

## ***Media Websites and their Visitors' Choices on Cookies***

Nikos Antonopoulos, Aristotle University of Thessaloniki, Greece  
Andreas Veglis, Aristotle University of Thessaloniki, Greece  
Argyris Emmanouloudis, University Of Amsterdam, Netherlands

The European Conference on Media, Communication & Film 2016  
Official Conference Proceedings

### **Abstract**

Cookies are small bits of data that are being sent from the websites a user visits, and downloaded to his/her computer. They appeared immediately after the introduction of the World Wide Web (WWW) and are now widely used. By using these particular pieces of information, websites have the capability to offer customized services covering the personalized needs of a particular user, aiming ultimately at the increase of their visitors and any kind of benefit this might bring. Media websites use cookies to personalize their content according to the needs of their visitors. This research attempts to provide an insight on how users of online services offer voluntarily data of their personal choices to the aforementioned services. It is considered to be right that websites provide visitors with the choice of selecting whether they accept cookies on their devices or not. The study is comprised of twenty media websites with the highest traffic in United Kingdom, Greece, Cyprus and Malta according to alexa.com. The results of this research highlight the current situation for the media websites regarding their cookie information policy. The main finding is that many media websites provide visitors with the choice of selecting whether they accept cookies or not on their device.

Keywords: Cookies, media websites, customized service, digital marketing, web policy

**iafor**

The International Academic Forum

[www.iafor.org](http://www.iafor.org)

## **Introduction**

The Internet plays a crucial role in daily communication. Connection and navigation of the Web can occur by using numerous media and tools. New applications and capabilities are being made available constantly, allowing anyone to create a website, even if he/she possesses little technological knowledge (Antonopoulos, & Veglis 2012). Of course, it remains to be seen whether these aforementioned websites are functional, personalized and easy to use (Aboud, Beale, Dix, & Finlay 2004).

The developments in the field of informatics, and more specifically the increase of data storage space, the improvement of speed in communications and the deepening of knowledge regarding human-to-computer communication, brought radical changes to the creation and development of digital applications and tools (Aboud, Beale, Dix, & Finlay 2004). With the spread of the Internet and the interconnection of users on a global level using the same tools of communication and interaction, a new digital world has emerged.

In this new digital world, users have started getting accustomed to innovative services and products that aim and cover their personalized needs. The use and creation of digital content by the users comprise a daily habit that media owners should adjust to and start taking into consideration (Antonopoulos, & Veglis 2013).

Regarding the website design, there are also some usability engineers who are interested in tools and technological aspects that users employ in order to communicate (Antonopoulos, & Veglis 2012), along with the continuous feedback of the systems. In addition, the opinions, personal preferences and beliefs of the users are considered to be very important factors (Antonopoulos, Veglis, Gardikiotis, Kotsakis, & Kalliris 2015), that are on a constant change. By taking these factors into consideration, engineers are able to develop a web presence that responds to the current online environment. The study of the opinion and choices of the users is deemed as one of high importance, because these users are the final recipients of the content every application provides.

Cookies are small bits of data that are being sent from the websites a user visits and downloaded to their computers. They appeared immediately after the introduction of the World Wide Web (WWW) and are now widely used, even though the majority of the users might not have realized it. The websites of media organizations use cookies to personalize the content according to the needs of their visitors.

This paper attempts to provide an insight on how users of online services offer voluntarily on the Internet data of their personal choices to the aforementioned services. By using these particular pieces of information, websites have the capability to offer customized services covering the personalized needs of a particular user, aiming ultimately at the increase of their visitors and their gain.

The results of this research highlight the current situation media websites in Cyprus, Greece, Malta and the United Kingdom are in, regarding the use of cookies. The main finding is that the media organizations use indeed cookies and most of them inform their visitors about their cookies policy.

## **Previous researches**

In the field of informatics, cookies are tiny bits of code, used by websites as identifiers.

A research published in 2012 by the Information Commissioner of the United Kingdom (McStay 2012) that deals with private data, reports that cookies can be separated in the following categories –regarding privacy:

- Cookies necessary for users to navigate and make use of the technological aspects of websites.
- Cookies that collect data for the choices and preferences of a website's visitors.
- Cookies that store choices by website visitors and retrieve them when they visit again the same website.

Lastly, there is a categorization of cookies in temporary and permanent. There are cookies that get deleted after a visit on a website, while others require that the user deletes them. Except from these cookies that each website consciously activates ("first party cookies"), there are also the so-called "third party cookies" which come from other websites that are affiliated or interconnected with the visited one, like social media do. Third party cookies are defined by the policy and the goals that their provider wishes for (Google Privacy 2016).

The study of cookies has started drawing the attention of researchers during the past few years. In 2011, in order for the topic to be clearly understood, a paper was published that had to do with the information about users' preferences that websites store using cookies (Wills, & Jelkovich 2011). In 2012, a public research took place, which focused on the new legal framework for cookies and commercials in the United Kingdom (McStay 2012). Also, a group of researchers from Yahoo and Google published the results of their research on the ways that data from cookies affect markets (Ghosh, Mahdian, Preston McAfee, & Vassilvitskii 2012).

Moreover, several other attempts have been made in the past by researchers to pinpoint the importance of cookies in today's Web and online services. Jan Fernback and Zizi Papacharissi, almost a decade ago, had already mentioned the importance of cookies in online privacy matters, claiming that there is not efficient customer protection, whereas consumer data are being used by companies for profit (2007). Although these aspects are not the main focus of this research, they show that researchers consider cookies something worth examining. In addition, Niels Brügger has claimed that a research on the history of cookies (among other major components of the Web) helps to fulfill a better understanding of today's Web and its services (2013).

Even tasks considered as simple are being stored and evaluated, intending to the offering of a more personalized content that aims at the preferences of the user. How many, though, have knowledge of these processes, even if information about them is posted and mentioned on websites we all visit?

## Methodology and presentation of the sample

News websites are supported mainly by advertisements. These advertisements could be text, image, multimedia material or a combination of all them. Apart from the high traffic that these websites require in order to attract individual advertisers or advertising companies, they are also required to provide numerous viewings of their advertisements. Cookies, on their part, can contribute to a more targeted audience that could bring the desired results for advertisers, their agents, the websites and, of course, the visitors, since they will be able to find what they are looking for.

The websites that were included in our study were organized in four categories from alexa.com by country: Cyprus, Greece, Malta and United Kingdom. The reason we picked these four countries was because the Greek language is the official language of Greece and one of the official languages of Cyprus. The English language is the official language of the United Kingdom and one of the official languages of Malta. Also, although it has no official status, the English language is widely spoken in Cyprus as well. For this reason, we deemed as appropriate that our research focuses on these four countries of the European Union, because we are most acquainted with these languages, meaning that we can also be more precise in our research.

As “media websites”, we have defined news websites that are –frequently but not always- owned by media companies (portals, newspaper, radio, TV, etc.). In each country, five media websites were chosen, those with the highest rating based on their evaluation at alexa.com. Therefore, the final sample consisted of twenty media websites (five from each country) that had the highest traffic in each country on the 3<sup>rd</sup> of May 2016, the day we picked the sample. The research is based on experiential observation and listing of the data by the researchers, without being registered on the websites. The browser which was employed was Google Chrome in incognito mode. The issue under examination was whether each media website informs visitors about the existence and use of cookies, and, therefore, was limited to two answers, “yes” or “no”.

Table 1. The sample of the study

Countries	Media websites with highest traffic				
Cyprus	Sigmalive.com	Fanpage.gr	Tothemaonline.com	Antliwo.com	Themasports.com
Greece	Fanpagr.gr	Zoogla.gr	Protothema.gr	Tilestwra.com	Dikaiologitika.gr
Malta	Timesofmalta.com	Maltatoday.com.mt	Independent.com.mt	Newsbook.com.mt	TheIadbible.com
United Kingdom	Bbc.com	TheIadbible.com	Dailymail.co.uk	Thegurdian.com	Thesportbible.com

## Results

The results of the evaluation are going to be presented based on the listing above.

### A. Cyprus

Four of the five most visited media websites in Cyprus according to alexa.com, showed, while browsing, to offer information regarding the use of cookies. As it can be seen in figure 1, a message in Greek appears upon visiting, which translates to English as “Our website is using cookies to improve your browsing experience” and there is also a hyperlink stating “More information” for those interested. In that way, the visitor is notified, but also has the chance to get informed in case he/she doesn’t know what cookies are and how they function.

On the other hand, the website *Antliwo.com*, as we can see in figure 2, does not offer such information upon visiting.

Table 2. Cyprus cookies results

Countries	Media websites with highest traffic				
Cyprus	Sigmalive.com	Fanpage.gr	Tothemaonline.com	Antliwo.com	Themasports.com
Cookies information	YES	YES	YES	NO	YES

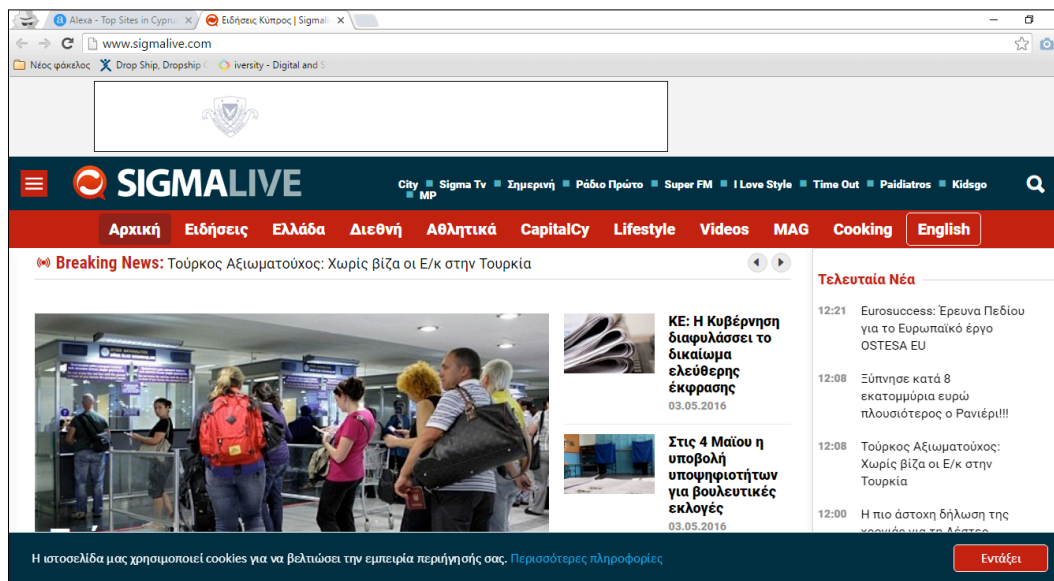


Figure 1: Message informing visitors about cookies

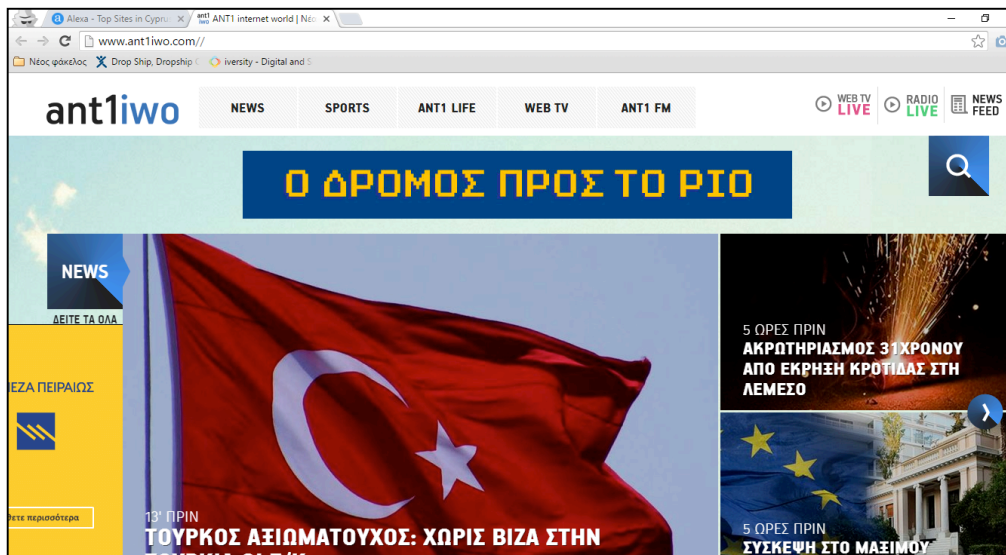


Figure 2: Ant1iwo.com website

## B. Greece

Four of the five most visited media websites in Greece according to alexa.com, showed, while browsing, to offer information regarding the use of cookies. As it can be seen in figure 3, a message in Greek appears upon visiting, which translates to English as “This website uses cookies from Google to provide its services, personalize its ads and analyze traffic. Google shares the information of your use of this website. By using this website, you agree to the use of cookies”.

On the other hand, the website *Dikaiologitika.gr*, as we can see in figure 4, does not offer such information upon visiting.

Table 3. Greece cookies results

Countries	Media websites with highest traffic				
Greece	Fanpage.gr	Zoogla.gr	Protothema.gr	Tilestwra.com	Dikaiologitika.gr
Cookies information	YES	YES	YES	NO	YES

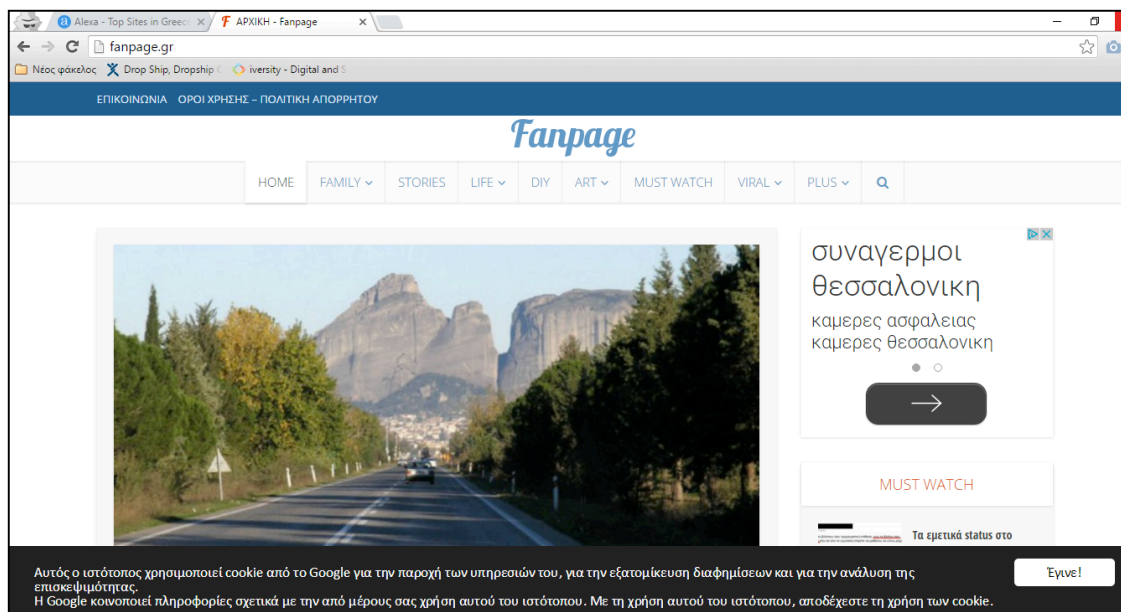


Figure 3: Message informing visitors about cookies

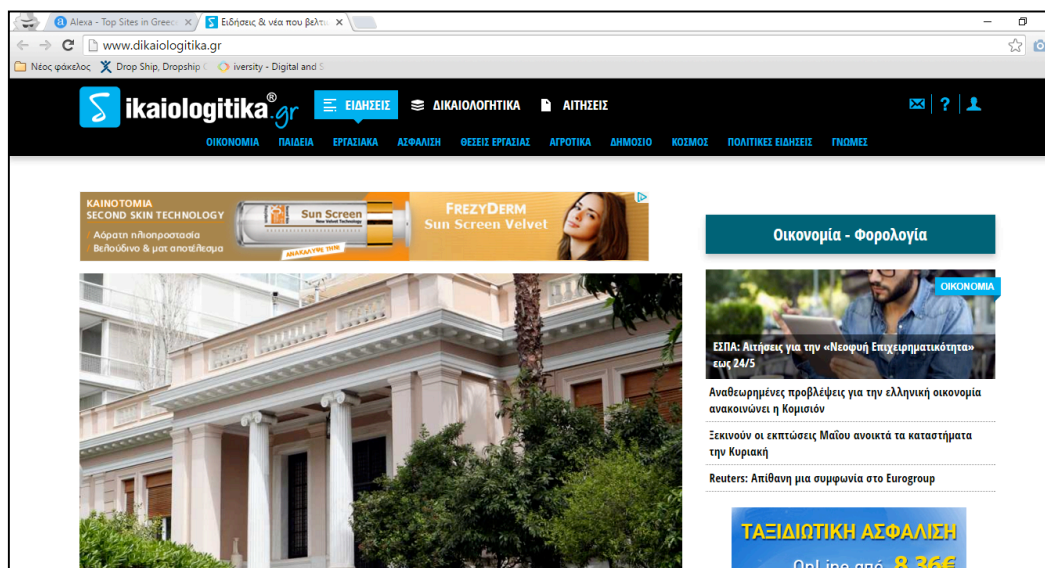


Figure 4: Dikaiologitika.gr website

## C. Malta

Two of the five most visited media websites in Malta –always according to alexa.com–, showed, while browsing, to offer information regarding the use of cookies. As it can be seen in figure 5, a message in English appears that reads “We recently published a revised version of our Privacy Policy and Terms of Service. By using this site, you agree to these revised documents including the use of cookies to enhance your experience. We kindly ask you to take a few minutes to read and understand them”. In that way, the visitor gets informed and also has the option to read and learn what cookies are and how they function, by clicking the “Privacy Policy” and/or the “Terms of Service” hyperlink. However, the websites



*Maltatoday.com.mt* (figure 6), *Independent.com.mt* and *Newsbook.com.mt*, do not offer such information upon visiting.

Table 4. Malta cookies results

Countries	Media websites with highest traffic				
Malta	Timesofmalta.com	Maltatoday.com.mt	Independent.com.mt	Newsbook.com.mt	TheIadbible.com
Cookies information	YES	NO	NO	NO	YES

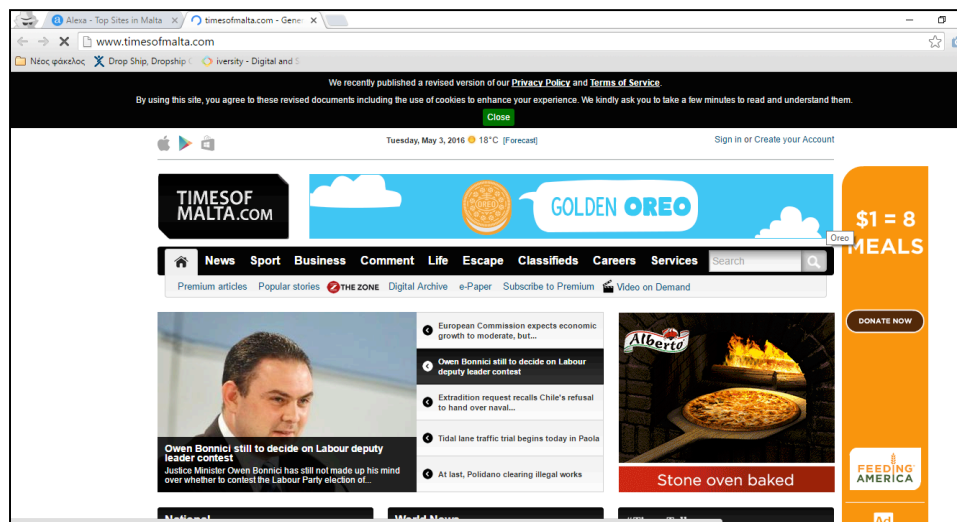


Figure 5: Message informing visitors about cookies

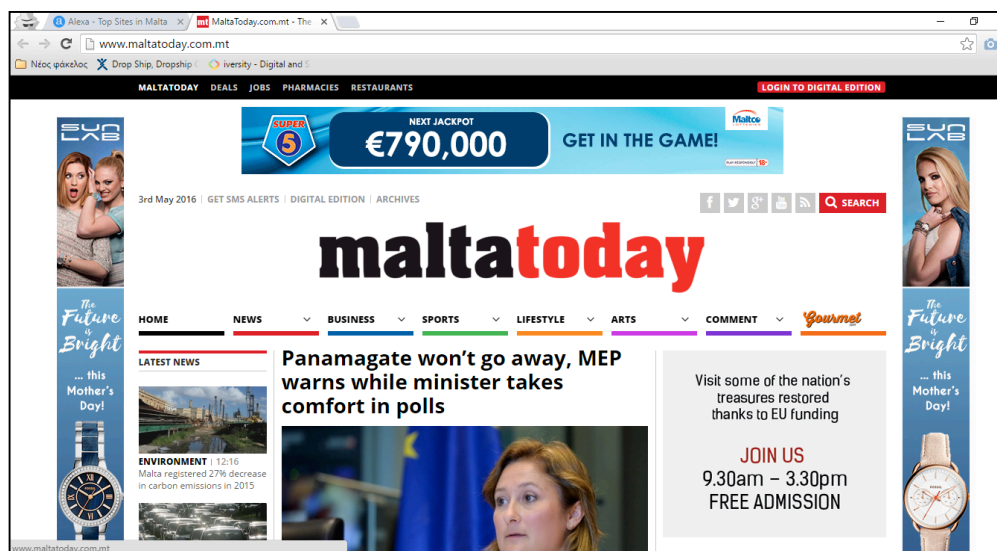


Figure 6: Maltatoday.com.mt website

## D. United Kingdom

Three of the five most visited media websites in the United Kingdom (as listed by alexa.com) offer information regarding the use of cookies. As it can be seen in figure 7, a message in English appears that reads "Welcome to the Guardian. This site uses cookies, read our policy here". In that way, the visitor gets informed and also has the



option to read and learn what cookies are and how they function, by clicking the “here” hyperlink.

The websites *Bbc.com* and *Dailymail.co.uk* do not offer such information upon visiting.

Table 5. United Kingdom cookies results

Countries	Media websites with highest traffic				
United Kingdom	Bbc.com	Theladbible.com	Dailymail.co.uk	Theguardian.com	Thesportbible.com
Cookies information	NO	YES	NO	YES	YES

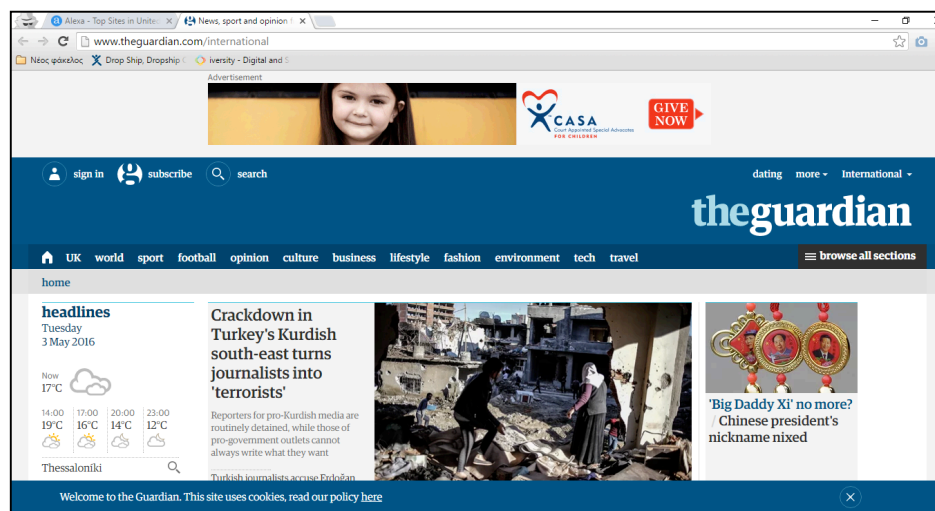


Figure 7: Message informing visitors about cookies

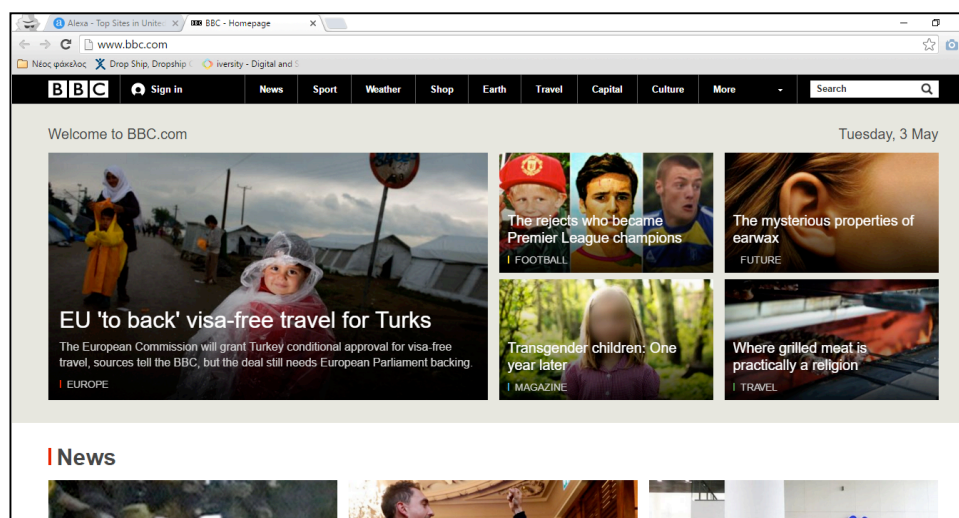


Figure 8: Bbc.com website

The research was conducted with one basic research question: whether visitors receive information immediately and extensively on how (and if) these websites use cookies. Based on the data found by the research, it occurs that the websites under examination make use of messages informing visitors about the existence of cookies.

All of the websites we examined use cookies, but in the case of Cyprus and Greece, only one of the top five media websites (according to alexa.com) does not inform the users about the existence and use of cookies, upon visiting for the first time. In Malta, the media websites that do not inform about cookies are three, and in the United Kingdom, two.

## **Conclusion**

Cookies are a decisive factor in the function of websites; they define the functionality, appearance and use of websites. It is also very important that these elements (functionality, appearance and use) can be personalized by the user. It is not an overstatement to claim that offered services and tools addressed exclusively to the needs of each and every visitor has never before existed at this rate in the history of commerce. This new economy based on advertising and buying and selling of information, products and services on a global level with users' preferences and selections as the only boundary, is something totally new. Researchers, and all kinds of experts, that study the field of the human-computer interaction, statistics, digital marketing, advertising and communication in general, have shown (and still show) great interest in cookies and their functions.

It is unfortunate that both visitors and administrators of numerous popular websites still ignore their importance. Administrators should offer adequate information and visitors should obtain that knowledge regarding the existence and use of cookies. In terms of visitors, they could both ensure that they know how websites function (and therefore protect themselves by deciding which data to offer and which not) and adjust content according to their preferences. In terms of administrators, by acknowledging the importance of cookies, they would make sure their websites are complying with the global standards, and subsequently be able to offer better, personalized content to their visitors.

As a conclusion, the efforts of the media websites should be intensified due to the continuous development of the World Wide Web and they ought to follow the international advancements so that positive results can be the outcome for both users and media companies.

## References

- Abowd, D., Beale, R., Dix, J., & Finlay, E. (2004) *Human Computer Interaction*. Madrid: Prentice Hall.
- Antonopoulos, N., & Veglis, A. (2012). Technological characteristics and tools for web media companies in Greece. *In IEEE Proceedings of 16th Panhellenic Conference on Informatics*, PCI: Athens, 44-50.
- Antonopoulos, N., & Veglis, A. (2013). The evolution of the technological characteristics of media websites. *Asian Conference on Media and Mass Communication*, Osaka, 130-146.
- Antonopoulos, N., Veglis, A., Gardikiotis, A., Kotsakis, R., & Kalliris, G. (2015). Web Third-person effect in structural aspects of the information on media websites. *Computers in Human Behavior*, 44, 48-58.
- Brügger, N. (2013). Web Historiography and Internet Studies: Challenges and Perspectives. *New Media & Society*, 15:5, 752-764.
- Fernback, J., & Papacharissi, Z. (2007). Online Privacy as Legal Safeguard: The Relationship Among Consumer, Online Portal, and Privacy Policies, *New Media & Society* 9(5), 715-734.
- Ghosh, A., Mahdian, M., Preston McAfee, R., & Vassilvitskii, S. (2012) To match or not to match: Economics of cookie matching in online advertising. Retrieved from: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.231.9901>.
- Google Privacy (2016). Retrieved from: <http://www.google.com/policies/privacy/>
- Guidance on the rules on use of cookies and similar technologies (2015). Retrieved from: [https://ico.org.uk/media/for-organisations/documents/1545/cookies\\_guidance.pdf](https://ico.org.uk/media/for-organisations/documents/1545/cookies_guidance.pdf).
- McStay, A. (2012). I consent: An analysis of the Cookie Directive and its implications for UK behavioral advertising. *New Media & Society*, 15:4, 596–611.
- Wills, C.E., & Zeljkovic, M. (2011). A personalized approach to web privacy: awareness, attitudes and actions. *Info Management & Computer Security*, 19:1, 53–73.
- Contact email:** nikos@antonopoulos.info