The Story Machine

Transmedia games in education

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Strong Digital Agenda in Sweden

A range of incentives to push for improvements at various levels from the government and private actors

Innovation is a ‘hot topic’ and supported, many time through cross organizational collaboration

Alot of efforts in IT and Learning

Finding ways to motivate learning and increase multiliteracy is called for
Collaborating partners in the design process supported by VINNOVA (Sweden’s innovation agency)
Game design: Subject content and generic skill development

• The transmedia game developed and reported on in this paper was oriented towards local history learning, aligned with curriculum for secondary school students in Sweden.

• The game design was also closely aligned generic skill enhancement in the Swedish curriculum such as multiliteracy and collaboration.

• Recent research shows that the subject of history is often one of the least favorite subjects among students. Many students find history irrelevant and boring (Turan, 2010). However studies have found that the use of ICT increases students’ active participation, recall rate and achievement (Haydn, 2001; Turan, 2010). But of course it depends on how it is done.
Transmedia learning

One such expansive approach for gaming in schools for learning can be found in transmedia learning, combining storytelling techniques with multiple platforms to create a comprehensive learning situation with many and varying entry and exit points for learning and teaching (Gronstedt & Ramos, 2014; Thornburn & Jenkins, 2003).

As the game uses mobile devices and social media, the students are supposed to enact all sorts of literacy activities as they both document their progress during the game sessions through blog texts, photos, films, podcasts and other media, and have to interpret the often mysterious texts and character interactions they encounter. They have to be active in the digital world, but also visit places in the real world, taking education outside of the classroom but still connected to local historical sites found in their municipalities.
Design process of transmedia game: cross competence collaboration and a user centric approach (students)

• The design process can be associated with what recently has been described as bounded creativity in design science research in information systems (Baskerville, Kvale, Priemus, Storey, & Kristiansen, 2016).

• This perspective enhances how a design process can be informed by both rigorous processes that are needed at the same time have creative elements that drive innovation connected to relevant issues for the challenge at hand that the design intends to tackle during its cyclic work process.
The transmedia game developed in the Storymachine

Purified by Fire

Botkyrka 2015

Mission from an engaged journalist: Help me! Your group can save the historical places from burning down. Where is the pyromaniac? Who is the pyromaniac? Make the pyromaniac surrender!
You got three days and three hours each day to accomplish the mission! Show your progress online. Let’s track down the pyromaniac together!!
Each group has its own account at the social media platform.

They have mobile devices and internet access.

They get instructions and messages from characters via social media.

The game master runs all interactions and responds in real time to content from students. He plays all characters in the game.
First design cycle: Botkyrka municipality
“I thought it was fun and exciting to learn about who was the pyromaniac. It was also fun to find the ‘fire mark’ and to find the different places”
Second design cycle: Mölndal

- 84 participating students
- Collaboration with local museum
“Walking around in Kvarnbyn was really fun since then you needed to be like a detective. The mission gave me the creeps! It was also great fun to interact with the supernatural character in the game.”

“It was really fun since all the group members participated and contributed with ideas. I came up with about four ideas!”
Third design cycle: Lund

136 participating students
Password game mechanics

Purified by fire

November 2016
“I liked this more than ordinary lectures. We had to find places that was unfamiliar to me. I liked the collaboration within our group”

“I really enjoyed to chat with the characters in order to get information. It felt more real than getting instructions on paper. I appreciated the theme of the game, and that we were supposed to visit different places and not only stay in a classroom”
"I have discovered and can use more digital tools now than before I played the game"
Student feedback

"I have learned more about my local history"
Student feedback

"I have...

...Collaborated more with my classmates than usual”

![Collaboration Chart]

...Participated in more discussions with my classmates than usual”

![Discussion Chart]
Conclusions

The game improved students literacy skills while visiting and exploring local historical places

Working in groups to solve missions in the game improved collaboration skills among students.
Main design changes

- Real actors
- Pros
- Twitter only

Too demanding.
Needed digitization
Twitter too restrictive

- Slow realtime feedback from character in game
- Mysterious story to strange

Straight forward story to drive the narrative more easily.
Key word chain mechanism to speed up feedback in the game

- Where are the teachers?
- What about the periphery learner?

Need a clear role for teachers in the game. To hard to just learn by instructions. The transmedia game is not a stand alone educational structure.
Active teacher needed to further enhance multiliteracy and support students with difficulties
ICT in itself is not enough to trigger motivation (Huizenga, Admiraal, Akkerman, & ten Dam, 2008).

Integrating mobile technology enables educators to customize student learning by creating learning activities to engage students beyond schedules and physical classrooms (Hess & Gunter, 2013).

Still, good intentions and technological potential need to be put in action (Connolly et al., 2012) and specifically linked to curricula in educational settings.

...and teachers’ engagement is always important for even more effects.