

Social Media in the Classroom: A Literature Review

Ni Luh Sakinah Nuraini ^{1,*}, Puri Selfi Cholifah ¹, Arda Purnama Putra ¹, Ence Surahman ², Imam Gunawan ^{3,4}, Dimas Arif Dewantoro ⁵, Arif Prastiawan ³

¹ Department of Primary Teacher Education, Faculty of Education, Universitas Negeri Malang, Malang 65145, Indonesia

² Department of Educational Technology, Faculty of Education, Universitas Negeri Malang, Malang 65145, Indonesia

³ Department of Educational Administration, Faculty of Education, Universitas Negeri Malang, Malang 65145, Indonesia

⁴ Rumah Visi Kepala Sekolah, Malang 65124, Indonesia

⁵ Department of Special Education, Faculty of Education, Universitas Negeri Malang, Malang 65145, Indonesia

* Corresponding author. Email: niluh.sakinah.fip@um.ac.id

Abstract: Social media is online media that supports social interaction. The rapid development of social media is now widely used for communication purposes in various fields, one of which is education. The presence of social media can give freshness to learning with diverse students. Indications of modern education, including all students with different cultures and characteristics. The rapid use of social media in daily life greatly influences the communication patterns carried out in education, especially between teachers and students. For this reason, a study is needed related to the use of social media and its effects on learning. The purpose of this study is to increase the insight of the parties involved in education and can be followed up, such as research to reduce the negative influence of the use of social media in learning.

Keywords: classroom, education, social media, teaching and learning

1. INTRODUCTION

Social media has become an inseparable part of our lives. Social media allows humans to interact with each other without being limited by space and time [1]. Social media removes human boundaries for socializing, space and time constraints. With social media, it is possible for humans to communicate with each other wherever they are and at any time, no matter how far away they are, and no matter day or night [1]–[3].

Social media is an online media where users can easily participate, share and can create content in the form of blogs, social networks, wikis, forums and virtual worlds [4], [5]. Blogs, social networks and wikis are the most common forms of social media used by people throughout the world. Another opinion states that social media is online media that supports social interaction and social media itself uses web-based technology that can turn communication into interactive dialogue [6].

Social networking is a site where anyone can create a personal web page, then connect with friends to share information and communicate [7], [8]. The biggest social networks include Facebook and Twitter [9], [10]. If traditional media uses print and broadcast media, then social media uses the internet. Social media invites anyone

who is interested to participate by contributing and feedback openly, giving comments and sharing information in a fast and unlimited time [10], [11].

As internet and mobile phone technology have advanced, social media has grown rapidly [3]. Now to access Facebook or Twitter for example, it can be done anywhere and anytime using only a mobile phone. So quickly people can access social media resulting in a big phenomenon of information flow not only in developed countries, but also in Indonesia [12]–[14]. Because of the speed with which social media has also begun to appear to replace the role of conventional mass media in spreading the news [15].

The rapid development of social media is now due to everyone like being able to have their own media. If to have traditional media such as television, radio or newspapers, it requires a lot of capital and a lot of labor, then it is different with social media. A social media user can access social media with an internet network without large costs, without expensive tools and is done alone without employees. Social media users can freely edit, add, even modify, both text, images, videos, graphics and various other content models [5].

Social media has a big impact on our lives today. Most of us use social media for various purposes such as business, politics, marketing, and others [2], [16], [17]. The increasing use of social media in various fields is due to the presence of the internet as a communication medium and that is why social media has several advantages. Some of the advantages of social media compared to other communication media include easy access, low cost, fast, interactive, wide reach, and can be accessed in a long time [18]. But, if we are too dependent on social media, either directly or indirectly, not a few losses will be obtained, such as addiction and, it is difficult to get along in the real world. For this reason, we need to be wise in utilizing social media. So that, this media can do the good things, such as simplify our daily life, facilitate learning, find work, send assignments, and find information [3].

Along with the rapid development of information and communication technology, social media is widely used for communication purposes in various fields, one of which is education. It has resulted in the younger generation being able to absorb information, in the context of the learning process, with a very different way from the previous generation [18]. Psychologically, social media can increase or even decrease learning achievement, depending on how it is used [3]. Social media indeed has the potential to reduce learning achievement. The explosion of information, can actually lead to increased apathy of the digital generation, especially in the context of learning achievement. The use of social media without control, will cause students to forget their main tasks at school or college, and choose to enter the virtual world without limits. As a strong point to counteract the negative effects of social media, supervision from parents or teachers is needed [19]–[21].

The rapid use of social media in daily life greatly influences the communication patterns carried out in education, especially between teachers and students. For this reason, a study is needed related to the use of social media and its effects on learning. The purpose of this study is to increase the insight of the parties involved in education and can be followed up, such as research to reduce the negative influence of the use of social media in learning.

2. METHOD

This research uses a qualitative approach with literature review techniques [22]. The focus of the review is on the use and influence of social media in the teaching and learning process that has been carried out in the classroom, both at the elementary, high school and higher education.

3. DISCUSSION

A. The Use of Social Media in Education

The social media has been used widely in educational settings [10], [23], [24]. The use of social

media has transformed classroom, change the interaction between teacher and student [25], [26]. The emerging of social media in classroom activity should be followed by the innovation in learning process [27]–[30].

One form of social media used in learning is the website. Website can be used to communicate interactively by students and teachers or instructors who are more effective in the education and teaching process [31], [32]. This learning can optimize the teaching and learning process because it is no longer bound by time and space. In addition, website-based learning can be used as a provisioning advice and training on ICT utilization. This can maximize the ability of students to grasp, because teaching material is not only limited to text, but can be in the form of images, videos, or other interesting media. For teachers/lecturers/instructors, the use of the website can facilitate monitoring of student learning activities [33]. Moreover, it can be used as a means of developing interactive teaching materials [34].

The next social media is a blog. Blog features that contain document text, images, media and other supporting features can be accessed easily through an internet browser. Generally, a blog contains personal notes or journals. Blogs in learning can be used as interactive media outside the classroom [27]. For example, a teacher at a school can create a blog where the contents of the blog contain teaching material taught by the teacher. Furthermore, students can be invited to access the blog, students are allowed to fill in the comment menu on the blog, so that communication occurs between the teacher and students. On the comments menu, students can write proposals, comments and share about the teaching system in the school, so the school and teachers can improve their performance as expected by students [35], [36]. In addition, the teacher can compile and resume learning material then put it in a blog. This really helps speed up teaching because students don't need to take notes anymore on the board. This can also help improve teacher creativity in presenting teaching materials through blogs, both in terms of content and presentation. With blogs the teacher can learn and improve the ability to make a scientific or written work. This is important because one of the demands for teachers is to produce scientific papers. Blog can also be used as a means of disseminating the results of research, training, workshops and various other scientific activities [37], [38].

Facebook is the most widely used social media in the world. The application, pioneered in 2006 by Mark Zuckerberg, was originally only designed to allow students in the same class to see a list of classmates. But apparently it developed into an extensively network and can be used for various things, including teaching and learning. Facebook can be used as an alternative in controlling and delivering material in distance learning [39], [40]. Some

features on Facebook can be used as a learning medium, including Facebook groups, to create special groups for learning; Facebook quiz, for evaluation of learning through interactive online quizzes; Facebook share, this feature can be used to share material (short posts, links, images, videos, etc.).

Twitter features such as hashtags, replies, retweets can also be used in learning. This is useful to make it easier to classify group discussions between students and teachers. That way, students and teachers can communicate online on more specific topics as desired [41]. It also avoids confusion between personal issues and school issues. The teacher can ask students to listen and make interesting summaries via Twitter. Coupled with the most competition related to hashtags, for example, will be able to increase student motivation [27], [42]. In addition, the teacher can convey important information and tips for students creatively on Twitter [43].

Another form of social media used in the learning process is YouTube. Every day there are millions of people who access YouTube, so YouTube has the potential to be used as a learning medium [44]. The purpose of utilizing YouTube as a learning medium is to create conditions and a learning atmosphere that is interesting, fun and interactive [45], [46]. Learning videos on YouTube can be used for interactive learning in class, both for students and teachers through presentations online and offline. The use of YouTube as a learning media has several advantages, namely *practical* because it is easy to use and can be followed by all groups, including students and teachers; *informative*, able to provide information about the development of education, technology, culture, etc.; *interactive*, facilitating discussion, frequently asked questions and even reviews of learning videos; *shareable*, which is YouTube has HTML link facilities, embed video learning code that can be shared on other social networks such as Facebook, Twitter and also blogs / websites; and *economical*, because YouTube is free for all people.

Practices in segregation Education, specifically are Education for students with disabilities. Learning to use social media is carried out to improve the specific development of students with disabilities. Students are deaf, can add vocabulary by using blogs, building interaction and communication with others. Thus, Language literacy becomes a daily activity. Other practices are applied to students' intellectual disabilities. Accessing videos from YouTube brings students in the world of Education according to their unique development. The use of social media for students with disabilities is better done consciously by schools.

Students will learn better if involved in the learning practices that are being studied. To make this happen, Instagram can be used. Instagram can be a link and share information between students, teachers and even parents

[19], [20]. Teachers can use Instagram to announce homework creatively, share experiences with students in class with the help of pictures and videos related to education [47], [48].

B. The Influence of Social Media in Education

The use of social media in the world of education is now increasing to support learning. This is because social media has the characteristics of learning media such as easily accessible and interactive [25]. There are several positive and negative influences on the use of social media in education.

Social media helps students gain and add new knowledge. Through social media, students can search and explore various kinds of information needed to support the learning process [23]. In addition, social media can also help students to improve their ability to absorb various information available.

Social media helps students get to know and learn technology [35]. Social media was originally born as a result of the development of communication and information technology. The development of technology requires students to get to know and study technology more deeply. This is because students often use technology so that they inevitably have to know and master technology better in order to be able to assist in the next learning process [49].

The presence of communication and information technology in the world of education affects the learning methods applied. Now more and more universities or tutoring using online learning methods or e-learning [27], [50], [51]. This is clearly a new breakthrough to help students in the learning process. The presence of technology is a savior for classes with heterogeneous students. Technology-based learning presents the principle that no one is left behind. Education is considered to be friendly for all students.

Associated with new methods in the learning process, learning through social media gives students full control over learning activities. This is due to the social media-based learning process that is very closely related to the learning process of students independently or commonly known as self-regulated learning [52], [53]. The power that students have over learning activities allows students to manage their own media exposure and messages conveyed through social media.

Social media allows students to interact with each other or interact with teachers or other experts to gain new knowledge or discuss. This can be done anytime and anywhere because various forms of social media can be used on computers or smartphones. Social media in the world of education can help students to form new communities. Social media is used by students in general to make friends with those who have similar thoughts,

hobbies, and interests. This can build new online communities and carry out a variety of positive and beneficial activities [30]. The online community is certainly very useful for students. One of the benefits of online or online communities is exchanging information and expanding networks [25].

Social media has a very big role to develop the skills possessed [54]. As we know, the best talents can be found quickly through social media. For example, a child who can sing very well, record it with video, upload the video to social media, and share the video with his friends and the public can help him be found by leading producers and invite him to record to make an album or invite him to take part in the search event talent.

Social media is available in various forms. This allows students to explore creativity. For example, students who have the ability to write will create a personal blog and deepen their writing skills. As social media, blogs provide space for students or anyone to express their thoughts, views, or opinions about certain issues. Some social media have limited space to write complete words. For example, Twitter, which has no more than 280 characters (since 2017), makes students have to express their ideas by abbreviating words. Often, abbreviations also use mixed languages, English and Indonesian. This certainly can have an impact on students' writing ability related to the words used [43].

Students who actively using social media can reduce their attention to learning material [12]. This is because students are too busy checking the latest status of others and then giving comments. This distracted attention can disrupt the learning process and have an impact on students' ability to concentrate which later leads to a drop in academic achievement [53].

When interacting with other people in cyberspace, there is a lot of information that needs to be questioned. Inaccurate information and its distribution with no responsibility, is one form of ethical violations on social media [55]. The more time spent interacting with others through social media, the less time they have to search for and obtain the truth of information obtained during interactions. The flood of hoaxes on social media is an example of ethical violations in social media [56].

Humans are social creatures and therefore need to socialize and interact with others to survive. Social media exists as a modern communication media that allows students or anyone to interact with others from all over the world [57]. However, the more time spent socializing and interacting in cyberspace makes the less time that is used to socialize and interact with other people in the real world. He will find it difficult to read body language in communication which is always inherent when communicating face to face [2]. As a result, he becomes less able to communicate effectively in face-to-face

communication. Social media allows students to make friends with anyone. Having a large number of friends is fun, but not so if you make friends in cyberspace. Many fake accounts are scattered in cyberspace and this is what students need to be aware of. There are so many cases of introductions in cyberspace that lead to death or other crimes [58]. The fun of looking for friends and chatting makes students become unaware and not careful about the bad possibilities that can happen.

The presence of social media in the universe of communication between people has had a major impact on patterns of communication between people, especially interpersonal communication. In other words, social media influences individual patterns of interaction and this is also an example of the effect of media in individual interactions [58]. Social media is effective in helping shy students to communicate with other students or others. However, this can have an impact on communication skills face to face. If shy students often use social media to interact and express themselves, this can make them feel isolated in the real world and can even increase communication anxiety for fear of meeting other students or people [18].

Something that is excessive certainly will not have a good impact. Likewise, with excessive use of social media. The use of social media without limits and without remembering time can make students become addicted. Being addicted to using social media is one of the negative impacts of social media [14]. One of the activities that can cause addiction is to check social media frequently to find out the latest information or news. This can distract students in the learning process and other activities in the real world. Addiction to social media can also be detrimental to health. Excessive use of social media by students can interfere with student health. Students who access social media continuously regardless of time can cause eye irritation, back pain and can even cause death from sitting in the same position for hours.

The influence of social media in the latest world of education is to become a harassment tool [12]. Besides being able to be used as a learning medium for students, social media is also often abused by students for online harassment or cyberbullying of other students. A survey of two hundred and five students told their experiences with cyberbullying as well as traditional intimidation. Students with disabilities are at special risk to become victims of cyberbullying [59]. Other cases of the use of social media by students with disabilities are negative motivations. Some students with hearing impairments have access to inappropriate websites. Some deaf students do online interaction without filtering online friends. The case of deaf students missing became a serious issue in 2016-2019. The highest case is more than 74% of cyberbullying cases in deaf students on social media. They often get bullying because of communication limitations; verbal and

non-verbal. The cases that occur prove the supporting role of friends, parents and education are needed [60]. Harassment done through social media or done directly can have a very psychological impact on the victim and can even cause death.

4. CONCLUSION

The use of social media in learning activities is now commonly used by teachers when he teaches in class. The various benefits that can be obtained by teachers using social media are: (1) as a means to communicate interactively with teaching staff who are more effective in the education and teaching process; (2) optimizing the teaching and learning process because it is no longer bound by space and time; (3) learning is more interesting, because teachers can use multimedia (pictures, photos, animations, audio, videos) for the enrichment of teaching materials; and (4) accommodate the diversity of students in learning in the technology era. Good use of social media will improve the quality of teacher learning in the classroom.

REFERENCES

- [1] F. Lehner and N. Fteimi, "Organize, Socialize, Benefit: How Social Media Applications Impact Enterprise Success and Performance," in *Proceedings of the 13th International Conference on Knowledge Management and Knowledge Technologies*, New York, NY, USA, 2013, p. 26:1–26:8.
- [2] T. Correa, I. Bachmann, A. W. Hinsley, and H. G. de Zúñiga, "Personality and social media use," in *Organizations and social networking: Utilizing social media to engage consumers*, IGI Global, 2013, pp. 41–61.
- [3] D. L. Hoffman and T. Novak, "Why do people use social media? Empirical findings and a new theoretical framework for social media goal pursuit," *Empir. Find. New Theor. Framew. Soc. Media Goal Purs. January 17 2012*, 2012.
- [4] D. E. Baird and M. Fisher, "Neomillennial user experience design strategies: Utilizing social networking media to support 'always on' learning styles," *J. Educ. Technol. Syst.*, vol. 34, no. 1, pp. 5–32, 2005.
- [5] A. M. Kaplan and M. Haenlein, "Users of the world, unite! The challenges and opportunities of Social Media," *Bus. Horiz.*, vol. 53, no. 1, pp. 59–68, 2010.
- [6] M. Dewing, *Social media: an introduction*, vol. 1. Library of Parliament Ottawa, 2010.
- [7] M. Castells, *Networks of outrage and hope: Social movements in the Internet age*. John Wiley & Sons, 2015.
- [8] T. A. Pempek, Y. A. Yermolayeva, and S. L. Calvert, "College students' social networking experiences on Facebook," *J. Appl. Dev. Psychol.*, vol. 30, no. 3, pp. 227–238, 2009.
- [9] J. C. Cross, T. J. Belich, and W. Rudelius, "How marketing managers use market segmentation: An exploratory study," in *Proceedings of the 1990 Academy of Marketing Science (AMS) Annual Conference*, 2015, pp. 531–536.
- [10] M. Moran, J. Seaman, and H. Tinti-Kane, "Teaching, Learning, and Sharing: How Today's Higher Education Faculty Use Social Media.," *Babson Surv. Res. Group*, 2011.
- [11] M. I. Eid and I. M. Al-Jabri, "Social networking, knowledge sharing, and student learning: The case of university students," *Comput. Educ.*, vol. 99, pp. 14–27, 2016.
- [12] A. B. Samodra and M. Mariani, "Examining the influence of social norms on the intention to use social networking media: A study of generation Z in Indonesia.," *GSTF J. Comput.*, vol. 3, no. 1, 2013.
- [13] E. F. Nisa, "Social media and the birth of an Islamic social movement: ODOJ (One Day One Juz) in contemporary Indonesia," *Indones. Malay World*, vol. 46, no. 134, pp. 24–43, 2018.
- [14] N. Kurniasih, "Internet Addiction, Lifestyle or Mental Disorder? A Phenomenological Study on Social Media Addiction in Indonesia," *KnE Soc. Sci.*, pp. 135–144, 2017.
- [15] M. Lim, "Many clicks but little sticks: Social media activism in Indonesia," *J. Contemp. Asia*, vol. 43, no. 4, pp. 636–657, 2013.
- [16] T. Diehl, B. E. Weeks, and H. Gil de Zuniga, "Political persuasion on social media: Tracing direct and indirect effects of news use and social interaction," *New Media Soc.*, vol. 18, no. 9, pp. 1875–1895, 2016.
- [17] G. F. Khan, *Social media for government*. Springer, 2012.
- [18] R. Cornejo, M. Tentori, and J. Favela, "Enriching in-person encounters through social media: A study on family connectedness for the elderly," *Int. J. Hum.-Comput. Stud.*, vol. 71, no. 9, pp. 889–899, Sep. 2013.
- [19] M. Duggan, A. Lenhart, C. Lampe, and N. B. Ellison, "Parents and social media," *Pew Res. Cent.*, pp. 1–37, 2015.
- [20] D. McCann, R. Bull, and T. Winzenberg, "The daily patterns of time use for parents of children with complex needs: A systematic review," *J. Child Health Care*, vol. 16, no. 1, pp. 26–52, 2012.
- [21] S. Nadler, "Parental Control for Social Networking," Aug-2009.
- [22] J. Jesson, L. Matheson, and F. M. Lacey, *Doing your literature review: Traditional and systematic techniques*. Sage, 2011.
- [23] C. Jackson, "Your students love social media... and so can you.," *Teach. Toler.*, vol. 39, pp. 38–41, 2011.
- [24] A. Gurses, C. Dogar, and K. Gunes, "A new approach for learning: Interactive direct teaching based constructivist learning (IDTBCL)," *Procedia-Soc. Behav. Sci.*, vol. 197, pp. 2384–2389, 2015.
- [25] G. Casey and T. Evans, "Designing for learning: Online social networks as a classroom environment," *Int. Rev. Res. Open Distrib. Learn.*, vol. 12, no. 7, pp. 1–26, 2011.
- [26] M. Poore, *Using social media in the classroom: A best practice guide*. Sage, 2015.
- [27] W. D. Chawinga, "Taking social media to a university classroom: teaching and learning using Twitter and blogs," *Int. J. Educ. Technol. High. Educ.*, vol. 14, no. 1, p. 3, 2017.
- [28] M.-F. G. Lin, E. S. Hoffman, and C. Borengasser, "Is social media too social for class? A case study of Twitter use," *TechTrends*, vol. 57, no. 2, pp. 39–45, 2013.
- [29] J. Gikas and M. M. Grant, "Mobile computing devices in higher education: Student perspectives on learning with cellphones, smartphones & social media," *Internet High. Educ.*, vol. 19, pp. 18–26, 2013.
- [30] A. Wallace, "Social learning platforms and the flipped classroom," in *2013 Second International Conference on*

- E-Learning and E-Technologies in Education (ICEEE)*, 2013, pp. 198–200.
- [31] B. Lin and C. Hsieh, “Web-based teaching and learner control: A research review,” *Comput. Educ.*, vol. 37, no. 3–4, pp. 377–386, 2001.
- [32] L. Luo, “Web 2.0 integration in information literacy instruction: An overview,” *J. Acad. Librariansh.*, vol. 36, no. 1, pp. 32–40, 2010.
- [33] P. B. GovindAarajan and A. R. Krishnan, “A Study on Influence of Web Quality and Self Efficacy on Massive Open Online Courses (MOOCs) Technology Adoption by Extending the Utaut Model with Reference to Student MOOC Users,” *Shanlax Int. J. Manag.*, vol. 7, no. 2, pp. 47–53, Oct. 2019.
- [34] J. Radford, P. Bosanquet, R. Webster, and P. Blatchford, “Scaffolding learning for independence: Clarifying teacher and teaching assistant roles for children with special educational needs,” *Learn. Instr.*, vol. 36, pp. 1–10, 2015.
- [35] W. D. Haddad and A. Draxler, “Technologies for education: Potential, parameters, and prospects,” 2002.
- [36] D. Zhang, “The application of blog in English writing,” 2009.
- [37] F. J. García-Peñalvo, C. García de Figuerola, and J. A. Merlo, “Open knowledge: Challenges and facts,” *Online Inf. Rev.*, vol. 34, no. 4, pp. 520–539, 2010.
- [38] V. Colson, “Science blogs as competing channels for the dissemination of science news,” *Journalism*, vol. 12, no. 7, pp. 889–902, 2011.
- [39] A. M. Fewkes and M. McCabe, “Facebook: Learning tool or distraction?,” *J. Digit. Learn. Teach. Educ.*, vol. 28, no. 3, pp. 92–98, 2012.
- [40] P. A. Kirschner, “Facebook as learning platform: Argumentation superhighway or dead-end street?,” *Comput. Hum. Behav.*, vol. 53, pp. 621–625, 2015.
- [41] D. Davidov, O. Tsur, and A. Rappoport, “Enhanced sentiment learning using twitter hashtags and smileys,” in *Proceedings of the 23rd international conference on computational linguistics: posters*, 2010, pp. 241–249.
- [42] M. Pennacchiotti and A.-M. Popescu, “A machine learning approach to twitter user classification,” in *Fifth International AAAI Conference on Weblogs and Social Media*, 2011.
- [43] S. B. Rinaldo, S. Tapp, and D. A. Laverie, “Learning by tweeting: Using Twitter as a pedagogical tool,” *J. Mark. Educ.*, vol. 33, no. 2, pp. 193–203, 2011.
- [44] C. Orús, M. J. Barlés, D. Belanche, L. Casaló, E. Fraj, and R. Gurrea, “The effects of learner-generated videos for YouTube on learning outcomes and satisfaction,” *Comput. Educ.*, vol. 95, pp. 254–269, 2016.
- [45] O. Dreon, R. M. Kerper, and J. Landis, “Digital storytelling: A tool for teaching and learning in the YouTube generation,” *Middle Sch. J.*, vol. 42, no. 5, pp. 4–10, 2011.
- [46] D. Y. Lee and M. R. Lehto, “User acceptance of YouTube for procedural learning: An extension of the Technology Acceptance Model,” *Comput. Educ.*, vol. 61, pp. 193–208, 2013.
- [47] A. D. Purnama, “Incorporating memes and instagram to enhance student’s participation,” *LLT J. J. Lang. Lang. Teach.*, vol. 20, no. 1, pp. 1–14, 2017.
- [48] D. Salomon, “Moving on from Facebook: Using Instagram to connect with undergraduates and engage in teaching and learning,” *Coll. Res. Libr. News*, vol. 74, no. 8, pp. 408–412, 2013.
- [49] W. Admiraal *et al.*, “Teachers in school-based technology innovations: A typology of their beliefs on teaching and technology,” *Comput. Educ.*, vol. 114, pp. 57–68, Nov. 2017.
- [50] T. E. Bosch, “Using online social networking for teaching and learning: Facebook use at the University of Cape Town,” *Commun. South Afr. J. Commun. Theory Res.*, vol. 35, no. 2, pp. 185–200, 2009.
- [51] C. Irwin, L. Ball, B. Desbrow, and M. Leveritt, “Students’ perceptions of using Facebook as an interactive learning resource at university,” *Australas. J. Educ. Technol.*, vol. 28, no. 7, 2012.
- [52] J. Broadbent and W. L. Poon, “Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review,” *Internet High. Educ.*, vol. 27, pp. 1–13, 2015.
- [53] M.-H. Cho and M. L. Heron, “Self-regulated learning: the role of motivation, emotion, and use of learning strategies in students’ learning experiences in a self-paced online mathematics course,” *Distance Educ.*, vol. 36, no. 1, pp. 80–99, 2015.
- [54] B. Trilling and C. Fadel, *21st century skills: learning for life in our times*. John Wiley & Sons, 2009.
- [55] B. Davies, “Bullies as Guardians of the Moral Order or an Ethic of Truths?,” *Child. Soc.*, vol. 25, no. 4, pp. 278–286, 2011.
- [56] J. Arthur and D. Carr, “Character in learning for life: a virtue-ethical rationale for recent research on moral and values education,” *J. Beliefs Values*, vol. 34, no. 1, pp. 26–35, 2013.
- [57] M. H. Bakker, M. van Bommel, J. H. Kerstholt, and E. Giebels, “The influence of accountability for the crisis and type of crisis communication on people’s behavior, feelings and relationship with the government,” *Public Relat. Rev.*, vol. 44, no. 2, pp. 277–286, 2018.
- [58] J. A. DeVito and J. DeVito, “The interpersonal communication book,” 2007.
- [59] R. M. Kowalski, C. A. Morgan, K. Drake-Lavelle, and B. Allison, “Cyberbullying among college students with disabilities,” *Comput. Human Behav.*, vol. 57, pp. 416–427
- [60] S. Caton and M. Chapman, “The use of social media and people with intellectual disability: A systematic review and thematic analysis,” *J. Intellect. Dev. Disabil.*, vol. 41, no. 2, pp. 125–139, 2016.