The Civic Mission of MOOCs: Measuring Engagement across Political Differences in Forums

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MEASURING ENGAGEMENT ACROSS DIFFERENCE
Is the Internet a place for siloes or bridges? Are politically themed MOOCs a place for siloes or bridges?
CONTEXT: THE SAVING SCHOOLS MOOC
Saving Schools, Mini-Course 1: History and Politics of U.S. Education

About this course

This mini-course seeks to answer the following question: How did a school system, once the envy of the world, stumble so that the performance in math, science, and reading of U.S. students at age 15 fell below that of students in a majority of the world’s industrialized nations?

What you’ll learn

- The status of the U.S. Education system compared to countries around the world
- The historical events and figures that shaped modern-day U.S. education
- The methodological tools necessary to understand education research

Meet the instructor

Paul E. Peterson
Henry Lee Shattuck Professor of Government
Harvard University

Prerequisites

None
Please take our pre-course survey below. The pre-course survey is important to the Saving Schools teaching team because it will allow us to better know our learners and thus better prepare our course content.

A 2012 international test ranked the math skills of 15-year-olds in 34 industrialized countries. With 1 meaning the best and 34 meaning the worst, what is your best guess of where 15-year-old students in your country would rank on this test? (If your country did participate in this test, estimate where you think your country would score.)

A 2012 international test ranked the math skills of 15-year-olds in 34 industrialized countries. With 1 meaning the best and 34 meaning the worst, what is your best guess of where American 15-year-olds ranked on this test?
Week 3 Required Discussion

Based on the evidence presented in the videos and the details provided by the reading, do you think charter schools are a viable form of school choice? How do you see charter schools changing in the future?

This post is visible to everyone.

133 responses

Add a Response

jrs10455

I think charter schools can be a good alternative if they are run properly. Being a public school teacher, I feel they lack the same technological resources as public schools but usually offer smaller class sizes which is a benefit.

Are class sizes smaller in charter schools?

posted about a year ago by nebehos

I believe that charter schools offer a choice to parents and students. Charter schools will be as good as the students that attend.

posted about a year ago by sraj333

Charter schools offer advantages (smaller class sizes, students’ motivation, parents’ involvement) and inconveniences (lack of technology, low pay for teachers). The learning taking place in charter schools and in district schools, like the studies show, is not much different. But giving choice is always beneficial to society. Charter schools will grow and district schools will also learn from them. If competition helps develop education, it can’t be a bad thing.

posted 12 months ago by skyretm

I think as we see charter schools have different advantages but also some disadvantages. According to the kind of students that go to these schools, the results are better or worse, so that these schools should accept students who believe they will have better results or make some changes so that all students have some satisfactory results in the end. All schools, all teachers should take into account the characteristics of their students so that everyone can have a good education and all can achieve the ultimate goal of education.

posted 12 months ago by Sassouto

I agree.

posted 12 months ago by ppsomos

Although many charter schools have some benefits, it appears the for-profit schools may take monies for the school and use it for high paid executives and stockholders. There has been quite a lot of notoriety in the local and national media of poorly paid teachers and highly paid executives in for-profit K-12. But executive and school board member corruption is also in the public school system. In California, there is usually some example of corrupt board or executive school problem. It seems some kind of independent student review needs to take place that probably can only be done at the state/federal level with transparent testing.

posted 12 months ago by Richard-S

School Choice overrated?

Hello,

In Sweden they have already a king of School Choice. They call it Free Schools. As far I know there are no radical improvement in performance of the students. Everything stayed the same.

Why people still passionate about school choice? Why do they ignore other countries application? Is it stupid or ignorance?


This post is visible to everyone.

5 responses

Add a Response

bngchild

Does Sweden enforce compulsory schooling?

yes why?

posted about a year ago by joefrom

This is an interesting article - thanks for sharing.

I think it is difficult to compare American education to other countries because of how culturally diverse America is. The sheer size of the nation is enough to set it apart from most countries, not to mention the variety of languages spoken and religions practiced.

posted about a year ago by elowden

I do agree with you on the fact that America has more of a "melting pot" model of existence which makes its educational system a little hard to narrow down in order to accommodate the diversity of its students. However, if we (as in America) looked at some of the things that other countries do within their school system that first equip students with an element of pride then teach them the history of their country and begin the general curriculum within the school system - I feel the American educational experience may be more beneficial.

posted about a year ago by JessicaLaShawn

Add a comment
RESEARCH QUESTIONS AND METHODS OVERVIEW
Forum Structure Analysis
Social Network Analysis

Text Analysis
Structural Topic Model
## Research Questions and Methods

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) Who registers?</strong> Do students with diverse political beliefs register for Saving Schools?</td>
<td>Descriptive statistics using Education Next education policy preferences survey</td>
</tr>
<tr>
<td><strong>2) Who participates?</strong> Does political belief correlate with course participation patterns? Specifically, do people with left- or right-learning beliefs on education reform participate more in the course forums?</td>
<td>Correlation of education policy survey responses with forum log data</td>
</tr>
<tr>
<td><strong>3) Do students engage across difference?</strong> Do students in online discussion forums engage directly, through replies and upvotes, with students with different political beliefs?</td>
<td>Forum structure analysis and social network analysis</td>
</tr>
<tr>
<td><strong>4) Do students use a shared language?</strong> Do students with different political beliefs use different words and language to discuss topics, or do students converge on a shared language?</td>
<td>Text analysis: Structural Topic Model</td>
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POLITICAL IDEOLOGY, REGISTRATION, AND PARTICIPATION
### Table 1: Demographics of Saving Schools participants.

<table>
<thead>
<tr>
<th></th>
<th>Participants</th>
<th>Survey Respondents</th>
<th>U.S. Forum Posters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (n)</td>
<td>5,408</td>
<td>1,982</td>
<td>592</td>
</tr>
<tr>
<td>Median age</td>
<td>32 years</td>
<td>36 years</td>
<td>40 years</td>
</tr>
<tr>
<td>US learners</td>
<td>76%</td>
<td>69%</td>
<td>100%</td>
</tr>
<tr>
<td>Percent female</td>
<td>55%</td>
<td>58%</td>
<td>64%</td>
</tr>
<tr>
<td>Bachelor’s degree or above</td>
<td>79%</td>
<td>78%</td>
<td>88%</td>
</tr>
<tr>
<td>Average median grade</td>
<td>41%</td>
<td>67%</td>
<td>93%</td>
</tr>
<tr>
<td>Ever taught</td>
<td>55%</td>
<td></td>
<td>63%</td>
</tr>
<tr>
<td>Now teaching</td>
<td>26%</td>
<td></td>
<td>45%</td>
</tr>
<tr>
<td>Intent to complete course</td>
<td>57%</td>
<td></td>
<td>75%</td>
</tr>
<tr>
<td>Intent to audit course</td>
<td>31%</td>
<td></td>
<td>18%</td>
</tr>
</tbody>
</table>

### Table 2: Responses by Saving Schools U.S. forum posters to politically salient questions derived from Education Next poll (n= 592)

<table>
<thead>
<tr>
<th>Question</th>
<th>Greatly increase</th>
<th>Increase</th>
<th>Stay about the same</th>
<th>Decrease</th>
<th>Greatly decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think that [government funding/taxes] for public schools in your district should increase, decrease, or stay about the same?</td>
<td>19%</td>
<td>42%</td>
<td>33%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Do you favor or oppose giving low-income families attending failing public schools the choice to attend private schools instead, with government assistance to pay the tuition?</td>
<td>18%</td>
<td>30%</td>
<td>5%</td>
<td>23%</td>
<td>24%</td>
</tr>
<tr>
<td>Do you favor or oppose tenure for teachers?</td>
<td>11%</td>
<td>20%</td>
<td>7%</td>
<td>33%</td>
<td>27%</td>
</tr>
<tr>
<td>Do you think teacher unions have a generally positive or negative effect on schools?</td>
<td>7%</td>
<td>29%</td>
<td>16%</td>
<td>34%</td>
<td>15%</td>
</tr>
<tr>
<td>Factors</td>
<td>Political Ideology</td>
<td>Comp. 2</td>
<td>Comp. 3</td>
<td>Comp. 4</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>1.79</td>
<td>.92</td>
<td>.83</td>
<td>.45</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weights</th>
<th>Taxes</th>
<th>Vouchers</th>
<th>Tenure</th>
<th>Unions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.3601</td>
<td>-0.8084</td>
<td>0.4286</td>
<td>0.1823</td>
</tr>
<tr>
<td></td>
<td>-0.4059</td>
<td>0.273</td>
<td>0.8714</td>
<td>-0.0366</td>
</tr>
<tr>
<td></td>
<td>0.5688</td>
<td>0.4768</td>
<td>0.143</td>
<td>0.6547</td>
</tr>
<tr>
<td></td>
<td>0.6181</td>
<td>0.2113</td>
<td>0.1909</td>
<td>-0.7327</td>
</tr>
</tbody>
</table>

Table 3: Four factors derived from a Principal Components Analysis of 1,295 U.S. Saving Schools student responses to four *Education Next* questions.
1) **Who registers?** Do students with diverse political beliefs register for Saving Schools?

The distribution of the main principal component of our four item political ideology scale is roughly normal.

![Figure 2: Distribution of political ideology scores of all U.S. Saving Schools survey respondents who posted in the forums (n=592).](image)

2) **Who participates?** Does political belief correlate with course participation patterns?

Political ideology is uncorrelated with posting behavior, and “super-posters” are found in roughly equal proportion in the left, right, and center.

![Figure 3: Scatter plot of U.S. Saving Schools forum posters by political ideology and number of forum posts (n=592).](image)
ENGAGEMENT ACROSS DIFFERENCE IN FORUM PARTICIPATION
We label nodes of liberal forum posters as blue, moderates as magenta, conservatives as red, and exclude non-respondents. Edges represent direct responses in threads with at least 10 posts. Edges are same color for matched nodes, and green otherwise.

Figure 5: Exploratory social network graph of Saving Schools threads with >10 responses. We label nodes of liberal forum posters as blue, moderates as magenta, conservatives as red, and exclude non-respondents. Edges represent direct responses in threads with at least 10 posts. Edges are same color for matched nodes, and green otherwise.
Figure 6: For each category of post, the expected number of comments per response post by response poster’s ideology and commenter’s ideology.
From the video's and literature I get the impression the school boards serve a function (deal with scale, historically a democratic safety pin), but that in the current state they do not perform well for the school system (different curricula, and sometimes inadequate persons).

Regarding the power to design the curriculum, take that power away. The curriculum should be set nation wide because it provides one standard around which you can develop a QA system. This seems to have more chance to prevent quality differences at early age that limit further education opportunities significantly already before the age of 12, let alone when entering college or university. That is a waste of talent you will need for the 21st century. Also, it might have effect on schools in cities and neighborhood they are in. If some school boards don't want to cooperate you can always start a movement with schoolboards that see the added value of doing so (exchanging good practice, etc) which may become a pull factor. This however should be funded nation wide, or by states that are willing to team up (but better at state level).

To make optimal use of the state boards, they could have a role in how to implement the curriculum, what books, in what methods, etc.

Jeenek, thanks for your comments. It is interesting you point this out, since the current political debate seems to be going in the opposite direction from national curriculum. Beyond the political rhetoric, can you or anybody think and lay out what the good arguments are for having local curricula? What are the merits of these arguments?

I think a locally focused curriculum makes sense in certain cases. Having a history background myself, I think that understanding local events gives a student a better comprehension of the world around them and also contributes to their comprehension of their country's history as a whole. Sadly, where I am from, education is severely lacking in both national and local histories. I am from Canada and our education is mostly controlled on a provincial bases. Our school boards here function similarly to those in the US: our curriculum is controlled provincially by the respective Department of Education, with municipally elected and appointed officials running the day-to-day operations of schools. In my area, our elected school board was dissolved years ago due to lack of consensus on most topics. In that sense, the school board is not really serving its purpose of being a democratic system. Locally, there are more issues concerning the school board than good coming out of it being there. School boards should serve the purpose of ensuring that schooling equitable, but I think we are quite far off from that goal.

I agree with StefKalroose that local interests are important in education. Most states have units that teach state facts and history, which is important. There is no reason that a national curriculum couldn't leave room for local school boards to include information and issues specific to their areas. Each subject area at each grade level would have an elective section that could be filled by the school board.

I agree with ALANG03. Had more planning gone into the implementation of the Common Core Standards, I believe we would be having a different conversation. The CCSS seem to be bearing the brunt of the blame for the hurried and thoughtless transition to the standards, not to mention those rightfully lash out against too much testing. I think it's important to remember that the CCSS are just that—CORE Standards. As an elementary teacher, I'm very familiar with the elementary standards, and I find it hard to believe that any parent would not want his/her child to be competent in at least those skills. There may be other topics and skills a particular community believes are necessary for inclusion in the curriculum, such as regional history, cultural studies relevant to the populations of a particular community, subjects relevant to industries in the area, etc. For this reason, I believe that states should set the core standards, and school boards should continue to have the right to supplement them. I hope that both states and school boards will also consider the interests of students themselves as they make their decisions.
Figure 7: Conditional probability of poster ideology by upvoter ideology among upvotes in Saving Schools
3) Do students engage across difference? Do students in online discussion forums engage directly, through replies and upvotes, with students with different political beliefs?

Generally speaking, we see evidence that a politically diverse group of students on the forums engages across difference. While there is some evidence of in-group preference for upvotes and replies, these are in the context of overall patterns of regular engagement across difference. The evidence points to bridges rather than siloes.
SIMILARITIES AND DIFFERENCES IN LANGUAGE USE BY POLITICAL IDEOLOGY
Figure 8: Results of Structural Topic Model Analysis of 195 posts in Saving Schools thread about Common Core State Standards.
Topic 9: Problems with Common Core (higher topic prevalence for liberals)

“Actually, some [of] the greatest criticisms of the CC come from K and early elementary teachers -- saying that the standards are too high for student development (and they might be totally right, as no K-3 teachers were involved in the development of the standards).

Topic 1: Politicized Common Core (higher topic prevalence for conservatives)

“Diversity and letting parents take the lead will always win out here against national curriculum that gets dumbed down to the lowest common denominator and politicized so as not to offend any group or to cater only to the largest sections of the population.”

Topic 12: Costs and Choice (higher topic prevalence for conservatives)

“NCLB is still on the books, so this will not permit some states to benefit from federal funds unfairly and without solvency while others balance budgets and invest in youth. Meanwhile, those states that CHOOSE to act by doing nothing will be identified as such. Liberty and freedom means CHOICE. But choice can be good and bad.”
Figure 9: Results of Structural Topic Model analysis of 155 posts about vouchers.

Topic 1: Opportunities to improve teaching
- teach, improv, test, said, math, perform, also, practic, score, poor
- well, state, pay, care, access, tax, new, local, cost, societi
- agre, think, work, tri, differ, litt, need, hold, make, system
- increas, public, per, privat, appi, achiev, system, money, compet, small
- made, number, program, week, also, reali, run, seem, alwa, say
- custom, money, educ, result, econom, level, need, toward, put, option
- idea, convinc, effect, research, support, interest, great, voucher, limit, still
- charter, attend, district, tradit, might, high, transport, option, academ, mean
- child, parent, qualit, choic, send, like, understand, find, better, credit
- feder, children, minor, accept, legisl, tax, contribut, level, follow, say
- feasibi, polit, convinc, evid, complet, chang, impact, indic, posit, countri
- graduat, standard, polici, group, high, rate, two, keep, avail, ciffer

Topic 12: Graduation standards
4) **Do students use a shared language?** Do students with different political beliefs use different words and language to discuss topics, or do students converge on a shared language?

Generally speaking, there are minimal differences in topic prevalence in our structural topic models by political ideology. We see little evidence that political subgroups are forming language siloes.
Conclusions
Is it possible, that in an increasingly polarized political context, American MOOCs represent an oasis of civil discourse among people with diverse political beliefs?
Early evidence suggests yes.

Future Work
Replication of methods in additional courses
Qualitative analysis of forum threads to ascertain “ground truth” measures of discussion quality and engagement across difference
Greater attention to thread level patterns versus course level patterns

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