Grassroots Professional Development: How Teachers Use Twitter

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Viva la Revolución

L' social media

Who's afraid of Twitter?!
This Talk

Why study teachers on Twitter?

Study Details

Findings: a story about teachers on Twitter

- teachers’ networks
- content shared on Twitter
- teaching Internet literacies
- policies and politics

What this story might mean
Teachers are interesting and cool.
Teachers Online

Supporting Student Learning

- Math Forum (Renninger & Schumar 2002)
- Knowledge Forum (Scardamalia & Bereiter 1996)
- Web-Based Inquiry Science Environment (WISE) (Slotta & Linn 2009)

Professional Development

- Inquiry Learning Forum (Barab, Schatz, & Scheckler 2004)
- TappedIn (Schlager & Fusco 2003)

Access to support and resources influences how much change is observed in efforts to reform instruction (Penuel, Riel et al. 2009)
Q. How do teachers use Twitter?
Q. What do they think it’s good for?
Q. How do educational institutions help shape teachers’ appropriation of social media?
Data

Survey of teachers on Twitter

• broadcast on Twitter using education-related hashtags
• 37 complete responses

Interviews

• 8 teachers, subset of survey respondents
• 30-60 minute telephone interviews

Content Analysis

• 2000 tweets
Who’d we talk to?
<table>
<thead>
<tr>
<th>School Type</th>
<th>Survey Respondents</th>
<th>Interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male/Female</td>
<td>24%/76%</td>
<td>25%/75%</td>
</tr>
<tr>
<td>Public</td>
<td>64% (23)</td>
<td>50% (4)</td>
</tr>
<tr>
<td>Private</td>
<td>30% (11)</td>
<td>40% (3)</td>
</tr>
<tr>
<td>Charter</td>
<td>6% (2)</td>
<td>10% (1)</td>
</tr>
<tr>
<td>K-5</td>
<td>35% (13)</td>
<td>38% (3)</td>
</tr>
<tr>
<td>6-8</td>
<td>38% (14)</td>
<td>38% (3)</td>
</tr>
<tr>
<td>9-12</td>
<td>51% (19)</td>
<td>38% (3)</td>
</tr>
<tr>
<td>College</td>
<td>5% (2)</td>
<td>10% (1)</td>
</tr>
<tr>
<td>Grades Taught</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology/CS</td>
<td>27% (10)</td>
<td>25% (2)</td>
</tr>
<tr>
<td>Science/Math</td>
<td>38 (14)</td>
<td>50% (4)</td>
</tr>
<tr>
<td>Language</td>
<td>38% (14)</td>
<td>50% (4)</td>
</tr>
<tr>
<td>Social Studies</td>
<td>27% (10)</td>
<td>38% (3)</td>
</tr>
<tr>
<td>Arts/Music</td>
<td>16% (6)</td>
<td>0</td>
</tr>
<tr>
<td>Months on Twitter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1</td>
<td>5% (2)</td>
<td>0</td>
</tr>
<tr>
<td>1-12</td>
<td>16% (6)</td>
<td>0</td>
</tr>
<tr>
<td>13-24</td>
<td>38% (14)</td>
<td>25% (2)</td>
</tr>
<tr>
<td>&gt; 24</td>
<td>41% (15)</td>
<td>74% (6)</td>
</tr>
<tr>
<td>Avg. # Followers</td>
<td>334 StDev 412</td>
<td>363 StDev 449</td>
</tr>
<tr>
<td>Avg. # Followed</td>
<td>254 StDev 254</td>
<td>269 StDev 247</td>
</tr>
</tbody>
</table>
What content did we look at?

TUESDAYS NOON - 7 p.m. EST
800 #edchat
800 #mathchat
400 educator tweets
2000 tweets
What’d we do with all that?
Analysis

Interview transcripts

- Iterative coding by one researcher to identify recurrent themes: professional development, classroom use, school policies, and internet safety and literacies

Tweets

- Three iterations of coding by two researchers on test datasets to refine codebook
- Fourth iteration demonstrated high level of agreement between coders: 88.3% of observations (Cohen’s kappa coefficient .82)
<table>
<thead>
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<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>In</td>
<td>Information</td>
</tr>
<tr>
<td>InA</td>
<td>Resources links to tools; rubrics; assignments</td>
</tr>
<tr>
<td>InB</td>
<td>Education-related ideas links to stories; news</td>
</tr>
<tr>
<td>Ph</td>
<td>Philosophy</td>
</tr>
<tr>
<td>PhA</td>
<td>General Inspirational “Achievement follows interest.”</td>
</tr>
<tr>
<td>PhB</td>
<td>Concrete Advice “Greet your students every morning with respect and happiness to see them.”</td>
</tr>
<tr>
<td>Po</td>
<td>Policy local, national, and global educational policies and laws; educational reform</td>
</tr>
<tr>
<td>Me</td>
<td>Personal status/jokes</td>
</tr>
<tr>
<td>Ev</td>
<td>Events conference livetweets; announcements</td>
</tr>
<tr>
<td>Ne</td>
<td>Networking/Self-promotion introduction or links to own work</td>
</tr>
<tr>
<td>R</td>
<td>Request requesting responses or action</td>
</tr>
<tr>
<td>RR</td>
<td>Response to Request</td>
</tr>
</tbody>
</table>
Four Findings

• Tweeting Teachers’ Perceived Networks and Audiences
• What Tweeting Teaching Hear and What They Do With That Information
• Privacy, Safety and Internet Literacies
• Policies and Barriers
Teachers on Twitter act as network bridges whose Twitter connections give them access to resources and also position them to act as information brokers.
“I know only one other teacher at my school that has a Twitter account. And that’s something that I would like to be able to share with staff at a staff development on how to use Twitter as a personal learning network. Because that’s where I feel I’ve gotten such great ideas.” ~T7

“It’s still at a point where ‘isn’t that cute?’ If a problem comes up then one of the first things I do is tweet it out and they’re like ‘oh, that’s nice, Mary.’ [laughs] Until I get an answer back and then they’re like whoa, that’s cool.” ~T5
Interpretation

The recurrent theme of evangelizing the value of Twitter to local peers suggest that teachers on Twitter are:

- Reform minded
- Open to change
- Interested in restructuring their local communities environment to include web-based and social media tools.
I would say that primarily what’s changed [with Twitter use] is my exposure to different tools that are out there. It’s given me more different ways to get at different things. ~ T6

It’s almost like it self-generates learning opportunities. ~ T4
# Codebook

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<td><strong>InB</strong></td>
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</tr>
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<td><strong>Me</strong></td>
<td>Personal</td>
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<td><strong>RR</strong></td>
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Content of Teachers’ Tweets

![Bar chart showing the content of teachers' tweets]

- **In**: 70%
- **Ph**: 50%
- **Po**: 40%
- **Me**: 30%
- **Ev**: 20%
- **Ne**: 10%
- **R**: 5%
- **RR**: 2%

Legend:
- Educator accounts
- edchat
- mathchat
boyd et. al. (2010) found that about 41% of tweets with a hashtag include a link.

55-65% of tweets with education-related hashtag included a link to a resource.
Compared to Most...

Using similar methods, Namaan et. al. found most Twitter users are “Meformers” (80%).

In contrast, 2.5% of tweets from educator accounts contained personal updates or information.
“Some parents freak out and flat out said, ‘my child will not be doing something as silly as Twitter.’ It’s like, ok. That’s fine because, you know, most people think it’s like, to tell people you’re going to the bathroom or, most people think of social and unprofessional use of it.” ~ T2

“If I find somebody that all they do is talk about what they’re doing now or what they’re having for supper I probably won’t follow them any longer.” ~ T8
Concerns about younger students online:

They’re still at the point where things like Twitter feel dangerous to them rather than sort of safe places to be. Which is probably ok, given that I teach 13 year olds. –T5

Twitter and Facebook are great social networking tools, but I don’t know how I feel about 5th graders in that kind of public forum. –T7
Publicness as a Solution

All my kids develop a webpage about the topic they’re studying in [my class] and that webpage is open for the world. And I think this is because we don’t train the kids younger, I always find that the kids don’t even think about what they’re putting up out there... kids don’t think enough when they put things up on Facebook. It’s not open enough to the world. – T8

[students] would post a link to their blog and it was kind of nice because sometimes their blog articles would get picked up by companies they had mentioned or some other outside person decided to go ahead and retweet them. So they started learning about the real world – and I guess that was one of the things I appreciated about it as a teacher was seeing the kids talk to an outside audience. – T2
Many teachers raised issues of creating good policies and educating policy makers as though they considered it to be a part of their job.

One of the successes we’ve had here at school is convincing our administration that whether it’s Twitter, Facebook, chat, whatever, to just have a blind policy that says we’re going to block it doesn’t work. Kids find their way around it. And then the only people that think it isn’t open are the teachers. – T8
A Story in Four Acts

1: The structure of teachers’ professional networks
2. What teachers say and do on Twitter (and in their classrooms)
3. Tweeting teachers’ beliefs about social media in schools
4. School policies and how they affect tweeting teachers
Interpretation

Social capital, which is often viewed as an asset to individuals, is a social good (Putnam).

The strength of many individuals’ ties to one another sustains civic engagement and enables collective action (Granovetter).

These teachers are well-positioned to lead reform efforts, have the communication mechanisms in place, and the motivation to do it.
Questions?

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