The Road to a Strategic Typology of Visit Itineraries

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Introduction

This paper presents an analysis of travel itineraries to Canada's Mountain National Parks. Its results suggest that new analytic tools can help the science community to address longstanding visitor modelling issues to better understand the outcomes of visitor use in protected areas.

The urban transportation demand literature has been addressing these issues with decades of research to model peoples' temporal and spatial distribution. This literature has long recognised that urban traffic patterns are best studied as myriad individual travel patterns (Kutter, 1973; Meister et al, 2005). This allows the system to be viewed like an ecosystem: complex, non-linear, non-probabilistic, and dynamic, with an array of inter-relationships (McKercher, 1999).

Like natural science, the search for deep-seated patterns can help to define and explain the system. However, the search for ways to find meaningful patterns in travel itinerary data is one of the longest standing issues. Specifically, there has yet to be agreement on the practical approaches that work within the capacity of desktop computers (Kutter, 1973; Joh et al, 2002; Schlich, 2003; Meister et al, 2005, O'Connor et al, 2005). One of the earliest approaches, which predates desktop computers, may offer a useful approach. Kutter's influential 1973 paper called for methods to establish useful behavioural typologies to reduce large volumes of behaviour to a manageable level. If distinct sets of place/activity behaviours exist, this understanding could form the basis for effective system modelling, as subsequent research could study these discreet groups to determine the sequential dimension and develop a rule-based heuristic model of travel behaviour.

Methods

The purpose of this study is to determine if useful behavioural typologies can be developed for Canada's Mountain National Parks. The analysis uses latent class clustering to search for patterns. Latent class models offer an improvement over traditional approaches to segmentation, cluster, factor, regression analyses, by allowing deeper searches for patterns in diary data (Magidson & Vermunt, 2002). This paper explores "visit type" classification, or common sets of itineraries as suggested by latent class cluster analysis of activity/location "events". It illustrates the example with data from a 2003 survey of 2,376 visitor parties to Canada's Mountain National Parks.

Results and Conclusion

The results suggest that the visit type approach offers a useful approach to the longstanding issue of reducing complex behaviour and has relevance to the ongoing study of visitor impacts in protected areas. Parks Canada and its partners continue to explore visit type classification to better understand the system of visitor use in its parks, to map visitor use and explore spatial relationships, to develop "behavioural footprints", and to correlate impacts (positive or negative) to visit patterns.

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