

**Results of a Pilot Analysis of ACTEM Listserv Posts as a
Tool for Examining Maine Learning Technology Initiative
Program Implementation**

**Caroline A. Pinkham
Research Associate
MLTI Evaluation Team Member**

**Maine Education Policy Research Institute
University of Southern Maine Campus**

March 2015

Results of a Pilot Analysis of ACTEM Listserv Posts as a Tool for Examining Maine Learning Technology Initiative Program Implementation

Caroline Pinkham

MLTI Evaluation Team Member

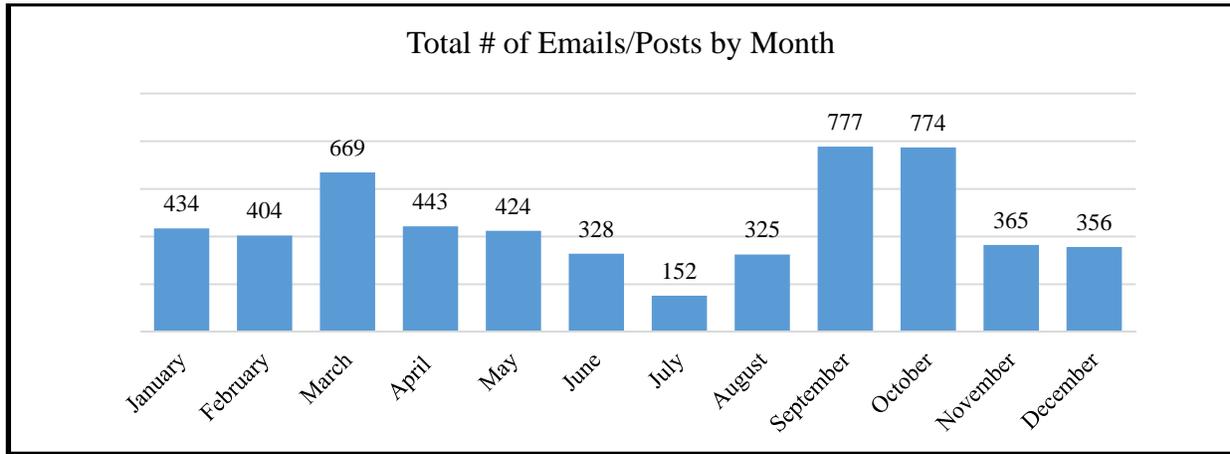
The Association of Computer Technology Educators of Maine (ACTEM) is a professional organization rooted in enhancing and influencing the use of technology in education. According to ACTEM, for over three decades, ACTEM has aimed to provide technology personnel across the state of Maine with an active and supportive community to assist in the implementation of technology. A primary element of ACTEM's contribution to the technology landscape in Maine education is its active listserv. Despite evidence of its consistent presence as a resource for technology, both in Maine and beyond, there has been little information to date about the ways in which individuals used the listserv. As part of its ongoing evaluation efforts of Maine Learning Technology Initiative (MLTI), the Maine Education Policy Research Institute (MEPRI) staff examined the ACTEM listserv archives for the 2014 calendar year, which overlaps with two academic years, 2013-2014 and 2014-2015. *The goal of this examination was to pilot a process for documenting and categorizing the listserv content and to determine the viability of this process in providing useful evidence of implementation of the MLTI program.* The present report provides an overview of the quality and quantity of messages exchanged through the listserv and a discussion of this evidence.

Who and How Much? Examining ACTEM Listserv Activity

The ACTEM listserv is an active listserv that has 786 members. Individuals may pose technical questions and receive direct responses from other members in a short time. As a result, the listserv is quite busy, and generates dynamic exchanges about a range of technology-related issues. Members are often able to generate real time responses to inquiries through a crowd-sourcing approach. It must be noted that some individual respondents often make up a significant proportion of the exchanges (e.g., in October, one individual accounted for 20 percent of the messages) and several individuals post frequently and consistently across all months. However, approximately 130 unique individuals contributed to the listserv in some capacity each month. Each message sent reaches the 786 individuals subscribed to the listserv. As a result, between January and December of 2014, there were 5,451 emails/posts exchanged via the ACTEM

listserv or approximately 454 per month. Graph 1 below reports the total number of e-mails or posts to the listserv by month. As evident by the graph, e-mails/posts vary significantly by month.

GRAPH 1: Total Number of Emails/Post by Month



Topics Addressed on the ACTEM Listserv

While the ACTEM listserv may be used for a wide range of reasons, a preliminary analysis was conducted on over 1,374 unique posts between January and December 2014. A unique post was identified as a new subject posted to the listserv which could then generate from one to multiple responses/replies. A number of recurring themes were identified based on unique posts. Analyses of the unique comments by month suggest certain trends and patterns to the conversations by individuals that are accessing the listserv.

TABLE 1: Number & Percentage of Unique Comments by Category

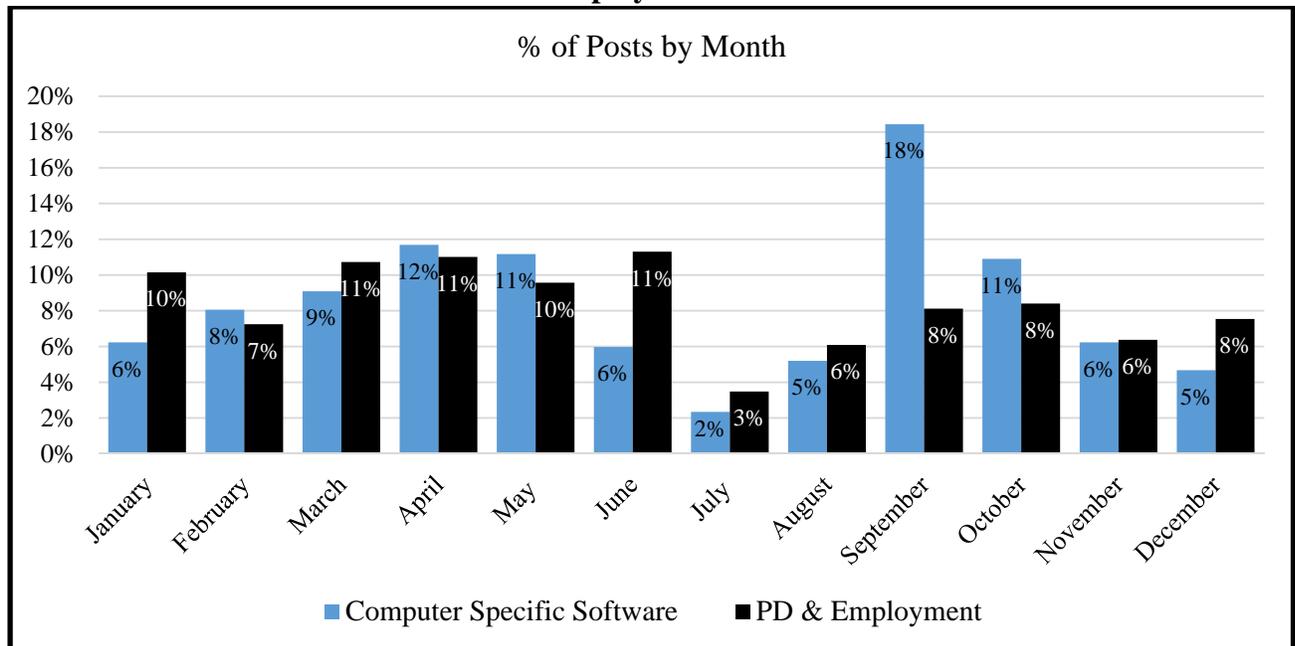
Categories	# Unique Posts	% Unique Post
Misc.	71	5%
School Internet	137	10%
Hardware	198	14%
School Software Resources & Management	238	17%
Professional Development (PD) & Employment	345	25%
Computer Specific Software	385	28%

When compiled by category certain trends emerged. The category with the most unique posts consisted of *Computer Specific Software*. These posts contained comments specific to software issued with the technology device. For example, questions or comments consisted of

JAMF/CASPER, Yosemite, iOS, GAFE, Apple identification, or specific device software such as Keynote. The category that had the second most unique posts/comments consisted of *Professional Development and Employments*. Most of the posts in this category provided information of upcoming PD events. The third category consisted of *School Software Resources and Management*. Posts in this category consisted of non-MLTI software comments such as how to implement Google in a wide variety of venues or formats or use other non MLTI software or programs. The *Hardware* category was compiled from questions that sought out how to deal with the actual device, such as connectivity to hardware or physical replacement parts. *School Internet* was compiled from questions that included access or management of systems such as testing or school wide email systems. Finally, the Miscellaneous (Misc.) category included various posts that were not directly related to technology.

To gain a better insight into the trends and patterns surrounding individuals' posting behaviors on the ACTEM listserv throughout the year, information is presented by month for each category in Graphs 2, 3, and 4.

GRAPH 2: Percentage Unique Post: Computer Specific Software & PD & Employment



Computer Specific Software had the most unique posts for the year at 385 comments. They averaged 32 posts per month. As indicated by the graph there was a significant spike in

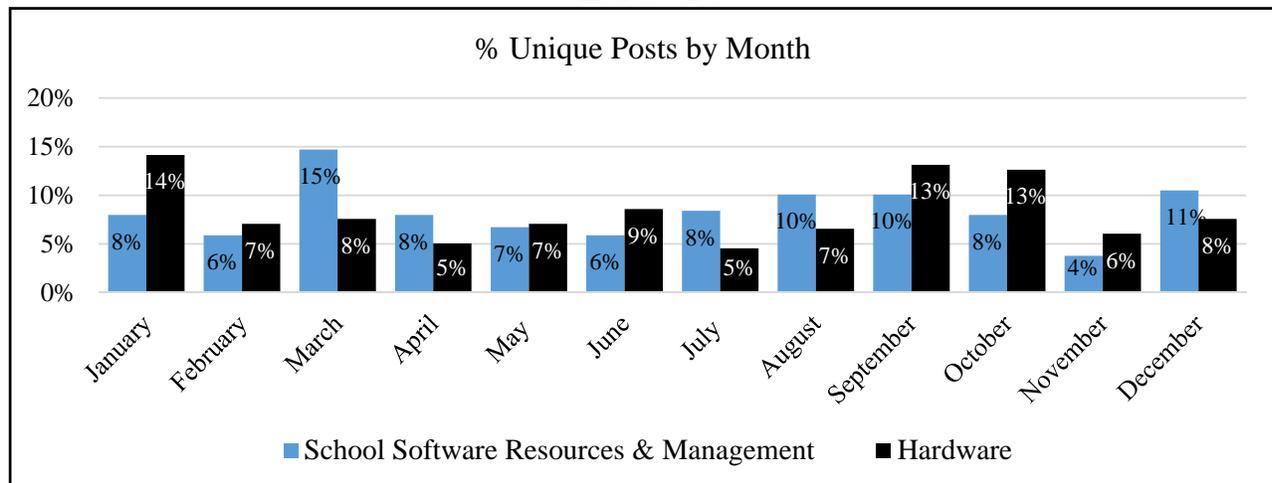
September with 71 posts and in October with 42 posts. This may be expected as it aligns with the beginning of school year. When analyzed, many of the comments in September and October consisted of comments on deploying the devices to staff and students.

There is another spike in comments in April with 45 comments, and May with 43 comments. Many of the comments in these months centered around how to fix/manage hard drives on the technology device and “Apple Identification” comments centering on lost passwords, jail breaking (the process of removing restrictions on Apple's operating system to allow the download of additional applications, or items unavailable through the official Apple Store), and/or repairs, etc. These comments align with a school starting to sort and collect devices for the end of the year.

Professional Development (PD) announcements and Employment had the 2nd highest most unique posts for the year at 345 with an average of 29 per month. Most posts had to do with disseminating upcoming times and dates of various technology PD opportunities. These included different PD formats from ACTEM, local universities, or schools, to different topics from E-rate training to Coding.

School Software Resources and Management had the third highest most unique posts at 238 per month averaging 20 per month. Hardware had the fourth highest amount of unique posts with 198 averaging 20 per month.

GRAPH 3: Percentage Unique Posts: School Software Resources and Management & Hardware



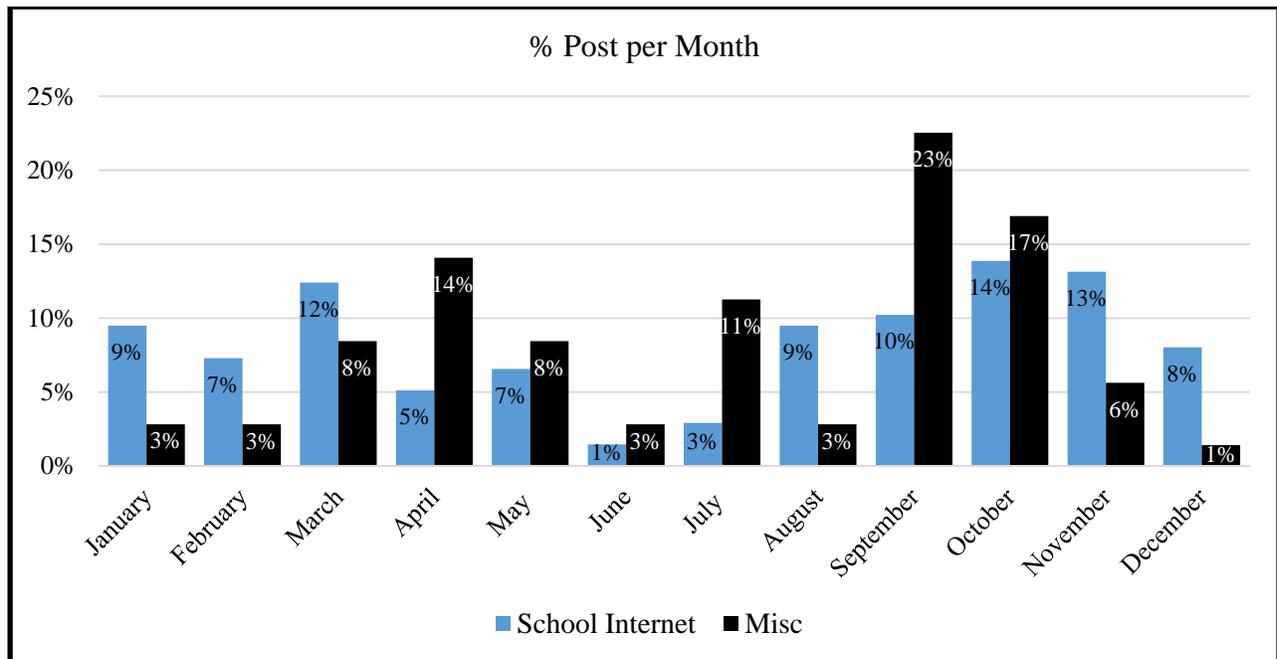
A closer look at the graph indicates that there were significant spikes in comments in March at 35 per month in the category, *School Software Resources and Management*. Eight of

the comments or 23% had to do with using Google forms, Google apps, or Google sites. Other comments revolved around educational software such as Adobe, long division applets, history of music, etc. In August and September with 24 posts and in December with 25 unique posts there were other spikes. These comments included posts on e-rates, or how a school obtains funding for technology, and a continuation of conversations regarding many different types of educational software similar to March's comments.

There was a significant spike in January with 28 posts, September with 26 posts and in October with 25 posts in the category *Hardware*. In January many of the comments consisted of finding hardware such as batteries or chargers. In September and October many of the comments consisted of merging the technology device with other hardware such as the Apple TV, speakers, or printers. These comments align with a school integrating technology into their curriculum at the beginning of the year.

As reported in Graph 4, *School Internet* had one of the least posts with 137 per year averaging 12 per month and the *Miscellaneous*, category had the least posts at 71 for the year averaging 6 per month.

GRAPH 4: Percentage Unique Posts: School Internet & Misc.



In the category *School Internet* there are significant spikes in this category in October with 19 unique posts and November with 18 unique posts. This coincides with the beginning of the school year and in March with 17 unique posts which is the end of the school year. In October many of the comments consisted of Infinite Campus a school based email server and Cisco or Wi-Fi connectivity. In November many of the comments were a mix of Wi-Fi connectivity, Cisco, and Smarter Balance, the State wide test. In March half the comments centered on Smarter Balance and the rest of the comments consisted of a mix of the Lunch Card system, Wi-Fi, or other connectivity issues. It is interesting to note that the Smarter Balance test was released in February and made available to schools in March.

Misc. consisted of general conversations not related to technology such as snow days, salutations, news articles or congratulations, or wishes for good vacations days, i.e. happy thanksgiving.

Overall

In review of the unique posts it is interesting to note the quality of the comments. Excluding PD and Employment, and Misc. categories, many of the unique posts are questions seeking out advice, resources, or skills regarding technology implementation. When an individual made a post on the listserv it usually generated responses, on average, of four to five replies from other individuals in the listserv community. These replies often provided helpful and insightful information regarding the issue or question/post. Many of the replies to the posts on the listserv also provide helpful resources or links. Most noteworthy in the comments or replies to the original post is how individuals would reference their own schools implementation process of technology and share their successes or advice. It is evident from the posts and the replies that the listserv is an important platform to foster immediate and relevant feedback pertinent to technology implementation in schools.

Discussion

This analysis reinforces the concept that successful use of technology by educators in a school starts with technicians and their knowledge about technology implementation. It appears as if knowledge about the device, the specific software and hardware, access to system wide platforms, and understanding of educational software are major discussion topics on the listserv. In addition, it is evident that technicians or individuals on the listserv continue to seek knowledge to increase their understanding of technology to meet the ever changing demands

dictated by technology growth. These conversations by individuals in schools identify specific areas of need regarding implement of technology in an individual's school.

One goal of this analysis has been to assess the viability and contributions a periodic analysis of ACTEM listserv posting may make to additional understandings of the MLTI program Implementation. Analysis of these listserv conversations identify areas of need by technicians to implement technology. These posts represent individuals working in their school to meet technology demands. To foster growth and sustain a viability community of technology in Maine, MLTI leadership may want to monitor these areas or categories identified in this research Brief. The information in this Brief may help MLTI develop system and state level resources for all schools in Maine to aid and foster technology growth in schools. By providing targeted resources to schools and establishing systems that address the continuing and everyday needs of school, MLTI has the opportunity to build sustainable resources that are easy to use and applicable to the day to day running of technology in schools.