

Narrative and programming: Interface support for young game designers

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Abstract

Young people are often highly motivated by designing and creating their own digital games, particularly ones that look and feel like the commercial games they play. Our poster will present and discuss two tools that provide support for creating 3D role-playing games with strong interactive narratives. Commercially available tools provide good interface support for tasks such as creating 3D areas, objects and characters, and creating interactive conversations between the player and other characters. Using these tools, young people are quickly and easily able to create games with an impressive look and feel. However, planning branching storylines and programming custom behaviour for objects and characters is harder to achieve with off the shelf-tools. We describe two tools that provide interface support for these aspects of game creation, Narrative Threads and Flip, which are available as plugins to an existing game creation toolset¹.

Narrative Threads aims to provide support in two areas: scaffolding the creation of story elements (characters and objects) and improving the visual representation of the game-narrative. It provides character and object design tools, a branching narrative diagramming tool and an augmented story map view. These tools make narrative elements more visible within the game design tool, and a comparative study suggested a number of ways in which dynamic external representations of story elements can support writing activities in narrative-based game creation [1].

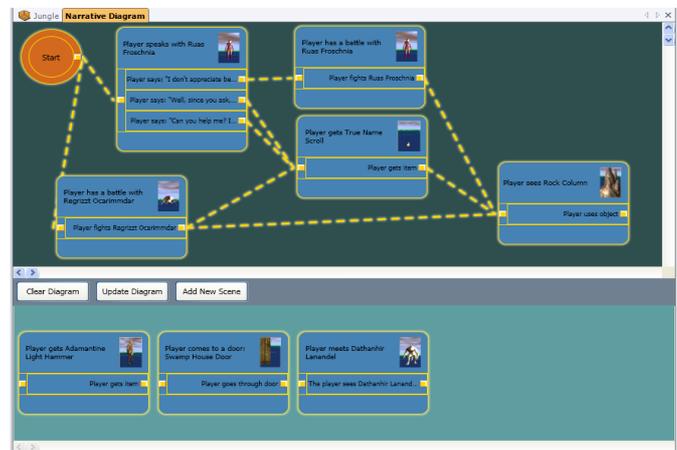


Figure 1: Narrative Threads Branching Narrative Diagram



Figure 2: Flip Programming Environment

Flip is a novice programming environment that allows young people with no programming experience to write simple programs that customise the behaviour of characters and objects in their games. The Flip interface is bi-modal: users compose programs by dragging and dropping graphical blocks, while a natural language representation is dynamically generated at the same time, effectively translating their programs into 'plain English'. A school-based study indicated that Flip led to an improvement in young people's understanding of computation [2].

References

1. Howland, K., Good, J., & du Boulay, B. (2015). Narrative support for young game designers' writing. In *Proceedings of the 14th International Conference on Interaction Design and Children* (pp. 178-187). ACM.
2. Howland, K., & Good, J. (2015). Learning to communicate computationally with Flip: A bi-modal programming language for game creation. *Computers & Education*, 80, 224-240.

¹ The Electron Toolset, sold with the role-playing game Neverwinter Nights 2.