Planning in the Digital Era: Films and Social Media as Information Sources for Tourism Planning

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Abstract. Films deliver subliminal promotion to audience about the visual appeal of a certain place. If the place looks picturesque enough and gives a memorable impression to the audience, it has a possibility to become the next tourism magnet. Tourists tend to take pictures as keepsakes and upload them on social media. The number of social media posts of a place can be utilized as a tool to measure and map people's interest. This process is a voluntary advertisement of the place done by community caused by the culture of content sharing in the digital era. This paper is going to elaborate the growth of Gereja Ayam (Chicken Church) in Magelang, Indonesia, as the place which were formerly insignificant and publicly unknown, but has been featured in an Indonesian film *Ada Apa dengan Cinta 2.* An analysis of the place's popularity is conducted using Google search trends, looking for related keyword search about places mentioned before. The number of Instagram posts using related hashtags is used to examine how many people have visited the place.

A literature review is also being carried out to find the correlation between the media exposure and the place branding, the analysis of place's popularity through social media, and how this can contribute as tools for urban and tourism planning.

1. Introduction to film-induced-tourism

Films, television series, or documentaries always use certain location as parts of the stories that show the place to public. According to Sellgren, films and television series have been widely recognised as being able to create representations of destinations all over the world. The audience can gaze upon places, people, stories and other depictions of attributes that a film is built up of from the TV sofa or cinema chair. After watching it, people have an urge to visit the same place as portrayed in the film. Sellgren on his research entitled *Film-induced Tourism: The Effect Films Have on Destination Image Formation, Motivation, and Travel Behaviour,* also said that through movies, TV Programs and Documentaries people can gain images of places they did not know anything about before. Still, from the same research above, this condition created film-induced-tourism.

> "Film-induced tourism is a phenomenon that is in the middle of those industries. The majority of films today are not produced with intent to lure people to visit certain destinations. However, in a sense can a destination in a film be seen as a form of product placement that consumers are ready to invest money in see and experience" [1]

People's motivation for traveling, especially for young adult group age, varies from gaining different experience in new places, fulfilling their adventurous side, to escaping the normal daily routine. Some travellers have a tendency to have new experience from a common place. Also, it is suggested that the factor behind seeking something unique and unexplored could be status/prestige [1]. Where can people find unique and unexplored places? We can see many unique and unexplored places from the films' locations. Films and TV dramas can give people the imagination of certain places

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because those products can show the place in detail, which is enough to give strong images before actual visitation to the places.

The phenomenon of the film-induced tourism has also created a group of people who are committed to the so-called film-induced-tourists. However, the tourists are not simply divided into general tourists, incidental film tourists and film-induced tourists. Sellgren divided the film-induced-tourists into two subgroups.

a) People who visit a specific or exact film location portrayed in a film (could be a restaurant, house, tree, cliff, or other attraction) as the tourists' goal can be referred as *dedicated (specific) film tourists.*
b) People whose the images of destination has mainly been influenced by movies or television programs are simply strong enough to induce a visit to a city, region, or country can be referred as *dedicated (general) film tourists.*

Another research by Macionis which was specifically conducted on film-induced tourist, specifically for divides tourists into 3 sub-groups [2]:

a) Specific Film Tourist: those who actively seek out places that they have seen in film.
b) General Film Tourist: those who are not specifically drawn to a film location but who participate in film tourism activities while at a destination,
c) Serendipitous Film Tourist: those who just happen to be in a destination portrayed in a film.

Increasing interest in film →

Serendipitous Film Tourist	General Film Tourist	Specific Film Tourist
• those who just happen to be in a destination portrayed in a film	• those who are not specifically drawn to a film location but who participate in film tourism activities while at a destination	• those who actively seek out places that they have seen in film
Motivations include: • social interaction • novelty	Motivations include: • novelty • education • nostalgia	Motivations include: • self-actualisation • pilgrimage • self-identity • fantasy • romance • nostalgia

Increasing self-actualisation motivations →

Figure 1. Film-induced tourist groups

In the case of film-induced tourism, people don't simply come to the film location after watching the film. The authenticity of the pre-visit images deprived from a certain film is what matters to tourists. As we know, sometimes films give stereotypes into the place (which sometimes are negative) or exaggerate the actual site for sake of good scenery on screen. From example, two French respondents from Sellgren's research explained that most French movies did not show the real Paris [1]. Actual visitation to the location is still needed to understand the actual condition. However, how can people be convinced enough to visit the film location despite the stereotype and exaggerated scenery?

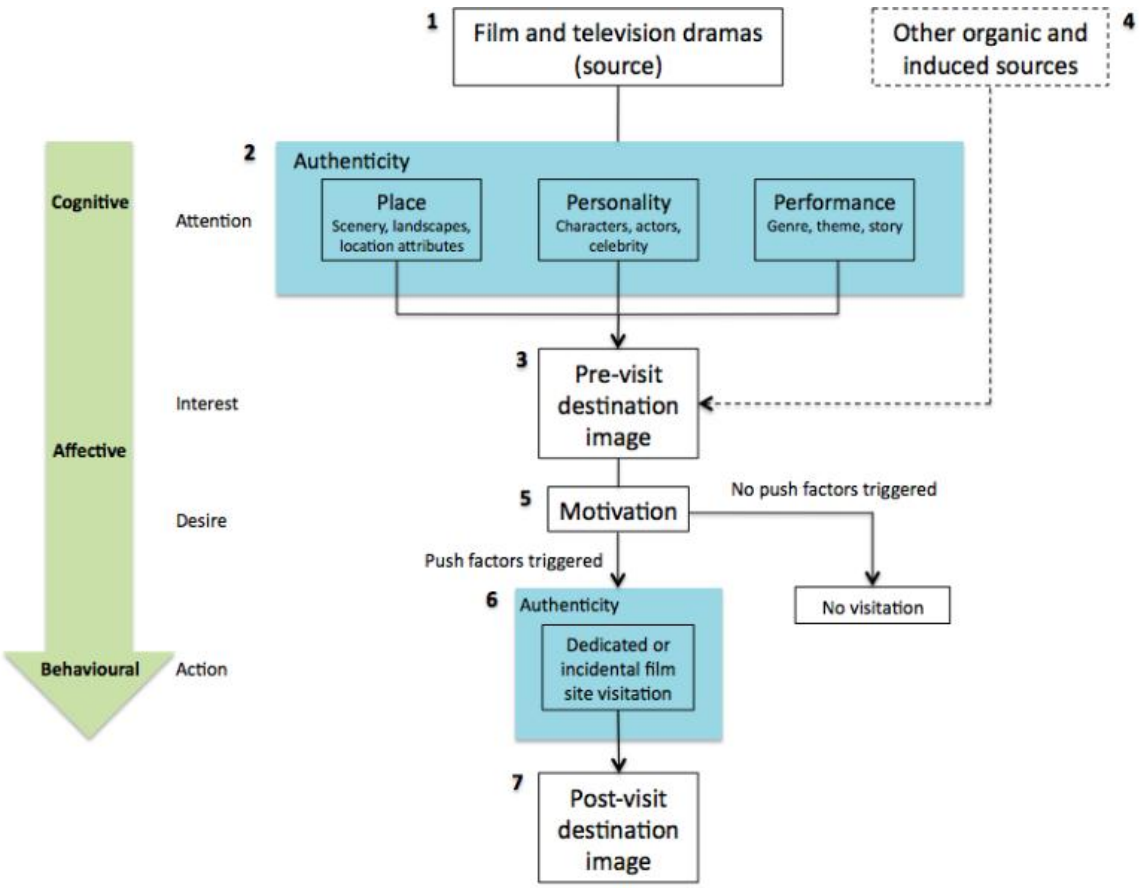


Figure 2. Film-induced Tourism Model [1].

We should be aware of the authentication of the film location because the film maker might exaggerate some points or degrade the actual condition. Also, not all people watch the movie so many tourists are not convinced enough to visit the new attraction. There is a tendency for status/prestige in the tourists' motivation to travel, so they will take some pictures from their destination as a keepsake and show them off to their families and close friends when they get together. Nevertheless, nowadays, tourists tend to upload and show off their traveling stories on social media. Uploading the pictures to social media means widely spreading the news about the places on the internet, whereby everyone can see it.

The number of social media posts of a place can be utilized as a tool to measure and map people's interest. Social networking might give a user the opportunity to exchange and share ideas with many people in real time [3]. Information and images from social media can be used as sources of travelling reference and thus, encourage the mobilization of tourists [4]. This process is a voluntary advertisement of the place done by community caused by the culture of content sharing in the digital era.

1.1. The role of social media as an information source

The development of internet in past decade has helped people create new ways to communicate with each other, and social media were born from that. The presence of ICTs, for example websites and social media, gives a lot of information about tourist destinations and their facilities such as places, properties, restaurants [5]. The social media also help us spread information in fast and easy ways. Thus, social media can be considered as a quite effective tool to spread information, including tourist information.

Planners also use new approaches as along with the growth of ICT. Moreover, the technology has become more reliable, especially related to data. Any kind of data can be conveniently used by planners if analyzed and used correctly; as quoted from an article written below [6],

> "There is just one problem: the world is literally drowning in data. To make use of all the information that people involuntarily produce, planners must improve how data is captured, analysed, and shared between the public and private sectors. If we succeed, some of the biggest obstacles that the world faces – from poverty to climate change – could become a bit more manageable."

Many city governments have now used real-time analytics to manage aspects of how a city functions and is regulated [7]. Those real-time analytics using big data are updated every second as a source of information. Citizens also use real-time information for their reference, such as using twitter trends to know what is happening in their city. Such data and the analysis offers the citizens insights into the city life, aid the everyday living and decision-making, and empower alternative visions for the city development [7]. The real-time data can also be used for searching new places to visit, so they can imagine the places they want to visit before actually coming to the place. Nowadays, data are everywhere and we call them as "Big Data" because the massive size of the available data. Big Data have the following characteristics [8]:

a) huge in volume, consisting of terabytes or petabytes of data;
b) high in velocity, being created in or near real time;
c) diverse in variety, being structured, semi-structured and unstructured in nature;
d) exhaustive in scope, striving to capture entire populations or systems (n = all);
e) fine-grained in resolution and uniquely indexical in identification;
f) relational in nature, containing common fields that enable the conjoining of different data sets, and
g) flexible, holding the traits of extensionality (can add new fields easily) and scale-ability (can expand in size rapidly).

Social Media are also a part of "Big Data". According to the classification of Big Data from UNECE Statistics Wikis page, Social Networks are categorized as a part of Big Data [9].

> "Social Networks (human-sourced information) this information is the record of human experiences, previously recorded in books and works of art, and later in photographs, audio and video. Human-sourced information is now almost entirely digitized and stored everywhere from personal computers to social networks. Data are loosely structured and often ungoverned."

Several Social Networks description mentioned are:

a) Social Networks: Facebook, Twitter, Tumblr etc.
b) Blogs and comments
c) Personal documents
d) Pictures: Instagram, Flickr, Picasa etc.
e) Videos: Youtube etc.
f) Internet searches
g) Mobile data content: text messages
h) User-generated maps
i) E-Mail

With the development of internet, people tend to use fast and easy-to-get data as the source of information when looking up about new places. People who want to visit new places also look for online reviews as references. The characteristic of online reviews written by other users do not only potentially increase or decrease the tourist visits, but also raise consumers' expectations to the tourist destinations [10]. Nowadays, online reviews are not only written on blogs or websites, but also on social media platform, where users can generate contents, for example on Twitter and Instagram.

Twitter is known as an open social networking that can be categorized as a microblogging platform, whereby users can post short descriptions, news or conversation followed by videos, images or audios. One important element of twitter is hashtag (#). Twitter users can use hashtag to mark the topics of their posts so people can easily use them to search similar conversations or certain topics. One of twitter's features is the ability to see the real time trending hashtags. A hashtag can become a trend if

many users use the similar tag. Hence, it is easy to looking for tourism information specifically on twitter.

Another popular social media platform is Instagram. Instagram is an internet-based photo album. People can easily share their photos with other users. If Twitter focuses on conversation and microblogging, Instagram focuses on sharing photos and videos. Instagram also uses hashtags to mark the mood, location, etc. Nowadays, Instagram has become a platform for self-promoting as Instagram's value rocketed into marketing place. Instagram is present as a medium that has a lot of personal facilities that allow users to upload what they see in tourism sites which they consider attractive to share (Fatanti and Suyadnya, 2015).

Both Twitter and Instagram can give clues to see how a tourist attraction is growing through recognizing the number of posts about the place. Nevertheless, it has some limitations, particularly from posts that is set private by the uploaders (only selected people can view).

1.2. The correlation between film-induced-tourism and planning

Film-induced tourism might also maintain the image of the places because there might be gaps between the image built by the film makers and the actual image of the places; in other words, the gaps between the authenticity of the location and the tourists' expectation. These gaps may be perceived or actual gaps that need development to be filled [11].

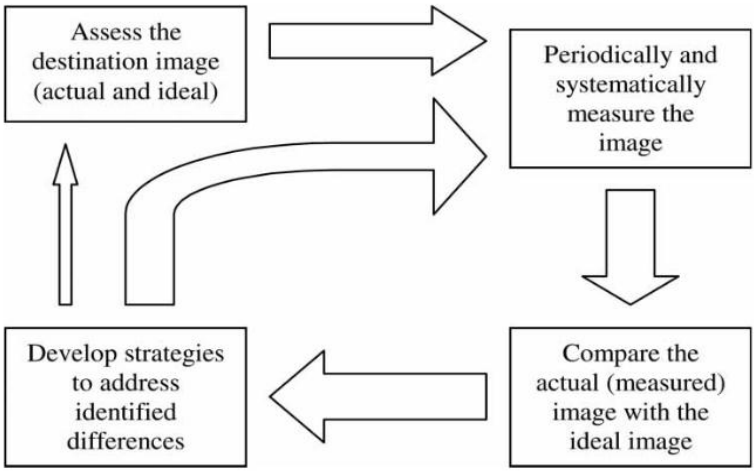


Figure 3. Image management process [11]

According to figure 3, the image management process needs to go through the assessment of the destination's image (between actual image and ideal), and then it is necessary to maintain the image by periodically and systematically measuring the image. The next step is to compare the actual (measured) image with the ideal image, and after getting the result, strategies to address identified difference should be developed. One of the example of the complex large-building's role is the promotion of Tourism in New Zealand and film entitled The Lord of The Rings [11].

2. How 'Ada Apa Dengan Cinta 2' introduces Gereja Ayam as a tourist attraction

Ada Apa dengan Cinta is an Indonesian teenage romance feature film. It was released in 2002 and received a lot of praises. Released on 28 April 2016, the sequel entitled *Ada Apa dengan Cinta 2* told how the two protagonists reunited after being separated for 14 years. This movie was a big hit with 3,626,929 viewers at the end of May 2016 affected by the long wait from the fans for the continuation of the story [12]. *Ada Apa Dengan Cinta 2* had a beautiful cinematography and the places used in this movie were not places that had been commonly visited by people in general. When the audience watch this movie, the protagonists seemed like inviting the audience to explore new places in Yogyakarta

with them. The effect of *Ada Apa dengan Cinta 2* was unexpected, this film has made all the places visited by the two protagonists become hot topics on social media.

Unlike the prequel which depicted Jakarta's high school life, the sequel took place in Yogyakarta and Magelang (Central Java). Hence, the film's scenes highlighted a number of tourism sites in both provinces. One of them is Gereja Ayam. Gereja Ayam (translated: Chicken Church) is located in Magelang Regency, Central Java Province, Indonesia. The facade of Gereja Ayam is intended to be a dove. However, it is commonly mistaken as chicken and influences people to name the building ayam (chicken). Although it is a church, it is not regularly used by Christians. The building of Gereja Ayam and Bukit Rhema Hill are located in the vicinity of Punthuk Setumbu Hill, which is also a tourist attraction. People often come to Punthuk Setumbu Hill to witness the scenery of Borobudur Temple during sunset or sunrise from afar.

In the *Ada Apa dengan Cinta 2*, Gereja Ayam has left a meaningful memory because it is the place where the film's two protagonists watched sunrise together. For the audience, the scene in Gereja Ayam is quite emotional, romantic. Moreover, it is also supported by the beautiful scenery and the unique architecture of the building. These emotional and aesthetical sides are being offered by Gereja Ayam as a new tourist attraction, which offers reminiscence of the film's scene for its visitors.

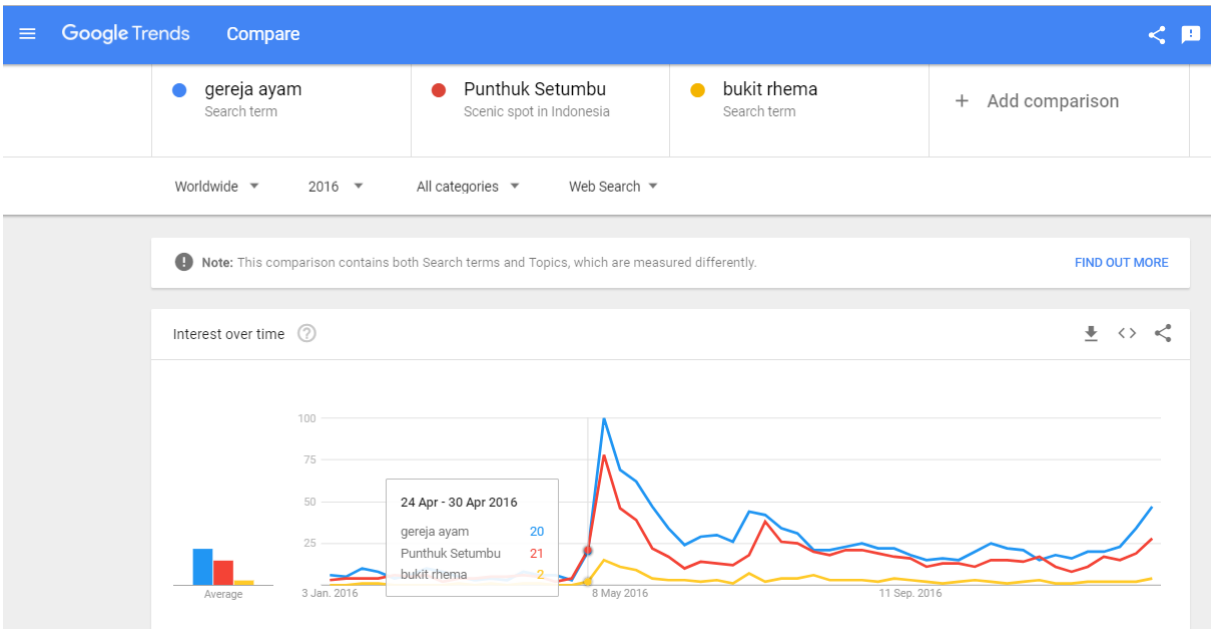
3. Using social media mata as information for planners: the case of Dove Church

This part will explain the example of how planners can be informed about Film-Induced tourism by using data from internet and social media. It will be measured from:

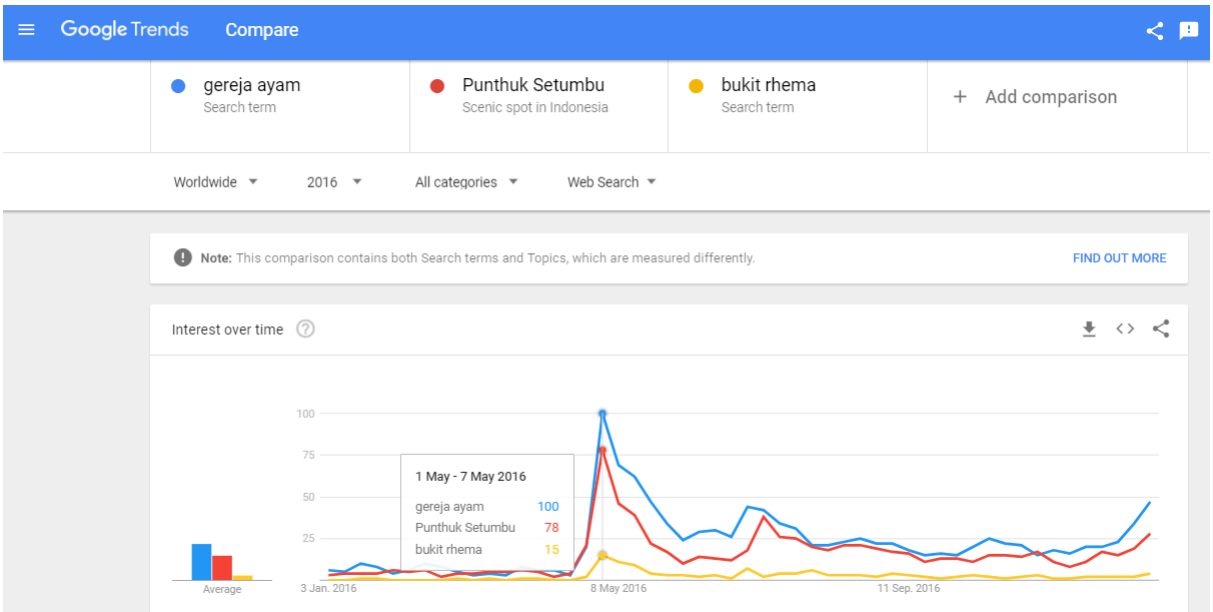
a) the number of keywords used in Google
b) the number of Instagram posts with related hashtags

3.1. Google Search

Google records the number of searches done by using certain keywords and provides the graphic to show trends by time. From it, this study can compare people's interest in the places before and after the film's release date. The keywords compared are 1) gereja ayam; 2) punthuk setumbu, and; 3) bukit rhema.



Week 17 (24– 30 April 2016)



Week 18 (1– 7 May 2016)

Figure 4. The number of google searches using related keywords in 2016
Source: Google Trends, 2018

On week 18 of year 2016, the number of searches for all keywords boosted into 100. Whilst the rise itself began from week 17, when the film was firstly released, the number on week 18 or one week after the release shows the peak of public enthusiasm and curiosity towards Gereja Ayam, Punthuk Setumbu, and Bukit Rhema.

Before *Ada Apa dengan Cinta* 2 was released on 28 April 2016, the number of searches for all keywords were no higher than 10. This means the film had succeeded to trigger people's curiosity for the places since they had been featured in the film. In the process of searching for webpages using the

keyword 'gereja ayam' and finding articles, blog, or news about it, Google users will be introduced to new related keywords, 'punthuk setumbu' and 'bukit rhema' since both of them are also situated in the place where Gereja Ayam is located.

From week 21 afterwards, the number of searches declined drastically. However, the average of searches remains higher compared to prior the film's release date. Even though it is uncertain if the Google users who look for those keywords are curious with Gereja Ayam because they watch *Ada Apa dengan Cinta 2*, Gereja Ayam, Punthuk Setumbu, and Bukit Rhema have already become popular and been established as tourism spots among internet and social media users.

3.2. Instagram Posts

Unlike Google, there is no free feature on Instagram which allow the users to view the timely trends for posts uploaded using certain hashtags. Nevertheless, we can be informed about how many posts are uploaded until the recent time. The table below shows the number of hashtags related to Gereja Ayam, Punthuk Setumbu, and Bukit Rhema with various style. The data retrieved per 14 January 2018, 18.25 PM.

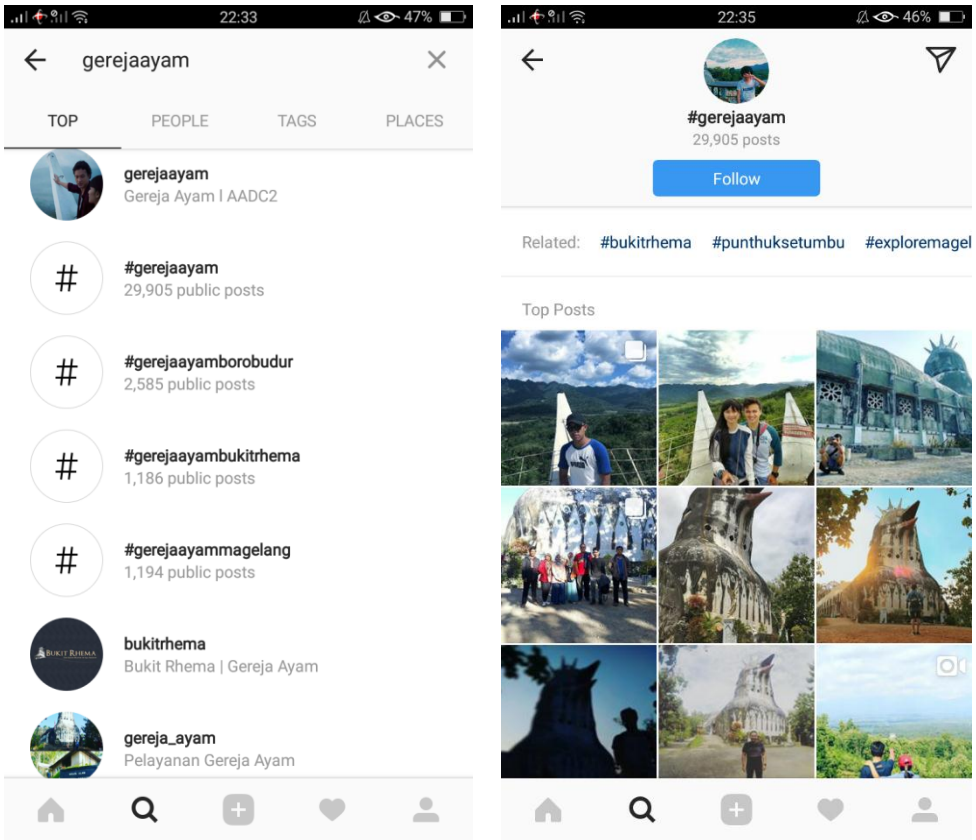


Figure 5. Looking for Instagram hashtags

When we search for the hashtag, all related hashtags and people/ accounts are displayed on the screen. We can also look for related posts to the hashtag, Instagram will display pictures related to what we look for. It is very convenient for people who want to look the real pictures of the place they want to visit and look for particular spots to visit through Instagram posts. We also try to count how much posts under the related hashtag and try several combinations since there is no specific rule and condition regarding how people type the hashtags on the social media.

Table 1. Instagram hashtag counts for various hashtags on 14 January 2018

Gereja Ayam		Punthuk Setumbu		Bukit Rhema	
Keywords	**Number of Posts**	**Keywords**	**Number of Posts**	**Keywords**	**Number of Posts**
gerejaayam	29.905	Punthuksetumbu	6.651	Bukitrhema	17.106
gereja_ayam	131	punthuk_setumbu	25	bukit_rhema	50
gerejaayamaadc	2			Bukitrhemamagelang	2.104
gerejaayamaadc2	8			Bukitrhemagerejaayam	409
gerejaayamborobudur	2.585				
gerejaayambukitrhema	1.186				
Gerejaayammagelang	1.194				

4. How planners can take advantages from the social media data

Social media are within our grasp. Through smartphones, we can be updated about what is happening around us, nationwide and worldwide. This especially applies for news about places and tourism spots. Today, social media are platforms for people not only to share their interests and daily lives, but also to look for detailed information regarding certain places, especially the popular ones. This is due to the fact that people do not only give descriptions about what they post, but they also post series of photos of a place from different angles. Social media can give much information if we use it correctly. Just use the search bar and type name of the place or related hashtags, and we can get much information. We can also use our social media feed to know latest information. For example, when a film induces a tourism activity, people are notified through the news or their social media feed.

Social media and Google Trends actually provide the number of posts or searches which reflects how a tourism site can grow. In the case of Film-induced tourism, planners can monitor the development of tourism and urban planning through quantitative and qualitative data provided freely on those social media services. Although not everyone who visit the place posted on social media, at least planners can predict the big picture about how the tourism is developing in an area.

Assuming that the popularity of a tourism spot is linear to the number of visits, planners should be aware of externalities caused by the increasing number of visitors, such as the growth of commercial area, traffic problems, or environmental issues. Through analyzing the popularity of a place in Google and social media, urban planners can predict possible activities that might happen in a potential tourism attraction, as well as anticipate the possible impacts towards the zoning, traffic, infrastructure development planning, and people activities. Conflict analysis between various stakeholders could also be predicted by looking at the possibilities if the tourism is developing on that site. With proper planning, the popularity of those places would not just be a temporary trend, but it can be maintained as tourism attraction for a long term.

5. Conclusions

Social Media data as parts of big data, can be utilized for planning. Nowadays, big data are used to support decision making processes. Social media data also can be challenging to use since the data are sometimes too big and unrelated. Hence, planners need to filter the information needed before using it for analysis and processing it statistically. We cannot rely to traditional sources of data or small data since currently the information is updated very fast through the internet.

Related to the tourism planning, quantitative and qualitative information from social media and Google trends could be the first step to notify the growth of tourism site. Since the information is accessible from smartphones, planners can attain the awareness of a growing tourism site in new and undiscovered places or old places, which get attention lately because of certain events.

The limitation to this research is not all tools for social media analysis can be accessed freely. In order to have a full access of the data, users need to buy third party service for analytical results (for example showing trend), except for Google Trends which can be accessed freely and easy to use (they give us data and trends).

It has been a long time since films have allegedly increased the number of tourists when certain places are used as parts of the story, especially if the films that become box office. However, planners should note that not all films can trigger film-induced tourism. We must firstly look at the trend from the post-release of a film to know the influence on tourism. Mostly filming locations that have become film-induced tourism are iconic filming location and have strong emotional connection with the viewers. It is a planner task to make the iconic locations become long-term tourist attractions, instead of just a temporary phenomenon due to the influence of the film.

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