Wikis: Using Collaborative Platforms in Graduate Medical Education

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The Challenge

The advent of new technologies is changing the face of medical education.1 These new tools provide a robust platform for knowledge creation, curation, and exchange; however, educators and learners have different approaches to the use of these technologies. A comprehensive understanding of capabilities and limitations, particularly of collaborative content creation, is of fundamental importance.2,3

What Is Known?

Digital medical education has proliferated in the past decade. Advantages include the ability to offer learners flexibility in time and location of their learning, economies of scale, and the personalization of education.4 This proliferation coincides with the advent of web 2.0 technologies, such as social networks and collaborative content hubs (eg, wikis). The ease-of-use, availability, flexibility, and free or low-cost software and hosting options make wikis an ideal platform for online education.5

The term *wiki* is derived from the Hawaiian word meaning “quick.”6 A wiki is best described as an interconnected collection of pages that allow for organized end-user creation, modification, and management of the content (eg, Wikipedia). Access to these pages and the ability to edit them can be controlled by the webpage administrator.7 Wiki content is different from blogs in several aspects, most notably in that content is generated and edited by multiple users.6,8 Knowledge thus continuously evolves; content changes by end-users allow rapid improvements that are necessary to keep the content correct and up-to-date. All members of the wiki group have privileges to the material, but usually an administrator maintains oversight. Content changes can occur rapidly and from many authors; therefore, wikis have the ability to track modifications and authorship, with the capability to return to previous versions of a page (known as versioning). This tracking feature supports a degree of personal and group accountability.

Why Use a Wiki?

Wikis are particularly helpful for the creation and management of asynchronous and multiauthor knowledge (eg, course content, project management, journal clubs,9 and other dynamic documents). As an example, see the Emergency Medicine Milestones Wiki.10 Two studies from Rasmussen et al8 and Wheeler et al11 have identified the core aspects of a wiki that appear the most beneficial for medical education:

- **Construction of knowledge:** Teachers and learners can create a partnership for the creation and curation of knowledge.
- **Collaborative learning:** Learners and instructors interact in a small group fashioned toward a common learning goal.
- **Promote interaction:** Current learners engage in a personal but socially supported style of learning. Wikis promote interaction and provide an architecture for participation.

How You Can Start TODAY

1. **Investigate currently existing medical wikis:** Wikis are utilized in medical education to create online textbooks or repositories of on-demand content. Good examples include www.wikem.org and www.wikijournalclub.org.

2. **Contribute to an existing medical or medical education wiki:** Medical wikis are often seeking qualified contributors. Using the frameworks provided by existing wikis allows learners and educators to experience the media with minimal risk. In medical education, consider Medical Education

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Editor's Note: The online version of this article contains a list of websites relating to wiki platforms, medical knowledge, and medical education.
Home, which is an international wiki for clinician educators.

3. **Develop the framework for your own educational wiki using the STOLEN\(^\text{12}\) principle:** Identity a specific objective, define times and stages, make clear that the content is collaborative own, localize (let people know) what are the objectives, create engagement rules, and make a clear navigation plan.

**What You Can Do LONG TERM**

1. Identify instructional systems, such as courses that may benefit from collaboration and collaborative knowledge creation.\(^8\)
2. Recruit a team to develop a clear social identity, sense of ownership, and culture of collaboration of the content.
3. Migrate as much of classical didactic content as possible to a wiki platform to increase relevance and usability of the material.
4. Create a grading and evaluative strategy to assess engagement and the quality of the learner’s content creation.\(^2\)

**Resources**


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