

# Share Specifics or #TagResponsibly? :

## Exploring the Motivations Behind Geotagging in Wilderness Spaces

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## Introduction

### *Leave No Trace*

- The conception of wilderness as a pristine location requiring protection and preservation is a relatively new trend in the history of public land. The original advocates for public land were dependent on “woodcraft” during their outdoor excursions; wilderness signified a space removed from modernity, where living off the land became a symbol of masculinity and independence. However, as more and more Americans were drawn to recreation in the late 20th century, the Leave No Trace ethic emerged as an “pragmatic balance for the wilderness movement to strike” by “[allowing] an ever-growing number of backpackers to visit wilderness, while leaving its ecological integrity intact” (Turner 2002).
- In 1994, the US Forest Service and other outdoor recreation partners founded the Leave No Trace Center for Outdoor Ethics (LNTCOE), which published the 7 key principles that guide LNT practices today. LNT has become the “official educational policy for managing outdoor recreation, not only on the entire National Wilderness Preservation System, but

also on a wide range of public lands administered by federal, state, and local governments” (Simon and Alagona, 2009)

- The evolution of the Leave No Trace into a moralized standard of conduct in the backcountry represents a significant social and psychological shift in our conceptions and definitions of wilderness. The governing ethic of Leave No Trace seeks to protect wilderness from human impacts, and preserve its “natural” state.
- The rise of technology in the backcountry setting has brought forth interesting challenges to the LNT framework. Controversial topics in the outdoor community include drone usage, unrealistic or environmentally harmful depictions of wilderness recreation on social media, and the use of geotagging features to locate specific backcountry locations. These topics are made increasingly controversial by the lack of firm guidance within the official LNT principles relating to technology, leading to an emphasis by both land managers and recreators on the LNT ethic in discussions of how to use technology appropriately.

## ***Geotagging***

- In recent years, the ethics of geotagging has emerged in the outdoor community as a particularly contested topic. While some land management agencies encourage individuals to limit overuse with tags like “Please Geotag Responsibly—Keep Jackson Hole Wild,” others have argued that refusing to geotag wilderness locations equates to gatekeeping these places in the name of exclusivity.
- The academic literature suggests that geotagging frequency does correlate with visitation for recreation areas and nature-based tourism destinations across the world (Wood et al., 2003). A study conducted in the Mount Baker-Snoqualmie National Forest came to a similar conclusion—Flickr geotags of 15 specific trailheads were accurate predictors of visitation frequency (Fisher et al., 2018).
- These findings might suggest, therefore, that an increase in geotagging of one specific location might result in increased traffic (and associated environmental impacts) to that location. Similarly, the homogenization of images on Instagram specifically (which

images are “successful”) is equally prevalent in the online outdoor community as in other user groups (Bucher, 2018; Arts et al., 2021). This might explain why, anecdotally, surges in Instagram activity have led to large influxes of visitors in “Instagrammable” locations like Horseshoe Bend, Utah.

- However, there are a number of gaps in the academic literature regarding the potential impacts of geotagging on recreation areas. For example, studies which demonstrate a correlation between geotagging and visitation focus on the photo-sharing site Flickr—given the drastic differences in user demographics and platform scale, these conclusions cannot be applied to geotagging behavior on Instagram. Furthermore, these studies do not examine whether the populations that geotag are representative of visiting populations by measures other than scale.

### ***Land Management Practices and Social Media Guidance***

- In light of the lack of research on the relationship between social media and wilderness recreation, Miller et al. have proposed a research agenda on this topic. The authors suggest the following themes as issues of primary importance: “1) the influence of social media on visitor behaviors, 2) using social media to enhance and facilitate the visitor experience, 3) reaching intended audiences, and 4) understanding management perspectives” (Miller et al., 2019).
- In order to evaluate the ethics of geotagging within the LNT framework, we must understand both why recreators choose to geotag wilderness areas on Instagram, and what environmental impacts these practices might have. This paper will focus on the former question and the first theme of Miller et al.’s proposed agenda.

### **Thesis Statement**

- I am planning to investigate the motivations behind wilderness geotagging among recreators in the Sierra Nevada mountains of California. I hope to gain both a broad understanding of the motivations/opinions in different user groups (content creators, backcountry recreators, day hikers, management staff, Indigenous stewards, etc.), and

document the distribution of these motivations to discover which are the most prevalent and why.

- I plan to analyze this data with particular attention to the relationship between geotagging practices and LNT familiarity/knowledge in user groups, in order to better understand how attitudes about LNT might influence perceptions of appropriate geotagging practices.
- Research Question: What motivates outdoor recreators to geotag their wilderness adventures on Instagram, and what implications might geotagging have within the Leave No Trace framework? Does the use of Instagram's geotagging function contribute to recreational overuse or crowding on public lands?

## **Approach / Methods**

- When I receive my summer job placement, I will use interviews with local land managers, the Instagram app, and All Trails to locate 6-10 trailheads that are highly trafficked, easily accessible with a 2-wheel drive vehicle, and highly tagged/documented on Instagram's platform. For the purposes of this project, I will loosely define geotagging as any practice that specifically identifies the location within the photo. (I.e., this will include both photos that are geotagged "The Pine Ridge Trail," as well as photos that are geotagged "Big Sur" with an extensive caption describing how to access the Pine Ridge Trail and camp at Sykes Hot Springs.)
- From late May through the end of June, I will conduct long-form interviews with recreators at both trailheads and their destinations. These interviews will be structured around the following themes:
  - Describe your relationship with the outdoors.
  - Where are you local to? Are there certain areas you consider to be your "backyard?"
  - What kind of recreation do you normally participate in? Are you a weekend warrior, thru-hiker, day hiker?

- How did you find information about this trailhead today? (Discussion with a ranger, informational brochure, NPS website, All Trails, geotag, referred by a friend)
- Describe your relationship with social media. How often do you use Instagram? What do you use it for?
- Have you ever used the Instagram geotag function?
  - If so, what information do you gain from the geotag function? (inspiration about places to visit, specific trailheads, trail conditions/snow levels, photography spots)
  - If so, are you planning to geotag your trip today?
- Have you ever been inspired to get outside because of an Instagram geotag? Have you added places to your bucket list based on Instagram posts? Have you ever gone to a specific trailhead/location due to a geotag?
- Have you ever heard of Leave No Trace? Can you tell me about your relationship with LNT?
  - If yes, can you tell me about what Leave No Trace tries to accomplish? Can you name a few principles, and how you follow them during your adventures?
    - alternatively, test knowledge/commitment to principles: Can you tell me about how you pick a campsite on a backpacking trip? How you use the bathroom? If you see a really cool rock or feather, do you think it's okay to take it home?
  - If yes, how do you think that LNT and geotagging fit together? Do you think they are related practices? Do you think they contradict each other?
- One issue I predict may emerge from this methodology is that, in conducting interviews at trailheads, my interviewees will resemble each other (locals, day hikers, weekend warriors) and represent a limited point of view relative to the larger spectrum of stakeholders in the debate over LNT/geotagging/overuse. If/when I encounter this challenge, I wonder if I could supplement these issues by reaching out to specific

individuals (influencers online who have geotagged similar areas, land managers who cope with the impacts of overuse, Indigenous stewards in the region, etc.) in order to gain a better perspective on the wide range of opinions on this topic. Taking a 'snowball sampling' approach might allow me to integrate a wider range of potential motivations/counter incentives in my survey data, thus improving my survey's accuracy.

- I will use the interview results to formulate a short survey (<10 minutes). I expect the survey themes to cover:
  - Type of user group (day hiker, weekend warrior, thru hiker, etc.)
  - Motivations/counter incentives to engage in geotagging behavior
  - Level of LNT familiarity/knowledge
- I am still unsure of what the best method will be to distribute my survey, and I will need to discuss this further with my advisor/mentor. We have discussed using a platform like Qualtrics (applying to fund this through the Global Fellows program), either by limiting online participation through screening questions, or collecting data in person at trailheads. I aim to survey as many people as possible.
- I intend to have finished collecting my data and have some preliminary results by the beginning of the school year in September.

## **Preliminary Results and Discussion**

- I will begin my series of interviews in late May and June along popular and highly geotagged trailheads in Sierra National Forest.
- By July, I will identify a number of pertinent motivations behind geotagging based on these interviews, and then distribute my survey in July and August.
- I intend to have collected sufficient data by the beginning of the 2022-2023 academic year.

## **Work Plan**

- January 18 - February 18: Background research

- January 31: Initial meeting with advisor to discuss research interests
- February 7-11: Several meetings with potential mentors and researchers in the field of recreation management / human impacts on natural resources
- February 17: Outline of thesis proposal handed in
- March 3: Discuss scientific article/proposal outline with advisor
- March 15: Decide on summer jobs/confirm research location and methodology, hand in draft of interview guide to advisor/mentor
- March 31: Draft of thesis proposal due (will be given to mentor/advisor a week in advance)
- May 2: Final thesis proposal due (will be given to mentor/advisor a week in advance)
- May 20: Begin conducting long form interviews
- June 20: Design survey questions based on interview results
- July 1: Begin survey distribution
- Early September: Begin analyzing survey results
- Early October: First draft of thesis handed in to mentor and advisor
- Early November: Second draft of thesis handed in to mentor and advisor
- Mid-late December: final thesis submitted

## **Implications of Research**

- This project will help identify (1) the diverse spectrum of reasons to engage with Instagram's geotagging feature among wilderness user groups, (2) the distribution of preferences among those groups, including the most common motivations for users with high, medium, and low familiarity with the LNT framework.
- If I find that wilderness users geotag primarily to share recreation opportunities with others, and/or that recreators themselves use Instagram's geotagging feature to locate new destinations, this project could lay the groundwork to examine the severity of environmental impacts that result from this overuse. This conclusion will also support the claim that geotagging is a violation of the LNT guidance on the responsible use of technology with regard to preserving wilderness spaces.

- If I find that wilderness users do not use geotagging to inspire future trips, find specific destinations, etc., then we can assume that geotagging is not a driver of overuse or crowding on public land. Therefore, geotagging should not be 'enforced' as an LNT violation as it currently is in certain hyper-aware circles. This project could inspire further research questions such as: how are certain identity groups policed in the outdoors through 'LNT hysteria?'

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