

THE EVALUATIVE IMAGE OF THE CITY THROUGH THE LENS OF SOCIAL MEDIA: CASE STUDY OF MELBOURNE CBD

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Abstract. The ubiquitous of smartphones and access to social media provide a new way of interacting with urban environments. The archived and shared images on social media not only indicate users' interest but also they embody what users want to remember from a city. To investigate the evaluative image of a city through published images, Melbourne CBD has been selected as a case study. An in-depth survey of 460 geotagged photos from CBD in Flickr, 500px and Instagram (during 2014), provides an opportunity for city planners and urban designers to transform the image of a city to be more likeable, meaningful.

Keywords: city image, evaluative image, social media, Melbourne, CBD.

Introduction

Today, the social media phenomena may reframe our understanding and experience of a city by opening up more participatory ways of interacting with them. The ubiquitous, affordable smartphones, cameras and the ease of access to free and available social media provide a new way of interacting with urban environments and may affect the perception towards a city. The digital photography provides an opportunity for a proliferation of photos taken from different sites and for selecting, archiving and sharing these imageries with others. The images that people archive and share not only indicate their interest about a particular perspective of a site but also they embody what the photographer wants to remember from that site in future.

Although research on social media is well established in some disciplines such as IT and Computer Science, it has hardly been utilised in the built environment research. Considering the growth of social media usage, it is likely that these new technologies can affect the representation and production of urban design and architecture. Therefore, there is a need for conducting careful studies on the aptitudes of social media research in the assessment and evaluation of urban sites.

Architects and urban designers as the experts who are responsible for the appearance and qualities of urban environments can benefit from understanding how social media users evaluate and represent the cityscape through their published images. This study has been informed by Nassar's

theory of the evaluative image of cities, which established in the 1990s. Building on his theory, a new methodology has been developed to investigate the image of a city published in social media. This methodology will outline useful snapshots of the perceived quality of the prominent elements of the city, which in addition to other types of data can be employed by designers and decision makers to inform urban renewal or urban interventions. This method of data collection provides an opportunity to access large datasets and make speculation about how the city is perceived. This methodology can be complemented by interviews, surveys and observations to help professionals in design of and interventions in urban environments.

The goal of this article is to discuss the potential of location-based social media systems as a source of large-scale participatory sensing, from which valuable knowledge about the city dynamic and urban social behaviour can be drawn.

The CBD of Melbourne, which is packed with several monumental buildings of different types has been selected as a case study. An in-depth survey analysis of more than 460 photos that have been published over a year time (2014) on three social media websites (Flickr, 500px and Instagram), with geotags in the Melbourne city centre, has been used as a research method for this study.

This article argues that location-based social media platforms can act as valuable sources of large-scale sensing, providing an access to perceptions of urban environments. Questions that this paper seeks to answer are: How

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can media sharing software inform us about users' experiences of living in or visiting the city? How people's perceptions and their evaluative image of the city can be traced? What can visual content in social media tell us about the lives of cities, neighbourhoods, and individuals?

To answer the above-mentioned questions, the first part of the study is dedicated to a literature review. To investigate the image of a city through the lens of social media, three components of the conceptual system of city interpretation has been studied: (1) the concept of the cityscape (perception), (2) city image (cognition) and (3) city evaluative image (evaluation) in social media.

The second part of this study which is dedicated to the data analysis occurs in two stages. Firstly, the CBD will be investigated regarding the number of photos that have been geotagged and published on the selected websites. The number of images may represent the way visitors (that might be tourists, citizens, spaces users) interpret, remember and celebrate these sites. Additionally, mapping the location of the published photos in the city centre produces a virtual map of the city image. This map represents the way the city has been perceived and at the same time specifies the neglected sites that are missing. The missing spots themselves tell a story of oblivion, a story of how the city spaces might be highlighted or devalued through the social media and the lenses of everyday photographers.

In the second stage, images have been codified in almost 20 categories based on the built environment qualities, which may represent the image of a city.

1. Literature review

The literature review firstly discusses the cityscape and its definition based on the literature of the built environment. Afterwards, this paper will explore how the three terms, of cityscape, city image and city evaluate image can be compared and related to each other and also can be employed as a method of analysis. The final section will discuss the importance of social media research in the field of built environment.

1.1. Cityscape

In the Oxford dictionary (OED, 2016), the cityscape is defined as the visual appearance of a city or urban area, a city landscape and also a picture of a city. Plugging the word cityscape in Google search engine will generate more than 26,700,000 hits. The review of search results and also the limited existing literature suggest that the concept of cityscape has originally rooted in visual arts and paintings as an artistic representation of the city. According to Soja, by entering into the urban design realm, the concept of cityscape has been used as a reference to the configuration of built forms, which "expresses an awareness of the spatial specificity of urbanism" (Soja, 2000).

The phrase that has been offered by Jane Jacobs to describe the importance of a street can be counted as the most concise and accurate definition for the cityscape.

"Think of a city and what comes to mind? It's streets. If a city's streets look interesting, the city looks interesting; if they look dull, the city looks dull" (Jacobs, 1961, p. 29).

Soja believes that cityscape is not only evocations of panoramic visibility as an urban equivalent of a landscape, but it also opens new directions that clearly embed the interpretation of cityscape in the wider framework of critical spatial thinking and analysis (Soja, in book's forward Lindner, 2006). In another word, by considering the city as a text, the cityscape provides a contact surface between human and the phenomenon of the city and will allow us to read and interpret the city (Golkar, 2011). Golkar (2011) believes that based on the scape of city relation to the urban environment and impact on human behaviour, the scape of a city is a combination of three components: (1) Cityscape, (2) City image, and (3) City evaluative-image (Figure 1).

In this sense, in the first phase (perception), the cityscape is interpreted by visitors; in the second phase (cognition), the familiarity and knowledge of viewers about the scene provides a creation of city image in their mind; then in an evaluative phase, the analysis process of cityscape-image will be started in the viewers' mind that creates an evaluative-image of the city. The ultimate result of this triple phase process may affect the viewers' behaviour and interpretation of the urban environment (Figure 2).

To understand this relationship between posted photographs from cityscape in social media and the creation of city image in users' mind, there is a need to define and discuss the two other components of the conceptual system of city interpretation: the concept of city image and city evaluative image.

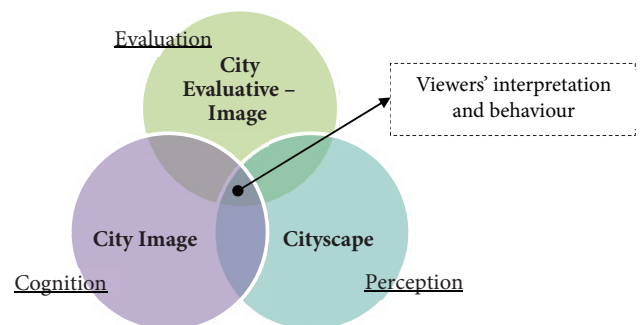


Figure 1. The conceptual system of city interpretation. The model has been modified by authors (source: Golkar, 2011)

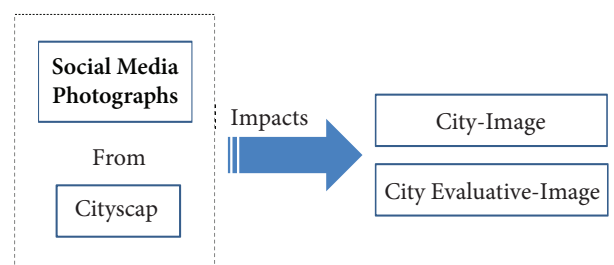


Figure 2. The framework of this study (source: authors)

1.2. The city image and evaluative image

According to Avraham (2004), the urban image is “a set of adjectival interpretations about a city spontaneously associated with a given stimulus (physical and social) that has previously unleashed in individuals a series of associations.” City residents or visitors form the city image via association chains or networks that are built up over a period of time, as a result of the stimuli aggregated.

Lynch’s (1960) pioneer study shows that the formation of city image is the result of a two-sided process led by people and their environment. Thus, the city image is a collective mental representation shared by a great number of city inhabitants; it forms a common ground due to the inter-relation of a unique physical reality, a common culture and basic physiological nature (Luque-Martínez, Del Barrio-García, Ibáñez-Zapata, & Rodríguez Molina, 2007). Lynch has also found that people perceive a city mainly as a built image. In fact, the mental maps of the residents that he interviewed were made up of five distinct elements in the built environment: paths, edges, districts, nodes and landmarks. Individuals form their personal image of the city through relating different dimensions, which are interrelated and non-static. The accumulation of individual images gives us an insight into the public image and its dimensions. According to Healey (2002), reading a city as a potentially integrating resource may result in the creation of a city image that is a collective integrating resource.

However, in the process of generating or transforming an image, both physical actions (such as reforming or building emblematic buildings, designing new urban areas and providing or optimising the road network) and social actions can be equally important. Thus, Luque-Martínez et al. (2007) argue that the character of cities, people and their social, economic or cultural relations should be added to the five elements of Lynch’s city image.

Lynch’s study of city image gave rise to a line of research with many followers analysing the image of the city by using evaluative maps. Lynch sought inhabitants’ consensus on the elements that enrich the identity and structure of a city or in other terms its imageability. However, Nasar (1990) has argued that imageability is not sufficient for planning city appearance. People have feelings, both negative and positive, about their environment and surroundings. City images are communicable and projectable that may instil affection, feelings or sensations. In fact, evaluation is central to our perception of and response to the environment

Research has shown environmental evaluation to be more measurable and less idiosyncratic than Lynch had thought (Nasar, 1990). Kotler, Haidner, and Rein (1993) argue that a city image can be positive, attractive, negative, weak (as in the case of peripheral locations that are not well known), mixed (when the image includes both positive and negative elements), or contradictory (when the city has a favourable image among a certain population and a negative image among another population).

Evaluation and imageability interact; people will remember places about which they have strong feelings or are attached to, and they are more likely to have feelings about the imageable parts of the city. “Evaluative reactions heighten imageability, and imageability intensifies evaluations” (Nasar, 1990).

1.3. Social media

Over the last few years, the Internet has fundamentally shifted towards user-driven technologies such as social networks and video-sharing platforms. These social technologies have enabled a revolution in user generated content, global community and the publishing of consumer’s opinion. The ubiquitous availability of computing technology such as smartphones, tablets, and other easily portable devices, and the worldwide adoption of social networking sites make it increasingly possible for one to be connected and continuously contribute to this immensely distributed data publishing process. These sites are the tip of a redefinition of how the internet works, with every site now combining the features that allow users to publish opinions, connect, build community, or produce and share content (Smith, 2009).

In this scenario of social networking, people as social sensors voluntarily provide data from their daily life experiences by offering diverse observations on both the physical and the online world. In this sense, as opinions are published, a trail of data is left. The increasing volume of location-annotated data from various social media platforms like Twitter, Instagram and Flickr, provides an opportunity to have an immediate access to people’s daily documentation of local activities, interests and attention and even it will allow us to investigate the image of a city and perception of a city in people’s mind.

Although there will be an increasing need to put research behind this data to understand the patterns and reasoning behind the fabrication of data, they are of great value as they grow from real and shared experiences, representing the point of view of the community. Access to such a large amount of social data may provide new forms of valuable information that are currently not available on this scale via any traditional data collection methods that can be used to enhance decision-making processes.

Amongst different types of data, images are taking an increasing role in the massive growth of social media data (Hochman & Manovich, 2013). Visual social networks such as Instagram, Flickr, and 500px, offer large collections of geotagged photos that open new opportunities for the study of cities socio-cultural phenomena.

2. Method

The analysis of visual images originally has been developed for written and spoken texts interpretation. However, following the content analysis rules and steps allows us to analyse the images as well as texts (Rose, 2001). This method is based on counting the frequency of certain

visual elements in a clearly defined sample of images and then analysing those frequencies.

The methodology of this research is an in-depth survey analysis of published images in social media (Krippendorff, 2013). This methodology can provide us with an opportunity to investigate the image of Melbourne CBD from the patterns of published imageries. Therefore, the study aims to investigate the image of CBD in existing published images in social media. To achieve replicable and valid results from image analysis, four steps of content analysis have been used as a method to facilitate this study: (1) finding images, (2) categorising images, (3) coding, and (4) analysis.

In a first step, different social media domains were examined for finding the best potential sources. Our interest was, and is, to investigate the impact of images published publicly in social media on the formation of the city image (Melbourne CBD) for social media users, visitors and residents. Therefore, our research question is “How the CBD of Melbourne has been pictured through photography in social media?”

To explore the image of Melbourne CBD through published photos, the place that those pictures have been photographed will allow us to investigate any possible pattern in the selection of photography objects. Therefore, besides the popularity of websites for posting and sharing photos, having a geotag option plays a decisive role in the selection of social media platforms. Accordingly, three popular social media domain of Flickr, Instagram and 500px have been selected as applicable sources of geo-tagged images. Despite the differences in offering services, all these three websites are popular between users for sharing images. Flickr and 500px are mostly an image hosting platform, which has been seen as a place to find inspiration and connect photographers with one another. Instagram provides an opportunity to share photos on a variety of social networking platforms such as Flickr¹.

In order to apply this methodology, the CBD of Melbourne has been selected and a time period has been employed. All pictures within the area of Melbourne CBD published in Flickr, Instagram and 500px along 2014 have been downloaded and coded based on their location and content. The research question is concerned with the built environment qualities of the city. All irrelevant images to the research question (e.g. personal images) have been excluded from our database and coding, despite those personal photos, which were focused on the built environment.

The coding was conducted in two steps. In the preliminary step, all photos were coded based on the downloaded location from the map that provided the opportunity to create a map of Melbourne CBD based on the published photos on social media. In a second step, photos were coded based on a theoretical and empirical understanding of the environment. Therefore, photos have been categorised based on their environmental and physical qualities of space rather than their location (the first step). Finally, images were codified in two major categories of exterior and interior images and again they were codified in 15 categories base on their relation to our research question. The final codified categories are: (1) Cityscape, (2) public transport, (3) cultural symbols, (4) Sense of enclosure, (5) street-life, (6) events, (7) detail, (8) Greenery, (9) street-lane, (10) café, (11) river and landscape, and (12) city architecture which contains: (13) contemporary architecture, (14) heritage and (15) towers.

2.1. Case study: Melbourne CBD

Melbourne, the capital of Victoria, is one of the biggest cities in Australia. From 1850, the city has been transformed into a world city, which now is the home to nearly 4 million people (Lucas, 2015). It is also known as one of the world's most multi-cultural cities hosting numerous international as well as national events. In the past five years, Melbourne has occupied the first place amongst 140 cities around the world as a most liveable city in *The Economist's* liveability rankings (Lucas, 2015). Having the high quality of life grows the attention of many people around the world to this city as a great place for living. Moreover, in UNESCO “creative cities network” Melbourne has been designated a “City of Literature” (UNESCO, 2011).

Although the growing wave of Modernism and Internationalism urban renewal after 1956 Olympic Games, destroyed much of the early Melbourne architectural character, the architectural fabric of the city has been restored again through the postmodern architecture movement of the 1990s. The CBD of Melbourne with its unique uniform grid pattern is the Central business district of the city, which was established in 1835 (Melbourne.City.Council, 1997). It is the core central activities and business district of Greater Melbourne's metropolitan area, which is renowned for containing both valuable contemporary and Victorian architecture, Parks and public areas.

3. Analysis and discussion

From posted images in three social media websites (Flickr, Instagram and 500px) with a geotag in Melbourne CBD in the year 2014, slightly less than 500 images were downloaded from the current location web app. In this process, personal and unrelated photos were eliminated and the number of the screened photos selected for this study is 460. It should be mentioned that the use of the term “city image” in this study refers to the CBD of Melbourne, not the whole city. The imageries have been analysed in two stages:

¹ To download the social media photos, Current Location Website (<http://current-location.com/>) has been used as a dataset. Current Location is a web app that makes it possible to view geo tagged pictures made with Instagram, Flickr and 500px based on the position anywhere in the world at the same time. Current-location uses a process named geolocation to identify position. A circle of 1500 km have been assigned approximately in the centre of Melbourne to cover all the photos in this area. After this step, we have downloaded the photos manually and coded them based on their location on the map.

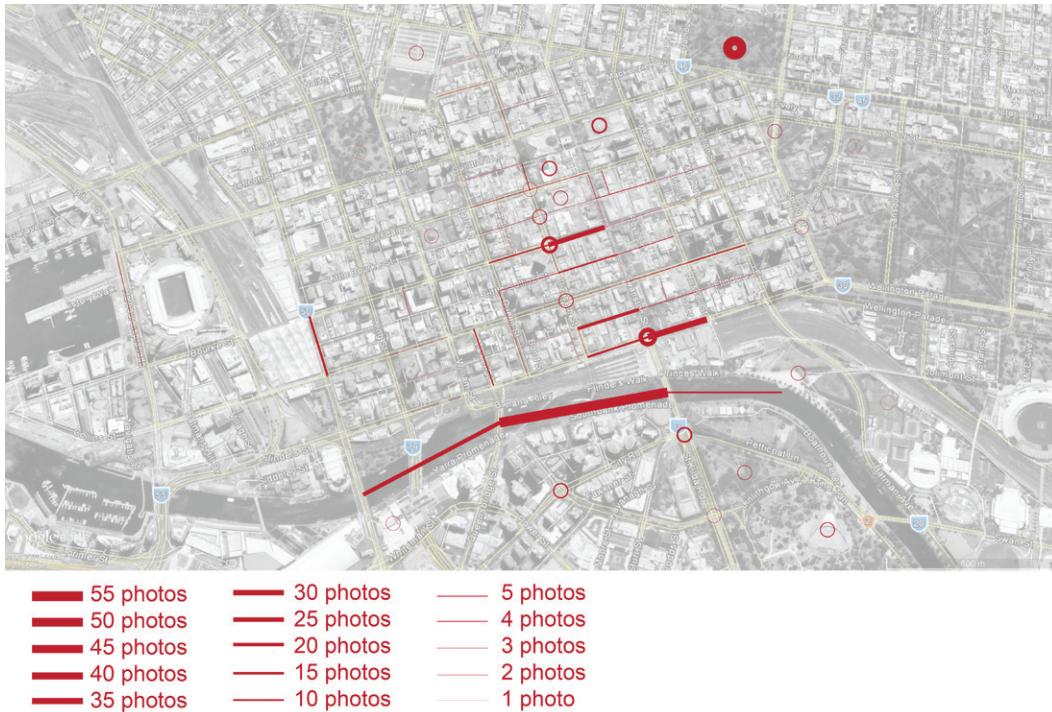


Figure 3. The evaluative map of posted images in social media with geotags in CBD of Melbourne

In the first stage, an evaluative map has been developed. As it can be seen in Figure 3 the circles on the map show the intersections or nodes of interest which have been a subject of photography. Moreover, the lines represent a different section of streets (blocks). The thickness of the lines shows the number of photos published online from the location.

Other than representing the most photographed sites, this map also illustrates the oblivion and unnoticed areas of CBD. In another word, as much as it illustrates that Royal Exhibition Building, Yarra River, Flinders Street and Bourke Street have been the most noticed points of the CBD, it also stresses the under-valued spots, streets and open spaces of Melbourne CBD. It should be mentioned that despite the beauty and historical architecture of Royal Exhibition Building, which has been nominated as one of the most attractive points of interest, the majority of images were focused on cars which were exhibited in this building (Figure 4). Therefore, it might be argued that sometimes events become more highlighted than the architecture of a city. Or rather the architecture heritage of a city can be highlighted through events and festivals.

The other interesting visualisation in this map is the emergence of the five elements of Lynch's city image (Lynch, 1960). While the circles represent nodes (such as Flinders Square intersection) and landmarks (such as State Library or Royal Exhibition Building), the lines show paths as the streets. The lines also indicate the river as an edge in the southern part of the CBD. There is also an invisible district (showed by dashed lines), representing the part of the CBD which has received the most attention in published images in social media.

But how can a map like Figure 3 inform urban design and intervention? Drawing on popular and unpopular sites through the lens of social media users, some question will be generated. For instance why the North-South streets are not as popular as East-West Streets? Or what are the physical qualities of Streets with the highest number of photos? Are the streets with the highest number of photos the busiest streets in the CBD? Flinders Street and Southern Cross are two major stations within the city centre. What makes Flinders Street so much more popular? These are a few of the question that are generated by look-



Figure 4. Sample of posted images which were geotagged to Royal Exhibition Building

ing at the social media imagery mappings. These question can be answered by complementary methodologies such as observations and interviews and inform decision makers for future urban renewal or interventions.

In the second instance, downloaded images have been codified based on certain built environment characteristics that might contribute to the representation of city or an evaluative image of the city in social media. The first distinct category is the category of interior photos versus those taken from outdoors spaces. The analysis shows that social media users and photographers have mostly registered the CBD as an outdoor looking city through the lens of social media, with less than 10% of photos taken from interior spaces. In this sense, the photos taken from exterior overshadow interior spaces of Melbourne CBD. Comparing the representation of Melbourne CBD in social media with the one actually being lived by local residents reveals a great level of similarity in portraying Melbourne as an outdoor looking city, which is also in line with the marketing image of Melbourne.

It would be interesting to examine and compare other cities in terms of their interior and exterior representation in the social media or residents' image of the city to evaluate how cities might get an interior and exterior outlook. As an example, the introverted architecture and urbanism of middle eastern historical cities such as Yazd (Nazemi, 2014), may change this trend and possibly register an image more towards the interior, while modern cities image-ries possibly tend toward outdoor spaces. Also it would be interesting to compare the similarities and contrast between the image of a city in social media and its image in the real life.

The other notable classification is dedicated to photos taken from details, textures and close shots from specific objects versus the more general wide shots. With only 17% of the whole pictures taken from details via close shots (versus 83% from wide shots), the findings suggest

that social media users and photographers are more interested in the overview and the general imageries in the city rather than detailed architectural or design works. In 2014, the close shots from details were usually taken from ceilings, facades, textures and furniture with distinguished design showcasing the architecture (Figure 5). This finding generates some questions that can inform design and architecture of the city: Is CBD of Melbourne lacking in details and textures or why are close shots so considerably unpopular? How can more details and textures be added to the urban design and architecture? Are there cities that are more popular in their details and textures? What can be learned from those cities?

It should be noted that 16% of all photos were taken from the cityscape demonstrating the skyline and representing the city from a wide perspective. Therefore, while 17% of the photos have been dedicated to close shots and details, and 16% have been assigned to cityscape from a wide perspective, the rest of the photos (67%) captures the city from a medium scope and average perspective.

In searching for the city image in city dwellers and visitors' perception, the place of different elements and components of CBD in the creation of this image is an important concern. As mentioned before, more than 90% of images have been taken from exterior spaces. These images can be codified in different subcategories (Figure 6). Interestingly, 39% of the photos are focusing on the city architecture (heritage buildings, modern buildings and towers), while 33% demonstrates the street life, festivals and cafes (Events and festivals have played a contributing role with 22% of the photos). Only about 28% of images have been allocated to the rest (public spaces, graffiti, urban furniture, greenery and etc.).

Therefore, as the analysis results show, the image of the Melbourne CBD in social media has been mostly represented by the city architecture and city life; rather than its natural and green environments.

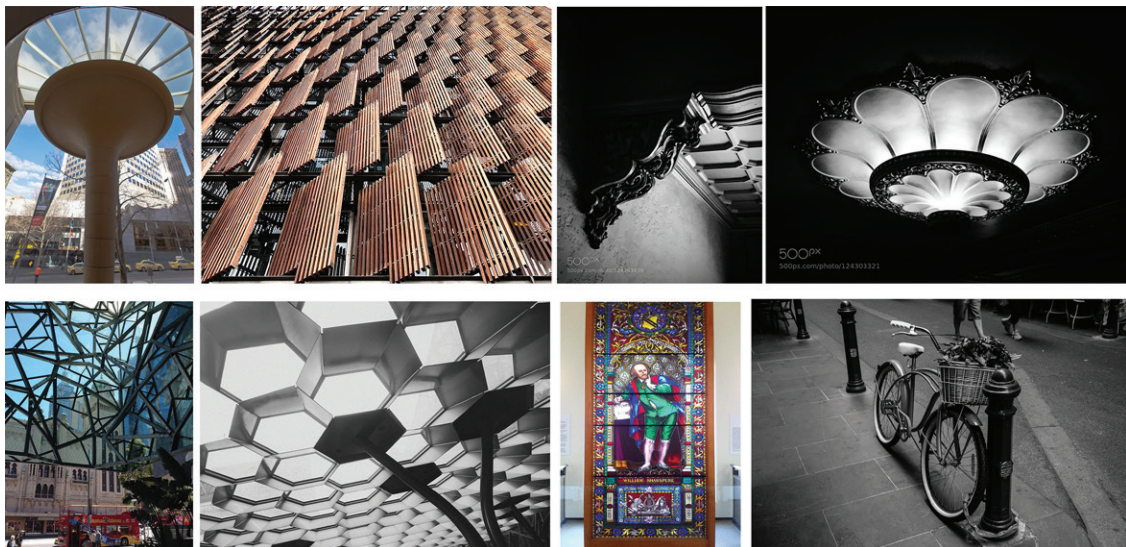


Figure 5. Sample of posted images from detail category

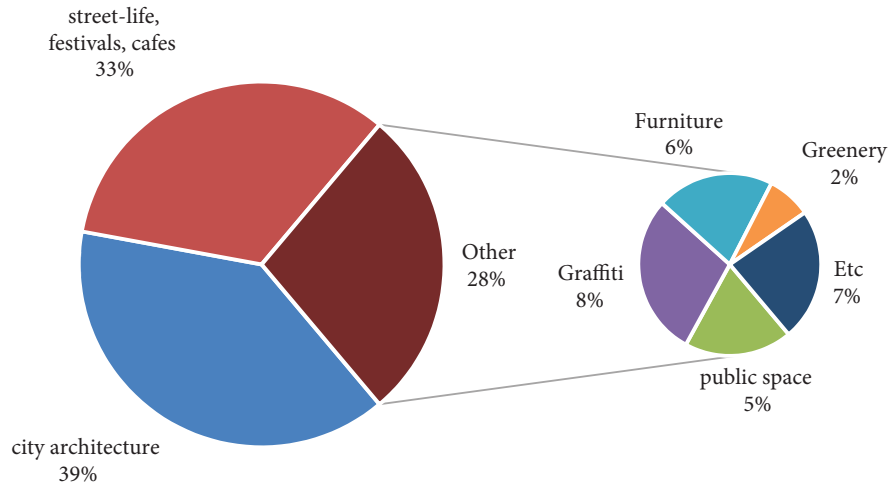


Figure 6. Proportion of images from different categories which emerged the city image in published images in social media from Melbourne

It is also notable that from the 460 photos, 90 photos were allocated specifically to modern architecture and contemporary buildings, while 69 photos were taken from heritage buildings. CBD towers also was an important coding with 58 photographs, which mostly contain a wide shot from cityscape with towers as main objects and characteristics (Figure 7). The similarity of the number of images in the three above mentioned categories may suggest that both contemporary and heritage buildings draw peoples' attention to themselves. In this sense, Melbourne is a city with an intermingling of history and modernity and high-rise and low-rise buildings, which have been captured in peoples' photos as a representation of city or the city image.

As it mentioned before, one of the interesting figures in codified photos was greenery. In contrast to city authorities' goal in introducing the city of Melbourne as a green

city or working toward creating a greener Melbourne, only 9 of the published photos in social media represent greenery in Melbourne CBD (less than 2%). Greenery here refers to photos taken from trees and lawns, flowerbeds and gardens. It seems that social media users and photographers image of the CBD is not a green city, although the purpose of photography and the identity of photographers also can have influenced this conclusion. However, the river as a natural element plays a notable role amongst landscape and cityscape images. The river, which has been published in 41 photographs (around 9%), is playing a considerable role as a natural element in the CBD in comparison to greenery (Figure 8). Therefore, by considering all limitation and biased that might be influenced on creation of this image from CBD, it can be argued that in spite of all the efforts that has been made to enhance greenery in the CBD, social media users and photographs have seldom



Figure 7. Sample of posted pictures related to three categories of (1) Heritage, (2) Contemporary and (3) Towers and high rise buildings

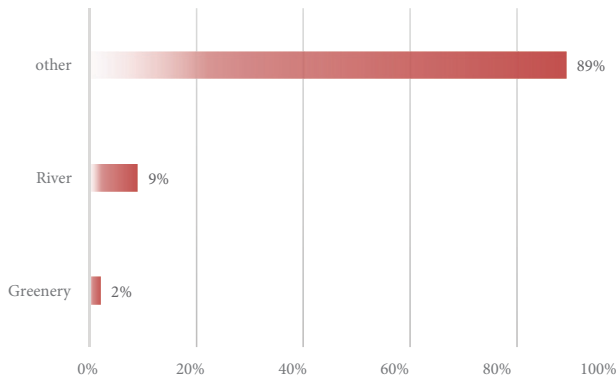


Figure 8. The proportion of images related to greenery and river in comparison with other images that have been published in social media during 2014

taken a photo from landscapes, parks and trees. Therefore, professionals in planning should work collectively with landscape architects and authorities and seek strategies to enhance greenery within the CBD.

The city of Melbourne has a great history regarding public transport. Australia’s first locomotive-powered railway line was built in Melbourne in 1850s. The first steam railway was officially opened on 12 September 1854. The service ran from Flinders Street to Sandridge (now Port Melbourne). A series of other, primarily passenger, routes were also soon opened taking travellers to St Kilda (1857), North Brighton (1859), Hawthorn (1861) and Essendon (1860). By considering the rich history of public transport in Melbourne, it might be expected that public transport plays an important role in the city image. However, only 6% of published photos was taken from public transport. This finding inform city marketing professionals regarding whether more resources should focus on Melbourne pub-

lic transport (such as historic trams) as a tourist attraction and heritage element within the CBD.

Other than the discussed categories which mostly refer to city elements or components, there are other types of photos, which transfer a special feeling of being in that place to viewers (Figure 9). Codified photos in a category of “sense of enclosure” (15 pictures) and even some pictures of “street life” (26 pictures), street lane (39 pictures) and “festivals” (96 pictures) have portrayed another dimension of the city, which gives you an opportunity to experience the city in a deeper sense. Picturing the height of buildings from the viewers’ eyes, the sense of being enclosed between buildings and walking in a narrow alley during the night are some of the examples of pictures, which have been codified in the “sense of enclosure” group. A group of street musicians playing on the street and the group of people watching the New Year’s Eve fireworks can be mentioned as examples of the other three categories.

Considering the reputation of Melbourne as a multicultural city, it expected that cultural diversity can be seen in the majority of pictures. However, the analysis of the coding reveals that only 1% of images pictured cultural diversity and cultural symbols around the city. However, due to the limitation of social media data in recognising the identity of photographers and photo sharers, the result of this analysis should not be generalised. In this sense, the image of the city in social media might be biased and be different from the actual image of the city in residents or visitors’ mind. It must be noted that every method of data gathering has its own limitations. Surveys and interviews also capture a section of the population who are willing to participate in the study. Considering all limitations of social media data, the result of this analyses still can be useful for planners and decision makers especially if complemented by other data collection methods such as interviews and observations.

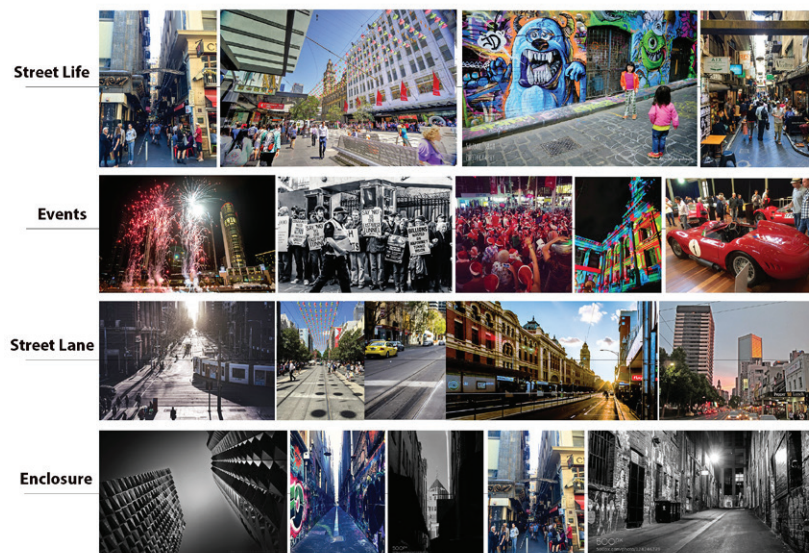


Figure 9. Sample of images from four categories, which tries to transfer a special feeling or experience to the viewer

4. Limitations

Due to the nature of social media, this research experienced some limitations: (1) the identity of photo publishers are not recognizable i.e. we have no idea if they are city residents or just a visitor, (2) not all photos in social media are accessible to public (the user has to right to decide whether to publish the photo/content publicly or privately), (3) the selected publishers are not a representative of the entire society, (4) not all the photos taken from a public space are published on social media (some users keep the photos for private use or publish them in other types of media) (5) there is little information on the purpose of published images (the user has the right to add the title and content in relation to the photo). Therefore, the result of this study should not be generalised as the image of CBD of Melbourne, as it might be skewed due to the mentioned limitations, rather it can complement further studies and different methods of data collection about the city image.

Conclusions

The emergence of social media and prevalence of its use have encouraged researchers in different disciplines to employ social media as a new source of data in their studies. Accordingly, the analysis of the accumulation of individual images in online public platforms may allow urban researchers to investigate the image of a city through the lenses of social media users. In this paper, the image of Melbourne CBD has been discussed in terms of three concepts of cityscape, city image and city evaluative image.

Although it can be argued that the analysis of photos published publicly on social media produces an evaluative image of the CBD of Melbourne, this evaluative image is different to Nasar's evaluative image (that evaluates positive and negative perceptions). The term evaluative in this paper refers to the users' decision to publish photos of some places and not others. In this sense, they have evaluated the cityscape, objects, elements, and architecture and have decided which parts they prefer to highlight and represent in social media and which elements to snub and slight.

The social media, therefore, illustrates an evaluative image of a city (the CBD of Melbourne in this case) and the elements that people want to remember, publish and share in social media. The published images can show which places have captured social media photographers' attention and at the same time which ones are undervalued and underrated. Therefore, the resulted image from the city might be biased and not compatible will the real image of the city in reality. However, the analysis of images reveal interesting results about how people are attracted by events and festivals, by street art, by city architecture and heritage sites and by the streets and public spaces.

This paper showed that Melbourne City Centre in social media has been perceived mostly through its outdoor spaces and a wide perspective (with utilising a wide shot lens). Melbourne CBD is also a place with an intermin-

gling of history and modernity and high-rise and low-rise buildings, which have been captured in peoples' photos as a representation of the heart of the city centre image. In contrast to city authorities in introducing the city of Melbourne as a green city or working toward creating a greener Melbourne, only a few photos represent greenery in Melbourne CBD. While Melbourne CBD has not been perceived as a green space, the city life and its vitality play a highlighted role in the published pictures.

Analysing the evaluative image of Melbourne CBD and its participatory culture, which might be made by its residents/citizens and visitors, through the lens of social media can be employed by planners as a new approach to investigate the most/least attractive areas and urban issues or potentials in the CBD through the growing social media network with consideration of study limitations and possible biases that might be resulted from use of social media as a dataset. Through demonstrating widespread and consistent support for certain objectives, the analysis of city image can help change those obvious preferences into physical realities especially when designing city planning programs. Moreover, it can be useful in a variety of public and private actions, such as information dissemination, design productions, incentives, public/private partnerships, zoning, codes, and enforcement. Although the analysis of social media images alone may not justify an environmental change due to its limitations, it should not be overlooked since it is a minor concern, a matter of taste. As a part of a comprehensive plan, evaluative maps can help make changes in visual form and design developments based on the public taste and perception. This methodology can also help register the changes and urban interventions, through monitoring the emerging patterns of published images over time in social media.

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