Collaborative digital textbooks – a comparison of five different designs shaping teaching and learning

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## Authors

Kempe A.;Grönlund Å.

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## Sample

Five Collaborative Digital Textbooks (cDTB) used in compulsory schools in Sweden.

## Implications For Educators About

# Abstract

Collaborative Digital Text Books (cDTB) are emerging artifacts in Swedish schools, combining the quality assured content of traditional paper and digital text books with affordances for multimodal representation of knowledge, differentiated instruction, communication, collaboration, documentation and with varying learning activities. cDTB are meant to cover the content of the curriculum and provide a consistent learning environment. We analyzed and compared design features in five brands on the market 2017. The analytic comparison indicated that the studied cDTB are built on differing notions of how knowledge is represented as well as on how learners and teachers were supposed to engage with the content. The analysis revealed three types of cDTB distinguished by the way the information and social artifacts are designed. Type 1 resembles a traditional text book with limited multimodal representations of content, tools for working with the content, and tools for communication. Type 2, conversely, is rich in all these aspects but still rely on mainly pre-fabricated content. Type 3 takes a radical approach to content production and leaves it completely up to teachers to produce and share content. The result suggests three very different roles and levels of influence for the cDTB users. Regarding content, the study shows that cDTB are more versatile and quality confirmed learning environments in comparison with: digital "book in a box"; learning designs employing scattered digital resources that are not quality assured; and various digital tools that have no clear connection with the curriculum. The paper contributes to practice with the understanding that before starting to use cDTB there is a need to grasp that the choice of digital learning environment is a choice among very different designs.

# Outcome

"[CDTBs] are built on differing notions of how knowledge is represented as well as on how learners were supposed to engage with the content... [They have] very different roles for the cDTB users, teachers as well as learners.... In conclusion, the study shows that the different types of cDTB are not levels on a scale but focus on different things.... [T]he choice of digital environment is a choice among very different designs." (Authors, 2927, 2937)