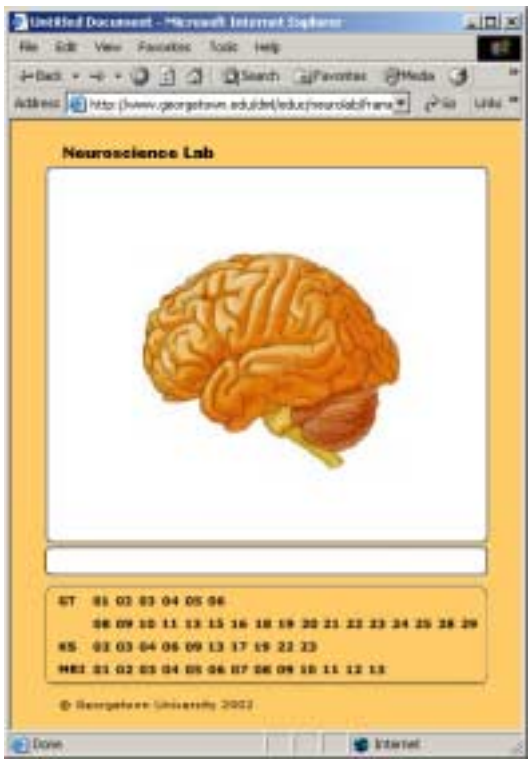
Converting Neuroanatomy Slide Images into an Interactive Online Learning Tool: a Project with the Inter-Departmental Collaboration

http://www.georgetown.edu/dml/educ/neurolab/frameset.html



Taeyeol Park, PhD
Faculty and Curriculum Support
Dahlgren Memorial Library
Georgetown University Medical Center
tp3@georgetown.edu

Abstract

The neuroscience department in Georgetown University Medical Center planned a project to place the University of Kansas Neuroanatomy Slide images in a neuroscience lab course with the collaboration of faculty support specialists of the department, the medical school library, and IT. The objective of the project was to create an online tool to collect the slide images and to help students learn key elements of brain structures through interacting with the images.

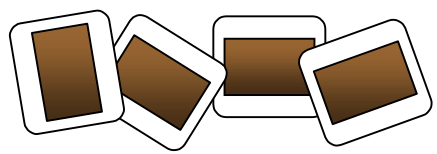
The project focused on two main issues, pedagogy and technology. The pedagogical issue was how to create the interactive learning tool with the slide images. Although some other courses have already used online digital slide collections as their course supplements, they were the collections of images just for delivering information without involving a student's interaction except navigational activities. The project was to create a tool more than just for collecting and presenting information online. It wanted a learning tool to let students relate keys to areas in a slide image through their interactions with the graphic image. The technological issue was how to create the tool with a limited level of technology that does not require advanced skills or complicated methods so that a non-technician can easily expand its contents and maintain it.

Abstract (Cont'd)

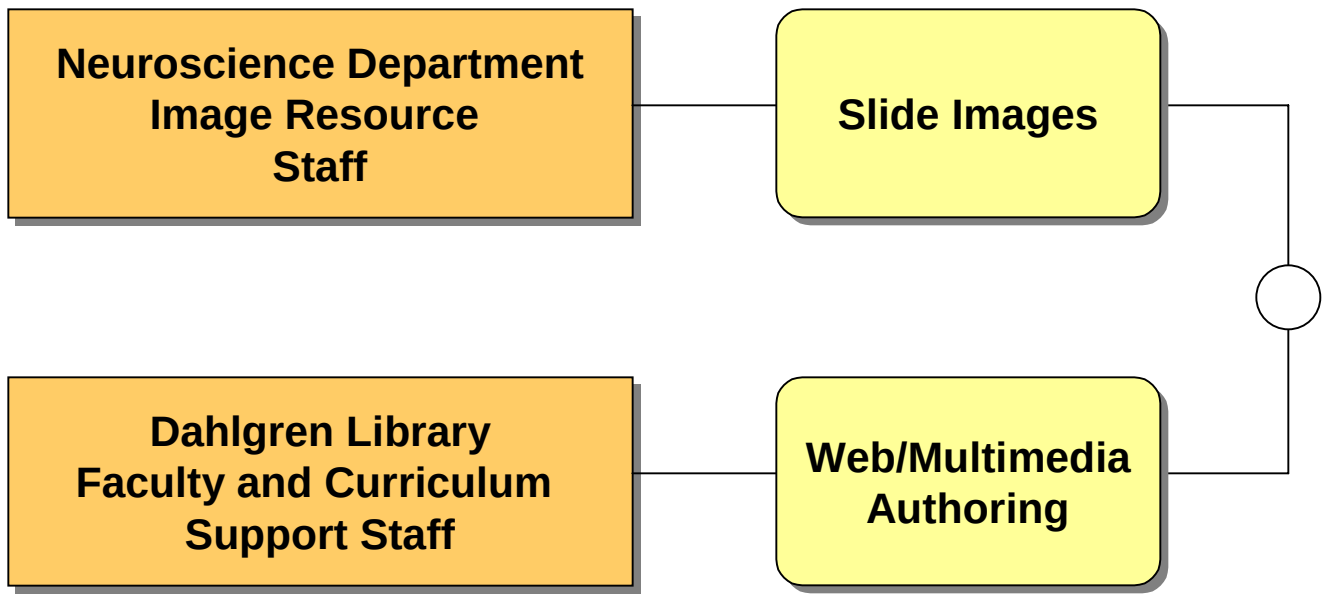
For this purpose, the faculty support specialists from the library and IT selected Dreamweaver and used its built-in functions for making layers, image maps, and behaviors to create the learning interactions with graphical interface. The techniques were so easy that the department staff who had no background in web page design could learn them without any difficulty.

The faculty support staff created a typical page for a slide image and a web page frame structure as a template including all the learning interactions. The department staff scanned the slide images and put all labels for the keys on the slide images using layers in Photoshop. The department staff completed all the page design with the template with her skills trained by the faculty support staff. The site structure was also carefully designed for easy development and maintenance. The design of the prototype could be extensively applied for other courses dealing with graphic images and learning interactions using web and multimedia. The project became an excellent example to showcase the work a library and IT can do to support the curriculum of the medical school.

Neuroanatomy Slides

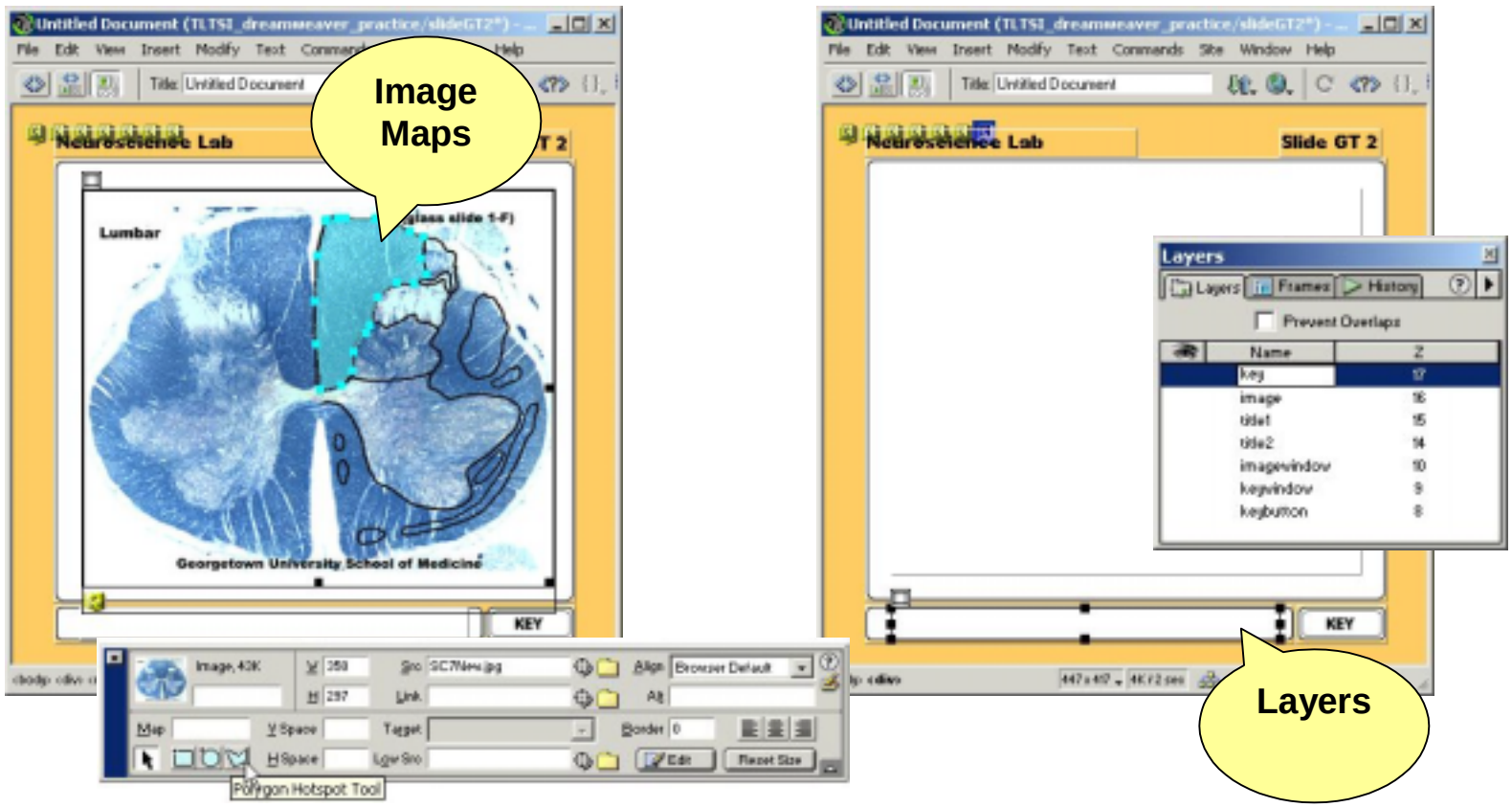


Collaboration



Creating Learning Interaction

Using Macromedia Dreamweaver



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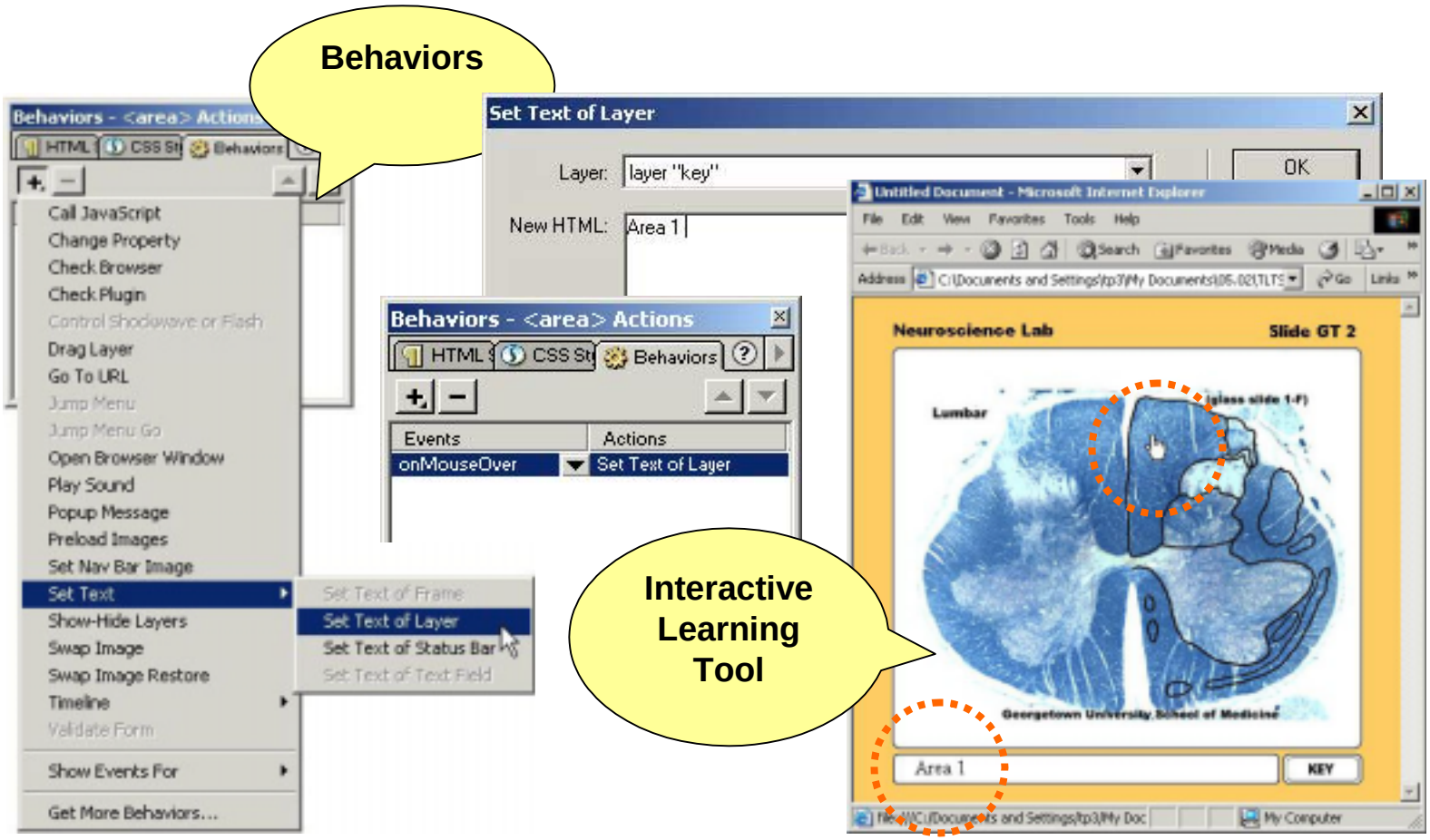

Neuroscience Lab

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