



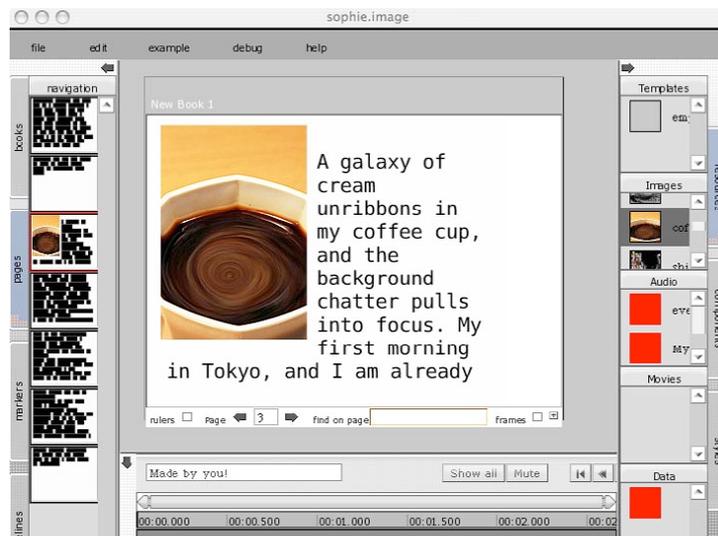
Bachelor Project Proposal, WS 2006/2007 – SS 2007
Software Architecture Group, Prof. Dr. Robert Hirschfeld

Sophie Server – The Future of Reading

Sophie

Sophie is an all-purpose tool for dealing with media. It allows users to easily create books that can contain any sort of media on hand – text, images, sounds, videos, and animations. Sophie does for media what a physical book does for text and images: With Sophie, authors can create multimedia books. You might think of it as a wrapper for anything digital, but it's more than that. Sophie differs from previous platforms for electronic reading by giving the author as much control over the form of what they're making as the content.

Sophie is media-agnostic: All media is the same inside of Sophie. You could make a book based on a long piece of text, like a traditional novel. Or you could make a book based on a series of photographs, something like a slideshow, adding narration or a soundtrack to play with the rhythm. Or you could make a video-based book, or a book based around a single photograph, annotated with audio to tell a story. Or you could mix any of these, and more, forms together to create something entirely new.



You might object that it's possible to make something vaguely like this in HTML. Sure. But you're going to have to spend a lot of time concentrating on the structure of the website you're creating: Do we really need to think about information architecture when we're trying to create things? Sophie makes this seamless.

Sophie Server

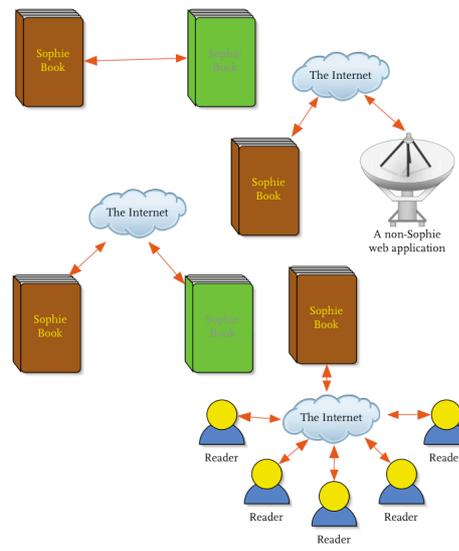
The goal of the project is to design and implement a Sophie Server. Sophie Server is envisioned as a server application providing functionality to be used through Sophie Author, Sophie Reader, or even a Web browser. Sophie Server would provide a home for all Sophie Books that exist in a shared networked environment, allowing users to search for and access them.

Authoring. The content provided by a Sophie Server repository will be reusable by other Sophie Books residing on other Sophie Servers: Users will be able to take content from Sophie Books that live on the network and reuse it in their own books.

Streaming. A Sophie Book hosted on a Sophie Server can be streamed so that the file can stay on the server while remote viewers see its content within their Sophie Reader application or a regular Web browser.

Sharing. A Sophie Book on a Sophie Server has many readers. Each of them can create its own set of annotations to the book being read. Annotations are stored both locally and on the server, allowing them to be shared as well.

Sophie Server will keep track of users reading a Sophie Book. The Sophie Reader program will allow readers accessing the same book at the same time to chat about the book, and if desired, to make this session available to others accessing the book at a later point in time.



Implementation

The implementation of Sophie Server will be carried out in the Squeak (<http://squeak.org>)/Tweak (<http://tweak.impara.de>) environment, a modern, open source, highly portable, fast, and full-featured implementation of Smalltalk. It will be based on and extend the Sophie framework (<http://www.futureofthebook.org/projects/>). Extreme Programming (XP) and other agile methodologies will be employed for software development.

Organization

A group of about six to eight (6-8) students may participate in the project. Organization and tasks are determined by the project participants. The project will be carried out at the Hasso-Plattner-Institut in Potsdam. Project participants are expected to communicate with our partner via email, chat, or voice on a regular basis. In WS 2006/2007, participants will work on initial design sketches and prototypes. Main steps in design and implementation are to be executed in SS 2007. Expected result includes a working software system including appropriate documentation.

Partner & Contact

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