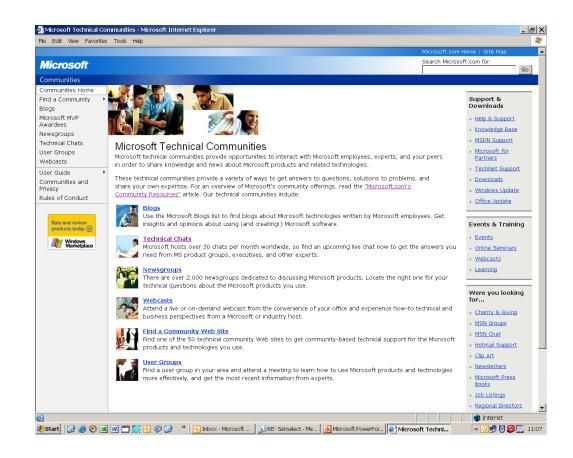
#### Operational evaluation

portal version: limited field trial



## Communities of practice

- Professionals who share knowledge and resources
  - Members have a shared task, well defined roles and they offer professional emotional support as well as discussion



## Health community

- Provide health related information, emotional support and empathy
  - May be developed by doctors,
  - Or patients to help fellow sufferers (e.g., Bob's ACL bulletin board)



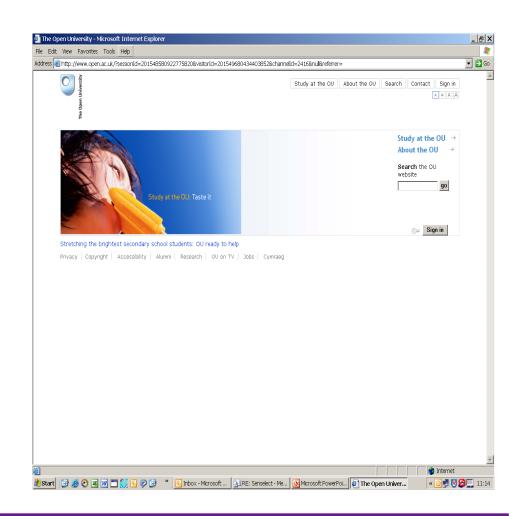
#### E-commerce communities

- Means for enticing customers to a site and build bonds of loyalty
  - May exist solely on-line (Amazon); or also offline
  - Help increasing trust



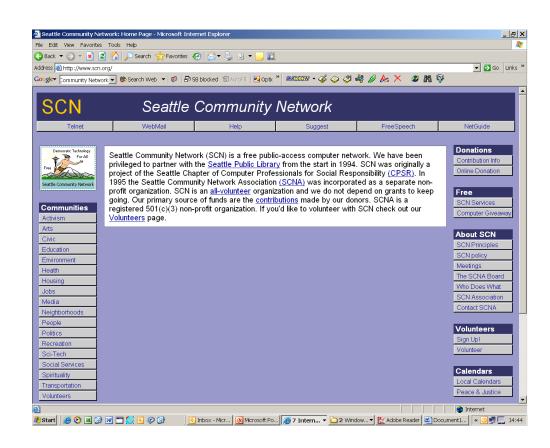
#### **Education communities**

- Learning anytime anywhere
  - Support communities for a class that meets in person weekly
  - Distance education communities
  - MOO environments



#### Communities network

- Physical communities supported by an online network
  - People can meet online and physically



#### Problems with on-line communities

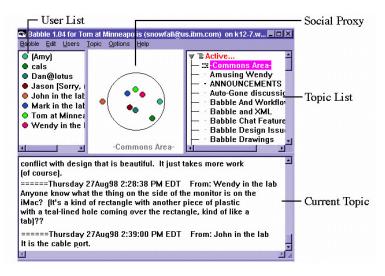
#### Social Loafing

- tendency of individual group members to reduce their work effort as groups increase in size
- Diffusion of responsibility
  - The belief that the presence of others makes one less responsible for the events that occur in that situation
- De-individuation
  - Loss of a sense of individuality and a consequent weakening of social norms and constraints
- Group-polarisation
  - The group tend to enhance shared pre-existing views (more extreme attitudes, opinion)

# Social loafing

#### Lurkers

- Critical mass 50% of work hobby, and social mailing lists had no posting in 4 months
- Possible solutions
  - workspace awareness
    - Every member of the team can see what the contributions and activities are of others.
    - Some visualisation of activity for each member may be desired such as implemented in the IBM Babble system.
  - Motivate the user
    - Communicate to users that their effort is important
    - Make contributions identifiable
    - Communicate to users that they are unique



## Diffusion of responsibility

- Inaction, lurkers
- Possible solutions
  - Encourage empathy
    - Social presence
    - Clear statement of community purpose
    - Create relationships and strong ties
  - mechanisms that allow members to evaluate and contribute to the stateof-mind of a community
    - Voting, opinion poll
    - members may express their opinion anonymously by stating whether they agree or disagree with a particular (controversial) statement.
    - Members should also be allowed to suggest questions that are voted on
    - · desired actions should be rewarded,
    - roles should be assigned to participants,
    - records of past behaviour should be available (reputation management)

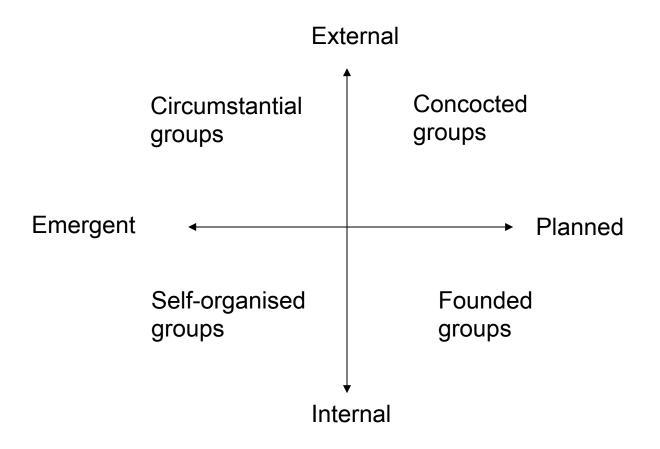
#### De-individuation

- Flaming negative interactions, inappropriate or offensive behaviour
  - US laws regarding obscenity and community standards
- Possible solutions
  - Moderators
    - Issue warnings or ban offending members
    - Encourage participants to explain themselves
  - Make salient participants identity
    - Home page
    - Avatars
  - Registration

## Group polarisation

- Extremism, racism, discrimination
- Possible solutions
  - moderator
    - Support decision making
    - encouraging ways in which a community can be influenced by elements outside the community.
      - guest accounts which people who are not part of a community can use to insert comments on the communities goals, prevalent opinions etc.
      - trusted third parties who will check for convergence on unacceptable views and opinions.

## **Group Formation Space**



# Summary

- Online communities indicators
  - Shared interests, experiences or needs
  - Engaged in supportive and sociable relations
  - Sharing resources
  - Developing a sense of shared identity (feeling of belonging)
- Many type of online communities
- Good design should support usability + sociability