

## Πρακτικά του Διεθνούς Συνεδρίου για τη Διεθνή Επιχειρηματικότητα (ICIB)

Τόμ. 1, Αρ. 1 (2025)

Διεθνές Συνέδριο για τη Διεθνή Επιχειρηματικότητα (ICIB) - Πρακτικά Συνεδρίων 2023-2024



### The Privacy Paradox: An Investigation of Data Privacy in Social Networks within the Cyprus Tourism Industry

Amvrosios Prodromou, Dimitrios Savvides, Georgios Polykarpou

doi: [10.12681/icib.8207](https://doi.org/10.12681/icib.8207)

Copyright © 2025, Dr. Amvrosios Prodromou, Dr (c) Dimitrios Savvides, Mr. Georgios Polykarpou



Άδεια χρήσης [Creative Commons Αναφορά 4.0](https://creativecommons.org/licenses/by/4.0/).

#### Βιβλιογραφική αναφορά:

Prodromou, A., Savvides, D., & Polykarpou, G. (2025). The Privacy Paradox: An Investigation of Data Privacy in Social Networks within the Cyprus Tourism Industry. *Πρακτικά του Διεθνούς Συνεδρίου για τη Διεθνή Επιχειρηματικότητα (ICIB)*, 1(1), 54-62. <https://doi.org/10.12681/icib.8207>

Corresponding Author: Dr. Prodromou Amvrosios – Neapolis University Pafos (NUP)  
E. Venizelou Av. 51/103 – Pafos, Cyprus

First Author: Dr. Prodromou, A. ([a.prodromou.1@nup.ac.cy](mailto:a.prodromou.1@nup.ac.cy)). Second Author: Dr. Savvides, D. ([savvides@europe.com](mailto:savvides@europe.com)). Third Author: Polykarpou, G.

---

The Privacy Paradox:  
An Investigation of Data Privacy in Social Networks within the Cyprus Tourism Industry

---

### **Abstract**

Data protection has been experiencing serious changes during recent years, with GDPR to play a key role of how businesses are responding to these changes. Consequently, tourism, as an integral part of international business has been highly affected from these developments. The current research has attempted to identify the level of privacy concern and awareness of hotel managers at all levels within the Republic of Cyprus. The researchers have applied quantitative research with one hundred and sixty-one participants. This paper sheds light on important issues such as managers' awareness and concerns whilst operating in the tourism industry, given the industry's impact on international business. The research has identified a high level of awareness and concern, as well as the knowledge of the legal impact that such legal frameworks may have on business operations. Hotel managers are highly sensitive whilst applying Social Media Marketing (SMM) in order to avoid both legal and ethical implications. Conversely, research has identified limited knowledge of the actual legal framework as only 47.5% are aware of GDPR and only 30% of the respondents believe that existing privacy law provide reasonable protection. The research provides a set of conclusions and practical recommendations in order to mitigate the lack of such knowledge which is in contrast to the participants' overall perception over their legal, awareness, concern, and application during, especially during SMM. This privacy paradox requires deeper analysis as there is lack of research regarding the under-examination matters within Cyprus' market, and more specifically, within the tourism and hotel sectors. The data was imported into and analysed by Microsoft PowerBI.

*Keywords:* Privacy paradox, international business, tourism, GDPR, data protection

## **1. Introduction**

The expeditious growth of the internet has brought about critical and beneficial changes in the social, economic, psychological, as well as cultural life of contemporary people and organisations, leading to enormous opportunities (Diomidous et al., 2016). At the same time, it has led to deregulation while it generates serious risks concerning the inadequate safeguarding and processing of users' data and the violation of users' privacy, leading to serious concerns for both businesses and consumers, with the Big Tech companies to be at the spotlight due to misconduct (Holt & Parks, 2021). Personal Data has long been a subject of discussion and debate with David and Fano (1965) to be some of the pioneers in the field as they have importantly stated that the specific issue constitutes the "apple of an eye" which is nowadays disseminated, stored and processed via the Internet by people and companies we cannot know and control. Concerns about the potential for private information to be breached have been expressed since the beginning of the Internet.

The Tourism Industry (TI) is highly affected by all these development with the personal data process and handling to have in recent years become a real challenge that raises technological, ethical, and legal concerns (Tassikas, 2021). Buhalis and Sinatra (2019) raise the technological importance within the TI and suggest that brands are utilising in order to ensure both real-time interaction with consumers as part of a dynamic process, and also take data-based in order to transform the industry.

## 2. Theoretical Background

### 2.1. Privacy Paradox

It is well-established in the research literature that users' e-behaviour tends to jeopardize their data privacy which results in discrepancies between the concerns expressed about their privacy and their actual behaviour, a phenomenon also known as the privacy paradox (Acquisti, 2004, Barnes, 2006). Despite the fact that users seem to value privacy highly and be very concerned about the confidentiality of their personal data, yet they do nothing to ensure its protection and prevent data misuse. In other words, users understand that their privacy is being exploited, and as a result, they are losing control over their data, however, they appear reluctant to change their online behaviour to claim it back. (Barth and de Jong, 2017). Instead, they continue to feed data-collection machines that underpin privacy and data protection. The literature review contained herein investigates the various theories that have been developed concerning the phenomenon of the privacy paradox.

The term "privacy paradox" was first used Brown (2001), an employee of Hewlett-Packard, in his attempt to describe the use of supermarket loyalty cards by consumers despite their privacy concerns. In 2006, professor and author Susan B. Barnes used the term to describe the behaviour of teenagers on online platforms who were readily revealing their personal information on social networks. The term was further developed by the late European Data Protection Supervisor Giovanni Buttarelli (2018, p. VII) in his opening speech at the 40th ICDPPC conference in 2018, examined the concept of privacy paradox in the context of data collection and its emergence as the Internet's core business model; underlying the cause of the so-called "privacy paradox" is "not that people have opposing desires to hide and expose.

### 2.2. Privacy Data

The growth of the Linked Data Web within TI has introduced numerous opportunities and capabilities, such as broad access to information, continuous social networking interconnection, and massive data aggregation (Fermoso et al., 2015). It has developed to such an extent that it does not only play a crucial role in our daily life but has injected into our most intimate spaces: relationships, communication and etc. At the same time, the emergence and expansion of digital technology and big data have raised major concerns in terms of privacy and security, leading to "uncontrolled electronic panopticism" (Smith & Kollars, 2015, p.160). Several renowned scientists from various fields have defined the concept of privacy in distinct periods. Bloustein (1964) has importantly supported that the right to privacy is a fundamental requirement for human dignity and integrity, therefore, it should be protected at all stages by both private and public bodies.

Rachels (1975) pointed out that the value of privacy lies in that people are allowed to selectively share their personal information and participate in effective discussions for the creation and maintenance of interpersonal relationships. The loss privacy freedom may cause clinical symptoms such as isolation and depression, calling for confronting the issue from a totally different perspective, that of mental health which is vital for ensuring a balanced life and personal development (Trepte & Reinecke, 2014). On the other hand, there may be some people who have nothing to be ashamed of and thus are not worrying of keeping their personal data confidential. However, this does not mitigate or eliminate the legal risk which must always be a concern for organisations in order to protect their image and brand name (Doherty, 2016).

*Hypothesis 1 (H<sub>1</sub>).* The data privacy awareness and concern are over 70%.

### 2.3. General Data Protection Regulation (GDPR)

Regulation (EU) 2016/679 of 27 April 2016, also known as the General Data Protection Regulation (GDPR) addresses the rights of natural persons as regards their data, the processing of this data, its circulation and the transfer of this data within the European Union which is the most burning issue as well as the possible transfer of personal data outside the European Union (Mondschein & Monda, 2019). GDPR came to form a legislative framework with the aim of delimiting the processing of personal data, creating a sense of security in the EU member states and worldwide. GDPR has defined personal data and the meaning of processing of this data so that the regulatory framework and

legal limits are clear (Li & Saxunová, 2015). To start with, it should be clarified that GDPR regulates all enterprises-companies, inside and outside European Union, provided that the data at stake concerns European citizens. GDPR applies to all public and private enterprises and government authorities that manage the personal data of natural persons such as customers, partners, and employees. Further, the role of technology is gaining an increasing importance, calling for companies to adapt accordingly (Tankard, 2016). Emphasis should be placed on article 4 of GDPR which includes the definitions of the two crucial concepts: Personal Data and Processing. According to GDPR the notion of personal data includes “any (personal) information concerning an identifiable natural person? An identifiable person is one whose personal data can be verified directly or indirectly, particularly concerning the individual’s data such as his name, identification number, and other personal data, which may be the financial situation, social, or even psychological situation of the natural person” (Bygrave & Tosoni, 2020). Furthermore, the notion of processing describes “an act or a series of actions that are done with or without the help of machines, i.e., automated means that gain access to the personal data of natural persons as a result of which the data is collected and which results in their storage, processing, their alteration, their deletion or even their destruction” (Chassang, 2017)

#### *2.4. GDPR in Tourism Industry*

GDPR development has led to some important changes within the broader TI operations, calling for all relevant stakeholders; public, private, and non-profit, to ensure effective compliance in order to avoid possible implications related to personnel, guests, and suppliers (Chatzopoulou, 2021). Berenguer et al (2022) support that the effective application of the major data processing GDPR principles; namely Legality, objectivity and transparency, purpose limitation, data minimisation, accuracy, storage limitation, integrity and confidentiality, and accountability, can assist both public sector and private organisations to effectively develop their TI brand image. Destination Management Organisations (DMOs) are taking advantage of the opportunities provided by GDPR in order to effectively utilise the relevant technology and provide accurate and personalised information, hence, satisfying individuals without breaching their privacy (Masseno & Santos, 2019). The appropriate data analysis provides the opportunity to destinations to create smart tourism destinations by using disruptive innovation and agile strategies, hence, creating “value for all stakeholders in the hospitality ecosystem” (Buhalis et al., 2023).

*Hypothesis 2 (H<sub>2</sub>)*. The GDPR awareness varies between 40-50% between the targeted populations.

#### *2.5. The Role and Impact of Social Media in Tourism Industry Marketing*

The marketing concept within the tourism industry has long been a subject of debate in terms of its practical application and the role of marketers in such activities, as the tourism industry is highly affected by the operations and collaboration of both public and private sectors in an efficient and professional manner (Ryan, 1991). Tourism marketing carries a rather complex task as it is required to ensure attracting visitors based not only to the products and/or services of the organisation that develops the marketing strategies, but most importantly, it needs to consider a number of other elements such as the location, nearby offered services, infrastructure, and tourism attractions (Sofronov, 2019). Azhar et al (2023) raise the social media marketing (SMM) importance in contemporary marketing activities within the tourism industry by suggesting that this has substantially increased during the Covid-19 period as both tourism businesses and travellers have been searching for new channels in order to reach their customers and make decisions respectively. Further, the authors suggest that SMM constitutes a great tool for promoting brand loyalty as the use of sophisticated technology enables tourism organisations to effectively promote their marketing activities and maintain in contact with their clients.

*Hypothesis 3 (H<sub>3</sub>)*. Over 70% of participants are aware regarding data protection when applying SMM activities for their organisations

### 3. Research Methodology & Data Analysis

A Quantitative Research has been applied in order to identify numerical and statistical issues rather than exploring for qualitative aspects (Creswell & Creswell, 2022) related to awareness and concerns. The research was clearly directed towards CEOs, department managers, middle-managers, and front-line/shift managers, in hotels within the Republic of Cyprus. One hundred and ninety-one (191) questionnaires have been sent to the target group with one hundred and sixty-one (161) individuals to respond to the participation call, hence, leading to a healthy 83% response rate. Ninety-nine (99 – 61%) were female and sixty-two were male participants (62 – 39%). The data was collected on the Google Forms platform and exported to Microsoft Excel. Since all completed surveys were deemed appropriate for the project's objectives and goal, no data were excluded from the data analysis procedure. The data was then imported into PowerBI.

Figure 1. Participants Educational Level

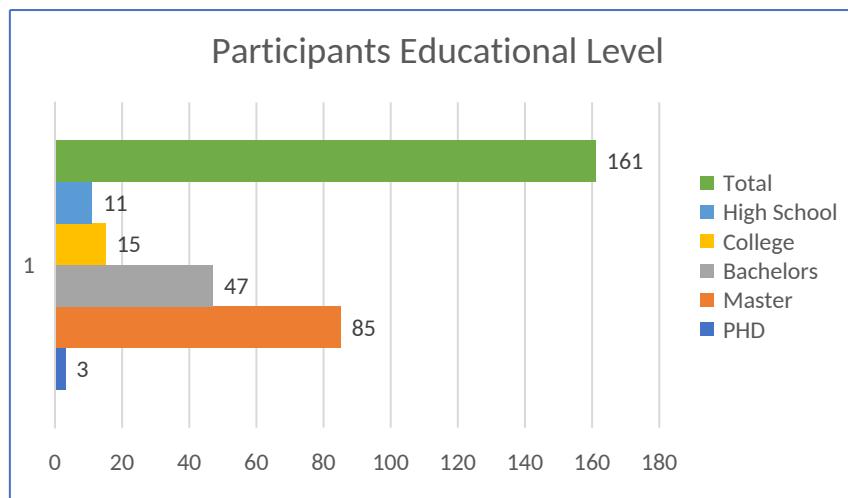
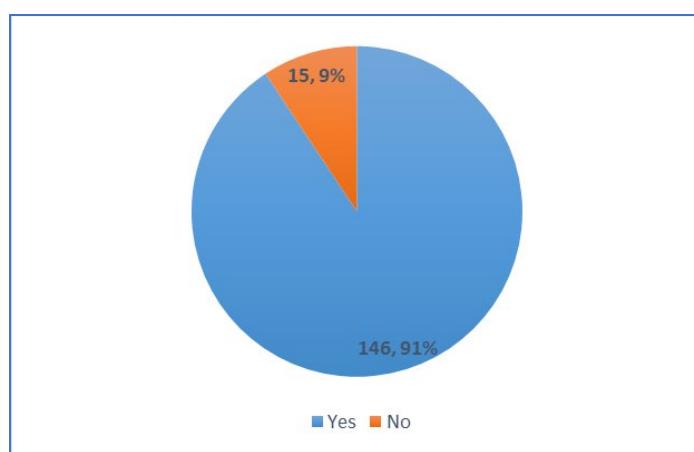


Figure 2 outlines participant's data privacy awareness and concern. As shown by the participants' responses there is a high level of awareness amongst participants regarding the notion of data privacy since 146 of them (91%) have claimed that they are aware of what data privacy entails, while only 15 (9%) participants declared that they are not familiar with the term data privacy.

Figure 2. Privacy Awareness Indicator



Further, regarding users' concerns about privacy, 78% of the participants (125) reported being at least somewhat concerned about the availability of their private information on the Internet, 16% (26 participants) appear to have a neutral pose -neither concerned nor unconcerned-, while 6% (10 participants) stated they are at least somewhat indifferent (Figure 4). Among the 78% of those concerned, more than half (55%) support that they are extremely concerned. Therefore, professionals

in the tourism industry are not only aware of their clients' data protection, but most importantly, pay the same attention when their data go online. Results of Figures 3 and 4 are both in alignment with each other, revealing managers' sensitivity over their guests' and own data usage. As a result of Figures 2 and 3, "Hypothesis 1 ( $H_1$ ). The data privacy awareness and concern are over 70%" is supported.

Following, Figure 3 outlines the results regarding participants' awareness over GDPR regulation. Despite the previous positive concerns over privacy, GDPR awareness is only 47.5% as 76 participants have positive replied to the specific question. Conversely, 47 participants (29.2%) have responded negatively. This reveals that there is room for providing the appropriate training as GDPR, as a legal process is considered of a major importance within the tourism industry. Therefore, "Hypothesis 2 ( $H_2$ ). The GDPR awareness varies between 40-50% between the targeted population" is supported by the results.

Figure 3. GDPR Awareness

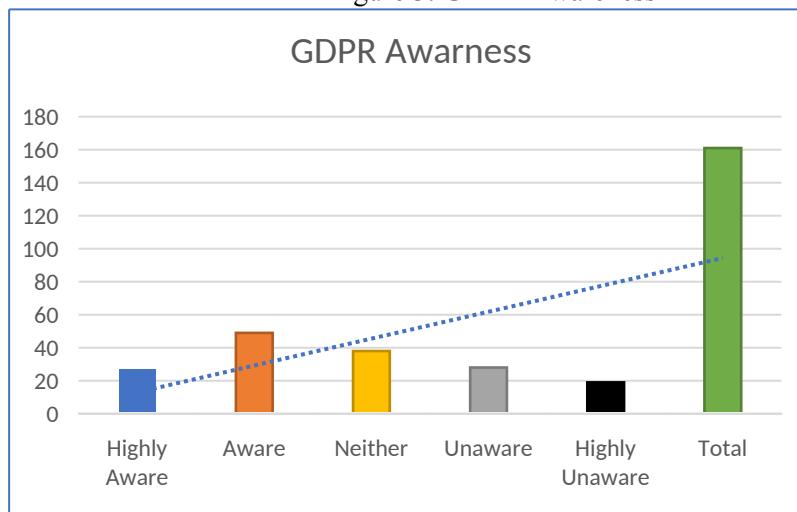
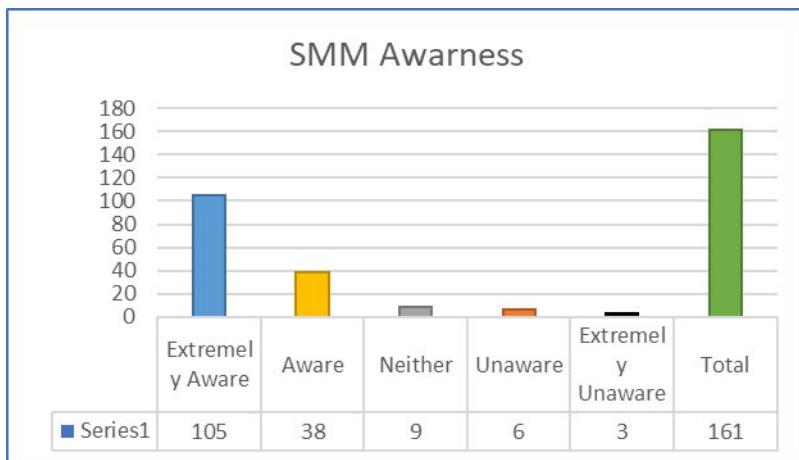


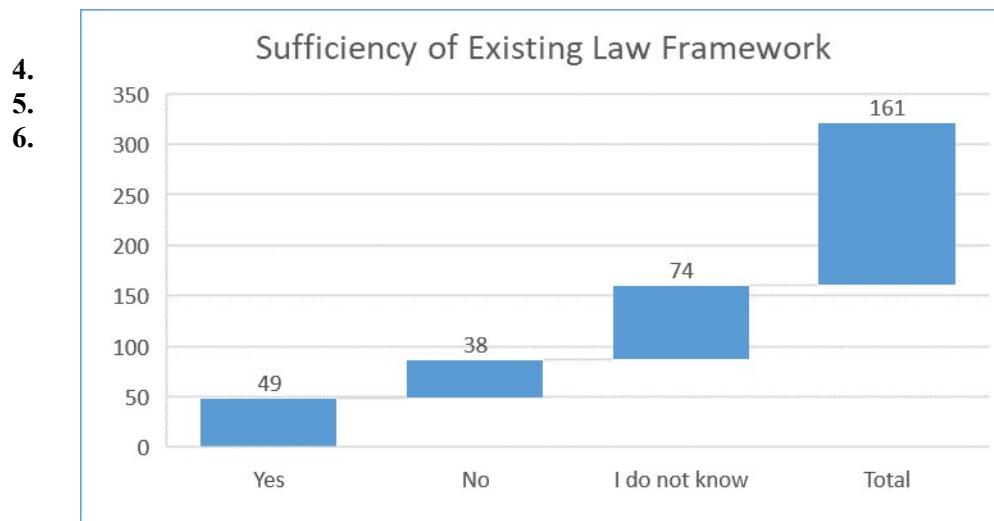
Figure 4 reveals the results of participants' answers in relation to their knowledge over data protection when applying SMM activities for their organisations. Importantly, a total of 142 participants (87%) have stated that they are extremely and/or aware over the specific issue. Conversely, only 9 participants (5.6%) have stated that they are unaware and/or extremely unaware. This is consistent with all previous findings in relation to privacy concerns and awareness, as well as to the educational level. Given that these managers are all working in marketing departments, however, they have to apply marketing activities as part of their overall duties, the results are clearly indicating a positive reality. Consequently, "Hypothesis 3 ( $H_3$ ). Over 70% of participants are aware regarding data protection when applying SMM activities for their organisations" is supported.

Figure 4. SMM Awareness



Participants were asked about their beliefs regarding current domestic laws and whether they sufficiently protect people's online privacy, with slightly less than half of them (46% -74 participants) responding that they do not know and 24% (38 participants) that the laws are not sufficient. Interestingly, 30% of the respondents believe that existing privacy law provide reasonable protection. Not surprisingly, 84% of the participants (32 out of 38) who believe that current laws are not good enough supported they are at least somewhat concerned about the availability of their personal information online.

Figure 4. Sufficiency of Existing Law Framework



#### 4. Conclusions

The current research was conducted in order to examine the scope of information disclosed in social networking sites by managers in various levels and positions within the Cyprus tourism industry in terms of variety and quality, and identify of how users' self-disclosure is affected by privacy awareness and concerns as well as whether users adopt any privacy safeguards while applying SMM activities for their organisations. Furthermore, the study intended to explore whether the privacy paradox is evident in social media users within Cyprus. To achieve this, the survey has collected data on participants' insights of privacy and their social media behaviour.

This study revealed that self-disclosure should be considered in two aspects based on the type and/or materiality of the information disclosed. In order to investigate whether the privacy paradox

actually exist in the social network environment, a comparison was made between respondents' answers regarding their awareness, concerns and actual online behaviour. The analysis has shown that participants are indeed aware of the need to privacy when using social media platforms, and are highly concerned about what personally identifiable information is publicly available concerning them and their organisations. At the same time, the GDPR awareness is considered to be at a low-level as only 47.5% of the participants have claimed to be aware of the regulation. This inconsistent to other results related to privacy concerns and awareness.

## 5. Recommendations

The current research proposes that training in relation to the legal framework concerning issues such as SMM, its legal framework, and privacy protection should be developed. The ever-changing environment requires from the tourism industry to adapt accordingly in order to ensure that it will fully comply with its legal and ethical challenges. Any training should be based on a national policy, given the fact that the tourism industry constitutes the flagship of the economy of the Republic of Cyprus, hence, raising the issue as a national priority. Despite the overall positive results, constant update, not only of the specific target group, but also of the rest of the employees within the tourism industry, should be developed. Therefore, Public and Private Partnerships (PPP), as well as the contribution of the Cyprus Chamber of Commerce and Industry (CCCI) should be a major concern for all major stakeholders. The authors strongly suggest that PPP are a key element that will ensure the long-term growth of the country's tourism industry, therefore, there is a call for all stakeholders involved to work closely in order to increase the privacy concern and awareness, as well as SMM capabilities. This can only lead to positive result and contribute to the industry's sustainable growth.

## 6. Limitations & Future Work

Lack of previous research on the under-examination topics within the tourism industry of the Republic of Cyprus leads to serious concerns over the current research's credibility. Further, the sample of 161 participant may be considered as inadequate. However, high response rate and accurate data cleaning process can mitigate possible limitations. Further, lack of honest answers may be in place, as managers may not wish to provide negative answers. In any case, only future work with expanded sample size can add the current's work credibility. Future research could employ background check systems and software that businesses use for workplace background checks to look into data gathered from private, governmental, and academic databases that are not readily available to the public.

## Disclaimer

The authors of this work have not received any financial and/or funding support by any organisation, either public, private, and non-profit. The work has been clearly based on their own time and resources as part of their academic research.

## References

Acquisti, A. (2004). Privacy in electronic commerce and the economics of immediate gratification. *Proceedings of the 5<sup>th</sup> ACM conference on Electronic commerce* – EC '04. <https://doi.org/10.1145/988772.988777>

Azhar, M., Husain, R., Hamid, S. & Rahman, M.N (2023). Effect of social media marketing on online travel purchase behavior post-COVID-19: mediating role of brand trust and brand loyalty. *Futur Bus J* 9(13), 1-13. <https://doi.org/10.1186/s43093-023-00192-6>

Barnes, S.B. (2006). A privacy paradox: Social Networking in the United States. *First Monday.*,

11(9), <https://doi.org/10.5210/fm.v11i9.1394>

Barth, S. & de Jong, M. (2017). The privacy paradox – Investigating discrepancies between expressed privacy concerns and actual online behavior – A systematic literature review. *Telematics and Informatics*, 34(7), 1038-1058. <https://doi.org/10.1016/j.tele.2017.04.013>

Berenguer, A., Ros, D. F., Gómez-Oliva, A., Ivars-Baidal, J. A., Jara, A. J., Laborda, J., Mazón, J.-N., et al. (2022). Crowd Monitoring in Smart Destinations Based on GDPR-Ready Opportunistic RF Scanning and Classification of WiFi Devices to Identify and Classify Visitors' Origins. *Electronics*, 11(6), 835. MDPI AG. <http://dx.doi.org/10.3390/electronics11060835>

Bloustein, E. (2017). Privacy as an Aspect of Human Dignity: An Answer to Dean Prosser, in *Individual Group Privacy*. Routledge <https://shorturl.at/bjBCL>

Buhalis, D., & Sinarta, Y. (2019). Real-time co-creation andnowness service: Lessons from tourism and hospitality. *Journal of Travel & Tourism Marketing*, 36(5), 563–582. <https://doi.org/10.1080/10548408.2019.1592059>

Buttarelli, G. (2018). 40th ICDPPC: Opening Speech by Giovanni Buttarelli *European Data Protection Law Review*, 4(4), III. <https://edpl.lexxon.eu/article/edpl/2018/4/25>

Bygrave, L. A. & Tosoni, L. (2020) Article 4(1). Personal data', in Christopher Kuner and others (eds), *The EU General Data Protection Regulation (GDPR): A Commentary* (New York, 2020; online edn, Oxford Academic), <https://doi.org/10.1093/oso/9780198826491.003.0007>,

Chassang, G. (2017). The impact of the EU general data protection regulation on scientific research. *Ecancermedicalscience*, 11, 709. <https://doi.org/10.3332/ecancer.2017.709>

Chatzopoulou, I.C. (2021). Gdpr And Tourism: Legal Framework, Compliance And Implications For The Tourism Industry," *Economy & Business Journal, International Scientific Publications, Bulgaria*, 15(1), 125-133. <https://shorturl.at/ckmMX>

Creswell, J. & Creswell, J.D. (2022). *Research Design* (6<sup>th</sup> ed.) Sage

David, E.E. & Fano, R.M. (1965). Some thoughts about the social implications of accessible computing, *Proceedings of the November 30–December 1, 1965, fall joint computer conference, part I on XX – AFIPS '65* (Fall, part I) <https://doi.org/10.1145/1463891.1463917>

Doherty, R. (2016) *Why privacy is important, and having “Nothing to hide” is irrelevant*. Available at: <https://robindoherty.com/2016/01/06/nothing-to-hide.html>

Diomidous, M., Chardalias, K., Magita, A., Koutonias, P., Panagiotopoulou, P., & Mantas, J. (2016). Social and Psychological Effects of the Internet Use. *Acta informatica medica: AIM: journal of the Society for Medical Informatics of Bosnia & Herzegovina: casopis Drustva za medicinsku informatiku BiH*, 24(1), 66–68. <https://doi.org/10.5455/aim.2016.24.66-68>

Fermoso, A.M., Mateos, M., Encarnación Beato, M. & Berjón, R. (2015). Open linked data and mobile devices as e-tourism tools. A practical approach to collaborative e-learning, *Computers in Human Behavior*, 51(B), 618-626, <https://doi.org/10.1016/j.chb.2015.02.032>.

Gong, Y. & Schroeder, A. (2022). A systematic literature review of data privacy and security research on smart tourism, *Tourism Management Perspectives*, 44, 101019. <https://doi.org/10.1016/j.tmp.2022.101019>.

Holt, J. & Parks, L. (2021). The Labor of Digital Privacy Advocacy in an Era of Big Tech, *Media Industries* 8(1), 1-26. <https://doi.org/10.3998/mij.93>

Li, Y. & Saxunová, D. (2020). A perspective on categorizing Personal and Sensitive Data and the analysis of practical protection regulations, *Procedia Computer Science*, 170, 1110-1115. <https://doi.org/10.1016/j.procs.2020.03.060>.

Masseno, M.D. & Santos, C. T. (2019). Personalization and profiling of tourists in smart tourism destinations – a data protection perspective. *International Journal of Information Systems and Tourism (IJIST)*, 4(2), 7-23. <https://shorturl.at/koBJP>

Mondschein, C.F. & Monda, C. (2019). The EU's General Data Protection Regulation (GDPR) in a Research Context. In: Kubben, P., Dumontier, M., Dekker, A. (eds) *Fundamentals of Clinical Data Science*. Springer, Cham. [https://doi.org/10.1007/978-3-319-99713-1\\_5](https://doi.org/10.1007/978-3-319-99713-1_5)

Rachels, J. (1975). Why Privacy is Important. *Philosophy & Public Affairs*, 4(4), 323–333.  
<http://www.jstor.org/stable/2265077>

Ryan, C. (1991). Tourism and marketing — a symbiotic relationship? *Tourism Management*, 12(2), 101-111. [https://doi.org/10.1016/0261-5177\(91\)90064-Z](https://doi.org/10.1016/0261-5177(91)90064-Z).

Smith, E.J. & Kollars, N.A. (2015). QR panopticism: User behavior triangulation and barcode scanning applications, *Information Security Journal: A Global Perspective*, 24(4-6), 157–163. <https://doi.org/10.1080/19393555.2015.1085113>.

Sofronov, B. (2019). The Development of Marketing in Tourism Industry. *Annals of Spiru Haret University. Economic Series*, 19(1), 117–127. <https://doi.org/10.26458/1917>

Tankard, C. (2016). What the GDPR means for businesses. *Network Security*, 6, 5-8.  
[https://doi.org/10.1016/S1353-4858\(16\)30056-3](https://doi.org/10.1016/S1353-4858(16)30056-3)

Tassikas, A.D. (2021). Data Processing and Legal Protection in Contracts in the Technologically Innovative Tourism Sector. *European Journal of Tourism, Hospitality and Recreation*, 11(1), 78-89. <https://doi.org/10.2478/ejthr-2021-0008>

Trepte, S. & Reinecke, L. (2014). *Privacy Online*. Springer Berlin.