

Ideas to boost tourism:

From William Gibson's *Spook Country* to "Pokémon Go," and mixed reality

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Abstract

The purpose of this research is to show how tourism can be promoted with advanced technology: virtual reality, augmented reality and mixed reality. Such a series of technological application to tourism promotion is said to be attributed to William Gibson, acclaimed as a pioneer of cyberpunk, a subgenre of S.F. First, this research introduces the intriguing idea of locative art described in Gibson's work, *Spook Country* (2007). Locative art is art virtually created on the street or in a room, by accessing the GPS coordinates. Then, the focus is upon on how such an idea is being used to open a new era in the form of virtual reality (VR) and augmented reality (AR). Some cities, such as Bibai City, Hokkaido, and Sekigahara Town, Gifu, have already created their own contents in the form of VR and AR with the aim of their tourism promotion. Finally, through showing that mixed reality (MR) enables you to work with your co-workers who join you in a holographic representation, this research highlights MR has a great potential to promote tourism: MR, along with AI technologies, will make the conversation between a tourist and a holographic historical figure possible.

Keywords

William Gibson, tourism, virtual reality, augmented reality, mixed reality

1. Introduction

At the closing ceremony of the 2016 Rio Olympics, the world was surprised to see Japanese Prime Minister, Shinzo Abe, pop out of a drainpipe, clad in a Super Mario costume, with the aim of introducing Japan, the host of the 2020 Summer Olympics. After his amusing appearance, the stadium was full of lots of 3D holograms and a spectacle light show.⁽¹⁾ The show gained worldwide publicity⁽²⁾ and stimulated people's interest to visit Japan [Shemilt, 2016]. It is no doubt that the show was the most powerful promotion to invite the world to Japan, with the use of advanced technology.

Since the Japanese government launched the "Visit Japan" campaign to promote tourism in 2003, various strategies have been carried out. For example, Japan invites foreign journalists to its sightseeing spots in the hope that they will introduce Japan's attractiveness through their media. The Japan Tourism Agency has surveyed and researched the number of visitors, their destinations, their nationalities, the purpose of their visits, etc., and analyzed such Big Data, including roaming data.⁽³⁾ By analyzing contents posted on Facebook and Twitter with the functions of GPS and a camera, we can follow in tourists' footsteps and utilize such data for tourism promotion. At the same time, visitors' posting their activities on SNS makes their friends and other persons feel the urge to visit Japan.⁽⁴⁾ Big Data also tell another example of Facebook's effects, which can be seen in an increase in the number of visits to rural areas, which do not seem to be attractive to Japanese. They enjoy a connection with Japanese people and nature. What we have to realize is that they feel satisfied to have a warm association with people. Thanks to such efforts, the number of foreign visitors rose from 5.21 million in 2003 to 19.74 million in 2015.⁽⁵⁾

To further promote tourism in Japan, it is very useful to utilize advanced technology. Japan can appeal to other countries as the most advanced technological country in the world [Temchiy, 2016], as seen in the Tokyo 2020 promotion show at the Rio 2016 closing ceremony.

The purpose of this paper is, therefore, to introduce how tourism is promoted with an emphasis on technology. Such a series of technological application to tourism promotion can be said to be attributed to William Gibson,⁽⁶⁾ acclaimed as a pioneer of cyberpunk, a subgenre of S.F. So first, I'd like to introduce the intriguing idea of locative art with GPS described in his work, *Spook Country* (2007), and then explain how such an idea is now being used as an innovative idea to open a new era in the form of virtual reality (VR) and augmented reality (AR), and finally suggest how the next technology, mixed reality (MR), has a great potential to promote tourism, believing that it will surely expand the tourist industry.

2. "Locative Art" in *Spook Country*

2.1 Virtual reality and locative art

First, it is examined how Gibson's *Spook Country* deals with virtual reality and augmented reality. Hollis Henry, the protagonist of *Spook Country*, is a journalist who has been hired as a writer for a magazine, *Node*, to interview an artist Alberto Corrales, an artist who tries to create art called "locative art,"⁽⁷⁾ art virtually created on the street or in a room, by accessing the "GPS geocoordinates" (29). Once wearing a "padded headband, with a sort of visor," Hollis sees "Virtual Reality" (11), that is, she is able to see the moments of the death of famous people on the street. She is greatly surprised to see "Alberto's virtual rendition of the death of River Phoenix" (29). Space "turns itself inside out... Cyberspace" (28-29). Albert created his works "with longitude, latitude, and the Internet" (29). He wants to show his recent work at the Chateau Marmont [hotel]. Albert says,

“I’ve most recently completed a virtual shrine to Helmet Newton. On the site of his fatal crash, at the foot of the driveway.”

“So the people staying at the Marmont,” she [Hollis] asked, “they have no idea, no way of knowing what you’ve done there?”

“No,” said Alberto, “none [without some gadgets].” (29-30)

He also lets her see another piece, “American fatalities in Iraq” (31), which he says “is not locative art.... It isn’t spatially tagged” (31). The way Albert creates art is, he explains, to “build virtual models, then cover them with skins, textures I’ve sampled, or created myself, usually for that specific piece. Each model has a virtual skeleton, so I can pose and position the figure in its environment” (56). Albert’s art is created in public space, and can be seen with a headband / visor, with the help of computer / phone.

2.2 Bobby Chombo, the king of locative artists

Ordered by Hubertus Bigend, an advertising magnate and owner of Blue Ant, the firm that owns *Node*, Hollis interviews Bobby Chombo, who is “their king of tech-assist, these locative artists. Their geohacker. GPS signals can’t penetrate buildings. He does work-arounds. Triangulates off cellular towers, other systems. Very clever” (43). Interestingly, Albert says, Bobby “sees everything in terms of GPS gridlines, the world divided up that way.... (and also) won’t sleep in the same square twice” (55). Bobby helps other artists put their artwork on the grid, too. At Bobby’s studio, she wears “a VR visor of Bobby’s” and sees his great locative art, a giant squid called “Archie,” which is created “for a department store” and will appear “over a street, in Shinjuku [i]n the middle of all that neon” (75). Once Bobby turns the switch on,

Ten feet above the orange tape outline, the glossy, grayish-white form of a giant squid appeared, about ninety feet in total length, its tentacles undulating gracefully.... Its one vis-

ible eye was the size of an SUV tire. “Skins,” Bobby said.

The squid’s every surface flooded with light, subcutaneous pixels sliding past in distorted video imagery, stylized kanji, wide eyes of anime characters. It was gorgeous, ridiculous. (75)

When she goes under the squid she is able to see it differently depending on her movement because of “the wireless visor” (75) she wears. Bobby successfully creates wonderful locative art with GPS in space.

2.3 Monet’s poppies in locative art

The next scene also shows another kind of locative art. Returning her hotel room, Hollis finds a helmet in a box sent by Bigend. Because of “locative installation” in her room, she sees “Monet’s poppies.... The poppies and whatever background.... The artist’s Argenteuil series” (158). Interestingly, she waves “her left hand through the poppies she knew weren’t there. She almost thought she could feel them” (158). She also feels “poppies around her knees. Wading through them, toward the layered drapes, she felt momentarily as though they floated atop captive, unmoving water” (158). It can be said that locative art created in a small room also provides a viewer with impressive experience as if he or she were embraced in the art. The memory of such experience surely lingers in his or her mind.

3. Locative art to open a new era: Virtual reality and augmented reality

3.1 What is virtual reality?

There are some hints regarding virtual reality (VR) and augmented reality (AR) in *Spook Country* as mentioned above. The term “virtual reality,” which was coined by Jaron Lanier⁽⁸⁾ in 1987, is now often heard, especially after iPhones began to be on the market. VR is a technology to create a virtual world, which can be viewed and experienced through a head-mounted device (HMD) and a phone. With such devices, you find yourself immersed in a virtual world, separated from the real world. One of interesting TV commercial using VR shows a scene

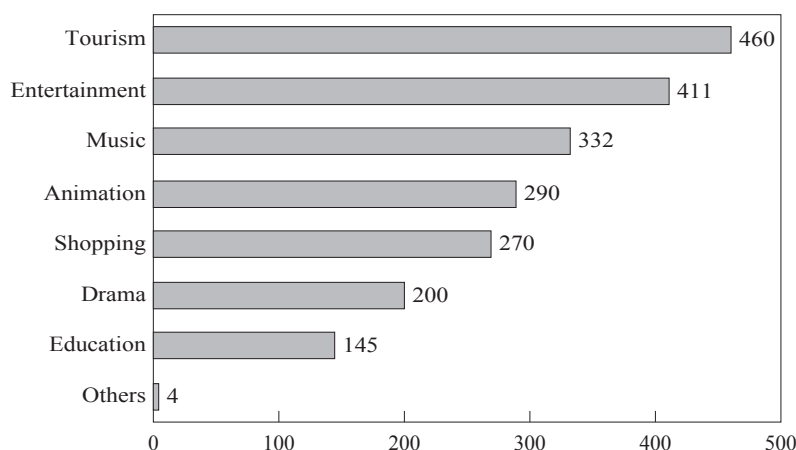


Figure 1: The contents of VR you want to experience (Viibar 2016)

where a tennis player, Kei Nishikori, is virtually driving and talking to you with a smile when you sit on a chair and wear a head gear in a Jaguar Land Rover retailer [Kadinche, 2016]. In the same way, VR is used in the medical, engineering, education, entertainment fields.

3.2 *Virtual tourism*

The term “virtual tourism” is also seen in “History of Virtual Reality,” which points out that “the View-Master stereoscope (patented 1939)” was used. Since then, technological advances have sparked innovative ideas regarding tourism. Virtual reality is now a popular way to boost tourism. CNBC reported the words of Shaun Collin, CEO of research group CCS Insight; “Virtual reality, which I think is going to change the way both many of the things that we do today are and some new and important areas are transformed, like tourism” [Graham, 2016]. A survey conducted by Viibar (a company supporting the animation market) reports that 460 out of the 1,207 people surveyed in Japan say the contents of VR they want to experience most is about tourism, followed by entertainment and music (Figure 1) [Viibar, 2016]. VR is proved to be a vital tool to promote tourism.

In fact, some cities use VR to introduce their own sightseeing spots, as well as local food and other attractions. Experiencing a world of virtual reality may stimulate viewers to go to its authentic world. Right now some companies are creating a virtual reality experience. For example, using a headphone and a Google Cardboard with your phone, you can experience a virtual world of Rocky Mountain National Park [Ferro, 2016]. Even in Japan anyone can also enjoy such an experience. For example, using the “VR Sightseeing Experience - Bibai City, Hokkaido” smartphone app and a pair of VR goggles, you can enjoy a virtual experience of the sightseeing spots of that city [Bibai City, 2015]. Like this, experiencing virtual sightseeing spots will surely help you decide the next destination.

3.3 *What is augmented reality (AR)?*

Augmented reality (AR) is also now used in many places. AR is a “technology that lets virtual objects appear as though they’re in the real world” [Johnson, 2016]. Compared to VR, Niantic CEO John Hanke enthusiastically argues:

It is the direction that I think is far more interesting and promising—for technology and, really, for humanity.... In a VR situation, you’re isolating yourself from everyone around you and entering this completely virtual space. AR is designed to add, enhance the things you do as a human being: Being outside, socializing with other people, shopping, playing, having fun. AR can make all those things better [Johnson, 2016].

While being in a real world, that is, sometimes talking with your friends face-to-face, in an AR situation, through a headgear, you’ll find holograms and computer graphics here and

there. One example of AR is Pokémon Go, a location-based augmented reality game made by the San Francisco-based company Niantic [Johnson, 2016]. When you play Pokémon Go, you have to go to some places to find and catch various kinds of Pokémon appearing in a real world. Another example of AR was used at the 2016 Rio Olympics’ closing ceremony, where “an artwork using AR technology, created by a special team... Rhizomatiks, [were] projected on the field” [The Japan Foundation, 2016]. AR will surely make Tokyo 2020 Summer Olympics more exciting.

3.4 *Augmented reality and tourism*

AR is already being used to attract foreign travelers to Japan. Ministry of the Land, Infrastructure, Transport and Tourism took an initiative in 2012 and issued recommendations on how to provide information for visitors to Japan using AR technology [The Ministry of Land, 2012]. In the previous year, Sekigahara Town, in Gifu Prefecture, released “Sekigahara Sightseeing Navi” which provides information about Sekigahara Town for tourists who download its AR app for a smart phone. If you activate this app in Sekigahara Town, various historical and current information will appear on your smartphone. For example, you could learn about the Battle of Sekigahara, which enabled Ieyasu Tokugawa to open the Edo Shogunate. Or, you could find out about nearby restaurants [Sekigahara, 2016]. Useful information displayed on your smart phone with such an AR app will make your tour more intriguing.

4. *Mixed reality: A potential technology to promote tourism*

4.1 *What is mixed reality (MR)?*

We also have another amazing technology called mixed reality (MR). “Providing devices with the ability to perceive the world, breaking down the barriers between virtual and physical reality is what we call mixed reality” [Myerson, 2016]. That is, this technology enables you to do your job in a virtual world while wearing a VR device and using your own physical hands. There “you manipulate an object, working on the scanned 3D image of a real object” [Myerson, 2016]. You are also able to invite your colleagues or friends into your virtual world, though they join as “holographic representation” or an avatar, so that you can work together [Myerson, 2016]. In a virtual world, for example, you virtually design a new layout for a new flagship of your company or new product, by touching and moving “the scanned 3D image of a real object” with your physical hand and discussing together with your colleagues [Myerson, 2016].

4.2 *Mixed reality and tourism*

Considering the above, MR will become an exciting technology for tourism. I’d like to suggest one possibility. MR may enable tourists to enjoy chattering with historical characters, or participating in a historical scene as their favourite character. That is, tourists could enjoy interacting with virtual

objects and characters. As for its feasibility, we already have the technology to make holograms speak: a virtual idol Hatsune Miku,⁽⁹⁾ a hologram, has given her 3D live concert since 2009; and Michel Jackson, in hologram form, took the stage at the 2014 Billboard Music Awards five years after his death in 2009 [Gallo, 2014]. We also have another technology by which conversation between a human and a robot using computer-generated language has become possible. One example of such robots is Pepper, which is “the first humanoid robot capable of recognizing the principal human emotions and adapting his behavior to the mood of his interlocutor” (Softbank Robotics). Pepper is working as a sales staff not only in Japan but also in America [Heater, 2016]. In 2020, Pepper will act as an Olympic guide speaking three languages: Chinese, English and Japanese. All the advanced technological developments, especially AI development, indicate that conversation between a tourist and a holographic historical figure will be realized soon. If so, MR will surely expand the possibilities of tourism. This technology will fascinate people and become inevitable to tourism industry.

5. Conclusion

Considering that tourism has accounted for a large part of our life, the promotion of tourism surely enriches the quality of our life. From such perspective, a lot of strategies have been made and carried out so far. But focusing on technology used for tourism helps us realize that the ideas of locative art and locative installation described in *Spook Country* are no longer solely in the realm of scientific science fiction. Now VR and AR technologies have begun to be used to attract tourists to various locations around the world. MR will have great potential to fascinate them and urge them to visit various historical spots. VR, AR and MR will surely open a new world we've never experienced so far, and change the way of tourism.

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Notes

- ⁽¹⁾ You can watch the surprising and beautiful introduction section “*Tokyo 2020 Preview—Rio 2016 Closing Ceremony*” posted by Danielbond on YouTube on 5 Sept. 2016 by entering the title as a search term.
- ⁽²⁾ *The New York Times*, *Guardians* and other internationally respected media carried the performance.
- ⁽³⁾ Japan Tourism Agency. “Kanko Big Data wo Katsuyo shita Kanko Shinko/GPS wo Riyo-shita Kanko Kodo no Chosa Bunseki/Seisaku ni tsuite” [Tourism Promotion based on Big Data/Research Analysis of Travel Behavior with the Use of GPS Data/about Policy] posted on April 8, 2015.
- ⁽⁴⁾ For example, on Halloween, a lot of people from various countries get together in Tokyo to celebrate the holiday, because some of them say they come here due to photos and

comments posted on FB or Twitter, etc. They enjoy wearing their favorite costumes and communicating with others.

- ⁽⁵⁾ Japan Tourism Agency. “Ho-Nichi Ryoko Sokushin Jigyo” [Visit Japan Project]. *Japan Tourism Agency Ministry of Land, Infrastructure, Transport and Tourism*, posted on July 29, 2016.
- ⁽⁶⁾ William Gibson (1948-) is an American and Canadian writer, who is famous as a speculative and science fiction writer. He explored how technology, cybernetics, and computer networks exerted influence on human. He also coined the term “cyberspace,” which first appeared in his another novel, *Newromancer* (1986).
- ⁽⁷⁾ William Gibson, *Spook Country* (New York: Berkley, 2009. 81). All subsequent quotations from *White Noise* are cited parenthetically.
- ⁽⁸⁾ The concept of VR can be traced back to 1838, according to “History of Virtual Reality” on the site of the *Virtual Reality Society*. The term “virtual reality” was, however, coined by Jaron Lanier, founder of the visual programming lab (VPL) in 1987.
- ⁽⁹⁾ William Gibson also writes about such a hologram singing songs in his work, *Idoru* (1996). Interestingly the creator of Hatsune Miku read Gibson’s *Newromancer* and was greatly impressed.

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