

LAKESIDE CONVERSATION

September 13, 2009 - Lienden, NL

*And so, driven on ceaselessly toward
new shores, carried beyond return into eternal
darkness, shall we never cast anchor for a
single day in the ocean of time?*

Alphonse de Lamartine: *Le Lac* (1820)



Images of the Lakeside Conversation on *Collective Intelligence* on September 13, 2009, in Lienden, The Netherlands.

Participants in the conversation:

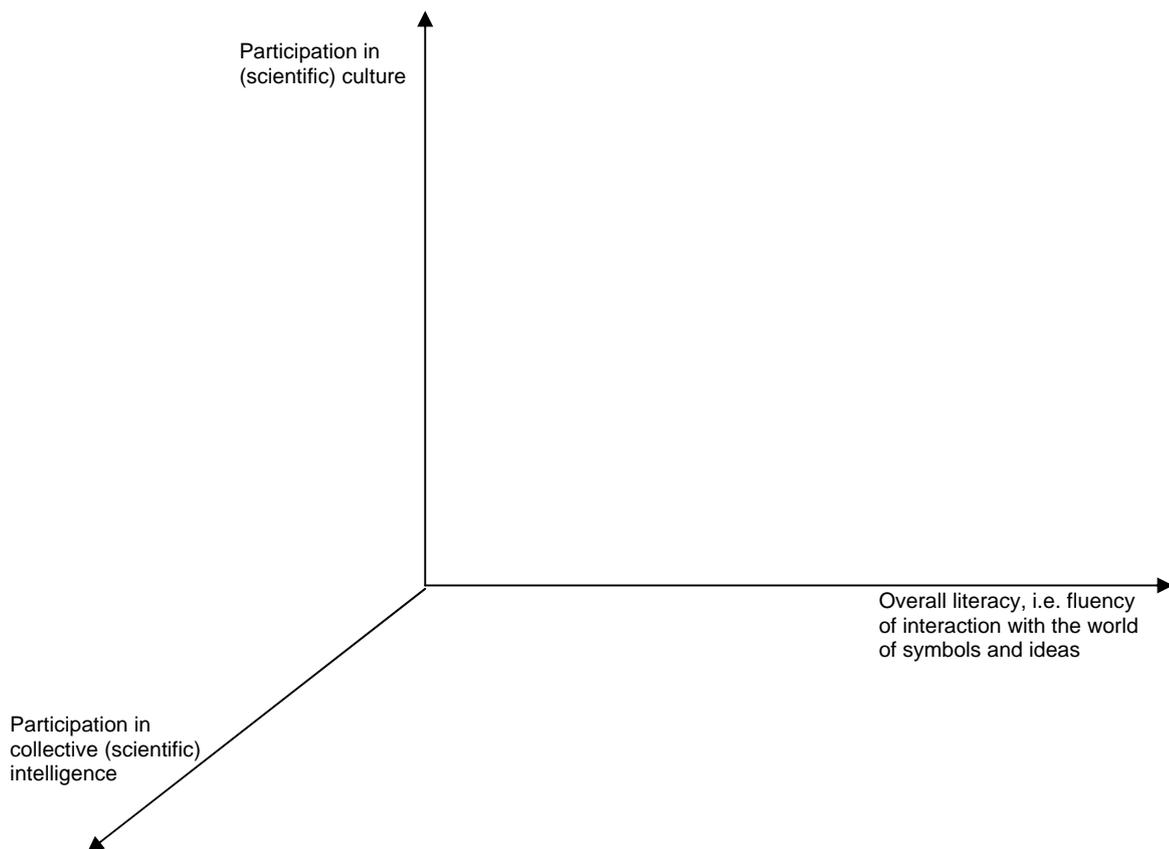
- Chide Groenouwe - Free University Amsterdam
- Carolina Ödman - University of Leiden
- Ronald Siebes - Free University Amsterdam
- Jan Visser - Learning Development Institute
- Lya Visser - George Washington University
- Yusra Laila Visser - Florida Atlantic University

Prompt to discussion

The topic for the conversation—collective intelligence—was suggested by Carolina Ödman. Interest in this topic was related to Carolina’s work in building the scientific mind in young children in the framework of the Universe Awareness (UNAWA) initiative (www.unawe.org).

At the beginning of the conversation, the above prompt was unpacked as follows.

An initial thought was that participation in scientific culture (and for that matter in culture in general) increases with overall literacy, but that at low levels of overall literacy, particularly as attained through formal education, little still happens. Participation in ‘collective (scientific) intelligence’ was suggested as a way to overcome this hurdle. We thus concluded that we were looking at a three-dimensional space for our considerations (as depicted below). In the course of our initial explorations of the issue, the concept of ‘overall literacy’ became defined as “fluency of interaction with the world of symbols and ideas.” We also concluded that ‘participation in collective intelligence’ goes beyond the current trend of doing so via the Internet. In fact, we recognized that we are dealing with an age-old phenomenon. The emergence of technological tools and opportunities has changed the rules of the game and vastly broadened the scope and diversity of participation allowed.



Questions and concerns

Prior to the actual conversation, questions and concerns had been raised inspired by the given prompt. They were shared by email. During the meeting, other questions were added. Below is a listing of those various questions and concerns in the order in which they were communicated..

Jan Visser

A. While I see the obvious benefits to community building through collaboration in the production of knowledge, there are problems with the use of the outputs of such processes by those who did not participate in the production process. I foresee such problems for instance in the use of collaboratively elaborated open educational resources (OER) through such initiatives as the WikiEducator (www.wikieducator.org) as well as in the use of the Wikipedia for reference purposes by university students.

- 1) How can such users be sure of the validity of what they use?
- 2) What is needed to prepare users to self-validate what they read?
- 3) Would self-validation be sufficient? If not, what more is needed?
- 4) What bridges could possibly be constructed between traditional validation systems (peer review, etc) and the current movement towards 'everything goes'?
- 5) What may be the impact of anonymity of sources on how users interact with these sources? I'm particularly thinking here about what happens in the affective domain when you do no longer see a human being of flesh and blood with a known intellectual history behind a given source.

B. As I have a particular interest in processes of building and nurturing the scientific mind, I wonder if we can create an outline of benefits and drawbacks for BtSM of the emergence of collective intelligence alongside good old individual intelligence.

Ronald Siebes

Would striving to a digital world where radical transparency

(http://en.wikipedia.org/wiki/Radical_transparency)

is realized (meaning everything is known by everybody, where it comes from and how it is processed, and who accesses it) be a threat to freedom of speech?

Added concern on the part of Jan: How do possible advantages and disadvantages of radical transparency compare? Is it something we should welcome or fear, considering not only freedom of speech, but also the psychological need for boundaries we wish to set around our very identity?

Chide Groenouwe

It is important that those who participate in collective intelligence also participate in the co-construction of the (learning) environment that embeds the collective intelligence. How can this be achieved? If self-organization is the principle through which it happens, what are the chances that the system self-organizes into yet another form of specialized rigidity?

Yusra Laila Visser

- Working with the concept of "collective intelligence" as mediated through a semantic web, what is the effect of losing those non-verbal, non-written ways in which intelligence has traditionally been shared in communities? (e.g., body language, physical demonstrations).

- If participation in evolving collective intelligence is indeed a valid part of what it means to learn, how should this impact the planning, design and development of formal education events, particularly in terms of defining their goals?
- Considering that much of the development of collective intelligence occurs online, may we expect that it can then also seamlessly go offline to enter the real world?

Discussion

From the start it was recognized that we had more questions in front of us than we could possibly address in the few hours that were left. We thus started out identifying key concepts and issues that seemed useful to structure both the present and possible future discussions. This resulted in the following list:

- Culture.
 - Scientific culture as a sub-domain of culture in general.
- Schooling/Education/Literacy/Fluency of interaction (i.e. the collection of things a society aspires to instilling in its citizens).
- Participation in the community of thinking.
- Self-organization.
- (Personal) freedom/privacy.
- Validity - i.e. the ethics of knowledge building / avoiding self-referencing at the collective level (such as in Wikipedia) as much as at the individual level.
- Motivation or the drive to become better in relation to perceptions of identity and held worldviews.
- The role played by technology.

Entry point: Motivation

Nothing much happened without the presence of motivation. So, we took out 'motivation' as the generative concept for the present discussion and asked ourselves what could possibly inhibit people's participation in the development of collective intelligence and thus what could be done to ensure that such inhibitions would be neutralized. After a fair amount of brainstorming the following, largely dispositional, factors were identified as key towards environments in which collective intelligence could be expected to self-organize suavely. The list follows the order in which these various factors emerged in the course of the discussion.

- Absence of fear.
- Presence of trust.
- (Perceived) freedom to be oneself.
- Fairness (particularly in regard of the 'rules of the game' by which individuals interact with the learning environment).
- Care.
- Love.

No doubt, many of these concepts overlap and some, like care and love, may be seen as encompassing prior concepts.

It was also concluded that the Web has features that allow identities to be experimented with. Where in the real world one is always seen, in virtual environments one can more deliberately experiment with setting boundaries, and modifying the permeability of such boundaries, at will.

Conclusions

The discussion so far provides a good start for further work. We identified key concepts around which to structure future dialogue. We also tackled the issue of motivation to become a participant in a collective intelligence environment and identified key enabling factors for participation.

Next steps

This last section brings together comments and ideas from those who participated in the conversation—as well as possibly readers of this report interested in joining the dialogue—regarding additional points of interest and suggestions concerning how to go ahead and what to focus on in the future. These contributions are preceded by the name of the person proposing them.

Yusra Laila Visser

One of the concepts that I recall coming up with some regularity, which may have a place in the report, is the concept of “*citizen science*” – I did not see it referenced directly, and wonder if it might be included.

With respect to next steps, allow me to initiate the dialogue with a few suggestions. I believe that the conversation we had was extremely stimulating, and that it opened many new windows for exploration at the conceptual and applied level. Whenever I personally have the opportunity to engage in conversations that stimulate my thinking at the somewhat more theoretical or conceptual level, the next question I tend to ask myself is; “what of this discussion can we use in addressing the many significant and urgent needs in the world, and how might we use it?” So, with that in mind:

- The theme of collective intelligence, as I understood it from the reading materials and discussions, has several interpretations. Loosely, it can be looked at in a broad sense as something that communities/groups have likely engaged in since the beginning of time, the building of intelligence shared and suspended between individuals, hopefully passed on over generations. It also has a specific, operationalized definition, in terms of the attributes it takes on when looked at in the context of semantic webs and their use to develop networked, technology enabled systems designed to for the specific purpose of functioning as collective intelligence systems. Depending on which definition we focus on, our discussion of next steps will likely be somewhat different.
- While our discussion allowed us to get started on some very interesting thoughts around collective intelligence in terms of both of the above frames of reference, I believe we can likely still explore each instantiation in more detail (however, my feeling on this may be because I unfortunately was not able to join you for the full length of the discussion). Perhaps some further discussion is therefore of value.
- We might also want to think about “where the rubber meets the road”. Carolina does many important projects with children and citizen science, as I understand it. How can the concept of collective intelligence, and our discussion around it, be “activated” for meaningful use in activities and endeavors like those that Carolina undertakes, to achieve things that have as yet not been achieved? This would be but one of many ways in which we might look at the “applied” world in the context of collective intelligence, but I should think it would be a very nice start.
- Likewise, the conceptual discussion could prompt an exploration of more concrete matters by looking at implications for research. For example, if I am correct, Ronald and Chide are quite familiar with the research around the semantic web/collective intelligence theme. Perhaps it would make sense to think of the kinds of research questions that would be pertinent in the context of (a) collective intelligence and the “building the scientific mind” notion, (b) the semantic web/collective intelligence notion with basic education/human development, (c) collective intelligence and motivation/volition. Needless to say, many more such areas of research are relevant, others perhaps more relevant than the ones I just mentioned; the idea, though, is that one of the “next steps” might be to a broader research agenda in this area. As part of formulating research questions, it is also likely important to explore implications for research design, so that we can ensure that research designs will indeed yield insight into the very things we are seeking to learn about.

Well, those are just my thoughts. I am afraid they are written in rather specific terms (with Carolina, Ronald and Chide in mind) and therefore likely not directly very appealing to people who were not in attendance for the initial event. However, these thoughts are also very tentative, and they would surely benefit from reactions and feedback from others in the group.