

# Informing Collaborative Information Visualisation Through an Ethnography of Ambulance Control

By John Bowers & David Martin

ethnographic study & analysis to inform development of Coll. Virtual Environment CVE supporting collaborative information visualisation

- how databases are used in a complex, time and safety-critical setting
- analyse the principles that the database is based on from social sci. perspective
- how different visualisations influence social interaction and mutual awareness

⇒ focus on displays

+ how can empirical social science analysis inform our understanding of virtual reality?

- the social organisation of activity
- the details of social interaction and how it is coordinated

study of ambulance control room (1 of 35 stations serving 2,5 million people)  
(map on p. 315)

assign incident to an ambulance (30-70 operating) + one cover every station

# Informing Coll. Info. Visualisation *cont.*

three applications:

- an incident stack (waiting or active) for each of the four regions (boards)
- an dispatch selection screen (new incident + nearest ambulances)
- a vehicle availability map (VAM): a set of lists of 15 areas with ambulance IDs (coded)



findings: ambulance control work is display inspection and manipulation work

⇒ different screens are used for different purposes through

distribution of functionality & constraining accessibility

⇒ text and numbers, colour, dimensionality, layers of seeing, no configurability

⇒ display combination: different loci and spatialising what is variable and what is not

”inspectable embodied conduct” & ”the personal and the public”

- information needed for their job is ready-to-hand + look at other people’s screens

- overview: the VAM captures the ”logic of the region” (p.321)

design concept: multiple information displays coexisting within a shared virtual space

interactional affordances (hci is a public phenomenon p.326)

# Fragmented Exchange: Disarticulation and the Need for Regionalized Communication Spaces

By Andrew Clement & Ina Wagner

- the politics of sharing and withholding, inclusion and exclusion
- examples of actors' practices of articulation and "disarticulation"
- creation and control of collective communication spaces

Giddens:

- locale "refers to the use of space to provide the settings of interaction, the settings of interaction in turn being essential to specifying its contextuality" (p35)
- regions describe "the zoning of time-space in relation to routinised social practices." The regions "are of critical importance in constituting contexts interaction" (p35)

"disarticulation [is] not just .. a failure to communicate openly and effectively but .. a phenomenon which highlights the fact that the regionalisation of communication spaces may help actors to get focused and/or to protect their view." (p36)

# Fragmented Exchange *cont.*

types of settings

1. segregated terrains (occupational segregation)  
hospital work, safety work
2. emergency high-reliability setting (time critical, temporal ordering)  
health work, air traffic control, control room ...
3. scarce-resource setting (reduced funding)  
(research) projects
4. performance-intensive setting (competitive)  
surgical teams, air traffic control, law firm

overview table p. 46

Implications: technology can open up new communication spaces

balance articulation & disarticulation, private & public, technical & social