Mapping linguistic landscapes:

Where geo-tagging meets geo-linguistics

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Introduction

Linguistic Landscaping (LL) is an emerging field of sociolinguistics. Born out of semiotics, the approach is largely concerned with examining the relationship between language and visual representations of language. In, what is believed to be the World's only Indigenous Language Planning and Policy (LPP) paper, students at Victoria University of Wellington use cultural mapping tools to create linguistic landscapes of the Greater Wellington Region. This case study provides a brief account of the small body of LL literature, before illustrating how geo-tagging tools are used to create visuals of signage around Wellington city. The study demonstrates the potential of cultural mapping tools to aid in the study of a language's revival. Lastly, some key issues that have arisen as part of this exercise are discussed, mostly surrounding the use of third-party tools that change (or disappear) over time.

Linguistic landscapes

Visual representations of language surround us – in works of art, on posters, on labels, on packaging, in our devices and on signs. Written signs – either informative or imperative – tell us information about the certain space in which they are located. They are only useful within a location-specific context. For example, a street sign in inner city Wellington is infinitely more useful in Wellington than it in rural Canterbury. For this reason, how signs are used in a given area can provide key insights into how languages are used in that area (Backhaus, 2007). Because signs are designed to be interpreted by people who can read them, they can also provide general information about what languages are spoken in a given area, how much they are spoken, and in what contexts and domains they are spoken.

LL was popularised by sociolinguists Landry and Bourhis in the close of the last millennium (Landry & Bourhis, 1997). Since then, it has steadily emerged as a useful approach to investigating written signage (Backhaus, 2007). LL was originally designed for researching public signage (Spolsky, 2007). LL is often concerned with distinguishing "official and nonofficial signs" (Backhaus, 2006). A large number of official signs, (road signs, for example), are distributed by institutions with power over language, such as government. These tell us languages are accorded status in a 'top-down' fashion, because the signs a government might produce are going to reflect the languages they prefer to be used in their domain. If we consider an advert on a public noticeboard, we might learn something about the language one considers pertinent to the skill or person they are looking for (or not looking for, by using a language they cannot understand). These kinds of signs are generally termed nonofficial. To this end, both official and nonofficial signs carry important information about the status of languages, the privilege they might enjoy in a given space, and the economic weight they have. That is to say, a linguistic

landscape "signals which languages are and can be used in a particular area, and also the power relationships between different language groups in that area" (Landry & Bourhis, in Macalister, 2010, p. 56).

LL potential in language revival

The New Zealand National Census identifies approximately 190 languages spoken in New Zealand (Statistics New Zealand, 2013). Just two of these languages, te reo Māori and New Zealand Sign Language, have been investigated using an LL approach. In this study Macalister (2010, p. 56), notes, "New Zealand is generally considered to be a strongly monolingual English-speaking country" but "that census data suggest that monolingualism is reducing." Even so, the latest Census shows 3,819,969 speakers of English from a total population of 4,242,051. The same data set identifies 148,395 speakers of te reo Māori, or 3.49% of the total population. A small te reo Māori speaking population, coupled with a decreasing monolingual population that is still very dominantly English-speaking means New Zealand's LL is ripe for LL studies, especially where language revitalisation of te reo Māori is concerned.

LL in a classroom context

Victoria University of Wellington's MAOR222 course is possibly New Zealand's only te reo Māori LPP course. The course is centred around an in-depth exploration of te reo Māori LPP, understanding how our micro-level LPP differs from that of other language's around the globe, and how our individual efforts can effect positive outcomes for te reo Māori in the micro-level spaces we inhabit.

In MAOR222, a group of students are assigned a pre-determined space to investigate. They are taught LL theory and are required to collect images of official and nonofficial signs in their areas. Spaces so far have mainly been contained to Wellington, its CBD, restaurant district and Government district, although, a few studies have been conducted in neighbouring Porirua and Petone CBD's. One student also completed a survey of Queen Street Auckland. All students are taught about the ethics of conducting such an experiment in public. Students are not allowed to enter any private premises, take photos of other people or provide any other kind of identifying information.

All students are required to use cameras and smartphones with geo-tagging enabled. This means the exact location of the sign is also recorded upon capture. Students must take hand written notes of sign locations in the event the geo-tags are lost. Photographs are then loaded onto tools that allows each sign to be mapped accordingly. The tool in use at the time of writing is Story Map, prepared by ESRI.[1] The following screen capture shows the result of a successful capture and upload of photographs to ESRI.[2]
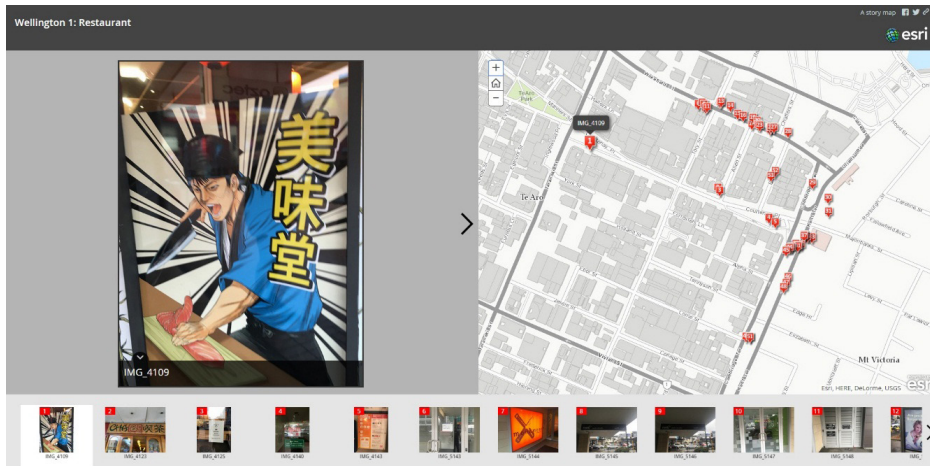
Figure 1: Depiction of the LL of Wellington's restaurant district

In this instance, the location of the photos appears on a map. Clicking on a numbered red tag will return an image of that sign on the left. Reporting back to the class, the students analyse the images they have collected to draw conclusions about what languages are present in their area. They tabulate the images to see how many signs and how many languages are present, how many are monolingual or multilingual, and how many are official top-down signs, or nonofficial signs. They may also talk about whether signs are there for functional, informational, economic or entertainment reasons. All of these analyses help the students to make inferences about how languages are used in their respective areas, and discuss the differences between the areas investigated by the class as a whole. From a language revitalisation perspective, this exercise allows the students to critically analyse te reo Māori and its presence on signs in their area. For example, on the whole signs in te reo Māori seldom exist. Where they do exist, they are generally translations of Government departments, or are an attempt to stand as a marker of cultural authenticity for tourism needs, such as souvenirs and gifts. Useful, functional signs in te reo Māori are few and far between. The underlying message from signs in Wellington tends to be that in order for a sign to be useful, it needs to be in English. Using LL, it might also be inferred that in order to be useful in New Zealand, one must speak and use English. This has clear implications for language revitalisation, and multilingual objectives more generally.

The exercise also allows the class to examine our own attitudes about te reo Māori and its presence on signs. Before beginning this LL exercise, typical early attitudes assert that bilingual signage is an absolutely critical activity the Government must carry out. Those attitudes generally evolve to thinking about bilingual official signage as tokenism. Of this topic, Harlow (2005, p. 144) notes that in many cases, organisations "… find a [Māori] name which is opaque and metaphorical and does not by itself reveal anything about the nature of the organization." As tokenism, we question whether it is helpful that the

Government perpetuate the use of te reo Māori in that way, or if it would be better to have monolingual English signage in the official space. Harlow fears,

> that the people asking for and supplying these names do not actually intend that these organizations should be referred to in Māori using them. They are provided as one would provide a flag or logo, for use on signage and letterheads, but not for the designation of the place concerned within any normal discourse conducted in Māori. (2005, p.144)

To this end, while our class generally concludes that it is better to have tokenistic recognition and no recognition at all, we also acknowledge that this perpetuates the notion that the role of te reo Māori is not to be useful. It further supports the idea that te reo Māori signs cannot exist without an accompanying English translation. Of course this is not true, but this is a risk of engaging in multilingual signage in this way, especially when a language is coupled with a more dominating one.

Politically, our class also expects that the country acknowledges the position of te reo Māori as the Indigenous language of this country and allow it space as such. However, from the position of semiotics, signs are designed to be read and their message 'understood', even if people do not speak the languages they see. For example, a Japanese sign outside a restaurant in the restaurant district of Wellington, New Zealand, will most likely, be understood by non-Japanese speakers as a great place to enjoy Japanese food. The biggest challenge pitched to the class is that if they expect non-Māori speakers to encounter te reo Māori on signage, they need to find a way to make those signs relevant, so that non-Māori speakers may understand why te reo Māori is there. That is going to be a critical part of securing acceptance for te reo Māori on signs in the future.

Future use

As successful as this exercise is in helping students to understand some of the sociolinguistic complexities surrounding written language and language use, there are some very real issues which have caused some confusion. Most notably is that not all devices record geo-tags in a way that computer programmes can read. There has been at least one case where location and geo-tagging settings on a device were enabled but the metadata did not carry across anyway. Secondly, the initial online software used for the exercise is now retired.[3] Picasa was the preferred programme of use because it was linked seamlessly to the class Gmail account. Photos emailed and saved to that account were automatically uploaded to a single Picasa account, which contained software to read geo-tags and create detailed Google Maps. The idea was that in successive years the class could review their work in comparison to previous groups. However, the retirement of Picasa meant that action was no longer possible and a new programme was sought. Photos emailed to the class Gmail account are now downloaded by the lecturer and uploaded to a class Flickr account. They are then imported from Flickr into Esri Story Board. Early issues encountered with this

new process included ensuring the Gmail, Flickr and Esri accounts were all configured to export and import the necessary geo-tagging metadata. Some of the groups using this new process could not track the metadata along all of these avenues and it was ultimately lost. Such a simple process for the initial classes was made confusing and frustrating by the retirement of Picasa. Having said that, the product delivered by Esri is of a higher quality and contains more functions. Future LL studies in our class will be all the better for these issues, providing the current software in use remains active.

Finally, as with any approach, LL studies have their limitations. The class readily accepts their findings are generalisations about the presence of language in their area. Asserting any kind of statistical assurance about their findings is not encouraged. For this to happen, literally every visual representation in an area would have to be photographed. However, this does not detract from the ultimate objective of the project, which is to become more critically aware of the linguistic landscape that surrounds us, with particular attention paid to how the present languages affect te reo Māori. Comparisons between Census and local council statistics, however, is encouraged. This allows the students to attach some kind of quantitative meaning to their work by allowing them to match up their photographs with demographic data from specific communities they are working in.

Conclusion

As an LPP course, the ultimate goal of MAOR222 is to produce students who are critically aware of a myriad of language issues pertaining to te reo Māori and its revival. LL as an approach to understanding representations of written Māori and how those representations interact with other languages in New Zealand, is one of those issues. Recent government efforts aim to increase the number of bilingual te reo Māori signs (Te Puni Kōkiri, 2016). This is going to mean New Zealand future language planners must understand the linguistic landscape of the nation deeply. In MAOR222, cultural mapping has been instrumental in teaching those future planners to think critically and examine our society in engaging, meaningful ways.

Endnotes

[1.] www.esri.com. An example of one group's landscape can be found at: http://arcg.is/2cIn30b.

[2.] I must acknowledge the work produced by MAOR222 students Jono Brumley, Te Wainuiarua Poa, Kealyn Marshall-Nyman and Jo Cook. Thank you for allowing me to share your work.

[3.] See https://picasa.google.com/

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