Abstract

One challenge of using asynchronous online discussions in educational settings is that students have a tendency to read only new posts and reply to just the most recent ones. This has a variety of negative consequences for learning through discussions. In this thesis, I used information visualization techniques to design a visual discussion forum interface and studied students’ behaviours using this visual forum as compared to a traditional text-based linear forum. A hyperbolic tree, which presents the higher-level posts with bigger nodes, was used to present the structure of the discussion. In the visual forum, students (re)read higher higher-level posts before their new replies. Additionally, students more actively selected which threads to read, as compared to the text-based forum. Students’ pointed out the visual design and layout as one of the most useful features of the interface. However, student’s feedback raised concerns about some interface features that should be investigated.

Keywords: Online Discussion Forums; Visual Interface; Text-based Interface; Information Visualization