

PRESENCE OF SOCIAL MEDIA USE AND SMART PHONE TECHNOLOGY
AMONG BACKCOUNTRY SKIERS AND SNOWBOARDERS, HATCHER PASS, ALASKA

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ABSTRACT: Popularity of backcountry skiing and snowboarding continues to grow in the United States. Simultaneously, there is an increase in both smartphones and social media usage within the population. Social media in the winter backcountry use has recently been explored by several researchers (Tremper et al 2014; Isaak 2016; Rheam 2016; Mann 2018). In order to find out if social media, smart phones and other forms of technology have a presence in the Alaskan backcountry skiing community, 65 people were interviewed at the popular Hatcher Pass area on four separate days. The interviews were conducted in person and included two separate themes; the first section focused on individuals' background, pre-trip practices and avalanche training while the second part focused on smart phone and social media use. The data collected was analyzed for common responses and relationships between variables. The results confirmed that all the participants carry smartphones and the vast majority of people use social media accounts. The most popular way to check the forecast and avalanche information was reading the Hatcher Pass Avalanche Center (HPAC) website (72% of participants), but 12% of people used social media accounts, either friends' or HPAC's Facebook page. 45% of people who use social media have posted on social media about their backcountry travel. Some individuals post every trip while others posted at least about one trip a season. Additionally, 46% of participants liked the idea of having a specific smartphone application for avalanche information. Social media can be beneficial for users and avalanche forecasters, but the same technology can also cause problems by creating distractions in the real world environment and heuristic traps, as many risk their safety to become an "Instagram Hero". Presence of social media and smart phone technology have already changed the habits of backcountry travelers, even in Alaska.

KEYWORDS: Social Media, Smart Phone, Technology, Avalanche information, Alaska

INTRODUCTION

Use of smart phones in the backcountry has become the new norm in the last decade. Additionally, social media has become a common practice for majority of people. Social media can be a very fast way to disseminate information about avalanche conditions or snow quality. It can also be a distraction in a high consequence avalanche environment. This research project collected baseline information about smartphone use and the participation in social media among the winter backcountry users at Hatcher Pass, Alaska.

Trends change as new methods and technology arrives. Currently, we can communicate worldwide in an instant. Nearly 77% of the United States population owns a smartphone, while 92% of adults between the ages of 18 to 29 reported having a smart phone (Pew, 2018). With the increase of smart phones across the US, there is an increase of social media users as well. Nearly 66% of adults report having a Facebook account.

Young adults, 18-29 year olds, are the largest users among adults with nearly 81% reporting having a social media account, most commonly Facebook (Pew, 2018). With the increase in the use of social media, smart phones and other technology, the fastest method of communication humans may have seen, we have the nearly instant ability to post or report something to the wide world.

Human-powered snow sports are the fastest growing segment of winter recreation (WWA, 2017) According to Snow-sports Industries America (SIA), seven million people explored the backcountry during the 2016/2017 season (WWA, 2017). As the sport continues to grow more people are being exposed to avalanche terrain, because of this many organizations across the United States are working on different methods to maintain the public informed. Each organization has found what works for them, or are currently redefining communication tactics to benefit their organization. While the increase of social media usage among the US population is well documented, it is still uncertain how people use social media when seeking avalanche information.

Trends within Alaska may be different than in the Lower 48. Alaska has a much smaller population, as well as, spotty cell

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phone coverage and less cell phone services. Taking that into consideration, trends observed among Alaska backcountry users may be different due to its remote location.

This project collected a baseline data at Hatcher Pass backcountry ski area to learn about the presence of social media and smartphones among backcountry travelers. In addition we wanted to find how these forms of communication and technology are being used while in avalanche and backcountry terrain.

1. BACKGROUND

2.1 Increase in Backcountry Users

Backcountry skiing and snowboarding is on an uphill track, both literary and figuratively. Backcountry sports popularity has been increasing throughout the years; "backcountry touring is experiencing growth, with more people exploring beyond resort boundaries than ever before" (Kruse, 2014). However, this increase in backcountry skiing and riding is coming with a price. Many backcountry enthusiasts either lack the education or knowledge of traveling in the avalanche terrain. As mentioned by Kruse (2014), many people do not have the proper education, but credit their training to an informal source such as friend or online. Also, many get overwhelmed by the vast amount of information they may find in an avalanche forecasting website and having no idea where to even start to make sense of the information.

2.2 Cell Phone

Cell phones, nuisances for some and necessity for others, have been around since 1980's. Everyone you encounter nowadays has a cell phone, however the first cell phones were bulky and expensive so it was not common for people to have them (Ray, 2015). In 1993 the first "Smart Phone" came to the market. By 2007 the iPhone came to the market and revolutionized the smart phone industry. Soon after, these new phones technology would start to replace many of our other devices, the shift from just a phone to a device started and the label "mobile device" was adopted. (Ray, 2015). Currently we are in the ninth generation of the iPhone and smart phone capabilities are growing fast by each generation of new devices.

It is hard to consider in this day and age of not having a smart phone. Within the United States, 77% of the current population has a smart phone. Of young adults, ages 18 to 29, 92% report owning a smart phone (Smith, 2017).

2.3 Wisdom of the Crowds

The backcountry terrain covers lot of geographical area, and for many avalanche forecasters making observations to cover the whole forecasting area can be difficult. Many avalanche centers rely on observations from the public to fill in the gaps via social media and other forms of technology. In 2013-2014 season, 930 non-professional reported observations to the Utah Avalanche Center (UAC). (Tremper, 2014) Many non- professionals are taking it to themselves to inform the avalanche centers to help them out, "the public regularly notified us of critical, backcountry avalanche activity using Instagram, Twitter, Facebook, our own app, emails and the old-fashioned telephone call" (Tremper, 2014). The Utah Avalanche Center also relies heavily on social media to deliver information to the public in almost real-time. It has helped them provide reliable information for backcountry users. Many other organizations are either adopting this or working on adopting the crowdsourcing idea. (Tremper, 2014)

2.4 Youth and Social Media

Young adults, 18-29, are the most common age group to have a smart phone and social media accounts with Facebook the most common. However, for youth under the age of 18, social media is even more prevalent, but unlike people over the age of 18, Snapchat and Instagram are the most common A study done at a high school in Jackson Hole, surveyed 578 students. This research found that 93% of the students have a Snapchat and these students had sent and received nearly 105,000 images (Mann, 2018). Majority of these students, 55%, reported to having made bad decisions while in the backcountry to get a good photo for social media (Mann, 2018). Additionally the idea of FOMO (Fear of Missing Out) can be one of the reasons many students find themselves in serious situations. Teton Gravity Research (TGR), has nearly 227,000 followers on Instagram, while American Avalanche Institute, a well-established avalanche education provider, and American Avalanche Association, a nationwide avalanche professional organization, have about 5,500 follower's combined. Mann suggests that because of the sheer number of teens connected to social media, there is a strong argument that these teenagers are more likely to follow TGR than the avalanche organizations (Mann, 2018).

2.5 Youth in the Backcountry

As backcountry skiing becomes popular, it is easy to say that the trend will be seen in youth. With many teens being raised in

great backcountry locations, such as Jackson Hole and Sun Valley. Many of them are skiing in the backcountry. These students receive avalanche safety education either through school or clubs they may be affiliated with. A survey targeting teenagers across several mountain towns, got a total of 150 responses (Rheam, 2016). 75% of teens reported going out into the backcountry (Rheam, 2016). Of the responding teens, nearly 35.7%, had at least an awareness course, while 24% of them had a level 1 avalanche course. (Rheam, 2016)

2.6 Hatcher Pass and Hatcher Pass Avalanche Center.

Hatcher Pass is a popular backcountry ski area in the Talkeetna Mountains, in Matanuska-Susitna borough between the towns of Willow and Palmer, Alaska (Figure 1). While Anchorage, the largest city of Alaska, is only an hour drive. The area is home to Independence Mine Historical State Park managed by Alaska State Parks. Greater Hatcher Pass area is a mix of state, borough, and private lands with the state being the principal land owner. Mat-Su Valley is the fastest growing population center in Alaska with 88,000 residents (Dunham, 2016). Hatcher Pass also attracts visitors from Anchorage and other areas. Most of the skiable terrain is above the tree line and complex with open bowls, rocky features and numerous steep gullies. The snowpack is usually continental (Ryan, 2016).

Hatcher Pass Avalanche Center (HPAC), provides avalanche information and advisories for the Hatcher Pass area (AAIC). This avalanche center is 100% volunteer based. Their advisory is available on Saturday during the winter season. The center is run by two volunteer forecasters, Jed Workman and Allie Barker.



Figure 1. Map of the Matanuska-Susitna Valley and Hatcher Pass.

2. METHODS

We collected information from backcountry skiers and snowboarders at three common parking lots at Hatcher Pass, Independence Mine, Fish Hook, and Archangel trail-heads. We collected data using a short survey on two Fridays and two Sundays in March & April 2018. Participation was voluntary and all participants remained anonymous; no personal information was collected. The methodology was approved by APU Internal Review Board and Off Campus Risk Management Committee. Alaska State Parks supported the research with a special use permit to collect data. We obtained total of 65 responses. Collecting data in person kept people's answers honest, since they were interviewed within their groups at the trailhead. Using a tablet made collecting answers organized. Adding research in the other prominent Alaskan backcountry location such as Turnagain Pass or Thompson Pass would improve the understanding of Alaskan backcountry users and their smartphones.

Survey questions were separated into two sections. The first section asked about individual's background and avalanche education. The second section asked about the use of technology and social media while backcountry skiing and snowboarding.

3. RESULTS

Both Independence Mine and Fishhook Trail users were stereotypical backcountry skiers and riders going into avalanche terrain, while participants in Road Runs were individuals not skiing in avalanche terrain, but in ski-area-like conditions. Individuals doing Road Runs consisted mostly of children under the age of 18, with group sizes up to 20. The vast majority of the data, 50 responses, was collected from users in the Independence Mine parking area, only 15 were collected outside of the Independence Mine.

4.1 Background Info on Users

A total of 65 people participated in the questionnaire; sample represented different demographics and backgrounds with avalanche terrain. The average age of respondents was 33 years old, the youngest being 13 and the oldest being 68. The average group size was 3 people. Within the groups the most common avalanche training was Level 1, with "No avalanche training" coming in second. 44% of people reported to have a Level 1, however, this came in varied forms. Some

people reported to have taken a Level 1 as recent as a couple months before to as long as 15+ years ago.

4.2 Avalanche Forecast

Before heading out to the backcountry many people check the weather, avalanche forecast and other information. The majority of people checked the forecast before going out, only 8% reported to not have checked the avalanche forecast. The most popular way to check the forecast was going straight to the website, but 12% of respondents used social media accounts, friends' or Hatcher Pass Avalanche Center. Many people reported to use friends' personal accounts to get a different perspective than the forecast. Preferences for receiving info varied with the most common preferences being the website (72%). However, 46% of participants liked the idea of having an app for the forecast information. One individual commented, "If everything can be in my phone it would be great". 18% of users had different picks, for example an email or a daily text they could subscribe to. However, to our surprise only 6% reported to use social media to check for avalanche updates and information. One of the participants did comment on the fact that they liked the ability to easily contribute images and data instantly, while also allowing them to see others observations and contributions. The participant commented, "It allows me to share my observations and snow pits to anyone and everyone that is willing to take a look at it, although I'm not a reliable source it may help". They relied on both his friends and HPAC for avalanche information through social media.

4.3 Smart Phone Usage

Smart phones have replaced many individual devices and can be used instead of separate cameras, GPSs or computers. Every participant had a smart phone. 49% of people reported to keep their phone turned on at all times. 51% of people put their phone on airplane mode. The individuals that reported turning their phones off commented that they would turn it on for the camera or GPS were grouped with the people reporting their phone in airplane mode. Only two people reported to leave their phones in the car at all times while in the backcountry. 60% of people would like to have increased reception at Hatcher Pass. There were a mix of reasons from added ability to communicate to increased sense of safety. Only 6% would like to decrease the current cell phone range. The cell phone converge in Hatcher Pass has some dead zones but has a lot of sections where reception is

strong. As shown by a party of skiers, who commented on their ability to "Facetime" a friend while touring in a popular spot near the Independence Mine Trail Head.

4.4 Social Media Usage

In our sample of the Hatcher pass backcountry travelers, 77% of people are on Facebook and 68% on Instagram, while only 17% reported to not have any type of social media account. Some of the younger participants mentioned Snapchat. Out of the people that use social media, 45% of people commented to have posted on social media about their backcountry travel. However, it was difficult to figure out whether they posted frequently or rarely. Most individuals that admitted to posting on social media seemed embarrassed and would tiptoe around the questions especially the larger groups.

4.5 Comparison between Age and Submitting Info to Avalanche Centers

We took a deeper look to see if there was any relationship between age of participants and frequency of submitting information to avalanche centers. (Figure 2)

27 participants reported posting on social media about their backcountry trips. Ten of the participants were "novices" with 1-4 years of experiences. While 14 were "experienced" with 10+ years in the backcountry. The final three had 5-8 years of experience. Those who contributed to their avalanche center all had greater than five years of experience, and most claimed to have greater than 10 years of experience. One could assume a few things from these observations. First that the novice skier either doesn't know they can contribute to avalanche centers or are not confident in their assessment and choose not to. Some of the novice skiers did mention that they felt they had limited experiences and did not feel capable of contributing information. Secondly, social media is here, and we must adapt. The average age of those who contributed to social media was only 0.2 less than the average participant of the study, and the oldest that contributed to their social media account was 68, it isn't the future generation and their technology we need to pay attention to but it is our current generation.

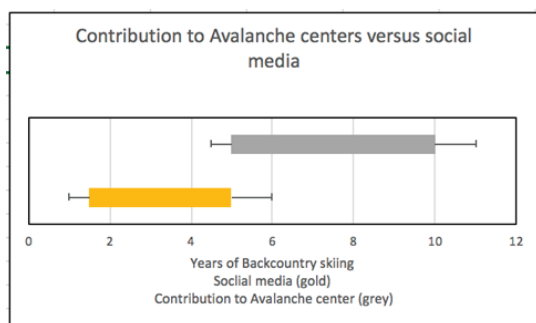


Figure 2. Years of experience vs social media contribution and avalanche observation contribution to avalanche centers.

4. CONCLUSION

It is prevalent that backcountry skiing and snowboarding are growing among the United States while simultaneously both smart phone usage and social media usage are increasing. Recreationalist at Hatcher Pass are bringing their phones into the backcountry, all the participants have a smart phone and the majority have at least one type of social media account. A large amount of people are using social media and smart phones while being in the backcountry.

Participants commented on how their cell phones have become very useful tools for them in the backcountry as their communication devices, mini computers, and even a GPS. With the majority of participants reporting having a social media account, social media can be a great way to pass on information in the backcountry. As mentioned by some users, one of social media's strengths is its ability to deliver info instantly, as well as, it gives access to a lot of information and perspectives around them through other users' posts.

With the prevalence of social media and smart phones in the backcountry, future methods of communication between avalanche forecasters and recreationalists can be dealt with in a different way than before. Social media can be a great way to pass backcountry information to large amount of people directly and instantly even in remote parts of the world like Alaska.

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