The ATE community, like the education community in general, is intrigued by social media but unsure how to use it effectively. ATE grantees often have resource constraints and tightly defined missions and exploring best uses can be time consuming, particularly if projects and centers are not sure of the real impact of using these technologies. Even if most social media services are free, it takes time to post, tweet, blog, or link. With that in mind, how can members of the ATE community best use social media to support outreach and dissemination?

**Aim**

To find out how social media are being used and identify ways to use these technologies effectively, ATE Central, in consultation with EvaluATE and the American Association of Community Colleges (AACC), conducted a survey of the ATE community. This survey built upon social media research done in 2010 by the ICTStudy (http://ictstudy.wordpress.com/). The aim was to answer some fundamental questions that would help all ATE projects and centers with their social media efforts:

- How plugged in to social media is the ATE community?
- Are Facebook, Twitter, YouTube, LinkedIn, and other social media services helping ATE projects and centers meet their goals?
- What can be done to make social media more useful for the ATE community?

**Methods**

A short survey was sent to the attendees of the 2011 ATE PI meeting. In total, 773 people received a short online survey. The survey was open for 14 days, during which time two reminders were sent to the potential participants. 231 responses were received, for an overall response rate of 30%. The majority of the respondents were project or center PIs and Co-PIs:

- Project PI/Co-PI: 40.4%
- Center PI/Co-PI: 20.0%
- Staff at Project: 12.6%
- Staff at Center: 9.1%
- Industry Partner: 1.3%
- NSF Personnel (program officer, staff, etc.) 0.9%
- Other 15.7%.

**Main Findings**

1. Among the ATE community, current usage and perceived usefulness of most social media is low to moderate. [Q 7 +8]
2. While the ATE community thinks social media are only slightly or moderately useful, they think social media could be very or extremely useful. [Q 3 +4]
3. Much of the ATE community is very interested in information, training, services, or tools that could help them use social media more effectively. [Q 5]
Detailed Findings

1. Among the ATE community, current usage and perception of usefulness of most social media is low to moderate.

It may seem like social media have taken over, but within the ATE community, email is still king. Nearly everyone (82%) in the ATE community uses email lists on occasion, and a plurality (39%) uses them daily. By contrast, only some (21%) ever use Twitter. Despite being a science-tech-engineering- and math-savvy group, the ATE community is social media light.

Based on frequency of usage, social media outlets fall into two groups. Among the ATE community, YouTube, LinkedIn, and Facebook are the most popular social media services. Almost half of the respondents (43%, 40%, and 50% respectively) use them daily or weekly. Less that a quarter of the ATE community uses any of the less popular social media services: Google+, Twitter, RSS/Atom, Flickr, or Pinterest. While Google+, RSS, Flickr, and Pinterest may have limited technology audiences, ATE was also largely absent from Twitter, which may offer a more tech-savvy audience.

[Question 2] How frequently do you use the following social media tools in your professional or work life?

Based on our list of ATE projects and centers currently using social media, centers are well represented in the social media landscape, while projects tend not to have a social media presence. Time and resource constraints are important here, but as we discuss in our third finding, there is also a community-wide hesitance to pursue social media initiatives without further training or information.

Few people in the ATE community post to or follow other social media services. Only 20.1% of the ATE audience follows other ATE projects and centers on social media on a daily or weekly basis [Q8]. Only 9% of the ATE projects ever repost on Twitter [Q7].
[Question 8] How regularly do you post to or follow social media services maintained by ATE projects or centers other than your own?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Response percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>35.5%</td>
</tr>
<tr>
<td>Less than Monthly</td>
<td>29.8%</td>
</tr>
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<td>Weekly</td>
<td>14.0%</td>
</tr>
<tr>
<td>Daily</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

2. While the ATE community thinks social media are slightly or moderately useful, members think social media could be very or extremely useful.

While fully 61.8% of the ATE community thinks social media *could be* very or extremely useful, only 27.7% reports that social media *are currently* very or extremely useful. This gap means that although ATE community members are interested in social media in theory, they are unsure of how to harness or improve its usefulness.

[Questions 3-4] How useful social media is currently compared to how useful it *could be* in achieving the goals of ATE projects/centers.

Members of the ATE community justifiably hesitate to use social media without information on how to make the most of that time investment. However, survey respondents indicated a strong interest in closing the gap between current and potential usefulness.

3. The ATE community is very interested in information, training, services, or tools that could help members use social media more effectively [Q 5].

Most of the ATE community has interest in services, training, and information that would help them use social media more effectively. More than a third of respondents expressed strong interest in training (36.8%) and services or tools (35.8%) to help them make the most of their social media use. A majority (70-71%) of respondents was strongly or moderately interested in
information explaining the available social media options, services or tools to manage social media presence, and training/guidance on how to use social media effectively.

[Question 5] Please indicate the degree to which you would be interested in the following.

Pairing this result with result (2), we can come to the conclusion that training, services, tools, and information would be welcomed by the ATE community and would help close the gap between social media usefulness and potential.

Implications

Because this survey identified a gap between current and potential usefulness of social media, ATE Central’s ongoing efforts to support the ATE community’s social media usage will attempt to bridge that gap. Respondents indicated interest in several approaches, which are outlined below along with ATE Central’s existing and planned future initiatives on social media utilization:

1. **Services or tools to help manage social media presence.**

   ATE Central has created and continues to maintain the ATE Social Media Directory. This tool lists the social media outlets of various organizations of interest to the ATE community, including ATE projects and centers, other NSF projects and directorates, and related organizations like the American Association of Community Colleges (AACC). It allows the ATE community to connect with and stay abreast of initiatives related to advanced technological education, to promote events or publications, and find collaborators and create partnerships.

   In the future, ATE Central has proposed to conduct a series of ATE Audience Technology Surveys, working with partners at the Evaluation Center and UW Learning Solutions. This survey will be developed collaboratively with the ATE community through focus groups, emails, and phone calls and will provide insight into the usage patterns of ATE project and center audiences. Any project or center that wishes to participate will share mailing lists with ATE Central, which will be aggregated with coding to allow for individual project or center results to be parsed out. The final results of the survey will provide a snapshot for projects and centers of how their audience is using social media and technology as well as an aggregate picture of the community as a whole. This will allow centers and projects to craft focused plans for outreach that meet their user needs via the technology pathways their audiences
already use. In the interest of privacy, the aggregate mailing list will be destroyed at the end of each survey cycle and survey results will be distributed to project partners and in a report for the community and NSF.

2. *Training or guidance on how to use social media effectively.*

ATE Central’s Outreach Kit includes an entire section devoted to the use and management of social media specifically for ATE projects and centers. It contains an overview of social media, a list comparison of the most popular social media tools, tips on creating a professional profile, social media blogs, help with social media analytics, and a helpful list of outside resources for future information and help.

ATE Central has also proposed to develop a webinar series to help projects and centers effectively incorporate social media into their outreach and dissemination plans. These webinars will allow the community to come together to share challenges and best practices, and ATE Central will enlist social media experts to share their wisdom regarding this new, innovative, and low-cost pathway. The ATE Audience Technology Survey (discussed above) will help provide ATE Central with details of what should be covered in these webinars so they are most useful in the context of the ATE program.

3. *Information explaining the available social media options.*

In addition to the ATE Social Media Directory maintained by ATE Central, the Most Popular Tools guide, located in the Social Media portion of the Outreach Kit helps projects and centers see which tools the ATE community is using and how they are being used to broaden the impact of each initiative. This guide can be found at: [https://atecentral.net/index.php?P=OutreachKit--SocialMediaGuide-PopularTools](https://atecentral.net/index.php?P=OutreachKit--SocialMediaGuide-PopularTools)

ATE Central will continue to grow and maintain both the ATE Social Media Directory and the Most Popular Tools guide as new tools become available, and outdated tools fade away. Additionally, ATE Central will dedicate time in each social media webinar to discuss developments in the available social media tools.

**Conclusions**

Social media have quite a bit to offer the ATE community. Most social media tools are free and relatively easy to use with proper training and support. In addition, segments of the ATE audience are widely dispersed, which makes use of social media an attractive option for outreach and dissemination.

At the moment, however, members of the ATE community are hesitant to use social media to support their projects and centers. This is due to uncertainty about social media’s effectiveness, and a lack of training, information, services, and tools designed specifically to support ATE community social media use. In the future, these types of support may help close the gap between current perceived social media usefulness and potential optimal social media usefulness. It will be to the ATE community’s benefit to both design these types of supports and make them widely available.