HOW POPULAR IS SOCIAL MEDIA IMAGE GRATIFICATION AS A RESEARCH THEME IN TOP JOURNALS?

Irma Syarlina Che Ilias[1*], Suzaimah Ramli[2], Muslihah Wook[3], Nor Asiakin Hasbullahi[4]

[1]Computer Engineering Technology Section, Malaysian Institute of Information Technology, Universiti Kuala Lumpur, Malaysia

[2,3,4]Computer Science Department, Faculty of Defence Science and Technology, National Defence University of Malaysia, Kuala Lumpur, Malaysia

Email: irmasyarlina@unikl.edu.my[1*] (corresponding author), suzaimah@upnm.edu.my[2], muslihah@upnm.edu.my[3], asiakin@upnm.edu.my[4]

ABSTRACT

Understanding why people use social media provides an insight into the nature of behaviours in social networking where sharing images or photos and like other users' posts are some preferred social media user's behaviours. Theory of Uses and Gratifications posits that the audience actively chooses a type of media that suits their needs. Motivations are explained by the questions of why users use social media and what gratifications they derive from their use, and whether they prefer to use images rather than texts or even videos. Prior studies found that there are distinctly different gratifications resulting from the use of images in social media. This research paper hereby explores a thematic review of the top journals regarding the motives of image use in social media from the year 2017 to 2020. The strategy of the research was to investigate through a comprehensive number of review articles on the images used in social media and the result was then analysed. From the literature, the findings of the code-to-document report have highlighted several research patterns or themes in the motives of image use in social media. The results benefit the future direction of later research and narrow the gap between research solutions on image use in social media in the context of gratifications.

Keywords: Social media, thematic review, motives, image use, gratifications

1.0   INTRODUCTION

Social media platforms have become popular in recent years, as they can transform the way people communicate with each other [1]. It is found that every day, people spend a significant amount of time on social media platforms by liking , commenting, or sharing status updates with one another through online activities [2]. It has turned into a preferred media, and users appear to constantly follow and use it as a one that gratifies more from their use. Prior studies have discussed that most of the research are focused on the motives behind the general use of social media depending on the needs of the individual[3]–[5]. In addition, users will experience specific gratifications and associate specific possibilities or desires when they are using the social media features such as sharing of images [6], [7]. It happens as the Internet is increasing in its visual representation. Image is the utmost trending feature for online social media use [8]. As famously known, an "image may be worth a thousand words on social media" where every image contains its meaning and story [9], [10]. Moreover, gratifications do exhibit the user's motive in getting support and achieving the desired image to be used in social media [11], [12].

Uses and Gratification Theory (UGT) is the theory behind this research which is on motives of using social media. UGT has been an effective theory for the investigation of social media problems since it is concerned with the intentions of individuals in interacting with one another while using the media [5]. Through UGT, researchers are able to identify the different motives of social media usage that will provide a deeper understanding of the behaviour and impact of different users [13]. Information seeking and entertainment are some of the motives [13]. This is supported by [14], where UGT motives are contributing as the significant factors on user's intentions and behaviours towards contents, engaging and continuing to use image in social media. In UGT, there are different gratifications when using images in social media [15]–[17], Therefore, this has led to the identification of gratifications which are hedonic gratifications, social gratifications, and utilitarian gratifications [18].

Based on the above discussion, it is found that the UGT approach is considered a well-established approach to media studies [16], [19], [20]. However, the research studies on social media gratifications are limited [21]. It is also unclear what roles does image plays in gratifying a user's needs. Moreover, some researchers did focus on different aspects of gratifications for different use of social media [22]. In considering the prevalence of image use in social media, this research paper used a systematic literature review methodology where the literature related to social media gratifications

75

Malaysian Journal of Computer Science. Advances in Applied Science and Technology Research Special Issue 1/2021

are from the year 2017 to 2020. A systematic literature review methodology is a suitable since it uses existing literature to address research questions and can serve as a basis for future study [23], [24].

The structure of the research paper is as follows: Section 2 describes the materials and methods used. Section 3 discusses the Result and Discussion on findings. Section 4 provide limitation and suggestion for future studies. Section 5 concludes the research conducted.

2.0   MATERIAL AND METHOD

A Systematic Literature Review (SLR) methodology provides a road map for this research paper and added rigour by allowing it to explore the research scope on understanding image used in social media in the context of gratifications. As defined by [24], SLR is a useful methodology because it makes things easier to extract the most relevant data from a large amount of data, which can then be utilised to find motives, factors, or even patterns based on the search criteria or string. Although it is limited to journals, it does give a good source of peer-reviewed knowledge on a particular topic that can be utilised as a foundation for further research. As a result, the extraction, assessment, and identification of relevant literature was carried out. This stage was crucial in determining whether a SLR could be completed using reputable data sources. The review began by finding the most appropriate search criteria or string that support the research area in the broadest sense.

Table 1: Research Databases

Database	Search String	Results
ACM	"uses and gratifications theory" AND "social media" AND "image"	7
Emerald	"uses and gratifications theory" AND "social media" AND "image"	133
Mendeley	"uses and gratifications theory" AND "social media" AND "image"	9
Science Direct	"uses and gratifications theory"] AND [All: "social media"] AND [All: "image"]	163
Scopus	"uses and gratifications theory" AND "social media" AND "image"	8
SpringerLink	"uses and gratifications theory" AND "social media" AND "image"	38
Taylor and Francis	"uses and gratifications theory" AND "social media" AND "image"	44
Total		402

As shown in Table 1, the sources of data were extracted from seven recommended databases in the Computer Science field [25]–[27]. It is found that each database complements each other, in a way that neither one could replace the other. In addition, datasets are linked with the article, making it accessible to look for any related literature in all databases. The critical part is to identify the construct or motive in understanding the research patterns of image use in social media in the context of gratifications. In total, 402 articles have been found.
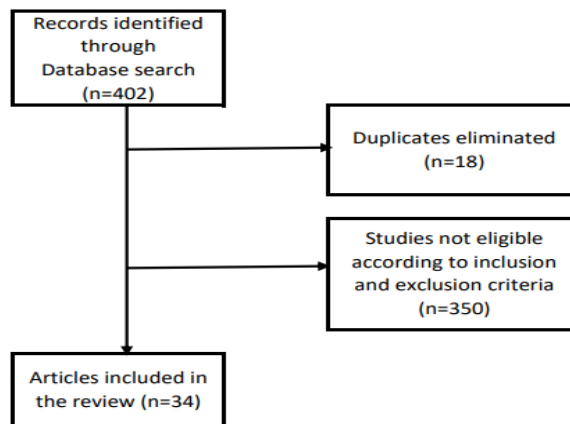

Fig. 1: Flowchart illustrating the SLR process used to identify literature on image use in social media

Fig.1 illustrates the process in SLR. 402 articles were found using search criteria as per Table 1. This first step examined the search criteria or string to collect more information about every journal article such as years of publication, journal title, and database source. In the second step, the research articles found code to eliminate any duplicates. There are 18 articles removed due to duplicate which exist in two or more databases. In the next step, because of the premature findings and anecdotes also does not address-image usage of social media in the context of gratifications therefore 350 articles were excluded. Some of the articles have also been found to be incomplete, have a broken connection or the full articles were not available. Finally, in the form of a thematic review, 34 articles were included. Thematic review incorporates a multitude of research methods at the same time as an expected range of epistemological standpoints [28].
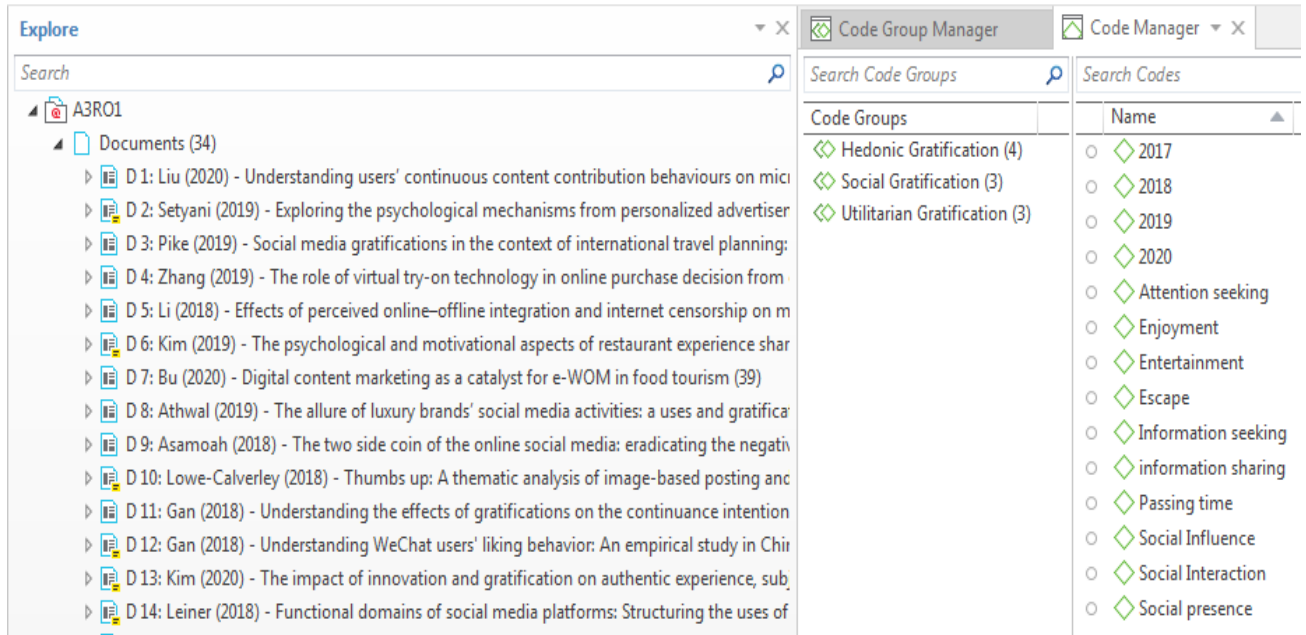

Fig. 2. The articles established from Mendeley metadata and code group at AtlasTi 8

The 34 articles established in Mendeley Desktop 1.19.8 were then submitted to AtlasTi 8 as primary documents. Each article was subsequently grouped into 1) author; 2) issue number; 3) periodical, 4) publisher, 5) volume, and 6) year of publication. In doing so, it allows articles to be analysed according to the year of publication. As shown in Fig.2, the analysis can also be done according to the theme and code where several groupings were automatically initiated from the metadata set up in Mendeley. The sorting was made much simpler and systematic by the classification in AtlasTi 8. 10 codes or motives were developed. The codes were later grouped into three codes groups or research themes to discuss the analysis.

3.0   RESULT AND DISCUSSION

Table 2 shows result on literature search regarding motives of image use on social media using search criteria or string "UGT" OR "Uses and Gratifications Theory". These research criteria or string are directly referenced via several periodicals in the 34 articles listed, namely, journals Acta Turistica, Australasian Marketing Journal, Behaviour and Information Technology, Californian Journal of Health Promotion, Computers in Human Behaviour, and more. In total, there were 24 journals from 7 databases. Articles published in 2019 were the highest numbers being reviewed, there were 14 articles. While the Computers in Human Behaviour and Internet Research were the most journals being reviewed, there were 4 articles per journal. An iterative process in which comparisons of similarities and differences were made in order to ensure continuity in the resulting themes and codes, all 34 articles were analysed.

77

Malaysian Journal of Computer Science. Advances in Applied Science and Technology Research Special Issue 1/2021

Table 2: Year of Articles reviewed based on journals

Years Journals	2017	2018	2019	2020
Acta Turistica			1	
Australasian Marketing Journal				1
Behaviour and Information Technology			1	
Californian Journal of Health Promotion		1		
Computers in Human Behavior	1	3		
European Journal of Marketing			1	
Government Information Quarterly		1		
Industrial Management and Data Systems			1	
Information Technology and People			1	1
International Journal of Ethics Education		1		
International Journal of Information Management			1	
International Journal of Mental Health and Addiction		1		
International Journal of Sports Marketing and Sponsorship		1		
Internet Research	1	2	1	
Journal of Business Research			1	
Journal of Fashion Marketing and Management			1	
Journal of Global Scholars of Marketing Science			1	
Journal of Human Resources in Hospitality and Tourism		1		
Journal of Research in Interactive Marketing			1	1
Journal of Youth and Adolescence			1	
Service Business			1	
Sport, Business and Management: An International Journal	1			
Telematics and Informatics		1	1	1
Tourism Management	1			
Total	4	12	14	4

As shown in Table 3, the ten different motives or codes have been grouped into three main themes. The themes are hedonic gratification, social gratification, and utilitarian gratifications while the motives or codes are attention seeking, enjoyment, entertainment, escape, information sharing, information seeking, passing time, social influence, social interaction, and social presence. This is based on a thematic review of key themes identified in this SLR.

Table 3: Number of articles reviewed based on codes and themes

Themes Codes	Hedonic Gratification	Social Gratification	Utilitarian Gratification
Attention seeking			3
Enjoyment	21		
Entertainment	33		
Escape	9		
Information sharing			18
Information seeking			16
Passing time	5		
Social Influence		10	
Social Interaction		28	
Social presence		9	

3.1   Hedonic gratification

Hedonic gratification (HG) is defined as a motive of fulfilling the user's process expectations and improving one's pleasurable experience which applies more to aesthetics [7], [29]. HG is measured in a social media environment by the extent to which users find it enjoyable and entertained. It is also closely related to users' attitudes and behaviours towards social media [7], [30]. Enjoyment, entertainment, escape and passing time are a few motives under HG [7], [31]–[33]. There are various form of enjoyment offered by social media [7]. For example, people can access rich online media products that their contacts have published and shared via public accounts. Entertainment is described as pleasurable, fun, and an enjoyable benefit for individuals, where it encourages joy by reducing pressure [31]. Escape as a way to avoid the real world to forget the different pressures and worries of one's real-life [32]. Passing time is defined as the degree to

78

Malaysian Journal of Computer Science. Advances in Applied Science and Technology Research Special Issue 1/2021

which the activity can fill up the users' free time in satisfying their hedonic consumption requirements [33].

Table 3 shows in HG, entertainment is widely studied. There are 33 articles involved. This is supported by [1] which stated that for most social media outlets, entertainment was the best indicator. [2] considered entertainment as an intrinsic motivation in sharing visual data such as image in social media. Moreover, entertainment was the final pleasure discovered to be correlated with social media activities to relieve boredom or just to have fun even encourage joy by reducing pressure [3], [4]. Furthermore, UGT suggests that entertainment is one of the motives or gratifications that are most commonly used to Furthermore, UGT suggests that entertainment is one of the motives or gratifications that is most commonly used to explore the correlation between motives for social media use and social media addiction. In social media platforms, entertainment appeal can be an important factor for users to accept and feel marginally important in relation to the popularity of social media content. A good quality of contents does lead to fulfilling the need for entertainment of users. These habits share parallel with the results of current UGT research, which indicates that users use social media as a means of entertainment [5]. In addition, Table 3 also shows there were only five articles that have been studied on passing time. As has been discussed by [6], when social media users have little to do or are tired, they are only browsing but not engaging with the content. Moreover, [7] found that passing time has no major impact on the purpose of continuing to use social media. The potential explanation for this can emerge from the fact that users have alternative options for spending time when necessary.

3.2 Social gratification

Social gratification (SG) is derived from interactivity by interaction with others, such as keeping in touch, talking, or experiencing a group's belonging [18]. It is believed that social media is commonly used for social gratification, not only because it is distinguished by interactivity, but also because of their ability to promote contact [34]. Social Influence, Social Interaction and Social Presence are a few motives under SG [35]–[37]. Social Influence has a great significance in the sense of media-use studies [35]. While Social Interaction is the main motive of using media and is related to engagement such as content sharing [36]. In the content such as images and text increases, therefore Social Presence is a meaningful motive to examine in social media studies [37].

Table 3 shows in SG, it is found that social interaction has been used in 28 articles. This is supported by [7] which discussed that social media platforms enabling users to communicate with others and establishing social relationships through behaviours and engagements such as Post, Like and Share. It does show social interaction do give benefits of socialising with other media users [8]. Moreover, a research by [8] found social interaction has also been shown to be a great significance in the sense of media use studies. Social interaction also has empirically demonstrated as a significant role in motivating users and impact the usage of social media for bridging and bonding social capital in the form of attending to informational needs, community building and productive individual found social interaction has also been shown to be of great significance in the sense of media use studies. Social interaction also has been empirically demonstrated as a significant role in motivating users and impact the usage of social media for bridging and bonding social capital in the form of attending to informational needs, community building, and individual productivity[38]. With social interaction, users can exchange their views, experience, and observations which are able to build and develop relationships and connect with others. While, there were only nine articles that have been studied on social presence. As been discussed by [39], this happened due to the users' purposes of using social media. [7] found that users with a strong culture of collectivism do not really require a need for social presence in their social media use.

3.3 Utilitarian gratification

Utilitarian gratifications (UG) refer to the cognitive benefits obtained by the media in the context of the acquisition of knowledge and a better understanding of the world [40]. The positive effect of utilitarian gratification on user satisfaction in social media has been indicated by a substantial amount of research which refers to the fulfilment of the utility standards of users [22], [41], [42]. Attention seeking, information seeking and information sharing are few motives under UG [43]–[45]. Attention seeking refers to the needs of others to receive attention and significance, as well as the gratification of obtaining or/and expressing feelings by supporting, appreciating or showing care [43]. The purposeful act of seeking information as a result of a need to satisfy some goal is referred to as information seeking that denotes it as "active efforts to obtain specific information outside of the normal patterns of exposure to mediated and interpersonal sources"[46]. Information sharing has an impact on social media users where this process helps to increase user's satisfaction while using a social media platform [44]. Information sharing has an impact on social media users where this process helps to increase users' satisfaction while using a social media platform [45].

Table 3 shows in UG, there were 18 articles discussed on information sharing. This was supported by [10] that says social media is widely used to share information. Furthermore, [12] discussed, users feel better informed and reassured by the feelings that he or she is interested in the circle in which he or she belongs to. It is found that information sharing has an impact on social media users where the information sharing process is also correlated with social media interactions and

79

Malaysian Journal of Computer Science. Advances in Applied Science and Technology Research Special Issue 1/2021

communications with members that increase user satisfaction with a social media platform. Although social media can satisfy the need for information sharing by users, social media users prefer to concentrate on sharing information with offline acquaintances [47]. Personal fulfilment, self-actualization, altruistic and community-related motivations are the most important reason for information sharing [13]. Information sharing also is a cause for status changes, while public posts are vehicles for a higher proportion of information sharing than those sent by friends (public or private). The idea of content acquisition as a way of information sharing may explain this result [48]. Moreover, social media is widely used to share information [15]. While, there were only 3 articles that have studied-attention seeking. As discussed by [47], it was influenced by the types of social media platforms used by users. [49] discussed that attention seeking is related to general social media use, but do not necessarily indicate user's motivations to use it.

Therefore, as shown in Table 3, such gratifications as Hedonic, Social or Utilitarian do reveal motives of image use in social media.

4.0   LIMITATION AND FUTURE RESEARCH

4.1   Limitation

The limitation of this research is related to the Systematic Literature Review (SLR) employed which some limitations are unavoidable. The SLR begins with set of keywords identified; however, failure to include relevant keywords may result in the exclusion of relevant content from the review. Another significant limitation is the possibility of author bias when selecting research papers from databases. Therefore, to ensure the rigour of this research, the relevant literature was searched on 7 different databases. As a result, massive amounts of data were accessed for further analysis, which may have resulted in the ignorance of some articles that are indirectly related to image use in social media. The above-mentioned limitations are also highlighted by past studies which employed SLR [24], [50].

4.2   Future research

This SLR can be used to supplement future research that seek to understand the use of images in social media. As observed, the research showed an exponential rise in this research due to several themes and motives of gratifications. This has been efficaciously documented in research articles that employ empirical research to better explain trends in the social media environment. However, in the future, it would be possible to observe the real motivations behind image use in social media among users of various ages, geographical, and cultures. Future research could also investigate how the social media features affected by image use can help users to transmit their ideas and interpret each other more effectively. The research also can be further research on user's satisfaction, continuous intention, and continuous behaviour to use images in social media. Furthermore, the studies could be explored on other gratifications and motives in using images on social media beside expanding the literature search to recent years and other well-known journals or databases.

5.0   CONCLUSION

This research paper shows that people use social media to fulfil various needs where image is one of the information types that is offered by social media to gratify these needs. It was difficult to include all of the themes and motives that influenced this research. The process did have narrowed it down to 34 relevant articles that contributed to 3 themes and 10 motives on image use in social media in the context of gratifications using the systematic literature review methodology (from 2017 to 2020). From the research, it is found, hedonic gratification is the most popular research theme while entertainment is the most popular motives for social media users' in using images. Therefore, its shows that hedonic value is favourably associated with the intention and behaviour of users towards image use in social media beside it is determined by how entertaining an image is for social media users.

6.0   ACKNOWLEDGMENT

REFERENCES

[1]   L. Kriek, "Mobile social media for a private higher education institution in South Africa," in *IEEE Symposium on Web Society*, 2011, pp. 68–73, doi: 10.1109/SWS.2011.6101273.

[2]   T. L. Ting and K. D. Varatham, "Job Recommendation Using Facebook Personality Scores," *Malaysia J. Comput. Sci.*, vol. 31, no. 4, pp. 311–331, 2018, doi: https://doi.org/10.22452/mjcs.vol31no4.5.

[3] S. Jung and S. Lee, "Developing a model for continuous user engagement in social media," *ACM IMCOM 2016 Proc. 10th Int. Conf. Ubiquitous Inf. Manag. Commun.*, pp. 10–13, 2016, doi: 10.1145/2857546.2857566.

[4] M. Ozanne, A. C. Navas, A. S. Mattila, and H. B. Van Hoof, "An Investigation Into Facebook ' Liking ' Behavior An Exploratory Study," 2017, doi: 10.1177/2056305117706785.

[5] A. Ajis, N. Akma, and M. Salleh, "The Core Elements of Motivational Factors that Influence Facebook Users to Self-Disclosure," *Int. J. Bus. Manag.*, vol. 4, no. 2, pp. 1–11, 2020, doi: 10.26666/rmp.ijbm.2020.2.1.

[6] D. J. Leiner, L. Kobilke, C. Rueß, and H. B. Brosius, "Functional domains of social media platforms: Structuring the uses of Facebook to better understand its gratifications," *Comput. Human Behav.*, vol. 83, pp. 194–203, 2018, doi: 10.1016/j.chb.2018.01.042.

[7] Y. Li, H. Ye, A. Liu, X. Yang, and X. Wang, "Will digital fluency influence social media use? An empirical study of we chat users," *Data Base Adv. Inf. Syst.*, vol. 49, no. 4, pp. 30–45, 2018, doi: 10.1145/3290768.3290773.

[8] A. Oeldorf-Hirsch and S. S. Sundar, "Social and Technological Motivations for Online Photo Sharing," *J. Broadcast. Electron. Media*, vol. 60, no. 4, pp. 624–642, 2016, doi: 10.1080/08838151.2016.1234478.

[9] S. H. Hsieh and C. T. Lee, "Traces of mobility: Examining location disclosure on social networks with mobile location tagging," *Telemat. Informatics*, vol. 49, no. February, p. 101366, 2020, doi: 10.1016/j.tele.2020.101366.

[10] M. P. Mat Husain and Sumarsih, "Factors of Selecting Photographic Image as an Instagram ' s Profile Picture," *Asian Soc. Sci. Humanit. Res. Jounal*, vol. 2, no. 2, pp. 21–26, 2020.

[11] A. Abid and P. Harrigan, "An exploration of social media-enabled voter relationships through uses and gratifications theory, psychological contract and service-dominant orientation," *Australas. Mark. J.*, vol. 28, pp. 71–82, 2020, doi: 10.1016/j.ausmj.2020.02.002.

[12] Nazmine, D. M. Khan Tareen, Abdullah, H. Khan Tareen, and Saismasiddique, "Digital Media And Self Representation: A Systematic Review," *J. Tianjin Univ. Sci. Technol.*, vol. 54, no. 05, pp. 41–50, 2021, doi: 10.17605/OSF.IO/DZUCQ.

[13] K. Hur, T. T. Kim, O. M. Karatepe, and G. Lee, "An exploration of the factors influencing social media continuance usage and information sharing intentions among Korean travellers," *Tour. Manag.*, vol. 63, no. June, pp. 170–178, 2017, doi: 10.1016/j.tourman.2017.06.013.

[14] I. S. Che Ilias, S. Ramli, M. Wook, and N. A. Hasbullah, "Technology Adoption Models: Users' Online Social Media Behavior Towards Visual Information," *Lect. Notes Electr. Eng.*, vol. 724, no. 8, pp. 15–26, 2021, doi: 10.1007/978-981-33-4069-5_2.

[15] P. Ifinedo, "Applying uses and gratifications theory and social influence processesto understand students' pervasive adoption of social networking sites:Perspectives from the Americas," *Int. J. Inf. Manage.*, vol. 36, pp. 192–206, 2016, doi: dx.doi.org/10.1016/j.ijinfomgt.2015.11.007.

[16] E. Katz, J. G. Blumler, and M. Gurevitch, "Uses and Gratifications Research," *Public Opin. Q.*, vol. 37, no. 4, p. 509, 1973, doi: 10.1086/268109.

[17] H. Krasnova, N. F. Veltri, N. Eling, and P. Buxmann, "Why men and women continue to use social networking sites: The role of gender differences," *J. Strateg. Inf. Syst.*, vol. 26, no. 4, pp. 261–284, 2017, doi: 10.1016/j.jsis.2017.01.004.

[18] S. Pike, L. Dam, and A. Beatson, "Social media gratifications in the context of international travel planning: The use of the repertory test method," *Acta Tur.*, vol. 31, no. 2, pp. 153–178, 2019, doi: 10.22598/AT/2019.31.2.153.

[19] A. M. Rubin, *The uses and gratifications perspective of media effects in Media effects: Advances in theory and research*, 2nd ed. Lawrence Erlbaum Associates, 2002.

[20] S. S. Sundar and A. M. Limperos, "Uses and Grats 2.0: New Gratifications for New Media," *J. Broadcast. Electron. Media*, vol. 57, no. 4, pp. 504–525, 2013, doi: 10.1080/08838151.2013.845827.

81

Malaysian Journal of Computer Science. Advances in Applied Science and Technology Research Special Issue 1/2021

[21]   M. Pittman and B. Reich, "Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words," *Comput. Human Behav.*, vol. 62, pp. 155–167, 2016, doi: 10.1016/j.chb.2016.03.084.

[22]   C. Gan, "Understanding WeChat users' liking behavior: An empirical study in China," *Comput. Human Behav.*, vol. 68, pp. 30–39, 2017, doi: 10.1016/j.chb.2016.11.002.

[23]   T. Greenhalgh and R. Taylor, "How to read a paper Papers that go beyond numbers (qualitative research)," *Br. Med. J.*, vol. 315, no. 7110, pp. 740–743, 1997, doi: 10.1136/bmj.315.7110.737.

[24]   S. Singh, M. Kumar, A. Rawat, R. Khosla, and S. Mehendale, "Social Media and Its Impact on User Behavior - a Methodological and Thematic Review," *J. Content, Community Commun.*, vol. 12, pp. 236–249, 2020, doi: 10.31620/JCCC.12.20/22.

[25]   A. Cavacini, "What is the best database for computer science journal articles?," *Scientometrics*, pp. 1–13, 2014, doi: 10.1007/s11192-014-1506-1.

[26]   A. Ab Aziz, "Model Penerimagunaan Sistem Pengurusan Dokumen Dan Rekod Elektronik Dalam Sektor Awam Di Malaysia," Universiti Kebangsaan Malaysia, 2019.

[27]   Nur Ilyana binti Ismarau Tajuddin, "Knowledge Integration Model in Enhancing Performance of Small and Medium Enterprises Through Social Media," UPM, 2019.

[28]   Mohd Zairul, "A thematic review on student-centred learning in the studio education," *J. Crit. Rev.*, vol. 7, no. 2, pp. 504–511, 2020.

[29]   M. A. Hossain, M. Kim, and N. Jahan, "Can 'liking' behavior lead to usage intention on facebook? Uses and gratification theory perspective," *Sustain.*, vol. 11, no. 4, pp. 1–13, 2019, doi: 10.3390/su11041166.

[30]   J. Lee, "Exploring Purchase and Repurchase Behavior in Online Mobile Games : A Preliminary Study," pp. 1–5, 2018.

[31]   R. K. Dzogbenuku, G. K. Amoako, and D. K. Kumi, "Social media and student performance: the moderating role of ICT knowledge," *J. Information, Commun. Ethics Soc.*, vol. 18, no. 2, pp. 197–219, 2020, doi: 10.1108/JICES-08-2019-0092.

[32]   P. Kaur, A. Dhir, S. Chen, A. Malibari, and M. Almotairi, "Why do people purchase virtual goods? A uses and gratification (U&G) theory perspective," *Telematics and Informatics*, vol. 53. 2020, doi: 10.1016/j.tele.2020.101376.

[33]   Y. S. Cheng and Y. C. Liu, "Contrasting the motivations of using social networking sites between western and eastern countries," *J. Internet Technol.*, vol. 20, no. 6, pp. 1973–1983, 2019, doi: 10.3966/160792642019102006026.

[34]   I. C. W. Gogan, Z. Zhang, and E. D. Matemba, "Impacts of gratifications on consumers' emotions and continuance use intention: An empirical study of Weibo in China," *Sustain.*, vol. 10, no. 9, 2018, doi: 10.3390/su10093162.

[35]   J. Hamari and M. Sjöblom, "What is eSports and why do people watch it?," *Internet Res.*, vol. 27, no. 2, pp. 211–232, 2017, doi: 10.1108/IntR-04-2016-0085.

[36]   A. Y. K. Chua, C. Y. Tee, A. Pang, and E. P. Lim, "The retransmission of rumor-related tweets: Characteristics of source and message," in *SMSociety'16*, 2016, pp. 1–10, doi: 10.1145/2930971.2930994.

[37]   I. Kırçova, F. Pınarbaşı, and S.G Kose, "Understanding Ephemeral Social Media Through Instagram Stories: a Marketing Perspective," *Bus. Manag. Stud. An Int. J.*, vol. 8, no. 2, pp. 2173–2192, 2020, doi: 10.15295/bmij.v8i2.1452.

[38]   R. A. Raji, O. A. Arikewuyo, A. S. Oladimeji Adeyemi, and M. R. Pahore, "Unveiling Social Gratifications Sought and Obtained from Social Media Utilization," *J. Messenger*, vol. 12, no. 2, p. 168, 2020, doi: 10.26623/themessenger.v12i2.1818.

[39] S. H. Hsieh and C. T. Lee, "Traces of mobility: Examining location disclosure on social networks with mobile location tagging," *Telemat. Informatics*, vol. 49, no. July 2019, p. 101366, 2020, doi: 10.1016/j.tele.2020.101366.

[40] A. K. M. N. Islam and M. Mäntymäki, "Decomposing social networking site regret : a uses and gratifications approach," vol. 33, no. 1, pp. 83–105, 2020, doi: 10.1108/ITP-04-2018-0184.

[41] C. Gan and H. Li, "Understanding the effects of gratifications on the continuance intention to use WeChat in China: A perspective on uses and gratifications," *Comput. Human Behav.*, vol. 78, pp. 306–315, 2018, doi: 10.1016/j.chb.2017.10.003.

[42] M. A. Hossain, "Effects of uses and gratifications on social media use," *PSU Res. Rev.*, vol. 3, no. 1, pp. 16–28, 2019, doi: 10.1108/prr-07-2018-0023.

[43] D. Chang, "Gratifications associated with Snapchat usage among young people: Uses and gratifications analysis," Iowa State University, 2017.

[44] K.-Y. Lin, "User communication behavior in mobile communication software," *Online Inf. Rev.*, vol. 40, no. 7, pp. 1071–1089, 2016, doi: 10.1016/j.chb.2015.06.005.

[45] Q. Liu, Z. Shao, J. Tang, and W. Fan, "Examining the influential factors for continued social media use: A comparison of social networking and microblogging," *Ind. Manag. Data Syst.*, vol. 119, no. 5, pp. 1104–1127, 2019, doi: 10.1108/IMDS-05-2018-0221.

[46] H. M. Asghar, "Measuring Information Seeking through Facebook: Scale development and initial evidence of Information Seeking in Facebook Scale (ISFS)," *Comput. Human Behav.*, vol. 52, pp. 259–270, 2015, doi: 10.1016/j.chb.2015.06.005.

[47] Amanda Kearney, "Uses and Gratification of Posting Selfies on Social Media," Rochester Institute of Technology, 2018.

[48] I. S. B. C. Ilias, S. Ramli, M. Wook, and N. A. Hasbullah, "Technology Adoption Models: Users' Online Social Media Behavior Towards Visual Information," *Lect. Notes Electr. Eng.*, vol. 724, no. 8, pp. 15–26, 2021, doi: 10.1007/978-981-33-4069-5_2.

[49] J. H. Liu, M. North, and C. Li, "Relationship building through reputation and tribalism on companies' Facebook pages: A uses and gratifications approach," *Internet Res.*, vol. 27, no. 5, pp. 1149–1169, 2017, doi: 10.1108/IntR-03-2016-0078.

[50] H. Bhimani, A. L. Mention, and P. J. Barlatier, "Social media and innovation: A systematic literature review and future research directions," *Technol. Forecast. Soc. Change*, vol. 144, no. October, pp. 251–269, 2019, doi: 10.1016/j.techfore.2018.10.007.

APPENDIX

Databases Reviewed for the Thematic Review

- ACM - https://www.acm.org/ Through its journals, publications, and the proceedings of more than 170 annual conferences and symposia, ACM supports computer research and innovation as a premier global source of scientific information.

- Emerald - https://www.emerald.com/insight/ Emerald is a leading digital publisher, with over 500,000 researchers from over 130 countries/regions, 30 million annual downloads, and 109 million visitors from all over the world.

- Mendeley - https://www.mendeley.com/search/ Mendeley is a company based in London that provides products and services to academic researchers. It is best known for its reference manager, which is used to organise and distribute research materials as well as to generate bibliographies for scholarly articles. It quickly and easily imports papers from other research-based tools.

- Science Direct - https://www.sciencedirect.com/ ScienceDirect is a service that tracks the historical foundations of science, sheds light on new research and ideas, and encourages creative thinking for academic institutions, government organisations, and R&D departments in a variety of businesses. ScienceDirect promotes smarter teaching, learning, and research by allowing users to use intelligent features to explore the depth and breadth of over 24 major subject areas from thousands of Elsevier articles and books.

- Scopus - https://www.scopus.com/ Scopus is a database of peer-reviewed papers that is a component of Elsevier's abstract and citation database. It is well-known for its global focus and coverage of a wide range of topics for its diverse user base.

- SpringerLink - https://link.springer.com/ SpringerLink provides researchers with access to millions of scientific publications from journals, books, series, protocols, reference works, and proceedings.

- Taylor and Francis - https://taylorandfrancis.com/ Taylor & Francis Group is a global publishing company that publishes books and academic journals in collaboration with top authors. They have published in a variety of fields, including the humanities, social sciences, behavioural sciences, science, technology, and medicine. It adds over 2,700 new journals and 5,000 new books to its collection each year.

84

Malaysian Journal of Computer Science. Advances in Applied Science and Technology Research Special Issue 1/2021