Using Web 2.0 Technologies to Develop a Resource for Evidence Based Medicine

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ABSTRACT: Health care professionals suffer from information overload and struggle to filter evidence relevant to their field. There is a need for solution that facilitates filtering and delivery of information specifically tailored to the needs of researchers and practitioners, and provides an opportunity to efficiently critique and share evidence-based articles. Our “online evidence-based information portal” can serve as a model for knowledge delivery, sharing, management and archiving that can be applied to any biomedical domain.

PROBLEM: The biomedical literature has grown over the past few years. In the year 2005 alone, MEDLINE accrued more than half million citations from over 4,800 biomedical journals. As a result of the burgeoning literature, clinicians struggle to filter evidence relevant to their practice. There are free services like email alerts and table of contents but these do not provide any platform for users’ critique nor do they provide any systematic way for indexing or archiving the content. We describe the design, development and pilot testing of an “online evidence-based information portal” for collaborative learning, teaching and sharing up-to-date medical information among medical residents, fellows and staff.

DESIGN: The information portal makes use of an “RSS” feed to retrieve information about latest articles from high impact medicine journals in real time; and a “blog” where physicians with similar interests can appraise different articles for collective benefit. The abstracts of these articles link to full text journal articles available through a consortium of Ohio’s academic libraries (http://www.ohiolink.edu). By facilitating communication and enhancing knowledge sharing, the burden of collecting, assimilating and critiquing up-to-date literature is shared among the group. A copy of the portal is available for review at http://www.clevelandclinic.org/gim/journalclub/

EVALUATION: The site was launched in July 2005 on a freely available blogging platform (http://www.blogger.com). The initial feedback and usability testing suggested that staff physicians and housestaff can be easily trained to use the resource to learn about the latest published studies, to retrieve full text articles and to critically appraise those articles. The feedback also suggested the need to make the site accessible through all clinical workstations in the hospital in order to enhance housestaff participation. We have received unrestricted funding to explore and evaluate another software (Community Server) that is now accessible through all clinical workstations in our integrated delivery network (10 hospitals and multiple ambulatory satellite centers). The results of our evaluation will be presented in detail at the poster session. These include quantitative data (physician surveys and site statistics - number of hits, posts, comments etc) as well as qualitative data from usability testing and focus groups.

CONCLUSIONS: Staying current with published literature is a major challenge for clinicians, researchers, and policy-makers. Our unique approach facilitates residents’ and teachers’ access to the current literature of their speciality and provides an opportunity to efficiently critique and share evidence-based articles and news. Indexing, archival and linkage to full text articles provides for a “living” speciality-specific curriculum for housestaff and faculty. The flexibility of access to this scalable resource can allow it to serve as a model for knowledge delivery, sharing, and management solution for any biomedical domain.

REFERENCES

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