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Open Learner Models

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Cognitive interactions among people and technologies and the Next Generation Learner



Next Generation Learner:
Reflecting on monitoring, understanding, and planning learning are underlying foundational traits of an adaptive stance.



Next Generation Learning Environment:
The resulting technology from this effort will improve current methods, tools, and applications.



Education Grand Challenge

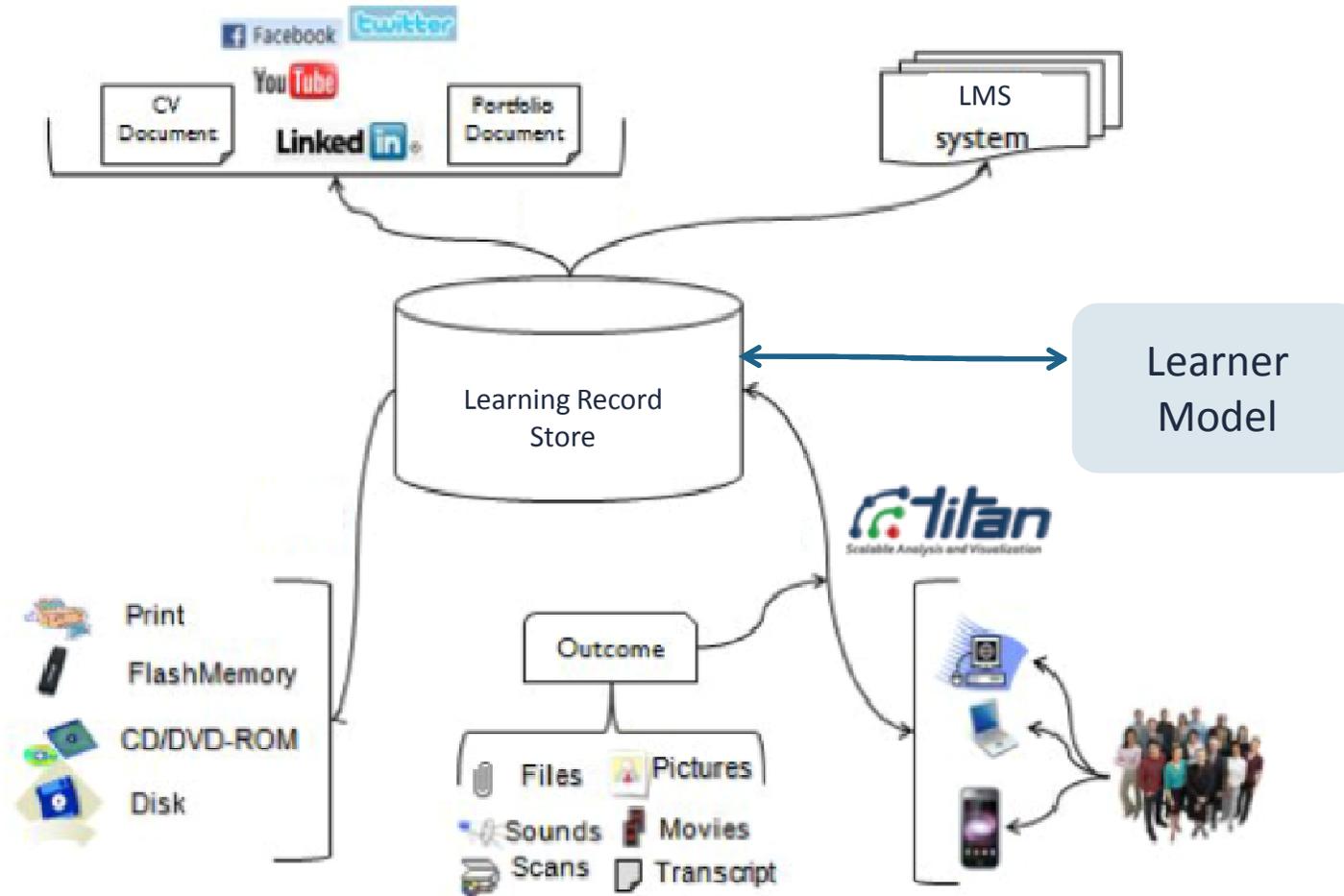


We recommend research on generic user models, i.e., user information maintained in repositories that are available to more than one application at a time. By 2030 user models for education will be developed as shells that exist independent of the instructional software and attached to the software only after it has been activated. Research should explore user modeling shells that support complex assumptions and complex reasoning about users to facilitate widely used and highly flexible models that will evolve to a global standard (p. 46).

Woolf, B. P. (2010). *A Roadmap for Education Technology*. National Science Foundation # 0637190



Learner Models Enabled by Learning Record Store





Learner Model Components



| Components | Description |
|---------------------------------|---|
| Profile | Learner identification, gender, age, ethnicity, language communities |
| Education & Training | Quiz results |
| Career | Job title |
| Qualification | TAIS (Test of Attentional and Individual Style) |
| Experience | Military experience, Video game experience |
| Outcome | Game performance, videos of facial expressions while conducting peer evaluation, pre-test and post-tests |
| Feedback | In-game feedback from peer Reflective Observer/Evaluators, Performance ranking by expert, performance ranking via Latent Semantic Analysis (LSA) and statistical analysis, visualizations |
| Reflection | AAR self-debriefing, AAR debriefing from Reflective Observer/Evaluator |

Questions?

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<http://www.adlnet.gov/capabilities/adaptive-training>



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