Reinventing Information Literacy with Wikipedia

(in Medical Education)

HLA/HASL 2020

HEALTH SCIENCES LIBRARY

Aloha!

We are:

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Uday AJ Patil - UHM

KJ Hillgren - JABSOM

Outline

- Wikipedia and Libraries?
- About the pilot project
- Our findings
- Strategic changes we made to improve delivery
- Tour the LMS
- Closing thoughts

“

Wikipedia is the best thing ever. Anyone in the world can write anything they want about any subject. So you know you are getting the best possible information. - Michael Scott

> Behind those who are putting all this data online purely because they want to is another wave of volunteers who are constantly questioning, demanding verification for and keeping in check this tsunami of information.
>
> -David Barnett

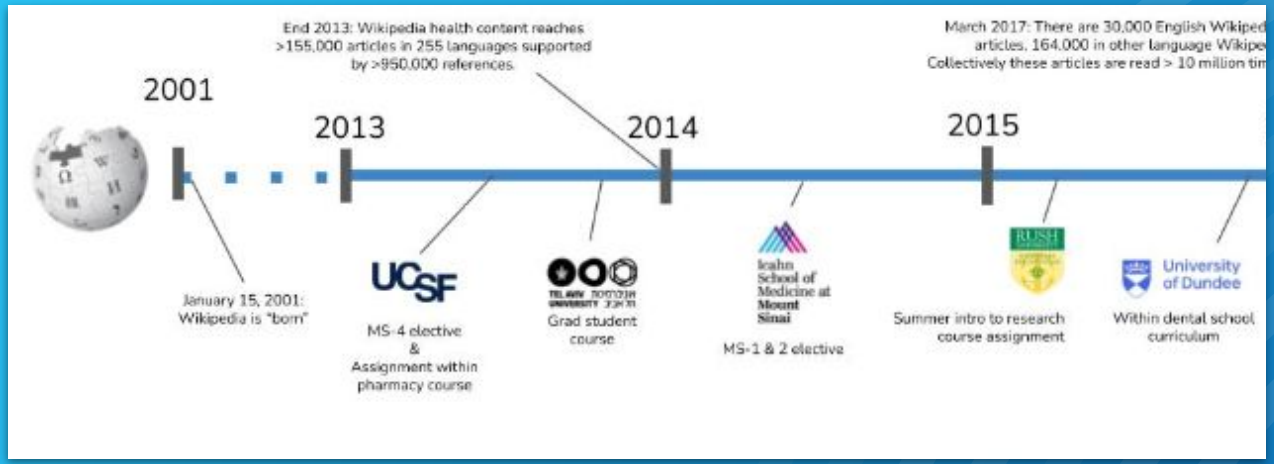
Libraries & Wikipedia

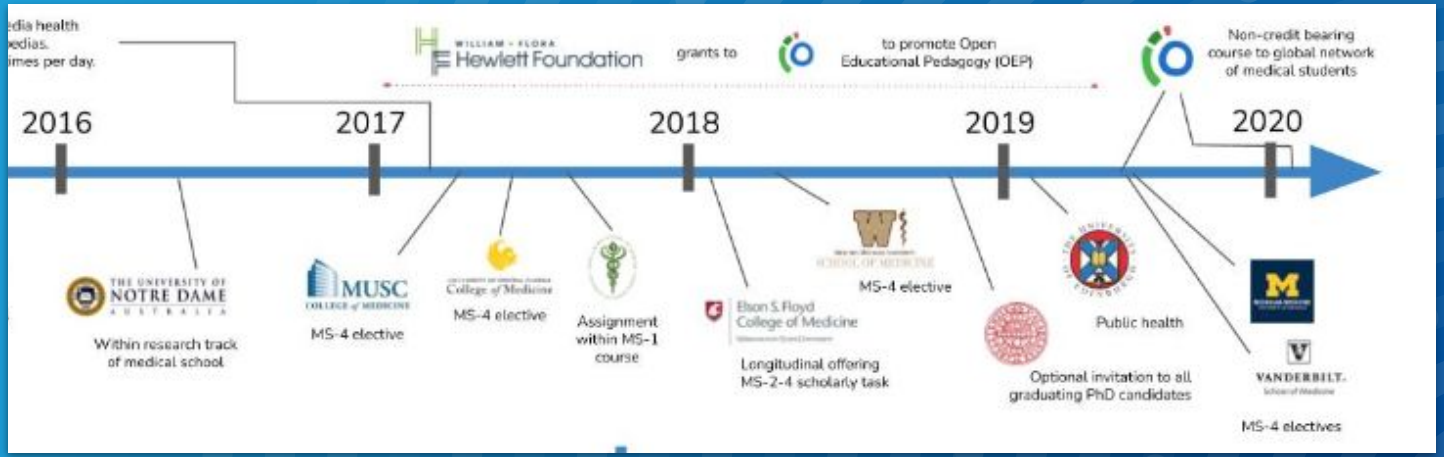
- It's 2020! We can't be Wikipedia snobs anymore.
- "high quality information…suitable for undergraduate medical education." (1)
- "Wikipedia suffers less from inaccuracies than omissions…they reflect the limited expertise and interests of contributors." (2)
- Know any information experts?

About the pilot project

Why Wikipedia?

What do libraries, medical education, and Wikipedia have to do with one another?

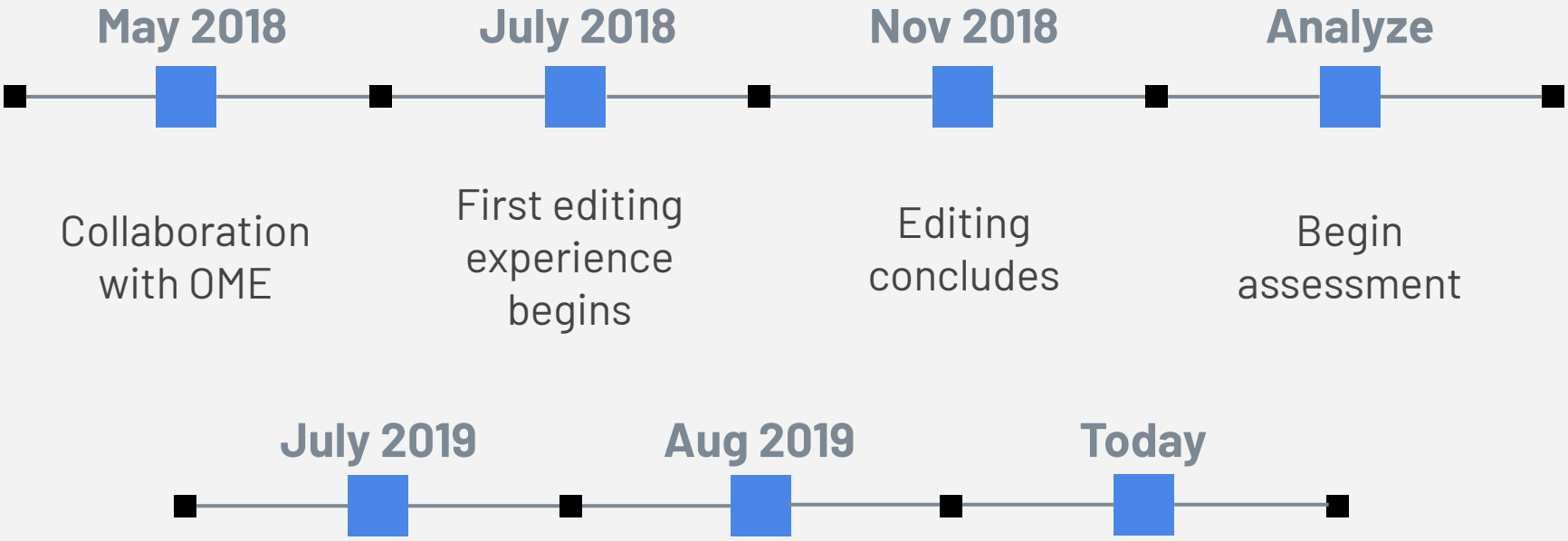

End 2013: Wikipedia health content reaches
>155,000 articles in 255 languages supported
by >950,000 references.
March 2017: There are 30,000 English Wikiped
articles, 164,000 in other language Wikipe
Collectively these articles are read > 10 million tim
2001
2013
2014
2015
January 15, 2001:
Wikipedia is "born"
UCSF
MS-4 elective
&
Assignment within
pharmacy course
Grad student
course
Icahn
School of
Medicine at
Mount
Sinai
MS-1 & 2 elective
RUSH
Summer intro to research
course assignment
University
of Dundee
Within dental school
curriculum


edia health
edias.
imes per day.
WILLIAM + FLORA
Hewlett Foundation
grants to
to promote Open
Educational Pedagogy (OEP)
Non-credit bearing
course to global network
of medical students
2016
2017
2018
2019
2020
THE UNIVERSITY OF
NOTRE DAME
AUSTRALIA
Within research track
of medical school
MUSC
COLLEGE of MEDICINE
MS-4 elective
College of Medicine
MS-4 elective
Assignment
within MS-1
course
Elson S. Floyd
College of Medicine
Longitudinal offering
MS-2-4 scholarly task
MS-4 elective
Optional invitation to all
graduating PhD candidates
Public health
VANDERBILT
MS-4 electives

Wikipedia in a medical school?

- Wikipedia is filling gaps with WikiProjects
- Medical students with patient perspective leads to better doctors
- Working on Wikipedia articles increase the information literacy for the medical students
- Wikipedia promotes social justice and democratizing information

Timeline


May 2018
July 2018
Nov 2018
Analyze
Collaboration with OME
First editing experience begins
Editing concludes
Begin assessment
July 2019
Aug 2019
Today
Second editing exp with changes
Editing concludes
Success but on hold due to pandemic

Student Experience - training

Complete a series of training modules & exercises

- Wikipedia policies
- Evaluating articles and sources
- Editing health topics
- Evaluating an article

Training Library > Students > Evaluating articles and sources

Evaluating articles and sources

In this tutorial, we'll explore how to read Wikipedia articles, and potential sources, with a critical eye.

COMPLETED

View →

Estimated time to complete:
20 minutes

TABLE OF CONTENTS (23)

Student Experience - choosing a topic

Research course related topics to fill in content on Wikipedia articles needing improvement

- Complication (medicine)
- The Queen's Medical Center
- Trauma team
- Metabolic acidosis
- Respiratory examination

Student experience - finding sources

Find and synthesize information on the topic with reliable sources

- Published
- Scholarly
- For medicine, secondary sources better
  - Textbooks
  - Systematic reviews

In a nutshell

- Tutorials = valuable lessons in digital and info lit
- Apply new skills by editing
- We have access to information to build knowledge that others don’t, let’s share it!

Findings


GO TO WIKIPEDIA TO
CHECK A SINGLE FACT
REALIZE 3 HOURS LATER YOU KNOW
EVERYTHING ABOUT THE SOVIET UNION

Findings

- Compilation of 2018 & 2019 survey results

- Structural Completeness
  - 2018
  - 2019

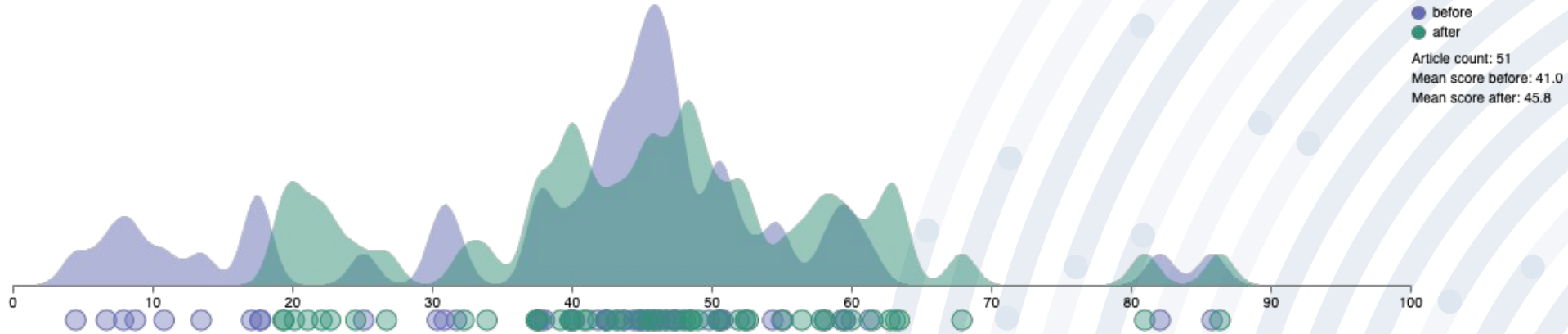
I know how to determine the authority and credibility of sources.

N = 107 (2018 & 2019)

I know how to synthesize information gathered from multiple sources.

N = 107 (2018 & 2019)

Overall change in structural completeness (2018)



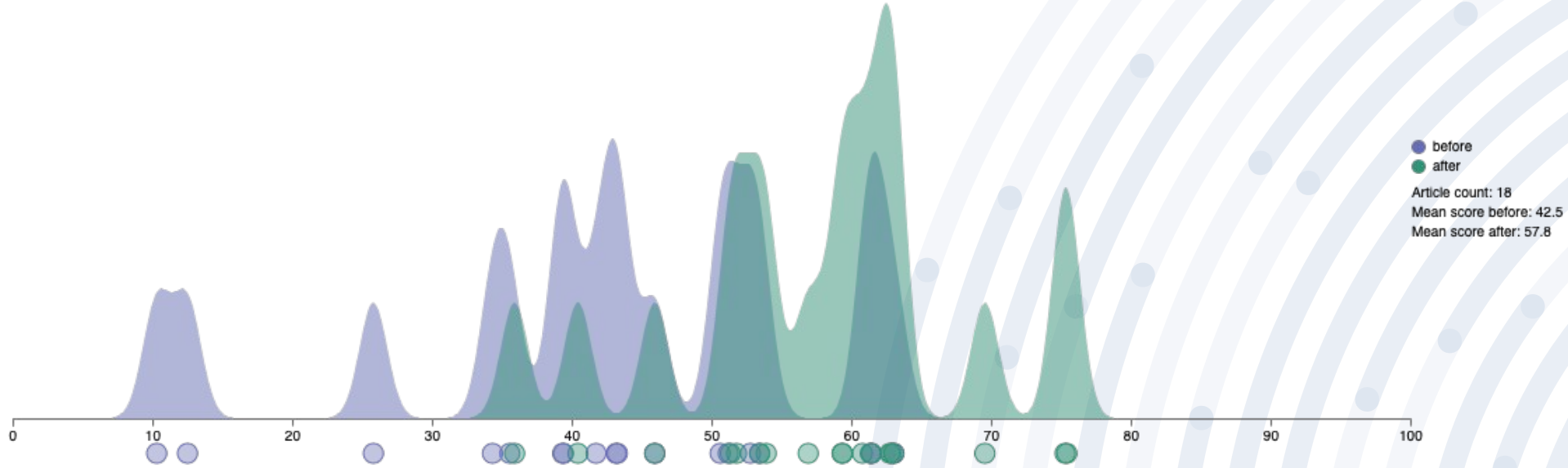
Improvements to course delivery

Engagement was lower in 2018 cohort.

Reviewed qualitative feedback from them and implemented the following changes:

- Individual to group
- Shorter course time
- More face time
- Incentive = pizza party!

Overall change in structural completeness (2019)



“

It was fun and interesting to contribute to a source that can be used by anyone in the general public. Medicine and illness can be really challenging to understand, and websites like Wikipedia can give patients quality insights into their illnesses

“It was interesting to learn that while anyone can add to it, there is still a lot of community consensus happening behind the scenes to ensure that only true, relevant information is added, and that credible sources are used, and credible people are writing about the topics,”

“

I initially expected to contribute as minimally as possible to receive credit for participating in the project. I didn’t think I would make much of a difference particularly because I’ve seen many Wikipedia pages and they can be extremely extensive. As I saw the change in article completeness and the number of viewers change, it felt pretty cool to add more. At the same time I realized how difficult it is to actually improve an article to 100%. I didn’t expect much in the beginning but I wanted and expected more as it went on.

Dashboard & Best Practices

Wiki Education LMS

Students/Patrons/Volunteers	Dashboard	Librarian
Create an account, learn how to edit Wikipedia, research a topic, analyze sources, draft the article, publish live on Wikipedia, respond to Wikipedia community feedback, make final changes.	Tracks usernames and completion of tutorials, list topics for selection, tracks all edits made throughout the editing process, links to troubleshooting help, tracks all page interactions.	Check dashboard to make sure everyone is enrolled and picks a topic. Use the dashboard to grade and evaluate all edits and share feedback.

18	830	77	18.6K	254	450K
Articles Edited	Total Edits	Student Editors	Words Added	References Added	Article Views

Last statistics update: a year ago. See more

JABSOM MS1 Wikipedia Editing 2019

First-year medical students will work to improve the content of health-related articles to improve their information literacy skills.

This Week

View Full Timeline

There is nothing on the schedule for this week.

Details

Instructors: Mkahili (Melissa Kahili-Heede / mkahili@hawaii.edu — Instructor)
Online Volunteers: AminMDMA (Amin Azzam, MD, MA / amin.azzam@ucsf.edu)
Campus Volunteers: LupinusTexensis, Udayhawaiiedu
Wiki Ed Staff: Helaine (Wiki Ed) (Helaine Blumenthal / hblumenthal@wikiedu.org), Ian (Wiki Ed) (Ian Ramjohn / iramjohn@wikiedu.org)

Week 1: Introduction

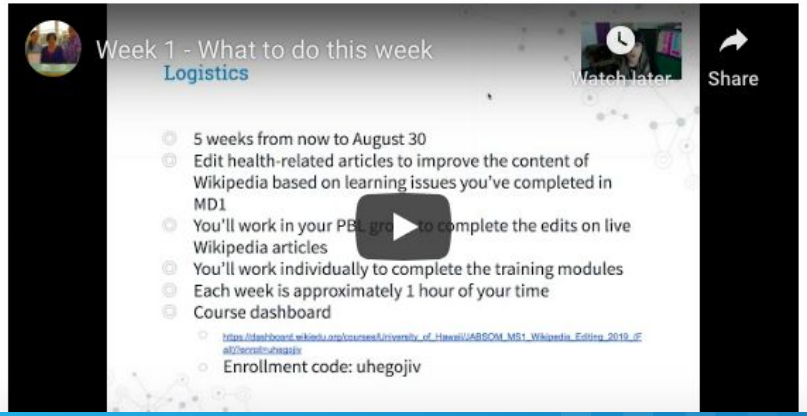
07/28 - 08/03 (Fri)

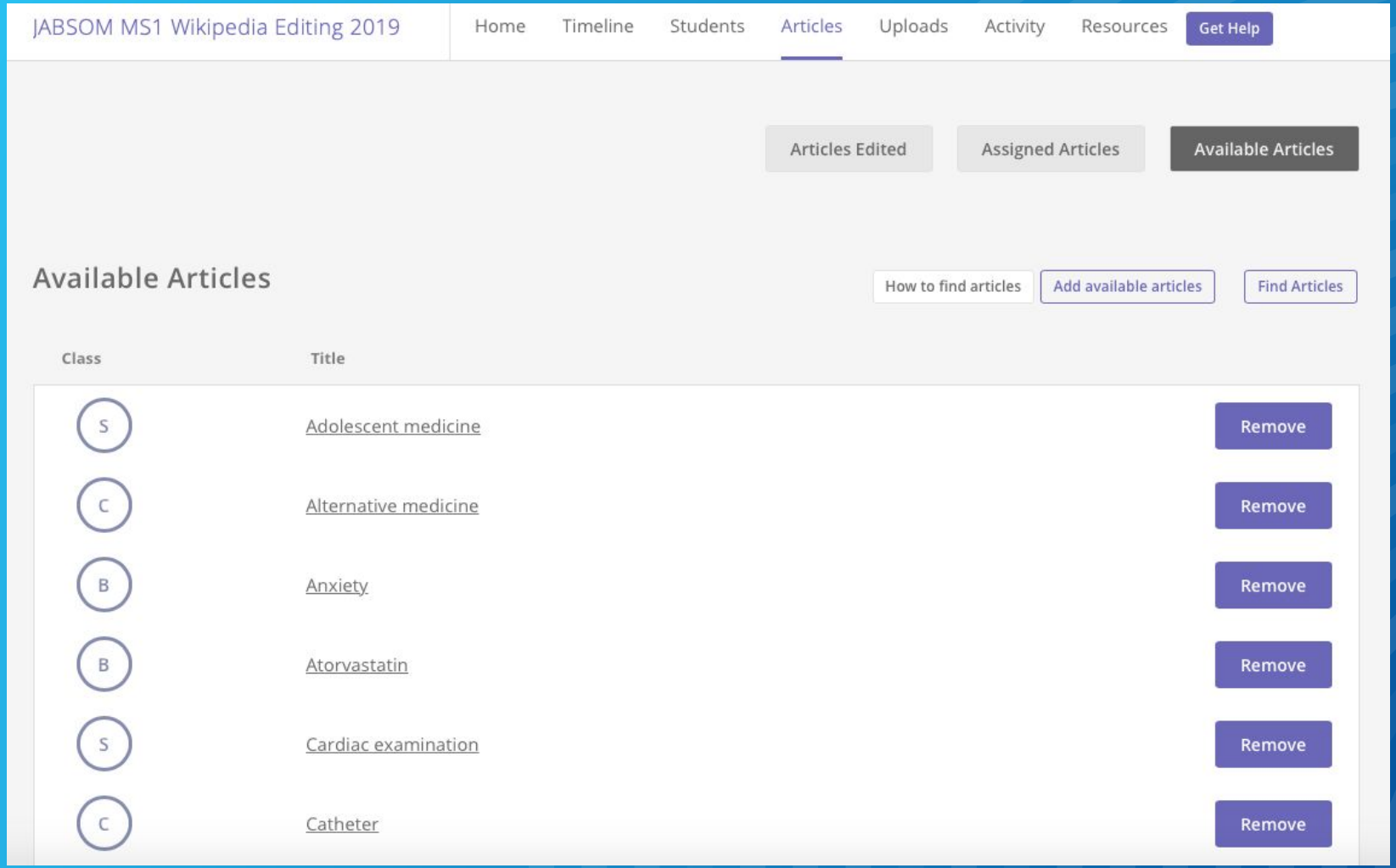
In Class

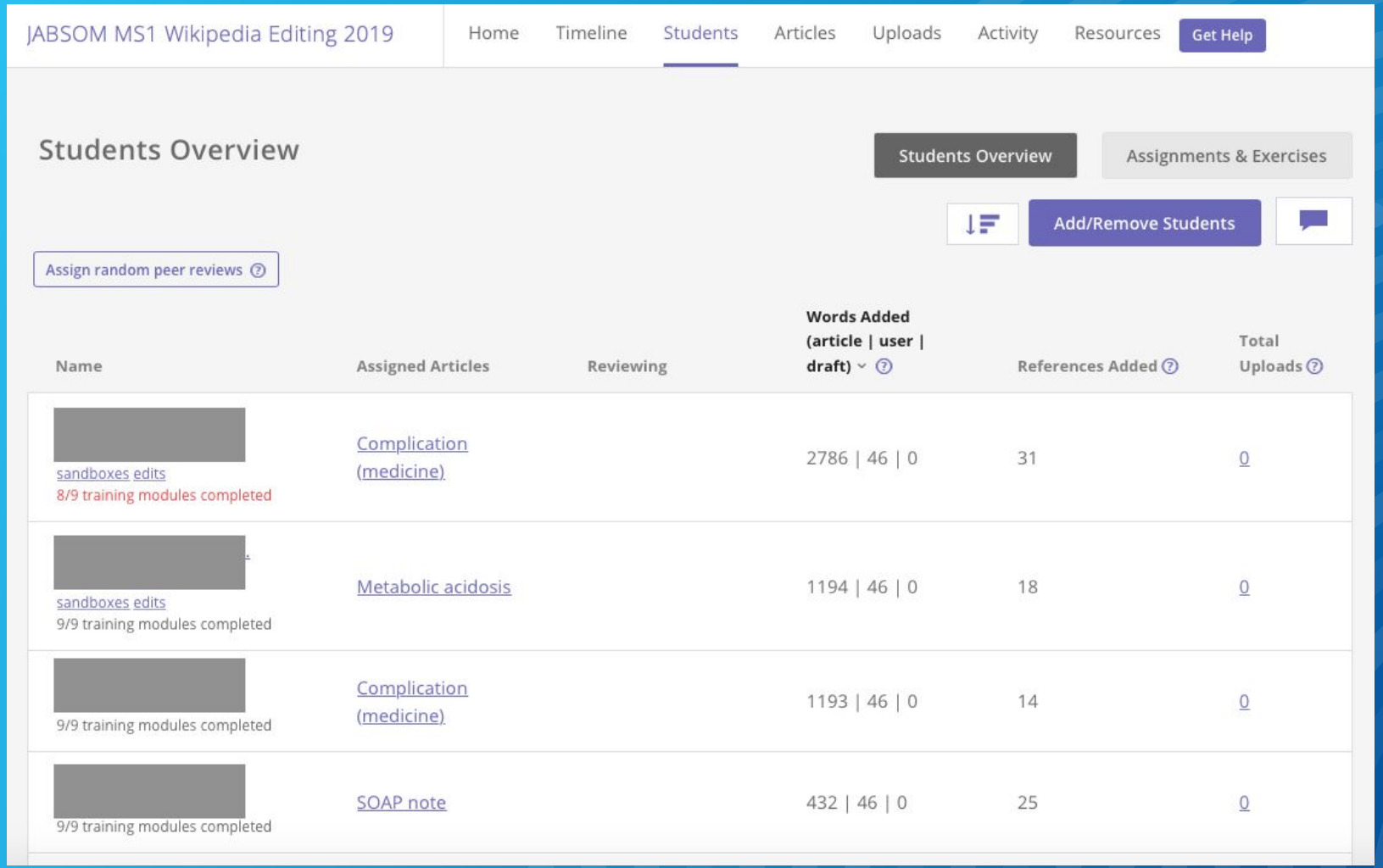
Training

Welcome to your Wikipedia assignment's course timeline. This page guides you through the steps you'll need to complete for your Wikipedia assignment, with links to videos, resources, training modules. For your reference, here are the class slides from 7/30. Here is the MS1 Wikipedia guide that will also provide an overview of the next 5 weeks.

Watch this video for a reminder of what to do this week:




JABSOM MS1 Wikipedia Editing 2019
Home
Timeline
Students
Articles
Uploads
Activity
Resources
Get Help
Articles Edited
Assigned Articles
Available Articles
Available Articles
How to find articles
Add available articles
Find Articles
Class
Title
S
Adolescent medicine
Remove
C
Alternative medicine
Remove
B
Anxiety
Remove
B
Atorvastatin
Remove
S
Cardiac examination
Remove
C
Catheter
Remove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Home
Timeline
Students
Articles
Uploads
Activity
Resources
Get Help
Students Overview
Students Overview
Assignments & Exercises
Add/Remove Students
Assign random peer reviews
Name
Assigned Articles
Reviewing
Words Added (article | user | draft)
References Added
Total Uploads
sandboxes edits
8/9 training modules completed
Complication (medicine)
2786 | 46 | 0
31
0
sandboxes edits
9/9 training modules completed
Metabolic acidosis
1194 | 46 | 0
18
0
9/9 training modules completed
Complication (medicine)
1193 | 46 | 0
14
0
9/9 training modules completed
SOAP note
432 | 46 | 0
25
0

Complication (medicine)

Quality Problems?

See also: Adverse event

A **complication** in medicine, or medical complication, is an unfavourable result of a disease, health condition, or treatment. Complications may adversely affect the prognosis, or outcome, of a disease. Complications generally involve a worsening in severity of disease or the development of new signs, symptoms, or pathological changes which may become widespread throughout the body and affect other organ systems. Thus, complications may lead to the development of new diseases resulting from a previously existing disease. Complications may also arise as a result of various treatments.

The development of complications depends on a number of factors, including the degree of vulnerability, susceptibility, age, health status, and immune system condition. Knowledge of the most common and severe complications of a disease, procedure, or treatment allow for prevention and preparation for treatment if they should occur.

Complications are not to be confused with sequelae, which are residual effects that occur after the acute (initial, most severe)[1] phase of an illness or injury. Sequelae can appear early in the development of disease or weeks to months later and are a result of the initial injury or illness. For example, a scar resulting from a burn or dysphagia resulting from a stroke would be considered sequelae.[2] In addition, complications should not be confused with comorbidities, which are diseases that occur concurrently but have no causative association.

Contents

Edits by: [redacted]

View on wiki

(history) | (article development)

Our Best Practices

- Had a team to help
  - WikiEdu
  - KJ & AJ
  - OME
- Shortened course time
- Added more in-person sessions
- Students edited in groups
- Incentives increased healthy competition

Tips

- Look for an existing WikiProject
  - WikiProject Hawaii
  - WikiProject Libraries
- Look for articles interesting to your audience
- Group work is ok!
- Faculty buy-in

Closing thoughts...

Limitations

- Like anything, our pilot project isn't perfect.
- Forming learning objectives is hard
- Educational assessment is even harder!

But it worked!

- We saw positive changes in students evident in the changes they were able to make to articles.
- Also let us engage with students in a more meaningful way

GLAM

- We can be at home here. GLAM = Galleries, Libraries, Archives and Museums (also botanical gardens and zoos).
- You don't have to teach with it but we can help improve it.

Mahalo!

Any questions?

mkahili@hawaii.edu

Resources

1. Kräenbring J, Penza TM, Gutmann J, Muehlich S, Zolk O, Wojnowski L, Maas R, Engelhardt S, Sarikas A. Accuracy and completeness of drug information in Wikipedia: a comparison with standard textbooks of pharmacology. PloS one. 2014 Sep 24;9(9):e106930.
2. Brown AR. Wikipedia as a data source for political scientists: Accuracy and completeness of coverage. PS: Political Science and Politics. 2011 Apr 1:339-43.
3. Azzam A, Jacobs J, Richards M, Hird K, Kahili-Heede M, Lebowitz D, Costello J, Dexter N, Brock T, Geres N, Brennan E. Wikipedia-editing as a teaching strategy in health professional schools: 6 years, 5 countries, 5 professions... and counting.
4. WikiEdu
5. WikiProjects
6. WikiProject Medicine
7. Tutorial example - Evaluating articles and sources
8. Wikipedia - Reliable sources
9. Wikipedia - GLAM
10. Using Wikipedia to increase the visibility of digital collections: an editathon

Credits

Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by SlidesCarnival
- Photographs by Unsplash