



WEBPAGE HANDYMAN

PROBLEM + MOTIVATION

Many websites that present us with data are inefficient to use, poorly formatted and organized, and just simply awful, hampering users' ability to interact with and understand the information.

As style, layout, and content vary greatly across websites, challenges include generalizability and scalability. However, addressing this issue will improve user experiences and interactions online.

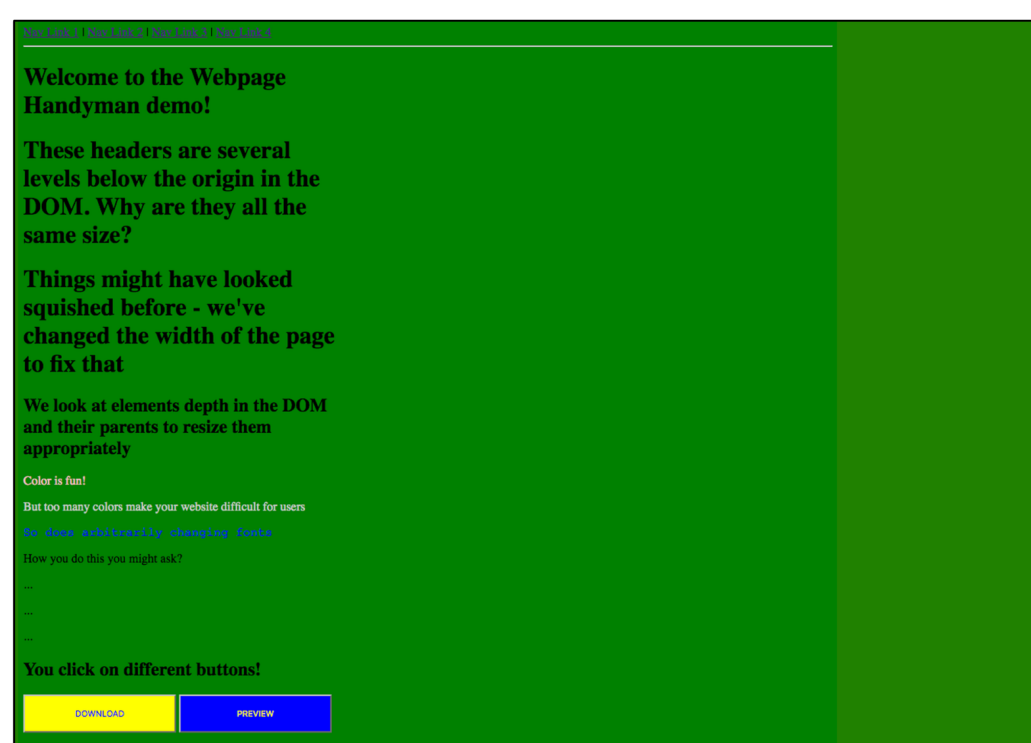
SOLUTION + APPROACH

Webpage Handyman allows users to re-visualize existing websites. Using auto layout techniques, which leverage style guidelines taken from tested design principles, as well as extracted semantic information, the tool makes the necessary, important design changes to the site.

More specifically, Webpage Handyman uses Node.js and Cheerio to parse webpage content, examines the depth of elements in the DOM and their positions relative to other elements, scales container widths relative to the page, finds existing or similar color schemes to style buttons using the CSS page, and makes the page navigation more distinguishable and easier to use.

RESULTS

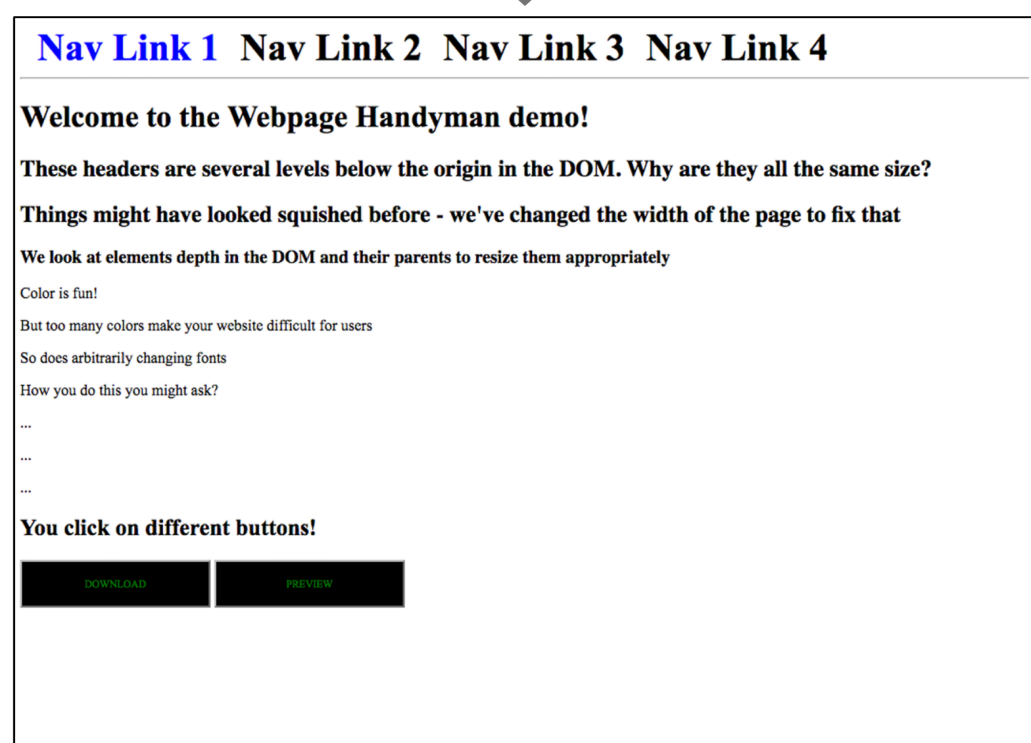
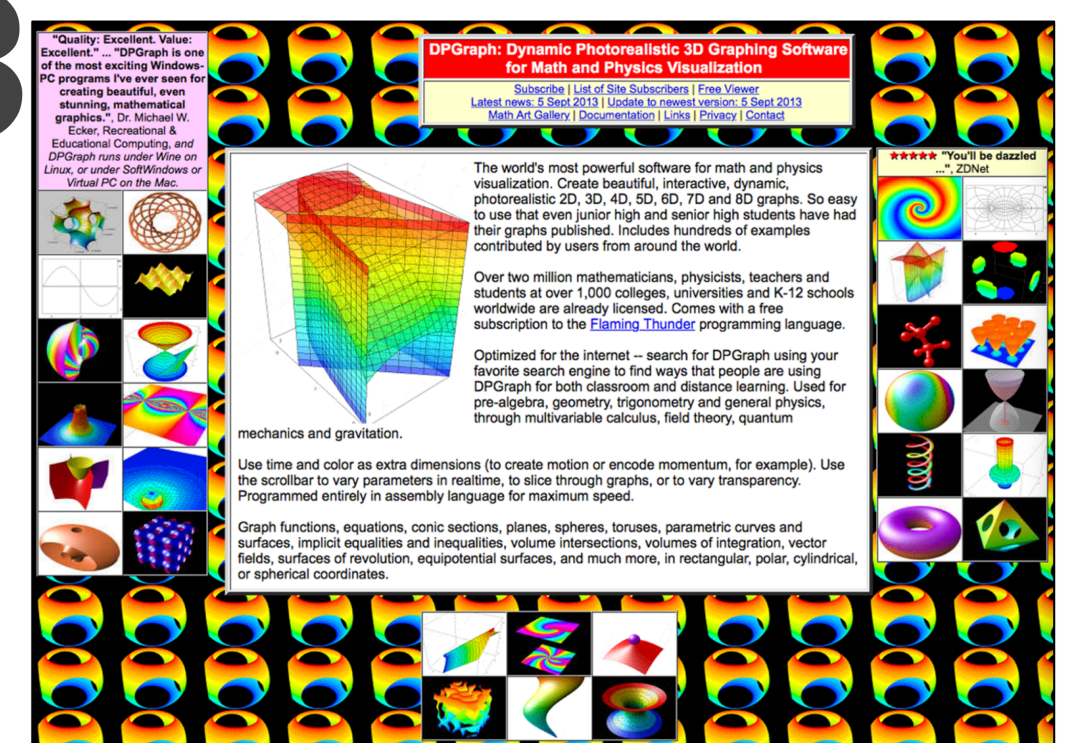
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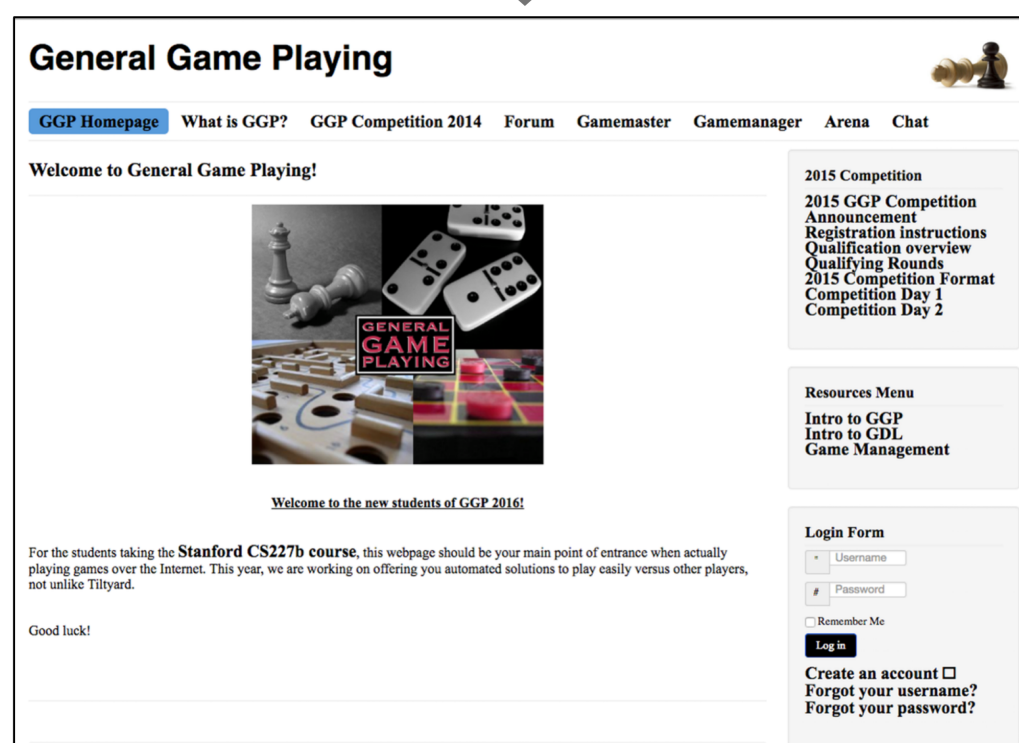
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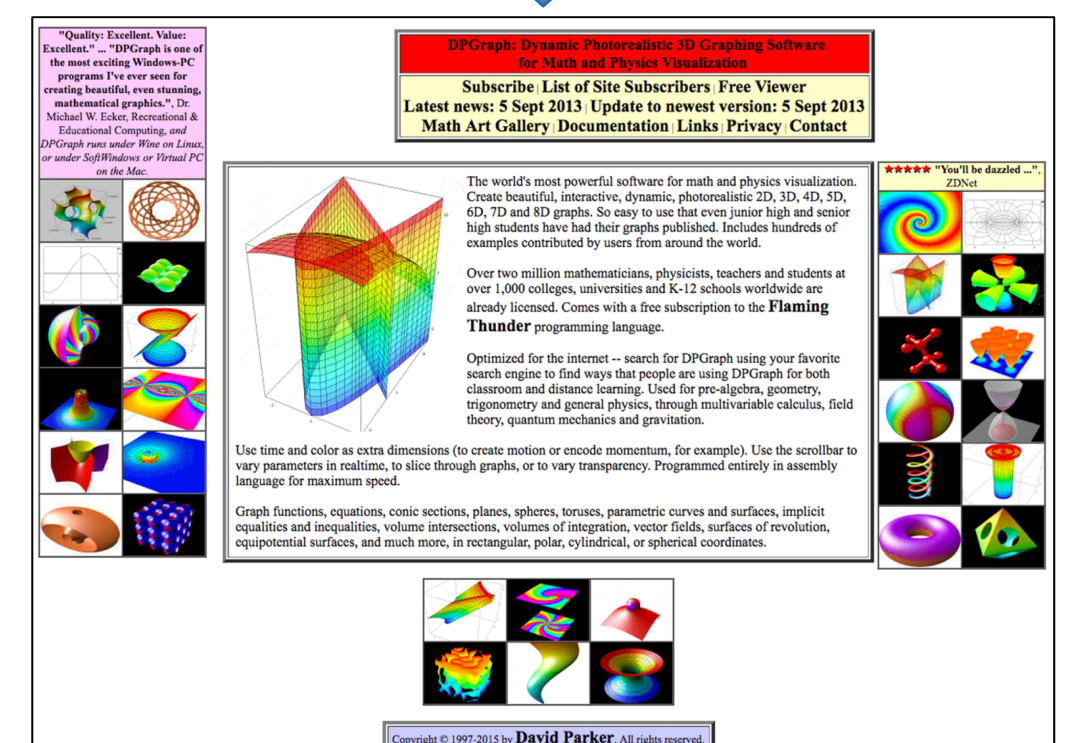
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Hierarchical Information, Navigation, & Styling



Navigation & Styling



Navigation & Styling

FUTURE WORK

With a webpage parser and auto layout framework in place, there are a number of additional features that can be added to Webpage Handyman. The most important, but most challenging of these is layout, which includes better identifying patterns, improving utilization of space, and properly partitioning content on the page. Others are intelligently identifying and applying color schemes, and redesigning entire websites instead of one page at a time.