

Networked Learning

Peter B. Sloep
FTA Board Meeting
Heerlen, April 6th, 2011



Learning Networks

Learning Networks are **online social networks** that have been designed with the intent to blend non-formal learning and deliberate instruction in degrees that suit de learner's needs best.

Learning Networks could be built from **scratch**, could make use of a blend of existing **social software tools** only, or could be designed as a mix of both.

Learning Network **research** focusses on learning, on professional development and innovation enhancement.

Of particular interest are the **social affordances** and their technical implementation in **services** that make learning in such environments effective, efficient, enjoyable and sustainable



Example: LSA powered learner support

Problem

— [learning support: how to support such learners whenever they run into non-trivial problems (non-searchable questions)?

— content related (how, why) or meta-cognitive

— [this kind of learner support is costly and time-consuming

— similar problem: Dave Wiley's teacher bandwidth problem

Answer

— [Enlist the help of peers, and work in small groups

— to lower the individual workload

— to avoid accidental blunders

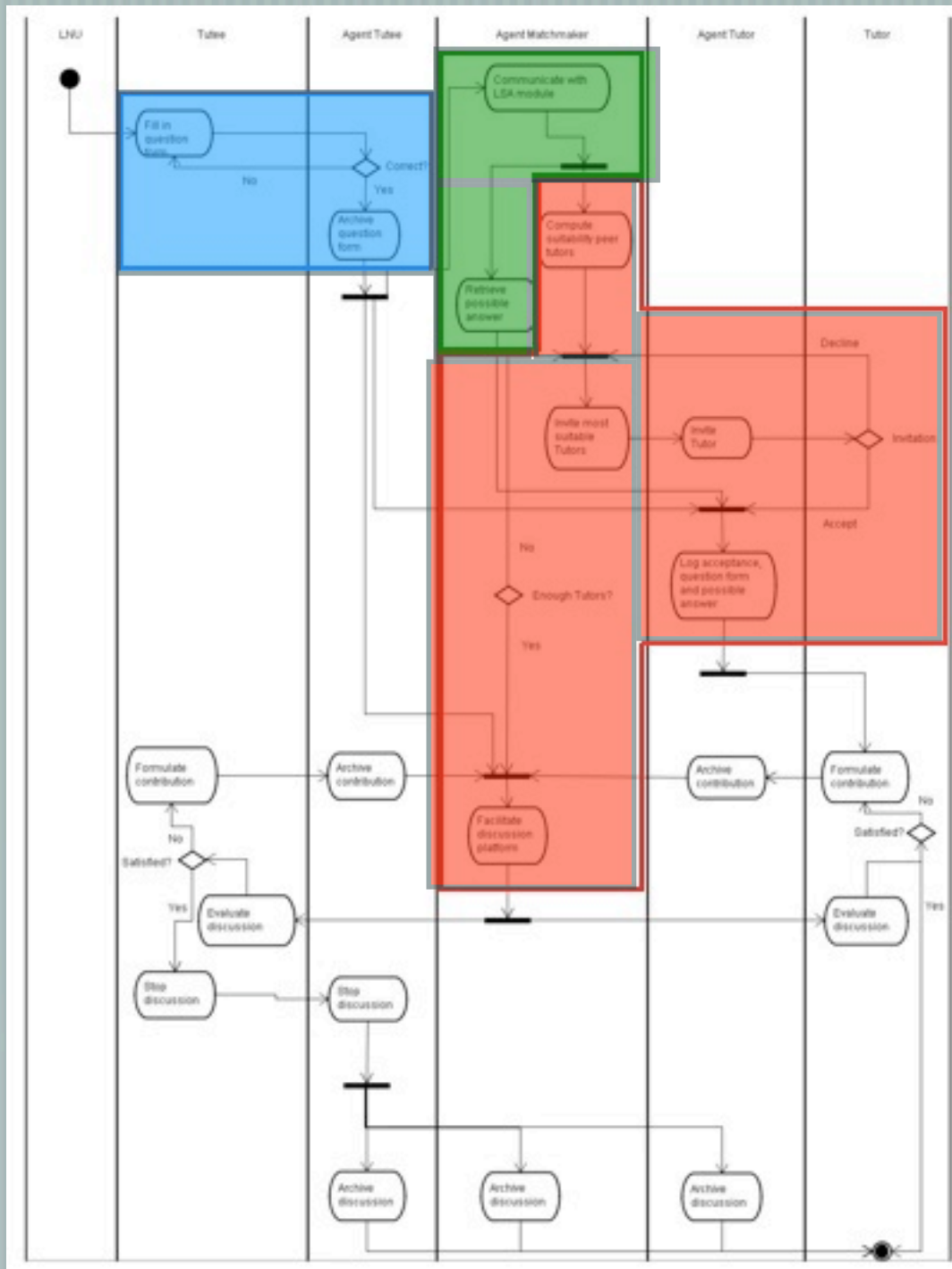
— to increase the likelihood of getting an answer

— to enhance sociability

— [**Ad hoc, transient communities** we call such groups

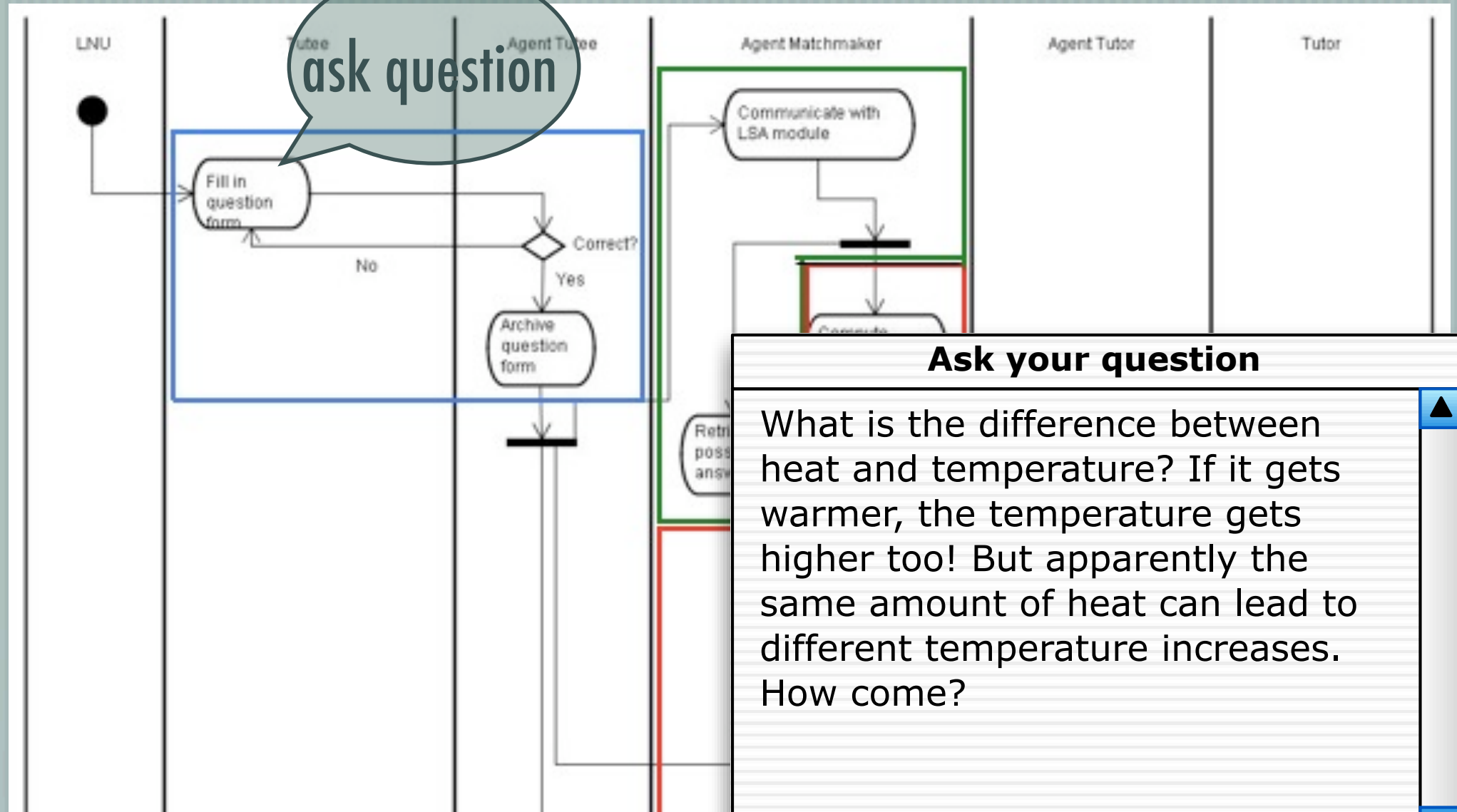
How?

- [By building software that
 - connects a 'tutee' to competent and available 'tutors'
 - puts them in a group
 - provide the group with a wiki
 - and seeds the wiki with possible answers.



- Moodle
- LSA module
- Tutor locator

UML activity diagram

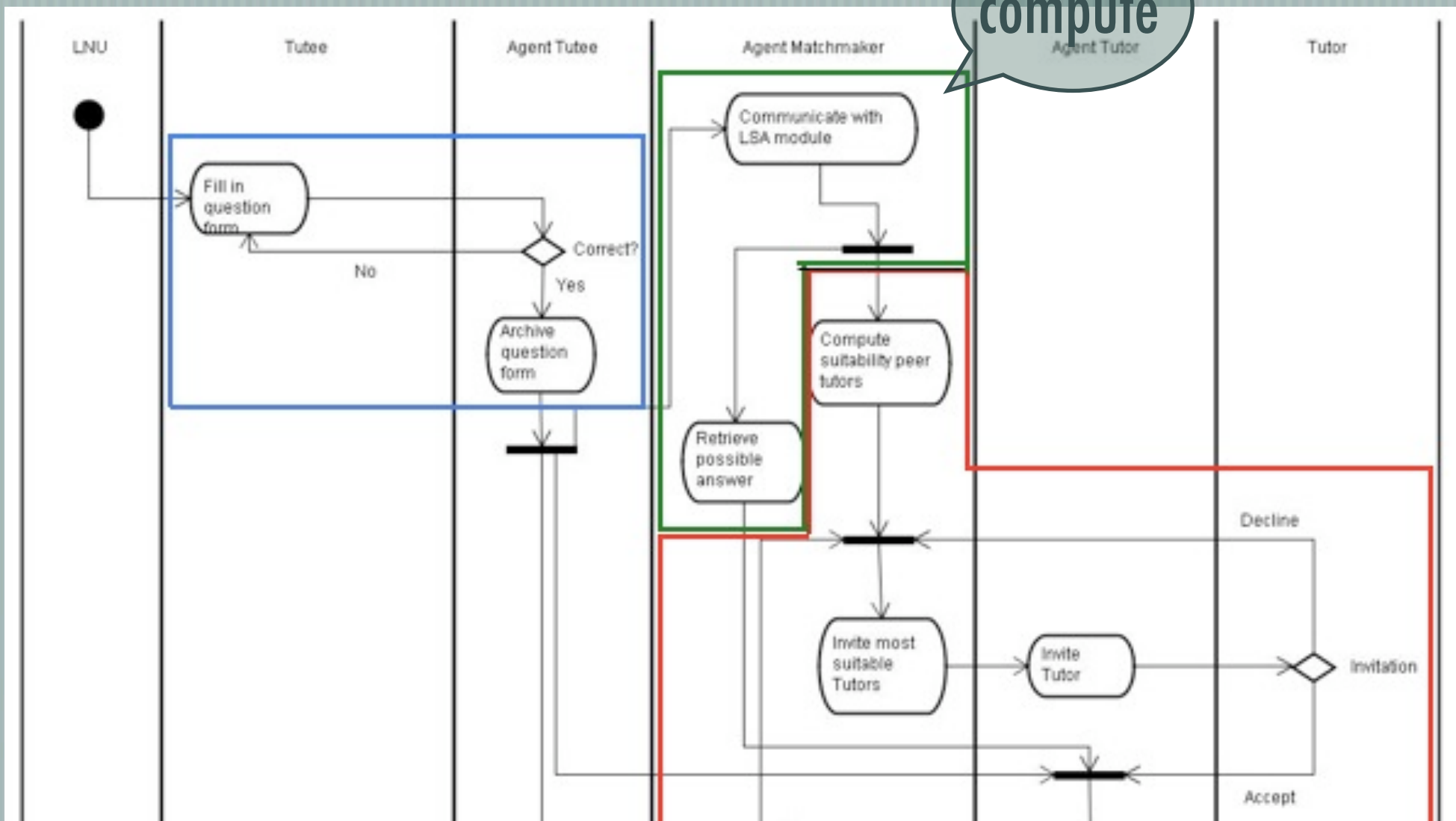


ask question

Ask your question

What is the difference between heat and temperature? If it gets warmer, the temperature gets higher too! But apparently the same amount of heat can lead to different temperature increases. How come?

Cancel Submit



compute

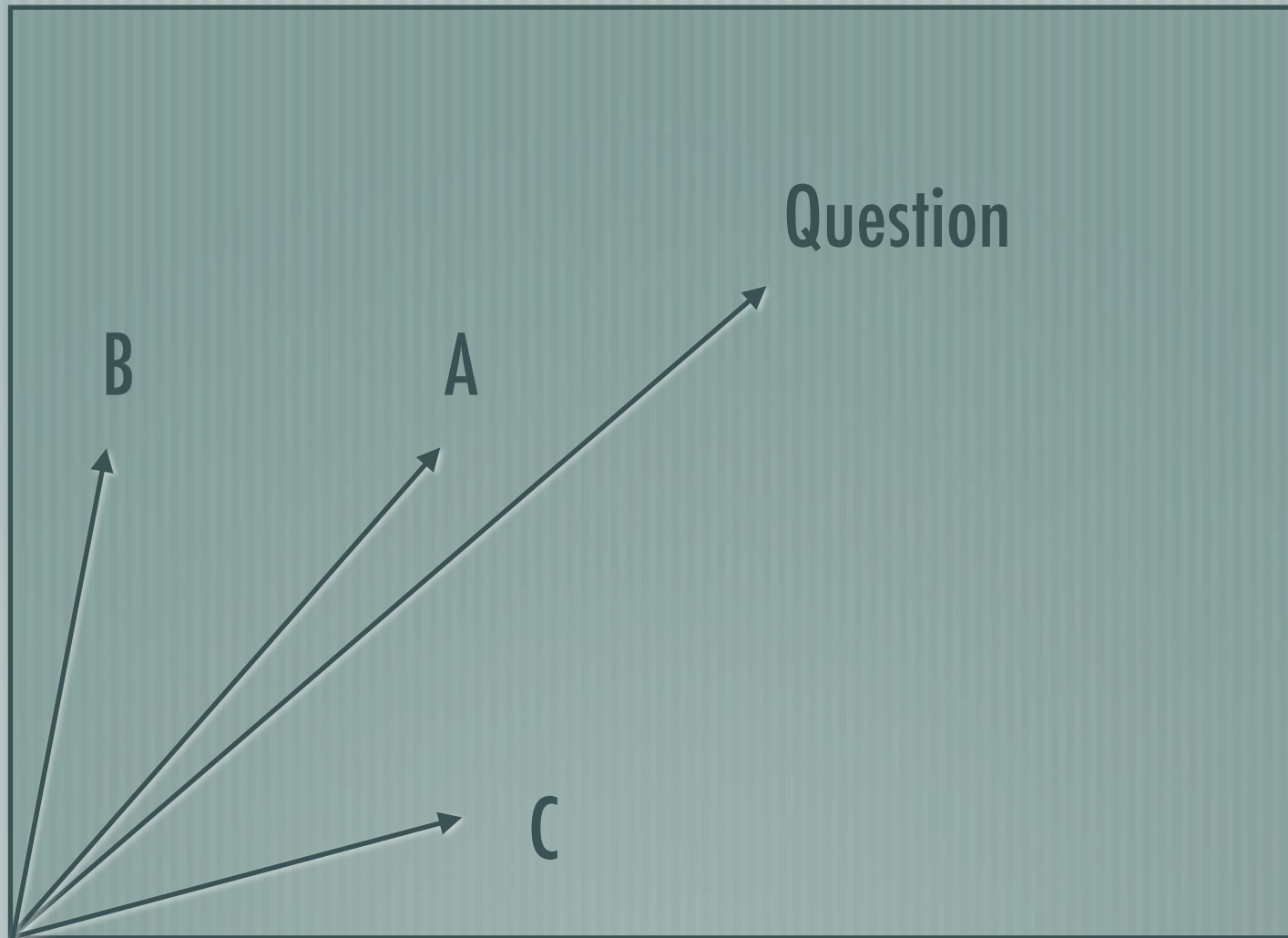
Latent Semantic Analysis

documents

terms

	1	2	3			i			m
aap	5	11	0						
links	1	2	33						
de	110	156	144						
soort	25	19	0						
i						$fr(ij)$			
n									$f(mn)$

Latent Semantic Analysis

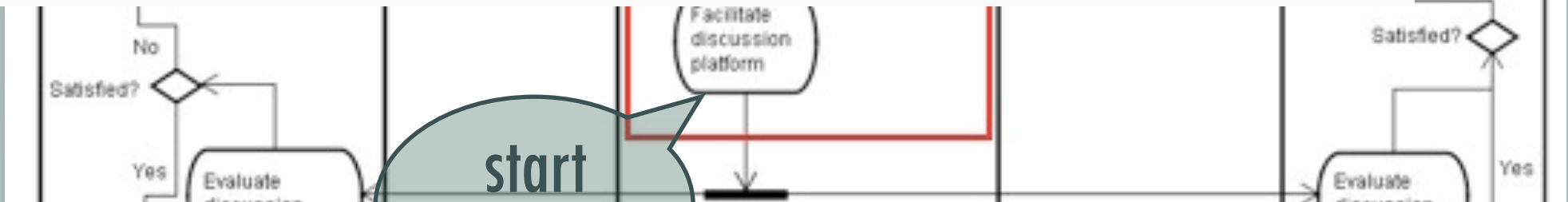


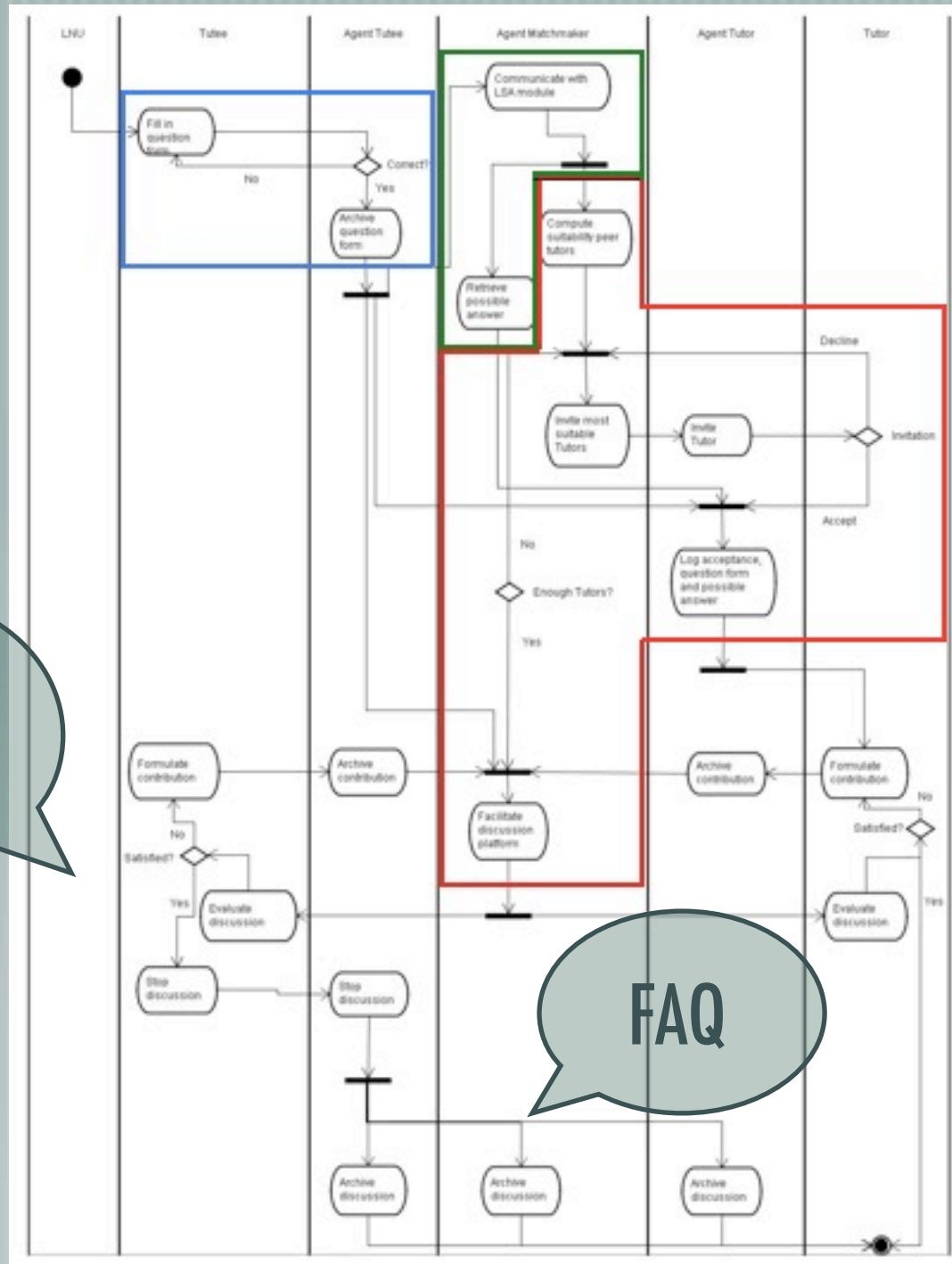
Maak je geen zorgen over de opmaak. Die kan later nog altijd aangepast worden.

The temperature is a measure for the average kinetic energy of molecules. Energy is needed to increase their speed and hence the temperature. How much energy is needed per degree depends on the molecular mass (their number) and their kind (metal need little, water needs a lot).

Pad: body

Bewaar Voorbeeld Negeer





tutee profile

tutor profile

FAQ

Thus ...

— [the tutee's questions are answered

— [the teacher's workload is reduced

— [the peer tutors themselves learn something along the way

— [and ...

— [the lone-learner problem is addressed!

The background features a dark teal horizontal band across the center. Above and below this band are lighter teal areas. Several overlapping circles are scattered across the page, some containing small red or grey dots. The text is centered in the dark teal band.

LN dynamics: Ad-hoc transient communities

'Lone-learner problem'

— [Studying entirely on your own negatively influences academic performance (Wegerif)

— [Learning together is more effective (Wenger)

— [Ad-hoc transient communities help solve the 'lone-learner problem' by increasing sociability (Preece)

NOT a community ... yet

— [Een ad-hoc transient community is **not** a traditional community

— There is no stable, shared goal

— There are as many goals as there are users

— There is no stable division of labour, though learners do switch roles (tutee \Leftrightarrow tutor)

— [if anything, it acts as a condensation nucleus (cloud seed)

will AHTCs 'work'?

- [roles are asymmetric per event

- the tutee takes, the tutor gives

- [similar to prisoner's dilemma, so doesn't work

- you have to trust the other, for whom it is more profitable to take but not give

- [but the iterated prisoner's dilemma does work

Prevent 'cheating'

— [advertise good model behaviour

— [rule out anonymity (allow at most persistent pseudonymity)

— [guard the boundaries by making clear who belongs to the network and who doesn't

— [technically implement tracking and tracing of others

— [Granovetter's the strength of weak ties



In conclusion

— [More (recommender) services

— P-bank, dossier, portfolio

— Learner positioning, learning path, resource discovery
(LeaPos, i/FLSS, Remash)

— Summary tools (Pensum)

— Dialog analysis tools (Polycafe)

— Conceptual development (Conspect)

— [The idea of networked learning is firmly grounded in social learning theories, or more broadly, in theories on social behaviour

— [As learning networks are online networks, they make use of social media, existing or custom-made

— [Learning network 'theory' can be used for formal and non-formal learning and 'blends' thereof