

[2] I used a Squirrel farm to hold my notes and bibliographic references, and tried to use it to actually write the paper. While I found that it lacked the tools necessary to support writing the actual text of a paper, it turned out to be a superb reference manager, combining the broad visual scope of spatial hypertext with the retrieval and data-containing capabilities of a database. It has been a key element of my reference management toolkit ever since.

Information Organization and Management

In my experience, a single working farm becomes intractable, cluttered, and less useful over time. My current practice is modular: I have an InBox farm that is just an ever-growing sequence of items in which uniquely numbered new items are appended to the end of the sequence. This common farm provides the ability to search a single cumulative farm for unexpected needs. Agents gather items for both intermediate repeated needs and for projects. Long-term projects have their own farms, which are created from agent-generated lists produced on the InBox farm.

The disadvantage of this approach, given the current set of tools, is that updating is manual and thus subject to all the vagaries that implies. In addition, I can no longer see in all my project spaces at once. The advantages are that I retain a common farm for searching and collecting while having smaller, easier to work with, more focused, project farms. It becomes possible to do more effective spatial arrangements and I am more likely to actually do it.

Integration of Web Squirrel with Filemaker and the tools I use as a professional indexer greatly expands the range of uses. First I export the farm to HTML and use a script to edit the HTML file into records containing the title, URL, and notes fields from the Web Squirrel items. Then, in Filemaker, I create a variety of printable views over selected elements and sort either the whole set or selected elements for export into an index. This gives me the ability to see all the data in my farm at once, an ability I use to design agents, edit metadata tags (kept in the note fields of items and lists), and identify potential element groups, or *neighborhoods*, among other things.

Avoiding Premature Linking

One of the great advantages that Web Squirrel affords me is the avoidance of premature linking. By premature linking I mean an early form of premature structuring [3] in which links chosen early in the process tend to be inappropriate or wrong as the work continues, a state that obscures evolving structures. Worse, they can be subtly wrong and exert an influence that prevents fresh seeing. Because the link relationships are handled through agents, lists, and neighborhoods, it is possible to explore many alternatives in parallel and to change individual links. For example, by modifying the metadata tags in the note fields of items and lists, I can change the group assembled by existing agents; conversely, by changing the Booleans in an agent I can also modify what links are made. Since I use agents to make lists, which are then exploded into new neighborhoods, this gives me a great deal of flexibility in working with material whose context is rapidly changing.

Creativity Support

Most of my farms have either been focused domain visualization farms, such as the Hypertext farm, or task-oriented project and working farms. In their creation, Web Squirrel serves as a documentation and productivity tool. Web Squirrel, however, lends itself to a more playful role that enables the user to provide surprises, jokes, unexpected changes, and other whimsical devices. Using Squirrel in this mode is like creating a game or a piece of fiction. For example, agents can be used to collect content hidden all over the farm and shapes can reflect their subject. In one farm I made for a friend who is a dog lover, I created a part of the farm in the shape of a dog with an agent coming out of its mouth. The agent gathered a list which formed a humorous poem. Farms are objects and can make delightful gifts which the recipient can enjoy exploring and then can extend and modify further.

CONCLUSION

This paper has presented experiences with using a spatial hypertext system as a productivity and creativity support tool. It shows that spatial hypertext has a strong role to play both as part of a suite of information management tools and in novel uses of information visualization. Spatial hypertext farms as gifts turn out to be much more than just gimmicks; they become useful and valued tools for the recipients. Perhaps the most valuable discovery, however was the range of ways that links could be dynamically modified, thereby avoiding the difficulties associated with premature linking.

ACKNOWLEDGMENTS

Thanks to Mark Bernstein, David Durand, Anne Morgan Spalter, and Andy van Dam who have provided irreplaceable support, guidance, and encouragement.

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