

Joumana BOUSTANY ♦ Tania TODOROVA (Eds)

BOBCATSSS 2020 PARIS

INFORMATION MANAGEMENT FAKE NEWS AND DISINFORMATION

Proceedings book



The Information Professional during a curation process at WhatsApp Business

Dalbert Marques Oliveira¹, Patrícia Miranda Pereira¹, Luis Silva Rodrigues², Inês Braga²

¹ *Master of Business Information Student, Politécnico do Porto/ISCAP, CEOS.PP, Porto, Portugal;*

² *Information Systems Department, Politécnico do Porto/ISCAP, CEOS.PP, Porto, Portugal*

Abstract. This paper describes how Information Professional manages information during a content curation process through WhatsApp Business (WB) to ensure that information transmitted, individually or in groups, is current, true and verifiable. Such an approach is justified by the great importance that information currently assumes, the increasingly common practice of information exchange through dialogues, online, by peers or groups and the danger that false and / or wrong information may cause to individuals and / or groups. The Information Professional, as a group curator at WB, is in touch with new challenges and opportunities. Among these challenges, it is possible to cite issues related to the information life cycle, especially regarding its verifiability and obsolescence. With respect to opportunities, the Information Professional will be the information facilitator as an important asset capable of enriching the lives of individuals or groups. The purpose of this paper is to address various aspects of this curation process, taking advantage of a real case of curating information about Portugal for individuals interested in the country. In this work it was possible to verify that the curation process can be facilitated with the knowledge and application of several free technologies, available online, which help in the verifiability and timeliness of the transmitted information, as well as the WB tools themselves.

Keywords: Information Professional, Online Content Curation, WhatsApp Business, Online Information Obsolescence, Fake news

1 Introduction

This paper describes how the information professional can manage information during a content curation process from the WB online communication platform to ensure that information transmitted, used or in groups, is current, truthful and verifiable.

Content curation on WhatsApp has been practiced, according to news agencies, since 2016, although WhatsApp was launched in 2009 (information retrieved from version 2.0) [1], [2] and the business version of the platform was launched in January 2018 [3]. This curation through WhatsApp is usually done informally [4], in some cases being involved in illicit practices [5], [6], [7].

It is observed that the practice of exchanging information through online, peer or peer dialogues is increasingly recurrent, and the number of false and/or wrong information transmitted by these means is increasing, which can lead to numerous dangers to both individuals and society.

This scenario is aggravated when the truthfulness and timeliness of information is a key factor for the success or failure of people, families or groups in a foreign country, as is the case of the curator service that this paper will address.

The Information Professional, as a participant in such a process, is in touch with new challenges and opportunities. Among these challenges, it is possible to cite issues related to the information life cycle, such as verifiability and obsolescence. In this case, being a service provided mainly to Brazilians interested in information related to the cost of living in Portugal.

It will be up to the Information Professional to create means to verify the veracity of such information, to know if it represents the present, if it is already obsolete or can be quickly exceeded, as in the case of the values determined by the individual refer to promotions.

Regarding opportunities, the Information Professional will be a facilitator between users and information, being an agent responsible for transforming information into an important asset, capable of enriching the lives of individuals or groups [8]. One example of this is the information provided by the Portuguese emigration service (SEF - Serviços de Estrangeiros e Fronteiras) related to the open of 1900 vacancies, across the country, so that foreigners could deal with matters related to their regularity and legality in the country [9]. However, the vacancies soon became extinct, causing numerous problems for the foreign population [10]. Over time it turned out that these vacancies were being sold on the Internet. Then a police investigation began, where it was found that the lack of vacancies was due to the illegal practice of markings made by computer programs, using data from third parties, in order to market these vacancies to other individuals [11]. After the discovery of this crime, the necessary measures were taken, which also included the expansion of the attendants in the SEF, the vacancies were reopened [12].

The information that new vacancies have been opened for appointments at SEF is invaluable for those who need to make an appointment at the service and Information Professional, who can retrieve and transmit this information, has a great opportunity and can provide an excellent service.

One point that should also be considered regarding the practice of information exchange through groups is that this practice reduces the possibility of informational ignorance. Often the questions that certain individuals pose in the information exchange group are the same questions as other individuals, who sometimes either did not know they had that doubt, or had that doubt, but did not want to be confronted with their answer. This issue is mentioned by Choo [13] which states that the user of the information, consciously or not, sometimes does not want to know what he needs. Within a group, that user will tend to reduce this ignorance related to not knowing or not wanting to know.

Therefore, the purpose of this article will be to address the various aspects of this curation process, taking advantage of the specific case of curating information about Portugal for individuals interested in the country, mainly Brazilians, through WB, its features and other online tools.

2 Online Curation

According to statistics provided by websites such as Domo.com [14], used in a Forbes.com [15] news, and by World Economic Forum [16], in 2017 were generated every day 2,5 quintillion bytes. Already by 2020 the data universe should reach 44 zettabytes. With so much data, it is important to understand how to extract relevant information from this data and to go further, to understand what really matters, to whom it matters, in what format, where and when.

These are questions that an online curator should always keep in mind and which will guide him in the careful selection of information sources and the handling of this information according to the user's goals.

Before online content curation, there was and still exists, digital curation. In the latter, the information goes through numerous filters that mold it into the desired format and embedded with certain values (metadata), in order to be preserved, taking into account its validity, to facilitate its sharing and favoring its transformation into new information products.

According to "The Digital Curation Centre" [17], digital curation facilitates the creation of research data, the maintenance of high-quality data over the long term and favors new research. This is done from a life cycle that encompasses issues such as conceptualization and creation,

which involve capturing, storing, and assigning metadata; access and use, with the possibility of releasing and restricting access to existing data; evaluation and selection; the discard; the preservation; the review, in order to review the dubious documents in a new selection; and finally transformation, which aims to create new information from the existing one [17], [18].

Each of these steps contributes to verifying the accuracy of the information and aims to reduce misunderstanding between users of verification systems and users of information services.

In curating online content, this information already retrieved, which passed through the life cycle discussed earlier, is transmitted online, and this transmission, in the specific case of this study, is made through WB. However, there are other transfer routes as discussed in Zhong, et. al. [19] work where authors study the process of curating online content on social networks “Last.fm” and “Pinterest”. This work discloses information about the benefits, both curators and users, of this content curation.

Focusing on curating online content is the user’s needs which often translate not only into what they want to know, but also into what the users need to know but do not realize this need. As an example, it is possible to cite a case where a particular user would like information about the means of transport that could take him to a tourist spot on a particular day of the week. The information for this situation was readily identified, but through the sensitivity of the Information Professional, he was able to verify that although transportation was available to that tourist spot, the site was closed for visitation on that particular day due to an employee’s strike. The Information Professional was then able to collect some more data and in addition to transportation guidelines, it was possible to provide information such as the best days to visit, time and other recommendations.

As could be seen in the example above, the online content curation service should cover the sharing of specific, verified and reliable information in a given format for private users or groups according to their needs, which include the timing of the transmission, the correct location as well as the form of transmission.

2.1 The Curation in WhatsApp Business

Currently, WhatsApp offers users two versions: The Standard version [20] and the business version [21]. WB has the same functions as the Standard WhatsApp and introduces new functions. Table 1 shows as increments of the business version compared to the standard.

Table 1. Table 1. Comparison of WhatsApp and WB.

Features	WhatsApp	WB
Message sending	Yes	Yes
Group message exchange	Yes	Yes
Voice calls	Yes	Yes
Video calls	Yes	Yes
Share photos, videos, and documents	Yes	Yes
Automated Welcome/Away Message	No	Yes
Company Profile	No	Yes
Contact Tags / Labels	No	Yes
Quick Reply	No	Yes
Products and services showcase	No	Yes

As you can see, WB has features that go beyond those available in the standard version. These features help in managing information and, consequently, in selecting content. But, as mentioned earlier, even before WB, WhatsApp (standard) was already used in the information

curation process [4], even though reduced features were used. In this paper, the use of the WB version of the information curation process will be discussed.

In both applications (Standard and Business), the focus is the exchange of information in various formats, between peers or groups [20], [21]. These information formats include text, links, audios, photos and documents [22].

The WhatsApp groups are made up of administrators and members, and the administrators can choose whether only they can share information in the group or whether everyone can do so and when they can do it.

To be part of a WB group, a user can be directly added by the group administrators, or through a link provided by the administrators in online environments, such as websites or social networks [23]. Groups usually have a main subject and these can range from “family related” groups where relatives exchange diverse personal information; “school related” groups used to share information about classes or to promote some kind of social networking; or even “illegal activities” related groups, warning about police operations in communities or roads, and even poachers [5], [6], [7].

At least since 2016, it has been reported that in some groups of WhatsApp, administrators are charging small amount of money, for users to have access to the information they provide [4]. One example found in the literature is the group created by a model that charges the equivalent of 2€/month for access to her unique intimate photos and poetry [24]. Another example reported is that of a WhatsApp group’s administrator who earns about 2000€/month, managing several groups on various topics [4].

Considering the growing need of Brazilian citizens for information about living in Portugal, it was considered the possibility of creating an online content curation service to provide new information and also to confront false or incomplete information made available online in all platforms. The WhatsApp was chosen as the tool to provide this Service, and after the release of the business version the Service became available to the users. It is important to note the other tools were also incorporated into the service to ensure the quality of the information provided.

3 The “Vida em Portugal - Profis” Service

The “Vida em Portugal – Profis”⁵ Service is an online content curation service, which sells personalized information to Brazilian citizens who are interested in visiting, living, working, studying or investing in Portugal [25]. This online service is provided through the WB application and is advertised by the owners on social networks. One important way to reach out to potential buyers of the service. It is through “word of mouth” by former users.

In advertisements made by Service owners, there is a mobile phone number associated with the WB account and interested clients are encouraged to send a message to get more information about the Service.

When a message is received in the WhatsApp account, a reply message is sent automatically (a WB feature) to the potential client [26], [27]. The automatic responses in WB are pre-programmed messages that can be one of two types: an absence message [26], which allows a pre-programmed message to be sent at a specific time (e.g., outside office hours); or a Greeting message [27] which consists of a pre-programmed message acknowledging receipt of the message from the person interested in the Service. In this feature, there is the possibility of setting when each message is sent and which are the contacts that will receive them.

⁵ “Living in Portugal - Profis”

Depending on the needs of the person that made the contact and after hiring the Service, that contact of this user/client receives a label related to his profile and his fields of interest in Portugal (visiting, living, working, studying or investing). WB labels are a feature that can be used by the Information Professional to create client/user clusters, which enables the easy recovery of these contacts by fields of interest, the creation of message distribution lists, and other possibilities involving the creation of user profiles [28].

A point considered in the curatorship Service is to prepare the users to continue the search autonomously. The “Vida em Portugal – Profis” Service part of what the user already knows, adds to his knowledge new information that will guide the user to where he needs to go and also provides tools that enable users to be autonomous in the search for new related information.

As an example of such empowerment of the user, it is possible to cite the case of a user who wants information on the type of visa that he could request from the SEF. The Information Professional, as content curator, rather than simply passing this information on to the user, provides it with the source where this information was retrieved, how the user can receive frequent updates on this content, and how he can search for issues related to this area.

The administrators of the Service groups also learn, as they select research sources, how to investigate the subject matter required by the user and share it with interested users.

During the execution of the service, it is observed that many users have the same interest, for example about the education in Portugal, and it is not uncommon for questions to be repeated: “which are the public universities in Porto?” “which courses are available at the Polytechnic Institute of Porto?”, “what are the monthly fees?” In order to reduce the time spent with the repetition of the writing of these answers, aiming at their uniformity, preventing the transmission of incomplete or different information for the same issues, we sought to understand, through the management of this information, the collection and analysis of these questions, which were the most repeated questions and which were their synonymous questions. A database of responses was then created to feed another WB functionality, the response models [29].

The response models allow the insertion in the WB system of a set of responses which can be embedded by metadata, in order to facilitate their subsequent location, and can still be retrieved by means of a certain command: one bar “/” followed by the “key term” chosen for its recovery.

It is up to the Information Professional to retrieve and manage the information, which includes the questions and answers, check the veracity and timeliness of this information, embedding it in metadata, create ontologies and taxonomies, and prepare the set of responses in order to meet the information needs of users and/or administrators of the groups of the Service.

Amid so much information, the need to create rules and a workflow covering all the activities to be performed was realized. Thus, from the advertising of the service, through the way users were served, to the disconnection of a user from it, everything was documented, and each step was embedded with metadata that facilitated its recovery.

These steps started to help in the way the information retrieved by the Information Professional would be treated, in order to diagnose its truthfulness and timeliness. However, in order to facilitate the management of this information, it was necessary, in addition to the application of the WB and its functionalities, to use other tools, which will now be mentioned and described.

4 Other tools used in the Service

To provide a complete information service, other tools were incorporated to it as its need was felt, always with the collaboration of Information Professional. These tools created an information ecosystem that facilitated online digital curation work through the WB.

The first need observed during the service delivery was to always keep available and quickly manage a set of informational sources, which proved to be frequently requested. These sources provided information such as current exchange rates and values, the availability of accommodation and its values in hotels and private individuals, transportation providers, tourist attractions, among other information.

For this purpose, two tools were used that proved to be useful both for storing this information and for verifying its actuality. The storage tool corresponds to a database of its own, where all information about the Service and its usefulness, were compiled for further research. But just having a database has not proved enough to meet the information needs of users, nor to make the information pleasant [18] and verify the veracity of this information, so new tools were used in the process.

All the information entered in this database was embedded with metadata and for the maintenance of the timeliness of this information, links were also inserted in specific fields of the database. The metadata assist in the recovery of information and the links correspond to a hyperlink to the information sources, which helped in the almost instantaneous verification of the information inserted in the database. If the updated information was different, it was checked again and if it was considered true, then it was used to update the database information.

The need for verification of information is frequent in this type of service, as there is a lot of information about “living in Portugal” available on the Internet, whether on websites, blogs, podcasts and YouTube channels. There are several free groups in WhatsApp on the topic, many of these with little active administrators, where there is almost no moderation of the content available, favoring the proliferation of incomplete and/or even false information.

Several users of the Service “Vida em Portugal – Profis” bring this retrieved information to content curation service groups on the Web and it is up to the administrators to verify this information and transmit the reality about it, including, informing about the source where the final information was verified and recovered. Another important detail was the maintenance of a register of users receiving this information, and all updates were automatically transmitted to them.

Another tool incorporated in the Service were the markers of browsers such as Google Chrome [30]. These bookmarks, such as databases, make it possible to store websites for future searches. Through the functionality of creating folders and subfolders in browsers, it is possible to create a taxonomy of subjects, in order to facilitate the search and retrieval of information, favoring their verification.

During the course of the service, it has been realized the need to create mechanisms to facilitate the sharing of information, at the same time as creating levels of permission in this shared information, that is, in cases where users had access to a given document with different information, but each group of users should have access to only part of this information. This access and restriction are points addressed about the digital curatorship by the “The Digital Curation Centre” and relates to the life cycle of information [17], [31].

This was a concern of the Information Professional and to achieve these goals, the service began to use some of the features of Microsoft Office, among these features are the sharing option [32] and the incorporation [33]. The first is the ability to send certain information to others by applying certain filters, such as the possibility of allowing the receiver of this information to just view or edit it. Meanwhile the incorporation, widely used in the Service in

Excel documents, allows only certain cells or pages of the book to be available, with the same possibilities in sharing.

With frequent updates of information on the Internet, from offers of activities for tourists, job opportunities on specialized sites and even changes in SEF procedures, another concern of the Information Professional was to keep a list of websites under surveillance and thus be warned about updates on these sites. To this end, the Service has incorporated online monitoring tools into its daily routine. These tools, while they collaborate with the update of the information, they also allow us to perceive if certain information that circulates on the Internet is true, if it is complete and if it is current. The next topic will address these monitoring tools used in the Service.

4.1 Online monitoring tools

Online monitoring tools are useful so that the Information Professional can keep up to date on data and information related to the field of interest in certain sources of interest, in addition to allowing a screening of the recovered content, reducing the occurrence of false information.

Services such as those offered by Visualping.io [34] and by Wachete.com [35] allow us to monitor specific parts of sites and blogs, producing an alert in case these monitored parts suffer any change.

An example of the application of this functionality for the Service “Vida em Portugal – Profis” is related to the monitoring of the news area of sites of certain tourist points. It is usually in this part of the site that changes in the operation of the site are reported, such as the strike commented on earlier in this work. As soon as news is published, the Information Professional will receive a notification and may create value in the service provided to users.

Two monitoring tools are massively used by the Service “Vida em Portugal - Profis,” for the curatorship of information in WB, these are the functionalities of the Feedly [36] and the Google Alert Service [37].

Among the functionalities provided by the Feedly, are the monitoring of news and information updates in periodicals, blogs, Youtube channels, Twitter and Really Simple Syndication (RSS), which enables the receipt of notifications if the monitored information changes; the organization of the monitored content, facilitating the creation of personalized content, such as the possibility of inserting transport information in the same place; the execution of searches on this content; sharing and receiving information on similar and related topics, in addition to the collaborative work that makes it easier for group administrators to access and enrich this information.

On the other hand, Google's alert service allows you to choose terms or sentences to be monitored, choosing the frequency in which this monitoring will be done (whenever a new occurrence is detected, once a day or every week); where on the web that the content will be monitored (in blogs, journals, videos, books, etc.); in what language it will be in; in which region; whether all results or only those considered exceptional by Google will be shown; and whether the results will be delivered by email or RSS.

After the choice of terms or sentence, for example “visa+ Brazilians + SEF,” Google starts searching in the chosen places, indexed (periodic) newspapers for example, and all occurrences, according to the user's choice, are communicated at scheduled times and to the chosen channel.

These services feed the database used for the digital curatorship in the WB and assist in the maintenance of reliable and up-to-date information for the users of the Service.

5 Conclusion

This work aimed to demonstrate how Information Professional actively participates in an online digital curatorship service through the WB. The work showed the several features of the WB application allows the management of information, whether this information is the contacts of users, the response models, or even the information retrieved from different information sources. It was observed that information management work developed by an Information Professional is necessary in order to extract value from the features of the WB and of the channels that make data and information available, enabling their verification, with the purpose of confirming the reliability and timeliness of these data and information. It was also observed the need to use other tools in order to create an information ecosystem, the need to create a workflow, at the same time as it was necessary to monitor the Internet for the recovery of new information, which is transformed into knowledge for users of the Service “Vida em Portugal - Profis”.

References

1. Olson, P. (2014, February 19). Exclusive: The Rags-to-Riches Tale of How Jan Koum Built WhatsApp Into Facebook's New \$19 Billion Baby. [Web log post]. Retrieved from <https://www.forbes.com/sites/parmyolson/2014/02/19/exclusive-inside-storyhow-jan-koum-built-whatsapp-into-facebooks-new-19-billion-baby/>
2. WhatsApp Blog. (2009, August 27). WhatsApp 2.0 is submitted. [Web log post]. Retrieved from <https://blog.whatsapp.com/72/WhatsApp-2.0-is-submitted>
3. WhatsApp Blog. (2018, January 18). Introducing the WhatsApp Business App. [Web log post]. Retrieved from <https://blog.whatsapp.com/10000637/Introducing-the-WhatsApp-Business-App>.
4. Wiedemann, E. (2016). O WhatsApp, a classe média e o mundo underground do conteúdo. Youpix. Retrieved from <https://medium.youpix.com.br/o-whatsapp-aclasse-média-e-o-mundo-underground-do-conteúdo-3b69e7cd5492>
5. Bourscheit, A. (2018). 300 grupos de WhatsApp estão ligados ao tráfico de animais em todo o país. In The Intercept. Retrieved from <https://theintercept.com/2018/10/10/grupos-whatsapp-trafico-de-animais/>
6. BBC. (2018). How WhatsApp has helped heroin become Mozambique's second-biggest export. Retrieved from: <https://www.bbc.com/news/world-africa44726227>
7. Gadhre, D. (2019, May 12). 'London Bridge terror attack planned on WhatsApp'. The Sunday Times. Retrieved from <https://www.thetimes.co.uk/article/london-bridge-terror-attack-planned-onwhatsapp-32r38jz8v>
8. Oliveira, D.M., Rodrigues, L.A.S., Frogeri, R.F. e Portugal Júnior, P.S. (2019). Habilidades e competências do profissional da informação. XX Encontro Nacional de Pesquisa em Ciência da Informação (21 to 25 October). Universidade Federal de Santa Catarina, Santa Catarina, Brasil. Retrieved from <https://conferencias.ufsc.br/index.php/enancib/2019/paper/view/1077/570>.
9. Sábado. (2019). SEF vai aumentar em março atendimentos de imigrantes na área de Lisboa. (2019, February 25). In Sábado. Retrieved from <https://www.sabado.pt/portugal/detalhe/sef-vai-aumentar-em-marcoatendimentos-de-imigrantes-na-area-de-lisboa>.
10. Henriques, J. G. (2019, April 16). SEF vê reclamações no Portal da Queixa aumentarem 139%. In PÚBLICO. Retrieved from <https://www.publico.pt/2019/04/16/sociedade/noticia/sef-alvo-1869486>.
11. SIC Notícias. (2019, August 20). Vagas para o atendimento do SEF à venda na Internet sob investigação. In SIC Notícias. Retrieved from <https://sicnoticias.pt/pais/2019-08-20-Vagas-para-o-atendimento-do-SEFavenda-na-Internet-sob-investigacao>.
12. Público. (2019, September 9). SEF abre mais 11 mil vagas para agendamento de pedidos de residência. In Público. Retrieved from <https://www.publico.pt/2019/09/09/sociedade/noticia/sef-abre-11-mil-vagasagendamento-pedidos-residencia-1886019>.
13. Choo, C.W. (2003a). A organização do conhecimento: como as organizações usam a informação para criar conhecimento, construir conhecimento e tomar decisões. São Paulo: SENAC.
14. Domo. (2019). Data Never Sleeps 5.0. Retrieved from https://www.domo.com/learn/data-never-sleeps-5?aid=ogsm072517_1&sf100871281=1
15. Marr, B. (2018, March 21). How Much Data Do We Create Every Day? The Mind-Blowing Stats Everyone Should Read. In Forbes. Retrieved from <https://www.forbes.com/sites/bernardmarr/2018/05/21/how-much-data-do-wecreate-every-day-the-mind-blowing-stats-everyone-should-read/#741d17ff60ba>
16. Desjardins, J. (2019, April 17). How much data is generated each day?. In World Economic Forum. Retrieved from <https://www.weforum.org/agenda/2019/04/how-much-data-is-generated-eachday-cf4bddf29f/>

17. DCC. (2019). What is digital curation?. In The Digital Curation Centre. Retrieved from <http://www.dcc.ac.uk/digital-curation/what-digital-curation>
18. Černý, M. (2017). Curating content as a way to promote interesting resources. In INFORUM (Vol. 23). Retrieved from <https://www.inforum.cz/pdf/2017/cernymichal.pdf>.
19. Zhong, C., Shah, S., Sundaravadivelan, K., & Sastry, N. (2013, June). Sharing loves: Understanding the how and why of online content curation. In Seventh International AAAI Conference on Weblogs and Social Media. Retrieved from <https://www.aaai.org/ocs/index.php/ICWSM/ICWSM13/paper/view/6137/6406>
20. WhatsApp Inc. (2019f). WhatsApp. Retrieved from <https://www.whatsapp.com/>
21. WhatsApp Inc. (2019e). WhatsApp Business. Retrieved from <https://www.whatsapp.com/business/?lang=en>
22. WhatsApp Inc. (2019h). Features. WhatsApp. Retrieved from <https://www.whatsapp.com/features/>
23. WhatsApp Inc. (2019g). How to create and invite into a group. WhatsApp. Retrieved from <https://faq.whatsapp.com/en/iphone/26000115/?category=5245251>
24. Padrão, M. (2016, March 1). Modelo cobra R\$ 10 para enviar fotos eróticas e poesias pelo WhatsApp. UOL. Retrieved from <https://noticias.uol.com.br/tecnologia/noticias/redacao/2016/03/01/modelolucra-r-25-mil-por-mes-com-fotos-eroticas-e-poesias-no-whatsapp.htm>
25. Oliveira, D.M. (2019). Venda de informações através do WhatsApp. XIII Encontro de CTDI (May 14th). Instituto Superior de Contabilidade e Administração do Porto, Portugal. Retrieved from https://www.academia.edu/40767622/Venda_de_informa%C3%A7%C3%B5es_atrav%C3%A9s_do_WhatsApp_Selling_information_through_WhatsApp.
26. WhatsApp Inc. (2019a). Using away messages. WhatsApp. Retrieved from https://faq.whatsapp.com/pt_br/android/26000099/?category=5245246%3E.&lang=en
27. WhatsApp Inc. (2019d). Using greeting messages. WhatsApp. Retrieved from https://faq.whatsapp.com/pt_br/android/26000100/?lang=en
28. WhatsApp Inc. (2019c). Using labels. WhatsApp. Retrieved from <https://faq.whatsapp.com/en/android/26000102/?lang=en>
29. WhatsApp Inc. (2019b). Using quick replies. WhatsApp. Retrieved from https://faq.whatsapp.com/pt_br/android/26000101/?category=5245246&lang=en
30. Google. (2019a). Create, view & edit bookmarks. Retrieved from <https://support.google.com/chrome/answer/188842?co=GENIE.Platform%3DAndroid&hl=en&oco=1>
31. Flintoff, K., Mellow, P., & Clark, K.P. (2014). Digital curation: Opportunities for learning, teaching, research and professional development. Retrieved from <http://clt.curtin.edu.au/events/conferences/tlf/tlf2014/refereed/flintoff.html>
32. Microsoft. (2019b). Share a document. Retrieved from <https://support.office.com/en-us/article/share-a-document-d39f3cd8-0aa0-412f-9a35-1abba926d354?omkt=en-US&ui=en-US&rs=en-US&ad=US>
33. Microsoft. (2019a). Embed files directly into your website or blog. Retrieved from <https://support.office.com/en-us/article/embed-files-directly-into-yourwebsite-or-blog-ed07dd52-8bdb-431d-96a5-cbe8a80b7418?omkt=en-US>
34. Visualping. (2019). Retrieved from <https://visualping.io/>
35. Wachete. (2019). Retrieved from <https://www.wachete.com/>
36. Feedly. (2019). Retrieved from <https://feedly.com/>
37. Google. (2019b). Google Alerts. Retrieved from <https://www.google.com/alerts>