Successful Online Socialization: Lessons from the Wikipedia Education Program

Ang Li*, Zheng Yao*, Diyi Yang
Chinmay Kulkarni, Rosta Farzan, Robert Kraut
Newcomers are essential for online production communities

But, they struggle to stay:

They are likely to leave ...

  e.g. 60% of new Wikipedia editors make no edits after their first day on the site

Their contribution quality are likely to be poor

  e.g. contributions from new Wikipedia editors are more likely to be reverted

Most online production communities provide **little structure** to support and socialize new members

… typically **require newcomers themselves** to figure out what they need to know in order to contribute to a project

A structured socialization program works well offline

Wiki Education Project (Wiki Ed): a unique case of online structured socialization

But does it work online? How?

Clear class instructions

Support from Instructors and Wiki Ed staff

Cohort support: peer classmates

Weak cohort support: Work individually

Strong cohort support: Work in groups
We studied the success of Wiki Ed

Collected students’ editing and interactions data on Wikipedia from the time of their registration till 01/15/2019

4 semesters
Spring 2015 - Fall 2016

770 college courses

16,819 students
Compare *Wiki Ed* students vs. Two control groups

**Semester starts**
- Wiki Ed students
- In-semester control

**Semester ends**
-Avg 80 days

**Jan 15st, 2019**
(data collection ended)

**After-semester control**
-Avg 990 days

**In-semester control**: 16,819
- Matched based on the *same registration time*
- Compared performance *during* the semester
  - **Quantity**: total edits made to Wikipedia articles
  - **Quality**: the change in article quality scores

**After-semester control**: 16,819
- Matched based on the *registration time same as* Wiki Ed students’ *course ending time*
- Compare performance *after* the semester
  - **Quantity**: total edits made to Wikipedia articles
  - **Commitment**: assess survival of each editor
The **Wiki Ed** program improved effort, quality and commitment during and after the semester.

<table>
<thead>
<tr>
<th></th>
<th><strong>During semester</strong></th>
<th></th>
<th><strong>After semester</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Content edits</td>
<td>Article quality</td>
<td>Content edits</td>
</tr>
<tr>
<td>Wiki Ed students</td>
<td>VS. (Controls)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14 times more edits</td>
<td>5 times improvement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 times more edits</td>
<td>51% more likely to stay</td>
</tr>
<tr>
<td>Students working in group</td>
<td>VS. (individually)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.2 times improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social interactions with Wikipedians</td>
<td></td>
<td>25.8% more edits</td>
<td></td>
</tr>
</tbody>
</table>

Your sentence is weakly worded. It's not just a "fair bit" in creates a burden.
Conclusions and Implications

- Wiki Ed is a successful intervention: it produced both short-term and long-term benefits for Wikipedia

- **Structured socialization strategies** strongly benefit newcomers in online production communities
  
  a. More online production communities should bring in newcomers as a cohort and facilitate group work
  
  b. Established members of the communities should have more constructive interaction with newcomers
Thank you!

Questions?

Ang Li: anl125@pitt.edu
Zheng Yao: zyao2@andrew.cmu.edu