The 'Smart Cities' of Today: Ski Resorts

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February 2018

The term smart city refers to the use of electronic data sensors in urban areas to collect and provide information which is then used to manage assets and resources efficiently. In the early 2000s, smart cities were very much touted; however, the results largely fell short of the ambitions of many cities and countries.[1] By now, many of the needed technologies are coming of age. Alphabet subsidiary, Sidewalk Labs, is taking on its first big project in transforming the Quayside neighborhood in Toronto into a sort of smart city live experiment. Sidewalk has pledged to spend $50 million on the first phase of planning, which has already begun, with construction starting as early as next year.[2]

Perhaps cities of the future will emulate the potential successes of Sidewalk Labs and Quayside. That remains to be seen. In the meantime, one might consider the smart city as it already exists at ski resorts.

'Smart' Ski Resorts

Vail Resorts manages 15 resorts in the US, Canada, and Australia. Of course, there is a great deal of information that Vail Resorts and other ski resort companies collect from the use of credit cards by patrons. The purchase of season passes can be paired with predictive models that include historical weather pattern data, can help the resorts to guess where and when their facilities will be the busiest, and where to allocate their resources.

Data can further be informed by years of consumer online searches and related purchases, with resorts even raising or lowering costs based on sales demand – much like the models used by ride-sharing services like Uber and Lyft.

But, lift passes are just one component. Household demographic information and other consumer habit related data that is gathered and stored with every hotel accommodation, ski rental, lessons, and food purchases. There is so much valuable data, that ski resorts regularly employ ski data scientists.

Resort season passes – and often even single-day lift passes – are actually 'equipped with an RFID signal that pings off various gantries as you ride down the mountain."[3]

Between the RFID signals, and the tracking of WiFi and Bluetooth signals from visitors' phones, both the resort and skiers can gain real-time estimates for how long waits will be for ski lifts, as well as shuttle buses. This is helpful in terms of assessing and accommodating needs at the resort level, and also at the visitor level for planning out the ski day.

Lessons from Ski Resorts

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[1] Woyke, Elizabeth. A smarter smart city. MIT Technology Review. February 21, 2018. Available at: https://www.technologyreview.com/s/610249/a-smarter-smart-city/ Accessed on February 28, 2018.

[2] *Ibid*.

[3] Marshall, Aarian. Looking for a Smart City? Grab Your Skis. Wired. February 19, 2018. Available at: https://www.wired.com/story/smart-city-ski-resorts/ Accessed on February 28, 2018.

With everything from accommodations, to food, to lift tickets and other services owned and managed by a ski resort, it's no wonder that they have become so 'smart' and data driven. In the real world, everyone does not walk around with RFID equipped tags, and the purchases made by consumers are spread across a multitude of businesses; many of which may not even be located in the vicinity.

But, the approach of using cell phone WiFi and Bluetooth signals at ski resorts is also being used by the London Underground to support their own planning, and to inform subway riders about wait times for trains. And, if specific purchase information may be more fragmented an incomplete outside of the ski resort, the core infrastructure behind these transactions – including electronic payment systems – could almost certainly be harnessed to gather a great deal of non-personally identifiable information that could inform decision making. Undoubtedly, large tech companies will be in a position to sell their tech and certain data or services.

The experience of ski resorts may not mirror that of the aspiring real world city, but they are a successful testing ground for the concept. And, in rare instances where the experience does mirror the situation faced by a city, they represent a model. Such instances might include the 2020 Tokyo Olympics.