

Organizational Memory Systems: A Kind of CSCW Systems

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Introduction

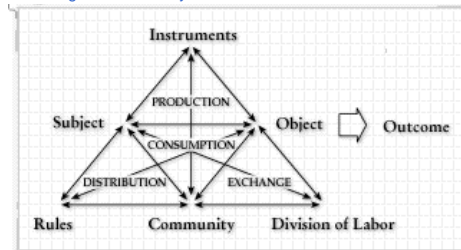
- *'KM: Management not technology'*
(Robert de Hoog, yesterday, September 5, 2002)
- (About a description of a KM perspective:)
'It's technology'
(Jerry, KMSS participant, today, September 6, 2002)

Introduction

- *'KM: Management not technology'*
(Robert de Hoog, yesterday, September 5, 2002)
- KM:
 - Management (activity)
 - Managers or 'Knowledge Workers' (actors)
 - Technology (tools) supporting Managers performing management,
Corporate/Organizational Memory Systems (OMS)

Introduction

The Computer System: Only One Element (a Tool or Instrument)
of a Larger Collective System



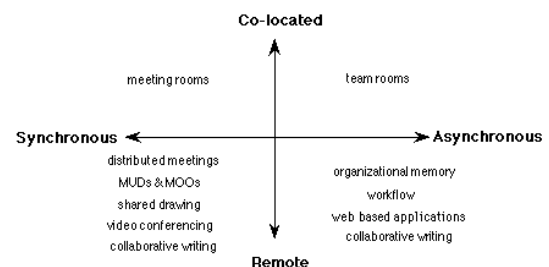
Structure of collective activity

(ENGESTRÖM)

Introduction

- Considering OMS as computer systems supporting cooperative work (CSCW) helps take Management and (Groups of) 'Managers' more into account
- Goal: showing this through examples

Situating OMS within the CSCW Time-Space Quadrants



(NICHOLS)

CSCW: ' Collective Action ' Tools (Ackerman, 1997)

1/ Computer-mediated communication

→ Users interacting with other users

2/ Access to information

→ Users interacting with informations or computer objects

3/ Collaborative workspaces

→ Users interacting both with other users and informations or computer objects

4/ Collective memory and knowledge distillation

→ Giving a sense of history

5/ Assistance to collaboration

→ Underlying tools and toolboxes

' Collective Action ' Tools

1. Computer-mediated communication

- Shared media-spaces
- Scientific laboratories
- Large scale social spaces

2. Access to information

- Recommendation systems (social filtering)
- Collaborative filtering
- Collaborative information collection

3. Collaborative workspaces

- Meeting assistance
- Collaborative information spaces
- Visualization

4. Collective memory and knowledge distillation

- Group and organizational memories/ FAQ systems
- Design Rationale/Argumentation
- Expertise Localisation

5. Assistance to collaboration

- Shared application and session management
- Notification
- Interfaces and indicators of activity, awareness
- Concurrence control
- Roles and social rules

(ACKERMAN, 1997)

Collective Memory Tools

Group and organizational memories FAQ systems

- Answer Garden** (Ackerman 1994)
- FAQ systems** (Whitehead, 1994; Hammond et Kozlovsky, 1995)
- gIBIS** (Conklin & Begeman, 1988) **CM/1** (Conklin, 1994)
- Critic systems** (Fischer et coll.)
- Meeting assistance tools** (Moran et coll.)

Design rationale
Argumentation

Expertise localisation

(ACKERMAN, 1997)

FAQ

Group and Organizational Memories FAQ Systems

■ FAQ (Frequently Asked Questions)

■ FEP (Frequently Encountered Problems)

– Example: FEP-HTML

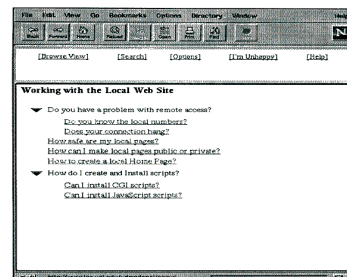


FEP
Frequently
Encountered
Problems

Answer Garden

Group and Organizational Memories FAQ Systems

- OM Assistance 1
Users seek for answers to questions frequently asked



(ACKERMAN)

Group and Organizational Memories
FAQ Systems

- **OM Assistance 2** : If no or unsatisfactory response, Answer Garden forwards the question to some appropriate human expert, who will then answer

Escalation agent

At 10:37am on 3/19/96 (today) you asked:

>>Subject: Can I add a Web page to someone else's site?

I got an answer

Forward to the help board

(ACKERMAN)

Collective Memory Tools

Group and organizational
memories
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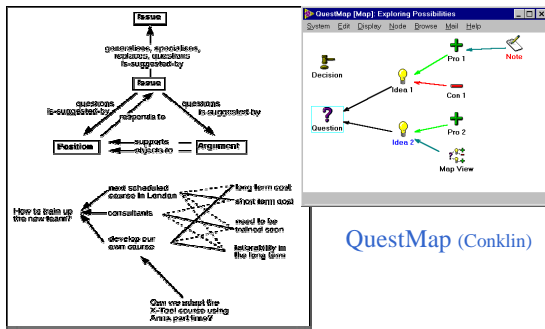
- **gIBIS** (Conklin & Begeman, 1988) **CM/1** (Conklin, 1992) → **IBIS**
- → **QOC** (MacLean et al., 1996; Bellotti et al., 1996; Shum, 1996)
- **SIBYL** (Lee et al., 1996; Lee and Lai, 1996) → **DRL**
- Open Meeting (Hurwitz and Mallory, 1995) → **~IBIS**

Expertise localisation

(ACKERMAN, 1997)

gIBIS (Conklin, 1988)

Design Rationale Argumentation

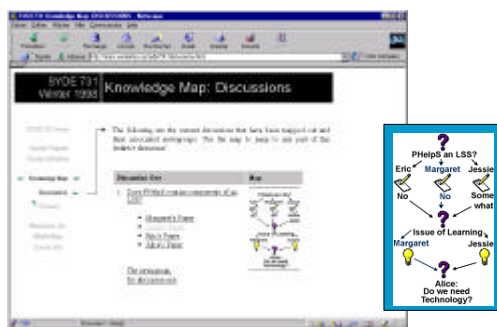


Interfaces : *QuestMap* ^{Argumentation} (Conklin) gIBIS



PHelpS

Design Rationale Argumentation



Collective Memory Tools

Group and organizational
memories
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Expertise localisation

- **Expertise localizers amplified by agents"**
(Kautz, Milewski, and Selman, 1995)

(ACKERMAN, 1997)

Expert Finder

Function: help users to find the experts who could help them solve their problems

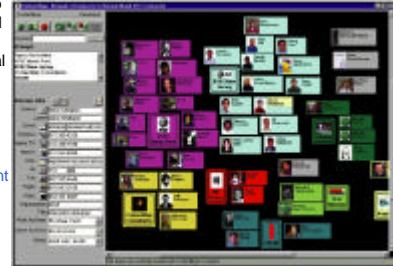
(MATTOX, 1998)



ContactMap

Function: help users to arrange their individual social networks in a visual map of individual contacts and groups: each node affords a variety of communication functions enabling users to retrieve current and archived information associated with them.

(NARDI et al., 2002)



Conclusion

- Reconsidering the classification of OM systems
- Emphasizing communicative aspects (see dialogue)

Reconsidering the Classification of OM Systems

OM systems evolve towards systems including characteristics from the different categories of CSCW systems

- Shared media-spaces
- Scientific collaboratories
- Large scale social spaces
- Recommendation systems (social filtering)
- Collaborative filtering
- Collaborative information collection
- Meeting assistance
- Collaborative information spaces
- Visualization
- Group and organizational memories/ FAQ systems
- Design Rationale/Argumentation
- Expertise Localization
- Shared application and session management
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Conclusion

- Reconsidering the classification of systems
- Emphasizing communicative aspects (see dialogue)
e.g., D3E system

D3E

Function:

- Assisting the publication of web-based documents (e.g., an e-journal) with integrated discourse facilities and embedded interactive components
- Supporting collective interpretation. Participants construct their interpretation using an ontology
- By-product: the trace of the sensemaking process can serve as a collective memory resource for subsequent reinterpretation

(SUMNER, BUCKINGHAM SHUM, 1998, 2000)

D3E

Conclusion



D3E

Conclusion

