KNOWING TOGETHER, LEARNING APART: 
A Proposed Framework for Supporting Individual Learning Through 
Collaborative Knowledge Building Tools

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Knowledge Building Tasks

Socialization
Learners interact with other learners to exchange current knowledge and understand knowledge gaps to be addressed by resources.

Externalization
Learners must have sufficient tacit knowledge of the subject to be able to formally express questions and assess the validity and value of new knowledge sources.

Internalization
Learners must internalize knowledge in resources to enhance their own learning and continue to contribute to the growing body of knowledge.

Combination
Learners must compare new resources to knowledge already present in the system to identify its contribution, and can expand knowledge by combining resources in new ways.

Socialization
Learners must develop a communally agreed upon taxonomy for use in tagging new knowledge resources.

Externalization
Learners must be able to codify their understanding of the resource by creating appropriate tags.

Internalization
Learners must be able to assimilate or accommodate new classifications into their existing taxonomy to generate new tags.

Combination
Learners must understand the keywords already in use for tagging to determine if an existing or new term is required for a knowledge resource.

Research Questions

1. How do common collaborative knowledge building tasks support individual learning?
2. Can we model these activities in order to propose new technologies to better support individual learning?

Proposed Framework and Cognitive Processes

Socialization
Learners share their understandings and interpretations of the knowledge resources through comments, questions, and summaries.

Externalization
Learners must have sufficient tacit knowledge of the subject to be able to formally express questions and assess the validity and value of new knowledge sources.

Combination
Learners must compare new resources to knowledge already present in the system to identify its contribution, and can expand knowledge by combining resources in new ways.

Internalization
Learners must internalize knowledge in resources to enhance their own learning and continue to contribute to the growing body of knowledge.

Tagging Knowledge Resources

Socialization
Learners can review the ratings of other learners and add their own ratings regarding the usefulness of resources.

Externalization
Learners must be able to express their understanding of the new knowledge resource, which results in a deeper understanding for the learner.

Combination
Learners can remix knowledge sources, commenting on interactions or interdependencies to create new knowledge.

Internalization
Learners can locate those resources most useful to them individually by reviewing their own ratings.

SECI Model
Nonaka and Takeuchi (1995)

Tacit knowledge

Explicit knowledge

Socialization
Learners can review the ratings of other learners and add their own ratings regarding the usefulness of resources.

Externalization
Learners can quickly codify their perceived usefulness of a knowledge resource by rating it.

Combination
Learners can compare usefulness ratings of various knowledge resources and can also focus on most highly rated resources.