KNOWING TOGETHER, LEARNING APART:

A Proposed Framework for Supporting Individual Learning Through Collaborative Knowledge Building Tools

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Externalization

Learners must be able to

express their understanding of

the new knowledge resource,

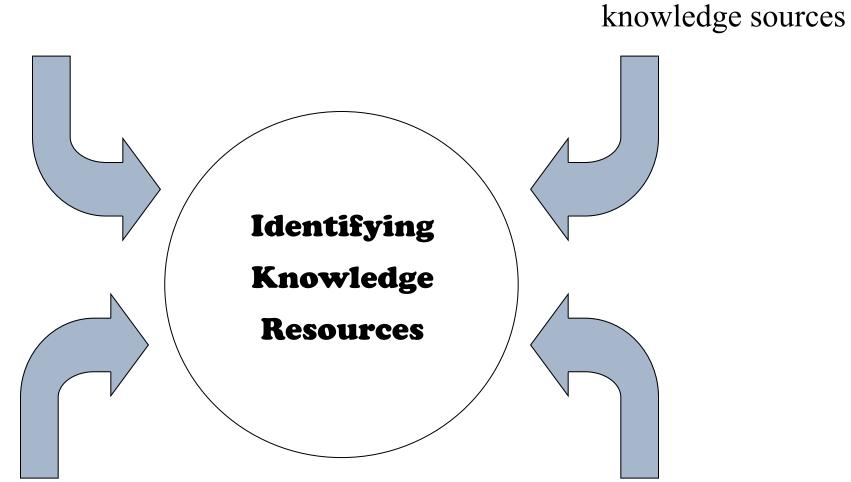
which results in a deeper

understanding for the learner

Knowledge Building Tasks

Socialization

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



Internalization

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

Combination

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

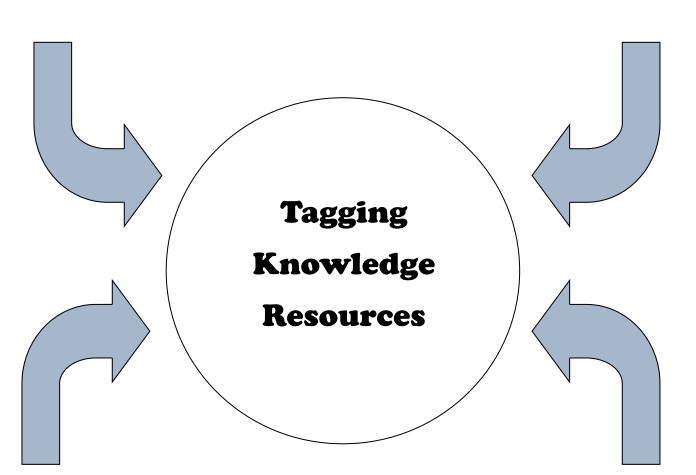
Learners must compare new resources to knowledge already present in the system to identify its contribution, and can expand knowledge by combining resources in new ways

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



Internalization

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

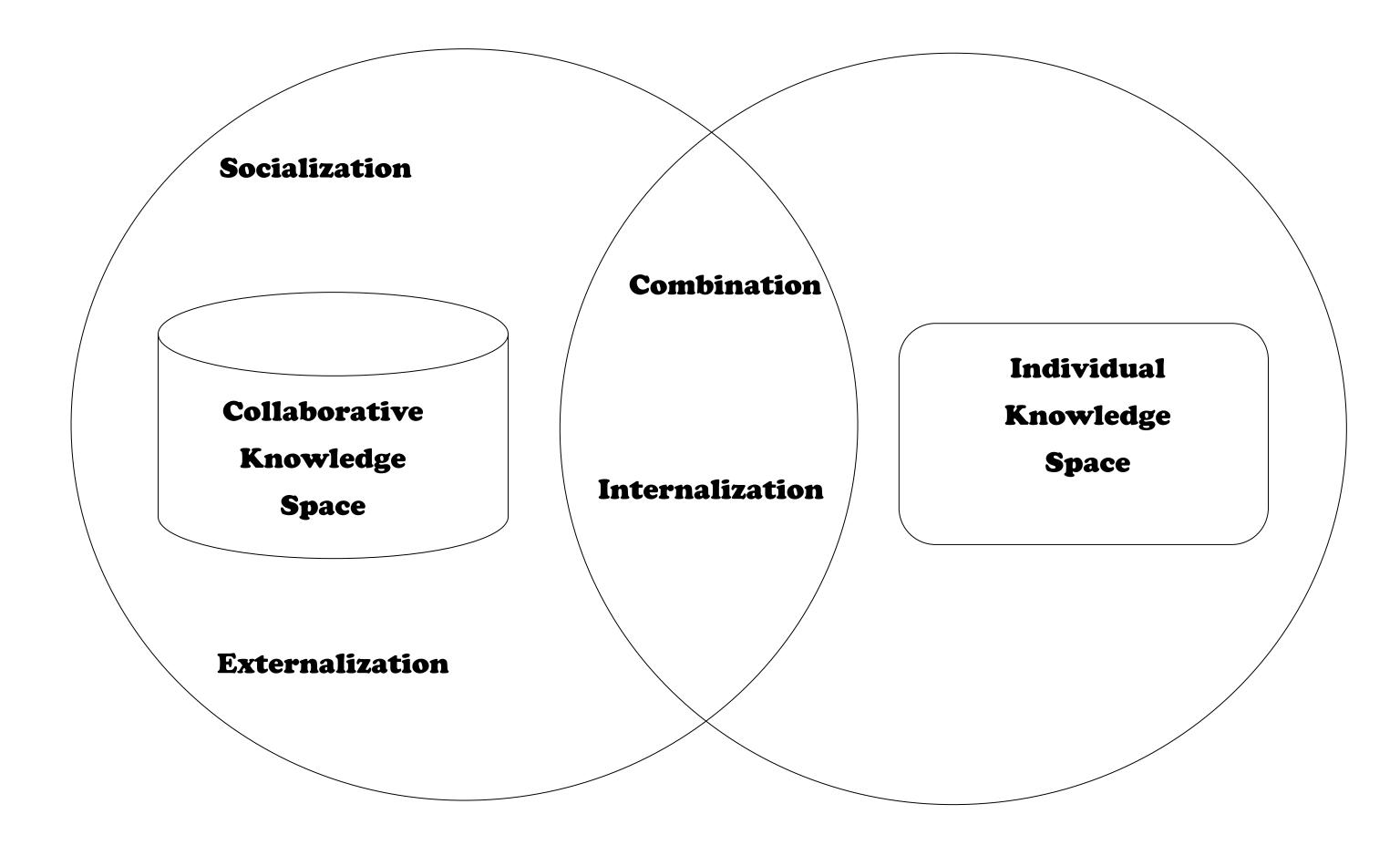
Combination

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

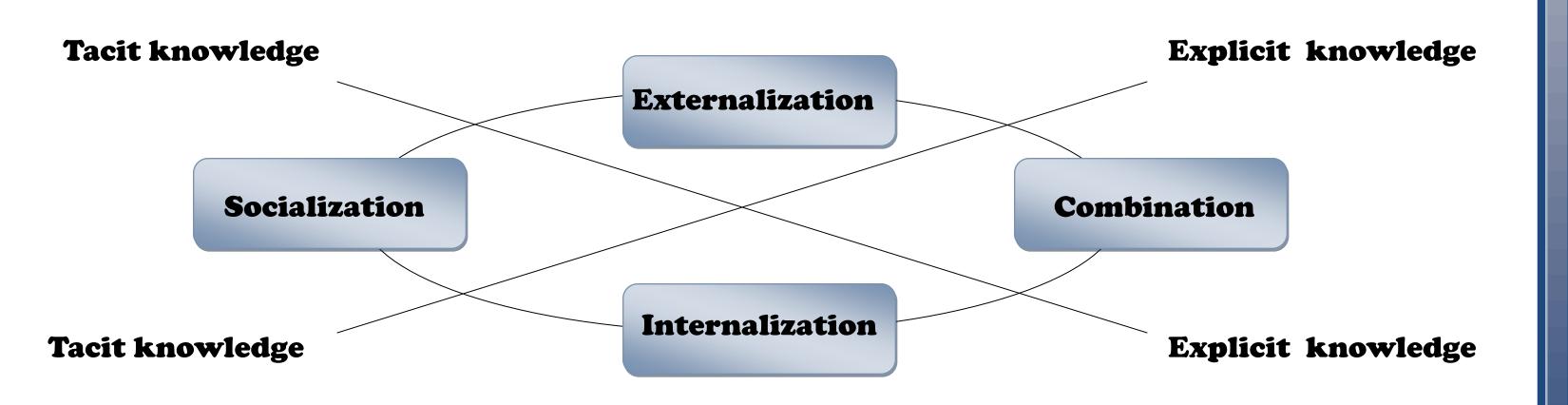
- 1. How do common collaborative knowledge building tasks support individual learning?
- 2. Can we model these activities in order to propose new technologies to better support individual learning?

Proposed Framework and Cognitive Processes



SECI Model

Nonaka and Takeuchi (1995)



Knowledge Building Tasks

Socialization

Learners must share their understandings and interpretations of the knowledge resources through comments, questions and

Commenting on Knowledge Resources

Internalization

Learners must gain a tacit understanding of the knowledge resource in order to provide meaningful, insightful comments

Combination

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

Externalization

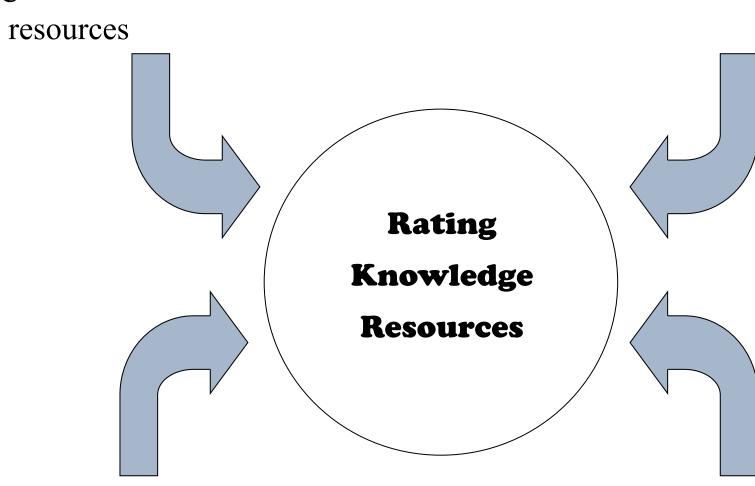
Learners can quickly codify

their perceived usefulness of a

knowledge resource by rating it

Socialization

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



Internalization

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

Combination

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