

# Teach - Tool - Learn: Social Media as a Tribute to Lev Vygotsky

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In the late seventies social scientists were focused predominantly on making education more democratic and more emancipatory. It is interesting to observe that so far almost all educational methods have ended in creating tools for the learner, ultimately helping build a learning attitude. An example is presented by the so-called "[Intelligent Instructional Systems](#)" that were based upon models of expert knowledge and models of the initial student knowledge.

However, the paradigm of optimizing teaching by reconciling the expert-novice gap was left behind as we found out that learning is not a simple extrapolation of the previous learning of experts. What was kept though was the notion of meta cognitive representation: “What do we know about what we know?” and “What are the elegant and transparent representations that may trigger our imagination about what could be learnt next?”

Conceptual schemes became the default format for negotiations among learners, and between learners and teachers. Concept mapping became even a candidate for an [alternative assessment method](#). In my book *Cognitive Support for Learning*, the concept-mapping paradigm was elevated to the level of “learning attitude”: Becoming aware of one’s [conceptual boundaries](#) and of cross-disciplinary links provides the learner with a scaffold to help articulate their intuition. Somewhat similarly we saw simulations and modeling tools that started as expert tools gradually becoming tools directly assisting learners.

Social media are a mere artifact created by enthusiasts who could not accept that mental social networks were the best. Nowadays teachers ask themselves: What could social media actually bring to the field of education? The best estimation is to excavate [Vygotsky](#)’s claim that intellectual learning rests upon social awareness and that social awareness rests upon language. Interestingly enough it is not an easy message as teachers just went through the phase of accommodating the transition to web-based teaching and learning practices. How to proceed? We can see two trends developing simultaneously:

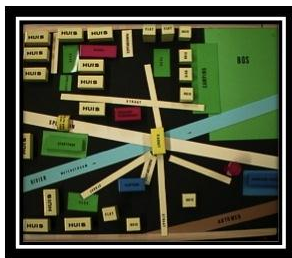
1. Increasing and urging societal demands to develop a socially active education – including for example social commitment and citizen’s awareness.
2. Positioning education as a knowledge transfer organization.

The first trend may seem overly ambitious: How can schools penetrate the arena of social norms and etiquette, while even parents may find themselves in a divided society? Still we may expect

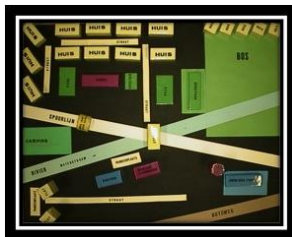
education to move along the first rather than the second trend. The reason is that the informational component has become available to youngsters via access to various media (e.g. mobile communications and virtual presence). It means that the critical focus has shifted from information to attitude.

Teachers’ roles have already absorbed many of the characteristics of the first trend. What is the consequence with respect to the further integration of media-based learning in school settings? The key answer can still be based upon the ideas of Vygotsky, Luria and Leont’ev underpinning activity theory.

The essence of [activity theory](#) is the mutual dependency between the mental operation/ imagination, the tool and the language for negotiating its meaning with others. In this constellation the newly arrived social media take a unique position in the sense that the tools, the language and the social reconstruction have become inextricably intertwined. The remaining question is if and how stakeholders such as parents and teachers may intervene in the process. Let me bring some examples from my earlier work on collaborative learning and its socio-cognitive determinants.



The typical underestimation of learners in formal school settings is the belief that reasoning and analysis only arrive after the conceptual stages have arrived (Sutton-Smith, 1966). However the patterns in urban planning solutions by 10-12 year students show how versatile the student-generated solutions can be. Hastie and Dawes (2010) explain that it is not so much the process of reasoning but rather it is the lack of ingredients (knowledge) that forces learners to exploit meta strategies. The striving towards certainty is labeled “hedonistic”.

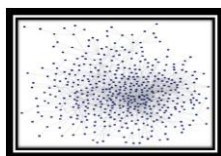


We have recently observed that youngsters can cope with complex social networks more easily when there are tools available. Social networking sites attempt to articulate human relationships and their structural aspects.

As indicated by the set of icons below, it is the awareness of systems that give you access to social networks, even when you don’t feel happy to reside in larger groups.



We expect social network sites to become helpful in mitigating the combinatory explosion that can be visualized when tracing interacting persons is represented as “linking pins”. The diagram below visualizes the np-complexity of a social network taking into account the 2nd and 3rd order relationships.



While expressing his early ideas on self-regulation and private speech, Vygotsky may have been fascinated by structural operations – operations that

learners can control nowadays. And most importantly - the educational notion that learners are not like bonsai trees that should be pruned into “nice” shapes.

Soon we will see students orchestrating social networks via social media and accessing experts who would exceed the mastery of their teachers. This is the moment to stimulate teachers to undertake social networking, before students excel first.

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## References

- Kommers, P.A.M., & (2004). Cognitive support for learning: Imagining the unknown. Amsterdam, The Netherlands: IOS Press
- Hastie, R. & Dawes, R. M. (2010) Rational choice in an uncertain world: The psychology of judgment and decision making (2nd edition). Thousand Oaks, CA: Sage Publications.
- Nijhof, W.J. & Kommers, P.A.M. (1985). Analysis of cooperation in relation to cognitive controversy. In R. Slavin (Ed.), Learning to cooperate, cooperation to learn (pp.125-147). London: Plenum Press.
- Sutton-Smith, B.(1966). Piaget on play: A critique. *Psychological Review*, 73(1), 104-110.

## Endnotes

For the origins of the activity theory and its creators (Vygotsky, Luria and Leont'ev), see [http://en.wikipedia.org/wiki/Activity\\_theory](http://en.wikipedia.org/wiki/Activity_theory)

## Suggested Citation

Kommers, P. (2011). Teach - Tool - Learn: Social Media as a Tribute to Lev Vygotsky. *The International HETL Review*. Volume 1, Article 4, <http://hetl.org/2011/06/16/teach-tool-learn/>

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