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Using Google My Maps to Collect Vernacular Toponyms

Abstract

The collection of vernacular toponyms often requires gathering data directly from the voice of speakers who live in the territory being investigated. The COVID-19 pandemic, however, reminds us that fieldwork can become unfeasible under certain circumstances. The pandemic provided an opportunity to reflect on remote collection possibilities: this is how a project regarding the vernacular urban toponymy of an Italian town (Savigliano, Piedmont) became a case study in experimenting with new methods to gather toponymic data. Some features of the well-known web mapping service Google Maps provide an ideal set of useful tools for this purpose, and many are already employed in various scholarly works regarding different branches of knowledge. The specific feature explored in our case study is Google My Maps, an application that allows people to complete a map themselves by drawing areas and naming them with their corresponding place names. Each person that creates a map and shares it with the researcher (without meeting in person) becomes an informant. The experiment highlights some of the method's strengths (no interpersonal contact; time and cost savings; no collector's influence; easiness to export, store and analyse toponyms with IT tools). There are of course some weaknesses too (unbalanced sample, lack of oral communication, criticality when writing dialect forms, no contact between the researcher and the landscape). However, Google My Maps proves to be an excellent resource in supporting remote collection of toponyms, and it deserves to be considered not only during the pandemic emergency.

1. Introduction

Collecting vernacular toponyms often involves fieldwork. Nevertheless, it can become unfeasible under some circumstances – such as the recent government safety restrictions introduced as a result of the COVID-19 pandemic. This paper explores the use of web applications as possible alternatives to fieldwork and presents an attempt to do so carried out within a PhD project. The project focuses on the vernacular urban toponymy of an Italian town, Savigliano (Piedmont), and aims to study solutions adopted to name sections of the territory (such as suburbs, neighbourhoods, blocks...) that have neither official toponyms nor official limits. Due to the pandemic, in spring 2020 planned fieldwork and face-to-face interviews were replaced by experimental remote data collection through Google My Maps – a feature of Google Maps.

Firstly, the paper presents an overview of some Google mapping services (Google Maps, Google Earth, Google Street View, Google My Maps) and their feasibility in academic research. Secondly, the traditional methods of collecting oral and/or vernacular toponyms and their supplementation with Google mapping services within the experimental collection are illustrated. Then, positive and negative aspects of this method are discussed and, finally, some considerations and possible usability of the tool are drawn.

2. Google mapping services and their usage in scholarly research

The technology company Google offers many online services including Google Maps, a web mapping platform that can be accessed from its website[1] as well as through an application for Android and iOS mobile devices. Google Maps allows users to search, display and navigate maps – one can virtually search and "explore" a place by entering its geographical coordinates or an address,

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[1] Direct link to Google Maps web page: https://www.google.com/maps

or even by moving the cursor on the map. The Internet contains a large amount of information about Google Maps and its features, but I will briefly focus here on three services that may be of particular interest for research in academic studies in general, and toponymy specifically: Google Earth, Google Street View and Google My Maps.

2.1. Google Earth[2]

"The world's most detailed globe" – this information is seen by everyone after entering the website, and probably there is no better way to describe Google Earth. It is a GUI (graphical user interface) application that shows a virtual representation of the Earth, produced by processing topographic data, and aerial and satellite images. Resolution is very high, especially in big cities. One can set the 3D mode and virtually fly over a three-dimensional model of the planet Earth's surface. The 3D mode allows us to see the difference in altitude of the ground and in many cases – usually, in the cities – even to have a three-dimensional view of buildings, trees and so on.

Google Earth also enables the creation of a custom project: a user can create point, line and polygon layers and assign a name to them. Images, texts, videos, and spreadsheets can be attached to drawing features. A Google account is required to create and share a project, as it is automatically saved in the corresponding Google Drive.

Technically, Google Earth differs from Google Maps. Despite that, Google Maps has integrated some of Google Earth's functions over time: the satellite background and the 3D mode. So nowadays one can use some Google Earth features directly from Google Maps.

2.2. Google Street View

This service allows users to walk down the streets virtually thanks to an augmented-reality effect created by assembling "spherical photographs". These are 360-degree images on the horizontal plane and 160-degree images on the

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[2] Direct link to Google Earth web page: https://www.google.com/intl/en_uk/earth/

vertical one. Imagery is created using cameras mounted on special vehicles that travel and photograph the routes shown on Google Street View. The photographs are taken at eye level, giving the impression of walking down the street shown on the screen. The users move between buildings and they can choose which way to go from the alternatives offered by the service – in many parts of the world it means almost all the public streets and roads and sometimes even interiors of some buildings have been photographed.

Google Street View was created as a stand-alone service, but it was assimilated by Google Maps and Google Earth over time. The interface element that connects Google Maps and Google Earth to Google Street View is a drag-and-drop icon shaped like a little orange man called Pegman. When Pegman is dropped in a certain point of the map, Google Street View opens if data is available for that place.

2.3. Google My Maps[3]

Google My Maps is a service of Google Maps specifically designed to create and share custom maps. One can access its website directly or through Google Maps, as they are integrated. Some of its features are the same as those of Google Earth: the user can superimpose different layers on the background map, draw points, lines or polygons and name them; spreadsheets, images, texts, videos can be imported and linked to each geometric shape. Finally, the user can save the project and send it to other people (a Google account is required to do this). However, there are also differences between Google My Maps and Google Earth: Google My Maps does not include a 3D mode, but the user has the option of choosing from nine possible base maps, whereas Google Earth just offers the satellite base map.

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[3] Direct link to Google My Maps web page: https://www.google.com/intl/en-GB/maps/about/mymaps/

2.4. Google Street View, Google Maps and Google Earth in scholarly research

The use of mapping tools provided by Google is widespread. As they are powerful and easy to use, it will come as no surprise to learn that they are frequently used in academic research. If scientific work involves geography, then – regardless of its topic – it may employ these tools for data collection and/or dissemination. However, specific literature on the subject is hard to find. Even though many researchers do take advantage of Google Maps features, the matter is not considered relevant enough to be discussed in publications. After performing an online search for open access papers, however, I managed to collect some examples of Google mapping tools applied to various types of research work. Google Street View is used to study neighbourhood conditions and to map people in social and criminological studies (Vandeviver, 2014; Campanella, 2017; Vercruyssen & Loosveldt, 2017); and it even appears in research that combines sociology and medicine, whose focus is the healthiness and liveability of cities (Rundle et al., 2011; Goel et al., 2018; Steinmetz-Wood et al., 2019). Other uses of Google Street View as a motivational pedagogical tool (Carbonell-Carrera & Saorín, 2017) or as a basis for a new social media (Du & Varshney, 2016)[4] are discussed too at an academic level. Google Maps and Google Earth, instead, are used to organise and geo-reference data in two very different research areas: library science (Dodsworth & Nicholson, 2012) and architecture (Garagnani et al., 2008).

Direct experience has taught me that Google Maps and Google Earth are often chosen when mapping and presenting data in the field of linguistics and onomastics. Although literature on their use in data collection is scarce, some considerations about their application (Google Street View at first) can be found in Linguistic Landscape research works (see Gorter, 2018, and "References" of his paper). But I was unable to find similar contributions in toponymic research. As I consider them useful resources in this field, in the next section I would like to propose some applications for collecting toponyms.

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[4] See also the website https://socialstreetview.com/

3. Traditional methods and Google mapping services to collect vernacular toponyms

The case study in this paper relates to my PhD project, a study of the vernacular urban toponymy of Savigliano, an Italian town located in the Piedmont Region. The project initially involved collecting unofficial toponyms as part of traditional face-to-face field work, but this was later necessarily changed into remote data collection through Google My Maps, a feature of Google Maps.

3.1. The project in Savigliano (Piedmont, Italy) and the planned collection

The PhD work aims to investigate the vernacular urban toponymy of Savigliano. That means the unofficial names of small urban objects[5] – such as suburbs, neighbourhoods, blocks, squares, etc. – used locally. They are comparable to what the ICOS Terminology Group calls "microtoponym", with the difference that the examples given in its definition refer to geographical objects belonging to the rural or natural landscape: a "microtoponym" is a "name referring to smaller objects like fields, pastures, fences, stones, marshes, bogs, ditches etc., and in general used locally by only a limited group of people".[6]

Vernacular toponyms are often unofficial and transmitted through oral communication (Taylor, 2016, p. 74). In the Italian context, they are usually etymologically related to local dialects (Marcato, 2009, p. 114), except the ones that have been created recently, from the 20th century.[7]

While searching for early forms in written documents is important in order to reconstruct the etymological meaning and development of vernacular

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[5] The urban area of Savigliano measures about 4 km² in total.

[6] "ICOS Lists of Key Onomastic Terms", https://icosweb.net/publications/onomastic-terminology/

[7] In 1861, the year of the unification of Italy, just 2.5% of the inhabitants were able to speak Italian, as most of the population had a local dialect as their native language. During the 20th century, Italian gradually became the most common first language among Italians (Grassi et al., 2010, pp. 26–33).

toponyms (Taylor, 2016, p. 71), due to their oral transmission a field stage during data collection is recommended. The original Savigliano project comprised a field investigation, including two-tier interviews with local informants. The first interview should have consisted in a semi-structured conversation – an established scholarly practice (Matranga, 2002) – conducted with the ATPM[8] methodology as a model, where informants are asked to cross the municipality mentally, with the help of a map, and to name all the places as they would in everyday life. The supportive map does not include name labels, so that the influence of official toponyms is avoided. The collector writes down the toponyms by hand as the informant provides them. The second phase should have been a control phase: the collector submits a list of the various toponyms collected during the first step to the informants. For each new toponym, the informant has to say if they know it and just forgot it, if they know it but do not know its location, or if they do not know it at all.

Since the project has a socio-onomastic purpose, the sample of informants was supposed to include about 50 people with different sociodemographic features: gender, age and "sense of community". The last of these features is an index formed by the intersection of the four variables relating to the informant's relationship with Savigliano: place of birth; place of residence; place of work or other activity; relatives (parents, grandparents) from Savigliano.

The original data collection plan already considered experimenting with Google mapping services, replacing the blank map with images from Google Street View and Google Earth in some pilot interviews and comparing outcomes. In the end, the pandemic necessitated a change of strategy and this experimentation was implemented with just a few interviews. To discuss its results, it would be necessary to compare more outcomes.

[8] ATPM (Atlante Toponomastico del Piemonte Montano) is a linguistic atlas that aims to collect all the microtoponyms to the Piedmontese side of the Alpine region (see Genre & Jalla, 1993, or the website https://www.atpmtoponimi.it/).

3.2. Rescheduling and designing the collection with Google My Maps

Due to the COVID-19 pandemic, field research and face-to-face interviews, originally planned for spring 2020, had to be replaced by some new methods. In order not to interrupt the collecting of toponyms, the work had to be carried out remotely. Since people were confined to their homes, with more free time on their hands, I decided to ask them to fill in a blank map with toponyms by themselves.

To avoid any physical contact and obtain maps, the new method had to be remote and easy to use. Since I did not find any suggestions in literature, I searched the Internet for web applications that allow users to create maps – draw and name shapes – and share them easily. I found a few dozen suitable apps, including Google My Maps, the feature of Google Maps previously described, which turned out to be the best for my purposes. In fact, it has advantages that are partly lacking in other software: the main screen is the one of Google Maps, which is quite well-known; it is free; the user logs in with a Google account, no further registration is needed; sharing the map does not entail making it public. Another advantage of Google My Maps is that it provides a space in which the researcher/collector can better adjust the maps they are gathering according to their specific needs. Also, it gives users the possibility to change the base map. Furthermore, the 3D view that Google Earth includes – Google My Maps does not – is not relevant in this context, as Savigliano is not one of those cities with a detailed three-dimensional digital model of itself.

Data collection through Google My Maps followed these steps:
(i)   The creation of a video that introduces the project and defines the target population and key informants the researcher is looking for. Most of the video is a tutorial explaining how to make a map and to send it to the researcher.
(ii) Posting and sharing of the video on informal networks, such as social media channels (specifically, Facebook and its "groups") and instant messaging services (WhatsApp).
(iii) The creation of a "self-selected" sample of informants and collection of toponymic maps created by them. Informants choose to participate of their own free will, by simply following the video tutorial that teaches them how to create and send their maps through Google My Maps. Namely, they draw points, lines, or polygons on the base map, adjust their visual style

and name them with a label (the toponym) which is displayed in a list created gradually alongside the map. Following instructions in the video tutorial, informants then send their map to the researcher.

(iv) The researcher receives maps on their email address. As Google My Maps uses the Google account e-mail of the informant to send the map automatically, the researcher can answer to this email address to thank the informant and to ask for further information, such as socio-demographic data of the informant.

Response to the experiment was positive: after the video had reached the target, I received forty-four maps in a few days. Figure 1 shows an example of a set of named objects collected by one of the informants.
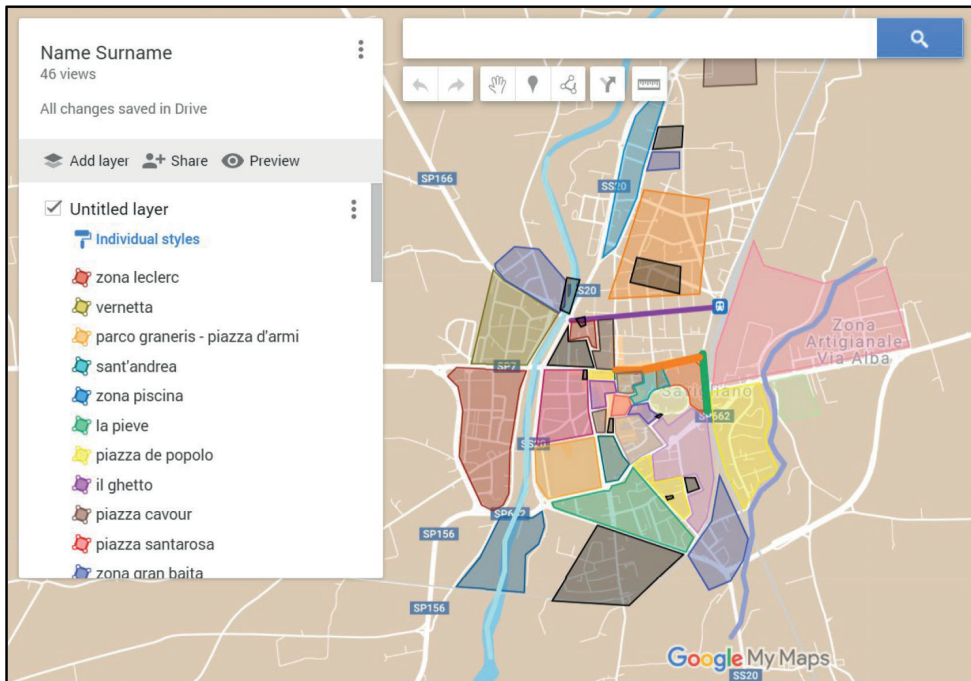

Figure 1. Example of a set of named objects drawn by one of the informants

Source: Google My Maps (Map data @2021).

3.3. Experimental data collection through Google My Maps: positive aspects

Compared with the traditional methodology, this experiment in data collection revealed both positive and negative issues. On a positive note, the main objective (related to epidemiological restrictions) was achieved: face to face meetings were avoided.

Collecting data in this way also enables the researcher to reach people and places far away, and many informants can complete their maps at the same time. Both these factors result in cost and time savings.

Another positive aspect is the complete minimisation of the researcher's influence on the informant. Therefore, what the person considers a toponym and not a descriptive common noun – i.e. in cases such as "the square" or "the wood" – becomes clear. The informant also must draw the limits of each area related to a toponym by themself,[9] so they need to consider them carefully. Furthermore, the list of toponyms that the informant creates shows what is a priority in the way they organise a mental landscape, because its items are listed in the same order in which the person draws and labels them.

Self-selecting informants produce some positive effects, as the researcher can reach people from outside the word-of-mouth dynamics – one of the most common ways to find them – thus people other than stereotyped "local experts" become more easily involved.

Lastly, this method impacts on the storage and the analysis of toponymic data. In fact, data collected through Google My Maps can be exported in the KML/KMZ format, a file format used to express geo-referenced data and to display a two- or three-dimensional visualisation of them. These files work with Geographic Information System (GIS) software – such as the open source QGIS.[10] With this software, KML/KMZ data can also be extracted as Excel spreadsheets. Therefore, maps created with Google My Maps can be organised in a storage system containing large amounts of data, and the features within

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[9] In face-to-face interviews the collector usually writes toponyms on the map. This means the informant is less careful with regard to borders.

[10] QGIS is a free and open-source desktop Geographic Information System application that supports viewing, editing, and analysis of geospatial data. It is one of the most widespread GIS software and it is suitable to start working with geospatial data (website: https://www.qgis.org/en/site/).

each map (polygons, lines, points, toponyms, descriptions, positions etc.) can be processed together: the researcher can overlap parts of them, choose what to display, extract specific information, etc.

3.4. Experimental collection through Google My Maps: critical issues

There are, however, some critical issues with remote data collection. First of all, given the socio-onomastic objective of my research, the biggest problem is the unbalanced sample obtained by self-selection. While it is true that Google My Maps makes it possible to reach a wider audience than one created using word-of-mouth dynamics, on the other hand the collection excludes people who do not use the Internet and do not have a Google account. As a result, it is especially difficult to involve older people in the study. Out of the forty-four people from whom I received maps, very few of them were over 60: six people aged 60 to 69 and only two elderly informants (78 and 81) – both were helped by younger family members. The self-selected sample may be unbalanced with respect to other socio-demographic features too; in this case, the researcher can send a video request to a specific target and fill possible gaps. Instead, this solution cannot be used with older people, as they are not usually computer literate.

Another problem when collecting through Google My Maps is that vernacular toponyms are registered in a non-oral way, as the software requires them to be written – attaching an audio recording is not possible. Consequently, informants must transpose place names that they use especially in oral communication into written forms by themselves. In some cases this is a smooth process, but sometimes it is not, as in the case of dialectal toponyms. In Savigliano, many of the inhabitants speak Piedmontese – the local Romance dialect – in addition to Italian. Because of the toponymy conservative tendency, many place names are provided in Piedmontese. The Piedmontese has written traditions and standard writing systems, but most speakers are unfamiliar with them, because the daily use of Piedmontese has historically been purely oral. This means that informants using Piedmontese toponyms resort to an Italianised spelling, characterised by personal choices. Furthermore, gathering vernacular toponyms without a flow of verbal communication can lead to a poorer collection: variants, the presence or lack of articles and prepositions, etc. are harder to capture.

Another critical issue of remote collection, on a more general level, is that the researcher/collector loses the opportunity to explore the territory under study in more detail. As Taylor (2016) says, field research in toponomastics makes sense:

> for the purposes not just of interrogating those who live in a landscape, as in the collection of oral material, but of interrogating the landscape itself. There are many cases in which the landscape offers the key to the interpretation of a name. (p. 75)

Therefore, it would be not only appropriate but also necessary if the researcher carrying out a remote collection possessed previous knowledge of the landscape being investigated.

The data gathering part of the research in Savigliano was designed to be carried out on site, so the aforementioned problematic aspects affected the results. Therefore, at a later time – when safety measures put into place during the pandemic were eased – I decided to integrate the remote collection with a face-to-face phase so as to check the maps I received through Google My Maps, and to gather new data from informants that I was unable to connect with via the Internet (especially older people). Furthermore, I conducted the second phase of the originally planned collection in person, submitting the list of toponyms to all the informants. With new informants, I conducted the first part of the interviews in as neutral a way as possible, so that the data was comparable with the data collected through virtual maps.

4. Conclusions

The case of Savigliano (Piedmont, Italy) shows how Google mapping services – specifically, Google My Maps – can add to traditional methods of collecting toponyms. Even if the specific case study required a face-to-face integration, it clearly displays the strengths of remote tools in research.

The researcher can use Google My Maps as an instrument to perform a preliminary exploration and to create a network on field. This can be followed

up by a more in-depth investigation using traditional tools. Otherwise, if the aims of the research are consistent (i.e. the target of informants can respond and use the application), one can design all the collection phases based on this web mapping service. The fact that a very large amount of toponymic and spatial data can be gathered and stored in a short time, furthermore, enables the researcher to operate on much wider territories. Finally, the method has been presented for the collection of vernacular toponyms belonging to small objects here, but it can be used to gather names that belong to bigger portions of a specific territory, or that are not necessarily unofficial. For instance, informants living in a city might be asked to provide all the official hodonyms that they know, or a sample of people living in Piedmont could be asked to write the oikonyms of that Italian region in their unofficial Piedmontese form, if they are aware of it. These are just two examples of how Google My Maps could possibly be used to collect place names, even in a normal, non-pandemic situation.

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