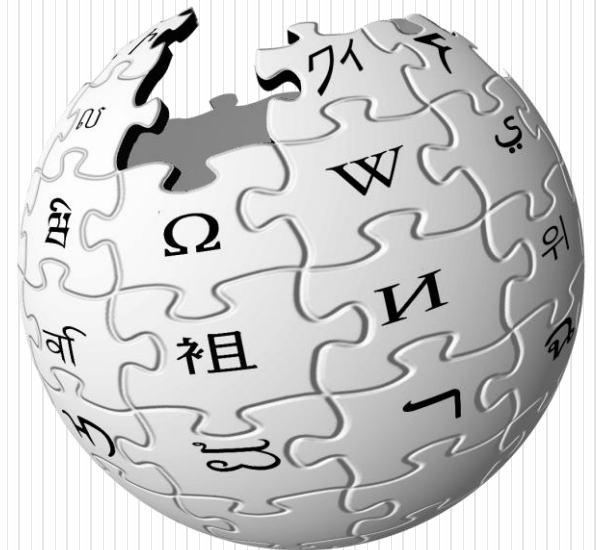


Results of a fourth-year medical student elective on editing Wikipedia

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WIKIPEDIA
The Free Encyclopedia

Nuts and Bolts

- Offered in November 2013 at the University of California, San Francisco
- The elective spanned four weeks
- Enrolled five 4th year medical students that earned course credit
- Graded as pass or fail
- Received national media attention before, during and after the elective

Wikipedia?



WIKIPEDIA
The Free Encyclopedia

- Wikipedia medical articles receive 5 billion annual page views, which is more than:
 - Page views of NIH sites alone
 - The sum of page views to WHO, WebMD and UpToDate sites
- Wikipedia is the top used resource for medical information by health care professionals and consumers¹
- Heavily used by medical school students²

Objectives

To empower students to:

- Appraise the quality and reliability of a Wikipedia medicine article
- Access, appraise and apply high-quality evidence to edit Wikipedia
- Act as digital citizens contributing to a global open educational resource

Imagine a world in which every person on the planet shares in the sum of all human knowledge (for free, in the language of their choice).



A collaboration involving:

- Medical Educators
- Medical Librarians
- Physicians
- WikiProject:Medicine Volunteers
- Wikipedia Education Program Volunteers
- Content Rules Staff

Elective Outline

Pre-
course
Virtual

- Students familiarized themselves with the course wiki page, created Wikipedia accounts and completed online Wikipedia training modules

Elective Outline

Pre-course
Virtual

Week 1
In-person
and virtual

Day 1

- Introduction of Wikipedia's global philosophy and relevance to healthcare, exploration of physicians' roles as "digital citizens" and review of Wikipedia logistics
- Introduction of the assignment

The Assignment

- This course seeks to benefit the world by giving the general public and health care professionals a text they can all read, appreciate, and respect, free of charge.
- Take responsibility for an entire Wikipedia article...Every word.
- Select an article from the 80 “Top Importance” articles with the goal of raising it from “C” quality to “good” or “featured article” status

[Article](#)[Talk](#)[Read](#)[Edit](#)[New section](#)[View history](#)

Talk:Hepatitis

From Wikipedia, the free encyclopedia



This article is within the scope of **WikiProject Medicine**, which recommends that this article follow the [Manual of Style for medicine-related articles](#) and [use high-quality medical sources](#). Please visit the project page for details or ask questions at [Wikipedia talk:WikiProject Medicine](#).



[Medicine portal](#)

C

This article has been rated as **C-Class** on the project's [quality scale](#).

Top

This article has been rated as **Top-importance** on the project's [importance scale](#).

Student	Selected Article	Number of page views 12/2013
1	Cirrhosis	151,621
2	White Blood Cell	138,597
3	Hepatitis	112,459
4	Alcohol Withdrawal	52,514
5	Race and Health	3,880

Pre-
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Week 1
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- Introduction of Wikipedia’s global philosophy and relevance to healthcare, exploration of physicians’ roles as “digital citizens” and review of Wikipedia logistics
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Day 2

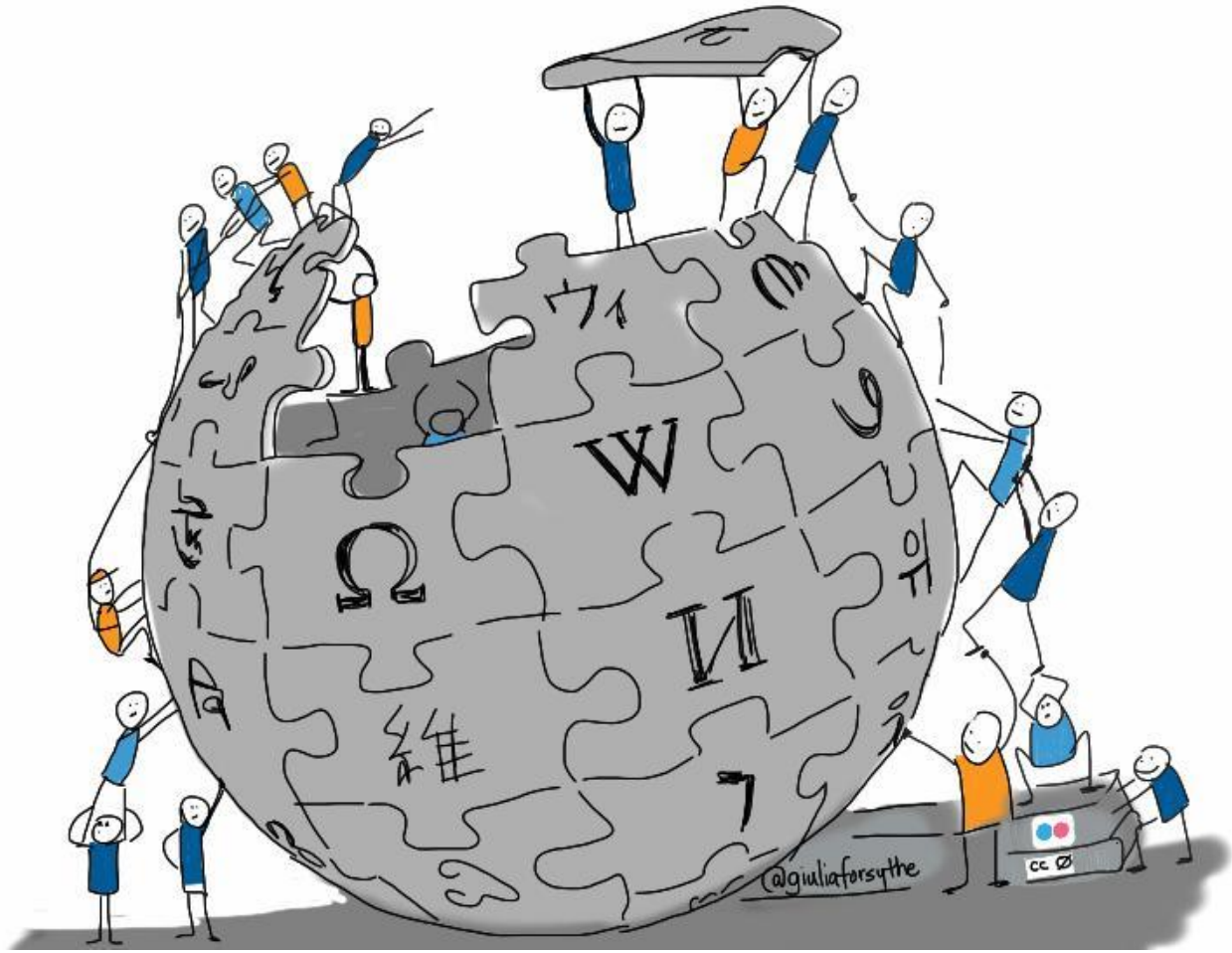
- Independent editing of chosen Wikipedia entries with hands-on support from instructors and Wiki volunteers
- Introduction of the importance of simplified writing to enable wide readership and translation efforts

Remainder of Week 1

- Continued independent editing of Wikipedia with assistance as needed

Elective Outline

Pre-course Virtual	<ul style="list-style-type: none">• Students familiarized themselves with the course wiki page, created Wikipedia accounts and completed online Wikipedia training modules
Week 1 In-person and virtual	<p>Day 1</p> <ul style="list-style-type: none">• Introduction of Wikipedia's global philosophy and relevance to healthcare, exploration of physicians' roles as "digital citizens" and training on the logistics of Wikipedia editing <p>Day 2</p> <ul style="list-style-type: none">• Independent editing of chosen Wikipedia entries with hands-on support from instructors and Wikipedia volunteers• Introduction of the importance of simplified writing to enable wide readership and translation efforts <p>Remainder of Week 1</p> <ul style="list-style-type: none">• Continued independent editing of Wikipedia with assistance as needed
Weeks 2-4 Virtual	<ul style="list-style-type: none">• Continued independent editing of Wikipedia with assistance as needed



Student	Selected Article	Number of student edits
1	Cirrhosis	60
2	White Blood Cell	53
3	Hepatitis	18
4	Alcohol Withdrawal	8
5	Race and Health	5

Digging Deeper...

- Baseline and post-rotation open-ended surveys
- Mid-rotation one-on-one interviews with each learner
- End-rotation focus group with learners and instructors

Students reported that they and their colleagues actively acquire medical information via Wikipedia

“I know that Wikipedia is usually the first source I look at and is likely the case for my peers. I have a friend who jokes that she went to med school @Wikipedia”

- Student C

Students felt competent to critically consume Wikipedia content and when in doubt checked other resources.

“I feel like my medical knowledge level allows me to discern high vs. low quality” – Student A

“It is never the only source I look at. Often I look at Wiki for an overview then go to the primary literature” – Student C

Students reported skepticism of Wikipedia's medical content and were hesitant to share content with patients due to:

- Patient inability to distinguish high-quality information
- Wikipedia's lack of quality control
- Fear of legal repercussions

“There's no guarantee patients will be able to distinguish between poorly written articles and well-written attributions. It also opens to legal ramifications if there is a mistake somewhere.”

— Student B

Students were surprised by the amount of work necessary to improve Wikipedia articles

“Once I realized how rigorous it was going to be to do the research, to do the sourcing, do the writing it just made me realize how much work it was going to be.”— Student D

“Wikipedia is used so frequently and people do not give much thought to the amount of work that goes into it especially for a very high quality article.”— Student C

Students felt that editing Wikipedia articles for a wide variety of readers was challenging

“The first few sentences were really long and I would imagine difficult to understand for a lay person and I started by cleaning that up and just making it a bit more easy to chew on.”— Student E

“The sources I'm using are for physicians and med students or residents. So taking those more complicated resources and kind of trying to translate them to something that is more accessible to a larger audience, that is... I have also been struggling a little bit with what to put in and what to leave out.”—Student B

Students found that it was difficult to
always be **BOLD**

*“When I made a change and how quickly other people in
the Internet world gave me feedback. It has been
surprising how many people care about a random
article like cirrhosis”. — Student C*

Students were energized by Wikipedia's local and global readership

“It just made me realize how important Wikipedia actually is. Before I thought, it would be cool to help other medical students, other professionals though this resource. But now, I kind of realize that anyone could read the articles and they could be useful for anybody.”—Student B

Overall results

- Students demonstrated that they are able to:
 - Interact effectively with the larger Wikipedia community
 - Edit Wikipedia
 - Adhere to Wikipedia policies and procedures
- Instructors and Wikipedia volunteers demonstrated that they are able to:
 - Co-teach the elective and collaboratively support medical student learners to edit Wikipedia

How can we improve the elective?

- Although the students enthusiastically recommended the elective for future medical students, they suggested:
 - Hit the ground running
 - Don't offer it not during interviews, which can be distracting
 - More deliberate one-on-one partnerships for accountability

Future Directions

- In April 2014, the course will be re-offered to UCSF 4th year students
- In Fall 2014, the course will open to 4th years plus visiting students at UCSF
- Adding an element of student-led peer review
- Continuing exploration of how to best evaluate medical student Wikipedia editing

Questions??

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