Tools for Middle School Students to Create Vignettes

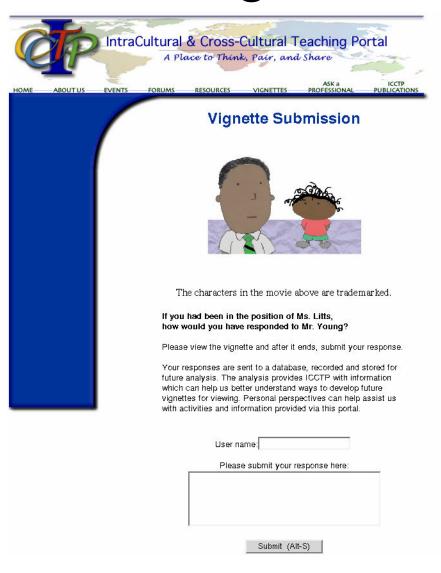
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Motivation

- Vignettes are short stories developed from real life situations
 - Allow students of all ages to analyze various situations
 - □ Encourage open-ended discussion
- Creating vignettes is relatively costly in terms of time and resources
 - □ Vignettes are created by web designers
 - Middle school students do not have a natural environment to describe their situations

Screenshot of Vignette





Project Goals

- Allow vignettes to be created quickly, easily and directly by the user
- Create a non-threatening environment for middle school students (ages 12-15) to describe their experiences
- Develop a system that is extendible to a web interface, easy to setup and costeffective for public schools



Implementation

- Developed a vignette creation tool
 - Allows drag and drop of character and background images into vignette scenes
 - Dialog is input via an instant messaging interface
- Developed a player for the vignettes
 - Uses Text-To-Speech for the dialog

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Implementation (cont.)

- Developed using Java Swing 1.4
 - Compiler and virtual machine freely available
 - □ Platform independent
 - □ Easy to make a web applet
- Used FreeTTS for Text-To-Speech
 - Written entirely in Java
 - Uses Java Speech API
 - □ Easy to set-up

Screenshot of Vignette Creator

Current Vignette Scene

Vignette Creation Tool File Edit Characters Backgrounds 1. Hanging Out Julie: Hey, what's going on today? Jenny: I don't know, I just got home from school. Julie: Boy, she stays after school for a long time! Jenny: Do you want to do something tonight? Julie: Sure, just let me know what place and time. Character Names 1. Julie Speech Send

Character/ Background Selections

Chat -

Character Name/ Image



User Testing

- Took the users 12-20 minutes to create and edit a vignette composed of 3 scenes
- Users found the chat interface a very effective input mechanism
- Found the overall interface to be decent for middle school students

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Lessons Learned

- Naming the characters and scenes was difficult
- Users wanted more information while working with the interface
- Opinion of drag and drop was split
- Choosing the active speaker in the chat area could be improved

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Future Work

- Test with middle school students
- Enable voice selection of characters
- Allow multiple characters per scene
- Give user more control over character locations in a scene
- Use more animation in vignette player (e.g., lips moving to denote the speaker)
- Incorporate a sketching interface for the tool to allow users to create their own characters, backgrounds and animations
- Create an applet for users to create and view vignettes over the Internet
- Incorporate networking into the creation tool so users can collaborate remotely

User Survey Questions

- The tasks would be easy for students (Ages 12-15)
- The overall interface is intuitive
- The interface would be useful for students (Ages 12-15)
- The chat interface is an effective dialog input mechanism
- The tool was easy to use in completing the tasks
- The chat interface is useful in the vignette creation

Figure 1: User Survey Questions

User Survey Results

	Question					
	1	2	3	4	5	6
User 1	Α	Α	Α	SA	SA	SA
User 2	SA	SA	Α	Α	SA	SA
User 3	Α	Α	Α	SA	Α	SA
User 4	Α	Α	SA	SA	Α	SA
User 5	A	D	D	SA	Α	SA

Table 1: User Survey Results

- Is the interface welldesigned for middle school students?
 - ☐ Mean = 4.0, StdDev = 0.816
- Is the tool intuitive and easy to use?
 - ☐ Mean = 4.1, StdDev = 0.876
- Is the chat interface beneficial to the tool?
 - ☐ Mean = 4.9, StdDev = 0.316