# Using visitor generated Internet content as a recreation monitoring tool

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Zoning for visitor management effectively treats all places within a zone as the same. Because every place is to some degree unique, identifying place specific values and meanings is an attempt to recognise uniqueness within a zoning framework. This is important in popular recreation regions such as Colorado wilderness areas, where land managers worry that tactics designed to manage any one zone (such as restricting use) may prove counterproductive by transferring the problem to some other nearby wilderness area. To address this problem, managers need methods for zoning that allow them to monitor users' responses to management changes that take into account larger regional patterns of wilderness use and changing wilderness conditions. The research reported here represents a preliminary case study of the potential for using data from user-generated web content as a tool for identifying and monitoring site-specific meanings and attachments that would enable mangers to better anticipate visitor responses to management interventions.

According to discursive communication theory, meaning is established by the way a certain topic is presented or talked about; therefore, by its very nature, discourse also sets limits on how a topic cannot or should not be talked about (Hall 1996). Within the topic of wilderness, competing discourses are at work and such negotiations over meaning are likely to be evident in user generated media content. Among these, online media sources have emerged as the most commonplace and easiest to access from virtually anywhere. Although a relatively new way to specifically study wilderness discourses, online studies of websites have been documented in the literature on a variety of topics.

For example, researchers at the University of Southern California have been quantitatively analysing blogs to better understand the trends and patterns of personal discourse in cyberspace. Before the advent of the Web, personal stories were simply shared between people and therefore could not be systematically analysed. However, Gordon & Swanson (2009: p. 1) write: "*Weblog stories are data points in a composite model of how the world is, how people perceive the world, and how people narrate these perceptions to others*" and therefore can be subject to analysis. The Web can provide abundant information on any topic discussed on the internet, including wilderness. Countless posts summarise wilderness areas, describe their locations, and various web platforms enable users to share their wilderness experiences and ideas. Individuals and organisations are paying increased attention to the idea of user generated content, which includes online reviews of products, services, and experiences. Deciphering reviews of products and services is becoming a science in itself (Zahn et al. 2009) providing potential insight into customers (Alvarez 2008, cited in Tomaiuolo 2009). Although product reviews are not always analogous to online communication about wilderness areas, strategies for studying web-based communication in this way can provide valuable information to recreation management agencies. The accounts most suitable for this study involved those created and posted by wilderness users themselves.

Google was used to search for a variety of key terms related to this study, with the ultimate goal of finding first person accounts of wilderness experiences. Initial searches began generically, using

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terms such as: 'Colorado Wilderness Area Reviews;' 'Rating Colorado Wilderness Use;' 'Colorado Wilderness Recreation;' and 'Best Colorado Wilderness.' Later searches used more specific search strings, focusing on five randomly selected Colorado wilderness areas, with these results better indicating what type of first person user accounts were available for the different wilderness areas. These sites often contained links to other sites with valuable independent accounts and feedback directly from wilderness users. From the large number of results each search returned, a list of nearly 200 useful websites was compiled based on features such as first person accounts, specificity of wilderness area, timeliness of posting, inclusion of feelings/thoughts on specific wilderness experiences, the mention of any connection to the particular wilderness(es) being written about, previous experiences/familiarity with the wilderness area, and various usage metrics associated with the site.

This presentation reports on the initial findings for one popular wilderness area. For this area, we identified two distinct types of web content. One group constitutes high intensity, frequent, often local users who emphasise accomplishment, deeper meaning, and adventurous stories. This group is unlikely to substitute between areas. The other group represents low intensity, often nonlocal users who are generally seeking advice on finding the 'Colorado experience' including landscape beauty, amenities (waterfalls), and seeing high peaks and blue sky in a relatively convenient manner. Use by this group can be influenced to utilise alternate sites. These results suggest ways managers can make greater use of the internet to target users to redistribute use at a regional scale and monitor results of those efforts.

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