

FEÖTVÖS LORÁND UNIVERSITY IN BUDAPEST

Charles University  
Faculty of Arts

Institute of World History

THE IMPACT OF GOOGLE MAPS' REVIEWS AND  
ALGORITHMS ON ERASMUS STUDENTS'  
CHOICES OF MUSEUMS TO VISIT IN PRAGUE

Master's thesis

Fernanda Schröter Freitas

Thesis supervisor in Prague: Dr. Jiří Janáč  
Thesis supervisor in Budapest: Dr. Judit Klement

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## Declaration

I, the undersigned, hereby declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any other academic degree or diploma. Except where states otherwise by reference or acknowledgment, the work presented is entirely my own.

Prague, 13/05

  
Fernanda Schröter Freitas

## **Abstract**

When in need of a map, over 2 billion people consult Google Maps. Besides cartography, this tool offers information and opinions on all kinds of places, including museums. Since memory institutions are important sites of preserving and interpreting cultural identity, it becomes vital to investigate the impact digital platforms such as Google Maps have on their visitors. This research aims to measure how much Google Maps' reviews influence the choice of people to visit (or not visit) museums. For that, around 20 Erasmus students in Prague were surveyed on their use of the platform and its tools, their cultural habits, and their overall use of technology. From those, five were interviewed and had their Google Maps account analyzed. Overall, all students relied on Google Maps in some way or another, with most underestimating the impact the tool had on their choices. They were most affected by negative reviews that undermined a museum's social status and positive reviews that deemed the exhibitions as interesting/interactive. Google Maps overall showed commercial museums to most students looking for museums on the platform and showed positive reviews on top of negative ones, actively hiding reviews with a political bias. The work highlights the impact this tool could have on European culture, by influencing toponymic discourse, leading citizens to non-educational museums, normalizing the commercialization of cultural attractions, and unjustly comparing museums.

Keywords: Google Maps, Museums, Cultural Heritage, Prague, Online Reviews, Erasmus Students, digital platforms

## **Abstrakt a klíčová slova**

Když potřebuji mapu, více než 2 miliardy lidí využijí Mapy Google. Kromě kartografických dat nabízí tento nástroj také informace o lokalitách a zajímavostech včetně muzeí a také jejich recenze z pera běžných uživatelů aplikace. Vzhledem k tomu, že paměťové instituce jsou důležitými místy uchování a interpretace kulturní identity, zdá se nezbytné zaměřit pozornost na vliv digitálních platform, jako je Google Maps, na jejich návštěvníky. Cílem tohoto výzkumu je zjistit, jak moc ovlivňují recenze na Google Maps volbu lidí, kteří se rozhodují navštívit (nebo nenavštívit) muzea. Výzkumný soubor tvořilo 20 studentů programu Erasmus v Praze, u kterých jsme analyzovali využívání Google Maps v kontextu jejich kulturních návyků a vztahu k digitálním technologiím. Pět respondentů jsme pak podrobili detailnější analýze zaměřené přímo na jejich účet u Google Maps. Celkově se všichni studenti na Mapy Google tak či onak spoléhali, přičemž většina z nich podcenila vliv tohoto nástroje na jejich chování a preference. Nejvíce je ovlivnily negativní recenze, které podkopávaly společenský status muzea, a pozitivní recenze, které označovaly expozice za zajímavé/interaktivní. Mapy Google zobrazovaly většině studentů, kteří na platformě hledali muzea, spíše komerční muzea a spíše pozitivní recenze, přičemž aktivně skrývaly recenze s politickými stanovisky. Práce upozorňuje na dopad, který by tento nástroj mohl mít na evropskou kulturu, protože ovlivňuje toponymický diskurz, preferuje muzea, která nejsou vzdělávací, normalizuje komercializaci kulturních atrakcí a nespravedlivě srovnává muzea na základě komerčních algoritmů..

Klíčová slova: Google Maps, Museums, Heritage, Prague, Reviews, Erasmus Students, digitální platformy

## **Résumé et mots-clés**

Plus de 2 milliards de personnes font appel à Google Maps lorsqu'ils ont besoin d'une carte. Cet outil offre non seulement une cartographie mais aussi des informations et des avis sur tout type de lieux, notamment les musées. En raison de l'importance des institutions patrimoniales comme lieux de préservation et d'interprétation de l'identité culturelle, il est devenu crucial d'étudier l'impact des plateformes numériques comme Google Maps sur les visiteurs. Cette étude a pour objectif de mesurer l'impact des avis de Google Maps sur la sélection (ou non) des musées par les utilisateurs. Pour cela, j'ai étudié les pratiques d'environ 20 étudiants Erasmus de Prague : leur utilisation de cette plateforme et ses outils, leurs habitudes culturelles, et leurs usages des technologies. Parmi eux, 5 ont été interrogés et leur compte Google Maps analysé. Dans l'ensemble, tous les étudiants s'appuient sur Google Maps de différentes manières, et la plupart sous-estiment l'impact de l'outil sur leurs choix. Ils étaient davantage affectés par les avis négatifs qui dévaluent le statut social d'un musée et par les avis positifs présentant les expositions comme intéressantes et interactives. On peut constater que Google Maps présente en première ligne les musées commerciaux à la plupart des étudiants cherchant un musée. La plateforme montre également les avis positifs au-dessus des négatifs, cachant intentionnellement les avis avec un biais politique. Ce travail révèle l'impact que peut avoir cet outil sur la culture européenne en influençant le discours toponymique, guidant les citoyens vers des musées non éducatifs, normalisant la commercialisation de l'attraction culturelle et comparant de façon injustifiée les musées.

Mots-clés: Google Maps, musées, patrimoine culturel, Prague, avis en ligne, étudiants Erasmus, plateformes numériques

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## Chapter 1: Introduction

In the year of 2011, a retreat center in South Dakota, United States, saw its peace start to be disturbed by hundreds (if not thousands) of tourists. The visibly lost visitors were not looking for the center. Instead, they wanted to visit Mt. Rushmore, the famous monument dedicated to former American presidents. What at first was a funny mishap, started to take its toll on the location after redirecting numerous travelers every day. They soon realized what was happening: Google Maps was pointing to the wrong address. Despite recurrent requests to correct the location, the error persisted for at least five years. They even had to install a large sign in front of their driveway to point tourists in the right direction.<sup>1</sup>

Google Maps, as illustrated by this anecdote, has become an integral part of our society. When in need of a map, around 2 billion people use Google Maps (Ström, 2017). Besides locating themselves geographically, Google Maps users can find information on transportation, traffic, and businesses like restaurants and supermarkets. Besides commercial facilities, monuments like Mount Rushmore and museums/heritage sites are also to be found on the platform. Like any other establishment, users can post pictures and reviews of these cultural institutions, which can be read by anyone with an internet connection. This database of user-generated content can have massive proportions. The Prague Castle, for instance, has around 150 thousand reviews<sup>2</sup> and countless photos posted on its Google Maps page. All of these are read and considered by those that want to explore cities and places they have not been to before.

Despite the relevance of this tool in society, the cultural sector still overlooks this powerful resource. Many use Google Maps as a way to decide the places they visit, relying on other people's opinions and experiences to make a decision, which also applies to cultural institutions. There is not, however, any research on how this massive tool and database could affect the museums people discover and decide to go to. This research aims to measure how much this tool influences young adults' choices of museums to visit, focusing on Erasmus humanities students in the city of Prague.

In this chapter, I will introduce this study, delineating its background/context, research problem, research aims, objectives, relevance, and limitations.

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<sup>1</sup> Turner, K. (2019, March 29). Using Google Maps may reduce the amount of gray matter in your brain. Chicago Tribune. <https://www.chicagotribune.com/business/ct-google-maps-brain-matter-20160331-story.html>

<sup>2</sup> Prague Castle. (n.d.). Google Maps. <https://goo.gl/maps/5VBtAdQ5K6X1xP3p8>

## 1.1 Background

As the world becomes increasingly reliant on technology, understanding its impact on people's choices and decision-making processes has become a crucial area of research. In recent years, Google Maps has emerged as one of the most widely used platforms for navigating unfamiliar places and finding local businesses and attractions. However, despite its widespread popularity, there is still much that is not fully understood about the platform's impact on users' decision-making processes.

As such, there is a growing need for studies that explore the nuances of how Google Maps affects people's choices, particularly in the context of tourism and travel. While some research has been done in this area, previous studies have tended to focus on individual aspects of the topic rather than providing a comprehensive understanding of its many complexities. Thus, this study aims to address this gap in the literature and provide new insights into the impact of Google Maps on Erasmus students' decision-making processes when it comes to visiting museums in Prague.

This scope was chosen due to the fact that the European Union has been in the forefront of regulating internet use and data protection with the aim of transposing European values into the online environment. The EU has always tried to secure its values and build a European identity, and technology, now seen as a political actor, can influence that. I argue that if technology influences the museums people visit, it could impact the EU. As pointed out by Bäumler and Gossier (2003), “museums play an essential part in the development of a common identity for Europe.” (p. 150) Especially when it comes to Erasmus students' choices. The Erasmus program is “one of the symbols of the construction of European identity,” (Oborune, 2013, p. 182) being publicly funded with the goal of fostering European integration. The European Union's relation with technology has wide-reaching implications, as, due to what Bradford (2020) calls the Brussels effect, it can shape transnational corporate conduct.

By taking a holistic approach to the topic, this study seeks to provide a more nuanced understanding of how different factors, such as Google Maps' reviews and algorithms, influence users' decision-making processes. By doing so, it can help shed light on the complex interplay between technology and human behavior, which is becoming increasingly important as society continues to evolve in the digital age.

Google Maps as a platform and the social impact it could have been studied by two authors, Ström and McQuire (2019). These authors discussed topics such as the status of Google Maps as a part of society's infrastructure and the impact the tool could have on toponymy/topography, and, thus, society. These studies are aligned with the work of authors such as Van Dijck et al. (2018), who proposed the concept of a platform society: a society where the main technology companies rule and shape the way the world works. In the cultural field, however, the impact of technology is hardly addressed, instead focusing on the contributions technology could have.

To measure the impact Google Maps could have on culture, I consider it to be important to generally understand how it works, highlighting the relevance of studying its algorithms. Algorithms have hardly been studied in relation to the cultural sector, though they are present in the life of most people daily. Broader literature on the topic shows how opaque algorithms are, making it difficult for anyone to fully understand them, especially the more sophisticated ones. Though people are learning more about algorithms, there is still a lack of awareness regarding their presence outside of traditional social media, which can be dangerous considering how they can shape people's choices.

Another important aspect is to understand why online reviews can be relevant and influence people. Online reviews have become increasingly relevant in today's society, especially in the cultural heritage industry. One important aspect of this research is understanding why online reviews can be relevant and influential. In recent years, several studies have focused on the use of online reviews to extract visitors' opinions about cultural heritage sites. However, these studies have not fully explored the role of online reviews in influencing the decisions and attitudes of those who read them.

Emotions also play a critical role in the cultural heritage industry, as shown by authors like Smith (2020). These emotional responses can be influenced by the content of online reviews, which may highlight certain aspects of a cultural heritage site or provide a particular perspective on the experience. Overall, online reviews are a valuable source of information and feedback for cultural heritage organizations. However, their impact on visitors and the general public is not yet fully understood.

## **1.2 Research Problem**

Google Maps is a broad tool that has become an integral part of our daily lives. With over 2 billion users worldwide, it has become an indispensable resource for navigating unfamiliar locations and discovering new places. In addition to its primary functions of providing directions and navigation, Google Maps also features user-generated content in the form of reviews, photos, and other information, allowing people to share their experiences and opinions about different places.

While Google Maps has undoubtedly had a significant impact on the way people interact with physical spaces, particularly in terms of navigation and exploration, there has been a surprising lack of research on the platform's influence on cultural institutions, such as museums and heritage sites. Despite the fact that many of these institutions are featured on the platform and subject to user-generated content, there has been little investigation into how this phenomenon might affect them.

This lack of research represents a significant literature gap, as it leaves us with very little understanding of how cultural institutions are impacted by the widespread use of Google Maps and the user-generated content that is associated with it. Without this knowledge, it is difficult to determine the extent to which Google Maps is changing the way people engage with cultural institutions and the cultural landscape more broadly.

This gap in the literature is particularly problematic given the potential significance of cultural institutions in shaping our collective understanding of history, society, and identity. If Google Maps is actively changing how people choose which cultural institutions to visit, this could have far-reaching implications for the preservation and dissemination of cultural knowledge. It is, therefore, essential that further research be conducted in this area to better understand the relationship between Google Maps and cultural institutions, and to identify potential implications for culture and society more broadly.

## **1.3 Research aims and questions**

The proposed research objective is to examine how Google Maps' reviews and algorithms affect the decision-making process of international students when choosing which museums to visit in Prague. The study aims to explore the impact of Google Maps on young

adults' museum visitation choices in Europe, with three primary objectives that will shed light on the role of the platform in shaping users' decisions.

The first objective of the study is to investigate the presence of Google Maps in the daily lives of participants and how they use the platform in the context of museums. This will involve analyzing whether participants use the platform for navigation, discovering new places, or reading reviews, and how frequently they use the platform for these purposes. The study will provide insights into the importance of Google Maps in shaping users' choices of which museums to visit.

The second objective is to examine the impact of Google Maps' reviews on the decision-making process of participants when selecting a museum to visit. The study will analyze the impact of both institution/exhibition-focused and audience experience-focused reviews on participants' decision-making. By analyzing the content and tone of these reviews, the study aims to provide insights into the factors that influence participants' choices when selecting a museum to visit. Additionally, the study will explore whether participants trust the reviews on Google Maps and how this trust impacts their decision-making process.

The third objective is to understand if Google Maps' algorithms influence the results shown to users when they perform a search on the platform, as well as the order and content of the reviews displayed. The study will analyze the search results and reviews shown to participants, with a focus on personalized results based on the user's search history and other factors. By investigating how the algorithms impact the choices of participants, the study will provide insights into how Google Maps shapes users' choices of which museums to visit.

The main research question is: "How do Google Maps' reviews and algorithms impact international students' choices on which museums to visit in Prague?" The additional research questions are: How do participants use Google Maps in their daily lives in the context of museums, and for what purposes do they use the platform? What is the impact of Google Maps' reviews on the decision-making process of participants when choosing a museum to visit, and what factors influence their choices when selecting a museum to visit? Do participants trust the reviews on Google Maps, and how does this affect their decision-making process? Do Google Maps' algorithms influence which museums are shown to each user when they perform a search on the platform, and how does the order and content of the reviews shown to them impact their choices?

## **1.4 Significance**

With the increasing use of digital technologies in the fields of museums and cultural heritage, there is a need to understand how these technologies are shaping the way people interact with and experience them. This study seeks to contribute to the establishment of a new field of study within cultural heritage and museum studies by exploring the impact of technology on the cultural sector and its implications for culture.

One of the primary goals of this study is to start a discussion on how Google Maps can influence the cultural sector. The use of the tool in discovering/rating museums and cultural heritage sites has become increasingly present in recent years. This study will analyze the ways in which this technology is changing the way people engage with cultural heritage and how they are transforming the cultural sector as a whole.

Moreover, this study will also explore how the use of technology in the cultural sector impacts European culture as a whole. Europe has a rich and diverse cultural heritage, and the use of technology presents both opportunities and challenges in preserving and promoting this heritage. By examining the impact of Google Maps on the cultural sector, this study aims to provide insights into how Europe's cultural heritage can be effectively preserved and presented in the digital age.

Furthermore, this study will also contribute to the development of best practices for the use of technology in the cultural sector. As museums and cultural heritage organizations continue to incorporate digital technologies into their operations, there is a need for guidelines and frameworks that can help ensure the effective and responsible use of these technologies. This study will provide insights into the key issues and challenges that must be addressed in order to effectively leverage technology in the cultural sector.

In summary, this study seeks to establish a new field of study within cultural heritage and museum studies by exploring the impact of technology on the cultural sector. By starting a discussion on this topic, analyzing its implications for European culture, and contributing to the development of best practices, this study will help ensure that Europe's rich and diverse cultural heritage is effectively preserved and presented in the digital age.

## **1.5 Limitations**

While this study is valuable in providing insights into the influence of technology and social media in selecting museums to visit, it is important to acknowledge that the sample size

of the study was relatively small and limited to young adults who were already familiar with museums and technology. Thus, the study's findings may not be generalizable to the broader population, and further research with a more diverse sample is needed to gain a better understanding of the impact of Google Maps on museum selection.

Furthermore, this study is the first attempt to examine the role of Google Maps' reviews and algorithms in the museum selection process. Since Google Maps continues to be a popular tool for finding and reviewing museums, further research is crucial to comprehensively understand the effects of the platform on the museum industry.

As technology evolves and continues to impact our daily lives, it is crucial to conduct further research into the impact of such tools on society and culture. This allows a deeper understanding of how technology shapes our experiences and interactions with the world around us.

## **1.6 Structure**

In Chapter 2, the objective is to present three central aspects of the thesis. Firstly, it discusses the functioning of Google Maps as a platform and the social implications of integrating maps and travel guides into a single platform. This section also provides an overview of how Google Maps has been studied in the literature in the context of cultural heritage and museum studies, along with its history, functioning, and place within a platform society. The chapter also examines how Google Maps utilizes datafication, commodification, and selection to shape society, providing examples of how users rely on the platform. Secondly, the chapter investigates algorithms in depth, analyzing how Google Maps uses these technologies to maintain its position as the most widely used map in the world. This section initially discusses how algorithms have been studied in the literature in the context of cultural heritage and museum studies, and subsequently explores the opacity of algorithms, the role of users in choice-driven platforms, and user awareness of algorithms and their impact on choices. Thirdly, the chapter delves into the representation of online reviews in literature and how they configure as Electronic Word of Mouth (eWOM). It also examines the role of emotions in shaping the impact reviews have on the reader.

Chapter 3 aims to examine the cultural implications of a map platform, following the previous sections that established the nature of Google Maps and its reviews and algorithms.



This chapter focuses on examining the impact of Google Maps on European culture, with a particular emphasis on the European Union (EU). The EU has been at the forefront of regulating digital platforms, data collection, and algorithmic action, which has set a precedent for the rest of the world. The chapter aims to investigate the EU's regulations and their reverberations in European society, as well as the implications for Google Maps and its potential to threaten the EU's postulates. Furthermore, the chapter explores how Google Maps could affect museums and heritage, and the broader impact on European culture. To investigate this impact, a question will be proposed, and a methodology will be outlined for pursuing this inquiry.

Chapter 4 is divided into three sections. In the first section, the results of the surveys are presented. The second section covers the interviews, including a brief introduction of the students interviewed and a detailed description of the different themes approached in the interviews. These themes include the use of Google Maps, the use of other social media, the impact of reviews, trusting Google Maps, and choosing a museum to visit. Finally, the third section explores the results of the experiment conducted on Google Maps. This section covers the Google Maps search results for museums and the reviews displayed for individual museums.

In Chapter 5, the results are analyzed in relation to the research aims. Firstly, the use of Google Maps among the participants is discussed, followed by the influence of Google Maps reviews on the participants and the influence of Google Maps algorithms on the participants. The chapter wraps these conclusions by relating them to the impact they could have on European culture.

## **Chapter 2: Google Maps: the meanings of a map platform**

This chapter aims to present the three central aspects of this thesis. First, it points out Google Maps' functioning as a platform, and what concentrating maps and travel guides into a platform entails socially. This section reports on how Google Maps has been studied in the literature in the cultural heritage and museum studies fields. Then, on its history and functioning, its place within a platform society, and how it uses datafication, commodification, and selection in shaping society, giving examples of ways users rely on it.

Second, it further investigates what algorithms are and analyzes how the platform uses these technologies to keep its hegemony as the most used map in the world. In this chapter, I first bring up how algorithms have been studied in the literature in the cultural heritage and museum studies fields. I then explore the opaqueness of algorithms, matters of agency of users in choice-infused platforms, and the awareness of users on algorithms and their influences on choices.

Third, I explore Online Reviews and their representation in literature. Then, how they configure as Electronic Word of Mouth (eWOM) and the role of storytelling in the impact reviews can have on readers.

### **2.1 Google Maps: a part of society's infrastructure**

Google Maps has been downloaded over 10 billion times. Just the numbers alone can indicate the need to investigate this tool further, as is massively used. If we think about how much people use it daily, it becomes even more important. I propose an exercise of simulating how a user could use the tool to find a museum. If they look for the word "museum," Google Maps will show all the museums nearby. Even when they do not discover the museum through the platform, it is still convenient to use to check information on the place.

If they are wondering if the museum is worth a visit, they can check what other users are saying through the reviews. They can find out when it opens and closes and the current exhibitions, ask questions about the place, see pictures of the establishment, learn the less busy hours to visit, and more. Since widely used, they can also share the link to the museum business page with friends to invite them to visit, as they probably have the Google Maps app on their phones as well. After deciding they want to go to the museum, they can easily see the distance and time estimated to go there and how to get there by driving/walking/public

transportation.

The convenience offered by Google Maps makes it attractive to the user, that now can centralize all the actions to find a place and decide whether to visit it. It clusters an immeasurable amount of information that is hardly available anywhere else. Even when it is, it is more fragmented. Thus, this centralization offers Google Maps a privileged place in people's lives, which will be investigated throughout this chapter.

In this chapter, I will, first, state how Google Maps has been portrayed in literature in relation to cultural heritage and museums. Second, explore the history and functionalities of Google Maps. Then, its classification as a digital platform/infrastructure, outlining the particularities of Google Maps as a platform, and how they can be noticed in the three mechanisms of a platform society: datafication, commodification, and selection.

### **2.1.2 Google Maps in Cultural Heritage and Museum Studies literature**

There is still little literature regarding Google Maps and cultural heritage/museums. Most of it centers on how the platform can be used as a tool and contribute to heritage education, museum tours, and other similar contexts.

Wu, Liu, Cosley, and Macy (2011) used Google Maps as a source of community knowledge and space awareness. They investigated personalized maps produced by local communities in New York City, USA, to “discover collective local knowledge and understand the differing perceptions of urban space.” They compared what locals chose as essential places to visit in the city to what other sources did, investigating their relationship to the urban space.

Another trend is to use online maps as a tool for fostering identity. Apostolopoulou, Carvoeiras, and Klonari (2014) report on their experience of asking students to organize guided tours through GPS devices like Google Maps, leading them to rediscover “historical and archaeological monuments in urban settings linking spatial thinking to cultural recognition” in Austria and Portugal. Rees, Hunt, Vitale, Horgan, and Strachan's (2022) article highlights the importance of identity matters when the public interacts with cultural heritage, emphasizing the role of geographical scale. For the authors, web maps can foster engagement with collections when used in a meaningful and user-centered way.

Some authors describe the use of Google Maps to map cultural heritage. Laverius and Dewayani (2020) describe the experience of using Google Maps to visualize Indonesian intangible heritage. Similarly, Harede and Fekry Ibrahim (2019) explored the experience of

using Google Maps to develop an Interactive Digital Tourist Map for the Matrouh Governorate in Egypt. Bonacini (2013) explored how Google partnered with the Italian Ministry of Cultural and digitalized and promoted Italian cultural heritage. Luo et al (2018) pointed out the possibilities of using Google Earth in archaeological cultural heritage, facilitating access to both the public and archeologists.

Some of the works report on Google Maps as a centralized platform. That is the case of the work of McQuire (2019), who investigated how Google Maps succeeded as a platform that is embedded as a foundational resource/infrastructure within society. Ström (2011, 2015, 2017, 2020) also deeply investigated the centrality of Google Maps, relying on the concept of abstraction to describe Google Maps' actions. The author approached topics like the politics of Google Maps when placing borders, how people's image of the world is shaped by the platform, how it increases abstraction in cartography, and how Google Maps decentralized the "center of the world." The work of McQuire and Ström will be further explored in the conceptual framework of this dissertation.

### **2.1.3 Google Maps: the map to replace all maps**

Currently, Google Maps maintains itself as the biggest map platform in the world, having over 2 billion users each month (Ström, 2017). This means most people around the world use Google Maps when they need a map or a business recommendation. One can think of Google Maps currently as an infrastructure without which contemporary society can hardly live. A change in Google Maps can affect people's lives tremendously, considering the number of users.

According to McQuire (2019), Google Maps is derived from the work of Lars and Jens Rasmussen, two brothers from Denmark. Google bought their start-up in 2004, which was interested in their innovative approach of a browser-based map application. Indeed, this feature was vital for the tool's success, as it allowed users to access the maps without further software and provided a smooth user experience. On its first day online, the website gathered around 10 million visitors. It became noticeable that Google Maps entered the field of online mapping as a strong competitor. In 2005, Google Earth was introduced, turning satellite imagery (something usually only accessible for military purposes) available to the larger public. This data was then added to Google Maps. According to McQuire (2019), the use of satellite information was vital to produce new maps for Google and boosted the platform's popularity. This popularity was also inflated by Google's decision to release Maps API,

allowing third-party development. In the first year, over 350,000 websites used this data. In 2006, Google Maps had already become the biggest map platform and the second most accessed site by Google. The launch of Google Street View in 2007 (which allowed users to browse through streets in eye-level 360° pictures) took Google Maps to another level, separating it entirely from its competitors. At last, the release of a mobile application at the end of 2008, close to the launch of the first Android phone, consolidated this market dominance. The introduction of live traffic information and GPS routes was a huge innovation in the sector.

Regarding the business pages, according to Croome (2020), in March of 2004, a tool named Google Local was launched to display information on local businesses, containing names, addresses, and phone numbers, almost as a digital version of the then-current yellow pages. Google Local was launched even prior to Google Maps, released in February 2005. A month later, Google Local Business Center was launched, offering businesses the chance to edit their information on Google Local, that in October of the same year, was merged with Google Maps. This fusion was first named Google Local; however, in April 2006, the name was set on Google Maps. In March of 2007, Google Local Business Center was improved to facilitate businesses changing their information. This was a significant update, as in September 2009, Google Place Pages were released, allowing more information to be shown about each place. In November 2010, Hotpot was introduced to connect users with areas they may like. Hotpot was merged with Google Places the following year. In 2011, Google+ was released as an attempt to compete with other social media, allowing businesses to have pages in this environment. After many changes to their system during this era, Google My Business was launched, replacing former tools.

In 2018, Google Maps was updated, and an Explore tab was introduced. The update aimed to turn Google Maps "more assistive and personal" (Lin, 2018), including new tools to help users figure out what to eat, visit or do. The idea would be to assist people in finding the best places for them either in the neighborhood or when they are traveling. The new explore tool would be a "hub for everything new and interesting nearby" (Lin, 2018). When browsing through the map, suggestions of places would be displayed based on "tastemakers" choices, "local experts, Google's algorithms, and trusted publishers like The Infatuation and others" (Lin, 2018). A now discontinued "For you" tab was also implemented then, to display the places that would probably be of interest to the user. An important new tool was developed in this context: the "match" feature." Google would calculate the user's compatibility with a

restaurant using machine learning. Considering the information it has on the business, the user-selected dietary options, and the history of business visited (if the Location History option is turned on) or rated; the tool would give a percentage of "match." This number could change over time, according to the user's activity. Restaurants with higher relevance would be prioritized when users search for places to eat.

The introduction of the explore tab was vital to shaping the way Google Maps works today, shifting from mainly a tool that allows you to go to a place that you chose to one that actively suggests where you should go and how to get there.

The way the platform works is that, when first accessing the intended place page, you first see its title, main picture (or pictures in the mobile app), number of reviews, overall rating, and, in the mobile app, your distance to it in minutes. Then you are provided with the options of directions to the location, saving the place in a list for future consultation, and sharing the site with others. In the phone application, you can also initiate a route to the place, be directed to buy tickets, and call the provided number. On the website, you have the option "Nearby," where you can look for restaurants and other facilities near the attraction, and "Send to your phone." Appearing in different orders in the mobile app and on the website, you have overall information (address, opening hours, website, phone number), a small description of the place, busiest hours to visit (updated hourly to show current occupation), photos (divided into categories such as interior and exterior), updates, questions and answers (that can be both written by the users), similar suggested places, and the reviews for the place.

In the reviews section, the distribution of rating scores is represented visually, with the overall score in stars and the number of reviews next to it. Under that, you can browse popular keywords used by the users and see the reviews that mention that specific topic or search for a term yourself. You are first offered the option to write yourself a review. Then, you are able to browse the reviews. The order in which they are sorted is by default by "Relevance", but it is possible to sort it by Newest, Higher Rating, or Lower Rating. In the reviews, you can find the name of the user that wrote them, their picture, if they are a local guide, the given rating, how long ago the review was written, the actual review text, photos taken by the user, and, finally, two buttons that allow you to like the review (showing you the number of likes the review already has) and to share the review externally. Also, there is the option to report the review for going against the platform's policy.

When reading a review, you can access the profile of the person who wrote it. There

you can find their name, their picture, if they are a local guide, their level as a reviewer, all the reviews they wrote, and photos they posted. Google automatically shows you a map of the places they visited and wrote a review for. For safety reasons, you can make your profile private.

In the mobile app, one can find the previously mentioned "Explore" tab, through which you can find places in the category you choose. You can look for Food & drink (restaurants, coffee, takeout, bars, delivery), things to do (parks, live music, gyms, movies, art, museums, attractions, libraries, nightlife), shopping (groceries, shopping centers, beauty supplies, electronics, car dealers, sporting goods, home & garden, convenience stores, apparel), and services (hotels, gas, ATMs, hospitals & clinics, beauty salons, libraries, car rental, mail & shipping, car wash, parking, dry cleaning, pharmacies, electric vehicles). Other than that, it is also possible to use the search bar to look for specific terms, showing you places that either have the term on their title or have reviews mentioning it. For instance, when searching for a word like "vegetarian," the results show restaurants that define themselves as vegetarian or where someone used the term in a review, saying the place has vegetarian options or such.

Now that the platform's tools and functioning were outlined, I will further explore how this extensive offer of services and data grants Google Maps the status of a digital platform and what this means for its impact on society.

#### **2.1.4 The centrality of digital platforms**

Google Maps is part of a much larger phenomenon that Van Dijck et al. (2018) call a platform society. The authors argue that, currently, digital platforms shape how our society works. The so-called "Big Five" (Google, Facebook, Amazon, Apple, and Microsoft) are among the most prominent actors in geopolitics. They determine technological standards, shape the economy, and mediate interactions between many actors. According to Van Dijck et al. (2018), nowadays their influence can be felt in each aspect of our lives. In exchange for the convenience they offer, people surrender their data to these platforms, giving them power over societies all over the globe.

Never before have any actors withheld so much control over the general population as the Big Five currently do. The massive data these companies own is processed through refined algorithms, allowing them to curate content and ads for their users. As they are very scarcely regulated, these platforms can investigate and exploit human behavior, building their websites and apps to maximize the impact on the users and keep them in their platforms as

much as possible and gather as much data as possible.

Ström (2017) argues that Google Maps was developed by Google following the logic that maps are useful and sought after, so it would make sense that a company seeking hegemony of the market would expand to that realm. Google offers a convenient and high-quality product, which attracts a wide audience. These staggering numbers allow them to gather more data and market more targeted ads (Ström, 2017).

Van Dijck et al. (2018) expand on the mechanisms through which social media shapes society, calling them "datafication," "commodification," and "selection." The next sections will address each of the mechanisms and explore how Google Maps uses each one of them.

#### **2.1.4.1 Datafication: every piece of information counts**

Datafication would be the ability of platforms to transform every activity of the user into data, capturing information that before was considered superfluous. This is collected, processed, and stored in the user's dataset. Through the use of mass-scale algorithms, platforms curate information to show the user, offering personalized content and ads and creating models of user behavior. Besides studying users' behavior, platforms also shape it. Platforms have transformed how we shop, interact and socialize. This has been intensified through developments in the field of data science, data analytics, and the employment of artificial intelligence that allow the development of more refined algorithms to manage this data each day. On Google Maps, datafication can be observed all throughout the platform.

Firstly, cartography data. According to McQuire (2019), Google Maps' abundance of resources shaped how maps work nowadays, extending the horizon of what a map could be and demanding much more detail from cartography. To this day, more than 80 billion Street View images have been scanned, leading to data with meticulous accuracy. Brian McClendon, vice president of Google Maps, stated that the company is able to identify and understand every pixel of imagery they own. They can convert images into numeric data, stating, for instance, that, in a specific picture, there is a crosswalk and three people. With Google acquiring reCAPTCHA, a system used to avoid robots on websites, its image recognition system is constantly improving. Most websites that require this validation use reCAPTCHA. That means that every time people "prove they are human" through the tool they are contributing to the refinement of the system, as they have to manually do processes such as "select all the images that contain traffic lights" or "select all the images that contain



crosswalks.” With Google Maps’ recent inclusion of traffic lights and crosswalks on its maps<sup>3</sup>, one can question if this process was based on this kind of data.

Besides the satellite and street view images, McQuire (2019) states that Google's strategy of allowing and encouraging user-created content enables the platform to grow continuously. It is always in motion since it is not meant to be a single tool but a combination of various. The website will not achieve a final form, constantly being shaped to new demands and adding new features. Tools like Google Maps give temporality to cartography, as their maps change dynamically. Users can participate in creating maps themselves by, for instance, reporting missing places and suggesting edits. According to Ström (2017), Google Maps benefits immensely from this voluntary effort, as it increases the reliability of their maps.

This detailed information allows Google Maps to become a hub to not only guide people through traffic but to provide recommendations of businesses to visit. The value the platform generates in a huge part comes from this relation of the user generating data and being influenced by it. The guarantee of displaying relevant information relies on the data the platform gathers from the use of the tool. However, as Ström (2011) puts it, the “power” of maps does not stem only from how accurate they are, but from their centralization of knowledge. When a platform like Google Maps withholds a map with so much information, they are also gathering power.

Google Maps collects data on every aspect of the user’s life. Even when it is not being used, it gathers GPS data. Google Maps’ history of places visited stores information on each place visited, the means of transport used to get there, and how much time was spent. This is vital for the platform’s match tool, which suggests the compatibility of a said restaurant to the user. The traffic condition and accuracy of routes are also measured through users’ GPS data. This was explored by artist Simon Weckert when he created a fake traffic jam on Google Maps by transporting 99 smartphones in a handcart<sup>4</sup>.

#### **2.1.4.2 Commodification: monetizing the platforms**

Commodification would be the ability that platforms have to commodify objects, emotions, and ideas, valuing them through attention, data, users, and money. Datafication provides information on the needs and interests of the users which allows platforms to run

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<sup>3</sup> Lozano-Aguilera, R. (2022, April 5). Make Google Maps your copilot with these new updates. Google. <https://blog.google/products/maps/make-google-maps-your-copilot-these-new-updates/>

<sup>4</sup> Simon Weckert. (2020, February 1). Google Maps Hacks by Simon Weckert [Video]. YouTube. [https://www.youtube.com/watch?v=k5eL\\_al\\_m7Q](https://www.youtube.com/watch?v=k5eL_al_m7Q)

targeted ads. This enables the user to some empowerment, as they can be more involved in the buying process, decreasing the centrality of institutions like hotels, taxi companies, etc to the detriment of platforms like Uber and Airbnb (Van Dijck et al., 2018).

One of the downsides of this process is the increase in unpaid labor done by these platforms' users. Airbnb, for instance, relies on users' reviews to be trusted; meaning that platforms have a monetary gain on the users' time and contributions. Another aspect that has to be considered is the increasing dominance of these platforms, which have become consolidated monopolies. The convenience offered attracted so many users that they gained the centrality of the industries they replaced. The infrastructure required to maintain such tools makes competition almost impossible, which can be harmful not only to the online environment but to society as a whole. The commodification of objects, emotions, and ideas also has an impact on dictating trends and behavior, actively influencing people's lives.

Access to Google Maps is free, and one can use it in many ways. However, McQuire (2019) believes the way it is utilized is manipulated by the platform. Google Maps would create a space where economic interactions are put first, which is suitable for their revenue model of advertisement. Similarly, Ström (2017) claims that by the systematic promotion of advertisements, Google promotes "more consumeristic patterns of practice." (p. 168) The platform transforms local knowledge into data to support consumption and the market. Thus, public participation in this context has to be analyzed with skepticism, as it is ingrained with power imbalances. Gillespie (2006) believes technology is being created to limit the possibilities of its own use and make docile users that act as intended by the platform.

Ström (2020) argues that the customizations that Google Maps offers to each user based on the data they gather allow the platform to charge more for advertisements. Since they are targeted, they would be more "effective" and lead to more consumerism. On Google Maps, the company would also use a similar type of advertisement to its regular search engine, the association of brands with words. Ström (2015) points out how marketing relies on making bids on terms that organizations would like to be associated with, commodifying even words themselves.

#### **2.1.4.3 Selection: decentralized choice-making**

The third mechanism is selection. According to Van Dijck et al. (2018), in the platform environment, the user-driven choice is privileged over the expert-based one. Tools such as

rating and following allow the user to, in interaction with the platform's algorithm and interface, be shown a selection of content. It may seem more democratic; however, it must be considered that the platforms have their own agenda, and society knows very little about them. Algorithms would be able to determine the user's profile and personalize the content based on that, also predicting behavior and trends. One of the consequences of this process is the creation of filter bubbles, which leads people to live in parallel realities built for them.

Within this selection mechanism, Van Dijck et al. (2018) brings the relevance of "reputation" to the online world. On various platforms, users are invited to review other users or business performances and are offered the opportunity to read these assessments when they need them. This is used to build interpersonal trust, as it gives people assurance when engaging in economic activities suggested by people they have never met before. This would lead to a decrease in the importance of community-based modes of interpersonal trust. Beyond that, these devices are also used to enforce certain types of behavior in users, as people would strive for better ratings.

This is a central aspect of Google Maps, as one of its most prominent features is the reviews of businesses. With its uniquely large database, Google Maps offers the user the opportunity to consider other people's judgment when choosing a place to go. The authors claim people are now more influenced by online feedback than by experts, which highlights Google Maps' relevance in choice-making.

### **2.1.5 Terms of service**

To further discuss the control exercised by Google over its users, one can analyze its terms of service. In February of 2022, a post was made on Google's blog about how reviews are moderated on their platform. They state that "We've created strict content policies to make sure reviews are based on real-world experiences and to keep irrelevant and offensive comments off of Google Business Profiles." (Leader, 2022) They use the example of how, during the pandemic of Covid-19, they worked to remove reviews that criticized places for their safety measures such as mask and vaccination certification requirements. These guidelines are then perpetuated by human operators and machine-learning algorithms. The machine-learning approach is further explained, stating that it works to guarantee reviews are not violating their guidelines. This would be necessary given the number of reviews received

by the platform, although they claim to also have humans involved in this filtering process. Machines would be a useful asset as they are able to spot patterns and identify legitimate or illegitimate content before it is published.

According to Leader (2022), the reviews are analyzed by Google's software by their content and the history of the account that posted them, but also by the place they reviewing. A large number of reviews in a short time frame can be spotted as suspicious, especially if the place is tied to recent events that could generate a wave of fraudulent reviews. Google admits the difficulty in having machines decode nuance, giving the example of the term "gay", which can be used in either a derogatory or positive way. For that, they state to train their machine learning models thoroughly, improving their ability to flag only inappropriate content. Even if the review is accepted, it can be further investigated if suspicious activity is detected. Moderation efforts can also come from the users and business owners, that can report any review that may go against the platform's policy. These flagged comments are manually analyzed by moderators. Depending on the content, the review can be removed, the account that posted it can be deleted, and even legal action can be taken in more serious cases.

Google restricts comments that threaten civil discourse, such as the ones that contain harassment, hate speech, offensive content, and personal information. It also seeks to prevent deceptive content on the platform, such as fake engagement, impersonation, misinformation, and misrepresentation. Another field of regulation is posting mature content, which is forbidden. That includes obscenity & profanity, sexually explicit content, violence & gore, and adult-themed content. Besides that, regulated, dangerous, & illegal content, such as restricted content, dangerous content, illegal content, child safety, and terrorist content. Google also claims to moderate information quality, restricting off-topic comments, advertising & solicitation, and gibberish & repetitive content.<sup>5</sup>

It is not mentioned in this specific article, but the platform has other Terms of Service such as the ability to fully own users' contributions to Google Maps. So, in order to participate in the platform, one has to subject themselves to Google's rules. The company incites participation and contribution; however, in many ways maintains corporate control over the results of this collective effort. Access to maps is free, and one can use it in many ways. However, McQuire (2019) believes the way it is utilized is manipulated by the platform. Google Maps would create a space where economic interactions are put first, which is suitable

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<sup>5</sup> Prohibited and restricted content - Maps User Contributed Content Policy Help. (n.d.). <https://support.google.com/contributionpolicy/answer/7400114?hl=en>

for their revenue model of advertisement. The platform transforms local knowledge into data to support consumption and the market.

### **2.1.6 The social repercussions of a map platform**

Having established Google Maps as a platform and a vital part of societies' infrastructures, it is now possible to understand the implications it could have socially.

As Rose-Redwood et al. (2009) put it, maps are never innocent repositories of nominal and geographical data, as their choices normalize ways of reading the world. They are always political, reflecting the biases and values of their creators and society. Thus, the first social implication Google Maps has is that it creates toponymic discourse. That is, considering the reach Google Maps has, the choices it displays can determine the validity of names and borders.

As Ström (2011) puts it, there is still a "widespread uncritical acceptance of maps as conveyers of objective truth," which can obscure Google's agendas and decisions within its maps. The author points out how part of the power maps hold relies on how they centralize power and knowledge. If we consider the platform quality of Google Maps, this is enhanced even further. It standardizes cartographic conventions and all kinds of symbols. It, for instance, normalizes the idea of maps being embedded with advertisements and business-centered information.

With datafication, Google Maps also individualizes cartography, showing personalized maps and, according to Ström (2020), contributing to the fragmentation of our common world. For instance, since Google Maps has access to users' locations, once they open the application, they can see their immediate surroundings, not necessarily considering other areas. That is also reflected in the fact that different users, depending on their location, can see different names and borders. An example of this dilemma was the naming of the body of water that separates Iran and Saudi Arabia, where Google displayed both the names "Persian Gulf" and "Arabian Gulf." Iran considered this an offense, censoring access to the company's products in the country.

Besides shaping cartography, the tool also shapes how people relate to space. Unlike some platforms, Google Maps does not expect the user to stay a long time using the tool, but instead to learn to rely on it blindly. Dahmani and Bohbot (2020) found that reliance on GPS tools like Google Maps is associated with decreased hippocampal-dependent spatial memory.

Thus, with use over time, users started becoming less capable of locating themselves and dependent on GPS devices.

Thus, Google Maps quietly shapes how people locate themselves in space, making them reliant on its convenience and huge database. It also propagates cartographic discourse, shaping geopolitics and legitimizing/delegitimizing names and borders.

### **2.1.7 Conclusion**

Google Maps has forever changed how people navigate their surroundings. What was merely a tool for navigation evolved into a multi-faceted platform with a plethora of functionalities. It not only serves to get people from point A to point B but also as a tool for discovering new destinations and deciding if they are worth the visit. Google Maps, first, groups together many functions that were once distributed among various actors and, second, contains abundant resources and user contributions, unmatched by any other tool. Thus, it offers the user extreme convenience, which led it to become the go-to platform for discovering, choosing, and locating places.

Due to this centrality and wide use, it is vital to understand the implications of the platform on society, investigating how its datafication, commodification, and selection reverberate on social processes. It has transformed how people interact with the world, and thus, transformed how we view cultural heritage, a connection that will be further explored in Chapter 3.

However, as pointed out in section 2.1.2, no work addresses all of these matters in a related way. There are works that regard Google Maps as a centralized platform and its implications on society and works that talk about Google Maps as a useful tool for cultural heritage, but it is still necessary to investigate how Google Maps can influence cultural institutions in general.

## **2.2 The backbone of a structure: Google Maps' Algorithms and the implications of choice-infused platforms**

As posed by Tufekci (2015), “algorithms are computer programs, a set of instructions for carrying out procedures step-by-step.” (p. 206) These instructions can be simple and straightforward like ordering a list alphabetically or doing simple math calculations, leading to

one possible correct answer. With time, however, more complex algorithms started being developed, involving multiple variables and strenuous amounts of data. Algorithms are now used to decide in subjective matters, where there is no “right” answer.

One example is the use of these technologies in court cases. Harvard Law Review (2017) recounts a case that happened in 2013, where the state of Wisconsin, United States, charged American citizen Eric Loomis through the use of the COMPAS risk assessment tool. The tool’s algorithm sentenced Loomis to 6 years of imprisonment for relatively minor crimes, which lead him to appeal due to the unclarity of the methods used by the algorithms. According to the magazine, “the Wisconsin Supreme Court held that a trial court’s use of an algorithmic risk assessment in sentencing did not violate the defendant’s due process rights even though the methodology used to produce the assessment was disclosed neither to the court nor to the defendant.” (Harvard Law Review, 2017)

Social Media’s curation of content also involves subjective choices. As explained by Tufekci (2015), algorithms work as gatekeepers, curating what information is shown or hidden to each user. The author recalls an infamous experiment conducted by Facebook, where researchers purposely manipulated algorithms to show users positive or negative content aiming to measure the impact posts could have on users’ moods. They found out that content affected the users directly, with negative content leading users to write gloomy posts, for instance.

Since state-level regulations are still being developed, Social Media platforms do not have to disclose their algorithms’ functioning and reasoning. With datafication, these companies keep enhancing and refining these algorithms without any need to report to society. As pointed out by Tufekci (2015), algorithmic manipulation happens, and “there is no reason to think it will be used for benign purposes in every instance.” (p. 212) This raises the question of how much companies should disclose and what are the implications of hiding how algorithms work.

In this section, I will address, first, how algorithms have been addressed in the cultural heritage and museum studies literature. Then, the concept of the opaqueness of algorithms, relating it to matters of choice in platforms. Finally, the awareness of users regarding algorithms and their impact on their choices.

### **2.2.1 Algorithms in Cultural Heritage/Museum Studies literature**

Literature on algorithms and museums/cultural heritage usually focuses on how algorithms can be used in the fields and their practical applications.

Kharitonov, Dmitryukov, and Larionova (2016) discuss how cultural heritage, due to its multidisciplinary nature, can involve many professionals from different fields to solve its problems, which can lead to discordant opinions and difficulty in making decisions. To address this situation, the authors suggest the use of an algorithm to make innovative decisions based “on a set of matrix models showing preferences of different groups of experts in managing CH.” This would automatize the management of cultural heritage, selecting “preferable investment projects,” resulting in “increasing efficiency of control over economic processes.”

Scatigno and Festa (2022) report how Neutron Imaging can be a meaningful tool to analyze spatial information of edifications registered as cultural heritage, applying Deep Learning to treat the data. Similarly, Kwon and Yu (2019) offer a solution based on a deep learning algorithm to automatically detect stone cultural property.

Another trend is the use of algorithms to “more efficiently” plan museums. Hsieh and You (2017) address the problem of multiple-type museum visitor routing problem by proposing an algorithm to schedule rooms for each group, trying to better organize visits. Gao (2021) created a method for predicting museum tourism demand through advanced algorithms based on neural network integration. Garzia (2022) proposes a Genetic Algorithms-based method to optimize the functioning and management of the Fellini Museum in Rimini, Italy. It would guarantee a decrease in realization costs and could be applied in other contexts. Tan (2021) discusses the uses of the Bp-ant colony algorithm to design an escape plan for the Louvre in case of terrorism threats.

There are no major studies on how algorithms themselves affect the visitors of cultural institutions. Javed, Tučková, and Jibril’s (2020) study does not regard Google Maps, but it addresses other platforms that also use algorithms to impact people’s choices. More specifically, the authors investigate the impact of social media on the behavior of Millennials in the Czech Republic when choosing tourist destinations to attend. The authors point out that the use of social media to promote tourism does not actually predict either the behavioral intention of tourists or their actual behavior. They believe internal values related to travel motivations are more relevant in this context. However, social media channels influence the behavioral intention of tourists, indirectly influencing the actual behavior of tourists. The



mediation of behavioral intention by social media channels also indirectly affects the actual behavior of tourists. That shows that social media can encourage people to engage in behaviors already in their set of values. Also, some other factors influence, such as Gender and educational level. One very relevant finding is that the use of social media to gather tourist information can significantly predict the behavioral intention of tourists' choice of destination.

### **2.2.2 “There may be something impenetrable about algorithms”**

We've arranged a global civilization in which most crucial elements profoundly depend on science and technology. We have also arranged things so that almost no one understands science and technology. This is a prescription for disaster. We might get away with it for a while, but sooner or later this combustible mixture of ignorance and power is going to blow up in our faces. - Carl Sagan, *The Demon-Haunted World*, 1996

In this section, I will address the opaqueness of algorithms and how that translates to the general public awareness (or lack thereof) of how these systems work. Gillespie (2012) points out that “there may be something, in the end, impenetrable about algorithms. They are designed to work without human intervention, they are deliberately obfuscated, and they work with information on a scale that is hard to comprehend.”

Burrell (2016) further expands on this topic by defining the types of opaqueness encountered in algorithms. First, corporations and institutions would purposively conceal algorithms in the name of self-protection, protecting the companies' interests. This would also be a way to protect systems against targeted attacks aimed at “hacking” the algorithms' functioning. Second, there is an opacity that stems from the lack of understanding of how codes work by the general population. Third would be the intricacy of algorithms, now enhanced by machine learning and artificial intelligence, that makes it almost unintelligible even for specialists.

Burrell (2016) expands on this last kind of opaqueness, stating that complex algorithms, such as the one in the Google search engine, involve various components and teams that tackle each of them. That means even software engineers do not have full access and understanding of the bigger picture, being instead invested in specific parts of the process. To fully comprehend these systems would take numerous hours of untangling ever-growing code, that constantly changes due to human-produced enhancements and machine learning.

Nielly (2020) also addresses this topic when he seeks to answer the question “can we let algorithms make decisions we cannot explain?” He puts that, with the evolution of artificial intelligence, these tools have become decision-makers, while humans have been relegated to artifacts shaped by technology. He argues that acquiring agency in this regard and understanding the choices made by an algorithm is critical for two main reasons. First, it forces platforms to be clear about the way they are trying to influence their users’ choices. Second, it challenges the dangerous idea that AI is an infallible oracle, pointing out its multiple possible biases.

He uses the example of YouTube. The author wonders if the platform would be able to justify in detail their choices of suggested videos to watch. He thinks that “It is technically feasible... but I doubt YouTube would do it.” He brings up the fact that even though attempts at regulation like the 2018’s European Union’s General Data Protection Regulation (GDPR) try to hold these companies accountable, they face the second opacity problem pointed out by Burrell (2016). Users are usually not equipped to fully comprehend the complexity of algorithms, which these companies take advantage of, providing “smoky explanations.”

Nielly (2020) exposes other aspects of the third kind of opaqueness of Burrell (2016). He points out that due to machine/deep learning, the creators do not understand their products anymore. That is the case especially when it is based on unstructured data, making it almost impossible to reverse engineer the results. He points out that Deep Learning tools are almost autonomous objects, not relying on humans as much anymore. This is risky as societies could be evolving into what the author calls an “algocracy,” where machines dictate “the ‘what’ without the ‘why.’”

As pointed out by the author, “In a sense, this shift is logical: algorithms have reached such a high level of accuracy and computational power that they surpass humans.” He recounts examples of games, face recognition, coding, and others. This is also true in medicine. In an article titled “Improving the accuracy of medical diagnosis with causal machine learning,” Richens, Lee, and Johri (2020)<sup>6</sup> point out how their “counterfactual algorithm places in the top 25% of doctors, achieving expert clinical accuracy.” However, as pointed out by Nielly (2020), the use of AI and machine learning tools can have dangerous implications. As shown by Igoe (2021), algorithmic bias is frequently found in tools used in the healthcare context, further aggravating existing social inequalities.

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<sup>6</sup> Richens, J. G., Lee, C. M., & Johri, S. (2020). Improving the accuracy of medical diagnosis with causal machine learning. *Nature communications*, 11(1), 3923.

Harris (2016) points out how this focus on the ways AI can surpass human strength may shift our attention from a bigger problem: how technology can exploit our minds' weaknesses. He uses the metaphor of a magician to address how technologies, just like illusionists, "play your psychological vulnerabilities (consciously and unconsciously) against you in the race to grab your attention." (Harris, 2016) One of the examples he gives is the way social media can hijack the control of our choices.

He claims that, though Western Culture is built on beliefs of individual choice and freedom, people continuously ignore how they are choosing from "manipulated upstream by menus we did not choose in the first place" offered by social media. These platforms would offer an illusion of choice, as the users do not ask themselves why they were offered such options in the first place, what are the goals of being offered such options, what is not being offered (and why it is not), and if these options are a distraction from what they actually need.

Though Harris (2016) does not mention Google Maps, he offers an example of how Yelp (which works in a similar way to Google Maps) can bias choice. A group of friends can start a query on Yelp trying to find a bar where they will be able to talk to each other. However, the platform can lead them to pay attention to other aspects, not necessarily important to their original objective. Instead, they can be looking at photos of drinks, answering a different question than what they initially had (what bar has the best drinks instead of what bar is the best environment to talk).

The work of Graham (2018) further explores the matter of how platforms work in shaping (and being shaped by) users. Capitalist consumer societies would be permeated by choice in daily life, even if in an unequal way across the economic strata. Choice can be seen as a way of self-expression and a form of individual rights. However, in consumer societies, the choice is overabundant, often jeopardizing its advantages. It can become overwhelming for most people, threatening their agency. In this context, digital tools are built to assist choice-making. The author cites review websites (such as Google Maps), rating websites, and price comparison websites. Graham (2018) believes that these choice-assisting websites do not fully determine users' choices but are neither neutral. They would "constitute and structure the experience of having and making a choice.". Graham (2018) points out that such tools have a "logic of choice," extrapolating what is considered a regular experience of choosing. These choice-infused platforms (Graham, 2018) would be built to expand the "scope, scale, and speed" of the process, eliminating static borders between users/consumers and producers.

Graham (2018) believes platforms use user-generated Big Data (such as ratings, comments, and photos) to shape how comparisons are made, challenging previous notions about choice and completely reconfiguring how people choose nowadays. The individuality and subjectivity of the users are aimed at by the platforms that try to influence and shape it to their consumerist and neoliberal goals. Choice-infused platforms can lead to hyper-choice, challenging the usual understanding of "choice."

According to Graham (2018), the act of choosing requires users to apply some kind of model that allows them to compare different things against the same metric. Digital platforms are able to provide this environment that, through, for instance, reviews and ratings, can be used to compare heterogeneous options. What before was seen as incomparable in many industries can be contrasted with the help of the websites' systems. Thus, they become vital to society, remodeling how industries are built and assisting decision-making in a context of copious choices. The act of choosing is wholly transformed through these tools.

The abundant data of user-produced content owned by these platforms is crucial for accelerating the choice process, as Graham (2018) puts it. Platforms rely on their users to provide content that they can compare. This is used to facilitate, speed up and expand the scope and scale of choice (Graham, 2018). The better the platform can do that, the more users are attracted to it, and more data is given to the algorithm, creating a feeding loop. Platforms would be a mean that allows and simplify choice and structure economic exchanges. In that sense, users would not be passive consumers/choosers, but also feed the platform. Ritzter (2015) coined the concept of "produsage" to define this kind of dualism where people can switch between these roles quickly. This would be the basis of the functioning of the platform, without which it would not survive. That means that users, in this context, are in some way providing free digital labor to the companies.

In fact, there are not currently any actual rewards for "Local Guides" who write thousands of reviews. In some regions, there is the possibility of winning rewards that are not clearly stated on Google's website. The only certain reward is having a better badge next to your username according to your level in the Local Guide program and having more "prestige" on the review you write. This program highlights the personal aspect of the act of reviewing, as people write the comment as "themselves." It can be a way for people to express their subjectivities in the liberal sense of it, where you are someone because you buy certain things or go to certain places. Platforms such as Google Maps would not only mediate choice

but shape their users to "become the kinds of citizen-consumers subjects that align with, or do not deviate too far from, the goals and rationalities of the platform" (Graham, 2018, p. 8).

Given the constant influence users suffer from all these platforms, we can raise the question: are they aware of it?

### **2.2.3 User-awareness and choice-making**

Dogruel, Facciorusso, and Stark (2022) investigated users' awareness of algorithms in the German context, providing valuable insights into how users see algorithms. Overall, their findings point out that, even when participants were not deeply familiarized with the term algorithm, they were aware of how they operate, which did not change when it came to gender or age. Overall, they liked to feel that they were in control of what they consumed and maintained their autonomy. This was directly related to their awareness of algorithms. As the authors point out, "in situations when users felt in control over their decisions, e.g., in domains such as navigation, job search, online shopping, or digital media use, they were less aware of their interactions being shaped by algorithms." (p. 1323) People perceived algorithms positively when they helped them achieve their own goals. In contexts like navigation, few were aware of the influence of algorithms, in contrast to when algorithms showed them undesired content on Social Media platforms, for instance.

When asked about algorithms in navigation, one of the respondents claimed they believed there was no algorithmic influence in this process because they know where they want to go, so they just put that information into the platform and use it to learn how to get there. The authors believe "this awareness gap probably exists because users perceive the actual selection process as self-determined." (p. 1319) Participants, overall, considered algorithms in navigation systems as something positive or helpful. Part of them, however, was worried algorithms "patronized" them.

Regarding the awareness of the participants, most rated algorithms' influence on others' internet use as higher than their influence on their own use. Overall, users "assumed that other people use more applications and do so more intensively and less purposefully than they do." (p. 1320)

### **2.2.4 Conclusion**

In this section, I addressed the definition of algorithms and how they are not always clear to the public or their own developers. They are, in many ways, surpassing human strengths but also weaknesses, limiting our choices and free will. That was explored through the concept of choice-infused platforms and how these rely on the unpaid work of their users. I addressed how algorithms are currently addressed in museum studies and cultural heritage literature, stating that they are, overall, used as a tool to plan exhibitions or investigate architectural structures. There are also works that investigate the impact social media can have on the choice of tourist destinations. However, there is no work that in any way addresses the impact Google Maps's algorithms can have on the visitors to a cultural institution.

### **2.3 Online Reviews: a window for institutions**

"I visited, and I did not like anything except the sarcophagus!"<sup>7</sup>. This quote that could easily be a part of an online review of the Valley of the Kings in the year 2022 is actually engraved in the walls of the tomb of Ramesses VI, carved by a dissatisfied Greek tourist during the Ptolemaic and Roman periods. Some other irritated visitor writes, 'I cannot read this writing!', to which another traveler replies: "Why do you care that you cannot read the hieroglyphs? I do not understand your concern!". Two thousand years later, visitors still seek to share their opinions on what they visit, but they fortunately have better ways to do it than engraving them in stone. Platforms such as Google Maps provide the ideal environment for anyone who wants to rate and comment on any establishment or institution they have been to.

These reviews are available to the 2 billion monthly users of the tool<sup>2</sup> to consult, allowing them to inform themselves about places before they decide to make a visit. Millions of online reviews are posted about hotels, businesses, restaurants, attractions, and institutions each year. For instance, in 2020, 26 million reviews were submitted to TripAdvisor alone (Hart, 2021). ReviewTrackers (2021) states that Google Maps, Yelp, Tripadvisor, and Facebook currently contain 88% of all business reviews on the internet, with Google Maps leading the ranking. Also, since the beginning of the Covid-19 pandemic, review interaction has risen to 50%, showing people are more careful when choosing where to go or what to buy.

Heritage sites such as the tomb of Ramesses VI and museums are constantly being reviewed by the public. These reviews seek to advise other travelers about what they will

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<sup>7</sup> In a pharaoh tomb, archaeologist examines the inscriptions . . . of ancient tourists. (n.d.). Science in Poland.

<https://scienceinpoland.pl/en/news/news%2C414643%2Cin-a-pharaoh-tomb-archaeologist-examines-the-inscriptions--of-ancient-tourists.html#:~:text=Adam%20C5%81u%20kaszewicz%20from%20the%20University,the%20Valley%20of%20the%20Kings.>

encounter on their visit. The number of reviews left in cultural institutions is staggering. Two of the most globally prominent museums, the Louvre and the British Museum, have 229 thousand and 116 thousand reviews on Google Maps, respectively, at the time this is being written. Despite the impressive numbers and reach, online reviews are still overlooked by the cultural sector, even though they could offer great insight into the public's opinion.

Considering the impressive number of users that utilize Google Maps daily, it is vital that businesses and institutions realize the impact that its algorithms and reviews could have on their institutions. Google Maps can be the broadest source regarding specific museums and heritage sites one can find online. When looking for information about these places, the user generally is confronted mostly with other visitors' opinions. For instance, it would be impossible for the British Museum staff to produce the same amount of data available in the online reviews on Google Maps. Reviews can provide an ever-growing data archive of the public's opinions and thoughts about institutions. At the same time, being public, they can be the glass window of any institution, showing potential visitors what to expect.

In this section, I will address how online reviews have been studied in the Cultural Heritage and Museum Studies literature and the concept of Electronic Word of Mouth (eWOM) and of Reviews as a way of Storytelling.

### **2.3.1 Online Reviews in Cultural Heritage and Museum Studies literature**

In this section, I will explore how reviews are analyzed and used as a source regarding the field of cultural heritage and museums. The first trend is to have reviews used as a source. Researchers can extract the given rating, the time frame of the review, the review text, and the number of likes. Regarding their content, Alexander, Blank, and Hale (2018) state that reviews are usually embodied, and audience-focused, meaning they mostly approach topics related to physical experiences (queues, bathrooms, ticket prices, cleanliness) and are directed at the audience's needs rather than the institution's.

The website ReviewTrackers (2022) states that reviews (in general, not just for cultural institutions) have become increasingly shorter, with Google Maps having the shortest ones (around 200 characters) and TripAdvisor (along with Yelp) having the longest, with about 600 characters. Ratings are quite relevant in this context, as people would not usually trust companies and institutions with ratings lower than 4 stars. Also, a business having a large number of reviews seems to be essential for visitors, as it contributes to its trustworthiness. On

the other hand, what decreases trustworthiness is censoring people's comments, which can prevent some people from engaging with a company.

Alexander et al.'s (2018) understanding of online reviews is that they are "digital traces," or data produced through people's interactions on online platforms. They would be reports of the visitors' interactions with places, which include broader contextual factors such as material aspects and transportation. These would give the reader access to the writer's thoughts and state of mind at a given point in time. They believe reviews occupy a social space where a cultural distinction is not necessarily relevant. Thus, reviewers would not usually engage with cultural classification or status displays, mostly approaching more tangible aspects in their writing.

One of the most prominent ways to use reviews as sources is through the use of data mining followed by sentiment analysis. Benetti, Ozelame, Pereira, & Tricárico (2018) analyzed the emotions shown in reviews of the Parque Transpantaneira in Brazil to point out how experiencing tourism can consolidate the importance of the park as a natural heritage. Özen (2021) used 4183 TripAdvisor reviews of the Göreme National Park and the Cappadocia Rocky Area in Turkey to produce an assessment of the sites. Using text mining, specifically Dictionary-based sentiment analysis, they mapped the number of positive and negative reviews and which words tourists used when assessing it. Sánchez (2021) adapted the Memorable Tourist Experience (MTE) model to analyze online reviews on TripAdvisor. Thus, these authors used the content of reviews to extract certain terms and map out visitors' emotions/images of the place.

Carter (2016) used reviews as a qualitative source to analyze visitors' discourse. The author studied the reviews of two plantation museums in Louisiana, exploring what visitors take from the tours offered on these sites, especially regarding their comments on the enslaved people's representation. To Carter (2016), reviews are visitor-authored stories about places that can configure how one sees their past as a people and a nation and how one chooses to see themselves in the present. In their research, the author explores plantation museums and how their online reviews reflect the museum's narrative of displaying or erasing narratives about slavery.

Reviews were also used as a source by Cuau and Pim (2018), Visitor Insights Manager and Digital Analyst of the British Museum, who wrote about their experience analyzing online reviews and using them to promote improvements. They state that, in 2016, a Visitor Insights



team was created in the British Museum, seeking a better visitor experience. Since the beginning, they consulted social media and responded directly to emails and tweets from visitors directed to the museum. They realized these messages were usually permeated by strong emotions such as delight and dissatisfaction. Also, they were typically written by native English speakers. Having implemented some improvements by analyzing these comments, the team also decided to consider online reviews. It gave them new insights that they had not been able to have so far, such as visitors' opinions on the temperature in the museum, the size of its crowds, language access problems, etc. Also, never had they had so much information to deal with. Using reviews also helped them gain insight on international visitors, creating statistics on what the speakers of each language were most affected by in the museum. They could precisely measure the visitors' likes and dislikes instead of only guessing them. These have been shared with other teams in the Museum and are shaping the long-term strategic decisions. Surveying the public has always been an essential part of the museum activity. With online reviews, this can be done on a massive scale, with people voluntarily giving their insights into what they visit.

The second big trend of research about online reviews regards the influence reviews can have on readers. Jamerson (2017), for instance, believes reviews are usually short narratives of the writers' experience, which makes them a contemporary version of the traveler's tale. Traveler's tales are an essential part of how the West constructs "Otherness" and its "social, cultural, gendered, racial, and ethnic types" (Jamerson, 2017). Thus, reviews, which can sometimes be one of the most prominent digital representations of places, would shape people's perceptions of communities and places.

Some authors investigated the relevance and trustworthiness of these reviews. Book, Tanford, Montgomery, and Love (2018) showed that, in the hospitality industry, reviews have been more relevant than the price in defining consumers' decisions. The authors found that though social influence has traditionally been linked to source credibility, now it is shaped by unknown reviewers. The topic of credibility is further discussed by Filieri, Alguezaui, and McLeay (2015) investigated why travelers trust the TripAdvisor website. The authors claim "consumer trust towards CGM relies on three main antecedents: 1) those related to the quality of the information contained in online reviews; 2) those related to the quality of the website that hosts the recommendations; 3) those related to the level of customer satisfaction with previous experiences." (p. 181) Thus, users trust platforms with quality reviews that are perceived as accurate and useful.

Hidalgo-Alcazar, Ruiz, and Sicilia (2021) introduced the study of the influence of online reviews on emotion/cognition and, consequently, the image of touristic destinations. They used a model that showed how reviews influenced image formation, thus influencing consumer behaviors. Their results showed that online reviews form cognitive and emotional reactions to tourism services and that reviews influenced tourists more in emotional and hedonistic terms. Tourists' opinions were based on their image of the place, which they translated to the reviews, which were then consumed by others. The authors point out that tourist destinations should focus not only on physical qualities but also on evoking emotions. This study is related to the aims of this research, as it studies the impacts Google Maps and its tools can have on the choice of museums to visit.

### **2.3.2 Online Reviews as Electronic Word of Mouth (eWOM)**

In order to further understand the phenomenon of online reviews, the concept of Word of Mouth (WOM) is used. It consists of the act of recommending something to someone known, which is pointed out as a key aspect of decision-making by Tham, Croy & Mair (2013). This form of communication adapted to the development of technology and social media, leading to the development of the concept of “electronic word of mouth” (eWOM). It would contribute extensively to travelers' quest for information and destination choice at a macro level (picking a particular place to go, such as a city or country). WOM and eWOM would help build destination image, people's picture of potential destinations. Having a good destination image of a place increases the probability of choosing it as a destination. According to Tham et al. (2013), WOM is the most influential source for consumer purchase decisions. As much as eWOM is similar to WOM, it has its own particularities, further explained by the authors. They use the concept of different kinds of credibility to develop the comparison. The first type would be Presumed Credibility, based on trusting the source and, consequently, what it claims. The second one is Reputed Credibility, meaning third parties would ensure its credibility. The third one is Surface Credibility, where one believes based on first impressions. The fourth and most valued one is Experienced Credibility, which is based on past experiences. For most tourists, however, experienced credibility is not possible. Thus they require other types of credibility.

Regarding how WOM and eWOM differ, Tham et al. (2013) highlight five main differences. Source-receiver relationships would be one of them. A vital part of WOM is that

the involved parties know each other, which is not the case with eWOM. This detachment from the source could cause a potential loss of credibility. Channel variety also plays a part, as online media lacks the “subtle personal credibility cues” of WOM. Also, it needs to be considered that different online environments also influence credibility (blogs vs. Facebook, for instance). Another factor of differentiation is the solicitation of information. eWOM allows data to be solicited in demand, using forums as additional sources. Also, Tham et al. (2013) point out that people may be more open to information since they are looking for it already.

To sum up, WOM’s and eWOM’s level of credibility is not the same, with WOM still being more influential individually. However, the tendency is that eWOM grows more each year. So, even if it influences less, the massive amount of data makes it extremely prominent.

### **2.3.3 Reviews as storytelling**

As previously stated, researchers like Jamerson (2017) see online reviews as narratives, even a contemporary version of the traveler's tale. In this section, I will highlight how this narrative aspect of reviews can deepen their influence over readers and impact people’s behavior.

Storytelling is interlaced with human culture. Since earlier communication, it has been used to entertain, educate, and pass on important information and values. Recently, scientists have been studying the effectiveness of storytelling in a more systematic way, through the use of, for instance, neuroscience. Zak (2013), director of the Center for Neuroeconomics Studies at Claremont Graduate University, points out that stories are effective because they engage more of the brain than simply stating a set of facts. Hearing a personal and emotionally compelling story can capture the receiver’s attention, which makes it more likely to be remembered. This is because emotional engagement is a key factor in memory formation.

Zak (2013) points out that capturing and holding the audience's attention, and "transporting" them into the characters' world are the factors that make a story most likely to influence them. Attention is attained mainly through creating tension throughout the story and emotional resonance can be used to transport the audience. When a story simulates an emotion, it creates the foundation for empathy, showing us “instructions” on how to respond. It also allows for the rapid development of relationships, playing an important role in human

social development. For that, an engaging and structured narrative is usually the most effective.

Pera's (2017) study argues that online reviews published by travelers can be considered proper stories and not just comments on satisfaction levels. The author highlights how stories in online reviews can inspire values and instruct appropriate behaviors, encouraging traveler participation and citizenship behaviors. Lastly, the study shows that storytelling is a collective and creative process that facilitates social interactions by generating a shared emotional experience.

This aligns with the study conducted by Akgün et al. (2015). The authors point out that there is a connection between storytelling components, empathy, and behavioral intentions. Perceived esthetics, narrative structure, and self-reference in stories can evoke empathy, which can lead to behavioral intentions toward travel destinations. Black and Kelley's (2009) study also points out how online customer reviews containing storytelling elements are perceived as more useful by consumers.

In conclusion, the narrative aspect of online reviews has a significant impact on readers and their behavior. The effectiveness of storytelling has been studied systematically by scientists, revealing its power to engage the brain and capture attention. Emotional engagement and transportation into the characters' world are the factors that make a story most likely to influence readers. Traveler reviews can be considered proper stories that inspire values and instruct "appropriate" behaviors, encouraging traveler participation and citizenship behaviors. Storytelling is a collective and creative process that facilitates social interactions by generating a shared emotional experience. These findings align with previous research on the connection between storytelling components, empathy, and behavioral intentions. In short, the narrative aspect of online reviews has the potential to make them more useful and engaging to consumers and potential visitors.

#### **2.3.4 Conclusion**

The use of online reviews has been studied in the tourism industry, as they provide valuable insights into visitors' experiences and opinions. Researchers have explored different aspects of online reviews, ranging from emotions felt by visitors to their demands and expectations. Through sentiment analysis, researchers can extract and analyze the emotions

expressed by visitors in their reviews, providing a deeper understanding of the visitor experience. Online reviews have also been used to identify the most memorable aspects of a tourist's experience and to analyze the discourse used by visitors.

Furthermore, researchers have investigated the extent to which online reviews are trusted and how they can affect the decision-making process. These studies have revealed that online reviews are considered highly influential, with many people relying on them when making travel plans or purchasing products. Online reviews have the power to shape a place's image and reputation, making them an important tool for businesses and destinations to manage their online presence.

Reviews recall previous experiences, which, through storytelling mechanisms, can strongly influence readers for their future visits to cultural institutions. By sharing their stories and experiences, reviewers can shape the expectations and perceptions of future visitors, and play a crucial role in the success and reputation of cultural institutions.

Despite the extensive research on online reviews in the tourism industry, there is still a gap in the literature when it comes to museums. While museums are a popular tourist attraction, there has been little research on how online reviews impact people's perceptions of them. As museums play an important role in preserving cultural heritage and educating the public, understanding how online reviews can influence their image is essential.

## **Chapter 3: The consequences of Google Maps' use on**

### **European culture**

Having now established what Google Maps is and the mechanics of its reviews and algorithms, this chapter aims to discuss the implications a map platform could have in culture. Van Dijck et al. (2018) do not believe digital platforms such as Facebook and Google are causing a cultural revolution. Instead, they would be “gradually infiltrating in, and converging with, the (offline, legacy) institutions and practices through which democratic societies are organized” (p. 2). Platforms would not be a representation or reflection of society. Instead, they actually produce it. They would be integrated into our ways of living, a vital part of society. Cultural heritage and museums are not exempt from these changes. As put by Freeman (2018), technology does not only serve heritage anymore; it builds the society that constructs heritage. Institutions in charge of cultural heritage are still struggling to keep up with the times, focusing on technologies as tools instead of as political actors.

As pointed out by Smith (2006), cultural heritage is a cultural process, not something ready or given. It is directly related to practices of remembering connected to the present. Thus, what configures the present is reverberated directly into how heritage is protected and how people engage with it. In a context of a society ruled by platforms, people's understanding of heritage is now defined by them (Freeman, 2018). As these platforms are not neutral, they promote their own interests and influence the user towards their objects and goals.

People would have technology as their main source when acquiring knowledge about heritage, which shapes how it is preserved (Freeman, 2018). Platforms, however, are displaying this knowledge through opaque algorithmic choices, which blurs what their interests are with displaying certain content. As said by Pasquale (2015), “without knowing what Google actually does when it ranks sites, we cannot assess when it is acting in good faith to help users, and when it is biasing results to favor its own commercial interests.” (p.9) This work aims to further investigate how this manipulation could manifest and in what directions it leads.

The chosen scope to do so is the European Union. The EU has pioneered efforts to regulate digital platforms, data collection, and algorithmic action; shaping how the rest of the

world deals with such topics. I will investigate what these regulations are, how they are reverberating in European society, and what are the main goals of the EU when establishing them. I will, then, further explain what these mandates entail for Google Maps and the ways the platform could threaten the EU's postulates. The following section will explore how the platform could impact museums and heritage specifically, and the impacts of that on European culture in a broader sense. At last, I will propose a question on how to investigate this impact and delineate the methodology for pursuing this inquiry.

### **3.1 European Union: Identity and Digital Regulations**

“You do not fall in love with a common market; you need something else,” said Jacques Delors, former president of the European Commission. This quote presents a struggle commonly faced in the block: how to create a European identity and firmly establish the European Union? To Shore (2006), the answer is culture.

The author presents that the EU's search for popular consent is a way to have its actions legitimized. The EU would promote art and culture with the goal of creating a European people that would believe in the idea of Europeanness and accept the EU's intervention into society. The development of a platform society would, thus, directly impact the EU, as it changes culture dramatically. This becomes evident as the block pioneered regulating platforms and the digital environment in general.

De Gregorio (2021) describes the three phases digital regulations policies have been through in the EU. At first, a liberal narrative was in vogue, where the EU saw technologies as a way to boost the internal market. It would be a tool instead of an actor exercising power. The regulations' goal seemed to be not burdening economic freedom instead of protecting users. They overall considered the internet as a parallel world that could mostly self-regulate. To the author, this omission contributed to the progressive undermining of users' rights. The first reaction to this development was judicial activism, a reactive approach. The EU increasingly noticed the agency these platforms withheld, noticing they are not free online spaces, but display curated content that has private/monetary interest behind it. At this moment, digital regulations moved from being mere recommendations to joining EU law in 2011. These technologies started to be monitored and regulated by law.

The main change in mentality happened as the EU entered a third phase, where instead of a reactive approach, they established a strategy. De Gregorio (2021) calls this phase digital constitutionalism. Now, the EU started to act proactively in a way to defend citizens' rights and freedom by advocating for transparency and accountability. The author points out that the EU never sought to censor content or prohibit technologies, but instead to foster better and clearer practices from tech companies.

For De Gregorio (2021), the EU would be slowly directing to an era of "digital humanism," where defending human dignity would be at the forefront. This would end up influencing/reverberating in the rest of the world, which the author does not see as an imperialistic extension of constitutional values, but as a valid reaction to the new challenges faced in an "algorithmic society." This outreach would already be felt after the EU's Data Protection Law, where platforms, in order to adapt to the EU's new demands, ended up setting new standards worldwide.

As Goodman and Flaxman (2016) point out, the General Data Protection Regulation (GDPR) constitutionalized important matters such as the right to receive an explanation for algorithmic decisions, the codification of the "right to be forgotten," the prohibition of decisions made solely based on algorithms, the right to contest AI decisions, the prohibition of discrimination through profiling, and others. The latter, as pointed out by the authors, is difficult to achieve, as datasets grow exponentially and start developing complex and almost incomprehensible connections that may lead to some bias.

In 2022, the Digital Services Act (DSA) started being applied, obligating big-size platforms to reduce risks and increase protection for users' rights, besides obligating them to be more transparent. One of the actions tied to this act was the development of The European Centre for Algorithmic Transparency (ECAT) in January 2023, a center whose mission is to foster algorithmic accountability and perform transparency audits. It has become increasingly clear that algorithms are a vital part of society, and the EU is starting to act on it.

It becomes noticeable how these regulations seem to translate the already established "European values" into the digital environment. As pointed out by Shore:

"Europe's cultural identity," it proclaimed, "is nothing less than a shared pluralistic humanism based on democracy, justice, and freedom" (CEC 1987, 5). As one of the many European Commission-sponsored history textbooks produced during the 1990s declares: anyone visiting Europe with open eyes can easily see that, over and above language differences and different life styles, we are bound together by a family spirit and share the great values in common. (Shore, 2006)



Thus, the idea of protecting democracy and individual liberties is not new at all. It is a fundamental part of the EU's values, now being applied in a different environment.

What happens in the EU regarding digital regulation is watched closely by the entire world due to what Bradford (2020) calls "the Brussels Effect." It refers to "the EU's unilateral power to regulate global markets." (p.13) Though the main tech companies are not European, the EU "has become a significant global regulator of digital companies." (p. 167) The GDPR has been adopted by tech companies throughout the world, "enhancing the privacy protections enjoyed by individuals far beyond the EU." (p. 167) Besides that, the regulation of hate speech online has been one of the biggest European influences on the online environment. Thus, studying and measuring the impact of the digital environment in the EU has further implications than just the European continent, as it is sort of a model for the rest of the world in this regard.

Having established that the EU (and, consequently, the rest of the world) is concerned with the development of technologies, I will explore further how Google Maps and its algorithms/reviews can possibly impact European Society.

### **3.2 Assessing Google Maps' impact on European culture**

In Chapter 2, I addressed the functioning of Google Maps, its algorithms, and reviews. In this section, I will highlight how that could reverberate in European Culture, now established as the basis for legitimizing the EU.

Firstly, Google Maps shapes European society for it is the most widely spread map. Maps are inherently geopolitical, representing the subjectivities of those who produce them and the society they are inserted in. In the case of Google Maps, we can consider van Dijck et al's (2018) statement that Google's market model is strictly American, where corporations seek an alliance with their users. This can mean neglecting civil society interests while embracing a free-market ideology, with the least government interference possible. Thus, the choices of toponymy and border placement in the most used map in Europe come from an American company.

This directly shapes how citizens relate to space. As previously pointed out, Google Maps and similar tools create a neurological dependency on their users, thus making Google Maps' influence increasingly profound. Being the main creator of toponymic discourse in Europe, Google Maps also normalizes Maps being centered in their surroundings due to GPS

data collection. As Ström (2017) suggests, this can create an atomization of the “common world.” That is particularly relevant to the European Union, as it relies on the idea of a shared European space.

Google Maps also legitimize the idea of commercial maps, as pointed out by Ström (2011). Users cannot navigate the platform without being suggested businesses to visit. Besides that, Google Maps allows paid advertisement, thus showing boosted locations first, regardless of their relevance.

As pointed out by Graham (2018), choice-infused platforms can lead users toward certain choices. This happens through privileging recommending certain locations over others due to paid ads or enhanced SEO, but also through user-generated content. Reviews also influence user choices as they rely on the idea of WoM, making other users’ opinions and experiences available to consult. Thus, Google Maps can influence where citizens go and how they get there. More than that, it now suggests how much time people usually spend in said place, what are the best hours to visit, and other “convenient” suggestions. Though regulations aiming for transparency are on the rise in the EU, most people are unaware that navigation platforms, as shown by Dogruel et al’s (2022) study on German citizens.

This impact on people’s choices of places to go can be felt in restaurants, hotels, and other businesses. However, cultural institutions are also subject to Google’s selection algorithms and reviews. As pointed out by Bäumlner and Gossier (2003), “occupying a central role in cultural and educational matters, museums play an essential part in the development of a common identity for Europe.” Thus, what happens if Google Maps influences the museums people choose to visit?

### **3.3 Translating the impact into the museum and cultural heritage field**

As observed by Graham (2018), choice-infused platforms can steer users in particular directions. Thus, museums and other cultural institutions can be subject to that influence, as these platforms would structure their users’ choice process. Their review and algorithm system would allow them to compare heterogeneous options. For museums, that means that reviews and ratings allow users to share their thoughts on different aspects of their visit but rate it holistically. If users enjoyed the exhibition but thought the bathrooms were dirty, they can rate

the institution 3 stars. Thus, the aspects of what constitutes a good visit are all compared when the rating is given.

Other users read these ratings and, as pointed out in section 2.3.2, can be influenced by them. That works for museums, especially due to the fact that, as claimed by Smith (2020), heritage is emotional. The sentiments it mobilizes determine its importance and meaning to individuals and society, being tied to social and political matters. Thus, different sites would gather different ways of interacting with them and involve different feelings. With people being active builders of meaning during their visits, they construct the significance of the sites. And these people's emotions are what feed heritage: their emotional connections are displaced through their act of visiting and valuing heritage. Smith (2020) developed the concept of Registers of Engagement to analyze further how people use their subjectivities when navigating through cultural institutions, as she believes everyone draws their own meaning from visiting, varying in their intensity, valence, and political approach. To Smith (2020), "understanding the emotional investments people make through their visits is central to the development of educational strategies and agendas." (p. 206). Strong feelings and political beliefs would be present in our society anyhow, and museums and heritage sites could be places that grant an opportunity for unveiling these sentiments and working them out.

These emotions would appear in the online reviews people write about heritage and museums. Thus, the way they experience heritage is manifested when they rate and comment on what they visited. In a social media context, other people are exposed to their subjectivities and, consequently, influenced by them. Ruiz-Mafé, Bigné-Alcañiz, & Currás-Pérez (2020) explored how positive and negative reviews from micro-destinations (low-risk choices such as restaurants and museums) trigger people's emotions. For them, emotions are critical when crafting a successful touristic experience. In their study, one of their main findings was that the usefulness of a review (or how much the reader perceived it as helpful advice) caused emotional response and directly influenced the decision to follow this advice regarding going to specific touristic destinations.

Using an emotional scale that considers pleasure and arousal as determining factors, they studied how reviews affected their reader considering their helpfulness, relating it to how much it inspired people to follow the advice. This model for measuring emotions through two dimensions was proposed by Russell<sup>8</sup>. The first dimension would be arousal, which quantifies

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<sup>8</sup> Russell, J. A. (1980). A circumplex model of affect. *Journal of personality and social psychology*, 39(6), 1161.

the intensity of the affective reaction. Pleasure, the second, would be the valence of the emotion, from good to bad. Some of their findings are that persuasive reviews influence how helpful they are perceived by the reader, affecting their two dimensions of emotion (pleasure and arousal). Reviews perceived as helpful trigger emotions of both pleasure and arousal, which lead people to go to the reviewed places.

Thus, reviews of museums and cultural institutions can convey the emotions felt by people during their visits, and these emotions can impact other people's willingness to visit (or not visit) institutions. As previously pointed out by Zak (2013), when a story evokes emotions, it lays the groundwork for empathy, serving as a guide on how to react to certain situations. The findings of Akgün et al. (2015) also express the connection between storytelling components, empathy, and behavioral intentions. In the European context, this can mean that people decide to attend certain museums in the detriment of others. Thus, as pointed out Bäumler and Gossier (2003), this could directly impact European culture.

### **3.4 Research Proposal**

In recent years, there has been a growing interest in studying online reviews and their impact on consumer behavior. The literature has primarily focused on analyzing the content of reviews. Specifically, researchers have explored the structure of reviews, examining aspects such as the length, tone, and language used in the text. Additionally, data mining techniques have been employed to extract opinions and sentiments from reviews, providing insights into the reviewers' preferences. Another area of interest in the literature is the role of cultural biases in shaping reviews.

While much research has focused on the content of reviews, there has been limited attention paid to the readers of these reviews and how they use them to make decisions. This represents an important gap in the literature, as understanding the impact of reviews on visitors is essential for museums looking to improve their visitor experience and retention. There is also no research on the impact of Google Maps as a platform and its algorithms on people's perception of museums. This study aims to address these gaps by exploring the role of Google Maps' reviews and algorithms in influencing visitors' choices, with a particular focus on the impact of cultural institutions on tourist decision-making, considering the impact this could have on European culture.

A few questions can be posed: How do participants use Google Maps in their daily

lives in the context of museums, and for what purposes do they use the platform? What is the impact of Google Maps' reviews on the decision-making process of participants when choosing a museum to visit, and what factors influence their choices when selecting a museum to visit? Do participants trust the reviews on Google Maps, and how does this affect their decision-making process? Do Google Maps' algorithms influence which museums are shown to each user when they perform a search on the platform, and how does the order and content of the reviews shown to them impact their choices?

In order to investigate these questions, this research will focus on a specialized public that is already familiar with attending museums. The selected group is students from the “Prague – The role of the City in Czech and European Culture” course. The course description reads:

This one-semester course is offered mainly to foreign students in the framework of TEMA program, ERASMUS students and to MA students of the Seminar of General and Comparative history. The course will focus on places and institutions in Prague, which have rich history and high symbolical meaning. In each class we will visit one of the memorials or institutions and discuss their importance for construction of Czech national identity and history. Through visits of Prague monuments, museums, galleries, etc. and discussion not only of their past, but also how they influence the present situation and reflection of Czech history, it will be explained the role, which these symbolical places and institutions have played and still play not only in Czech but also in European culture.

The course in question is designed to engage students in the exploration and appreciation of museums and cultural institutions. Given the nature of the course, it is expected that students will have a strong interest in this topic and will be actively seeking out museums to attend during their time in Prague. As such, they represent an ideal group for this research study, as they will be able to provide valuable insights into their decision-making process when selecting museums to visit.

Furthermore, the fact that the course is taught in English and aimed at Erasmus students in mobility provides an additional level of interest and complexity to the research study. These students are likely to come from a variety of cultural backgrounds and will bring their own unique perspectives and experiences to the process of choosing museums to attend. Additionally, the fact that they have limited time in Prague means that they will be highly motivated to make the most of their cultural experiences while they are in the city, further facilitating the investigation into their choice-making.

Lastly, as pointed out by Oborune (2013), “the ERASMUS Programme is described as one of the symbols of the construction of European identity.” (p. 182) This means the

students' choices should also be considered within a bigger European scope. The EU is funding the ERASMUS program with certain goals of cultural unification; thus the impact platforms can have on students' choices can directly impact the block.

It was expected that approximately half of the 50 students enrolled will respond to the survey, providing a significant sample size for analysis. Additionally, around 10% of students were expected to participate in the interviews, allowing for an in-depth exploration of their decision-making process. All data collection will take place during the Summer semester of 2022/2023, providing ample time for analysis and interpretation of the results.

Specifically, the research will address the following question: How do Google Maps' reviews and algorithms impact international students' choices on which museums to visit in Prague?

The proposed study aims to investigate the impact of Google Maps on young adults' choices of which museums to visit in Europe. To achieve this goal, the study will have three main objectives that will shed light on the role that Google Maps plays in the participants' decision-making process.

The first objective is to explore the presence of Google Maps in the participants' daily lives and how they use the platform in the context of museums. The study will investigate whether participants use the platform primarily for navigation purposes, discovering new places, or reading reviews. By analyzing how frequently and for what purpose participants use the platform, the study will provide insights into the importance of Google Maps in shaping users' choices of which museums to visit.

The second objective is to measure the impact of Google Maps' reviews on the decision-making process of the participants when choosing a museum to visit. The study will analyze both the impact of reviews focused on the institution/exhibitions and on the audience experience. By examining the content and tone of these reviews, the study aims to provide insights into the factors that influence participants' choices when selecting a museum to visit. Additionally, the study will investigate whether participants trust the reviews on Google Maps and how this trust impacts their decision-making process.

The third objective is to understand if Google Maps' algorithms influence which museums are shown to each user when they perform a search on the platform and the order/content of the reviews shown to them. The study will analyze the search results and reviews shown to participants, with a particular focus on whether these results are

personalized based on the user's search history and other factors. By investigating how the algorithms impact the choices of participants, the study will provide insights into how Google Maps shapes users' choices of which museums to visit.

Overall, by analyzing these three objectives, the study aims to provide a comprehensive understanding of the role that Google Maps plays in shaping users' choices of which museums to visit in Europe. At last, the impact these results could have in European culture will be analyzed.

### **3.5 Methodology**

The chosen research approach for this study involved a two-phase, mixed methods design. The first phase consisted of a quantitative questionnaire aimed at mapping out the students' habits regarding the use of technology and their engagement with cultural heritage and museums. The questionnaire was designed to collect information on a range of factors that might impact participants' decisions when choosing which museums to visit. These factors included their previous museum experience, their familiarity with Prague, and their reliance on technology in daily life, including Google Maps.

The second phase of the study consisted of two parts. Firstly, participants were asked to make a list of five museums they would like to visit or have visited in Prague before. This allowed me to gain insight into the participants' initial preferences and motivations for visiting museums in Prague. Following this, I conducted in-depth interviews to investigate the participants' decision-making process when choosing which museums to visit.

During the interviews, participants were asked about the answers they provided in the questionnaire and were encouraged to elaborate on their responses. In addition, participants were asked to perform queries on Google Maps using the search terms "museums" and "museum" to see what was shown to them. I also asked participants to view the reviews of three specific museums: The Museum of Communism, The National Museum, and The National Gallery.

This mixed methods approach allowed a comprehensive understanding of the factors that influence international students' decision-making when choosing which museums to visit in Prague. The quantitative data from the survey provided a broad overview of the sample, while the qualitative data from the interviews allowed for a more in-depth exploration of the participants' thought processes and decision-making strategies.

Overall, the use of mixed methods allowed me to triangulate my findings and provided a more nuanced understanding of the complex factors that influence international students' choices of museums in Prague.

### **3.5.1 First phase (questionnaire)**

The first phase of this research will involve the application of an online questionnaire (see Appendix 2) to, firstly, map out the respondents' habits, and, secondly, define which respondents would be suitable to continue the study.

As Gideon (2012) points out, surveys are “an effective tool for obtaining information on a variety of topics such as feelings, attitudes, behaviors, beliefs, values, potential actions, decision-making processes, needs, lifestyles, sense of social belonging, consumption, and shopping patterns, or even simple demographic questions.” (p. 92) Thus, surveys are useful for the purposes of this research, as mapping out most of the mentioned topics is relevant for answering the research question proposed.

Expanding on the previously explained target group of the survey, the respondents were selected based on what Gideon (2012) describes as purposive sampling. This approach is used when the researcher is aware of the “characteristics of the target population and then seeks out specific individuals who have those characteristics to include in the sample.” (p. 67) It would not be relevant for the study to have respondents that do not usually visit museums regularly, so a completely random group would not be suitable.

As for the means of the survey, the questionnaire was sent via email to the students, and I attended one of the “Prague – The role of the City in Czech and European Culture” classes personally to ask the students to fill out the survey.

In their article “The value of online surveys,” Evans and Mathur (2005) discuss the pros and cons of applying online questionnaires. From those, some apply to the context of this research. From the positive aspects, they mention the flexibility granted by these tools, as survey links can be sent to anyone at any time. Second, the speed and timeliness. Contrary to a physical survey, which would demand time from the actual class, an online survey can be answered by students in their spare time, along with their weekly tasks for the role of the city course. That relates to the convenience provided, as these allow the respondents to take as



much time as they want to answer the questions. It also has a low administration cost, and it is easy to follow up, as it allows me direct contact with the respondents.

As for the cons, the authors mention possible technological variations among the participants, as they access the survey differently. In this research's context, however, this should not be a problem as all the students attend a class that requires them to have internet/computer access to weekly send assignments. A possible problem to be attentive to, however, is unclear answering instructions. Since online surveys are self-administered, the respondents usually do not ask questions for the researcher about how to answer them. It is important, then, to write down the instructions clearly, both for the validity of the answers and to ensure respondents do not get frustrated and stop answering the survey. Online surveys can also be very impersonal, which, in this case, can be resolved by physically attending the course and asking the students to answer it.

As pointed out by Gideon (2012), the introduction of a survey directly impacts the respondents' willingness to complete it, and it can also cause some bias in the answers. Thus for the survey, the following introduction was posed:

Hello! My name is Fernanda and I'm a student at Charles University. This questionnaire is part of the data collection for my Master's research. The questions involve topics of social media, use of technology, cultural habits and museums. In total, answering the questions shouldn't take more than 10 minutes. Thank you!

The idea was to expose the topics discussed in the survey, without necessarily emphasizing what the research was about in order not to bias the responses. The introduction appeals to the students by stating that it would be a quick survey, that would not take too much of their time. When I attended one of their classes, I also highlighted how meaningful it would be to have their responses, as it would allow me to write my dissertation. This way, they could empathize with me, as they are also students.

Regarding the questions, in the set of questions no. 1, the goal was to establish a basic profile of the surveyed. This is important for many reasons. Firstly, it allows the development of statistics regarding how different groups have different habits. As put by Javed et al. (2020), gender, for instance, has an impact on how much social media use influences choice. Secondly, as put by Van Dijck et al. (2018), one of the main appeals of social media is how it builds a detailed profile of its users through the enormous amount of data it gathers, using algorithms to process it and show personalized content. Knowing the participants' habits and personalities

is vital, as one of the fundamentals this thesis relies on is that Google Maps displays different options of museums/heritage sites to other people. Here, other questions help to understand where the participant comes from, for how long they are staying in Prague and their field of study.

Participants' profiles will be further established through the set of questions no. 2. These questions are made to map out the participants' cultural habits. With these questions, it will be possible to map out their practices, likes and dislikes, which will be used in the second phase of the research. The questions about cultural activities were based on the text “How diverse is the youth tourism market? An activity-based segmentation study.” by Eusébio, C., & João Carneiro, M. (2015). The researchers list activities preferred by the group they call "culture lovers," which I used as put to the participants as “cultural activities.” Those are: Visiting Monuments, Theatres, Museums, Gardens, Historic Sites, or Cultural Events.

The survey aims to collect comprehensive data on students' participation in various activities and their preferences. One of the activities the survey tracks is visiting museums. To understand the frequency of museum visits, the participants were asked how often they visit museums when they travel and in the cities they reside in. By asking these questions, the survey seeks to gain insights into students' museum-going behavior and compare it with the results of the next phase of the survey.

Additionally, to gain a deeper understanding of students' preferences, the survey asks them to rate their favorite type of museum on a scale from 1 to 5, where 1 represents the most visited type of museum, and 5 represents the least visited type of museum. This information will not only help understand which types of museums are popular among students but also compare these results to the data collected in the second phase of the survey.

Overall, by tracking the frequency of museum visits and students' favorite types of museums, the survey will provide valuable insights into how students engage with cultural activities and, later, these answers can be compared to the results of phase 2.

In order to gain a deeper understanding of the participants' relationship with technology, the survey includes a set of questions, labeled as question no. 3, that measures the presence of connectivity in their lives. This concept of connectivity has been previously defined by Van Dijck et al. (2018) as the degree to which technology is entrenched in our daily lives. The questions are designed to examine the role of technology in the participants' lives, with a specific focus on social media platforms.

The survey aims to explore the impact of social media on the participants' decision-making process, particularly with regard to Google Maps reviews and algorithms. By analyzing the relationship between the level of social media presence and the influence of Google Maps on their choices, I hope to better understand how technology shapes the decision-making processes in their daily life.

To further investigate the participants' use of social media, the survey includes questions that are based on the findings of a study conducted by Scherr and Wang (2021), titled "Explaining the success of social media with gratification niches: Motivations behind daytime, nighttime, and active use of TikTok in China." Although Scherr and Wang's study specifically examined TikTok use in China, the survey adapts their findings to apply to all social media networks. I replicated the kinds of use mapped out by the researchers such as Filming and posting videos, Meeting new people, Interacting with people I know, Keeping up with trends So that I can get a break from what I am doing, To forget unpleasant things from work, school, or life, Discover new places to go, Inform myself, and As a search engine.

Set of questions no. 4 aim to test some of the existing claims and concepts regarding technology's role in our lives. It is designed to test Freeman's (2018) claim that online media is the primary source of information about cultural heritage and museums. The questions seek to understand the participants' sources of information and the extent to which they rely on online media to learn about cultural heritage and museums. By testing this claim, I hope to gain insights into the role of technology in disseminating information about cultural heritage and the extent to which it is shaping our understanding of this important aspect of society.

The questions are also based on the concept of selection (Van Dijck et al., 2018) and choice-infused platforms (Graham, 2018). The questions aim to measure the presence and influence of these mechanisms in the participants' daily choices. This set of questions will also analyze if there is a producer relationship as described by Graham (2018), which may have an impact on the participants' choices. These questions are particularly important as they relate to the second phase of the research, where the choices will be further investigated.

To understand the participants' use of positive and negative words in online reviews, the survey includes a question based on a study conducted by Gursoy, Akova, and Atsız (2022) titled "Understanding the heritage experience: a content analysis of online reviews of World Heritage Sites in Istanbul." By analyzing the use of positive words in online reviews, I hope to

better understand the factors that contribute to a positive heritage experience in the students' experience and see how that is represented in reviews.

This also applies to negative words. I read negative reviews for multiple museums in Prague trying to detect common terms used when speaking negatively about an institution. One of the most frequent terms was "tourist trap." The Cambridge Dictionary defines "tourist trap" as "a crowded place that provides entertainment and things to buy for tourists, often at high prices." In the context of cultural institutions, this term is usually mentioned by tourists in more commercially driven museums that charge high prices.

Once the survey data is collected, it will be analyzed using a descriptive approach. The primary goal of this approach is to provide a detailed and accurate description of the sample studied. The descriptive analysis will involve organizing, summarizing, and presenting the data in a way that highlights key trends and patterns. This will be done to gather better understanding of the participants' behavior and preferences when it comes to cultural heritage and technology.

This approach allows to identify general trends and patterns in the data. This is essential when it comes to comparing the survey results with the qualitative interviews, which will provide more in-depth insights into the participants' attitudes and experiences. By first analyzing the survey data using a descriptive approach, I can have a more substantial understanding of the overall sample before delving deeper into the qualitative data.

### **3.5.2 Second phase (interviews)**

deMarrais (2004) points out that qualitative interviews can provide meaningful insights into participants' experiences. The author describes how this method contributes to constructing a complete picture, especially by adding to questions previously asked. For the author, qualitative interviews are a unique form of discourse between two people where one plays the role of an informed learner. It is up to the researcher, in this method, to unveil the essence or structure of this experience through thorough interpretation.

For this research, the interviews will provide an in-depth view into students' experiences in choosing museums to attend, using technology, and trusting sources. The surveys began this process, as they quantified and profiled the participants, allowing the interviews to be more open-ended and explanatory. The interviews will be analyzed through thematic analysis, seeking to relate the interviews to the research aims. According to

Alhojailan, M. I., & Ibrahim, M. (2012), thematic analysis “allows the researcher to determine precisely the relationships between concepts and compare them with the replicated data” (p. 40).

All of the survey respondents were contacted via email to ask if they would be willing to participate in an interview. Of the group, five accepted the invitation. The interviews were all conducted virtually through Zoom. The interviews were all semi-structured. I prepared the questions beforehand based on their survey answers, tailoring the interviews. The order of the questions was sometimes changed if the interviewer mentioned a topic earlier on. In preparation for the interview, the participants were tasked with listing five museums they would like to visit (or have decided to visit before on their own) in Prague.

During the interviews, participants were first asked to share their list, describing and explaining the rationale behind their museum choices. This approach aimed to understand the students' selection criteria, uncovering the significance of different factors that influenced their decision-making. They were asked to provide details about how they found out about each museum, which could provide insights into the influence of each method of finding museums. Overall, the idea was to understand what attracted the students to the institution and to understand what lead them to think they would have a good experience there.

After this moment, they were asked follow-up questions on their responses to the questionnaire. Not all the participants were asked all the questions, as some fit their responses more than others:

- In the survey, you said that friends/family recommendations are your main source when deciding to visit a museum; what if you're interested in a museum that no one you know has been to?
- I agreed/disagreed that you would not go to a museum that has bad reviews: could you explain more about why?
- What do you use Google Maps for?
- Have you used Google Maps to find a museum to visit?
- Have you discovered museums through other social media platforms?
- In the survey, you said that Google Maps is your main source when deciding to visit a museum; do you look further than Google Maps?
- Do you think Google Maps is a trustable source?

- You agreed/disagreed that you would not go to a museum/heritage site that had bad reviews/ratings; why?
- Why do you think reviews influence you?
- Do you consider reviews more or less for museums? (in comparison to other businesses)
- You agreed/disagreed that if a friend recommended you a place and it had bad reviews on Google Maps, you would not visit it; why?
- You selected terms that, if mentioned in the reviews, would drive you off a cultural institution. Do you look for them when you read museums reviews?

The final part of the interview involved asking the participants to search for specific things on Google Maps to see how people's profiles are translated into each participant's content shown on Google Maps. They will search for the words museum and museums. The goal here is to see if different places are shown as top results for the queries. Apart from that, the participants will be asked to access the reviews of The Museum of Communism, The National Museum, and the National Gallery. This will be done to see if they are shown different reviews in the same places. The English version of Google Maps will be used. As pointed out by Ruiz-Mafe et al. (2020), there is a sequence bias when reading reviews. The valence of the first reviews presented to the user affects how likely they are to go to a particular place. When the user faces conflicting reviews, having positive reviews displayed at first raises more pleasure and arousal than if it is the other way around. When the order is inverted, though, helpfulness is increased. The authors claim reviews on TripAdvisor are displayed in order of how recent they are or by chance. I would argue, however, that in Google Maps, this order is not random but carefully displayed through machine learning and algorithm processing. Conflict in reviews would also cause people to utilize their cognition in addition to their emotional response, using this mechanism to judge the perceived helpfulness of the review. Thus, this part of the research will further investigate this bias and how Google Maps' algorithm displays different content for different people and try to elucidate how this impacts people's responses and following choices.

### **3.5.3 Hypothesis and expected findings**

The expected findings for this research are that using Google Maps strongly influences young adults' choices of where to go. Firstly, it would, through its data collection and algorithms, target each individual with curated content aimed at convincing them somehow. It would show different museums to each person, leading users to a certain route. Also, showing reviews in a different order influences their willingness to go or not to a cultural institution. Secondly, reviews would appeal to individuals' emotions and cognition, affecting their choice-making process. This new kind of interpersonal trust that reviews are based on would increasingly gain traction, influencing users deeply. Thus, the hypothesis is that, by displaying curated and directed content, Google Maps is able to more easily lead people towards certain choices of museums and heritage sites to visit, and that it uses user-generated electronic word of mouth (eWOM) as a powerful tool in that process.

Regarding the questionnaire, it is probable that most participants will, in fact, use technology extensively and consider reviews to be important. The main findings will be related to how much they are influenced by them and the differences between what Google Maps shows to each one. Some particular museums and sites should be suggested to most people due to their importance to the city, but the differences should be noticeable and relate to their answers in the questionnaire. It is expected that this will be an important part of the decision-making process of the participants when picking a cultural institution to visit.

The proposed hypothesis regarding the research question of "How do Google Maps' reviews and algorithms impact international students' choices on which museums to visit in Prague?" is deeply related to that.

## **Chapter 4: Results**

Before outlining the results, the aims and questions of this research will be reiterated. The main query of this research is: How do Google Maps' reviews and algorithms impact young adults' choices on which museums to visit in Prague? The research aims are, firstly, to measure the presence of Google Maps in the participants' daily lives, investigating what they use the platform for (reading reviews, navigation, discovering new places) and how that applies to the museum context. Secondly, to measure how Google Maps' reviews influence the decision process of the participants when choosing a museum to visit. For that, both the impact of reviews focused on the institution/exhibitions and on the audience experience will be analyzed. Thirdly, to understand if Google Maps' algorithms influence which museums are shown to each user when they perform a search on the platform and the order/content of the reviews shown to them.

This chapter is divided into three sections. In section 4.1, the results of the surveys are laid down. Then, in section 4.2, the interviews are explored. Firstly, a brief introduction of the students interviewed is developed in section 4.2.1. Then, a detailed description of the different themes approached in the interviews is in section 4.2.2: 4.2.2.1 Use of Google Maps, 4.2.2.2 Use of other social media, 4.2.2.3 Impact of reviews, 4.2.2.4 Trusting Google Maps, and 4.2.2.5 Choosing a museum to visit. At last, the results of the experiment conducted on Google Maps are explored; firstly the Google Maps search results for museums in section 4.3.1 and the reviews displayed for individual museums in section 4.3.2.

### **4.1 Surveys**

The Surveys were sent to the students of the "Prague – The role of the City in Czech and European Culture" course in the Faculty of Arts, Charles University. They were online surveys and comprised 25 questions; which were all closed and multiple-choice questions. Altogether, 20 students completed the survey.

The first part of the survey aimed to establish a profile of the participants, following the principle that Google Maps and other platforms would do the same through their algorithms. The individual answers would also be used when doing the interviews and



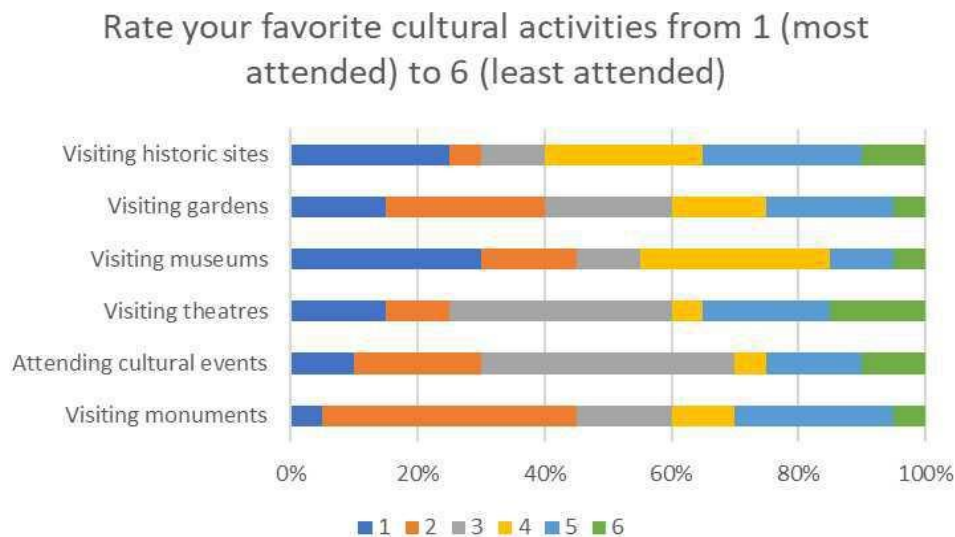
searches on Google Maps, relating the students' profiles to what is shown to them on the platform.

Regarding gender, 78.9% of participants were female, and 21.1% were male. As for the nationalities, 16 participants were European, one from North America, one from South America, and two from Asia. 95% of the participants lived in Prague, and all of them would leave the city in 2023 from January to September. The participants' ages varied from 19 to 25 with one participant being 29. 60% of students pursued humanities degrees, 35% pursued degrees in arts and languages, and 5% studied Geography. 80% claimed to attend cultural activities 1-2 days a week, 15% claimed to attend 3-4 days a week, and 5% claimed not to attend cultural activities.

The favorite activities of the students were varied (see Figure 1), with museums (six people) and historic sites (five people) being the most preferred. Visiting theaters was the least favorite activity, with three people marking it as 6th in their preference. Regarding how much they visited museums, 75% claimed they frequently visited museums when they traveled, and 25% said they sometimes do. As for the city they live in, 50% claimed they sometimes visit museums, 30% said they rarely do, and 20% claimed to frequently visit.

**Figure 1**

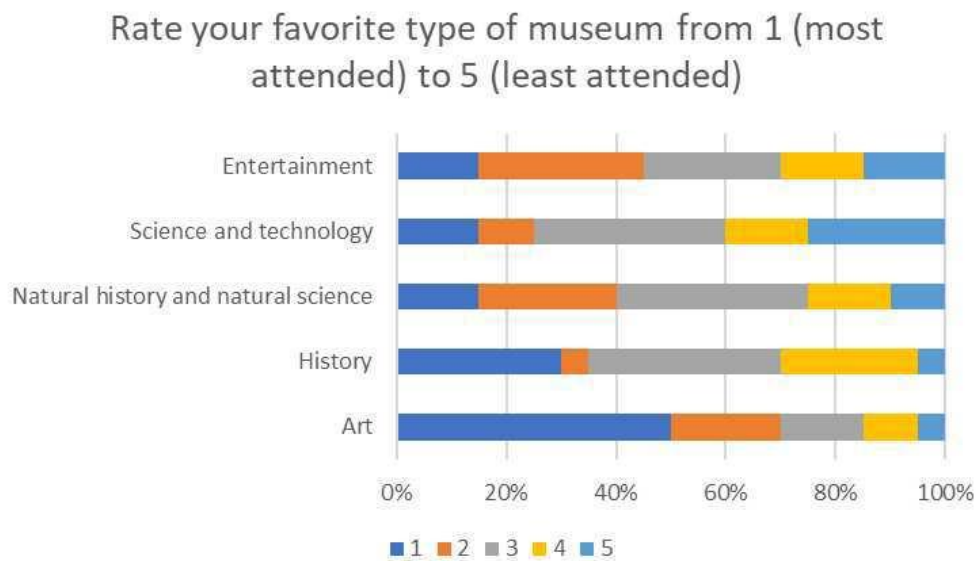
Rate your favorite cultural activities from 1 (most attended) to 6 (least attended)



The preferred types of museums among the students were, in the first place, art museums (50%), followed by history museums (30%). The least preferred museums were Science and technology (25%) and entertainment (17%) (see Figure 2).

**Figure 2**

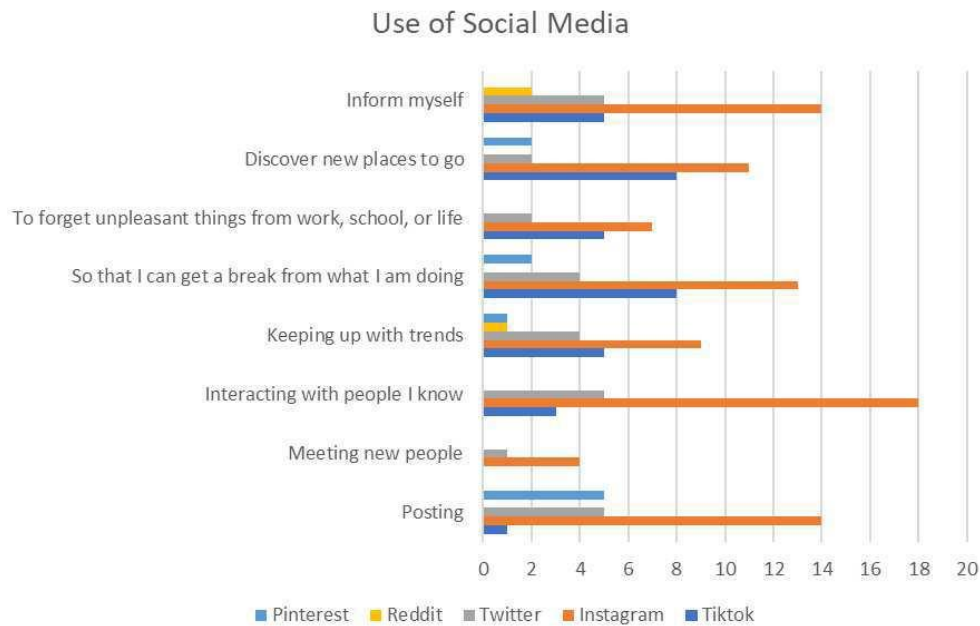
Rate your favorite type of museum from 1 (most attended) to 5 (least attended)



As predicted, the use of technology was largely diffused among the participants. All the students claimed to use at least one type of social media. All the respondents claimed to use Instagram and Google Maps, confirming the proposition that Google Maps is widely used among this age group. 45% said to use Tiktok, 35% Twitter, 25% Pinterest, and 10% Reddit (see Figure 3).

**Figure 3**

Use of Social Media

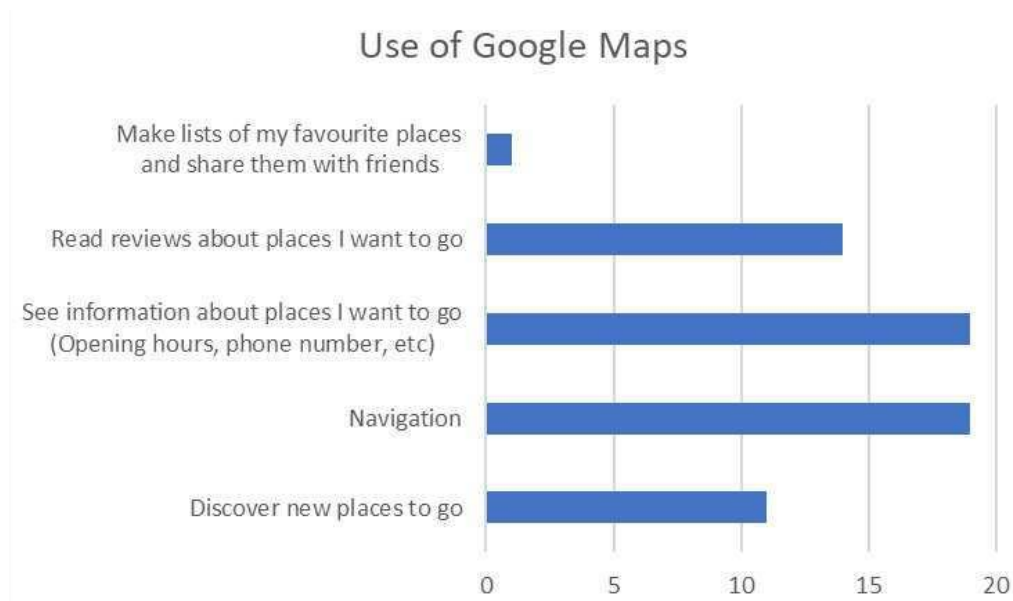


Instagram was the tool most used for posting, with 14 students claiming they post photos and six claiming they post reels. Five of the Twitter users claimed they write tweets, and 5 of the Pinterest users claimed they make pins/boards. The tools were not usually used for meeting new people but instead mostly to interact with people the students already knew. Social media was often seen as a way to “get a break” and, in small proportion, to forget unpleasant things. There is a significant number of students that use social media to discover new places and keep up with trends. In general, Instagram was heavily used for varied purposes. This shows how entrenched social media is in the students’ lives, as they use tools (mainly Instagram) for the most varied purposes.

As for the use of Google Maps, the tool is mostly used for its more practical uses: navigation and information on opening times, etc. Half of the students, however, also use it to discover new places to go. Only one uses it in an active manner making lists of favorite places to go. The data confirms that more than half of the students use the tool to discover new places and to read reviews about them.

**Figure 4**

Use of Google Maps



This trend can also be observed in Figure 5. 55% of students disagreed completely with the statement “I write reviews for places I’ve visited on Google Maps” and 75% with the statement “I post photos of places I’ve visited on Google Maps.” No student agreed completely with the statements. The data also confirms how most students use Google Maps navigation tools and information on businesses. The use is frequent during trips, with around 70% of students reading reviews for places during their trips.

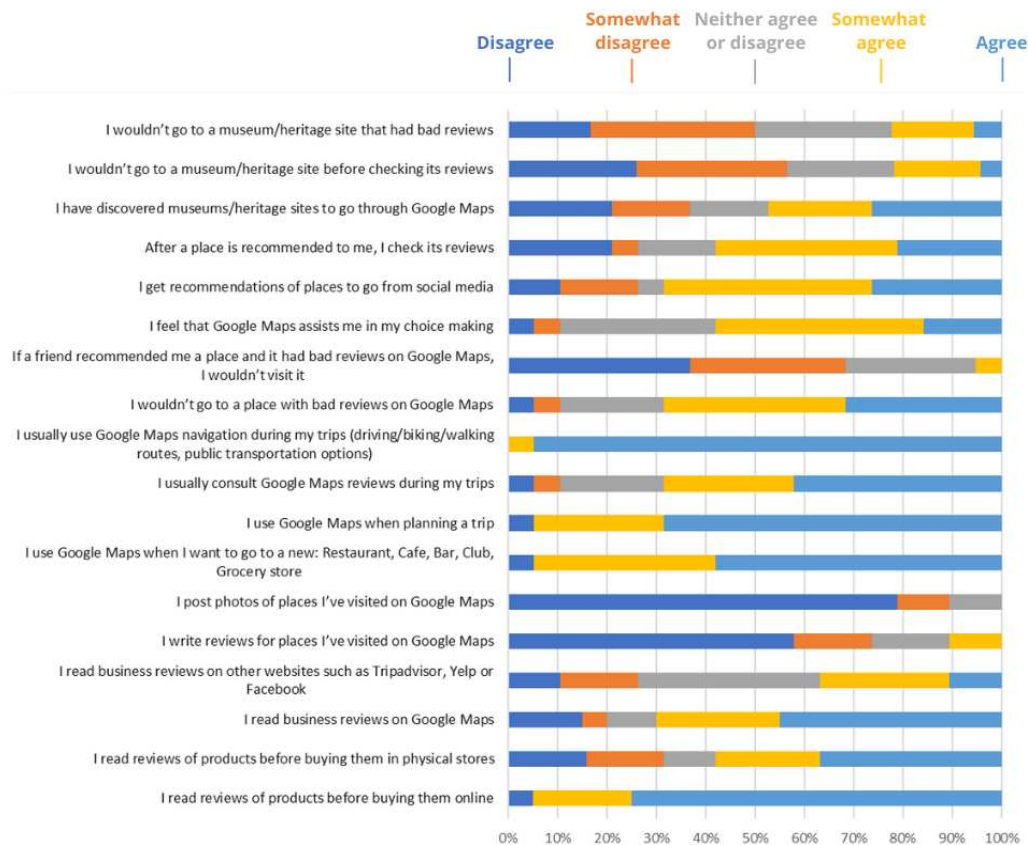
Product reviews, overall, were more consumed than business reviews. Besides Google Maps, only 35% of students claimed they read reviews on other websites. Around 60% of students claimed Google Maps assists in their choice-making, and nearly half of them claim to have discovered museums/heritage sites to go through Google Maps. This confirms the claim that Google Maps helps students find new museums and choose places to go.

However, around 70% of the students agreed or partially agreed that they would not go to a "place" with bad reviews, but only around 23% of students agreed or partially agreed that they would not go to a museum/heritage site with bad reviews. Similarly, around 20% of students would not visit a museum/heritage site before checking its reviews. Almost 70% of students disagreed or partially disagreed that if a friend recommended them a place and it had

bad reviews on Google Maps, they would not visit it. This shows that museum reviews are less relevant to students than business and product reviews.

**Figure 5**

Influence of reviews and Google Maps



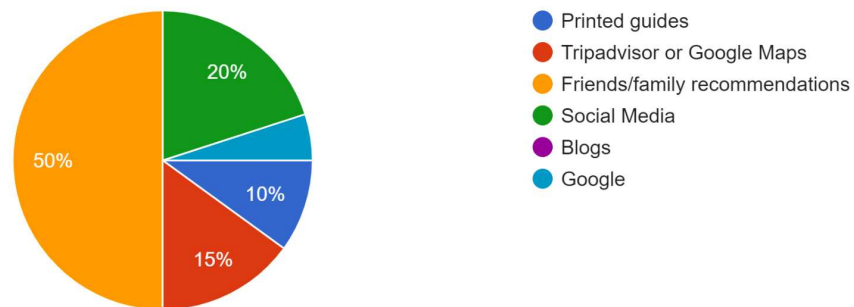
When talking about reviews, students demonstrated to be affected negatively mainly by reviews that mentioned: tourist traps, expensive tickets, waste of time, and long lines. As for positive aspects, interesting, interactive, and worth it.

50% of students claimed to be mainly influenced by friends/family recommendations when deciding on a museum to visit, followed by 20% by Social Media and 15% by Google Maps (see Figure 6). This confirms the claim that WoM is still more relevant than eWoM, but that eWoM's relevance is increasing.

**Figure 6**

Main source when deciding on a museum to visit

My main source when deciding on a museum, heritage site or sightseeing spot to go to is:  
20 responses



## 4.2 Interviews

The interviews helped further discuss the survey results and ask the participants for further explanations of their answers. They were used as a way to confirm the validity of the students' responses and further discuss their use of Google Maps in their daily lives and the impact reviews may have. In total, five students were interviewed. Each interview lasted about 45 minutes, and they were all done online. The interviews happened during the summer semester of 2022/2023.

### 4.2.1 Introducing the students

To better understand the participants' answers, a basic profile will be established. This profile will also be referenced when exploring the algorithm and the different things Google Maps showed to each student.

Four of the interviewees were female, and one was male. Their age range varies from 19 to 29, and they were all humanities students. Four of them were avid museum-goers, and one of them claimed to be "learning to enjoy museums." Three of them were Europeans, one was South American and one was Asian.

Student 1 is Female, French, and lived in Prague at the time. She was 19 and studied philosophy. She claimed to attend cultural activities 3-4 days a week. Her most attended

cultural activities were visiting theatres, gardens, and historical sites, while museums scored a 2. She frequently visits museums when she travels, and in the city she lives in. Her favorite types of museums were art and history, and her least favorites were science and technology and entertainment, both scoring a 3. Regarding social media, she uses Instagram, Pinterest, and Google Maps. She uses Instagram to post videos/reels and photos, keep up with trends, discover new places to go and inform herself. She uses Pinterest to make pins/boards. She uses Google Maps to discover new places to go, for navigation, to see information about places she wants to go, to read reviews about places she wants to go and to make lists of her favorite places and share them with her friends. She would not go to museums where the reviews mention "Tourist trap," "expensive tickets," "too small," "badly conservated," and "biased texts." As for positive terms, "worth it," "interesting," "informative," and "lots of things to see." Her main source for deciding which museums to visit is Friends/family recommendations. She does not write reviews/post pictures, however, reads them. She also reads reviews for products she wants to buy. She uses Google Maps to visit new businesses, plan a trip, and for navigation. She partially disagreed that she would not go to a place with bad reviews on Google Maps. She partially agreed that Google Maps assists her in her choice-making and that she gets recommendations of places to go from social media. She, however, partially disagreed that she would not go to a museum before checking its reviews and that she would not go to a museum with bad ratings/reviews. She has discovered museums through Google Maps.

Student 2 is Female, Danish, and lived in Prague at the time. She was 25 and studied anthropology. She claimed to attend cultural activities 1-2 days a week. Her most attended cultural activity was visiting monuments, scoring 3 points on the attendance scale, while museums scored 5. She sometimes visits museums when she travels and rarely in the city she lives in. Her favorite types of museums were art, history, and entertainment, and her least favorites were natural history/science and science and technology. Regarding social media, she uses Instagram and Google Maps. She uses Instagram to interact with people she knows, to get a break from what she is doing, to forget unpleasant things from work, school, or life, and to inform herself. She uses Google Maps for navigation and to see information about places she wants to go. She would not go to museums where the reviews mention "Tourist trap," "long lines," "waste of time," "disappointing," and "boring." As for positive terms, "worth it," "beautiful," "interesting," and "lots of things to see. Her main source for deciding which

museums to go to is Friends/family recommendations. She does not write reviews/post pictures and usually does not check reviews for businesses. She sometimes read reviews when buying products online. She uses Google Maps to try to find restaurants, cafes, etc., and to assist in planning a trip. She partially agreed that she would not visit a place with bad reviews on Google Maps. However, she neither agreed nor disagreed that she would not go to a museum with bad reviews.

Student 3 is Female, Philipino, and lived in Prague at the time. She was 25 and studied cultural heritage. She claimed to attend cultural activities 1-2 days a week. Her most attended cultural activity was visiting historical sites, while museums scored a 4. She frequently visits museums when she travels, and in the city, she lives in. Her favorite types of museums were natural history/science, and her least favorite was entertainment. Regarding social media, she uses Tiktok, Instagram, Twitter, Reddit, and Google Maps. She uses TikTok to keep up with trends, to get a break from what she is doing, and to inform herself. She uses Instagram to post videos/reels, photos, and stories, to meet new people, to interact with people she knows, to keep up with trends, to get a break from what she is doing, to forget unpleasant things from work, school, or life, to discover new places to go and to inform herself. She uses Twitter for posting tweets, interacting with people she knows, keeping up with trends, getting a break from what she is doing, forgetting unpleasant things from work, school, or life, discovering new places to go, and informing herself and as a search engine. She uses Reddit for keeping up with trends, getting a break from what she is doing, informing herself, as a search engine, and learning more about hobbies/personal interests. She uses Google Maps to discover new places to go, for navigation, to see information about places she wants to go, and to read reviews about places she wants to go. She would not go to museums where the reviews mention "Tourist trap," "expensive tickets," "long lines," "rude staff" and "waste of time." As for positive terms, "worth it," "beautiful," "good infrastructure" and "interactive." Her main source for deciding which museums to visit is Friends/family recommendations. She sometimes writes reviews and posts pictures. She reads reviews for products and businesses frequently, also on sites like TripAdvisor and Facebook. She uses Google Maps to visit new businesses, plan a trip, and for navigation. She partially agreed that she would not go to a place with bad reviews on Google Maps. She agreed that Google Maps assists her in her choice-making and that she gets recommendations of places to go from social media. Also, she always checks reviews for places before going, even if they were a recommendation. She partially agreed that



she would not go to a museum before checking its reviews and that she would not go to a museum with bad ratings/reviews.

Student 4 is Female, Swedish, and lived in Prague at the time. She was 24 and studied history. She claimed to attend cultural activities 3-4 days a week. Her most attended cultural activity was visiting theatres, while museums scored a 4. She frequently visits museums when she travels and sometimes in the city she lives in. Her favorite types of museums were science and technology, and her least favorite was art. Regarding social media, she uses Instagram and Google Maps. She uses Instagram to interact with people she knows, to get a break from what she is doing, to discover new places to go and to inform herself. She uses Google Maps to discover new places to go, for navigation, to see information about places she wants to go, and to read reviews about places she wants to go. She would not go to museums where the reviews mention "Tourist trap," "expensive tickets," and "disappointing." As for positive terms, "beautiful," "interesting," and "informative." Her main source for deciding which museums to visit is Google Maps or Tripadvisor. She does not write reviews/post pictures, however, read them frequently. She also reads reviews for products she wants to buy. She uses Google Maps to visit new businesses, plan a trip, and for navigation. She neither agreed nor disagreed that she would not go to a place with bad reviews on Google Maps. She agreed that Google Maps assists her in her choice-making and that she gets recommendations of places to go from social media. She, however, partially disagreed that she would not go to a museum before checking its reviews and that she would not go to a museum with bad ratings/reviews.

Student 5 is Male, Brazilian, and lived in Prague at the time. He was 29 and studied museology. He claimed to attend cultural activities 1-2 days a week. His most attended cultural activities were attending cultural events, while museums scored a 3. He frequently visits museums when he travels, and sometimes in the city, he lives in. His favorite types of museums were science and technology, natural history/science, and entertainment, and his least favorite was history, scoring a 3. Regarding social media, He uses Instagram and Google Maps. He uses Instagram to post videos/reels and photos, interact with people he knows, and inform himself. He uses Pinterest to make pins/boards. He uses Google Maps to see information about places he wants to go and navigate. He would not go to museums where the reviews mention "Tourist trap" and "long lines." As for positive terms, he chose "interactive." His main source for deciding which museums to visit is Google. He sometimes writes reviews but does not post pictures. He reads reviews for products and businesses frequently, also

sometimes on websites like TripAdvisor and Facebook. He uses Google Maps to visit new businesses and for navigation, but not to plan a trip. He partially disagreed that he would not go to a place with bad reviews on Google Maps. He neither agreed nor disagreed that Google Maps assists him in his choice-making and that he gets recommendations of places to go from social media. He, however, disagreed that he would not go to a museum before checking its reviews and that He would not go to a museum with bad ratings/reviews, however, said he would not go to a place with bad reviews. He has not discovered museums through Google Maps.

#### **4.2.2 Topics addressed in the interviews**

During the discussion, several topics were covered, starting with the use of Google Maps. The participants shared their views on how they use this tool in their daily lives, particularly in relation to museums. The discussion then delved into their trust in the platform or the tool's impact. Next, the participants were asked about their use of social media to discover museums to visit, with a focus on Instagram. They also discussed how much they read and consider the validity of museum reviews. The validity and relevance of Google Maps' reviews were also brought up, with the students sharing their thoughts on the matter. Finally, the students talked about their choice process for visiting a museum, referencing their answers to the survey and discussing how they selected five museums to visit during their time in Prague.

##### **4.2.2.1 Use of Google Maps**

The starting topic for this chapter is the participants' view of Google Maps as a tool and how it integrates into their daily lives, particularly in regard to museums. This inquiry will provide a comprehensive understanding of how the participants utilize Google Maps as a tool for discovering museums, learning more about them, and reading their reviews. It's important to note that this topic is limited to the participants' views and usage of Google Maps as a tool for museum navigation and exploration. It will not delve into their trust in the platform or the tool's broader impact.

Student 1 claimed to use Google Maps for its practical features. When it comes to museums, she only uses the tool for finding and going to them and to check practical

information such as opening time, address, etc. However, she said that “in cities I do not know, I use Google Maps to find museums.” Once she finds it, she visits the website to learn more about them. Thus she uses the search engine tool but does not read the reviews.

Student 2 claimed: “I use Google Maps a lot, but mostly just for directions, to look for trams or stuff like that. I use it every day, I'd say.” She claimed not to use it for anything related to museums, as she usually is not the one in charge of deciding on museums to visit, going along with her friends.

Student 3 uses Google Maps in her daily life and also in regard to finding museums. She said “Usually I go to Google Maps first; I want to see how near the place is to mine. And then I look for the reviews and photos posted. If I like it, if it catches my interest, then I go to the website as well to see more information, like the opening time, and to buy tickets.”

Student 4 uses Google Maps extensively, both in her daily life and to find museums. She claimed to be using it for about four years, especially when she is traveling. “I find it very useful. [...] What's really good about it is that you have everything there: restaurants, cafes, and bars, but also entertainment and cultural stuff.” She also highlighted how much information you can find on the platform. She gave examples of seeing an interesting building on the street and looking it up on Google Maps to read more about its history. She said the reviews can contain a lot of information and that she reads them frequently. She said that usually, she does not look for the word “museum” on Google Maps, but instead “art museum” or “history museum.”

Student 5 said to use Google Maps frequently to navigate the city, as he is “frequently lost.” He claims to read reviews for places like restaurants and cafés frequently, and also museums. He used Google Maps to find museums once.

This data further confirms the wide use of the platform, with variations in its use. Student 2 was the only one that did not use the tool to find museums or read their reviews at all, but she also did not use other ways of active research and choice, usually just following her friends' recommendations. Three of the students claimed to read the reviews, and four of them used the platform to find museums.

#### **4.2.2.2 Use of other social media**

The participants were asked about using other social media to discover museums to visit. Overall, the focus was on their use of Instagram.

Student 1 claims she sometimes uses Instagram to discover museums to go to. She said she did that more in France (where she is from), as she follows pages that recommend museums and cultural activities. In Prague, she mostly just gets ads for “bars, cafés, and popular places.” For her, Instagram is more of a tool to keep in touch with family and friends. She also does not enjoy the approach of Instagram of being proposed something, as she prefers actively looking for places and “taking the initiative.”

Unlike some of the other participants who expressed interest in specific types of museums or cultural experiences, Student 2 stated that she doesn't typically choose the museums she goes to. Instead, she typically goes with friends or family and follows their lead in terms of which museums to visit. Thus, when asked about the impact of social media on her museum choices, Student 2 stated that she had never been motivated to visit a museum based on a social media recommendation.

Student 3 says that she frequently discovers museums on social media. She said that “Prague things just show up.” She used the tools to look for places in Prague before and she also had videos recommended to her with lists like “nine things to visit when you're in Prague,” and she checked some of them. On Tiktok, she “never really looked for museums there on purpose, but they also showed some recommendations. Well, not just museums but also restaurants or cafés.” She also follows the Prague Today Instagram page where they post activities to attend during the week in Prague. She said she went to some of them.

Student 4 said she got ads for museums on social media before, mainly on Instagram. She went to the Museum of Communism due to an ad she saw on Instagram. Student 5 said he also got ads for museums on Social Media, and that he went to a museum in Amsterdam after seeing an ad on Instagram.

Four out of the five students went to at least one museum due to social media recommendations or ads, showing that the tools can have some impact on the choice of museums to visit. It also shows the impacts a well-crafted algorithm could have, as Student 3 noted that, even though she never looked for anything related to museums in Prague on TikTok, she got recommendations that impacted her choice.

#### **4.2.2.3 Impact of reviews**

The participants were asked how much they read and consider the validity of the reviews of museums.

Student 1 said she would not go to a museum with bad reviews, but that “it actually depends on the type of reviews. If they said that the collection is very poor and the explanations are not very clear I would reconsider”. She does not usually look for reviews for places such as museums or cinemas, but for practical things she does (hairdresser, restaurant, etc.) She said not to look for anything in particular if she reads reviews, but “if I read the reviews and a lot of people mentioned the same thing I would not go.”

Student 2 said she does not usually read reviews for places to go because she usually goes with her friends, due to her friends’ recommendations or goes “on impulse.” In physical stores she also most times buys things on impulse, but when she buys things online she takes her time to read reviews and consider better her options. Despite not using Google Maps, she said her friends use it, and she gets recommendations from them.

Student 3 considers reviews more in a practical sense, getting insights into the visitor’s experience of the museum itself or the current exhibitions. She sees the reviewers’ enthusiasm (or lack thereof) and thinks that “if they can appreciate it, then I can appreciate it too.” She stated that she takes businesses reviews into consideration more than reviews of museums because she “knows what to expect from museums.” For businesses, she wants to know if she’ll like the establishment or not, as she’ll spend money, making it more critical than going to a museum. She stated that when museums have open days or when they do not charge tickets, she would go even if it was a poorly rated museum.

Student 4 said that she is affected by what she reads in reviews and that bad reviews have refrained her from going to places before. At first, she said friends’ recommendations would probably mean more to her than reviews, but then changed her answer to say that “to be honest, I maybe trust the reviews on Google Maps more than I want to think I do.” She said it would depend on what friend recommended it to her, on how much she trusts them. She claimed to be particularly influenced by the reviews during trips as she does not know much about the city and has limited time, so she would not like to waste time on attractions that are not appealing to her. Money also plays a part, “I’m a student, I do not have that much money, so I think I would probably inform myself before going to a museum.”

Student 5 said he frequently reads reviews. For businesses, he usually considers them more as, for him, they are “always right.” As for museums, he stated that “I’m a museologist, so I usually, even though it is bad reviews, I like to go and to check how it is the place.” He

gave the example of Prague Castle. Many reviews said the place was crowded. He decided to go anyway and ended up agreeing with the reviews.

This confirms that students read the reviews; however, it contradicts the idea that all of them would be influenced by its content. Student 4 considered what the reviewers have to say more, while Students 1, 3, and 5 were more critical of what they read. The latter showed to want to experience the place themselves to form an opinion. Student 2 at this moment showed that even though she is not directly affected by reviews, her friends are thus making her indirectly affected by the platform.

#### **4.2.2.4 Trusting Google Maps**

The students were asked about their thoughts on the validity and relevance of Google Maps' reviews.

Student 1 said she usually does not look for reviews too much as “people only leave comments when they are not satisfied,” so they can be biased. Especially for museums, she thinks liking or disliking an exhibition is something very personal and that she prefers to have her own opinion.

Student 2 says that she trusts reviews, but only if there are enough of them. “If it is three reviews then it could just be my two sisters and I hyping up something we made ourselves.” She also thinks sometimes people are overly negative in reviews, so she would trust what she hears from her friends more.

Student 3 trusts reviews but considers what people are saying exactly. She looks into why it was a good or bad experience for the reviewer and if that matters to her. For instance, if the staff was rude, it makes her reconsider going, especially if the museum is far from where she is. She said she does not necessarily look for anything when reading reviews, but she considers some things “red flags.” She thinks “if it was a bad experience for them, it will probably be a bad experience for me.”

Student 4 said she trusts reviews, but it depends on the users that write them. She then said that, actually, “whoever could have written whatever,” so maybe they are not that trustworthy, but she still uses it.

For student 5, he “would not say [Google Maps] is a trustable source like 100%, but around like 70%.” He said it depends on the number of reviews, as he would not trust the word

of only two commenters, but if it was five thousand, he would. For museums, he claims to prefer to check them with “his own eyes,” as “there is so much misinformation on the internet.”

Students showed to trust reviews partially, relying on the number of commenters to form an opinion since they do not know them personally. Student 3 showed to read them critically, taking into consideration what people are saying and its relevance to her.

#### **4.2.2.5 Contributing to Google Maps**

Among the students interviewed, only Student 3 claimed to write reviews/post pictures on Google Maps. She claimed she writes reviews when the place is “really good, so it deserves to have a review. If I like it, I want to recommend it to other people.” As for writing negative reviews, she considers it a “waste of time”. “I didn't enjoy it, so I might as well forget the experience as soon as I leave.”

#### **4.2.2.6 Choice process**

During the interview, students were asked a series of questions about their experience visiting museums in Prague. One of the questions inquired about their decision-making process when selecting which museums to visit. In response, the students shared their thought process and factors that influenced their choice.

The students' responses were analyzed and compiled into a table (see Table 1), which highlights the top five museums that the students visited during their time in Prague. This information provided valuable insight into the students' preferences and decision-making processes when it comes to choosing museums to visit.

#### **Student 1**

- National gallery: The student found out about the museum through a printed guide;
- Museum of cubism: The student found out about the museum through a printed guide;
- National museum: The student found out about the museum through a printed guide;
- Jewish cemetery: The student found out about the museum through a printed guide;

- Glass museum: The student found out about the museum through a printed guide;
- Mucha museum: The student found out about the museum through a printed guide.

### **Student 2**

- Museum of communism: The student discovered the museum through a Google search while looking for museums in Prague. Her roommate also talked about it
- National museum: The student heard multiple people talking about the museum and decided to visit it.
- National gallery: The student looked for it, as, according to her, “every country has those.”
- Dox: After going to the National Gallery, the student wanted to go to a museum with more contemporary art, so she found Dox on Google.
- Museum of senses: The student walked past the museum and became interested in it

### **Student 3**

- National museum: The student was walking in Prague and saw the building. In her words, “It is quite difficult not to notice the building.”
- Prague national gallery: The student found out about it on Instagram on a page that recommends things to do in the city.
- Jewish museum: The student found out about it on Instagram on a page that recommends things to do in the city.
- St. Nicholas church: The student saw it from the tram stop and looked for it on Google Maps. She checked the reviews and photos and decided it was worth going.
- Mucha museum: Found out about it on Instagram on a page that recommends things to do in the city

### **Student 4**

- National museum: Passed by the museum - said it is “hard to miss.”
- Praha kunsthalle: This museum was recommended by a friend, and she saw ads for it on the street.
- Dox: This museum was recommended by a friend.
- Mucha Museum: The student passed by the museum and decided to go in.



- Museum of Communism: Found out about it online (Instagram).

### **Student 5**

- National Gallery: The student found it through Google, looked for art museums.
- National Museum: The student saw it on his first day in Prague, said it is “hard to miss.”
- Dox: The student found it through Google, looking for contemporary art.
- Sex machine museum: The student found it through Google, as it is related to his research
- Mucha museum: Found it through Google, he is interested in the artist

Student 1 claimed to have friends and family recommendations as her first source in going to a museum. In the interview, she explained that in Prague she mostly consults a guidebook. In her list of museums to attend, all of them were discovered through the book. If the museum is not in the book or no one she knows visited it before, she usually looks for the museum online to see its website. She said, “I do not usually see comments on the internet about it, since exhibitions are a personal experience. Some people enjoy it; some do not. It depends if it interests you or not.” However, she uses the Google Maps search engine to find museums and then she looks for further information elsewhere.

Student 2 also claimed to have friends and family recommendations as her first source in going to a museum. In the interview, she said that she rarely goes to museums alone. However, I asked her to come up with her own list of museums to visit. The way she chose them was through Google searches, word of mouth, and walking past the museum and becoming interested in it.

Student 3 claimed to have friends and family recommendations as her first source in going to a museum. When asked how she decides to go when no one she knows has been to the museum, she said, “Usually I go to Google Maps first, like I want to see how near the place is from mine. And then I look for the reviews and the photos posted”. She found three of the museums on her list on Instagram (on a page that recommends things to do in the city), one walking past it, and one she saw from the tram stop and looked for it on Google Maps.

Student 4 said Google Maps was her first source when visiting a museum. She finds them through the tool and reads the reviews to know more about the experience. In her list, she

found two of the museums walking past it, two from a recommendation from a friend and one through Instagram.

Student 5 said his first source for finding out about museums is usually Google. He, however, trusts more his friends' recommendations than the internet/reviews. "With the app, I would be listening to people I really do not know; if a friend of mine who I know and trust tells me that it is good, I will trust my friend."

Most students chose the five museums in a different way than what they claimed to be their first source when choosing. Google searches, walking past the place and recommendations seemed to be the first sources. It has to be noted that Google Searches refer to Google Maps, showing Google Maps results. Thus, when the participants claim they use Google in general, they are using Google Maps, even if they do not realize it.

### **4.3 Queries on Google Maps**

All the students were asked to perform queries on Google Maps to compare what the tool would show them.

#### **4.3.1 Google Maps search results**

Firstly, the students were asked to look for the words "museum" and then "museums". Student 1 looked for the word "musée" as she was accessing Google Maps in French. The list of museums shown to them had differences and similarities.

##### **Student 1**

**Musée:** National Museum; Museum of torture; Museum of communism; Mucha Museum; National technical museum; Kafka museum; Cold war museum; Jewish Museum; Decorative arts museum; Czech music museum.

##### **Student 2**

**Museums:** Museum of Alchemists and Magicians of Old Prague; National Museum; Museum of Torture and torture instruments; Illusion Art Museum; Prague KGB Museum; Museum of Senses; Czech Museum of Music; Coffee Museum Prague; Magic Garnet Museum; Old times

museum; Museum of Alchemists and Magicians of Old Prague; National Technical Museum; Speculum Alchamiae.

**Museum:** Illusion Art Museum Prague; National Technical Museum; National Museum of Agriculture; Coffee Museum; Museum of Torture and torture instruments; Czech Museum of Music; Museum of Senses; Museum of Communism; KGB Museum; Jewish Museum in Prague; Mucha Museum; Museum of Decorative arts in Prague; Magic Garnet Museum.

**Student 3:**

**Museums:** Museum of Torture and torture instruments; KGB museum; Museum of senses; Illusion art museum Prague; Museum Montanelli; National museum; Czech Museum of Music; Museum of Alchemists and Magicians of Old Prague; Speculum Alchemise; Karel Zeman Museum; Magic Garnet Museum; Museum of Fantastic Illusions; Prague Ghosts Legends Museum

**Museum:** National Museum; Museum of Torture and torture instruments; Illusion art museum Prague; KGB museum; Czech museum of music; Prague ghost legends museum; National Technical Museum; Mucha museum; Museum of Senses; Magic Garnet Museum; Museum Montanelli; Museum Iluzi; Museum of communism

Student 4:

**Museums:** Illusion art museum Prague; Museum of senses; Museum of torture and torture instruments; Illusion art museum Prague; Museum of senses; KGB museum; National Museum; Magic garnet museum; Czech museum of music; National memorial to the heroes of the Heydrich terror; Museum of alchemists and magicians of old Prague; Old times museum; Speculum Alchemiae.

**Museum:** Museum of senses; National Museum; New national museum; Museum of communism; Mucha museum; Museum of torture and torture instruments; The cold war museum; Illusion art museum Prague; National technical museum; Antonin Dvorak museum; Museum of decorative arts in Prague; KGB museum; Jewish museum in Prague.

**Student 5:**

**Museums:** Trabant muzeum Praha Motol; KGB Museum; Museum of Senses; Illusion Art Museum Prague; Museum Montanelli; Prague Ghosts Legends Museum; Czech Museum of

Music; Museum of Alchemists and Magicians of Old Prague; National Museum; Museum of Fantastic Illusions; Karel Zeman Museum; Magic Garnet Museum; Czech Museum of Cubism.

**Museum:** Charles Bridge Museum; Mucha Museum; National Museum; KGB Museum; Czech Museum of Music; Illusion Art Museum Prague; Prague Ghost Legends Museum; National Technical Museum; Museum of Senses; Museum of torture and torture instruments; Museum Montanelli; Magic Garnet Museum; Museum of Communism.

Five museums were shown to all the students: the Czech Museum of Music, the Museum of torture and torture instruments, the National Museum, the Mucha Museum, and the Museum of Communism. The National Museum was chosen by all the students on their lists of museums to visit, the Mucha museum by four and the Museum of Communism by two. The Czech Museum of Music and the Museum of torture and torture instruments were not chosen by any of the students.

Some museums were shown to only one of the students. For Student 1 it was the Kafka museum; for Student 2 the Coffee museum; for Student 4 the National memorial to the heroes of the Heydrich terror, the Antonin Dvorak museum, and the New National Museum; and for Student 5 the Czech Museum of Cubism, the Trabant muzeum Praha Motol, and the Charles Bridge Museum.

As for the coincidences between the museums shown to the students on Google Maps and their list of museums to visit:

- Student 1 had three coincidences: the National Museum, the Mucha museum, and the Jewish Museum.
- Student 2 had three coincidences: the Museum of Communism, the National Museum, and the Museum of Senses.
- Student 3 had two coincidences: the National Museum, and the Mucha Museum.
- Student 4 had three coincidences: the Mucha Museum, the National Museum, and the Museum of Communism.
- Student 5 had two coincidences: Mucha Museum and National Museum.

The five first museums shown to each participant were all art, history, and entertainment museums, which speaks to the preferences of Students 1 and 2 but not 3, 4, and 5 (that stated to prefer natural history or science museums).

Thus, the presumption that Google Maps shows different results to each user is correct. However, the choice of museums by the platform is not necessarily curated to each individual, as the coincidences are, overall, generic, and the museums shown are not necessarily appealing to their likes. However, we can notice some patterns in the museums shown. The museums shown tend to be within the same area of Prague (Prague 1, 2, 5, and 7), and entertainment/commercial museums are usually privileged.

#### 4.3.2 Museum Reviews

Students were asked to look at the reviews of three museums in Prague on Google Maps: the Museum of Communism, the National Gallery, and the National Museum. Initially, the hypothesis was that different reviews would be shown to different users. However, the same reviews in the same order were shown to all of them.

The reviews shown to the participants are mostly lengthy, contain pictures, and are written by local guides. Google also privileges reviews with more “likes.” However, it is noted that positive reviews are always shown first, even if negative reviews have more likes. In the Museum of Communism, for instance, the sixth review shown has 17 likes, while the first review has 8.

The first review reads:

The museum tells [you] a visual story of what communism and the Soviet influence did to Czechia and Eastern Europe in general. I loved how detailed it described historical events but also the day-to-day life in the communist Czechia. Visit and allocate enough time to reflect.<sup>9</sup>

The sixth review reads:

There's nothing special about this museum apart from the pictures and history about the Soviet origins of the Czechoslovakia. OK, it's important to remember and tell the young generations about the devastating nature of the communism but charging approximately 20 Euros for the stories that you can easily find from a simple Google search or from the Wikipedia page of the communist Czechoslovakia is nothing more than robbery. If you want to learn about Soviets or communism in general, go read

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<sup>9</sup> Arevadze, N. (n.d.). Museum of Communism. Google Maps.

[https://www.google.com/maps/place/Museum+of+Communism/@50.087891,14.4274243,17z/data=!3m1!4b1!4m6!3m5!1s0x470b94ecf56168af:0xd1f35324d36d489a!8m2!3d50.087891!4d14.4299992!16s%2Fm%2F03mh\\_z4](https://www.google.com/maps/place/Museum+of+Communism/@50.087891,14.4274243,17z/data=!3m1!4b1!4m6!3m5!1s0x470b94ecf56168af:0xd1f35324d36d489a!8m2!3d50.087891!4d14.4299992!16s%2Fm%2F03mh_z4)

Orwell or GG Marquez or Solzhenitsyn or whatever but do not get conned by this so called museum.<sup>10</sup>

It is noted that the positive reviews usually talk about the exhibitions, while the bad reviews reflect on practicalities like the amount of text or objects. However, when sorted by negative reviews first, the picture changes.

The review with the most likes found had 44 and reads:

Museum code of ethics 4.2: Museums should ensure that information they present in displays and exhibitions is well founded, accurate and gives appropriate consideration to represented groups and core beliefs.

The Museum of Communism, although including some interesting pieces from the communist period, in reality consisted simply of walls upon walls of text that so clearly advocated an anti-communist bias. Although many in this area of the world have feelings of resentment toward communism, I expected more from a Museum.

I was not surprised to read the founder of this museum was an American businessman. Be careful when reading the information presented if you choose to visit.<sup>11</sup>

Other has 37 likes and reads:

Extremely biased to the point of capitalist propaganda. A more nuanced approach with more detail on the specific form of communism Stalin embodies, more background information on why people voted & continue to vote for communist parties, less passive aggression towards Marx & Engels (actually reading their work would help) & less emotion would be a better fit for a museum & far more informative to the public. It's a shame as some of the stories & information would have been fascinating without the constant pro-capitalism spin.<sup>12</sup>

Those reviews, though the ones with the most likes among the ones found by the researcher, were hard to find, as I had to sort the reviews by negative and they appeared around the 25th place in the list. The first negative reviews focus on practicalities, while the ones that criticize the exhibition for being pro-capitalism are “buried” by the algorithm.

This points to the fact that Google is purposefully displaying some reviews before others, despite its number of likes.

For comparison purposes, I looked into the reviews of an overall similar museum that also addresses the wrongdoings of the communist regime: the House of Terror in Budapest, Hungary. The only negative review that appears among the first ten has six likes and reads:

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<sup>10</sup> Kaya, A. I. (n.d.). *Museum of Communism*. Google Maps.

[https://www.google.com/maps/place/Museum+of+Communism/@50.087891,14.4274243,17z/data=!3m1!4b1!4m6!3m5!1s0x470b94ecf56168af:0xd1f35324d36d489a!8m2!3d50.087891!4d14.4299992!16s%2Fm%2F03mh\\_z4](https://www.google.com/maps/place/Museum+of+Communism/@50.087891,14.4274243,17z/data=!3m1!4b1!4m6!3m5!1s0x470b94ecf56168af:0xd1f35324d36d489a!8m2!3d50.087891!4d14.4299992!16s%2Fm%2F03mh_z4)

<sup>11</sup> Sharpe, S. (n.d.). *Museum of Communism*. Google Maps.

[https://www.google.com/maps/place/Museum+of+Communism/@50.087891,14.4274243,17z/data=!3m1!4b1!4m6!3m5!1s0x470b94ecf56168af:0xd1f35324d36d489a!8m2!3d50.087891!4d14.4299992!16s%2Fm%2F03mh\\_z4](https://www.google.com/maps/place/Museum+of+Communism/@50.087891,14.4274243,17z/data=!3m1!4b1!4m6!3m5!1s0x470b94ecf56168af:0xd1f35324d36d489a!8m2!3d50.087891!4d14.4299992!16s%2Fm%2F03mh_z4)

<sup>12</sup> Kitty D. (n.d.). *Museum of Communism*. Google Maps.

[https://www.google.com/maps/place/Museum+of+Communism/@50.087891,14.4274243,17z/data=!3m1!4b1!4m6!3m5!1s0x470b94ecf56168af:0xd1f35324d36d489a!8m2!3d50.087891!4d14.4299992!16s%2Fm%2F03mh\\_z4](https://www.google.com/maps/place/Museum+of+Communism/@50.087891,14.4274243,17z/data=!3m1!4b1!4m6!3m5!1s0x470b94ecf56168af:0xd1f35324d36d489a!8m2!3d50.087891!4d14.4299992!16s%2Fm%2F03mh_z4)

A decent place to go if you have an extra day at Budapest. Don't reserve your day specially for visiting this. It is about the history of world war but feels like it's just one side of story (which is totally understandable). The audio guide is recommended, and the entry fee is 10 Euro. It takes around 1.5 hour for the full tour. Taking pictures inside is not allowed.<sup>13</sup>

When filtering by lowest rating, however, the first review that appears has two pictures and 36 likes. It reads:

Honestly the worst "museum" I have been to. It felt as though it was fascist propaganda against socialism/ communism. It fails to show the true history of Hungary and how Hungary was the first country to side with the Nazi's (Axis) and how many Jewish Hungarians were forced into camps. However the museum sympathises with the nazis and how they had to change their uniform from green arrow to Soviet. Boo hoo. Also proceeds to quote Marx's "opium of the people" incorrectly when talking about how the Soviet's dispensed the churches influence on the people. The guide uses very bias language when describing how awful and disgusting communism was, rather than explain facts and letting people come to their own conclusion. The only terror in this museum is the amount that they hide. I want to know the true history and now I have to watch a documentary thanks a lot.<sup>14</sup>

In 21st place in the list, a review with 37 likes and one picture reads:

It's absolutely despicable and vile how this museum minimizes to the extreme the devastating ignominy of Nazism and its Hungarian side in the Jewish community and shamelessly maximizes the harshness of the communist era. It's embarrassing, and those responsible may feel ashamed of having created such a shameful and grotesque space. Not even the most sensitive gallery, dedicated to the victims, remembers the Jewish people, mercilessly massacred by the Arrow Cross Party, the greatest political exponent of ignominy in the history of Hungary.<sup>15</sup>

Like in the Museum of Communism, the reviews that commented on the anti-communist bias of the exhibitions were not displayed to most users, despite the numbers of likes they had. For the House of Terror, the first review shown had 18 likes and commented positively on the museum experience.

This points to a bias in the algorithm, that purposefully hides reviews that address certain topics or mention some keywords.

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<sup>13</sup> Mehta, U. (n.d.). House of Terror. Google Maps.

<https://www.google.com/maps/place/House+of+Terror/@47.5068934,19.0602552,17z/data=!4m8!3m7!1s0x4741dc6e1d41b419:0xade1459037fed6dd!8m2!3d47.5068935!4d19.0651261!9m1!1b1!16zL20vMDd0cmti>

<sup>14</sup> Romanov, M. (n.d.). House of Terror. Google Maps.

<https://www.google.com/maps/place/House+of+Terror/@47.5068934,19.0602552,17z/data=!4m8!3m7!1s0x4741dc6e1d41b419:0xade1459037fed6dd!8m2!3d47.5068935!4d19.0651261!9m1!1b1!16zL20vMDd0cmti>

<sup>15</sup> Fidalgo, E.P. (n.d.). House of Terror. Google Maps.

<https://www.google.com/maps/place/House+of+Terror/@47.5068934,19.0602552,17z/data=!4m8!3m7!1s0x4741dc6e1d41b419:0xade1459037fed6dd!8m2!3d47.5068935!4d19.0651261!9m1!1b1!16zL20vMDd0cmti>

## **Chapter 5: Discussion**

In this section, I will delve deeper into each of the research's aims, relating them to the study's results in order to provide a comprehensive answer to the research question. The first objective of this study is to investigate the use of Google Maps among the participants, and, therefore, I will begin by analyzing the extent to which the participants rely on this tool.

Next, I will explore the influence of Google Maps reviews on the participants, examining to which extent the participants use reviews to make decisions about where to go, especially when it comes to cultural institutions, and how they perceive the information provided by other users.

Finally, the influence of Google Maps algorithms on the participants. I will explore the order of the platform's recommendations and how they factor into their decision-making processes.

Overall, the chapter will conclude by relating these findings to the broader impact they could have on European culture.

### **5.1 Use of Google Maps among the participants**

The pervasive use of Google Maps in the daily lives of the surveyed students is a testament to the platform's importance in modern society. With all of the students relying on the tool for navigation and practical information, it is clear that Google Maps has become a critical infrastructure, a go-to mechanism for exploring and discovering new places. As McQuire (2019) notes, Google Maps has so much information that it is difficult for other tools to compete with, making it an indispensable tool for users.

One notable point is that Google Maps is not just a navigation tool but has become a vast tool for exploring different types of locations, as illustrated by Student 4. She not only uses it to find businesses and entertainment but also cultural activities, historical information, and people's opinions, among others. Similarly, Student 3 takes advantage of all the tools offered by Google Maps to plan her trips and explore new places, showcasing the platform's versatility.



The interviews also reveal the importance of the navigation feature in the platform's overall appeal. Student 5 heavily relies on Google Maps for navigation, even in his own neighborhood. This illustrates how Google Maps has become an integral part of his daily routine, something he cannot live without. Such a reliance on the platform's navigation feature underlines its utility in providing directions to its users.

The results of the survey reveal that a majority of the students surveyed use Google Maps not only for navigation but also to discover new places and read reviews about them. This relates to Ström's (2017) claim that Google developed Google Maps having in mind how useful and necessary maps its functions would be, consolidating its hegemony through the diffusion of a high-quality product, which can attract a significant audience and, thus, more targeted ads (Ström, 2017).

However, the survey also reveals that some students may underestimate the extent of their usage of the tool, highlighting the difficulty in fully grasping the impact of technology in our lives. This is in line with the views of Van Dijck et al. (2018), who argue that the current state of connectivity has made technology an integral part of our daily lives. Also, the findings of Dogruel et al. (2022) points out that people are unaware of how influential navigation technologies can be.

Interestingly, some of the students' responses in the survey were incongruent with what they said in the interviews, highlighting the limitations of the survey. For example, Student 5 initially claimed not to have discovered museums through Google Maps, but during the interview, he realized that he had actually used the platform to find them. Similarly, Student 2 claimed not to use Google Maps and always goes to museums because of friends, but she was indirectly influenced by her friends who used the platform. These findings suggest that qualitative interviews may provide a more accurate picture of how students use Google Maps and its impact on their decision-making.

The interviews' results highlight the prominent role of Google Maps as a navigational tool in the daily lives of the interviewed students. However, the findings also indicate that the tool is not always used for discovering new places and reading reviews. This suggests that students may have a limited perception of the full capabilities of the platform or may not realize how frequently they rely on it in their daily routines. Furthermore, the survey's limitations are apparent, as the findings may not be wholly representative of the broader

student population. If all students were interviewed, the results could differ significantly, and more nuanced insights could be revealed.

Additionally, the data demonstrate that different types of people exhibit varying degrees of reliance on Google Maps, depending on their individual traits and preferences. For instance, Student 2's spontaneous nature led her not to use Google Maps but neither other research tools such as guidebooks. These findings emphasize the importance of considering individual differences when studying the role of technology in people's lives.

During the interview, only one participant directly mentioned using Google Maps as a tool for discovering museums in Prague. However, it is important to note that many of the answers given by other participants could have been indirectly influenced by Google Maps. For instance, several participants mentioned recommendations from friends and family as a key factor in their decision to visit certain museums. These recommendations could have been influenced by Google Maps, as friends and family may have discovered these museums through the platform's recommendations or search results.

Similarly, some participants mentioned using Google searches to find information about museums in Prague. While these searches may not have been specifically related to Google Maps, it is likely that the platform played a role in directing these individuals towards certain museums or cultural experiences.

Overall, it appears that Google Maps may have had an overall influence on the participants' decisions to visit museums in Prague, even if it was not always mentioned explicitly. This highlights the increasingly interconnected nature of technology and cultural experiences, and the ways in which digital platforms can shape our perceptions of the world around us.

## **5.2 Influence of Google Maps reviews on the participants**

The data collected from the survey suggests that Google Maps plays a significant role in students' decision-making process when it comes to choosing places to go, with 60% of students claiming Google Maps assists them. However, the impact of reviews on decision-making varies depending on the type of place. While 70% of the students agreed that they would avoid going to a business with bad reviews, only 23% of them felt the same way

about museums and heritage sites. This discrepancy indicates that reviews' impact may be lower for museums than for private businesses.

Student 1's response highlighted the subjective nature of opinions on exhibitions, making museum reviews less relevant to her. Instead, objective factors such as the quality of the museum's collection could drive her away if enough reviews mentioned it. Similarly, Student 5 expressed a preference for experiencing the museum himself, rather than relying on other people's opinions. Student 3, on the other hand, feels that she knows what to expect from museums and does not rely as heavily on reviews for them compared to private businesses.

These responses demonstrate the social prestige that museums hold as institutions in our society. They are perceived differently from other private businesses, and students are more familiar with what to expect from them. In the case of Student 5, for instance, he claims, "I'm a museologist, so I usually, even though it is bad reviews, I like to go and to check how it is the place." As he studies museums in a more intricate level, he can gain even from visiting a "poor" museum, as he could be learning about bad museal practices, for instance. For the general public, however, going to a "bad" museum means a waste of money and time, and no particular gain. Thus, it is important to consider the students' specialist status.

The results also suggest that students may not fully understand the extent to which they rely on Google Maps and its tools, as their survey responses were sometimes incongruent with what they said in the interviews. Therefore, it is crucial to conduct qualitative interviews to gain a more accurate understanding of the impact of Google Maps on decision-making. These interviews may reveal that students are more reliant on the platform than they initially thought, and their answers to the survey may have been influenced by their tendency to underestimate their use of technology. Additionally, the results of the survey indicate that different types of people are more or less likely to use Google Maps, with some being more spontaneous and impulsive, while others plan out more extensively.

Reviews play a crucial role in decision-making, especially when it comes to limited time and money. In the case of the surveyed students, they often rely on Google Maps reviews to help them navigate unfamiliar cities, make informed choices, and stretch their limited resources. Student 4, for instance, mentioned how reviews and recommendations on the platform have helped her discover new places and avoid bad experiences during her trips. This highlights the role of Google Maps reviews as a trusted source of information that can help students make the most of their trips.

Moreover, students 3 and 4 expressed their awareness of limited resources and how this influences their decision-making. They emphasized the importance of being cautious when spending money and how reading reviews and recommendations on Google Maps helps them make informed choices. This suggests that reviews are relevant not only in situations of limited time but also in cases where people have limited financial resources.

Furthermore, the data suggest that reviews are more relevant in specific situations where the stakes of deciding where to go are higher. For instance, during trips, people tend to have limited time to explore their destination fully, which makes it essential to make informed choices. Similarly, students with limited resources need to be cautious when spending money, and reviews can help them make the most of their budget. The role of reviews in these specific situations highlights their relevance as a source of information when making important decisions.

The reasons why students choose to go to museums or avoid them are complex and multifaceted, and the survey responses reveal some interesting insights. Firstly, the idea of museums being classified as "tourist traps" may indicate the importance of trust in institutions for students. Museums are often seen as trusted sources of knowledge and education, and being labeled as a tourist trap may undermine this trust and lead students to avoid them.

Furthermore, the results indicate that limited resources, both in terms of time and money, play a significant role in students' decision-making. Expensive tickets and long lines may discourage students who are struggling financially, and a perceived waste of time may be a dealbreaker for those with busy schedules.

On the other hand, positive aspects such as "interesting, interactive, and worth it" highlight the importance of reports of good experiences in influencing students' decisions. Reviews that indicate the exhibition is "worth it" can encourage students to see the museum as a valuable investment of their time and money.

This aligns with Smith's (2020) claim that heritage is emotional. The reviews that appeal to emotions, or that highlight the way people experience heritage, seem to be the more relevant and influential. Reviews that point museums as frustrating experiences drive people off, and reviews that point museums as inspiring/exciting experiences invite the visitors. As Student 3 highlighted, "if it was a bad experience for them, it will probably be a bad experience for me." Readers of reviews empathize with the emotions of the writer. The results also confirm Akgün et al.'s (2015) results that positive emotions supported by empathy can

influence customers' behavioral intentions. Student 3 mentions that people's "enthusiasm" when writing reviews usually influences her, as she also wants to feel such positive emotions when visiting a site.

It is interesting that only one student out of the group interviewed writes reviews on Google Maps. While the results show that reviews can play a crucial role in helping people decide where to go and what to do, it seems that many users do not feel compelled to contribute their own feedback. The results of the survey also point to this direction.

Student 3's perspective on writing reviews sheds light on the factors that motivate users to contribute feedback. In her case, the motivation is primarily based on positive experiences and a desire to share those experiences with others. This suggests that some users may be more likely to write reviews when they have had an exceptional experience, rather than when they have had a negative one. Overall, emotions really come into play, as most people wouldn't write reviews for museums where they did not feel any strong emotions at.

Through this discussion, we can also highlight the topic of unpaid labor within the platform. At any moment Student 3 mentions helping or contributing to the platform, but instead, she thinks of other users just like her. However, Google benefits and profits from the goodwill of the users that provide never-ending good quality content. Student 3 is studying to be a cultural heritage professional, which means that when she writes a review for a museum, the platform gains from her expertise without any cost.

Another interesting aspect of Student 3's perspective is her claim that writing negative reviews is a "waste of time." This highlights the fact that online reviews can be a time-consuming process, and users may not be motivated to write negative reviews unless they feel particularly strongly about their experience. This can be related to how negative reviews can have more likes than positive ones, as people do not want to write their opinions, but are willing to endorse the ones they agree with.

Overall, Student 3's perspective on writing reviews provides insight into the motivations and behaviors of Google Maps users. While it is clear that online reviews are an important aspect of the platform, it seems that many users are primarily consumers of reviews, rather than creators of them.

Moreover, the students' responses indicate that the number of reviews also counts greatly in their decision-making process. Students 2 and 5 specifically mentioned the importance of the number of reviews, suggesting that a larger number of positive reviews

would increase their likelihood of visiting a place. This finding aligns with McQuire's (2019) observation that Google Maps' immense database is central and important to its users, as it provides a vast collection of reviews and ratings to base their decisions on.

Interestingly, while reviews appear to be influential, they are not the only factor in the decision-making process. Some students mentioned that they would still visit a museum or a place with bad reviews if it had something they were particularly interested in, such as a specific exhibition or artwork. This suggests that the students have their own interests and preferences, and that reviews are not the only source of information they rely on.

The results contrast with Tiqets' (2023) claim that 89% of people consider reviews before buying tickets for a museum. Possible reasons for this discrepancy are, firstly, the profile of the students, who were highly familiarized with cultural institutions, and “know what to expect from museums,” as Student 3 stated. Secondly, the difference in the question asked by this research and Tiqets'. During the interviews, students seemed more prone to consider reviews when money was at play. Thus, if the question asked in the survey involved not only “going to a museum” but “paying for a museum ticket” the responses could have been different.

The importance of reviews in the decision-making process of students when it comes to visiting museums cannot be overstated. As the previous sections highlighted, reviews can have a considerable impact on whether students decide to visit a particular museum or not. However, it is essential to note that reviews may have a lower impact than recommendations from friends. This further confirms the results of the study conducted by Tham et al. (2013) that claims the level of credibility differs between word-of-mouth (WOM) and electronic word-of-mouth (eWOM), with WOM still holding greater individual influence. The authors, however, also point out that, despite having less influence, the sheer volume of eWOM data makes it each time more relevant.

Interestingly, the level of trust in the friend making the recommendation plays a significant role in how much weight the student gives to the recommendation. Student 4 highlighted this point, stating that it depends on who the friend is and how much she trusts them. This suggests that the students' personal relationships and the trust they have in people close to them may play a crucial role in their decision-making process.

Also, a compelling narrative could also influence how impactful the opinion is. As pointed out by Zak (2013), effective storytelling can bring people closer to others, turning

them from strangers to familiar and trustworthy individuals. This happens in reviews, as the reader has to build some kind of trust in what the unknown reviewer is saying. Though WoM is more credited than eWoM, as Student 4's comment points out, a convincing stranger could have more impact than a not-so-trusted friend.

Student 1, 2, 3 and 5 showed to be more skeptical about reviews, but, unlike Student 4, did not point out that friends' recommendations could also be biased. Student 1 and 2 said that, in reviews, people usually only highlight the negative aspects. That could, however, also be true for people they know, that had an exceptionally bad experience at a museum and recall the museum as "bad."

Moreover, negative reviews that discredit the trust in the museum institution seem to be the most relevant when talking about negative reviews. The survey revealed that the participants were particularly sensitive to aspects that could damage their trust in museums, such as tourist traps, long lines, and waste of time. These aspects speak to the students' time and money, which are limited resources for students, particularly those who are still in school.

On the other hand, positive reviews that highlight the museum's worth and interactive nature seem to be the most relevant for the students when deciding to visit a museum. Reviews that provide an insight into the reviewer's experience may also impact the students' choices, as they can put themselves in the reviewers' shoes.

Overall, reviews seem to impact all the students' choices, either directly or indirectly. The students were knowledgeable about museums and aware of many sources to consult when finding a museum to visit, making this particularly relevant. As Student 3 points out, she reads reviews about places she does not know what to expect. This suggests that those who are not too familiar with museums may rely more on reviews to make informed choices.

In conclusion, the study results suggest that reviews play a significant role in the decision-making process of students when it comes to visiting museums. While friends' recommendations may have a more significant impact, the level of trust in the friend making the recommendation is crucial. Negative reviews that discredit the trust in the museum institution seem to be the most relevant when talking about negative reviews, and positive reviews that highlight the museum's worth and interactive nature are the most relevant for the students when deciding to visit a museum.

### **5.3 Influence of Google Maps algorithms on the participants**

It is clear from the survey results that Google Maps has become a go-to source for students when looking for new places to visit, including museums. Over half of the students surveyed reported using the platform to discover new places, and half of them had already used it to find museums. Furthermore, all but one of the students interviewed had used the platform to find museums.

This widespread use of Google Maps among students to find museums suggests that the platform's algorithm plays a significant role in shaping their choices. When students use Google Maps to search for museums, they are presented with a list of options, and the order in which those options are presented is determined by Google's algorithm. Therefore, the algorithm has a direct impact on which museums are more likely to be visited and which may be overlooked.

The assumption that Google Maps displays different results to each user is accurate. However, as shown by the students' searches, the selection of museums by the platform is not necessarily personalized to each user, as the options tend to be generic and not necessarily based on their interests. Instead, entertainment and history museums within a specific area of the city are shown the most. Google Maps searches privilege business profiles that are updated by their owners, which would allow more commercially driven museums to stand out, as they could be actively working on enhancing their chances of being found by users. This is noted by how frequently the Museum of Senses, Museum of Torture and Torture Instruments, Museum of Communism, and Ghost Legends Museum are shown in the queries, to the detriment of more well-known museums such as the National Technical Museum or Kafka Museum. The first ones mentioned do not necessarily have good ratings or reviews but are still displayed more than others.

As for the reviews, the hypothesis that different users would see different reviews was disproved. However, Google's algorithm influence is still relevant, as it does not show reviews randomly. Positive reviews are always shown first, despite having, sometimes, fewer likes than negative ones. As pointed out by Ruiz-Mafe et al. (2020), when the user is faced with conflicting reviews, having positive reviews displayed at first increases the chance users will go to said place. Akgün et al.'s (2015) study also comes in hand, as the authors found that perceived esthetics and narrative structure have a strong impact on behavior intention. Thus,



the fact that Google Maps shows lengthy reviews with lots of photos first may make people more susceptible to be influenced by them.

As previously pointed out by van Dijk et al.'s (2018), Google's market model is primarily American-oriented. Thus, the order of reviews in the Museum of Communism, for instance, can show an anti-communist bias. This is particularly relevant as it may drive users to museums that align with Google's ideology, in detriment to what other users find relevant. It is possible that someone would be influenced by the reviews previously quoted that refer to an anti-communist bias on the museum's exhibition, but since they will not scroll 25 reviews deep in the negative reviews section, they will not read it.

The influence of Google Maps algorithms on the users' museum search and selection is an important factor to consider. While it is true that the platform does not display the same results to each user, it seems that the selection of museums is not necessarily personalized to each user's interests. Instead, Google Maps seems to privilege museums that rank higher in SEO, which may lead to commercially driven museums standing out more than others.

As mentioned before, Google Maps searches tend to show entertainment and history museums within a specific area of the city the most. However, this does not necessarily mean that these museums are the most relevant to the users. For instance, the National Technical Museum or Kafka Museum may be more relevant to a user with a particular interest in technology or literature, respectively, but they may not be displayed as prominently as other museums.

It is also important to point out that some of the museums displayed may not even be considered museums. The current definition of museum is:

A museum is a not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets and exhibits tangible and intangible heritage. Open to the public, accessible and inclusive, museums foster diversity and sustainability. They operate and communicate ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection and knowledge sharing.

On their websites, the Museum of Illusions and the Museum of Senses in any moment claim to have education, research or knowledge sharing departments. These entertainment/commercially-driven self-proclaimed museums use of the reputation of the term museum to promote themselves commercially. Most students would not necessarily go to these museums, as shown by their choice of "tourist trap" as something that would influence

them not to visit a museum if they read it in a review. However, those are frequently found in the top results when looking for a museum on Google Maps.

Furthermore, the algorithm also influences the reviews displayed to the users. Google Maps algorithms show reviews in a curated manner, with positive reviews invariably displayed first, which may induce the user to visit the place. This can be problematic, as it does not necessarily provide an accurate representation of the experiences that users have had at the museum. It may also lead to users not being exposed to critical reviews that could potentially impact their decision to visit a museum.

As pointed out by Burrell (2016), such massive algorithms are opaque and almost impossible to fully decipher. Thus, this section sought to point out the ways Google Maps' algorithms could be curating how content is displayed, and, thus, how it could influence its users. This is an important exercise in a world where, as pointed out by Nielly (2020) and Graham (2018), platforms influence our choices without further clarity on how they operate.

#### **5.4 The impact on European culture**

In this section, I will explore the potential impact that Google Maps could have on European culture among Erasmus students. This section will attempt to measure how the results from the previous sections could reverberate in culture, as explored in section x.

Firstly, it is worth noting that all the students interviewed claimed to use Google Maps, which suggests that it plays an important role in shaping the toponymic discourse. Google Maps has the ability to influence how people perceive and navigate their surroundings, which in turn can impact the toponymic discourse of a region. Another potential impact is that Google Maps could lead to the commodification of culture. As pointed out by Ström (2017), the application provides information on businesses, but also on cultural sites, which could lead to the commodification of cultural landmarks and experiences, as they are compared to other commercial establishments.

Thus, it is concerning to note that many students are unaware of the presence of algorithms in Google Maps. This lack of awareness can normalize this commercial view of the common world. It can also increase the dependency users have on the application, that rely on it due to its convenience, without fully realizing how much it influences their choices of places to visit and how to get there.

Moreover, Google Maps overall pushes people towards commercial/entertainment museums, which, as previously explained, sometimes do not meet the official ICOM definition of a museum. These types of museums may offer little educational value and may be more focused on profit than on preserving cultural heritage. This could have a negative impact on the preservation of cultural heritage in the long run.

In addition to this, results showed that Google Maps hides negative reviews of businesses and attractions, which can give a false impression to the user. This is particularly concerning when it comes to cultural heritage sites, as negative reviews may be an important indicator of issues such as biased exhibitions or disingenuous museums. By hiding these negative reviews, Google Maps may be contributing to the banalization of museums. Furthermore, as shown by the case of the Museum of Communism, Google's algorithm seems to "bury" reviews that contain anti-capitalist discourse and highlight reviews with a more "practical" intent.

One of the major concerns is that Google Maps normalizes commercial maps and maps that collect user data. For many people, a map embedded with commercial symbols is now the norm for how they see the world. This can have a significant impact on our perceptions of our surroundings and the way we interact with them. It can also contribute to the commodification of space, where everything is seen in terms of its commercial value. The massive amount of data collected is converted in ads that can also direct people to certain places, museums included.

Another concern is that Google Maps fails to display a bigger picture of the world. It focuses on the user's location, which can be hurtful for the integration of the European continent, as most people get used to seeing only their surroundings on maps. This can lead to a narrow and limited view of the world, which can be harmful in terms of our ability to explore broader cartography.

While the interviewed students were less influenced by this, it is not necessarily the case for all users. The vast majority was influenced by business reviews, but not necessarily for museums. This can be due to their status as specialists on cultural heritage and museums. The general public, however, can be way more influenced.

This presence poses a challenge to museums, as reviews on Google Maps can present an unfair comparison. For positive aspects, students consider "interesting" as the most

important, and long lines and high ticket prices as the most important negative attributes. That causes a comparison between aspects that could not be compared before.

While these may be valid concerns for individual visitors, they do not necessarily reflect the broader value and significance of cultural institutions. For example, a museum that charges higher prices may do so in order to maintain high-quality exhibits or support research and conservation efforts, while a museum with shorter lines may not necessarily offer the same level of educational or cultural value.

Moreover, the comparison of museums based on these metrics creates a misleading impression that all museums can be judged on the same criteria. In reality, the diversity of cultural institutions and the unique experiences they offer cannot be easily reduced to a set of standardized metrics.

Trips were shown as a particular time when reviews could come at use, at that is a crucial element for the EU, as trips contribute to the integration of the continent. Especially, the museums people visit could make a difference in how European they feel. As previously quoted, Bäumler and Gossier (2003) point out that “occupying a central role in cultural and educational matters, museums play an essential part in the development of a common identity for Europe.” The authors show how museums are protectors of European Heritage, can present a broader European dimension to the public, and can be a democratic and open space to discuss European identity. Thus, if Google Maps points people towards commercial museums, a lot of this educational and constructive aspect of museums is lost.

It is worth noting that technology builds heritage, heritage builds culture, and culture builds the EU. Google Maps, as one of the most widely used mapping applications, has the potential to shape the cultural landscape of Europe, particularly among young people. Through its user-generated content, Google Maps provides a platform for people to share information about cultural institutions, landmarks, and historical sites. The oversimplification and standardization of cultural experiences can lead to a lack of appreciation for the complex and nuanced history and heritage of different European countries and regions. Therefore, it is important to consider the potential impact of Google Maps on European culture, especially among young people.

## **5.5 Limitations of the research**

While this research provides valuable insights into the use of technology and social media in selecting museums to visit, it is important to note that the sample size of the study was relatively small and limited to young adults who were already familiar with museums and technology. As a result, the findings of this study may not be representative of the wider population and further research with a more diverse sample could be conducted to better understand the impact of Google Maps on museum selection.

Additionally, this study represents the first attempt to examine the role of Google Maps' reviews and algorithms in the decision-making process of museum selection. As Google Maps continues to be a popular tool for finding and reviewing museums, further research in this area is necessary to fully understand the effects of the platform on the museum industry. As technology continues to evolve and shape our daily lives, it is essential to keep investigating the impact of these tools on society, culture, and the arts. By doing so, we can gain a deeper understanding of how technology shapes our experiences and interactions with the world around us.

## **5.6 Recommendations**

The implications of this research are not only relevant to museums, but they also extend to businesses in general. By engaging with online reviews and responding to negative feedback, companies can improve their reputation and ultimately attract more customers. This study highlights the importance of listening to customers' feedback, especially in the digital age, where online reviews can make or break a business.

Furthermore, the findings of this research can inform the development of more effective marketing strategies for museums. For instance, museums could use social media platforms such as Instagram to showcase their collections and engage with potential visitors. By doing so, they can increase their visibility and attract a wider audience.

It is also worth noting that this research could be extended to other touristic contexts, such as theme parks or historical sites. The insights gained from this study could be used to develop better ways of engaging with visitors and improving their overall experience.

Additionally, the limitations of this research provide opportunities for future studies. For example, by interviewing a larger and more diverse group of participants, researchers could gain a more comprehensive understanding of how people use Google Maps and other social media platforms when choosing which museums to visit.

Finally, the methods used in this study, such as interviews and surveys, can be adapted to investigate other research questions in the field of tourism and technology. As technology continues to evolve and shape the way we experience the world around us, it is crucial to continue researching its impact on our behavior and decision-making processes.

## **5.7 Final considerations**

Understanding the impact of technology on people's choices is becoming increasingly important in today's world. The focus of this study was to examine the impact of Google Maps' reviews and algorithms on young adults' decision-making process regarding which museums to visit in Prague. The study revealed that all the students surveyed used the platform, with half of them utilizing its reviews and discovery tools. This highlights the widespread use of the platform by young adults.

The study also found that reviews played a significant role in influencing the students' decision-making process. Negative reviews had a more significant impact on practical matters, such as infrastructure and visitor experience, while positive reviews were influential in emphasizing the museum's worth. However, despite the importance of reviews, friends' recommendations were still more relevant in decision-making, highlighting the importance of word-of-mouth marketing.

Moreover, the algorithms used by Google Maps also had an impact on the choice of museums. These algorithms privileged the display of some museums to the detriment of others on the platform and highlighted positive reviews while suppressing negative ones. This shows the importance of maintaining an active and updated profile on Google Maps to improve a museum's online presence.

While the findings of this research are informative, it is crucial to acknowledge that the study had some limitations. The sample group was limited to young adults who were familiar with museums and frequently used technology. Therefore, future studies could benefit from

surveying a more diverse group to gain a broader perspective on the impact of technology on decision-making.

In conclusion, this study provides valuable insights into the impact of Google Maps' reviews and algorithms on young adults' choices of which museums to visit in Prague. The findings suggest that maintaining an active and updated profile on Google Maps is essential for museums to improve their online presence and engage with their visitors. Additionally, the study highlights the need to understand the impact of technology on people's decision-making processes to adapt to the changing landscape of tourism and marketing.

## **Chapter 6: Conclusion**

To bring the study to a close, this chapter will provide a summary of the key research findings in relation to the study's aims and questions. Additionally, it will discuss the value and contribution of these findings, as well as review the study's limitations and propose potential avenues for future research.

### **6.1 Overview of research questions and objectives**

To ensure a clear understanding of how the study's results address the research question and objectives, it is important to summarize them. By providing a concise overview of the study's findings, it will be easier to comprehend the ways in which the results relate to the research question and aims.

By conducting the research and analyzing the data, the study was able to obtain valuable insights into the role that Google Maps plays in shaping the choices of international students when selecting museums to visit in Prague. The findings were organized according to the study's three main objectives, which were designed to investigate different aspects of how Google Maps impacts users' decision-making processes.

By summarizing the study's results, it will be possible to demonstrate how each objective contributes to a comprehensive understanding of the study's research question and aims. This approach will help to ensure that the significance and implications of the study's results are clearly conveyed to the reader.

Therefore, to highlight how the results address the research question and objectives, I will begin by providing a brief overview of the findings for each of the study's three objectives. This will be followed by a more detailed discussion of how the results contribute to answering the research question and achieving the study's aims.

The first objective was to examine the extent to which participants use Google Maps in their daily lives and in the context of museums. The study sought to determine whether participants use the platform primarily for navigation purposes, discovering new places, or reading reviews. By analyzing the frequency and purpose of platform use, the study intended to provide insights into the importance of Google Maps in shaping participants' decisions on which museums to visit.



The second objective was to evaluate the impact of Google Maps' reviews on participants' decision-making process when selecting a museum to visit. The study sought to assess the impact of reviews on both the institution/exhibitions and the audience experience. By analyzing the content and tone of these reviews, the study aimed to provide insights into the factors that influence participants' choices. Additionally, the research tried to investigate participants' trust in Google Maps reviews and how this trust influences their decision-making process.

The third objective was to understand how Google Maps' algorithms influence the results shown to each user when they search for museums on the platform. The study analyzed the search results and reviews shown to participants, paying close attention to personalization based on the user's search history and other factors. By investigating how algorithms impact participants' choices, the study will provide insights into how Google Maps shapes users' decisions on which museums to visit.

At last, I aimed to relate these to how this could be meaningful for European Culture. By analyzing the role that Google Maps plays in shaping users' choices of which museums to visit in Europe, the study tried to gain insights into how technology can influence cultural experiences.

## **6.2 Results**

In this study, the first aim was to examine how students use Google Maps in their daily lives. The results of the study showed that Google Maps is a ubiquitous tool among students, with all of them using it in some capacity. Navigation was the most common use of Google Maps among students, which is not surprising given its primary function. However, the study also found that most students use Google Maps for reading reviews, which highlights the importance of user-generated content and its influence on decision-making.

Interestingly, half of the students also reported using Google Maps to discover new places. This finding indicates that Google Maps is not just a tool for getting directions but also a means of exploration and discovery. However, the study also revealed that some students underestimate their reliance on Google Maps, which suggests that the actual number of students using it to discover new places could be higher than reported.

The interviews conducted as part of the study shed further light on the students' use of Google Maps. While not all students used Google Maps to discover museums or decide if they

would go to them, a significant number did. This finding suggests that Google Maps is not just a tool for finding practical information but also a means of exploring cultural and historical sites. Therefore, investigating this phenomenon further could help us better understand the role of technology in cultural consumption and tourism.

As for the second objective, it was observed that reviews can play a crucial role in the decision-making process of museum visits. Some of the participants relied heavily on reviews, both positive and negative, to make informed decisions about which museums to visit. Negative reviews, in particular, proved to be very useful as they highlighted practical aspects of a visit, such as long lines or overpriced tickets, that could deter potential visitors. This information could only be gained through the experiences of others, which shows the practical utility of reviews. Other than that, students were particularly affected by reviews that pointed a museum as a “tourist trap,” undermining its trust and social prestige as a museal institution.

While negative reviews can refrain students from going to a museum, positive reviews can be a powerful motivator. In the context of museums, positive reviews showed to be most effective when they drew attention to exhibitions or experiences deemed interesting, interactive, or considered “worth it” by previous visitors. The social aspect of reviews can be highlighted, as students viewed themselves in the place of the reviewer. If the writer was engaged and felt the time and money invested was “worth it,” the students thought the same could be true for them.

Some participants declared that they heavily relied on reviews, while others were not affected at all and preferred to rely on the opinions of friends and family. Most participants in this study overall trusted Google Maps reviews, but not blindly. They considered high amounts of similar opinions before making their decision. Reviews that recalled their experience in detail were also effective in convincing, as the students felt like they would relive the experience lived by the reviewer if they went to the museum, showing the power of storytelling in reviews.

For the third aim, it was found that Google Maps' algorithms, overall, do not take into account users' profiles when recommending museums. This means that regardless of a user's individual preferences, Google Maps suggests mostly the same museums to everyone. The museums recommended were predominantly entertainment or commercial museums, as well as already well-known and widely visited ones.

Furthermore, the study revealed that Google Maps displays reviews in the same order to all users, without any consideration for individual user preferences. The order of reviews displayed was found to be arbitrary, with the most popular reviews not necessarily being shown first. Many times, negative reviews with more likes were hidden by the algorithm, especially when they voiced political opinions.

The final aim, to measure the impact Google Maps could have on European Culture, showed that it could, in many ways, influence toponymic discourse, lead citizens to non-educational museums, normalize the commercialization of cultural attractions, and unjustly compare museums.

### **6.3 Contributions**

The proposed research question of this research was: How do Google Maps' reviews and algorithms impact Erasmus students' choices on which museums to visit in Prague? The study revealed that all students used Google Maps in one way or another, with navigation being the most common use. While most students read reviews on the platform, they tended to consume more reviews for regular businesses than for museums. However, some students still highly regarded museum reviews, indicating their potential impact on museum visits.

Interestingly, the study found that some students underestimated their reliance on Google Maps, indicating that the number of students who used the platform for discovering new places or museums could have been higher. Furthermore, while not all students used Google Maps to discover museums, a significant number of them did, highlighting the importance of investigating this phenomenon further.

Regarding reviews, the study showed that negative reviews that criticized practical aspects of a visit, such as long lines or labeling a museum as a tourist trap, tended to drive students away. On the other hand, positive reviews that highlighted the exhibition's interesting or interactive nature were most relevant. Despite the overall trust in Google Maps reviews, students did not blindly follow them, with high amounts of similar opinions usually convincing them.

The study also explored Google Maps' algorithms' influence on students' museum choices and found that they recommended similar museums to all users, regardless of their profiles. The recommended museums were mainly commercial or already acclaimed and

widely visited ones, potentially influencing students' museum choices. Additionally, Google Maps displays reviews in an arbitrary order to all users, and not necessarily the most liked reviews are shown first.

As previously pointed out, Google Maps is actively impacting European culture in many ways, and professionals should start considering technology as more than a tool, but as an actor. That applies not only to Europe but the entire world. Due to the Brussels Effect, digital regulation in the continent can have impacts way beyond the European continent.

This research helps to address the gap in studying the impact that social media/algorithms could have in the cultural sector, specifically on the choices of Erasmus students regarding which museums to visit in Prague. However, the methodology used in this research could be applied to other kinds of tools, such as Instagram and Tiktok, trying to measure how much content can influence people to visit cultural attractions. Furthermore, it could be applied in other cultural contexts, continents and groups.

By understanding the impact of social media platforms like Google Maps on cultural consumption, cultural professionals can better design and promote their offerings to attract visitors. It is essential to analyze how algorithms and reviews shape the way people perceive cultural attractions, and how this can affect their decision-making. Additionally, it is crucial to understand how commercialization is normalized in the cultural sector and how it impacts heritage and cultural identity.

Moreover, the cultural sector can leverage the insights gained from this research to understand what visitors are demanding from museums. The findings suggest that museums with interactive and engaging exhibitions are preferred by the students.

This research represents an important contribution to the field of cultural studies, particularly in the intersection of technology and heritage. It offers a novel approach to understanding the impact of technology on cultural tourism and reveals the need for further research in this area. The study also highlights the significance of the Big 5 technology companies, including Google, in shaping our daily lives and experiences, especially in the cultural sector.

In addition, this research underscores the importance of considering the influence of social media and algorithms on cultural consumption, especially among younger generations. As social media platforms continue to grow in popularity and influence, the impact of these platforms on cultural heritage consumption is likely to increase as well. Therefore, it is

imperative for cultural institutions to pay attention to the role of technology in shaping cultural practices and to engage with these platforms to increase visibility and promote engagement with cultural heritage.

Moreover, the research methodology employed in this study can be replicated and extended to other domains of cultural heritage beyond museums. By analyzing the impact of social media and algorithms on heritage, we can better understand how cultural institutions can utilize technology to reach new audiences, disseminate knowledge and preserve cultural heritage.

Finally, it is important to acknowledge that this research is just a starting point and more studies are needed to fully understand the implications of social media and algorithms on cultural heritage. Nonetheless, this study provides an important foundation for further research in this area and demonstrates the potential of interdisciplinary approaches to cultural heritage research.

The results help to show the cultural sector that it is not possible to disregard technology in any way and that actions such as updating a museum's profile on Google Maps could substantially impact their chance of being discovered by visitors. It can also further promote discussion about how our societies are rapidly changing in front of our eyes and what governments can do to regulate such changes.

#### **6.4 Limitations and recommendations**

While the insights gained from this research on the use of technology and social media in museum selection are valuable, it should be noted that the study's sample size was small and limited to young adults who were already familiar with museums and technology. Therefore, the study's findings may not accurately reflect the opinions of the broader population. To better understand the effects of Google Maps on museum selection, further research should be conducted with a more diverse sample.

Moreover, this study is the first of its kind to examine the role of Google Maps' reviews and algorithms in the decision-making process of museum selection. Given the platform's continued popularity in finding and reviewing museums, additional research in this area is crucial to fully comprehend its impact on the museum industry. As technology advances and transforms our daily lives, it is vital to continue investigating its impact on society, culture, and

the arts to gain a deeper understanding of how it shapes our experiences and interactions with the world.

It is important to note that this study's insights could be applied to other tourism contexts, such as theme parks or historic sites. The knowledge gained from this study could help create more effective ways of engaging with visitors and enhancing their overall experience.

In addition, this research's limitations open up possibilities for future studies. Researchers can gain a more comprehensive understanding of how people use Google Maps and other social media platforms to choose which museums to visit by interviewing a more diverse and extensive group of participants.

Lastly, the research methods used in this study, such as interviews and surveys, can be adapted to investigate other research questions in the intersection of tourism and technology. As technology continues to transform and influence the way we experience the world, it is imperative to keep researching its effects on our behavior and decision-making processes.

## **6.5 Conclusion**

The study discussed in this text sheds light on how technology, specifically Google Maps, influences the decision-making process of international students when it comes to visiting museums in Prague. By identifying research questions and objectives, the study aimed to uncover the extent to which Google Maps is used by students, how its reviews affect their choices, and how the algorithms behind the platform impact the results presented to users.

The study's findings reveal that all students used Google Maps, with most using it for navigation and reading reviews. While the platform was used to discover new museums, students tended to rely on the opinions of friends and family when making decisions about which museums to visit. Negative reviews that labeled museums as tourist traps or had long wait times had a significant impact on students' decisions, while positive reviews that highlighted interesting or interactive exhibitions were also influential.

The study also uncovered that Google Maps' algorithms do not consider individual users' profiles, leading to recommendations of commercial and entertainment museums rather than educational ones. Additionally, the arbitrary order in which reviews are presented can lead to a bias in the information users receive. These findings highlight the need for

professionals in the cultural sector to consider the role of technology in shaping cultural experiences and heritage.

Furthermore, the study contributes to the field of museum and cultural heritage studies by providing a framework for studying the impact of technology, such as social media platforms like Instagram and Tiktok, on cultural decision-making processes. The study's methodology can serve as a model for future research in this area.

In conclusion, this study offers important insights into how Google Maps impacts the decision-making process of international students when selecting museums to visit in Prague. It highlights the role of technology in shaping cultural experiences and reinforces the idea that technology plays a significant role in building heritage and culture in the EU.

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