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WorkWeb: Enhancing Collaboration and Communication in Community Based Clinical Research through Innovative Uses of Wikis

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Abstract

The NIH Roadmap Initiative aims to re-engineer the clinical research enterprise in the United States. The ***Inter-Trial*** *project at Columbia University is re-engineering clinical research in community practice settings by improving collaboration and communication. Our intervention, informed by numerous studies of needs and workflow, is an online, collaborative space, named the WorkWeb that brings together many different stakeholders (such as clinical research coordinators [CRCs] and investigators) and resources to facilitate clinical trials. The WorkWeb includes tools to support several research tasks and allows stakeholders to create peer-to-peer support groups. The WorkWeb has been built entirely using the wiki philosophy and thus represents a paradigm shift in providing its end-users almost full control over the content and features.*

Keywords:

clinical research, workflow, software, Wiki

Introduction

The National Institutes of Health (NIH) Roadmap Initiative is a landmark development in the area of clinical and translational research informatics [1]. This initiative aims to significantly increase the clinical research capacity in the US. Such an increase in capacity is contingent on the development and successful adoption of information technology (IT) to improve efficiency, communication and collaboration among the diverse and distributed research networks and patient communities.

Methods

The InterTrial project has focused its re-engineering efforts on clinical research in community practices and particularly on the CRCs, who are the main hub of work and information. The requirements for our intervention have emerged from extensive empirical studies that were conducted in community practices through surveys, interviews, focus groups and onsite observations to elucidate the needs and workflow [2].

Results

Two over-riding themes from our studies motivated the development of our collaborative space, which we call the WorkWeb. One was the need to enhance *collaboration*, especially between research sites and the other to provide users more *control* over the systems they use. The WorkWeb provides a platform for coordinators and investigators in a research network to share information and experiences and it provides various tools to support daily tasks in clinical research. Our innovation has been to build the entire system using wikis. A wiki is a web page or online resource that allows users to add or edit the resource collectively [3]. Wikis in conjunction with other social collaborative content generation methods like forums and blogs are emerging as viable alternate means of online content creation and management. Also, wiki-based systems give their users a greater degree of control than conventional software, an important element towards promoting end-user adoption.

The WorkWeb is presented to the user as a number of different internal webs. Each web is a collaborative workspace that can contain topics (pages) created by the users, files (MS Word, Excel, etc.) that can be attached to topics to provide a shared document repository, links to other topics or to any Internet URL, or external components that embed functions from other components (applications to support routine clinical research work like a to-do list, calendar or a services and patient tracking system). The webs presented to a user are organized in an onion-like manner, with the innermost webs being the private web of the user and the outermost to the entire InterTrial Community. The WorkWeb includes forums, blogs (used to build a support community) and features to broadcast news or announcements to its community wide users. The initial feedbacks to the prototype have been very positive and we expect to begin a phased roll out in the beginning of 2007.

References

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