

Cooperative Game, Communication



Lecture 4, EDA397/DIT191, Agile
Dev Processes
Robert Feldt, 2011-04-12

Parsing Complex Experiences

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- What we notice is biased by starting vocabulary

Parsing Complex Experiences

- People have different patterns and priorities among their patterns => different results
- Common Errors:
 - Focus on something irrelevant
 - Omit something crucial
- SE:
 - Some focus on process and measurement
 - Other focus on people and interaction
 - Some focus on technology, other on management

Unknowable & Incommunicable

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 - We don't have the words to describe it

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- We can also force people to commit too early

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- Shared experience = experience sufficiently in common with another so you can re-evolve it
- We jointly construct new concepts a little at a time
- If you miss the shared experience you have to trace back to some common ground & be “brought up to speed”

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- SW Dev = Cooperative game of communication

Communication patterns



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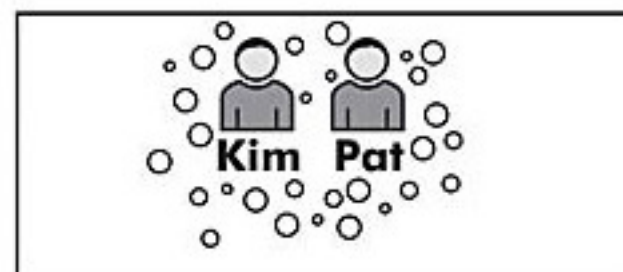
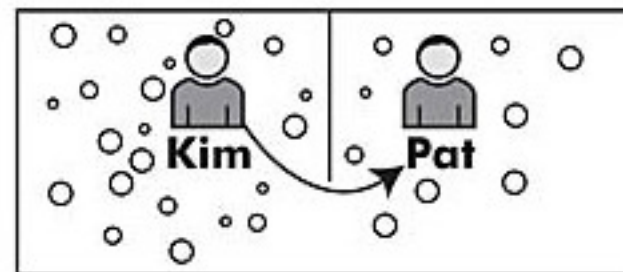
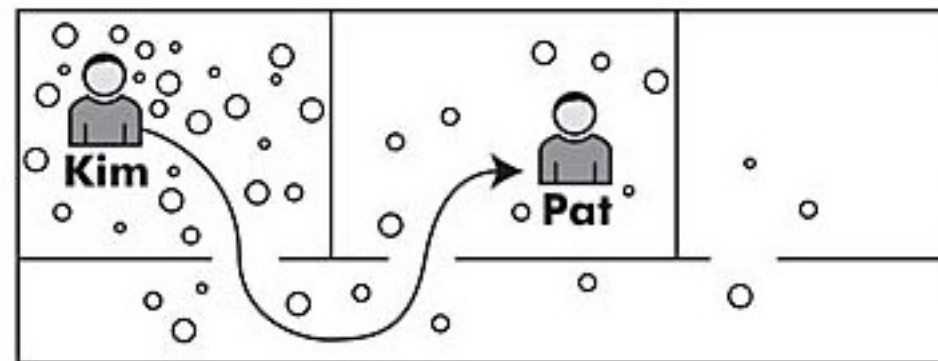
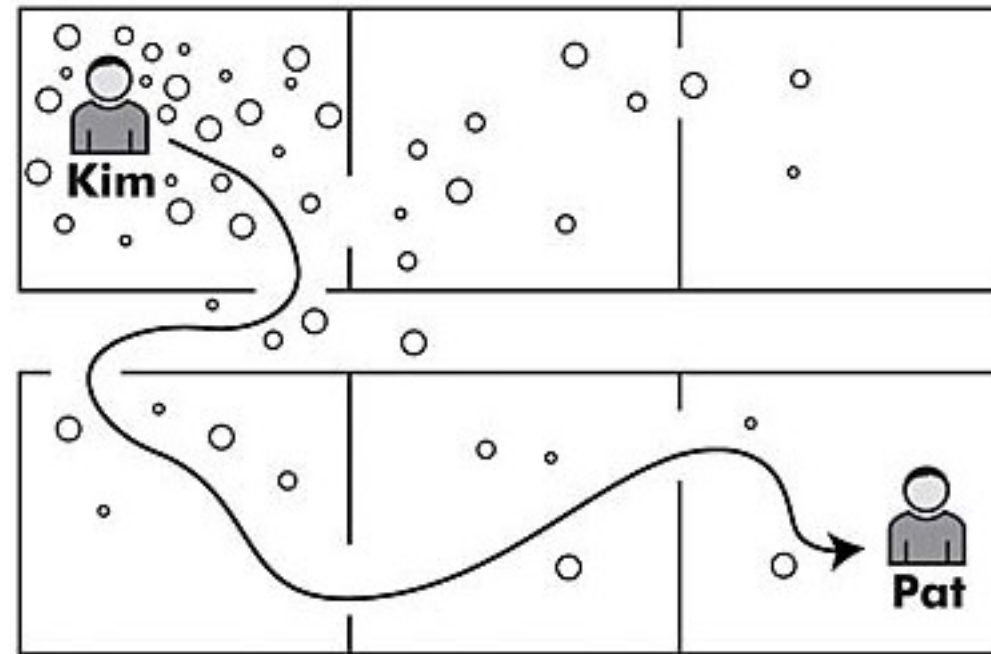
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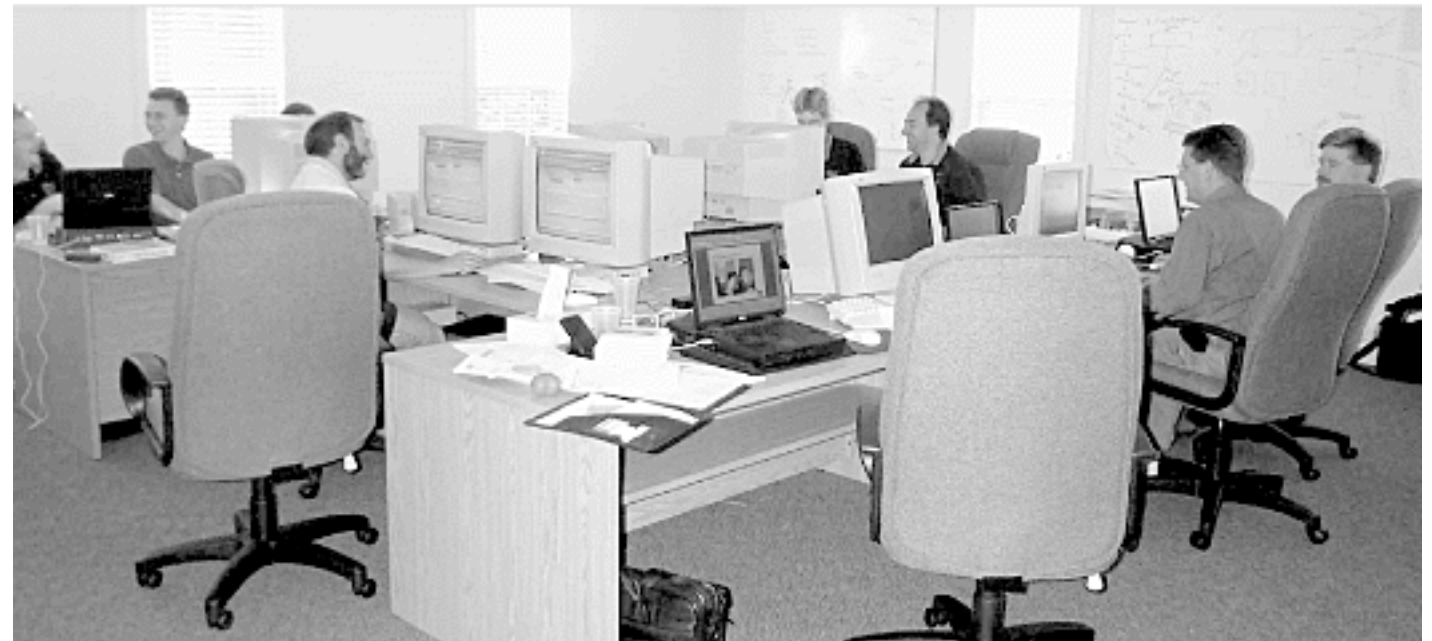
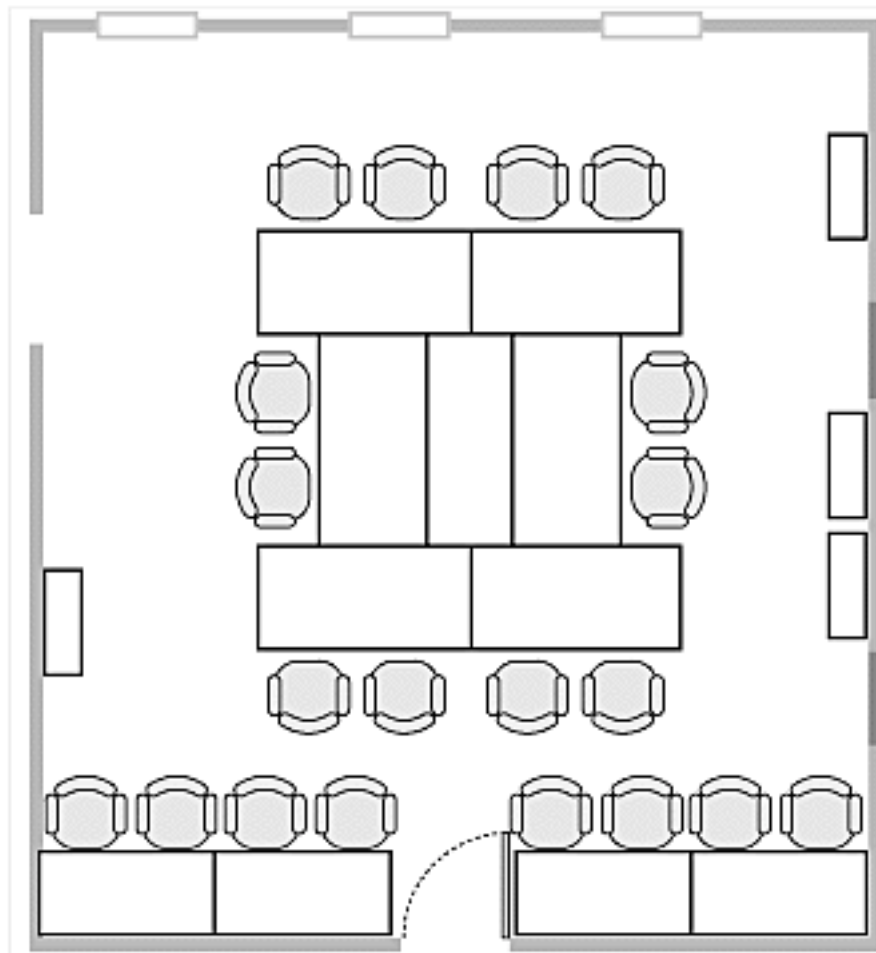
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 - But: Draft = unwanted/distracting information in background



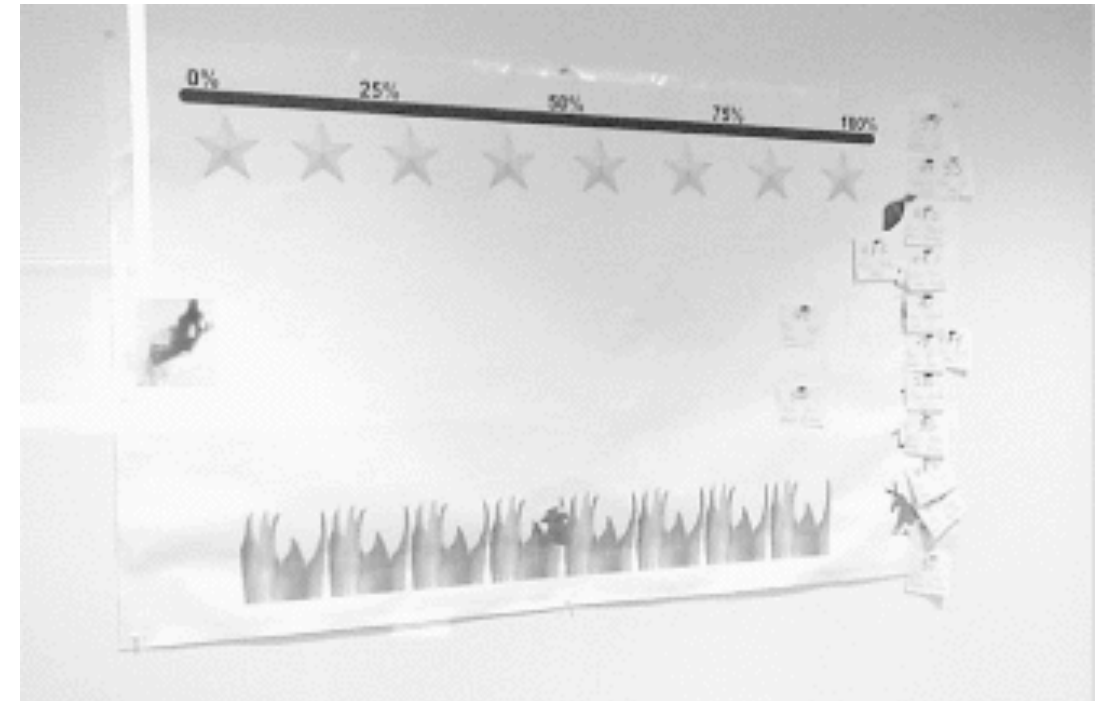
Caves and commons



Office layouts

Layout	Osmosis	“Draft”
Separate rooms	None	None
Separate rooms + many meeting rooms	None	None
General Open space	High	Very High
Gen. Open Space + Meeting rooms	High	High
Team open space	Highest	Neutral
Caves & commons	Highest	May be limited

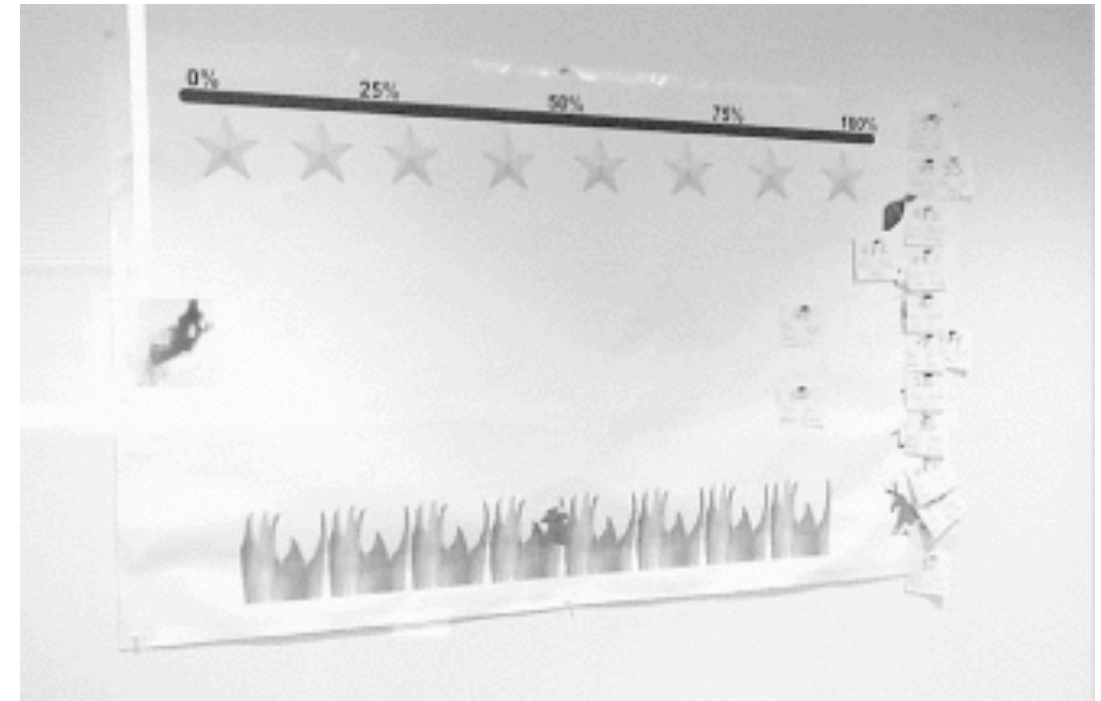
Information radiators



Information radiators



Progress



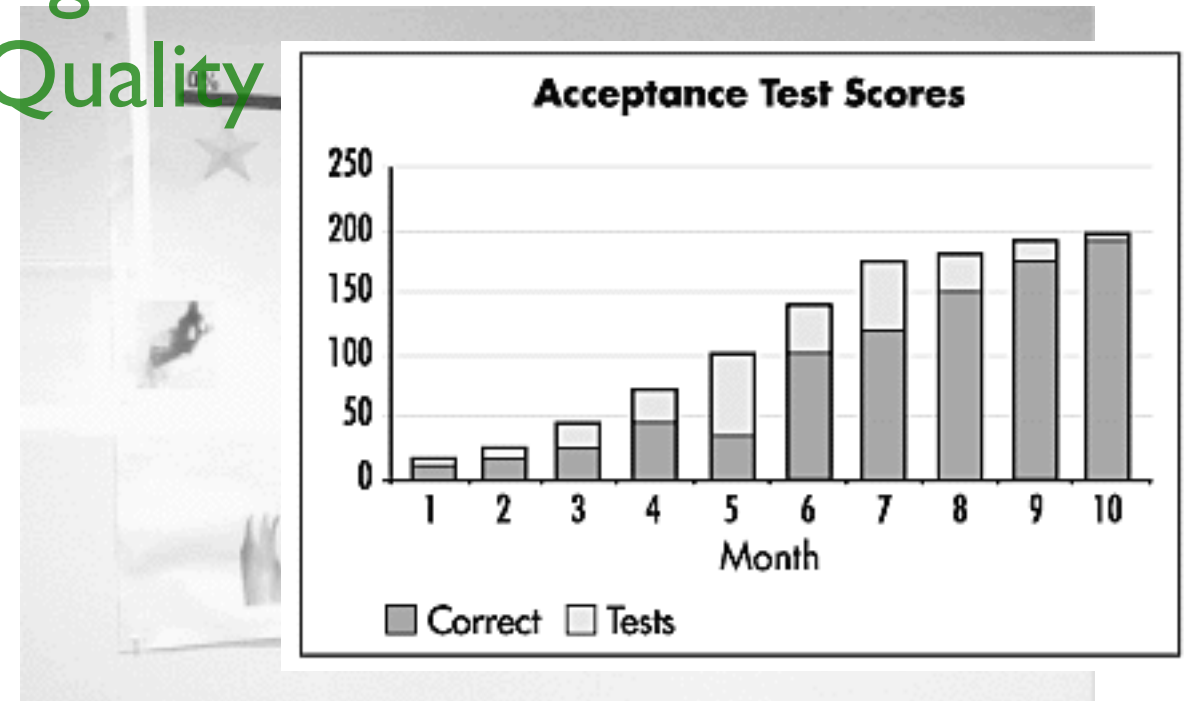
Information radiators

Progress &
Quality



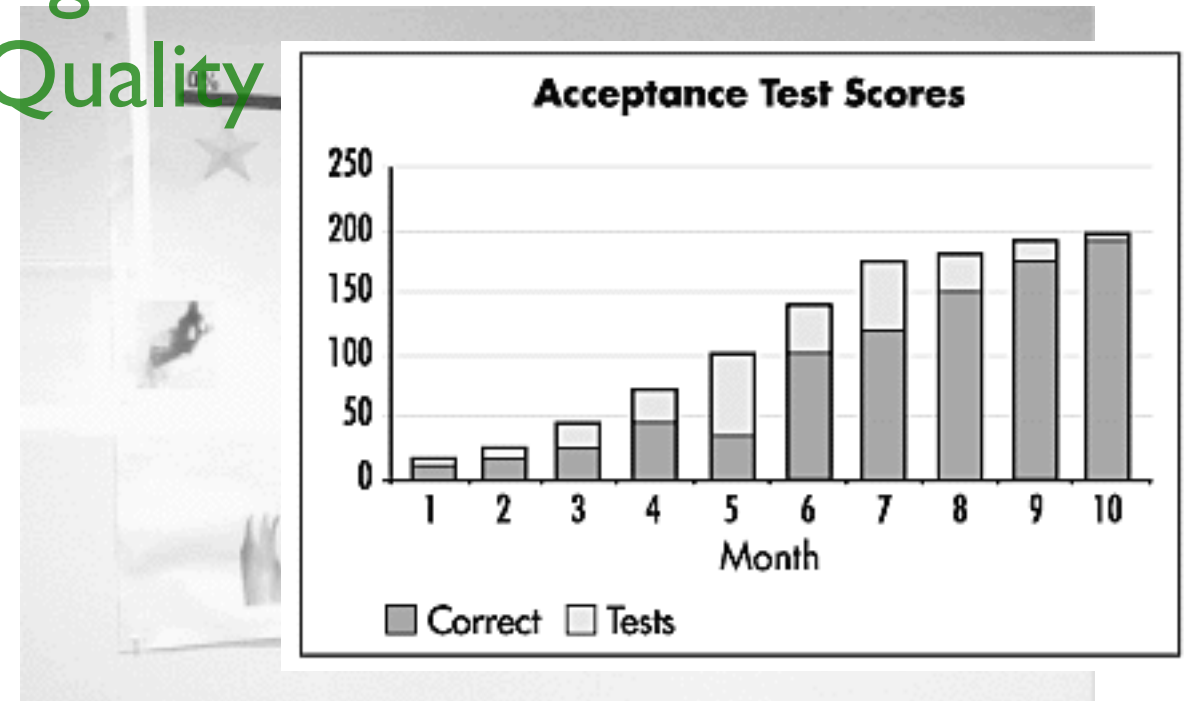
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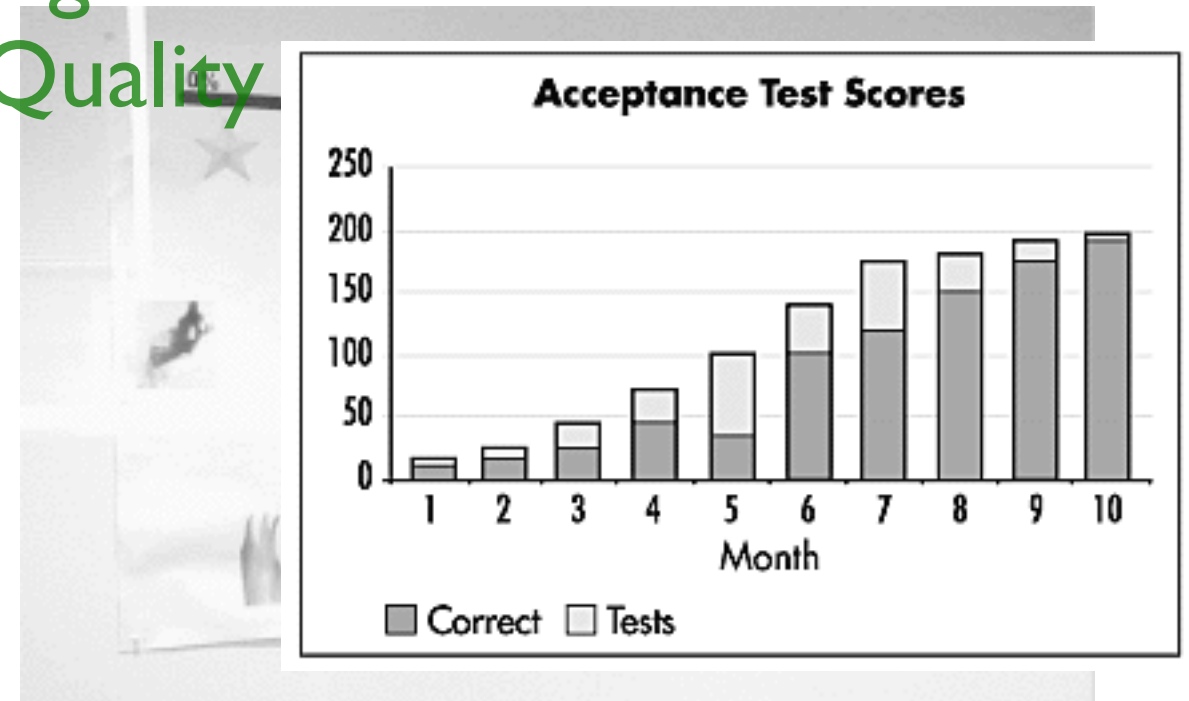


Work breakdown

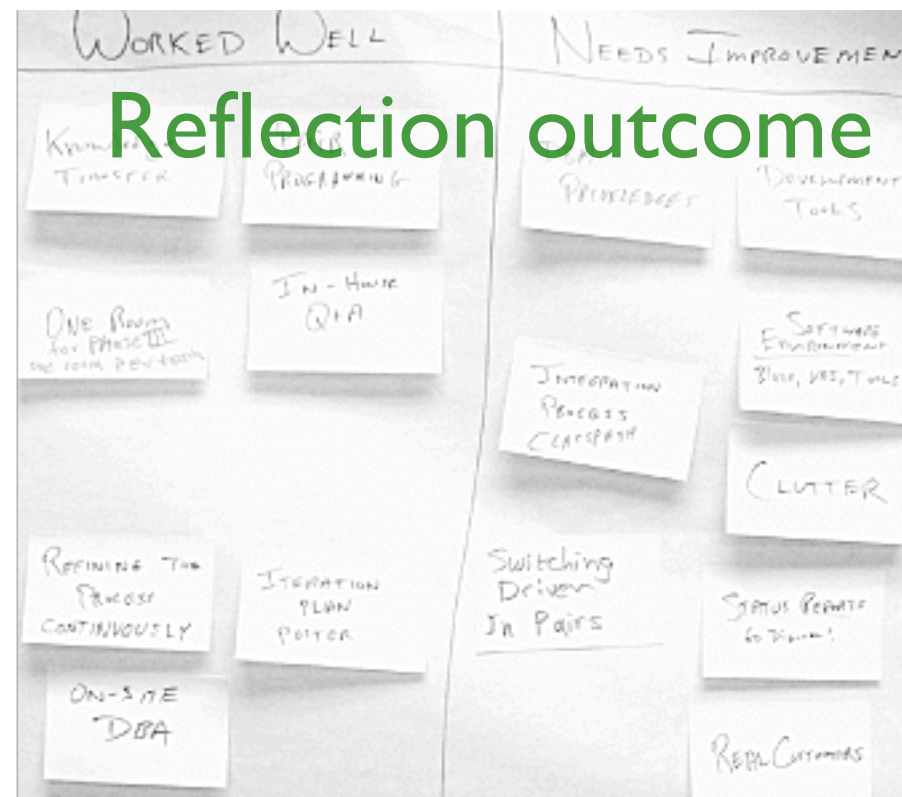


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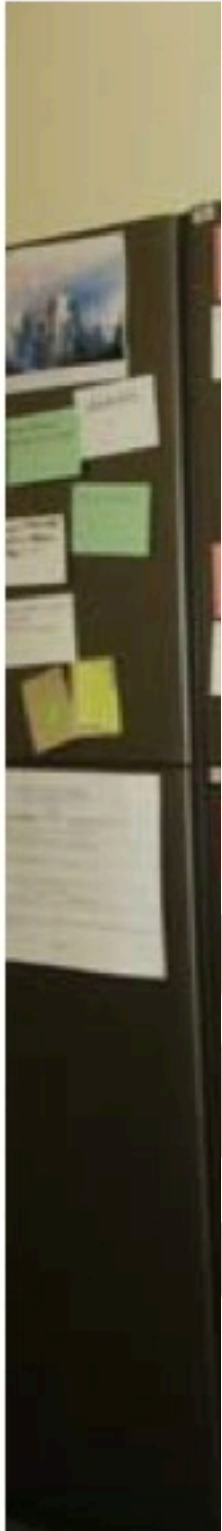
Information radiators: The Wall

[Sharp2009]



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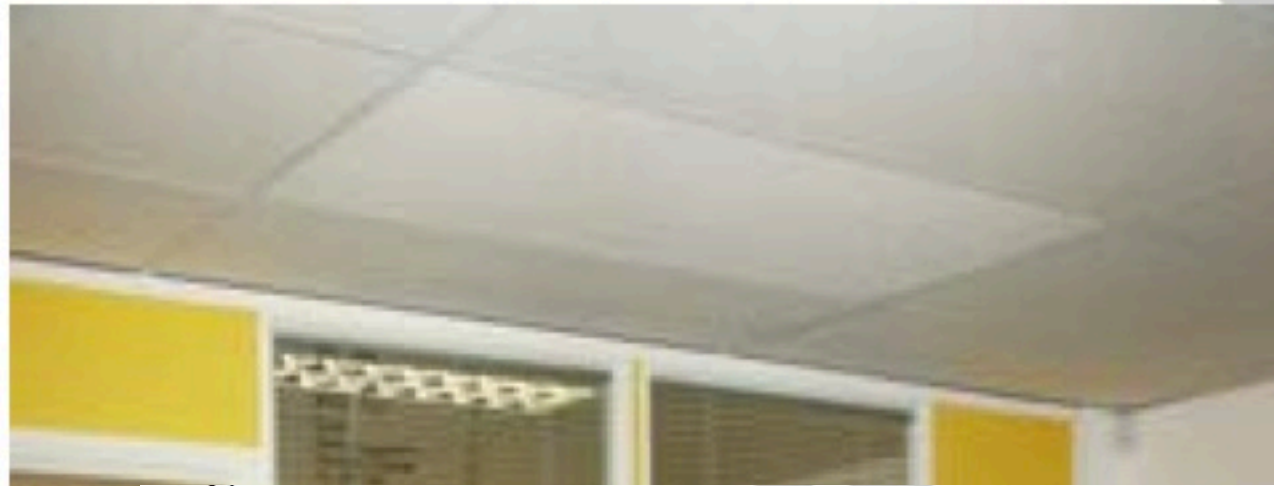


Figure 2 The planning game table



Information radiators: The Wall

[Sharp2009]



Figure 2 The planning game table

Project title		Project plan row #	
Story			
<hr/>			
<hr/>			
<hr/>			
<hr/>			
<hr/>			
Initials	Estimate	Date	Initials Actual

Week 1	Week 2	Week 3
<div><div></div><div></div><div>To do</div><div></div><div></div></div>	<div><div></div><div></div><div>To do</div><div></div><div></div></div>	<div><div></div><div></div><div>To do</div><div></div><div></div></div>
<div><div>Done</div><div></div><div></div></div>	<div><div>Done</div><div></div><div></div></div>	<div><div>Done</div><div></div><div></div></div>

Not only passive “radiation”

[Sharp2009]

6. Conclusions

Co-ordination and collaboration activities in an XP team are highly inter-related. The kind of co-ordination that is undertaken by a team results additionally in a situation where collaboration is made easy because team members are very aware of others' work, overall project progress, and the state of the code base. Co-ordination and collaboration are supported by two key artefacts: the story card and the Wall. These two physical objects work in a sophisticated and complementary manner and their physical nature is significant in underpinning the highly collaborative and self-organising style of agile teams. In particular, we note that current texts (e.g. Beck 2004; Cockburn, 2002) discuss the importance of information radiators and informative workspaces in terms of 'visitors' or 'passersby' being able to see clearly the state of progress within a team, but our analysis shows that these properties are crucial to the work of the team themselves

The significance attached to physical artefacts is not peculiar to XP teams, nor indeed to software development, as research has shown that paper is used for collaboration and co-ordination purposes in other domains ranging from air traffic control to newspaper publishers and police work.

Nomura et al (2006) found that the paper-use practices of pilots serve a set of important cognitive functions, and that these practices have a range of implications for the design of computer-based media to support pilots as they work in collaboration. In the same way, it is important for us to understand the significance of paper in collaboration and co-ordination activities of XP teams, so that we can enhance our understanding of how successful XP teams work, and so that we can inform the development of computer-based support systems.

Communication modalities/ mechanisms

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- Physical proximity

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- 3D

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Communication modalities/ mechanisms

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- Kinesthetics
- Touch
- Sound
- Visuals

Communication modalities/ mechanisms

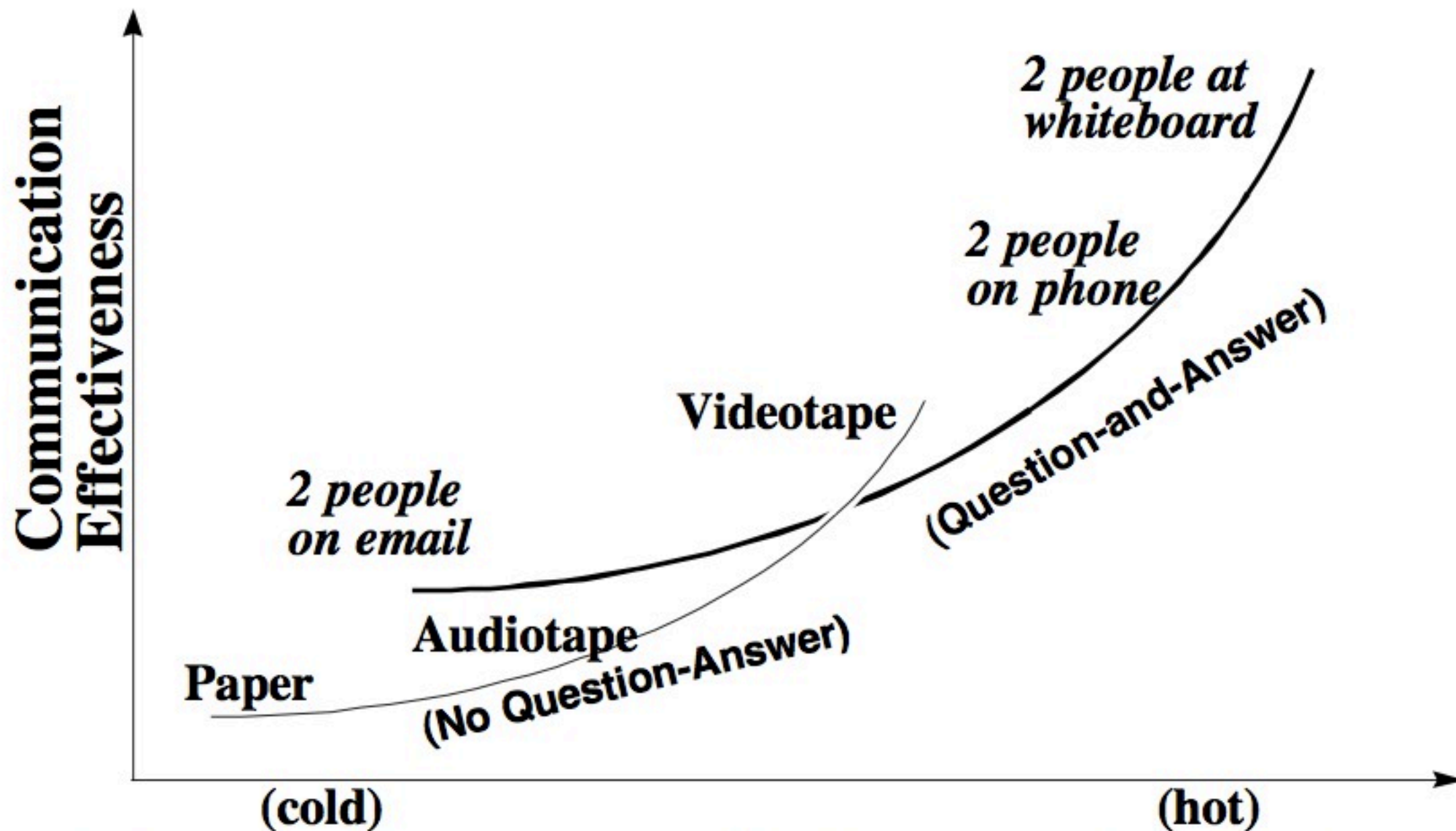
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- Trust & Learning

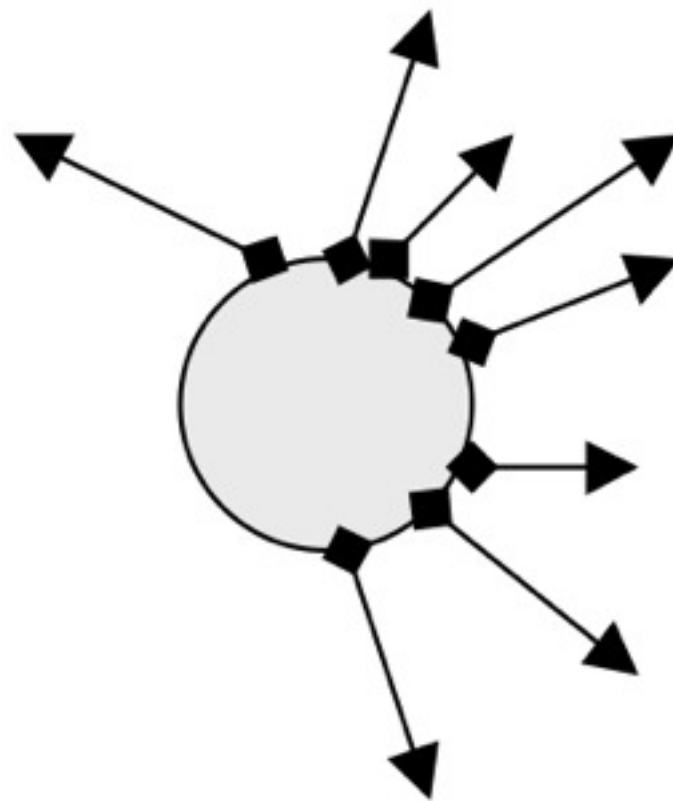
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- Trust & Learning
- Shared, Persistent Info Radiator

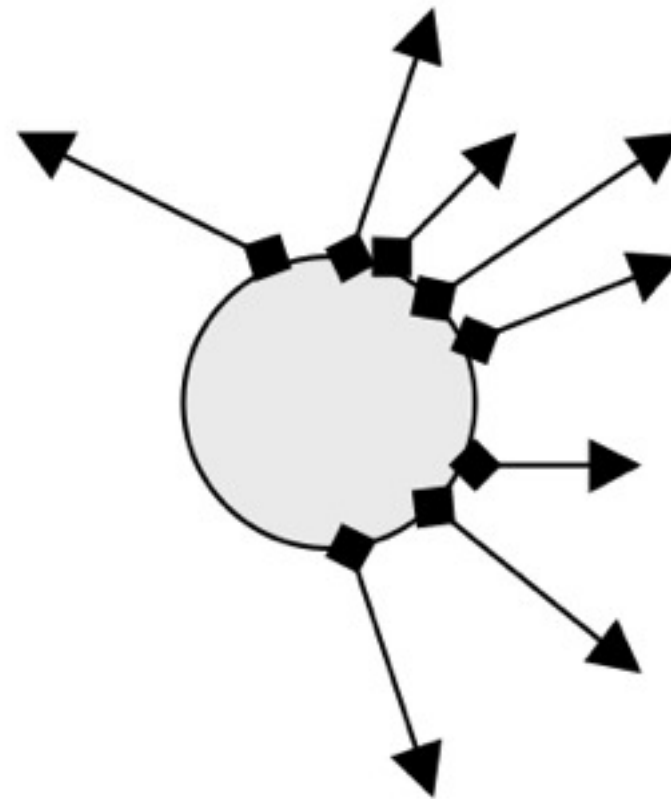


Richness ("temperature") of communication channel
Figure 3-14. Effectiveness of different modes of communication

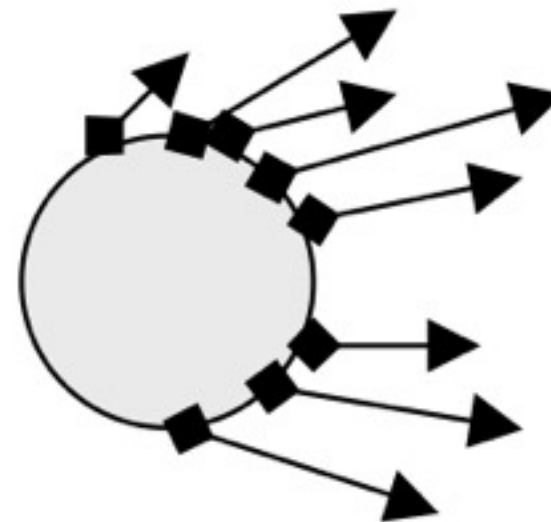
Goal

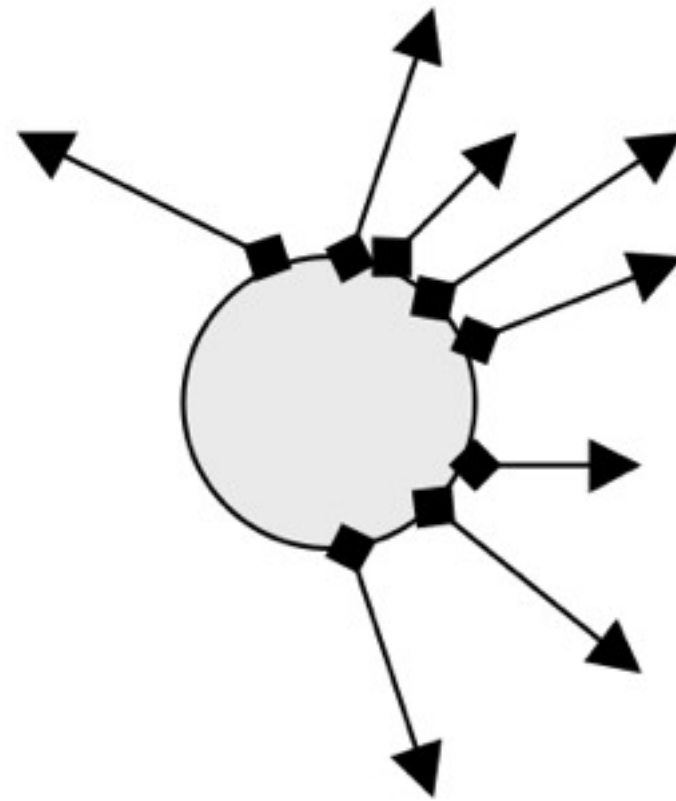


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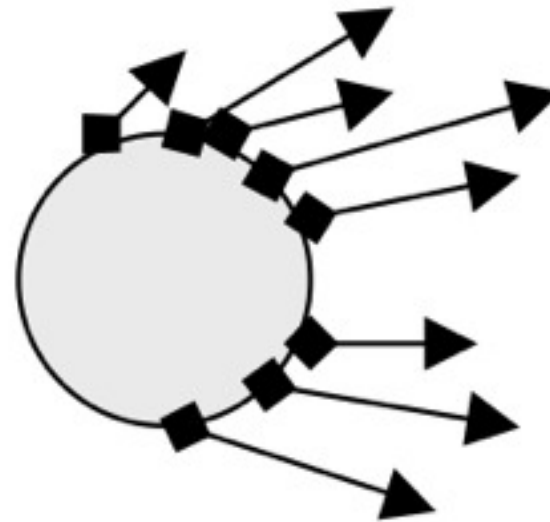


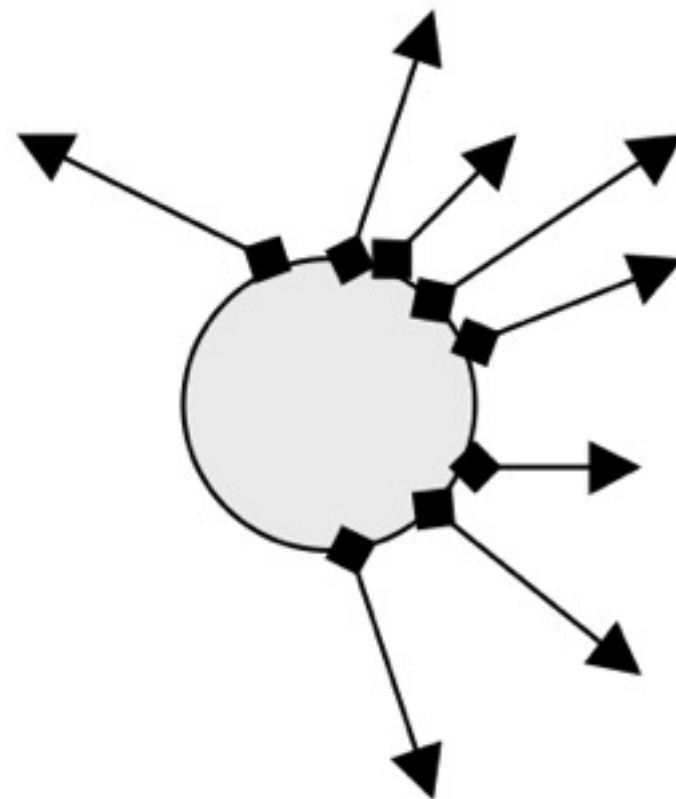
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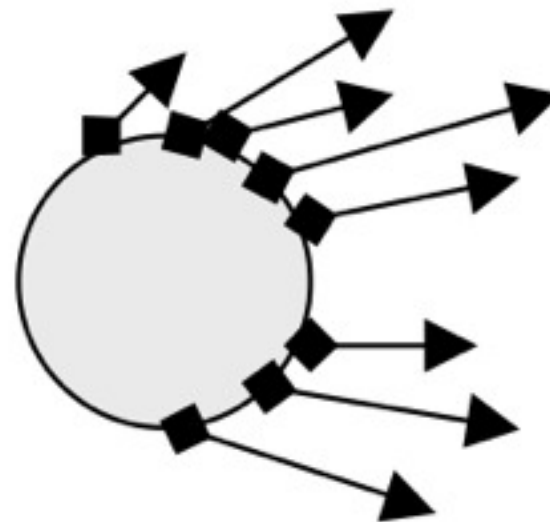


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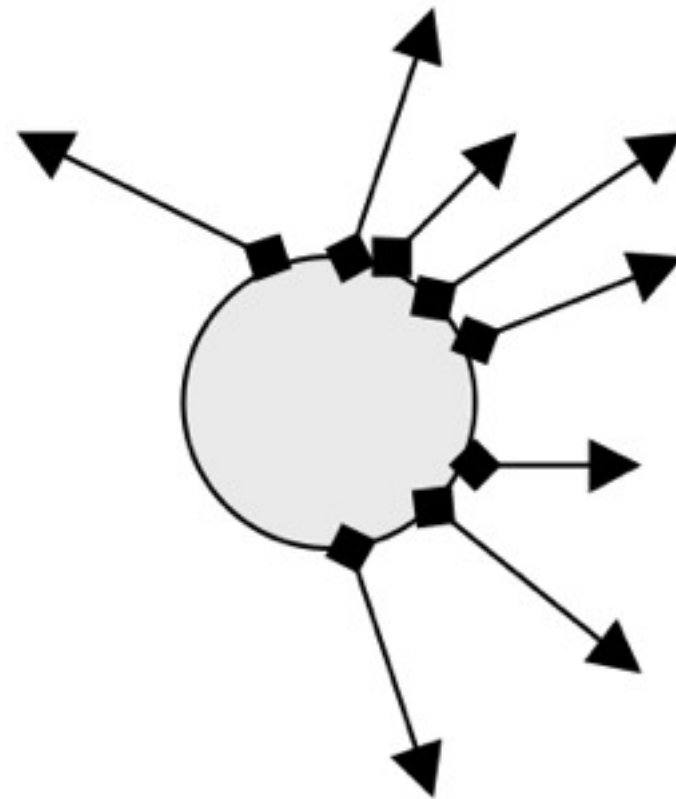




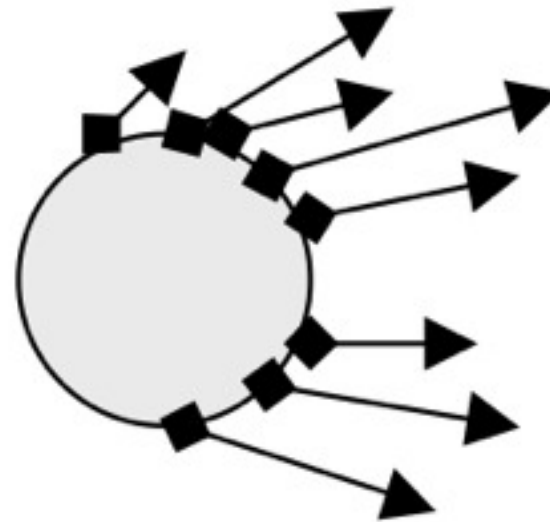
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Micro-changes
compund, give info on:

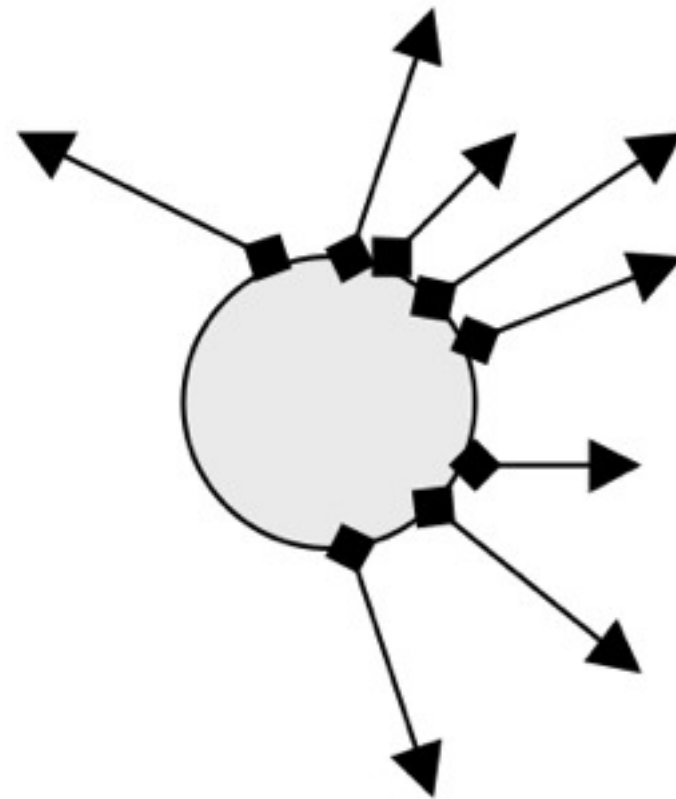


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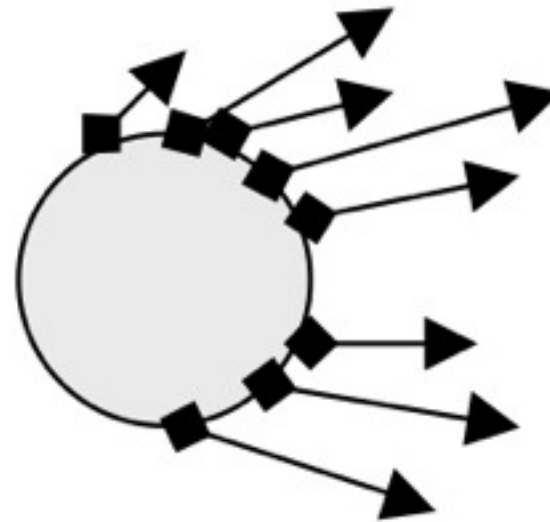


Micro-changes
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Direction of pull



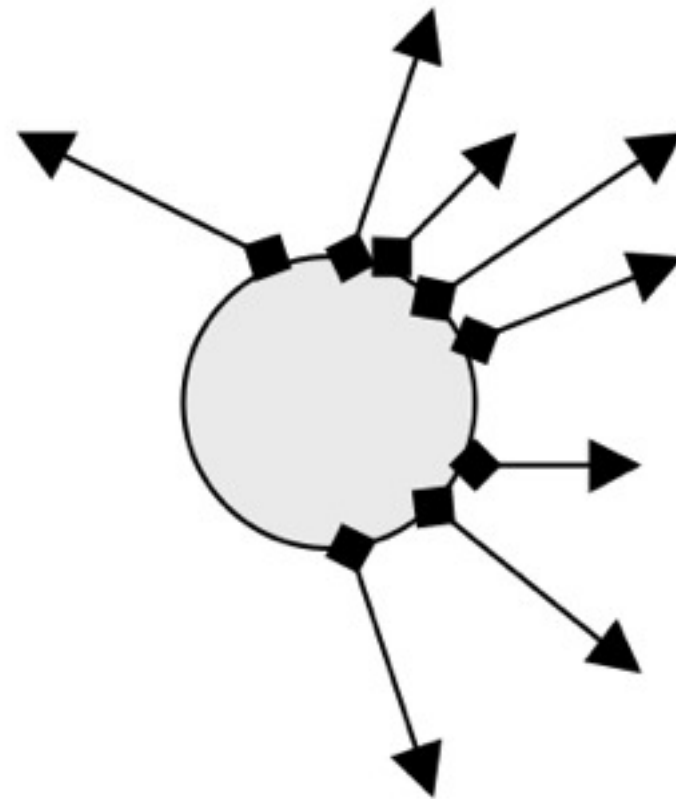
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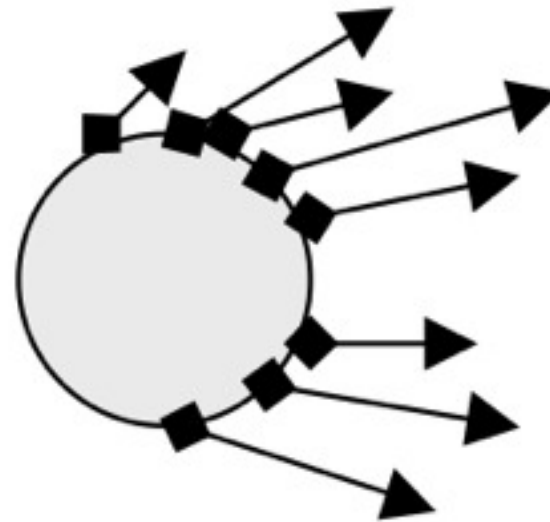
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Direction of pull

Effects of their
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Goal

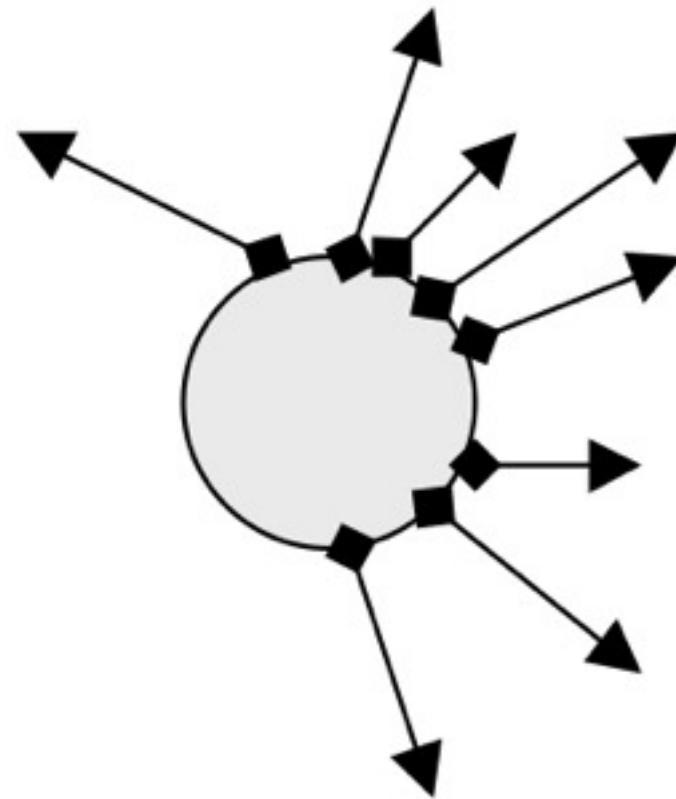


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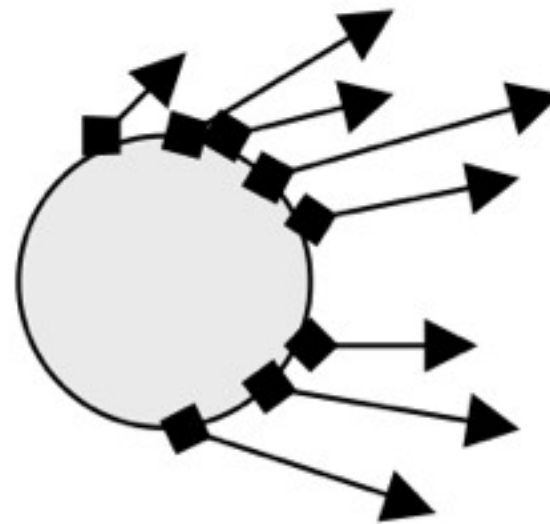
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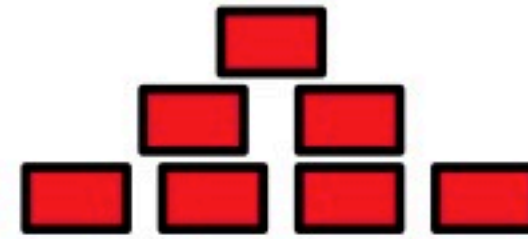
Reason to pull in
desired direction



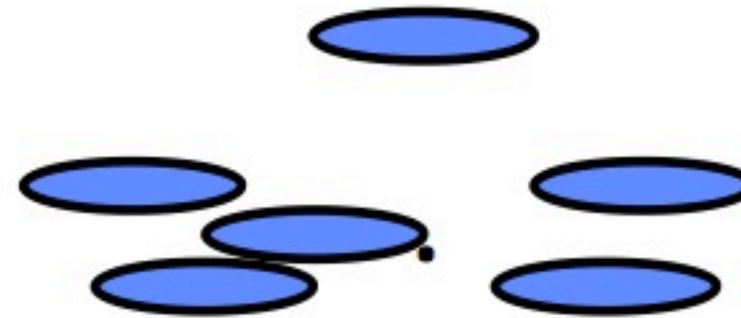
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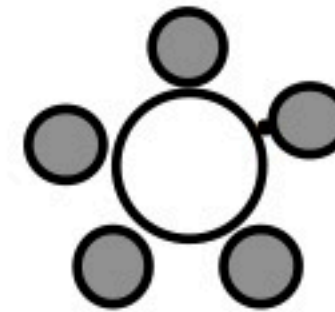
Hierarchical



Random



Collaborative



Synchronous

