

The Stanford ETHER Project: An Intranet Portal for Anesthesia Education and Research

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Learner Audience: Internet-users, anesthesia residents/faculty

Background: Web-based resources are a growing area of technological innovation in anesthesia education. Despite its ubiquity, there is a dearth of highly-developed internet websites incorporating advanced features such as Web 2.0 technology, multimedia podcast content and support of anesthesia service work through integrated messaging platforms.

Hypothesis: Anesthesia residents will utilize high-value educational content and interactive internet features in an advanced Web 2.0 educational intranet portal.

Method Design: Between 2/29/08–3/4/08, we conducted a needs-assessment survey of residents in the Stanford Anesthesia residency program. Incorporating the design features and elements requested by residents we then constructed an internet portal site (<http://ether.stanford.edu>) to support anesthesia education. Finally, we examined web server logs of web site usage (7/1/2008–1/30/2009) to determine which web site features were actually being utilized. IRB approval wasn't required as only anonymous web server logs were utilized.

Outcome: Web server activity logs show that Ether was accessed by 13,789 unique visits since it was launched on 7/1/2008, averaging 64 unique users per day. The mean duration for each visit was 6 minutes and 44 seconds. Page visit break down were (Figure 1): homepage (55%), paging services (24%), CA-1 tutorial (2.2%), social activity photos (2.06%), telephone directory (1.66%), and resident call schedule (1.37%). Interestingly, content domains of Ether that were the most labor-intensive to produce, including video podcast lectures, an interactive digital library of educational PDF literature and powerpoint lecture files, accounted for less than 1% of total web site traffic. A disparity exists between what residents say they want (multimedia and podcast lectures) and actual usage of web site features which mainly involved service-related functions such as online paging, telephone directory, and call schedule information. Future research will explore possible reasons for this behavior as well as methods for improving knowledge of available features among residents. Optimal interface and web site design to facilitate access to high-value educational content deserves further study.

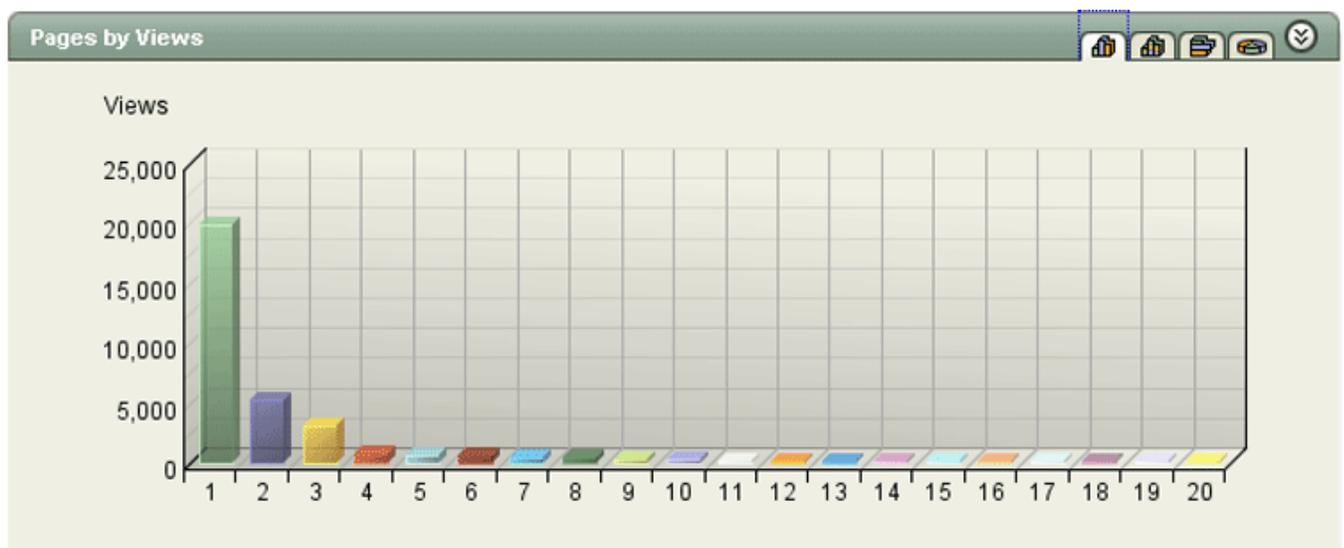


Figure 1: Page views where 1=homepage, 2 and 3=paging services, 4=CA-1 tutorial, 6=Social photos, >7 are less than 2% of total page views