ATE Audience Social Media Survey

Results from 2015 Survey

The ATE Audience Social Media Survey seeks to provide the ATE community with answers to questions they have asked regarding effective use of social media to promote their deliverables. The overarching conclusion from the *ATE Social Media and Technology Survey* conducted in 2012 by ATE Central was that social media seemed potentially very useful to Project and Center PIs, but they felt it was not currently being utilized effectively. The primary reason they gave for this unrealized potential was a lack of information on how their audiences interact with social media.

The Pew Research Center publishes an annual report on social media usage of a general American audience. In recent years Pew's survey has expanded in scope to provide increasingly fine-grained information, and the results of the Pew survey are leveraged herein to provide additional context and coverage.

Procedure

To address the questions raised by the ATE community and assess the degree to which Pew and similar sources can be applied to the ATE audience, ATE Central collaborated with EvaluATE to conduct the ATE Audience Social Media Survey. Twelve projects and centers agreed to provide their mailing lists, which in total comprised 17,606 individuals. Survey questions were developed collaboratively with participating projects and centers. Surveys were conducted online via the Qualtrics platform from Sept-Oct 2015. Overall response rate was 7.8% (1369 responses), with response rates for individual projects and centers ranging from 1.6% to 18.4%. Data was broken out and audience-subset-specific reports written for each participating project and center, to provide them with results specific to their audience. Unfortunately, sample sizes for specific projects and centers were sometimes too small for the data to support individualized reports.

Respondents were asked to specify how they are involved with the ATE program. The most prevalent involvement types were educator (n=786) and administrator (n=316) and the least common were parent (n=115) and student (n=71). Common values for the "Other" response category included "evaluation" and "grants administration".
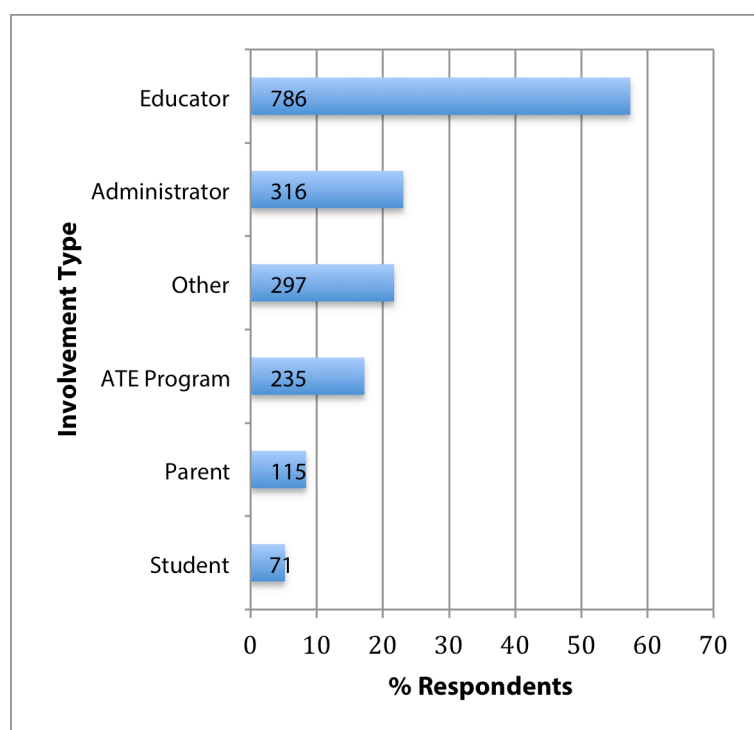

Involvement of survey respondents to the ATE program. Numbers in bars give sample sizes.

ATE CENTRAL

Results

Social media usage was concentrated on a small number of popular channels, primarily LinkedIn (62.3%), YouTube/Vimeo (61.1%), Facebook (60.9%). Twitter and GooglePlus were both used by about 30% of respondents. All other channels (Flickr, Instagram, Pinterest, and Yahoo/Google Groups) were used by less than 22% of respondents. In contrast to data from Pew and Neilsen, where smartphones dominate access to social media, members of the ATE community primarily access social media using a computer. The one exception was Twitter, where smartphones were slightly more popular than computers (25.3% vs 22.8%). The relatively high popularity of computers is probably because ATE community members use social media at their desk as part of their job, so a computer is the most convenient device. In contrast, the general public accesses social media incidentally throughout the day and often a smartphone is the most convenient device.

Where comparable, results from the first round of the Audience Social Media Survey generally agree with results published by Pew. For Facebook and Pinterest, results from the present study fall within the margin of error around Pew's estimates for the adult population. Pew reported slightly higher usage for Instagram (24% vs 17%) and slightly lower usage for Twitter (20% vs 33%) than the present study. One notable point of disagreement was the popularity of LinkedIn. In Pew's data, the heaviest usage of LinkedIn was 46% for college educated Internet users, but average usage for the entire adult population was only 22%. LinkedIn's focus on professional development appears to give it greater appeal within the ATE community than it enjoys with the general public.
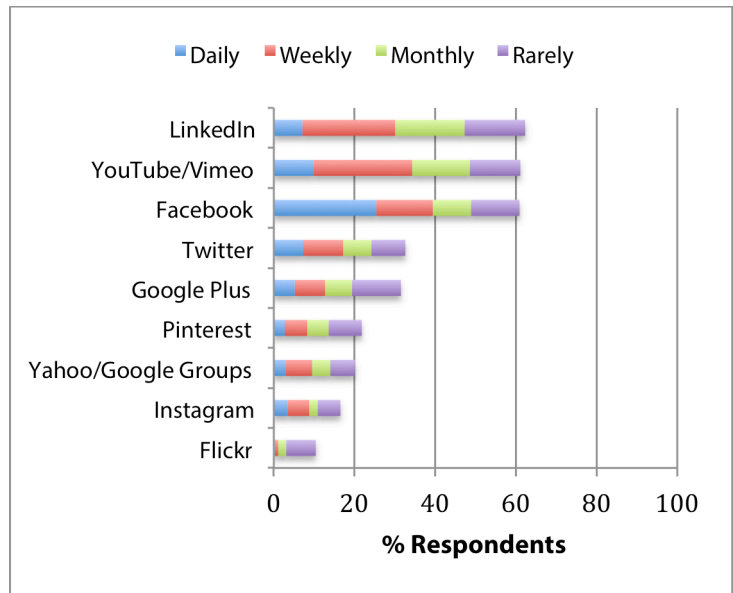

Frequency of usage for social media channels

Demographics of Social Media Users
*Among Internet users, the % who use the service*

	LinkedIn	Facebook	Twitter
Total	25	72	23
Men	26	66	25
Women	25	77	21
White	26	70	20
Black,	22	67	28
Hispanic	22	75	28
18-29	22	82	32
30-49	32	79	29
50-64	26	64	13
65+	12	48	6
High school or less	9	71	18
Some college	25	72	23
College+	46	72	27
Less than $30,000/yr	17	73	21
$30,0000-$49,999	21	72	19
$50,000-$74,999	32	66	25
$75,000+	41	78	26
Urban	30	74	30
Suburban	26	72	21
Rural	12	67	15

Source: Pew Research Center, March17-April 12, 2015.

Course Materials ■ **Jobs** ■ **News** ■ **Events**
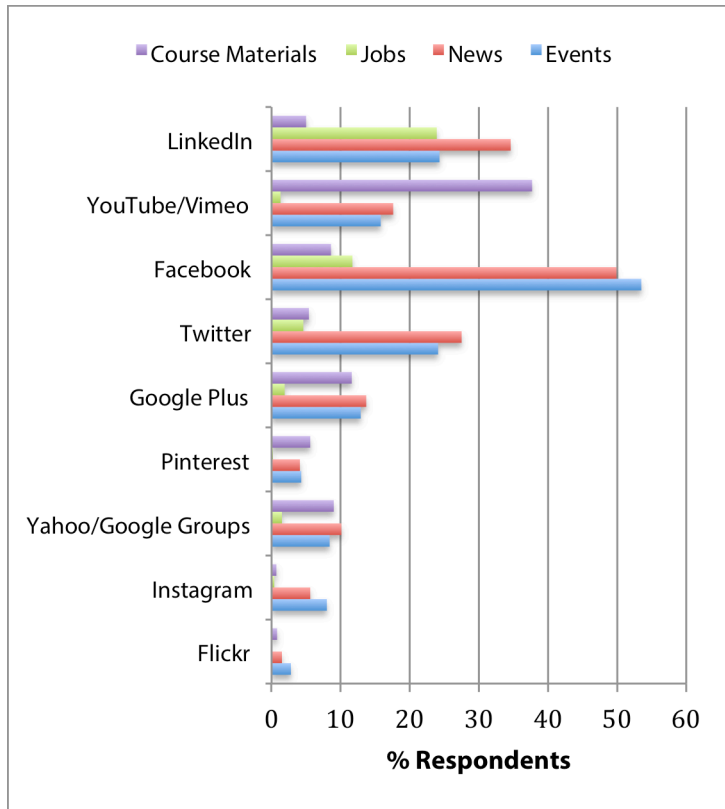
Channels audience members prefer for posting specific content

Personal ■ **Course Materials** ■ **Jobs** ■ **News** ■ **Events**

Audience members use the differing social media channels for different kinds of content, with YouTube/Vimeo preferred for course materials, LinkedIn for jobs, and Facebook for news and events. These preferences applied both to where audience members post content as well as where they look for content. This ranking was also consistent between different respondent types, indicating (for example) that students look for materials in the same places that educators are posting it. Indeed, the largest difference between respondent types in the data appears to be the percentage social media users in each type. Of particular interest is the lack of difference in social media use between ATE Project/Center staff and the ATE Audience in aggregate. This indicates that the audience of the ATE community is really just using social media in the same way as the community itself.
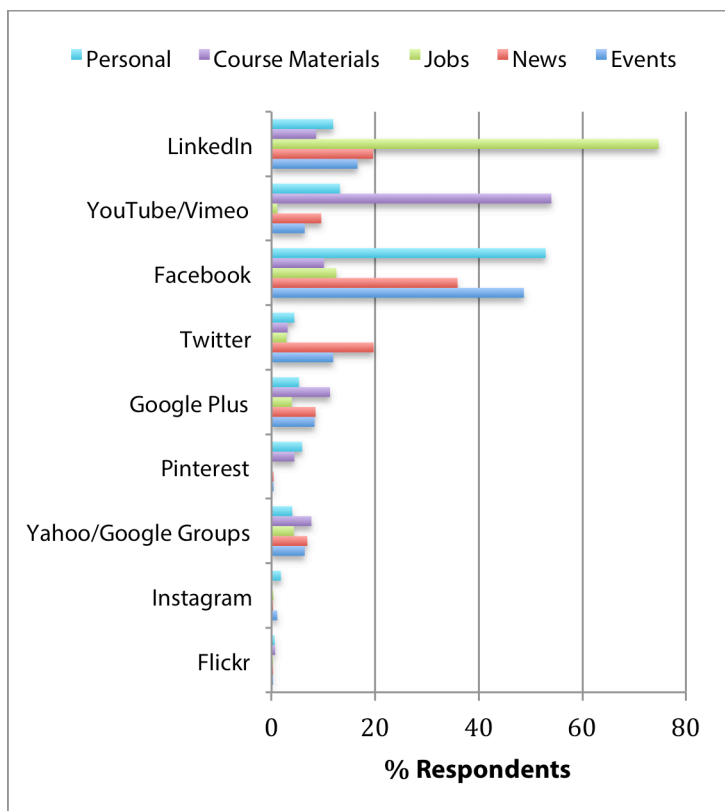
Conclusions

Preliminary results from the first round of the Audience Social Media Survey seem to indicate that the ATE community is fairly uniform in its use of social media, with differing segments of the audience using similar channels, and also that it is fairly similar to the usage reported in broader surveys like Pew.

A second round of the Audience Social Media Survey will be performed in Spring 2017. This second round will be augmented with additional demographic questions so that results can be more closely compared with Pew.

Preliminary Recommendations

Some recommended action items drawn from the survey data to date:

- Focus outreach efforts on the three most-used channels: LinkedIn, YouTube/Vimeo, and Facebook.

- Post content where audience members are most likely to look for it: Employment related materials on LinkedIn, course materials on YouTube/Vimeo, and news/events on Facebook.

- Consider expanding to less-used channels only after verifying that your audience uses them.

- Use metrics provided by your social media channels to gauge the degree to which you are reaching your audience.

Final recommendations will be made after the second round of the survey.

References

Duggan, M., Lenhart, A., Lampe, C., Ellison, N.B. 2015. "Parents and Social Media." Pew Research Center. http://www.pewinternet.org/2015/07/16/parents-and-social-media/

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Appendix A

Survey Responses

STEM/ATE Involvement

How are you involved with STEM (Science/Technology/Engineering/Math) education? (Please check all that apply) (n=1,357); *Total exceeds 100% because respondents could select multiple responses*

Answer	%	
Student	5.2%	
Parent	8.4%	
Educator	57.4%	
Administrator	23.1%	
ATE program	17.2%	
Other (specify)	21.7%	
Among the 297 people who selected "other," common ways of being involved with STEM included evaluation (n=48), grant development/administration (n=26), consulting (n=19) and business/industry (n=14).		

How are you connected to the ATE program? (n=230)

Answer	%	
ATE PI/co-PI	52.2%	
ATE staff	21.7%	
ATE evaluator	9.6%	
ATE industry partner	1.3%	
Work in an ATE-related industry	2.2%	
NSF personnel	2.2%	
Other (specify)	10.9%	
Of the 25 respondents who selected "other," common roles included ATE partner (n=7), former or prospective ATE principal investigator (n=5), contactor or consultant (n=4), and grants professional (n=2).		

Social Media Access

How often do you use the following social media platforms? (n=1,351)

Service	Never	Less than monthly	Monthly	Weekly	Daily
Facebook	39.1%	12.0%	9.5%	14.0%	25.4%
Flickr	89.6%	7.3%	2.0%	0.8%	0.3%
Google Plus	68.5%	13.1%	6.7%	7.5%	4.2%
Instagram	83.5%	5.6%	2.1%	5.4%	3.4%
LinkedIn	37.7%	15.0%	17.2%	23.0%	7.1%
Pinterest	78.2%	8.2%	5.3%	5.6%	2.7%
Twitter	67.4%	8.4%	7.0%	9.9%	7.3%
Yahoo/Google Groups	79.9%	6.1%	4.5%	6.5%	3.0%
YouTube/Vimeo	38.9%	12.5%	14.3%	24.5%	9.8%

The results above were used to identify the percentage of users v. nonusers for each social media platform, as shown below.

Service	Nonusers	Users
Facebook	39.1%	60.9%
Flickr	89.6%	10.4%
Google Plus	68.5%	31.5%
Instagram	83.5%	16.5%
LinkedIn	37.7%	62.3%
Pinterest	78.2%	21.8%
Twitter	67.4%	32.6%
Yahoo/Google Groups	79.9%	20.1%
YouTube/Vimeo	38.9%	61.1%

What devices do you use to access social media? (n=1,175)

Service	Smart phone	Tablet	Computer
Facebook	44.3%	28.9%	58.2%
Flickr	1.9%	2.3%	7.6%
Google Plus	12.0%	10.2%	29.7%
Instagram	13.5%	4.5%	6.6%
LinkedIn	31.5%	22.1%	63.7%
Pinterest	12.3%	9.3%	15.3%
Twitter	25.3%	12.7%	22.8%
Yahoo/Google Groups	6.0%	5.6%	19.4%
YouTube/Vimeo	29.2%	25.9%	64.3%

Total percentage for each platform exceeds 100% because respondents could select more than one response.

Content

What kinds of content do you post, forward, or share on the following services? (n=1,027)

Service	Events	News	Job Listings	Course Materials
Facebook	53.5%	49.9%	11.7%	8.6%
Flickr	2.8%	1.5%	0.1%	0.8%
Google Plus	12.9%	13.7%	1.9%	11.6%
Instagram	8.0%	5.6%	0.4%	0.7%
LinkedIn	24.3%	34.6%	23.9%	5.0%
Pinterest	4.3%	4.1%	0.2%	5.6%
Twitter	24.1%	27.5%	4.6%	5.4%
Yahoo/Google Groups	8.4%	10.1%	1.5%	9.0%
YouTube/Vimeo	15.8%	17.6%	1.3%	37.7%

Which social media platform is most useful for finding the following kinds of information?

Service	Events (n=787)	News (n=766)	Job listings (n=633)	Course materials (n=676)	Personal use (n=796)
Facebook	48.7%	35.9%	12.5%	10.1%	52.9%
Flickr	0.3%	0.3%	0.3%	0.7%	0.6%
Google Plus	8.3%	8.5%	3.9%	11.4%	5.3%
Instagram	1.1%	0.3%	0.3%	0%	1.8%
LinkedIn	16.6%	19.6%	74.7%	8.6%	11.9%
Pinterest	0.4%	0.3%	0%	4.4%	5.9%
Twitter	11.9%	19.7%	2.8%	3.1%	4.4%
YouTube/Vimeo	6.4%	8.6%	1.1%	54.0%	13.2%
Yahoo/Google Groups	6.4%	6.9%	4.3%	7.7%	4.0%

Which social media platform do you find most useful overall? (n=1,032)

Service	%	
Facebook	24.4%	
Flickr	0.0%	
Google Plus	7.5%	
Instagram	0.3%	
LinkedIn	24.3%	
Pinterest	1.1%	
Twitter	7.9%	
Yahoo/Google Groups	5.1%	
YouTube/Vimeo	29.5%	

Do you encourage your students to use social media as a part of their studies? (n=736)

Answer	%	
Yes	53.5%	
No	46.5%	

Evaluation of ATE Project/Center Social Media Use

Has your ATE project/center assessed the effectiveness of its use of social media? (n=166)

Answer	%	
Yes	30.7%	
Does not apply	22.9%	
No	46.4%	

What strategies has your ATE project/center used to assess the effectiveness of its use of social media? (select all that apply) (n=50)

Answer	%	
Tools or metrics provided by the social media channels	86.0%	
Audience surveys	56.0%	
Other (describe):	18.0%	

Evaluation

Hootsuite

Viewing or friending our FB page

Workshops

Feedback

Providing an outlet for dissemination

Audience targets/ focus group

Responses to the message (registrations, etc.)

Appendix B
Survey responses for each respondent type

■ *Most popular option within row*	■ *Second most popular option within row*	■ *Third most popular option within row*

Social media use

Percentage of respondents, by group, who use the listed types of social media

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Student (n=66)	89.4%	19.7%	47.0%	43.9%	71.2%	40.9%	42.4%	15.2%	83.3%
Parent (n=105)	75.2%	13.3%	42.9%	27.6%	78.1%	39.0%	40.0%	33.3%	83.8%
Educator (n=682)	66.9%	12.8%	39.7%	18.5%	69.4%	23.9%	35.6%	27.4%	77.0%
Administrator (n=279)	73.1%	15.4%	37.6%	22.2%	78.5%	26.9%	44.8%	22.2%	65.6%
ATE program (n=209)	71.3%	11.5%	30.6%	17.7%	77.5%	19.6%	40.2%	23.9%	69.9%
Other (n=248)	71.8%	10.5%	31.5%	15.7%	71.8%	19.8%	35.5%	19.8%	58.9%

Which social media platform do you find most useful overall? (%=percentage of row total)

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Student (n=61)	49.2%	0.0%	1.6%	1.6%	14.8%	0.0%	3.3%	3.3%	26.2%
Parent (n=99)	26.3%	0.0%	5.1%	0.0%	24.2%	2.0%	4.0%	4.0%	34.3%
Educator (n=612)	19.9%	0.0%	9.0%	0.3%	18.3%	1.3%	5.6%	5.7%	39.9%
Administrator (n=238)	25.2%	0.0%	8.0%	0.4%	32.8%	0.0%	10.9%	4.2%	18.5%
ATE Program (n=184)	28.8%	0.0%	6.0%	0.5%	31.5%	0.0%	9.8%	3.8%	19.6%
Other (n=210)	26.7%	0.0%	8.6%	0.0%	32.9%	1.0%	10.5%	5.2%	15.2%

What kinds of content do you post, forward, or share on the following platforms?

Students (n=58)

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events	69.0%	6.9%	15.5%	25.9%	19.0%	15.5%	27.6%	8.6%	25.9%
News	67.2%	1.7%	10.3%	15.5%	32.8%	10.3%	24.1%	8.6%	27.6%
Job Listings	10.3%	0.0%	3.4%	1.7%	36.2%	0.0%	0.0%	1.7%	1.7%
Course Materials	12.1%	1.7%	8.6%	1.7%	12.1%	8.6%	6.9%	10.3%	37.9%

Parents (n=92)

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events	62.0%	4.3%	16.3%	12.0%	29.3%	4.3%	28.3%	9.8%	18.5%
News	55.4%	1.1%	25.0%	13.0%	41.3%	9.8%	31.5%	16.3%	25.0%
Job Listings	9.8%	0.0%	1.1%	1.1%	28.3%	0.0%	5.4%	1.1%	1.1%
Course Materials	10.9%	1.1%	12.0%	1.1%	5.4%	9.8%	6.5%	12.0%	40.2%

Educators (n=611)

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events	49.1%	2.6%	11.9%	6.4%	21.8%	3.3%	19.3%	9.7%	14.9%
News	45.8%	1.0%	13.4%	5.9%	31.1%	3.1%	23.4%	12.6%	17.7%
Job Listings	11.6%	0.2%	2.1%	0.3%	23.4%	0.0%	3.9%	1.8%	1.5%
Course Materials	9.7%	0.8%	15.1%	1.0%	5.2%	6.4%	6.1%	12.4%	50.6%

Administrators (n=248)

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events	62.5%	4.4%	14.1%	9.3%	31.5%	5.6%	30.6%	6.5%	18.5%
News	55.2%	2.8%	17.7%	6.9%	39.1%	3.6%	33.5%	8.5%	20.6%
Job Listings	12.9%	0.0%	2.0%	0.0%	26.2%	0.8%	6.0%	1.2%	0.8%
Course Materials	8.5%	0.4%	8.9%	0.4%	4.0%	2.8%	7.7%	7.7%	25.8%

ATE Program (n=188)

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events	57.4%	3.7%	11.2%	6.4%	29.3%	3.7%	26.1%	6.9%	12.8%
News	53.2%	1.6%	10.6%	4.3%	43.1%	1.6%	31.9%	9.6%	16.0%
Job Listings	15.4%	0.0%	1.1%	1.1%	23.4%	0.0%	4.8%	1.1%	1.1%
Course Materials	10.1%	0.5%	11.2%	1.1%	5.9%	3.7%	5.3%	6.9%	36.7%

Other (n=199)

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events	58.8%	3.0%	12.1%	10.6%	32.2%	3.5%	30.2%	9.5%	15.6%
News	57.3%	1.0%	10.6%	4.0%	41.7%	5.0%	31.2%	7.5%	20.6%
Job Listings	15.1%	0.0%	2.0%	1.0%	26.1%	0.0%	6.0%	1.5%	0.5%
Course Materials	9.5%	1.5%	9.0%	0.5%	6.0%	5.0%	2.5%	7.5%	21.1%

Which social media platform is most useful for finding the following kinds of information?
(%=percentage of row total)

Student

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events (n=53)	64.2%	0.0%	5.7%	1.9%	9.4%	0.0%	5.7%	9.4%	3.8%
News (n=52)	50.0%	0.0%	3.8%	0.0%	17.3%	0.0%	15.4%	5.8%	7.7%
Job Listings (n=39)	12.8%	0.0%	5.1%	0.0%	74.4%	0.0%	2.6%	5.1%	0.0%
Course Materials (n=49)	12.2%	2.0%	8.2%	0.0%	12.2%	4.1%	4.1%	2.0%	55.1%
Personal Use (n=52)	67.3%	0.0%	0.0%	5.8%	9.6%	13.5%	0.0%	0.0%	3.8%

Parent

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events (n=75)	48.0%	0.0%	10.7%	0.0%	16.0%	0.0%	10.7%	8.0%	6.7%
News (n=69)	30.4%	0.0%	7.2%	0.0%	23.2%	0.0%	23.2%	8.7%	7.2%
Job Listings (n=61)	9.8%	0.0%	4.9%	0.0%	77.0%	0.0%	0.0%	8.2%	0.0%
Course Materials (n=70)	5.7%	0.0%	14.3%	0.0%	12.9%	5.7%	2.9%	7.1%	51.4%
Personal Use (n=80)	53.8%	0.0%	8.8%	1.3%	7.5%	10.0%	3.8%	2.5%	12.5%

Educator

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events (n=449)	45.7%	0.2%	10.2%	0.9%	14.7%	0.4%	10.7%	8.9%	8.2%
News (n=442)	33.9%	0.2%	10.6%	0.5%	16.7%	0.2%	18.3%	9.3%	10.2%
Job Listings (n=365)	12.6%	0.3%	5.2%	0.5%	71.8%	0.0%	2.5%	5.5%	1.6%
Course Materials (n=450)	7.8%	0.7%	11.3%	0.0%	5.1%	4.4%	2.4%	7.6%	60.7%
Personal Use (n=464)	49.1%	0.6%	7.3%	1.9%	10.3%	5.2%	3.9%	4.3%	17.2%

Administrators

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events (n=202)	46.5%	0.0%	8.9%	2.0%	14.9%	0.5%	18.8%	3.5%	5.0%
News (n=199)	34.7%	0.0%	10.1%	0.0%	20.6%	0.5%	23.1%	4.0%	7.0%
Job Listings (n=173)	12.1%	0.0%	2.3%	0.0%	77.5%	0.0%	4.6%	2.9%	0.6%
Course Materials (n=153)	12.4%	0.7%	13.1%	0.0%	10.5%	2.6%	5.9%	10.5%	44.4%
Personal Use (n=200)	52.0%	0.5%	5.5%	2.0%	14.0%	3.0%	5.5%	2.5%	15.0%

ATE Program

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events (n=149)	50.3%	0.0%	6.7%	0.7%	22.8%	0.7%	11.4%	3.4%	4.0%
News (n=144)	40.3%	0.0%	4.2%	0.0%	22.9%	0.0%	20.1%	4.2%	8.3%
Job Listings (n=121)	16.5%	0.0%	2.5%	0.0%	75.2%	0.0%	2.5%	2.5%	0.8%
Course Materials (n=118)	11.9%	0.8%	11.0%	0.0%	7.6%	3.4%	1.7%	4.2%	59.3%
Personal Use (n=148)	52.0%	0.0%	6.8%	2.7%	16.9%	4.7%	4.1%	2.7%	10.1%

Other

	Facebook	Flickr	Google Plus	Instagram	LinkedIn	Pinterest	Twitter	Yahoo/ Google Groups	YouTube / Vimeo
Events (n=153)	51.6%	0.7%	7.2%	1.3%	22.2%	0.0%	9.2%	4.6%	3.3%
News (n=150)	37.3%	0.7%	4.0%	0.0%	24.7%	1.3%	21.3%	4.7%	6.0%
Job Listings (n=125)	12.8%	0.8%	2.4%	0.0%	77.6%	0.0%	3.2%	2.4%	0.8%
Course Materials (n=107)	14.0%	0.9%	13.1%	0.0%	13.1%	7.5%	1.9%	9.3%	40.2%
Personal Use (n=156)	57.7%	1.3%	2.6%	1.3%	13.5%	6.4%	3.8%	4.5%	9.0%