Created Realities Group

Chalk House: Iterative design

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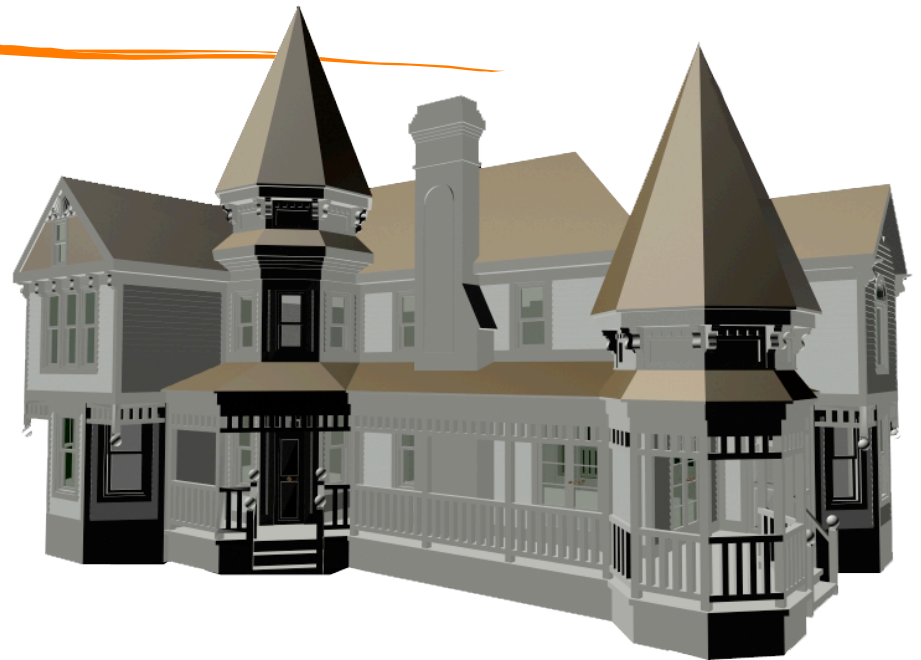
NECC Hands-On BYOL

- Introduction of Project

- Web Hands On
  - URL provided shortly

- 3D Hands On
  - CDs will be passed around with both Mac and Windows software

What is Chalk House?

- Literacy module

- Targets 8th grade

- Reading and writing

- Mystery/Ghost story narrative

Narrative

- Students begin as fledgling reporters
- Investigate the disappearance of Rebekkah and Caleb Forrester
- Ghost story unfolds as students complete writing and reading tasks
- Reading tasks are part of puzzles

Iterative design

ADDIE Model

- Chalk House iterative development used the ADDIE model as tool
  - Analysis of data and past designs yielded weaknesses and suggested*:
    - Provide evaluation and assessments within game tasks and narratives in a natural way
    - Emergent narrative should drive learner activity in the digital world
    - Pedagogical agents should help supplant teacher role in question answering (procedural)

* Barab et al, 2006, 2007; Warren, 2006

Analysis

- Analysis of data and past designs yielded guides for design of the CH environment and curricular design*:
  - Provide evaluation and assessments within game tasks and narratives in a natural way
  - Emergent narrative should drive learner activity in the digital world
  - Pedagogical agents should help supplant teacher role in question answering (procedural)
  - Need subject-matter expert identification of appropriate Texas Academic Knowledge and Skills standards for reading and writing in 8th grade

* Barab et al. 2006, 2007; Warren 2006

Design

- Paper and pencil/MS Word® design focused on creation of:
  - Narrative/back story stemming from mystery/ghost stories
  - Necessary environments for embedding game/learning tasks
  - Pedagogical agents to provide direction and information
  - Learner-level text and revealed information
  - Subtext for mystery/back story

Design 2

- Simulation engine:
  - Initial module section/navigation tutorial
    - 2-D newsroom map
    - Used to allow students to move from room to room as constrained by previous actions and conditions
    - Students interact with pedagogical agents (newsroom staff) in the same way as with 3-D
  - Usability
    - Prior to exporting the learning module section to 3D, the simulation engine is used to conduct small and large scale usability testing to ensure that the product can effectively be used - no content addressed

Design 3 - Next Step

- 2-D is linked into 3-D space
  - Allows the visual affordances of 3-D to be present after bugs have been fixed in code
  - Usability is run using the 3-D space in case 2-D to 3-D changes user experience
  - Beta test with 3-D to examine user experience with the content of CH

Web Hands-On

As you work the web demo, the ChalkHouse Demo CD will be passed around. Copy either the Mac DMG or ChalkHouse_PC folder to your computer.

Order of Interactions (Demo)

- Penny (find) Iris

- Iris (find) Gerald

- Gerald - read task

- Iris (find) Elizabeth

- Elizabeth - read task

- Iris - conclusion

Learning Affordances

- Visual/spatial

- Audio
  - Collaboration
  - English language modeling

- Interactivity/ Feedback
  - System feedback
  - Teacher feedback (role played)

- Communication
  - VoiP
  - Synchronous text

Learning Affordances continued

- Cognitive scaffolds
  - Gradual increase in complexity
  - Gradual increase in difficulty
  - Slow removal of "hard scaffolds"

- Motivational
  - Items and rewards
  - Success opens new activities
  - Game and learning blend

- Identity
  - Authenticity of role
  - Authenticity of tasks

Questions ?

- For more information see:
    - http://created-realities.com/chalkhouse.html