

Course recap

Slack, the course website and the blog will not go away!





Move from space to place (Dourish)

A **space** is where we put **things**

A **place** is where **activities** occur

Users, not designers, manage meaning

Users, not designers, manage coupling

(Dourish's design principles)

Social psychology

McGrath's framework for categorizing team behaviours:



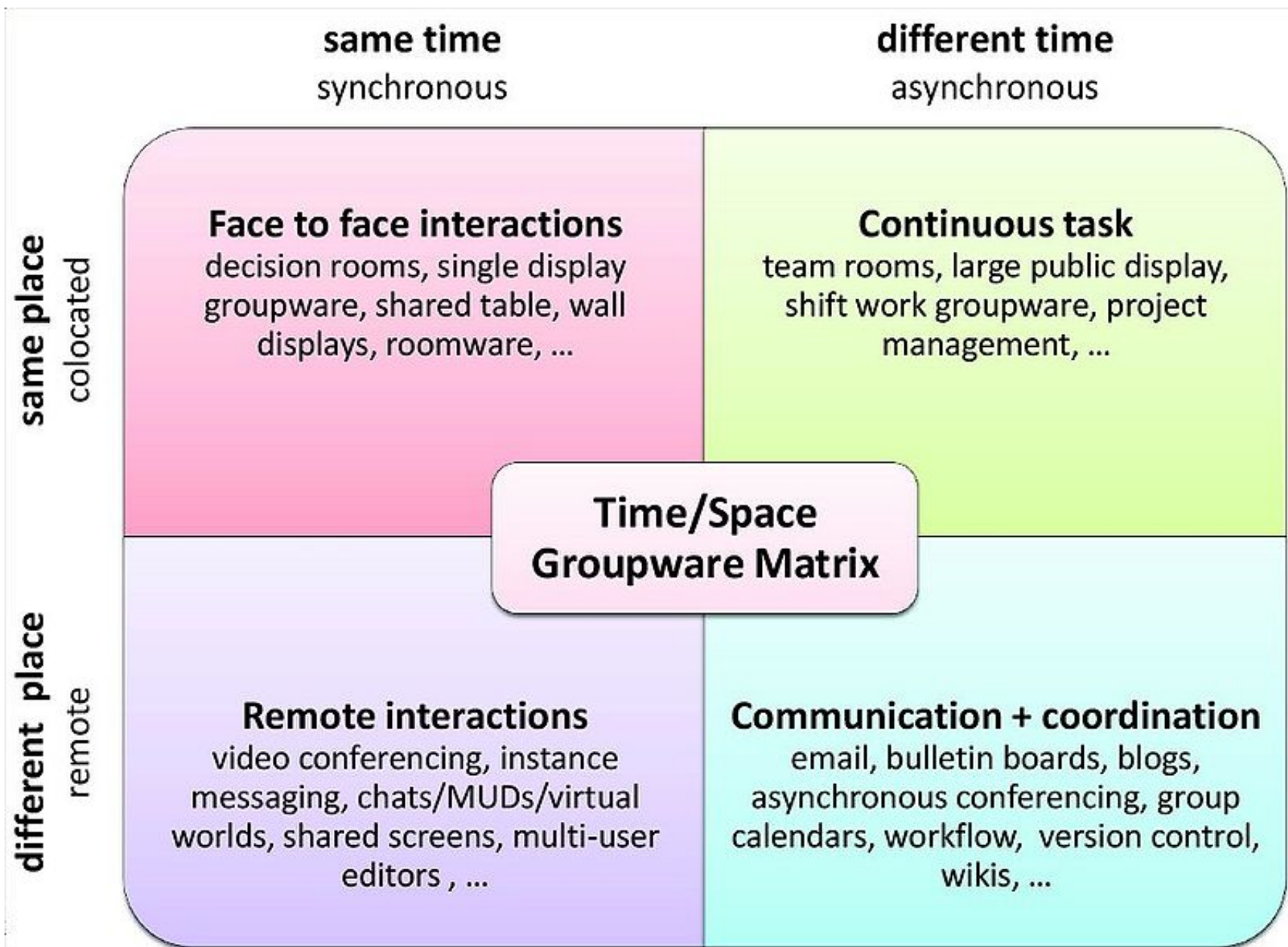
Easily overlooked



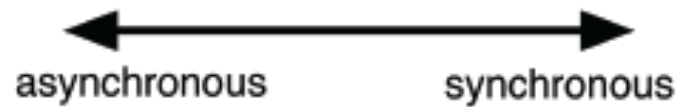
	Production	Group well-being	Member support
Inception	Production demand and opportunity	Interaction demand and opportunity	Inclusion demand and opportunity
Problem-solving	Technical problem solving	Role network definition	Position and status achievements
Conflict resolution	Policy resolution	Power and payoff distribution	Contribution and payoff distribution
Execution	Performance	Interaction	Participation



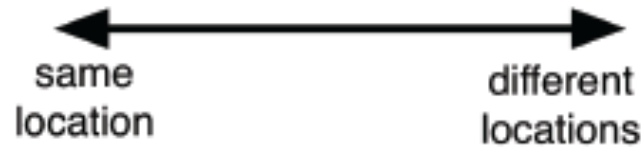
Principle focus of attention



Synchronicity



*Physical
Distribution*



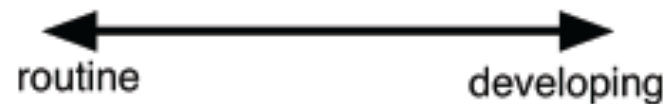
Scale
(Number of Participants)



*Number of
Communities
of Practice*



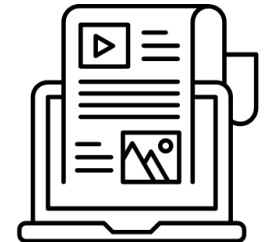
Nascence



*Planned
Permanence*



Turnover

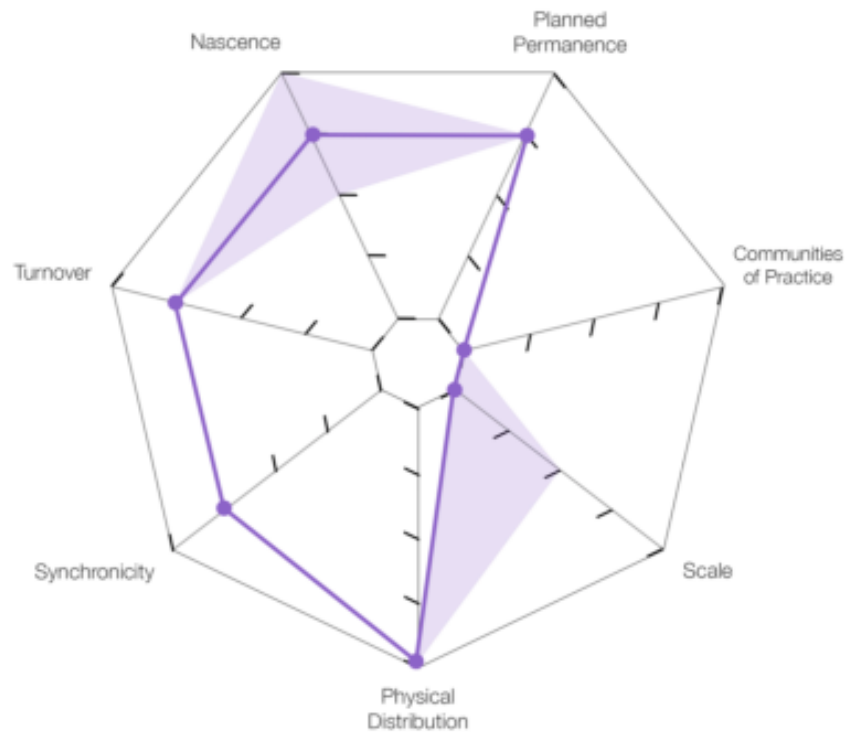


Model of Coordination Action: 7 Dimensions

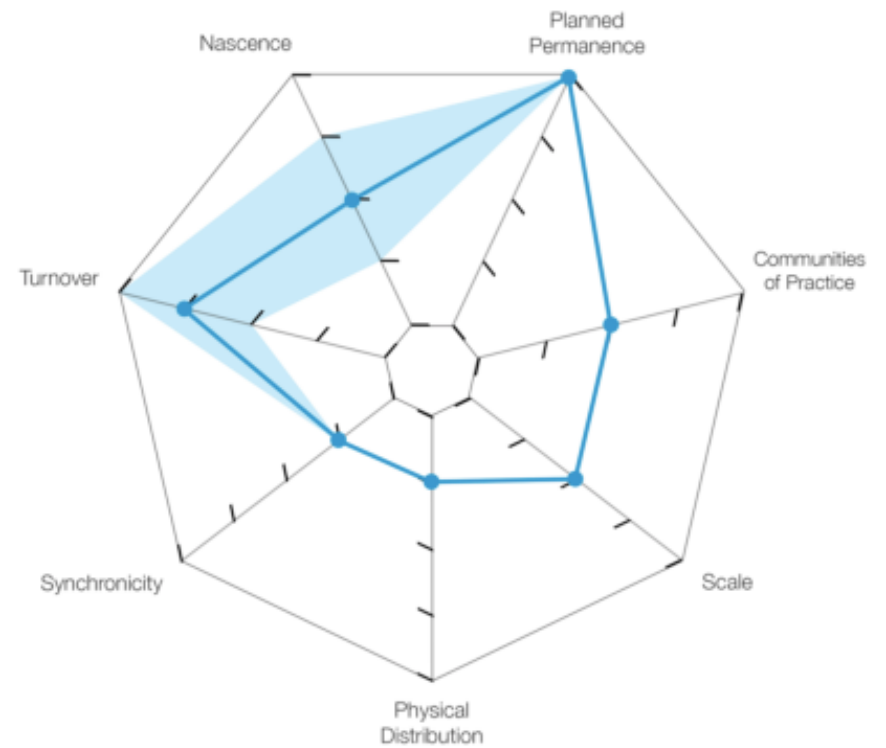


[jianwuuvic]

Humanity Road



CAMERA



Bannon: Articulation Work

Consists of all tasks needed to coordinate a particular task, manage subtasks, recover from errors and assemble resources

Can't always predict what is needed – continually need to negotiate and renegotiate

Shouldn't "automate a fiction"

Robinson's "double level language":

Systems need to support interactions at the formal level and informal (cultural) levels

Why distance still matters? (Olson and Olson)

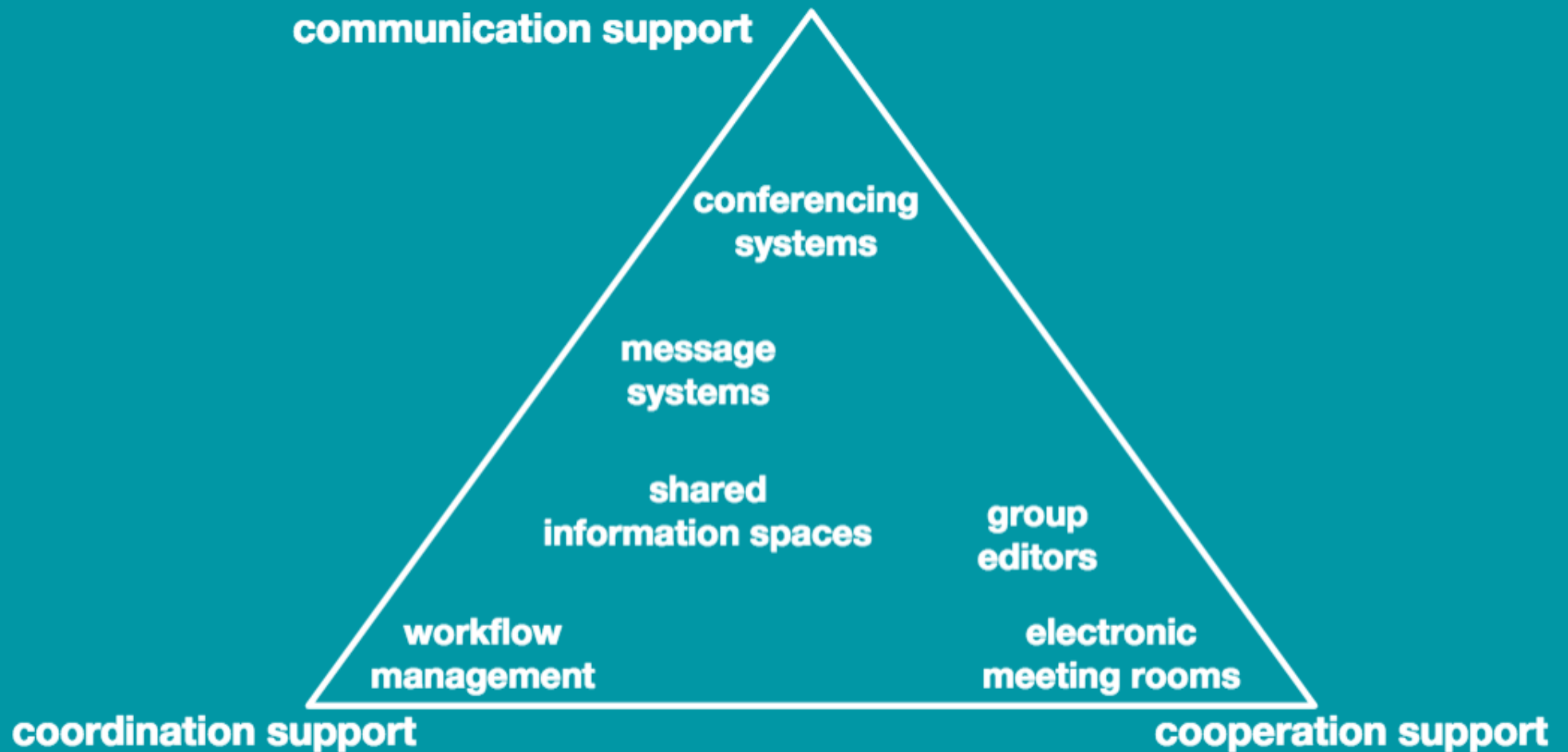
- Physical context
- Language, body language
- Time zones
- Culture
- Tacit knowledge

Main issues:

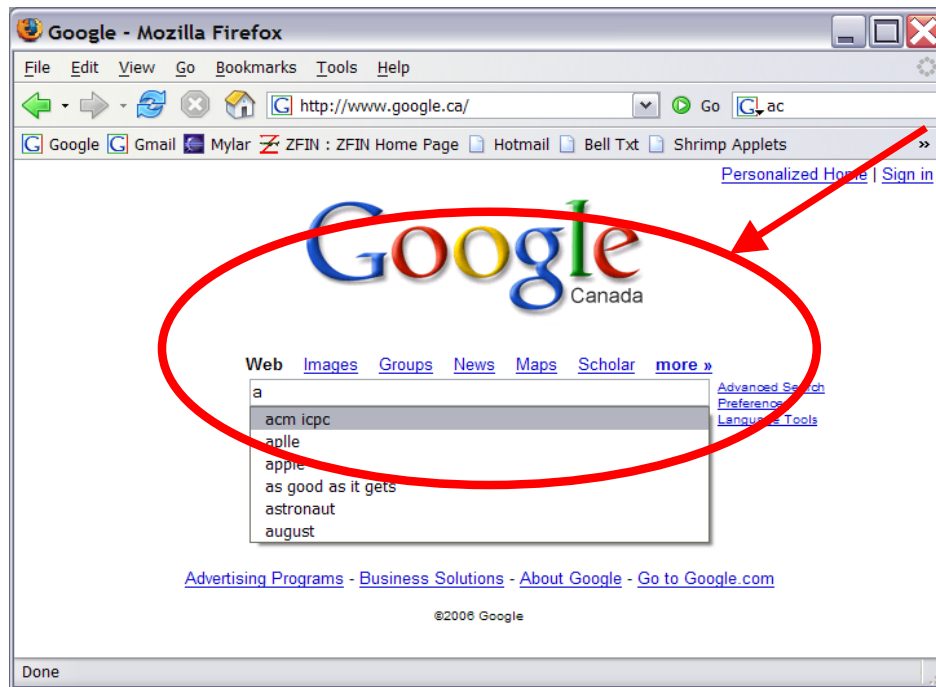
- Common ground
- Coupling of work
- Collaboration readiness
- Collaboration technology readiness

Media richness matters

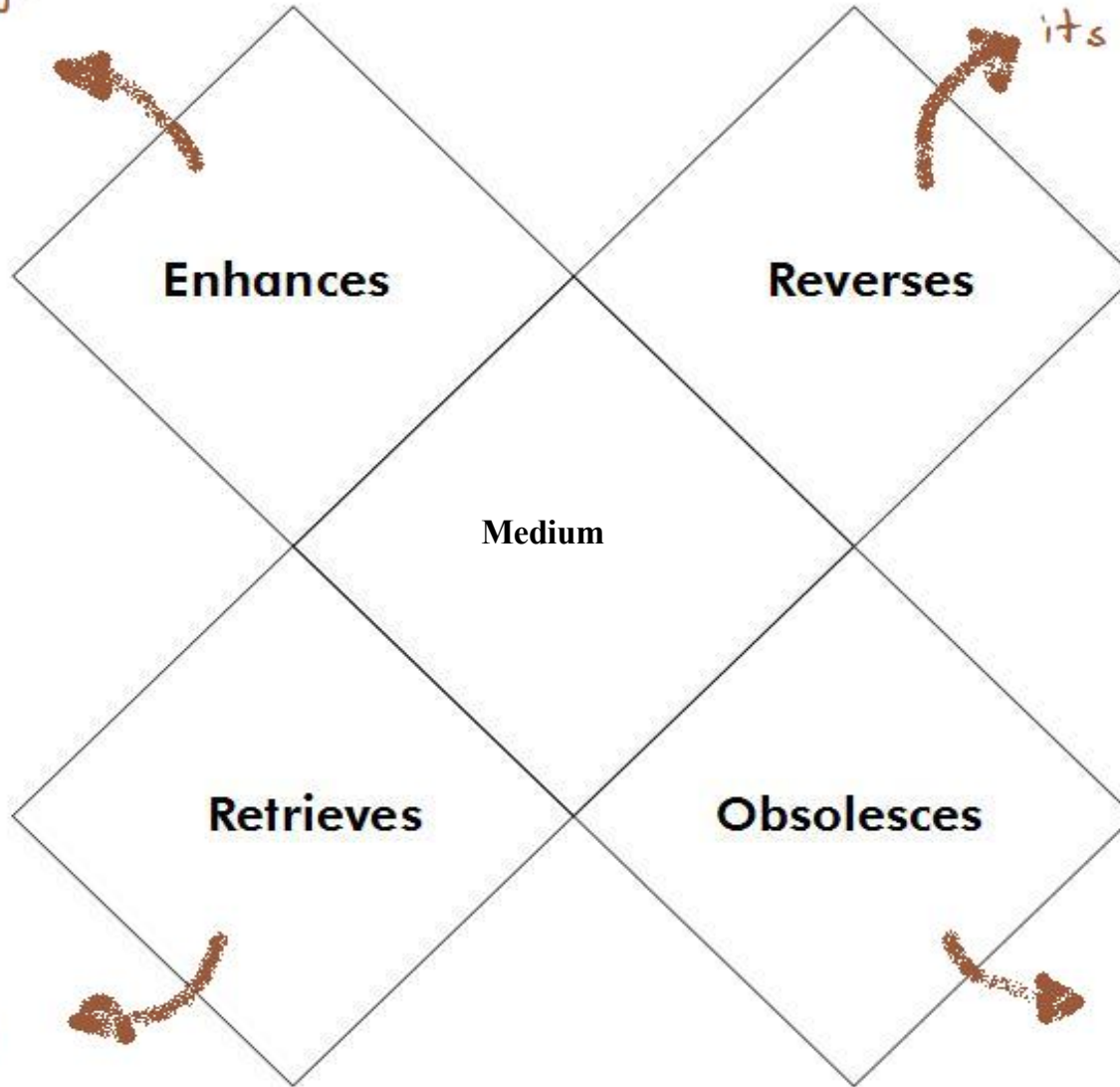
- Copresence – same physical environment/artifact access
- Visibility to each other
- Audibility (speech)
- Contemporality (message received immediately)
- Simultaneity – both speakers can send/receive
- Sequentiality – turns cannot get out of sequence
- Reviewability – able to reviews each other's messages
- Revisability – can revise messages before they are seen



Cognitive support is
the assistance that external aids
(artifacts, tools, and technology)
provide to humans in their thinking
and problem solving processes.



What does it
amplify?



How does it 'flip'
when pushed to
its limits?

What
does it
make
relevant
again?

What does
it make
obsolete?

Web as a platform

Architecture of participation

Software as a service

Rich user experience

Lightweight programming models

What is Web 2.0?

Users as co-developers

Control over unique databases

*Harnessing
collective intelligence*

Social media

Community and social networks

The rise of the software bot

*Conduit between users and services typically through a **conversational UI***



Social Media and Participatory Cultures [Jenkins]

- **Low barriers** to artistic expression and engagement
- Strong support for **sharing** one's creations
 - Informal **mentorship** for novices
- Members believe their **contributions matter**
 - Members care about **social connections** and what others think about their creations

Communities of practice

Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly



“everyone within the community is a eternal student and the “master” is the community as a whole”, Lucas

Distributed Cognition (Hutchins)

- Seeks to understand the organization of cognitive systems
- Unit of analysis is not the individual but the socio technical system
- Considers a broader class of cognitive events (not just within a head)
- *e.g. memory involves manipulation of objects and external representations*

How to study distributed cognition?

- **Ethnography** – not just of minds but also of artifacts and social processes – **event centered**, to develop a theory
 - Requires domain expertise and knowledge of the structure to study events
- Followed by **experiments** (to refine the theory)
- Back to more studies “in the wild”

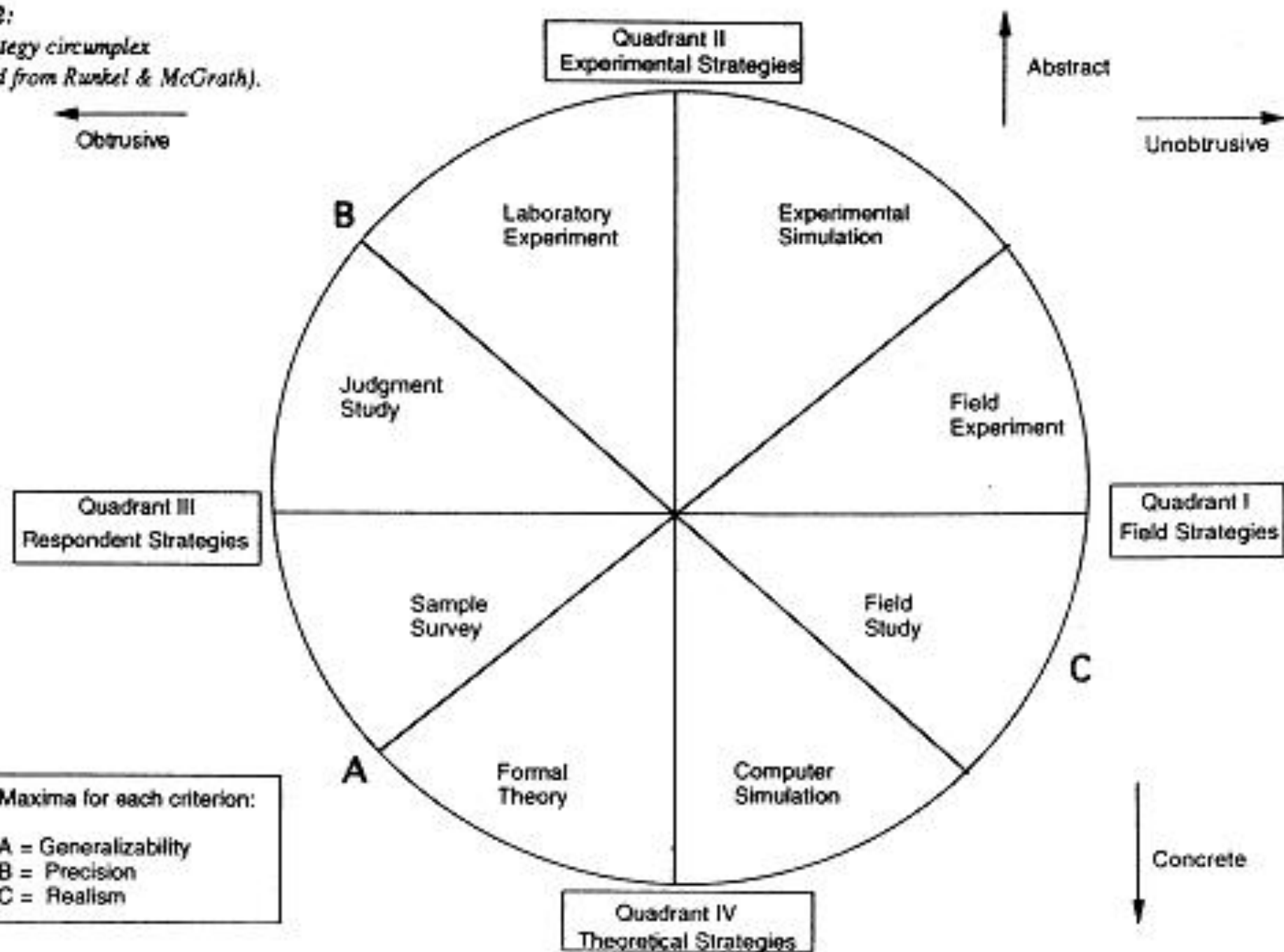
Desirable features of research evidence:

Choosing a setting

- **Generalizability** of the evidence over the populations of actors
- **Precision of measurement** of the behaviours being studied
- **Realism** of the situation or context where the evidence is gathered

Although goal is to maximize the above three things – we cannot!

Figure 2:
The strategy circumplex
 (adapted from Runkel & McGrath).



Consequences of classification (Bowker and Star)

“Each standard and category **valorizes** some point of view and **silences** another”

Some standards become **visible** because of **timing**... e.g.
VHS, Windows software

Jobs are won/lost, regions prosper or are impoverished
because of these decisions

Classification as “**boundary objects**”

Gruber, Shirky...

“Any information system that neglects use and user semantics is bound to become oppressive or irrelevant”

Ontologies may be used if there is sufficient **consensus** -- learnable, predictable, implementable

Folksonomies can provide **ad-hoc** navigation when classifications are emerging and evolving

Workshops & projects!

Digital Humanities

Future of work

War stories, challenges and ethics

Data impact on collaborative software development

Thanks for the blogging! (reminder to let me know of any issues by Aug 2nd)

Go out there!

- And do good stuff ;)
- But don't just criticize, be constructive – you have the knowledge to do both.