The Image of Geolocations in a Virtual Environment: the Case Studies of Indonesia and Croatia on Google Trends

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Summary
The main framework of this interdisciplinary research interconnects the cyclic process of space creation in a virtual environment, including the various perspectives in social sciences. Combining media, communication, popular geopolitics, PR and big data this paper introduces a model for testing and evaluating the importance of transaction data on image analysis of geolocations in tourism, as well as the importance of shown interest for different destinations. The data is gathered through the Google Trends tool introduced by Google in 2012 (information available from 2004 onwards). The first goal is to compare trends in Google searches for Indonesia and Croatia and find potential geopolitical patterns of interest. The second goal is to explain the causal effects on potential peaks in trends and their reasons both in a positive and a negative context. The main thesis is that the interest is primarily regionally focused, comprised of predictable geopolitical patterns, with the exception of unexpected events and crises with potential global implications which can provide both a positive and a negative perception.

Keywords: Virtual Image, Google Trends, Big Data, Indonesia, Croatia

Introduction
The creation of space(s) is a two-fold process in the contemporary world. Traditional, top-down process of mapping space still remain the core of space visualization. At the same time bottom-up process of space creation and imagination by Internet users has changed the perception of power-relations in the labelling of places forever. This means that in a process of imagining, valuing and creating spaces formal maps no longer act as the sole example. Multiple maps and the meanings of places
change over time through influence of numerous factors, one of which is information and communication technology (ICT).

The main framework of this interdisciplinary research interconnects a cyclic process of space creation in a virtual environment, as understood in various disciplines in social sciences. Combining media, communication, popular geopolitics, PR and big data, this paper introduces models for the evaluation of transaction data for geolocation image analysis in tourism. Transaction data represents data aggregated from web searches, web page visits, online bookings, consumer credit/debit cards, and similar connected activity (Li, S. et al., 2016; Li, J. et al., 2018).

Castells (2013) stated that digital communication shifted the ways in which power-related dynamics operate. Indeed, the second-hand consummation of space (Dittmer, 2010) becomes more and more important for the image of tourist destinations in the world. The already made presumptions of the different locations via the Internet influence our willingness to visit them, change the way we perceive them, and creates them as spaces of values, symbols and meanings (Zorko, 2018). The key question is what are the motives, triggers and content for closing the cycle: how does first-hand consummation of the space and ICT influence change in the image of the location in question. Furthermore, what makes a popular location the top location in a virtual environment as well? And, finally, what boosts online interest for a specific destination and what do those geopolitical patterns of interest look like, if there are any?

Google Trends represents a tool that analyses web search data over time, specifically, the frequency of search queries and search terms via the Google Chrome browser in a selected period. Google Trends can detect variations or the seasonality of web-based interest, which can be used to examine relations between actual events. As such, it can be used to predict changes in human interest and, accordingly, behavior. The analytical potential of Google Trends can be used to see if search frequencies about a country significantly correlate to the number of tourists who visit.

The first goal of this analysis is to define the geopolitical patterns of interest by comparing trends in Google searches for Indonesia and Croatia since the introduction of data in 2004 till the end of 2019. The presumption is that interest will have visible regional patterns and logic. The second goal is to explain the peaks in trends as visible changes in interest on the global level. Those peaks can be the results of both positive and negative outbreaks as a reason/motivation for interest, for instance, from winning a football match to having a natural disaster.

Although Indonesia and Croatia are not geographically, demographically or historically comparable countries, both are tourist destinations in the ‘south-east’ vision of geopolitical orientation, aiming for being regionally recognized leaders and gateways. Both countries faced the challenge of being solely scenery in foreign
TV series or movie productions, as well as having globally recognizable destinations within its territory functioning in the form of destinations with their own dynamics (e.g. Bali and Dubrovnik).

**The New Popular Geopolitics Paradigm as a Bottom-up Power-tool for Online Branding**

The concept of frames in the literature (McAdam, 2000) defines group belongings and the social cohesion of popular and non-popular social groups. If we convert this model to online belongings and the creation of spaces, there are two main areas that may have a geographical background: the creation of virtual spaces of inclusion and the virtual creation of popular (mainstream) destinations. The first refers to, for example, popular and closed groups on Facebook or more open communities of followers on Instagram. Both of those spaces are spaces of virtual inclusion and belonging. However, they are not geographically exclusive, rather they create a new dimension of non-geographical space. The second one refers to the visualization of popular destinations on social media. There are numerous travel-related groups on Facebook, specialized Instagram profiles for travel, or even tourism-related businesses of exploring the world and promoting a specific lifestyle. Other than user-generated content that may show the online importance and visibility of a particular destination and create a co-existing virtual world(s), transaction data, as well as trends, show interest for specific space in a time-related manner. The ups and downs, sideways, global interest and reach are influenced by Internet users and directed by external factors as well. Both of these processes, the upload of information and the search for information about places (destinations if considering tourism as background for research), make them virtual spaces of interest.

The concept of frames in mainstream theory could be explained through different groups on social media, personal or impersonal contacts, and communities promoting popular lifestyles. But, rather than only being defined as a special virtual space with its own dynamic, actions in groups promoting different destinations as popular ones pose numerous questions related to the potential influence of media on tourism and social relations in general. A lot has already been written about the influence of user-generated content on media convergence (Wardle & Williams, 2010; Jönsson & Örnebring, 2011) and the potential tourism benefits (Akehurst, 2009; Burgess et al., 2009; Johanson et al., 2012; Amaral et al., 2014). Combining those two with the bottom-up power of social media on the creation of spaces and the visualization of locations opens broad social, psychological, and even exi-

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1 Most everyone has came across a “story of true success” from people who quit their job and travel the world with their “online” companies. Those travel influencers usually promote their lifestyle but earn from advertising and marketing.
stential issues. Furthermore, trends in online research show no real influence of a destination or place, rather virtual interest in different sizes and specific time. The in-depth analyses of geopolitical patterns of such interest enlighten the potential motives and differentiate between regular popularity (influence) and the popularity driven by an event/crisis.

There are a few issues related to user-generated content and influence in the virtual sphere. The first one tests the hypothesis of influencers and their possibilities to influence. One would believe that influencers are the people who set fashion prerogatives and the popularity of different locations. But, bearing in mind the quantity of so-called influencers one must consider the fact that these people might not be influencing, rather they may be the ones being influenced by celebrities and multinational companies with freebies\(^2\). This brings us to the second issue, and it is the truthfulness of social media representations. And the third one is the motivation to act. Motivation to act is most often seen virtually (e.g. through Google search), in gathering physical information or visiting the location. These are the three sets of limitations in the perspective of bottom-up power transfers in the area of popular geopolitics when it comes to understanding the visualization and representation of tourist places. Similar limitations are found in big data research and will be explained in the second part of this paper.

Starting with the last-mentioned limitation named motivation to act one must realize that there could be no direct correlation between nice/good location presentation, quantity of mentions (of influencers), Internet searches, and popularity in Trends, with end-user willingness to visit. Those bottom-up power transfers have checkpoints or alternatives related to the already mentioned issues; for the purpose of this paper categorized as: (1) the society of equal faces and places, (2) time and space fakeness, and (3) virtual exploit.

Research limitations of big data usage in analyzing space creation and consumption starts with the question of linking with the theory and people’s need for copying popular and already seen materials. In a virtual environment, the need\(^3\) for the recreation of the same photos, visiting the same places and making it look the same shows the ongoing trend of place collection rather than place consumption (as defined by Urry (1995) for tourist practice in a non-virtual environment). One can create altered scenery with different tools (cropping, filters, photo-shopping, etc.). In this way, the sand is always white, and the sea has the same shade of blue.

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2 Freebie is a form of gift that actually is not free. Some companies give gifts to individuals for free expecting some kind of promotion. It is often used to explain potential (unethical) influence on journalists (and social media creators).

3 General need of consuming popular places defined by Urry (1995) is used here for virtual places.
Dittmer’s theory (2010) on the second-hand consummation of spaces suggests that the alterations of photos and media might lead towards deep disappointment for those who have the possibility to compare a second-hand and first-hand experience. This kind of misbalance leaves imprints in future representations: either the photos have again been filtered or the location is poorly reviewed due to the false expectations. Checked-in locations on social networks produce both virtual happiness and power positioning from the perspective of the content generator, as well as virtual envy from the perspective of a second-hand content user. Finally, the first loadstar is that big data research for the purposes of the place creation process should never be taken out of context, as the process itself is circular rather than linear. Similar to Baerenholdt et al. (2017, p. 9) the explanation that “tourist practices are inscribed in the circular sequences before, during and after the ‘travel’ itself”, the online visualization of spaces runs in a spiral form of construction and consummation in the virtual environment.

A second, even bigger limitation, derives out of the fact that user-generated content might often be faked beyond the concept of filters and effect that artificially color the sea. The temple of Lempuyang in Bali, Indonesia (known as The Gates of Heaven) has been all over the media for a camera trick that makes it look like a fake lake exists in front of the gates. As Dickinson (2019) noted for The Telegraph angry tourists began to post their own photos next to the fake ones in an effort to expose fake content.\(^4\) Ritschel (2019) revealed for The Independent that some tourists even rated the location on TripAdvisor as a fake one giving it only a star or two out of revenge. Furthermore, time limitations in research are derived from the fact that people often post when they believe they can get the most likes or even in timed sequels to keep their followers equally entertained. For those with no hidden agendas reposting #tbt\(^5\) photos or memories raises the issue of having the right geolocations in the wrong timeframe, which can distort a tourist or user’s experience. For example, a summer photo on a sunny day in Zadar, Croatia (Croatian tourist brochures state that Ernest Hemingway and Alfred Hitchcock said that the sunset in Zadar was the most beautiful one in the whole world) posted on a cold winter night might serve as a memory, but is also misleading for second-hand consumers of places in the virtual space due to the heavy winter winds, rain or even snow. Therefore, big data usage should have longer research periods or even a time exemption clause in particular cases. Furthermore, the need of place collection and bottom-up power consumption for some users goes beyond the truth. False check-in’s in lovable and popular loca-

\(^4\) In 2019 there was a campaign by angry temple visitors who arrived at the location and found out that there is no lake/water as shown on numerous Instagram profiles.

\(^5\) The concept of #tbt stands for hashtag “throwback time” or “throwback Thursday” which implies that the posted photo is a memory and has been taken some time ago.
tions, the use of stolen (from the Internet) or borrowed (from friends who actually visited the location in question) material, pose an even bigger danger for generalizations drawn from big data.

The fact that places could be “exhausted by use” (Urry, 1995, p. 1) poses another issue, the one of worn-out locations by virtual exploit. The theories of spatial dynamics in tourism suggest that locations are more than only geographical tourist places and “are not bound to specific environments or place images. Rather it is the corporeal and social performances of tourists that make places ‘touristic’” (Baerenholdt et al., 2017, p. 2). So, the question is what this touristic performance does to the place in virtual environment. Comparing tourist places to sandcastles, Baerenholdt et al. (Ibid.), implied that they “are tangible yet fragile constructions, hybrids of mind and matter, imagination and presence”. Those sandcastles, as they see it, have different representations of a place at the same time:

The ‘place’, the sandcastle, however, only appears as artifact as it organizes a multiplicity of intersecting mobilities. There are mobile objects such as the fishes, stones and mussels found at the shore or on the beach as well as the tools spades, shovels, buckets brought in the trunk of the family car, possibly imported goods made in China or a similar low-wage country. The construction work also intertwines with different kind of corporeal mobilities (the day trip of the family, the journey to a holiday region, dense choreographies of construction work) as well as imaginative mobilities (long winter nights spent dreaming of summer beaches) (Ibid., pp. 2-3).

But, if this memory is being photographed and published it represents even more for a wider audience: lifestyle, idea, false memory, second-hand experience, recycling material, etc. The construction of a place does not stop in the imaginative form of a tourist, but in the virtual construction of imaginations for the WWW community if posted online. That beach with a sandcastle is actually being deprived of its geographical meaning as well. Without recognizable landmarks it could be anywhere in the world, as well as in a Hollywood studio. Citing de Botton, Baerenholdt et al. (Ibid., p. 9) explain the difference in anticipated and perceived spaces:

“In his seductive essays on the art of travel, de Botton describes how the overexposed photographs of palm trees, clear skies and white beaches are set in motion on a lengthy and expensive journey to Barbados (2002: 8-9). After having arrived to his destination he walks to the beach depicted in the brochure, recognizes it, and immediately his mind starts making its own wanderings: from the troubles and physical pains caused by the flight, the prices of meals and eventually his mind migrates to visit a scheduled work project for next year. It seems we may best be able to inhabit a place when we are not faced with the additional challenge of having to be there” (de Botton, 2002: 23). The imaginative mobility before and after
the holiday intersects with the inert, troublesome, and sometimes even hazardous practices of tourism.

Since the time and, particularly, spaces of tourism intersect with imaginative mobility prior to and after the action of visiting a location, Baerenholdt et al. (Ibid.) conclude that “spaces of tourism are not limited to the particular tourism regions and sites but also comprise the dreamscapes of anticipation and remembrance, as well as different social and material networks crosscutting bounded spaces”. If those networks are virtually constructed, and experience is multiplied, anticipation and remembrance may fall into false and power-related visions of locations and even geopolitical discourses in tourism.

When introducing the popular geopolitics of social media as an influencing tool (e.g. Instagram) one must include its understanding as a reflection of power in the geopolitics of tourism as well. Key power issues in geopolitics, center – periphery relations, and the potential distribution of power is easily defined through social media. For instance, Gavriş and Ianoş (2017, p. 280) researched “the cyber-power of social media platforms” and the potential collective power of tourists in the creation and re-creation of imaginations of Bucharest (Romania) and Sofia (Bulgaria) through travel blogs. If tourism in general is seen as a form of soft power (Hall, 2017), then user-generated content must be highly valued in all forms of promotion strategies, a marketing mix of location-branding attempts in tourism, and even in foreign policy strategies and diplomatic actions.

(Re)Presentation of Place and Image of Locations: The Creation of Destination Image

A destination’s image is mostly seen as a reflection of some geographical area in the eyes and mind of various publics whether they are tourists, investors, competitors or some other stakeholders (Gartner, 1994). Grunig (1993) observes image in terms of perception, cognition and attitude.

Certain destinations do not always have clear boundaries or borders. They often represent what stakeholders make of them. It is not necessarily a municipality or a city as much as an administrative unit. It is a geographical area or location, which often provides a full offer for tourists, including accommodation, entertainment, food and beverages, attractions, cultural and historic heritage, natural beauties and local people. The World Tourism Organization (UNWTO) defines it as “a physical space with or without administrative and/or analytical boundaries in which a visitor can spend an overnight. It is the cluster (co-location) of products and services, and of activities and experiences along the tourism value chain and a basic unit of analysis of tourism” (UNWTO, 2016, p. 10). Depending on the different stakehold-
ers, their interests, visions and abilities, they can create even broader destinations—regions and countries. Furthermore, destinations, other than particular locations, can be formed out of groups of countries with similar characteristics and elements of identity (Mediterranean or Scandinavian countries), or even whole continents (Australia). In creating such a concept of destination, it is inevitably important to define a destination’s identity as a starting point for image creation.

The identity of destination represents what local people, tourist workers, tourist boards and representative government think destination really is. What kind of values, attitudes, culture, visions and missions, but also physical elements, visual representation, content, names and titles are embedded within a certain place. However, different stakeholders will have various descriptions of what destination identity is. Several authors recognize multiple organizational identities (Balmer, 2017; Balmer & Greyser, 2003; Hatch & Schultz, 2002). The objectives of public relations and strategic communication are to find a common ground and approval around identity elements among stakeholders. From that perspective there is not much difference in the procedures of identifying corporate identity and destination identity. They both, corporation and destination, produce certain values for consumers/tourists.

This value or offering represents what is in tourism terminology known as a tourism product. The World Tourism Organization defines it as “a combination of tangible and intangible elements, such as natural, cultural and man-made resources, attractions, facilities, services and activities around a specific center of interest which represents the core of the destination marketing mix and creates an overall visitor experience including emotional aspects for the potential customers” (UNWTO, 2021). The tourism product therefore is a tourism experience, which can be bought on the tourism market. It can be placed and positioned as a tourist and travel arrangement. It is often mentioned that the tourism product and destinations have a life cycle (Smith, 1994) and so is the case with the destination image. They all have peaks during their existence and get old; therefore, national and local tourist boards are monitoring, eventually refreshing and completely changing a destination’s promotional concepts to maintain attractiveness and sales of tourism products. Tourism products (Ibid.) have certain characteristics that make them different from any other types of products. Firstly, they are intangible, which means that visiting and experiencing a certain destination remains only as a memory and experience. They are inseparable because for example a gourmet experience consists not only of food and drink, but also the waiter and atmosphere during the dinner. Tourism products are often inconsistent because experience is different depending on multiple variables, such as the number of tourists visiting the same place, weather conditions and many others. Tourism products cannot be moved from a certain location. For example, if
the tourism product consists of visiting a specific lake or mountain, then this essential part of tourism product cannot be transferred.

Communication experts in the tourism industry are mostly focused on tourists and the ways to attract them by using promotional tools. Image as a perception and a mental construct is created through various sources. From the tourist perspective, there are three stages of creating a perception about a certain destination – before, during and after the visit (Miljković et al., 2018). Tourists gather information before visiting a certain destination. Information sources can be various – radio, television, newspapers, magazines, family, friends, social media, Internet search. What recent studies suggest (Nielsen Trust in Advertising Global Survey) is that user-generated content (UGC) is ranked highly as a credible source. Word of mouth is seen as a very powerful promotional tool. For that reason, we recommend so many things to each other. Electronic Word-of-Mouth influences decision-making as well. Even if for many tourists it is not a key-deciding factor, they will take it into account. That is why certain popular travel and tourism online platforms, based on website user reviews, give recognition using tourism labels (recommendations, awards) for certain destinations, hotels, restaurants and attractions. Not only one image is created from these sources. Image can exist in general as an overall perception, which would be a collection and a sum of every opinion/sentiment towards a certain object. However, segmentation allows us to understand different images at the same time. Stacks (2017) mentions cyber image or online image as everything concerning a certain product, service, or organization posted online. On the other hand, we could identify a media image as the production of editorial policies and content written by journalists. Some other images nowadays are also important such as a social responsibility image, creating sustainable destinations, services and products. There are also various entities on the tourism market such as hotels, restaurants, travel and transport organizations. Images of these organizations influence the image of a destination as well. On the second stage, during their stay, tourists create a perception about the destination based on their direct experience. This can be a dominant source in destination image creation. Even if some parts are missing, tourists can complete the missing parts with previous information and knowledge about the destination that is now being critically assessed. It is their time for testing and evaluating the tourism products that they have bought. They are making image revisions based on their expectations before the visit. After the visit, tourist impressions are settling in and image creation continues. They are becoming the ones creating perceptions, sharing information and experiences, posting reviews online, creating browsing data, recommending the destination to their family and friends.

To be competitive on the tourism market, destinations need to produce unique stories. Achieving uniqueness implies that destinations are engaged in the branding
process. It means they need to identify elements of their brand, prepare a plan and implement strategic communication to reach different stakeholders. The UNWTO defines competitiveness of a tourism destination as the “ability of the destination to use its natural, cultural, human, man-made and capital resources efficiently to develop and deliver quality, innovative, ethical and attractive tourism products and services in order to achieve a sustainable growth within its overall vision and strategic goals, increase the added value of the tourism sector, improve and diversify its market components and optimize its attractiveness and benefits both for visitors and the local community in a sustainable perspective” (UNWTO, 2016, p. 13).

Brand is very often seen as a promise. It is a unique promise that should include elements such as brand values, identity and benefits for the consumer. This promise needs to be recognized in every part of destination’s existence, whether it is a visit to a museum, eating in a restaurant, talking to local people, sleeping in a hotel. They all need to deliver and keep the same promise. It is a challenging task of keeping the promise every day in the life of a specific destination. However, consistent efforts can empower a destination as a brand. This makes them special in terms of standing out on the tourism market, being able to set higher prices, and for tourists to make easier decisions about visiting. Keller (2013) mentions several stages in the branding process. The beginning involves the identification and planning of the brand development. It includes decisions on what to brand, finding unique elements and recognizing a position on the market. In the second stage it is important to design and implement communication programs for the brand. This implies a brand launch. The third step is set for the measurement and interpretation of brand effectiveness. The last stage includes brand development and keeping brand value. It is an ongoing and a long-term process to build a destination as a brand. On the other hand, unexpected events can ruin or heavily undermine such long-term processes in only a day.

In the context of making brands, Anholt created the concept of Competitive Identity (CI) “as the synthesis of brand management with public diplomacy and with trade, investment, tourism and export promotion” (2007, p. 3). The concept consists of six key elements: brands, policy, investments, people, culture and tourism. With the joint development, coordination and strategic communication in these segments, a country can be perceived as a brand. Export brands are important for a country’s image outside its borders. Policy decisions can affect image in the domestic and international media. Attractiveness for investment brings development in terms of infrastructure, but also in recruitment of competent foreign employees and students. People are important because they can serve as a country’s ambassadors when they are abroad, and on the other hand, they can show their hospitality in their country. Culture is also deeply embedded in the creation of a nation’s brand through
films, art, and music. Anholt’s (2007) hexagon of Competitive Identity shows that tourism promotion is an essential part of the branding process because of the opportunity to attract and provide first-hand experience of a certain country/destination. It is seen as the “loudest voice in ‘branding’ the nation” (Ibid., p. 26). Sport is another example how people or event(s) could influence a destination or country’s branding. As a finalist of the FIFA World Cup in 2018, Croatia is a fresh example for such a process. During the competition there were more than a million articles mentioning Croatia in what Glavinić (2018) calculated to be more online exposure than Croatia had throughout its entire history.

Cities and even smaller areas, such as municipalities and villages, need a different strategic approach and brand conceptualizations. Anholt (2007) suggests the City Brand Index Hexagon, which includes elements such as: presence, place, potential, pulse, people, prerequisites. Presence implies popularity and the contribution of a certain city to the world. Potential is revealed in the opportunities for economic growth and education in the city. Pulse represents the atmosphere, dynamics, and lifestyle in a certain city. People are important in terms of hospitality, openness and communication. Prerequisites include quality of life in a certain city – expenses, transport, entertainment, hospitals and others necessities. Considering this conceptualization, Zenker et al. (2017) make a differentiation between place branding and destination branding because conceptually, destination branding is more concerned about the tourists, while place branding is more focused on residents, companies and eventually tourists. They perceive destination branding as a branch of place branding. Presence, of course, could be and is seen in the virtual sphere as well. The (re)creation of online image becomes more and more important in today’s interconnected and globalized world.

The Analysis of Factors that Influence the (Re)creation of Online Image: a Comparative Case Study of Indonesia and Croatia with Google Trends Tool

Big Data and Research Methods

Geographical big data analysis compared to general big data analysis differs in spatiotemporal association (such as semantic relations) especially when used to analyze the complexity of geographical reality. Debortoli et al. (2014) describe a set of advantages big data have over traditional methodologies offered by analyzing large amounts of data reliability, their representativeness, the information detail and segmentation capacity, and the ability to hybridize data with other current or future sources and new information flows. Having in mind the fact that “80% of data is geographic” (Dempsey, 2012), almost all of the data that are globally available can be geo-referenced, and that is why geospatial big data are used in a wide range of research, and in terms of this paper’s research design, it has two levels – space and time dimension.
Big data as a concept has its limitations as well. Kitchin (2013, p. 262) divides sources of big data in three categories: “directed, automated and volunteered”. Directed big data are a consequence of the intentional gathering of information, often done officially and by the state (e.g. surveillance), moreover in a process technically gathered, but operated by humans. Automated big data are generated automatically, both intentionally and unintentionally, and gathered both by humans and machines. Finally, volunteered big data “are gifted by users and include interactions across social media and the crowdsourcing of data wherein users generate data and then contribute them to a common system such as OpenStreetMap” (Ibid., p. 263). It is foreseeable why the (co)creation of spaces, places and especially maps could pose issues for geography-related research. Nevertheless, from the perspective of geopolitics, communication studies or public relations it may serve as a useful tool for further academic research or even practical knowledge in the real sector. For instance, from the perspective of geopolitics volunteered big data may be researched in the areas of people-place content creation, re-territorialization, bottom-up power relations, geopolitical discourse analysis and narratives for storytelling, or any kind of Internet user-generated popular geopolitics. In the area of media and communication one may further research social media influence in the creation and distribution of content for different locations, mutual interconnections, ways and lines of spreading the local content globally, ways of presenting the facts, fake advertising or fake news, etc. In public relations extra value may be added for different aspects in tourism research, image analysis and creation, location branding, marketing, public diplomacy or the presentation and personalization of places. As Baerenholdt et al. point out, there are three positions in tourist studies: fixed (geographical) locations, tourism defined as cultural imaginations and, finally, “the making of places through performance” (2017, p. 5). This kind of space creation is the main focus for its virtual form and representations, as well as its consequences for the creation and consummation of spaces/places/locations. It is also very important to emphasize the predictive power of big data in many fields. Collecting, analyzing and interpreting big data implies that we can reveal certain patterns, which can be useful for predictive analytics. In terms of web search data, Anderson (2008) points out in Wired that “it’s time to ask: what can science learn from Google?” There is a lot of data that can be collected via already existing web platforms, whether they are associated with user devices (smartphones), content (text) or transactions (web search). Additionally, big data research is interdisciplinary because, without social interpretation and humanization of those data, findings are not applicable. Strong (2015) mentions the importance of social science’s theoretical framework for exploring data because data is context-dependent.
Google Trends: Definitions and Meanings

Google Trends (GT) is a public web tool from the Google Corporation, based on Google Search (engine tool), that specifically allows one to analyze a particular search-term in relation to the total search-volume across various regions of the world, and in various languages. Users have the ability to view and download search-volume patterns for one or more search terms. Using GT one can conduct an analysis in terms of time (starting from 2004), exploring the total number of searches globally, and specific categories (e.g. travel, people and society, food, education, finances, etc.). Google Trends has been available since 2012, replacing Google Insights for Search, which was in use from 2008 to 2012.

Whether the user picks an overview of trending topics by location or a ranking of the most recent searches by year and location, GT generates data based on the Google Search, YouTube, and Google News platforms, and provides a complex form (set) of trends as a useful tool for research, analysis, and in terms of this paper, marketing purposes. This tool can give an insight into what the current focus of the public’s attention is, which can be used for gaining a competitive advantage in marketing. “The search traffic provided by Google Trends is useful to promptly detect a certain phenomenon and is therefore an excellent monitoring tool. It is representative, as more than 5.5 billion searches are run on Google every day. Its search traffic exhibits high correlation with social phenomena, which is indicative of its high potential to be applied in a wide range of areas” (Seung-Pyo et al., 2018, p. 71). Also, such large-scale search behavioral statistics can provide additional (new) knowledge about the spatial and temporal variation in interest in places. Especially since the data is updated frequently (even on a weekly basis). This data is open, free of charge, the only requirement is a Google account, but the basic analysis is available even without one, and can be downloaded in a common spreadsheet format and as such, used in different ways for analytics.

Due to the relevant and updated data of GT, there have been a number of studies examining how this data can be used to track economic trends as they emerge, which has been described as “nowcasting”, and used in some research related to tourism (Zeynalov, 2014; Jackman & Naitram, 2015). Google registers millions of different search queries from tourists, so it is possible not only to track trends in search preferences, but also to predict trends in tourist demand. Thus, it is possible to obtain useful information in a timely manner and in a way that avoids the delay common in the release of official statistics, which in some terms may become irrelevant. GT provides data from 2004 up to the present, on a daily or weekly basis on the searches performed on Google, highlighting and showing the content about travel classified in travel categories. Therefore, GT data can give us information about the interests and intentions of the tourist consumer at a region or country level in a timely manner,
which can even mean a few months before the trip (Dinis et al., 2016). In 2012, the European Commission conducted a survey in EU member states titled *Attitudes of Europeans towards tourism*, which showed that 40% of European citizens consider the Internet to be important in the decision-making process, and more than half of the respondents replied that they use the Internet to organize their holidays (European Commission, 2013). With the evolution of social networks and their effects years after this survey, the impact of the Internet is presumably even higher.

There is also some relevant research related to Internet search data, which refer to renowned, highly visited touristic countries. Saidi et al. (2010) have estimated tourism demand in Dubai by using Google search counts through keywords related to travel to Dubai, while Gawlik et al. (2011) have also used search data to predict the number of tourist overnights in Hong Kong. Pan et al. (2012) have found in their research that search query information is an early indicator of travelers’ interest and can be used to predict various types of tourism spending and activities, such as hotel occupancy, event attendance, etc. Xiang and Pan (2011) in their research have shown that search volume could be a direct indicator of the size of that city’s tourism industry through exploring the nature of search engine marketing for destinations and by analyzing the relationship between travelers’ search behavior and the popularity of a specific city.

The Geopolitical Patterns of Online Interest, Tourism and Google Trending

The geopolitics of tourism function on three key premises: identity, hospitality, and internationalization (Hall, 2017). Identity plays a major role in “mobility and border crossing” (Zhang, 2013; in Ibid., p. 18) in everyday life and tourism; “diaspora and intergenerational change” (Ho, 2013; in Ibid.), as well as the “use of tourism by the state as a means to encourage the formation or reinforcement of particular identities” (Gagnon, 2007; Ho, 2013; in Ibid.). Hospitality as a phenomenon includes the question of no-go areas, terrorism exclaves and/or geographies of (in)security. There have been numerous examples of how different ‘no-go’ areas use their charm of insecurity for tourism purposes. There are memorial centers being built in post-war zones (e.g. Vukovar, symbol for 1991-1995 war in Croatia); or special tourist tours are being created for risky destinations (e.g. Pripyat, the location of Chernobyl nuclear power plant disaster in the former USSR, now Ukraine) for those travelers tired of the usual places or eager for different content to make them on-line influencers. *The New York Times* published an article titled “How to Rebrand a Country” mentioning experiences from post-war and post-conflict Rwanda, Columbia and Croatia. And while it is mentioned that Croatia only had to have luck to become “King’s Landing”, other countries plan and invest heavily in their re-branding activities. The article’s Tip and Trick No. 6 calls upon countries to “not forget influen-
cers” giving the case study of Rwanda and the importance of influencers in re-branding activities as an example. Other than the charm of insecurity there is a phenomenon of a moment in time that could be connected to hospitality as well. The appeal for visiting a location in specific momentum could be defined as living a history. For instance, the need to visit Cuba while Castro was still alive, the need to visit the Maldives while they still exist (due to the issues of sea level rise), or to visit an olympic town during the Olympics, or global festival sites which combine the popularity of location with specific characteristic of location in that exact moment in time. On the other hand, there are all-time locations or no locations at all connected to hospitality. Internationalization stands for different cultural influences as well as an awareness of the world in the time of globalization. What Passi (2006; in Hall, 2017, p. 19) calls “geopolitical remote sensing” enables us to know and perceive global international relations and interconnections, that is, catalogue ‘friendly’ or ‘unfriendly’ states, ‘popular’ or ‘unpopular’ places. Popular places are popular due to the numerous pull factors. One of them is geopolitical reasoning in the phenomenon of internationalization.

All three above mentioned categories could be explained through geopolitical patterns of online interest as well, and Hall’s (2017) categorization will be used for the first part of our analysis. There are also three outlined key factors in the creation of destination: identity, process in time, and storytelling/uniqueness attempt. GT shows that the first five ‘interested countries’ for both Indonesia and Croatia are comprised from local searches in named countries and regional ones. In the case of Indonesia the top five are: Indonesia, Brunei, Singapore, Malaysia and Hong Kong. In the case of Croatia it is similar. The top five ranking countries in search for Croatia are: Croatia, Bosnia and Herzegovina, Slovenia, Montenegro and Serbia – all neighboring countries dissolved from Yugoslavia. Similar culture, language and finally geographical proximity are expected to form patterns in a regional sense. The key difference is the content of searches. While for Indonesia, the highest trending have social networks and channels (Facebook and YouTube), the noticeable trend in content searches in Croatia are media, trade and politics (“24 sata”, “Njuškalo” and “President of Croatia”).

6 As Mzezeva (2019) states for The New York Times: “Portia de Rossi gave her wife, Ellen DeGeneres, an on-camera 60th-birthday gift: A trip to Africa culminating in a visit to a new campus named for Ms. DeGeneres to be built at The Dian Fossey Gorilla Fund in Kinigi, Rwanda. ... The couple has a combined 80 million followers on Instagram. ... Last year, players for Arsenal, the English Premier League soccer team, began taking to the field in uniforms that said “Visit Rwanda” on the T-shirt sleeves. As part of the $39 million marketing campaign, Arsenal players will visit Rwanda and coach at soccer camps.”

7 Google Trends have highest trending as a phrase used for different content.

8 24 sata (24 Hours) is a daily tabloid; Njuškalo (Snoopy) is an online web platform for buying and selling everything from used items, cars and even housing.
In comparison of interests for Indonesia and Croatia two regional patterns and one international are visible. The first regional pattern is connected to geographical proximity, and these clusters of countries’ similar regional identity and similar cultures. Indonesia is the first one interested in Indonesia (100 per cent vs. less than one per cent interested in Croatia). On the other hand, Croatia and its search history is not visible in global comparisons at all due to the demographical reasons (4 million people vs. 264 million people). Other than that, the first regional pattern is present due to the identity and regional dynamics. In the case of Indonesia, the second country is Malaysia (99 per cent Indonesia; one per cent Croatia) and the third is Singapore (98 versus two per cent). On the other side of the line there are Germany (14 per cent searches on Indonesia; 86 on Croatia), Italy (15 vs. 85), and United Kingdom (28 against 71 per cent). The first regional pattern is therefore connected to both identity and hospitality in geopolitical terms.

The second regional pattern is visible only in the case of Indonesia and it is connected both with identity (in this case religion) and hospitality in geopolitical terms as well as identity in the destination creation process. The examples for this regional pattern are Saudi Arabia (94 vs. 6 per cent) and UAR (82 vs. 18 per cent). Here could be found space for tourism opportunities in the case of Indonesia.

The third pattern is an international one. Interestingly, this group has two subdivisions as well. Somewhere in the middle of the scale there are Australia, USA, Canada, Brazil and Mexico. The above mentioned countries have somewhere around 50 percent of interest and searches both for Indonesia and Croatia. However, there are two (or one depending on the definition of Europe) European countries: the Netherlands and Turkey that do not fit the above mentioned patterns. And while Turkey may slightly fit into the second pattern, the Netherlands stands out among European countries for its online interest in Indonesia. On the other hand, such a trend could be explained by the origin of minorities in the Netherlands since people from Indonesia are ranked fifth by country of origin in the Netherlands.9 Therefore, the international pattern also is connected to identity issues as well as category of hospitality in this case.

Contextualization of Google Trends Peaks

The Google web search history for the keyword “Croatia” (from 2004 to 2019) shows that the country’s popularity was higher than ever before between July 8 and 14, 2018. It was the time when Croatia was very successful in the FIFA World

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9 “As of January 2018, the key countries of origin for persons with a foreign background (both first and second generation, with at least one parent from these countries) are: Antilles/Aruba 153,469, China 71,229, Germany 356,875, Iraq 59,497, Indonesia 364,328, ...” (World Directory of Minorities and Indigenous Peoples, 2019).
Cup. Playing in the World Cup final positioned Croatia as one of the smallest countries in terms of population that had achieved such success. As Pitt-Brooke (2018) wrote, the “Croatian team will go down as the greatest underdog performance by any country in World Cup history”. Secondly, GT results show that Croatia was frequently mentioned in the period between June 8 and June 14, 2014. This peak also suggests that during FIFA World Cup 2014 there existed an increased interest in the country. Croatia had the privilege to play the opening match against Brazil as the tournament’s host on June 12. The third peak by frequency in Google web searches was in 2016, between June 19 and 26. In that time Croatia was participating at the UEFA EURO CUP 2016. Finishing first in their group and losing to Portugal in the knockout stage on June 25 marked this period. In summary, these peaks show that Croatia globally arouses interest of online users with its national football teams and their good results over the years.

In general, the popularity of Croatia in Google searches grows in the summer months, at the very beginning of the tourist season, primarily because large numbers of domestic and foreign tourists seek information about the country. By searching the term “Croatia” it is visible that interest is low or the popularity curve is steadily declining when the interest gradually decreases over time. Several peaks appear in 2014 when Croatia had a very successful tourist season and the highest in 2018 during the World Cup and the great success of the Croatian football team. GT data for July 2018, shows that the terms “Croatia – the country in the Balkans” and “Croatia” are among top five terms that had the highest growth in general (overall) Google searches. This term is also the most searched in the “photo search” category, but also among the five most searched terms on the “YouTube search” category. The search for “Croatia” increased by 250 percent in all categories and by some estimation, during the World Cup, almost a third of all people on Earth have seen, at least once, something about Croatia (Čizmić, 2018). After the end of the World Cup, there was a large decrease in the frequency of searches for terms related to Croatia.

The peak for the search term “Indonesia” was between August 5 and 11, 2018. At that time there was an earthquake on the island of Lombok in Indonesia where many people died, as suggested by the article “Indonesia earthquake: at least 98 dead after quake strikes Lombok” (Lamb, 2018). Following by frequency was the period between August 20 and 26, 2017. This period correlates with the incident when the Indonesian flag was accidentally displayed upside down in the guidebook for the Southeast Asia Games. This diplomatic incident with Malaysia started on

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10 In one month, 60 billion impressions (article views) referring Croatia were noticed in the world media (more than a 213,000 percent growth). At the same time, Croatia was mentioned in over one million articles.
August 20 as written in the article “Malaysia apologizes for Indonesia flag blunder, reprinting regional games guide” (Latiff, 2017). The third event which correlates with web search frequency was after an earthquake triggered a tsunami on the island of Sulawesi and killed many people as presented in the article “Tsunami in Indonesia: death toll at 832 and expected to rise sharply – as it happened” (Ellis-Petersen, 2018). For Indonesia, there were several higher peaks in 2004 and 2018 and they are linked to the catastrophic events of earthquake and tsunami. In comparing terms “Indonesia earthquake” and “Indonesia travel” it is visible that inter-

Figure 1. Google Trend Comparing Terms “Croatia Football” and “Croatia Travel”, Google Trends, Author’s Screenshot, 1/31/2019

Figure 2. Google Trend Comparing Terms “Indonesia Earthquake” and “Indonesia Travel”, Google Trends, Author’s Screenshot, 1/31/2019
est for travel has its own continuity not disrupted by negative effects. Overall, data shows that natural disasters are very often the key factor for the increased global web search interest in Indonesia.

In both cases considering the geographical and demographical differences, Indonesia and Croatia can use these data for image analysis and country branding. It is clear that even the most successful branding cannot achieve such an attention as unexpected natural disasters or surprisingly good sport results. However, questions remain how to make positive events such as sports achievements even more powerful for future branding and how to repair the image of geolocations at risk of tsunamis and earthquakes.

Conclusion

The creation of spaces in a virtual environment adds superstructures to existing and common two-dimensional maps in numerous ways. New relations that have to be visualized, new dimensions of inter-connectivity in the world, new shipping routes or popular destinations are all being imagined in a new and often non-geographical way. This imaginative surplus leaves room for a change of perception, as well as a shift in power and becomes important for a whole variety of scientific fields, from media and communication, international relations, geopolitics, economics and marketing, tourism, crisis management, PR and branding, etc.

This paper introduced a model for testing and evaluating the importance of transaction data on image analysis of geolocations in tourism, and for evaluating the importance of the interest shown for different destinations. The data that was gathered by Google through the Google Trends tool since 2004 show the interest, potential correlations, and time peaks for different locations and countries. The first goal of this paper was to compare trends in Google searches for Indonesia and Croatia and find potential geopolitical patterns of interest. Although being two different cases and statistically incomparable countries, the analysis has shown the advantages of the Google Trends tool in the first, basic step of research. Derek Hall’s (2017) categories in geopolitics of tourism have been adjusted to create a model for the analysis of geographical patterns. The regional patterns of interest in different groups of countries have both been proven in cases of Croatia and Indonesia. Nevertheless, the disadvantage of the Google Trends tool lies in exceptions of comprehensive time-space analysis. The first exception is geographical, related to spaces or regions of interest beyond expected patterns. For this kind of research in-depth analysis is needed and Google Trends tool may serve only as landmark for this kind of research. The second exception is time-related in peaks of interest shown for both countries over time. The expected peaks in both cases were proven, but once again, for any kind of further explanation, in-depth analysis was needed. That is why the
second goal of our research was a comparison of causal effects on potential peaks in trends and their reasons in both a positive and a negative context. In the case of Indonesia the interest was driven mainly through the peaks colliding with crisis situations (earthquake and tsunami), as well as diplomatic scandals in a negative way. The comparison of “Indonesia earthquake” and “Indonesia tourism” search terms shows a steady interest in tourism and peaks of interest connected to negative crisis situations. In the case of Croatia the highest peaks are connected to sport championships, primarily football. Also, the interest in Croatian tourism shows a slight increase over time.

The case studies of Croatia and Indonesia have shown that in a geographical sense the interest is primarily regionally focused, comprised of predictable geopolitical patterns, with the exception of (1) identity/culture-based irregularities; and of (2) unexpected events and crises with potential global implications in both a positive and a negative perception. The first conclusion is derived out of geographical (space) analysis of Google Trends, while the second one covers a continuous analysis over time. Finally, Google Trends may serve only as an adjunct tool for time-space analysis of interest for specific location, as well as an interesting tool for sorting voluntarily big data regarding specific searches as a form of stated interest by Internet users.

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