

## **Romancing the world picture**

The possibilities and challenges of Google Trekker • *Richard Coyne*

In this case study I describe what Google Trekker does, the claims Google makes about it, and how it is described by at least one account in the popular press. I also include some insights from my own use of the technology. In summary I propose that Google Trekker brings to light the material and practical aspects of what people sometimes refer to as “virtual reality.”

### **Street View and Trekker**

Google Street View is an adjunct to the Google Maps service. Street View shows images of a street as captured by panoramic cameras mounted on top of specially equipped road vehicles. The technique also employs laser scanning to construct 3D models of the environment as the camera passes through them. According to the Google website, as you use the Google application online, “When you move to an area in the distance, the 3D model determines the best panorama to show you for that location.”<sup>1</sup>

Google Trekker is a technology that extends Street View to some of the places people can access only on foot. In this capture method the panoramic camera is worn as part of a backpack and collects images and 3D information as the wearer walks through the landscape. The Trekker technology was launched in 2013 and Google encourages not-for-profit organisations with a stake in the physical environment to borrow a Trekker camera and upload panoramic content to be displayed with Google Maps. According to the Trekker website, “If you're a tourism board, non-profit, university, research organization or other third party who can gain access and help collect imagery of hard to reach places, you can apply to borrow the Trekker and help map the world.”<sup>2</sup> The online form requires that applicants make the case and supply a rationale for such a project, and also offers the opportunity to request financial support from Google.

There are websites that take the user directly to these virtual locations,<sup>3</sup> or they can be accessed through Google Maps in the same way that users view Street View imagery, by placing an icon of a human figure onto a street on the map. The screen display then transforms into an eye level view of the environment. The panoramic imagery is also available on smartphones and tablets.

Reporting from data supplied by Google, an article in *The Telegraph* in 2013 claimed that Google had captured images of over five million miles of road across 50 countries.<sup>4</sup> The number of off-road sites in the world that have been

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<sup>1</sup> <https://maps.google.com/maps/about/behind-the-scenes/streetview/> (accessed 13 Nov 2015)

<sup>2</sup> <https://maps.google.com/maps/about/partners/streetview/trekker/> (accessed 13 Nov 2015)

<sup>3</sup> e.g. <https://www.google.co.uk/maps/about/behind-the-scenes/streetview/treks/> (accessed 13 Nov 2015)

<sup>4</sup> Chivers, Tom. 2013. The story of Google Maps. *Telegraph*, (4 June 2013)

<http://www.telegraph.co.uk/technology/google/10090014/The-story-of-Google-Maps.html>.

“captured” via Google Trekker is of course growing, and includes world heritage nature reserves, and iconic landmarks, such as the pyramid compound at Giza in Egypt, Angkor Wat in Cambodia and Borobudur in Indonesia. Google Trekker also reveals some remote sites such as the Himalayas and the Canadian Arctic, as well as underwater sites such as the Australian Great Barrier Reef. The *Telegraph* article, along with reader comments, highlights some of the benefits people see in this technology, as well as concerns about the range of Google mapping technologies.

### **The benefits and challenges of Trekker**

Benefits identified in the *Telegraph* article and elsewhere include the ability to pre-plan your visit or holiday, and the security and efficiency of being able to navigate your way around complex and difficult places. Such virtual “travel” also takes people to places they may never get to visit. Some readers also expressed genuine fascination and awe in the face of the scale of the whole Google mapping and visualisation project.

Concerns focus on questions of privacy, in particular the way Street View and Trekker inevitably include images of people in the environment. Google’s obsessive image capture means nowhere is really private. Critics of the technology are also suspicious of the influence, reach and motivation of Google as a single private corporation in mapping the world in this way. In my own online use of Street View I have observed that Google also publishes a copyright notice claiming IP (intellectual property) rights over the panoramic images and prohibiting their use by other parties. Other criticism focuses on the loss of the wonder and magic of travel. If you already know in precise visual detail what to expect before you get to a place then perhaps you don’t need to go there, or at least the tourist arrives at their destination inured to its mysteries, and is therefore easily bored, or at least unappreciative of the specific characteristics of the place. Such technologies extend the complaint about tourist coach travel and camera culture identified by sociologist John Urry in his book *The Tourist Gaze*.<sup>5</sup>

### **What Trekker reveals about people’s relationship with the environment**

During my own analysis of Google Trekker I notice that there are images captured of parts of places we would rather not see. We seasoned tourists tend to blind ourselves to the discomfort of getting to tourism sites and of being in a place. We photograph the spectacle, and that lingers in the brochures, books, and shared memories of thousands of visitors. But Google Trekker’s panoramic imagery inevitably also captures what’s behind the usual vantage point. It captures the toilet provision (or its lack), the hawkers’ stands, the security escort and the desultory trek from the bus park to the Sphinx at Giza.<sup>6</sup> This is instructive for the would-be visitor, but it also shows in pictorial form that such

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<sup>5</sup> J. Urry, *The Tourist Gaze: Leisure and Travel in Contemporary Societies*

<sup>6</sup> <http://www.google.com/maps/streetview/#pyramids-of-giza/great-sphinx-of-giza> (accessed 13 Nov 2015)

sites are not always as attractive as the brochures suggest. Nor are our recollections at 360 degrees. Google Trekker reminds me that there are parts of the landscape I normally don't notice, or that I want to forget, or that otherwise fall short of the idealised recollection.

While visiting these Trekker sites I also felt inclined to take screen snapshots as a record of where I had been. The Trekker technology reminds me of how wedded we tourists are to photography, brought to light by the fact that in Google Trekker you really can't take pictures. In spite of the richness of its imagery and pretence at immersion the virtual visitor to Giza is discouraged by Google's IP warnings from taking screen snapshots of the Sphinx, that you might then want to use to illustrate a blog about travel for example. These days, to be in a place, especially a spectacular tourist destination, is to have the freedom to photograph it — a feature denied by navigation in Trekker space.

Google Trekker also produces some strange artefacts. The virtual environments created are actually static images projected onto the inside surface of a sphere. The viewer jumps from one viewing bubble to the next on a linear or maze-like journey. So you cannot roam freely as in immersive VR (virtual reality) environment — in SecondLife<sup>7</sup> or the game Assassin's Creed<sup>8</sup> for example. The virtual trekker soon learns the limits of Google's navigation, which is designed for a linear road system rather than a foot traveller's wandering journey across a desert, plaza or temple forecourt. Then there's the unusual visual zooming graphic as you move from one location to another. The metaphor of the hyperspace zoom is easier to relate to as a simulation of fast vehicular movement but I think it is less effective as a metaphor applicable to a slow moving pedestrian.

### **How Trekker brings the photographer back into the picture**

As well as these artefacts the panoramic technology renders the photographer conspicuous in the landscape. Discrete, hand held cameras are ubiquitous and the practice of taking snapshots generally goes unnoticed. For a while, the sight of someone taking a selfie would attract attention. It's still unusual to see someone trying to take a 360 degree or fisheye picture with their smartphone as they spin and scan in different directions. But the Google Trekker backpack with its alien, above head-height panoramic camera configuration draws attention. Users of the online Trekker panoramas can see people's responses caught by the camera. Occasionally you see the shadow or reflection of the photographer in the picture. Google Trekker reminds me that the photographer is ever present, and really is part of the picture. The technology renders the picture taker conspicuous again.

Google Trekker fits within a range of all encompassing photographic and scanning technologies reinforcing the observation that this is "the age of the

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<sup>7</sup> <http://secondlife.com/> (accessed 13 Nov 2015)

<sup>8</sup> <http://assassinscreed.ubi.com/> (accessed 13 Nov 2015)

world picture” as the philosopher Martin Heidegger characterised it. To “get the picture,” according to Heidegger, is to put the world before yourself, as if understood and ready to be “conceived and grasped as picture” (p.129).<sup>9</sup>

### **Is Trekker really virtual reality?**

Google’s account of the technology, the *Telegraph* article, reader comments and other sources seem to play down the virtual aspects of the Street View and Trekker experience. It’s more about mapping than virtual reality. It’s as if the enthusiasm for virtual reality as outlined by advocates such as Michael Heim in the 1990s<sup>10</sup> has been eclipsed by the practicalities of the ethical, political and legal implications of the technology. The capture technology is also changing, and there are inevitable limits to it.

So Google Trekker reminds me of the materiality of the technology and circumstances of our viewing. The main factor that keeps us from believing we are finally recording the world as it really is, is that the technology keeps changing. So someone has to do it all over again.

### **References**

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- Heim, Michael. 1998. *Virtual Realism*. New York: Oxford University Press.
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### **Points to note from this case study example**

1. A case study is about something particular, in this case a product or system (Google Trekker) rather than a technology in general (e.g. virtual reality).
2. A case study is an example. As well as being about a product a case study could also be about a specific event, person, group, place, company or circumstance.
3. Note that the study starts with a summary of what is to follow. In this case I’ve also indicated a main point I want to get across, i.e. what the case study demonstrates about VR.
4. A case study can provide evidence to support a proposition. It also draws on evidence. In my example the evidence is from Google websites, a news report, online comments, and my own use of the system under investigation. I also draw on some of the more academic theoretical literature. If your case study is about something older than a couple of years then you might find some serious academic study or official reports on the topic that you can draw on. I’ve not looked at or cited Wikipedia.
5. I indicate in the text something of the character of my sources. So I make it clear where I am drawing on a newspaper article, or my own observations. I also include my own speculations.
6. The case study avoids the jargon and hyperbole of those promoting the technology. It is also critical of the technology. A case study is not an attempt to sell a product. In this case I also emphasise the cultural and social aspects of the case under study, rather than marketing potential.

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<sup>9</sup> M. Heidegger, "The age of the world picture"

<sup>10</sup> M. Heim, *Virtual Realism*