Defining the elements of the communication paradigm in higher education under the influence of social media: Literature review

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Abstract

Although social media provide many opportunities to improve teaching processes, and today's students do not know the world without them, there is still a trend of non-adaptation of new technologies in higher education institutions. The existing communication paradigm of social media is multidimensional, and thus complex and covers a wide theoretical and practical area. The main objective of this paper, based on the literature overview, is the conceptual foundation of social media and their main characteristics; to determine general elements of the existing communication paradigm in higher education under the influence of social media, and to identify gaps which can serve as an impetus for future research aimed at a holistic approach to changing the communication paradigm in higher education under the influence of social media.

Keywords: communication paradigm; social media; higher education; students

1. Introduction

Social media today are an unavoidable part of everyday life, and the networking of individuals and new ways of communication and interaction have reached the academic world as well. At the same time, as practice and previous research show, although social media provide many opportunities to improve teaching processes, and today's students are not only willing to use them, but they do not know the world without them, there is still a trend towards non-adaptation of new technologies in higher education institutions. In the literature, social media are most often approached by considering individual elements, while this paper aims to summarize the elements that form a communication paradigm in higher education under the influence of social media. Namely, the assumptions and determinants of the existing communication paradigm of social media are multidimensional, and thus complex and cover a wide theoretical and practical area. The main objective of this paper, based on an overview of the most significant and recent literature, is the conceptual foundation of social media and their main characteristics; to determine general elements of the existing communication paradigm in higher education under the influence of social media, and to identify gaps which can serve as an impetus for future research aimed at a holistic approach to changing the communication paradigm in higher education under the influence of social media.

The review consists of three main parts: the first part of this paper provides an etymological and conceptual presentation of social media, their main characteristics, emphasizing and deriving communication and interaction as two key characteristics of social media.

The second part provides a summarized theoretical foundation of the main elements of the existing communication paradigm in higher education under the influence of social media, as reviews circumstances and factors that concerns the higher education institutions, summarizing the legal, professional and moral questions that remain open, while examining advantages and disadvantages of using social media in higher education, the various purposes of use and possible areas of application, and models of integration of social media in higher education.

The review ends with a critical discussion of the implications of an additional and unexpected global (educational) challenge in the form of the crisis caused by the Covid-19 pandemic,

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which has demonstrated that a change in the educational paradigm is required: from a classical paradigm, which is gradually becoming the past, into a progressive paradigm, focused on the future.

2. Social media analysis: Communication and interaction as key characteristics

Although "social media technology is complex, reminiscent of Winston Churchill's 1939 radio address regarding the actions of Russia; she is like 'a riddle, wrapped in a mystery, inside an enigma' that is continuously being investigated and briefly understood before it changes once more" (Davis III et al., 2012, p. 1), social media are online services that allow the average user to collaborate with others online, and their popularity is largely based on the fact that they do not require a high level of IT knowledge. The main features of social media are the ability of users to present themselves to the public, by publishing information about themselves, their work, or other people's work that the user likes, and from these facts arise terms that are described as: "interactive information sharing", "interoperability", "user-oriented design" (Radovan, 2014). "They are available 24 hours a day, 7 days a week via a range of devices and from different locations, and therefore depend only on the availability of the Internet and the will of their users" (Babić, 2021).

The number of active Internet users and social media is constantly and dramatically increasing, so, for example, in January 2021, the number of active Internet users reached 4.66 billion (Statista, 2021a), which is about 59% of the total world population, i.e. 7.87 billion (Worldometer, 2021). Social media used 4.2 billion of that (Statista, 2021a), which is 53% of the world's population. For comparison, Regan (2015) states that, in 2015, the number of active Internet users was 3.175 billion, which was about 43% of the total world population (7.357 billion). Social media was used by 2.206 billion of those, which was 30% of the world's population (Regan, 2015).

Statistical data show that, in 2021, there are 56.63% of active social media users in the Republic of Croatia (Statista, 2021b), while in 2020 there were 51% of active social media users in the Republic of Croatia that log into social media services at least once a month (Statista, 2021c).

The complex term "social media" can be divided into its two components, "social" and "media". The "social" part refers to the activities performed among people, while the "media" refers to the Internet tools and technologies used to perform such activities (NgaiMoon et al., 2015).

There are two basic types of social media, says Brautović (2011, p. 15): social media for the exchange of articles, videos, bookmarks, and photographs, for example, Wikipedia (articles), YouTube (video), Del.icio.us (bookmarks), Flickr (photos), and social media for networking or social networks, for example, Facebook, LinkedIn, etc.

Due to the conceptual ambiguity in publications, the term social media, especially in the Croatian language, is often understood as a synonym for the term social networks, while, in fact, social networks refer to only one of the currently known thirteen subtypes of social media (Aichner, Jacob, 2015, p. 258). The most concise, yet currently the most detailed conceptual definition, was proposed by Aichner and Jacob (2015, p. 258), taking into account that social media are web-based applications and interactive platforms that facilitate the creation, discussion, modification, and sharing of user-created content (Kaplan, Haenlein, 2010; Kietzmann et al., 2011), and are therefore not limited to social networks like Facebook because, in addition to social networks, they include "blogs, business networks, collaborative projects, enterprise social networks, forums, microblogs, photo sharing, product/services reviews, social bookmarking, social gaming, video sharing and virtual worlds" (Aichner, Jacob, 2015, p. 258).

In this paper, social media are reviewed with an emphasis on possibilities of use in higher education institutions, and, in more detail, from the point of view of communication possibilities.

3. Communication paradigm in higher education and social media

In modern society, in which social media is rapidly evolving, the task that is sought to be achieved by defining the communication paradigm in higher education through social media is to include complex communication processes concerning those who create and

manage the communication process (Lasswell's "who") or "management analysis" and persons who are within the reach of social media (Lasswell's "to whom") or "analysis of the recipient, audience", i.e. users, but unlike Lasswell's paradigm, according to which "the relationship between 'who' and 'to whom' is the relationship of the sender and recipient of the message, the relationship between the one who dominates and the one who submits to it, the expert and the non-expert, and the recipient is taken almost as an unfilled space, which is filled with the forms attached to him" (Lasswell, 1948, as cited in Martinić, 1985, p. 130). In the communication process in higher education by means of social media, it is important to emphasize that recipients or students, in "student-centered education", in addition to encompassing teaching methods that shift the focus of teacher-to-student teaching, aims to develop student autonomy and independence (Jones, 2007), they can no longer be viewed as "unfilled space" and as passive actors, nor as non-experts in a digital environment and those who are subordinate in the communication act; properties of social media (Lasswell's "through which channel") or "media analysis", as presented in the previous paragraph and finally, elements of the information set (Lasswell's "what") or "content analysis" and a consequence of the communication process (Lasswell's "with what effect") or "performance analysis" (Lasswell, 1948, as cited in Martinić, 1985, p. 131), which pose the greatest challenge to the concept of modern education.

From the all mentioned above, it is obvious that there are several elements of the communication paradigm in higher education under the influence of social media that can be the focus of the research area. The efficiency of the communication process in higher education through social media should be determined by "rational judgment which correlates goals and values", taking into account that there are "multiple factors of effective communication, from media opportunities to human abilities" (Lasswell, 1948, as cited in Martinić, 1985, p. 132).

3.1. The relationship between social media and higher education: from weaknesses to strengths

Social media have influenced, and continue to influence, society, globalization, the economy, politics, so science and education are no exceptions. Social media platforms, such as Facebook, Twitter, or LinkedIn, have the potential to become "disruptive technologies"

(Christensen 1997, p. 3; Mutula, 2013, p. 30), but Fleck (2007, p. 415) notes, however, that ICT applications to date have encouraged the development of e-learning more as support mechanisms and unobtrusive technologies.

As Okello-Obura and Ssekitto (2015, p. 1) point out, these technologies encourage a more flexible approach to learning that takes place across different "touch points", i.e. classrooms, off-campus, in the workplace, and almost anywhere with Internet access. Such a "blended" approach to learning first occurred within the field of lifelong learning in colleges, and globally, many academics accept the use of web 2.0 technologies in teaching and learning (Okello-Obura, Ssekitto, 2015, p. 1). The rapid breakthrough and use of these technology platforms have also been driven by the increase in (financially) available smartphones (Mutula, 2013, p. 31).

3.2. Social media and divide between students and their educational institutions

Social media are an example of technologies that have been widely adopted by students, and consequently, have the potential of becoming valuable resources for supporting educational communication and student collaboration with faculty (Arsović, 2012, p. 378). However, numerous studies point to the digital divide between students and their educational institutions, and the existence of a trend towards non-adaptation of new technologies in higher education institutions; students are willing to use them, and faculty employees are not (Roblyer et al., 2010, p. 138).

Social media tools and applications challenge the concept of formal education as we know it today (Selwyn, 2011). So what frameworks do we need to make learning meaningful in our world of constant change? Thomas and Seely Brown (2011) argue that a new learning culture contains two elements. The first is a massive information network that provides almost unlimited access and resources to learn about anything. The second is a limited and structured environment that allows for unlimited creation and experimentation with things within those boundaries. The reason we have failed to accept these notions is that none of them alone enables effective learning. It is the combination of the two and the interconnectedness that makes the new culture of learning so strong (Thomas, Seely Brown, 2011).

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3.3. The concerns of higher education institutions: Supervision and regulation of social media usage in higher education

The concerns of higher education institutions, in addition to the already mentioned possible negative impacts of social media, are based on the following possible circumstances (Reuben, 2008), which concern the supervision of the use of social media for higher education purposes:

• Loss of control - social media allows enrolled students to share their faculty experiences, thereby directly influencing the attraction and enrollment of prospective students, such as through blogging (Johnson, 2007 as cited in Reuben, 2008, p. 7). Opening up the ability to write comments to allow for two-way dialogue is a perfect example of a loss of control (Reuben, 2008, p. 7). Internet content can no longer be removed – "it is fully integrated into all elements of business and society" (Li, Bernoff, 2008, p. 7), so it is possible to collect negative comments or feedback. Still, most of these tools bring more benefits than harm. They can help remove misconceptions and promote desired, true, positive feedback, which is invaluable to potential students (Reuben, 2008, p. 8). Users of social networks have three times more confidence in the opinion of their peers about advertising when making decisions (Juniper Research, 2007, as cited in Reuben, 2008, p. 8).

• Time commitment - many professionals in higher education deal with the workload, perform multiple roles. Dealing with social media can also be time-intensive. It is important to update your site at least once a week to be able to moderate comments daily. This usually requires spending 1-10 hours per week if social media is used as part of a marketing strategy (Reuben, 2008, p. 8).

• Information overload - due to the emergence of many new social media applications, it is easily possible to feel overwhelmed when trying to keep up with "traditional media", such as email, print publications, and instant messaging (Reuben, 2008, p. 8).Anyone can create a (fake) "official" account for a higher education institution - if there is no official profile of the higher education institution yet, it is advisable to create it in order to at least reserve the name of the higher education institution on those tools that it is not yet ready to use. If they do not reserve their name, someone else may do it for them (Reuben, 2008, p. 9).

It is shown in practice, as well as in research (Willems, Adachi, Grevtseva, 2016; Willems et al., 2018), that the field of social media in higher education is difficult to control in legal, professional, or moral terms. From the point of view of higher education institutions, changes in the use of technology can cause a disturbance of the status quo, and "social media itself viewed as a disruptive technology as it is being increasingly used", thus becoming the dominant technology (Flavin, 2012, as cited in Willems et al., 2016, p. 648). "Social media governance requires institutional policies, defined as 'formal laws, regulations, rules, and guidelines that govern institutions'" (Johnson et al., 2016, as cited in Willems et al., 2016, p. 648). These policies, in turn, can promote and accelerate the adoption and use of certain learning technologies (Johnson et al., 2016, as cited in Willems et al., 2016, p. 648) or block them (Willems et al., 2016, p. 648). It is also possible that existing institutional policies and procedures may be contradictory, as they promote one aspect of the use of social media, but discourage others because they arose before the existence and strengthening of these technologies or did not take them with due consideration, which confuses the interpretation of governing policies in different contexts or "institutional policy may be clear, but users can willfully or accidentally overlook them" (Willems et al., 2016, p. 648).

Higher education institutions generally do not have defined and established clear and easily understandable policies for the use of social media, according to which the use of social media for the needs of higher education could be managed. Therefore, even in cases where teachers have accepted the use of social media for pedagogical purposes, for their professional development or the development of media literacy or the institution itself, use of social media to build digital recognition and identity, questions such as the following remain open:

1. How can higher education institutions maintain control over commercially based technologies?

2. How can they protect themselves from litigation?

3. How can they protect their students' privacy violations?

4. How can they manage new technologies when they cannot predict their consequences?

5. How can they finance the necessary change management related to the introduction of new technology? (Stahl, Sharplin, Kehrwald, 2016, as cited in Willems et al., 2018, p. 140).

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Academic policies should be clear and direct so as not to be an additional barrier to the use of social media in higher education and support the development of ways to help nurture the benefits of using social media for higher education, rather than supporting and potentially discouraging the use of social media for the needs of higher education (Willems et al., 2018, p. 145).

3.4. Advantages and disadvantages of using social media in higher education

Social media have made the world a smaller place, summed up Raut, Patil (2016, p. 283); now people have more information, more knowledge, and more opportunities to use them. They have improved the ability to absorb information, which would have been too much for people to master just 20 years ago, and have made it extremely easy to process, and in addition to facilitating our education and business, talents are discovered faster (Raut, Patil, 2016, p. 284).

One of the primary negative influences of social media is addiction and constant checking of news on social media, which can have a negative impact on other activities related to studying, but also (not) playing sports, live communication and ignoring real life (Raut, Patil, 2016, p. 284).

Therefore, it is equally important to take into account the advantages and disadvantages of using social media in higher education, which are, for this paper, summarized in Table 1. The challenge is to find a way to connect the structure of the transfer of existing knowledge and to master the enumerated disadvantages, but also take advantage of the stated benefits of social media usage for higher education purposes to support the freedom to create new knowledge.

Table 1. Advantages and disadvantages of using social media in higher education (source: adapted according to Grosseck, 2009, p. 480; Mabić, 2014, p. 375; Raut, Patil, 2016, p. 284)

ADVANTAGES	DISADVANTAGES
• Free access (to some social media)	• Loss of control
• Cost reduction	• Lack of credibility
• Flexibility in terms of technology selection	• Privacy issues (lack of privacy)
• Optional access	• Existence of false identities
• Easier and faster access to information, when and where needed	• Developing addiction
• Possibility of various integration in learning and teaching activities	• Electronic violence
• Ability to control access through user authentication	• Stalking
• Sharing ideas, experiences, and resources	• Identity theft
• Independence from the individual platform (e.g. computers, availability already with Internet access and browser)	• Neglecting direct communication and interaction (face-to-face)
• Compatibility with areas of education	• Internet connection required (especially broadband connection)
• Low level of complexity of use (minimum skills required)	• Hiding behind technologies and concepts that have not yet been sufficiently defined/researched
• Reliability in continuous use over a long period	• Offer of open source information with very unclear meaning and quality
• Less time required to search and manage information	• Leading to the low-quality of actual content
• Less effort required to search and manage information	• Promoting the amateur, user-generated content
• Increasing the way of learning due to the diversity of new technologies	• Giving everyone a chance to complain, thus creating a community without rules
• Ability to test existing teaching models	• Monetarily quantified (everything becomes "business" and "numbers")
Focus on innovation in learning, not on the technology itself	• Becoming a type of used web or medium for people with a low level of digital skills
• Ability to create digital content	• Limited security
• Marketing and advertising	• The program speed is incomparably lower than the desktop program speed
• Recruitment of new students	• Content that means nothing in itself, electronic "waste"
• Maintaining existing contacts and connections	• The extremely diverse offer of social media that can be used only makes it difficult to choose
• Acquisition of IT education	• Time and knowledge spent on use
• Ability to make new acquaintances	• Lack of systematic education on use
• Tracking current topics	• Scientific communication becomes (too) informal
• Supporting existing or new business	• Decreasing social skills
• Sharing photos and videos	• Encouraging negative behaviors such as immorality and laziness
• Strengthening motivation through interaction with other users	• Pedagogical expectations are reduced instead of the other way around
• Strengthening self-confidence through interaction with other users	• Negatively affecting health (e.g. diseases of the spine, eyes...)
• Strengthening ties with the wider local community	• Increasing the generation gap
• Strengthening links with people around the world/international community	
• Rapid feedback	

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3.5. Purposeful use of social media in higher education

A wide range of social media tools allows many purposeful uses, and in addition, their range is constantly increasing and generating new uses. To use the advantages of social media for the needs of higher education, some possible purposes are listed in Table 2.

Table 2. The purpose of using social media in higher education (source: prepared by the author, 2020)

PURPOSE OF USE AND AREAS OF APPLICATION OF SOCIAL MEDIA IN HIGHER EDUCATION
GENERAL INFORMATION
• General information.
• Updating upcoming and past events.
• Real-time monitoring of events.
• Sharing presentations about special events.
• Sharing information related to studies.
ORGANIZATION
• Organization of meetings.
• Organization of events.
• Personal organization of students and staff of higher education institutions.
• For class schedule.
MARKETING
• Attracting new students.
• Promoting higher education.
• Promoting quality and excellence.
TEACHING
• Presentation of teaching contents.
• Informing students about courses.
• Informing students about teaching literature.
• Informing students about exams.
RESEARCH WORK
• Research purposes.
• Finding sources and references.
• Publishing a journal.
• In libraries for publishing papers, increasing visibility, tracking metrics.
• Publication of professional or scientific papers with students.
• Publication of professional or scientific papers independently or with fellow teachers.
• For conferences or as part of presentations.

PROJECT WORK

• Facilitating project work.

• Encouraging work on projects.

• For workshops.

STUDENT SUPPORT

• Providing support to students outside of studies.

• Counseling on the personal development of students.

• Workshops on financial aid and scholarships.

• Support to retain students.

• Increasing student satisfaction.

LEARNING ASSISTANCE

• Encouraging active learning.

• Respect for different talents and ways of learning.

• Workshops on easier learning.

• Mental mapping workshops.

• Improving knowledge and skills in areas such as science, technology, literacy, environment, humanities, STEAM, and other teaching areas and topics.

• Inspiring writing and creativity.

• Merging social media applications.

COMMUNITY BUILDING

• Increasing student attention.

• Encouraging links between students and higher education institutions.

• Improving communication between higher education institutions and students.

• Providing feedback in all directions.

• Building and strengthening community on campus.

• Creating and maintaining personal learning environments, etc.

• Increasing the sense of belonging of students studying online.

CREATING CONNECTIONS WITH THE WIDER COMMUNITY

• Supporting an event, supporting the team and the community.

• Encouraging students to participate in community activities.

• Praising student achievement and success.

• Praising teacher achievement.

MAINTAINING CONNECTIONS WITH ALUMNI

• Maintaining connections with alumni.

• Connecting enrolled students with alumni.

PROFESSIONAL ORIENTATION

• Informing students about practice.

• Sharing materials for professional development.

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3.6. Models of social media integration in higher education

The research conducted on the attitudes and experiences of social media integration in higher education institutions (Echeng, Usoro, Ewuzie, 2016; Josefsson, 2017) shows a need to integrate social media into the teaching process (Okello-Obura, Ssekitto, 2015, p. 2) and numerous benefits and positive effects on the learning and teaching process (Alsolamy., 2017, p. 170; Coleman, Petitt, Buning, 2018, p. 421), such as the quality of teaching (Silvestru, Lupescu, Draistaru, 2016, p. 79) and the academic success of students (Tamayo, Cruz, 2014, p. 9). While students perceive social media as something self-understandable, teachers and experts are more inclined to think about their flaws and dangers (Raut, Patil, 2016, p. 283; Willems et al., 2018, p. 140).

The social media cluster also allows, in addition to universities and teachers, students to participate in discussions, collaboration, research, creation, discovery, and design. Depending on the type of social media, the possibilities of integrating social media into higher education are numerous and multiple (Table 3).

Table 3. Models of social media integration in higher education by types of social media (source: prepared by the author, adapted according to Grosseck, 2009, p. 479; Cobbs, 2008, p. 27)

SOCIAL MEDIA AND THEIR POSSIBLE EDUCATIONAL APPLICATION
BLOGS
• Using blogs to experience writing about the real world.
• Grouping a class of blogs into one common area for easier tracking.
• Providing quick feedback to students as well as students to each other.
• Using peer networks by students to develop their knowledge.
• With comments in blogs, teachers can encourage students to help each other write and get answers to questions without getting the same answer twenty times, etc.
PHOTO SHARING
• Sharing, commenting, and adding notes to photos or pictures to use in the classroom.
• Inspiring writing and creativity; creating a presentation using photos.
• Finding photos of areas and events around the world using classroom tags.
• Setting up student presentations to an authentic audience and getting feedback from around the world.
• Sharing materials for professional development and access anywhere and at any time; sharing presentations on special events.
VIDEO SHARING
• For professional video development on your terms; creating videos with students.
• Using video sharing sites, finding videos about current issues, etc.
• Updating events, monitoring events in real-time.

SOCIAL GAMING

• Using for classroom debates and discussions.

• Improving knowledge and skills in areas such as science, technology, literacy, environment, humanities, STEAM, and other teaching areas and topics.

SOCIAL BOOKMARKING

• For project management.

• For evaluating opinions.

• For conferences or as part of presentations or workshops.

• For reference or research.

SOCIAL NETWORKING

• Supporting an event, supporting the team and the community.

• Merging social media applications.

• Creating and maintaining personal learning environments, etc.

ENTERPRISE SOCIAL NETWORKS

• Using as a presentation tool (as e-portfolios).

• Managing higher education institutions and classroom documents.

• Using as collaborative material for students; writing: books and magazines created for students.

• Creating and maintaining student frequently asked questions (FAQs).

• Updating new information, such as homework and assignments.

• A place to consolidate web resources; support committees, working groups, and university projects, etc.

FORUMS

• For professional development, time-saving; updated teaching area information.

• For information coming from restrictive sources; sharing work with other teachers.

• Reducing email congestion.

• Keeping specific websites current and relevant, etc.

MICROBLOGS

• Creating a classroom community.

• Researching collaborative writing.

• For reader responses.

• Collaborating with other higher education institutions, states, metacognition platforms...

• Creating a learning experience.

• Creating a network for personal learning.

• Disseminating teacher publications and materials.

• Finding original ideas, quotes.

• Providing very focused and concrete feedback to students to refine their thinking and improve their skills.

Informal researching.

• Storytelling (Storytelling).

• Feedback on ideas, building trust, building community, etc.

BUSINESS NETWORKING
• Professional development.
• Monitoring of professionals and companies.
• Nurturing professional relationships.
COLLABORATIVE PROJECTS
• For student projects.
• Collaborating on ideas.
• Organizing documents and resources from individuals and groups of students.
• As a group research project for a specific idea.
VIRTUAL WORLDS
• For virtual conferences and seminars.
• Team meetings and collaboration spaces.
• Simulations.
• Facilitating virtual classroom discussion, etc.
OTHER SOCIAL MEDIA TOOLS
• Instant messaging increases the sense of togetherness and accessibility needed for collaborative learning.
• Voice communication using Internet Protocol (VoIP) helps promote international cooperation and understanding.
• Calendars recording calendar events, homework.
• Surveys and questionnaires, network diagrams and web processors for word processing, online spreadsheets, social search, making mental maps.
• Everything users want is available not only on computers and tablets, but also on mobile devices connected to the Internet.

4. An additional and unexpected global challenge: What has the crisis caused by the Covid-19 pandemic taught us about teaching?

The year 2020 brought new challenges to all of humanity, the global economy, but also to all of the education, which only a few months ago no one could have even imagined. As the virus called Covid-19 or the coronavirus SARS-CoV-2 spread around the world, higher education institutions were faced with a great challenge: how to continue teaching if face-to-face lectures are banned according to the instructions of the government and civil protection headquarters? Many higher education institutions were not ready for this challenge, especially in the beginning, and these institutions faced a test of their functioning, following the ominous prediction of Drucker (1997, p. 127): "Thirty years from now the big university campuses will be relics… The college won't survive as a residential institution. Today's buildings are hopelessly unsuited and totally unneeded". Other higher education

institutions were somewhat more prepared and started, immediately or soon after closing, with online teaching as a short-term solution. In particular, teachers, as leaders of online teaching, had to make additional efforts to become acquainted (in more detail) with technology and use new digital tools through which a particular university conducted teaching (screen sharing, presentations, chat, surveys, even online exams, etc.), mainly with the help of technical support.

One of the challenges in the implementation of distant online teaching proved to be the approach of some higher education institutions or teachers in the way of delivering teaching materials to students, where they are left to their own ability to master the curriculum and where little attention was paid to that the "art of teaching is the art of assisting discovery" (Van Doren, 1943, p. 173). Social media tools, however, have largely served as tools for many teachers as inductive methods, through which students create, research or discover important ideas through interaction with specific materials or other data sources and their peers, which at the same time creates a stark contrast to direct teaching or mere delivery of teaching materials, which need to be mastered independently.

Adaptation to the newly created emergency is thus marked by the use of (digital) interactive tools, most often social media, through which the almost hopeless situation turned into a surmountable one. In addition to the fear of endangerment and the consequent uncertainty, social isolation and distancing of people, which also negatively affect human mental health, were mitigated by these digital tools that enabled at least partial functioning of life.

However, for example, the research "How we are - life in Croatia in the age of corona" showed that online teaching was a source of great stress (Jokić-Begić, 2020); there were many challenges, and apart from working from home, and losing the clear boundaries between business and private life, most of them were related to everything mentioned thus far in this paper. Therefore, a fundamental question arises: would the stress caused by online teaching and the use of new digital tools be much milder if the adaptation to the digital environment had started earlier and before it became a kind of necessity and "coercion"?

5. Conclusion

Networking of individuals in the modern world is a new way of communicating, and social media allows them to do so. Their penetration and integration into higher education are inevitable, where social media have not yet shown all their possibilities and potentials. Yet, there is no universal view on the integration and use of social media for the needs of higher education and the jury has not yet reached the verdict; "the jury is still out" (Tess, 2013, p. A66). Although we may have an optimistic attitude towards new technologies and social media and perceive their impact as something that enriches and facilitates our lives, allows us greater freedom of thought and expression, greater solidarity and connection at all levels, or have a more pessimistic view of their impact with a focus on the increase of "alienation" among people, the weakening of "real" interpersonal relationships, a lot of unverified information and electronic violence, the fear that there is no oblivion on the Internet, what we certainly cannot do is to ignore the changes that have taken place, and yet continue to take place, under their influence in whatever way we experience them.

The changes in society that have occurred with the advent of social media also require a change in the educational and scientific paradigm from a classical paradigm, which is gradually becoming the past, into a progressive paradigm focused on the future.

The existing communication paradigm of social media is multidimensional, and thus complex and covers a wide theoretical and practical area. The main objective of this paper, based on the literature overview, was to clarify the conceptual foundation of social media and their main characteristics. The second was to determine the general elements of the existing communication paradigm in higher education under the influence of social media, and to identify gaps formed under the influence of changes in society that have occurred with the advent of social media that require a change in the educational and scientific paradigm from a classical paradigm, which is gradually becoming the past, into a progressive paradigm focused on the future.

5.1. Challenges and limitations of this study

This paper presents an overview of theory and previous research to establish the main elements of the communication paradigm in higher education under the influence of social media, which should serve as a theoretical basis for future research.

Therefore, the scientific contribution of this paper is the cognitive foundation of the term social media, the identification in the most concise, yet most detailed way possible, the advantages and disadvantages of the current communication paradigm in higher education under the influence of social media and revelation of the anomalies and crises in the existing paradigm.

The establishment of the term social media was challenging because a review of the literature established an insufficiently clear theoretical definition of the term. The term social media, especially in the Croatian language, is often understood as synonymous with the term social networks, so it has been exposed – to ensure additional precision and reliability – that social networks refer to only one of the currently known thirteen subtypes of social media.

Previous research is mainly focused on individual elements of the communication paradigm in higher education under the influence of social media, so the author summarized their results and achievements and adjusted them to define the elements of the communication paradigm according to Lasswell (1948) and Martinić (1985). Then, according to the main elements of the communication paradigm, weaknesses and omissions were exposed, as well as the possibilities, opportunities, and strengths of using social media for the needs of higher education. Additionally, a sudden and unexpected educational challenge prompted by the Covid-19 pandemic was elaborated.

5.2. Recommendations for future research

Further research should be conducted to define the key factors of changing the existing communication paradigm in higher education under the influence of social media. Likewise, further research could be conducted to establish and assign specific key performance indicators (KPIs) for each key factor (KCP) of the communication paradigm in social media-influenced higher education. Relevant key performance indicators would enable regular monitoring

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and measurement of the performance of each key factor of the communication paradigm in higher education under the influence of social media and the success of its application. Measuring performance against relevant key performance indicators would also involve obtaining feedback in a continuous process of continuous improvement. It is, therefore, crucial to anticipate the opportunities and threats of the existing communication paradigm in higher education under the influence of social media, to consider how to solve them, and in the modern world, largely conditioned by the exponential development of technologies that affect our future, to open the possibility to be active participants in these changes, instead of just reacting to changes created for us by someone else.

References

- Aichner, T., Jacob, F. (2015). Measuring the Degree of Corporate Social Media Use. *International Journal of Market Research*, 57 (2), 257-275.

- Alsolamy, F. (2017). *Social networking in higher education: academics' attitudes, uses, motivations, and concerns (doctoral thesis)*. Sheffield Hallam University.

- Arsović, B. (2012). *Društvene mreže – izazovi mogućnosti za obrazovanje*. Tehnika i informatika u obrazovanju. 4. Internacionalna konferencija. Čačak: Tehnički fakultet.

- Babić, T. (2021). *Promjena komunikacijske paradigme u visokom obrazovanju pod utjecajem društvenih medija*. Filozofski fakultet Sveučilišta u Zagrebu. Retrieved from: https://repozitorij.unizg.hr/islandora/object/ffzg:4117/datastream/PDF, 28 June 2021.

- Brautović, M. (2011). *Online novinarstvo*. Školska knjiga,

- Christensen, C. M. (1997). *The Innovator's Dilemma*. Harvard Business School.

- Cobbs, J. T. (2008). *Learning 2.0 for Associations*. Retrieved from: http://blog.missiontolearn.com/files/Learning_20_for_Associations_eBook_v1.pdf, 1 February 2008.

- Coleman, B., Petitt, S., Buning, M. (2018). Social Media Use in Higher Education: Do Members of the Academy Recognize Any Advantages? *The Journal of Social Media in Society*, 7 (1), 420-442.

- Davis III, Ch. H. F., Dell-Amen, R., Rios-Aguilar, C., Gonzales Canche, M. S. (2012). *Social Media in Higher Education. A literature review and research directions*. The Center for the Study of Higher Education, The University of Arizona & Claremont Graduate University. Retrieved from: https://www.coe.arizona.edu/sites/coe/files/HED/Social-Media-in-Higher-Education%20report_0.pdf, 31 May 2020.

- Drucker, P. (1997). *Seeing things as they really are*. An interview by Robert Lenzner and Stephen S. Johnson. Forbes.

- Echeng, R., Usoro, A., Ewuzie, I. (2016). Factors to Consider when Enhancing the Use of Web 2.0 Technologies in Higher Education: Students' and Lectures' Views for Quality Use. *International Journal of Digital Society*, 7 (1), 1135-1143.

- Flavin, M. (2012). Disruptive technologies in higher education. *Research in Learning Technology*, 20, 102-111.

- Fleck, J. (2007). Technology and the business school world. *Journal of Management Development*, 27 (4), 415-425.

- Grosseck, G. (2009). To use or not to use web 2.0 in higher education? *Procedia Social and Behavioral Sciences*, 1, 478.-482.

- Johnson, B. (2007). *39 College & University Presidents Who Blog*. Retrieved from: http://bobjohnsonconsulting.com/blog1/2007/07/15_presidents_who_blog_saint_v.html, 6 August 2008.

- Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., Hall, C. (2016). *NMC Horizon Report: 2016 Higher Education Edition*. Retrieved from: https://www.sconul.ac.uk/sites/default/files/documents/2016-nmc-horizon-report-he-EN-1.pdf, 3 July 2020.

- Jokić-Begić, N. (2020). *Nedjeljom u 2: Nataša Jokić-Begić. HRT Vijesti*. Retrieved from: https://vijesti.hrt.hr/626635/nedjeljom-u-2-natasa-jokic-begic, 26 June 2020.

- Jones, L. (2007). *The Student-centered Classroom*. Cambridge University Press: Doctoral, KTH Royal Institute of Technology.

- Josefsson, P. (2017). *Higher education meets private use of social media technologies*. Cambridge University Press: Doctoral, KTH Royal Institute of Technology.

- Juniper Research. (2007). *Social Networking Sites: Defining Advertising Opportunities in a Competitive Landscape*. Retrieved from: https://www.jupiterresearch.com/bin/item.pl/research:vision/1231/id=98881/, 7 August 2008.

- Kaplan, A. M., Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53 (1) 59–68.

- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54 (3), 241–251.

- Li, C., J. Bernoff (2008). *Groundswell: Winning in a world transformed by social technologies*. Harvard Business School Publishing.

- Mabić, M. (2014). Društvene mreže u obrazovanju: *Što* misle studenti Sveučilišta u Mostaru. *Društvo i tehnologija 2014 –*

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Dr. Juraj Plenković, XXI. Međunarodni znanstveni skup, Opatija, 74-378. Retrieved from: https://www.researchgate.net/publication/268208102_Drustvene_mreze_u_obrazovanju_Sto_misle_studenti_Sveucilista_u_Mostaru, 29 October 2018.

• Martinić, T. (1985). Lasswellova paradigma masovnog komuniciranja. *Politička misao:* časopis *za politologiju,* 22 (1-2), 130-137.

• Mutula, S. M. (2013). *Ethical Dimension of the Information Society: implications for Africa.* Information Ethics in Africa: Cross-Cutting Themes, Pretoria. Retrieved from: https://www.researchgate.net/publication/317613403_Ethical_Dimension_of_Information_Society, 27 June 2020.

• Ngai, E. W. T., Moon, K. K., Lam, S. S., Chin, E. S. K., Tao, S. S. C. (2015). *Social media models, technologies, and applications: An academic review and case study.* Emerald Insight. Retrieved from: https://www.emerald.com/insight/content/doi/10.1108/IMDS-03-2015-0075/full/html, 11 January 2017.

• Okello-Obura, C., Ssekitto, F. (2015). Web 2.0 technologies application in teaching and learning by Makerere University academic staff. *Library Philosophy and Practice (e-journal).* Retrieved from: https://www.researchgate.net/publication/280889283_WEB_20_TECHNOLOGIES_APPLICATION_IN_TEACHING_AND_LEARNING_BY_MAKERERE_UNIVERSITY_ACADEMIC_STAFF, 27 June 2020.

• Radovan, M. (2014). *Informacijska tehnologija i društvo. Društveno umrežavanje i slobodni softver.* Retrieved from: http://www.inf.uniri.hr/~mradovan/skripte.html, 24 May 2020.

• Raut, V., Patil, P. (2016). Use of Social Media in Education: Positive and Negative impact on the students. *International Journal on Recent and Innovation Trends in Computing and Communication*, 4 (1), 281 – 285.

• Regan, K. (2015). *Amazing Social Media Growth Stats From 2015.* Social MediaToday. Retrieved from: https://www.socialmediatoday.com/social-networks/kadie-regan/2015-08-10/10-amazing-social-media-growth-stats-2015/, 9 June 2020.

• Reuben, R. (2008). *The Use of Social Media in Higher Education for Marketing and Communications: A Guide for Professionals in Higher Education.* Retrieved from https://rachelreuben.com/2008/08/19/social-media-uses-higher-education-marketing-communication/, 7 June 2020.

• Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social network sites. *Elsevier Inc: Internet and Higher Education*, 13, 134-140.

• Selwyn, N. (2011). *Social media in higher education.* Education and technology Continuum. Retrieved from: https://pdfs.semanticscholar.org/e661/e51ce237ded12da9b1ef126a842663b8fb53.pdf, 9 January 2018.

• Silvestru, C. I., Lupescu, M-E., Draistaru, A. S. (2016). The Impact of Using Social Media in Adult Education, *Studies from Education and Society*, DOI: 10.18427/iri-2016-0086. Retrieved from: http://www.irisro.org/edusoc2016nov/23SilvestruCatalin.pdf, 9 January 2018.

• Stahl, G., Sharplin, E., Kehrwald, B. (2016). Developing pre-service teachers' confidence: real-time coaching in teacher education. *Reflective Practice,* 7 (6), 724–736.

• Statista (2021a). *The global digital population as of January 2021.* Retrieved from: https://www.statista.com/statistics/617136/digital-population-worldwide/, 8 June 2021.

• Statista (2021b). *Forecast of the social network user penetration rate in Croatia 2017-2025.* Retrieved from https://www.statista.com/statistics/567197/predicted-social-network-user-penetration-rate-in-croatia/, 8 June 2021.

• Statista (2021c). *Active social media penetration in selected European countries in 2020.* Retrieved from: https://www.statista.com/statistics/295660/active-social-media-penetration-in-european-countries/, 25 June 2021.

• Tamayo, J. D., Cruz, G. S. G. (2014). The Relationship of Social Media with the Academic Performance of Bachelor of Science in Information Technology Students of Centro Escolar University – Malolos. *International Journal of Scientific and Research Publications*, 4 (5), 1-9.

• Thomas, D., Seely Brown, J. (2011). *A new culture of learning.* SC, Createspace.

• Tess, P. (2013). The role of social media in higher education classes (real and virtual)—A literature review. *Computers in Human Behavior*, 29 (5), A60–A68.

• Van Doren, M. (1943). *Liberal Education.* H. Holt.

• Willems, J., Adachi, Ch., Grevtseva, Y. (2016). Working with social media in tertiary education: A contest space between academics and policies. *ASCILITE, Adelaide*, 648-653. Retrieved from: http://2016conference.ascilite.org/wp-content/uploads/ascilite2016_willems_concise.pdf, 3 July 2020.

• Willems, J., Adachi, Ch., Bussey, F., Doherty, I., Huijser, H. (2018). Debating the use of social media in higher education in Australasia: Where are we now? *Australasian Journal of Educational Technology,* 34 (5), 135-149.

• Worldometer (2021). *Current World Population.* Retrieved from: https://www.worldometers.info/world-population/, 8 June 2021.

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