

## EDUCATION ON SOCIAL MEDIA PLATFORMS AS LEARNING AND DEVELOPING RESOURCE

**Biljana Jaredić**

University of Priština, with temporary head office in Kosovska Mitrovica, Republic of Serbia

[biljana.jaredic@pr.ac.rs](mailto:biljana.jaredic@pr.ac.rs)

**Tatjana Radojević**

University of Priština, with temporary head office in Kosovska Mitrovica, Republic of Serbia

[tatjana.radojevic@pr.ac.rs](mailto:tatjana.radojevic@pr.ac.rs)

**Tatjana Kompirović**

University of Priština, with temporary head office in Kosovska Mitrovica, Republic of Serbia

[tatjana.kompirovic@pr.ac.rs](mailto:tatjana.kompirovic@pr.ac.rs)

**Aca Mitić**

Republic of Serbia, [aca.mitic.ngo@gmail.com](mailto:aca.mitic.ngo@gmail.com)

**Abstract:** Formal and informal education through social media platforms is an important source of knowledge. They are accessible to any user, require limited mobility, and provide enormous learning opportunities. Online learning through social media after the COVID-19 pandemic is more available, accessible, and possible to the diverse learner population globally. In 2022, women are more open for education and have increased use of social media for different educational opportunities, both formal and informal, but there is still gender bias and inequality in STEM (Science, Technology, Engineering, Mathematics) fields and the digital sector (e.g., digital technologies, Computer Science, Information Technology, Information and Communication Technology, Artificial Intelligence, cybersecurity).

The main objective of the research was to examine the role of available social platforms in educational and learning purposes for young women in Serbia. The research targeted young women, aged 18-32, actively participating and educating at the University of Kragujevac and the University of Priština, with temporary head office in Kosovska Mitrovica, in the Republic of Serbia. Data was collected through implementation of five focus groups, with 40 respondents. The method used for the research is both qualitative and quantitative. The research contained several different categories: educational and learning purposes of social media platforms, networking between scientific workers, presentation of new scientific achievements and information sharing between scientific workers and the wider public, and practical implementation of the skills learned through social media platforms. Collected data was processed qualitatively in the MAXQDA program and quantitatively in the SPSS program. Results showed that women do not only empower themselves enough with the exploration of online resources but also others when they teach online, actively share information on social media, but less participate in online discussion forums. On the other side, research showed the gap in communication between the scientific workers and the wider media as well as the lack of modern and innovative networking mechanisms. Those findings will encourage academic and scientific workers to support and use social media to outreach and dissemination the data and use them in the developing, networking, and learning context.

**Keywords:** online learning, social media, education, young woman, science

### 1. INTRODUCTION

In the field of education and learning, a significant place has been occupied by modern technologies in the last twenty years. Today, it is impossible to imagine today's teaching without including modern technologies and social platforms. The increasingly widespread use of social network sites to expand and deepen one's social connections is a relatively new but potentially important phenomenon that has implications for teaching and learning and teacher education in the 21st century (Greenhow & Askari 2017). Formal and informal education through social media platforms is an important source of knowledge. They are accessible to any user, require limited mobility, and provide enormous learning opportunities. Using social media such as Facebook, WhatsApp, Instagram, and LinkedIn and so on provides free access to online education, communication and information. Multiple benefits of Facebook usage for learning and teaching have been identified such as increased teacher-student and student-student interaction, improved performance, the convenience of learning and higher engagement. (Chugh & Ruhi 2018). Today, both social media and technology have become an indispensable part of our lives. People can use such platforms via their smartphone, tablet or computer, and learners can exchange questions, discuss different topics online, participate in online courses, make conference phone calls or video calls. If a student, professor or resident is

stuck to get necessary information, they can find it online. Research showed that the use of social media increases results and satisfaction as user. In the research done by Arquero & Romero-Frías (2013) paper reports on an experience in the use of social network sites (SNSs) to support student involvement with the subject and to develop basic skills. According to students' opinion, the experience was deemed as positive. They considered that the experience contributed to a higher engagement with the subject and a deeper collaboration with other students and teaching staff (Arquero & Romero-Frías 2013). The social network sites focus heavily on building online communities bound to together with common interests or activities. By improving the tools themselves on social networks, they enable each user to be connected according to their interests and to share knowledge as easily as possible, adopt new ones and connect with individuals and groups. Reducing the gender divide in access to knowledge and information has been the goal of many initiatives, and understanding how access has evolved and improved women's opportunities to learn and be empowered is key to analyze the changing society. Female Education is a powerful instrument of social change, and often initiates upward movement in the social structure. Women are empowered when they have access to learning and access is enhanced through the use of formal and informal online learning spaces and programs. Globally, expanding women's educational opportunities is promoted as an effective strategy for their empowerment (Kiera, Stephanie, Ruchira, & Kathryn 2022). However, there is still not equal representation of women at all levels of education, as well as unequal representation in individual fields. While there are numerous factors that can affect the dissemination of and attention to research off-line, existing work finds a persistent disparity between men and women in academia. Fewer women than men are invited to give seminar talks and publications by women are less likely to be included in graduate syllabi. (Heidi, Smith, Kim & Meister 2019). Fewer women than men submit to publish journals and few women publish in them. In one of the most consistent findings on gender and publication, researchers show that publications by women are cited less often in academic research. Underlying these differences are patterns in authorship. There is evidence to suggest that solo-authored papers by women are treated differently than co-authored papers in which women are part of the authorship team (Sarsons 2017). Much research conducted worldwide revealed considerable gender differences in university students' social media usage (Alnjadat, Hmaidi, Samha, Kilani, & Hasswan, 2019). Social media, a rapidly expanding internet tool, gives women the opportunity to voice their thoughts and be heard globally, regardless of the context in which they are used (Thanavathi 2022). Research showed that woman use social media much more than man (Bouton & Asterhan, 2017). These data shows significance of women learning through social media. That is the reason why is important to research how woman use social media in education.

## 2. MATERIALS AND METHODS

The main goal of the research is to examine the role of available social platforms in the educational and educational purposes of young women in Serbia. In order to reach this goal, the main task in this research was to answer the question of whether young women use social networks for learning and whether, in addition to learning, social networks are also used for the dissemination of scientific knowledge either to the scientific public or to other interested parties.

In order to answer this complex question, we approached the problem by studying it from two aspects, both qualitative and quantitative. The basic question from which we start is: Are social networks used for learning and dissemination of knowledge by young women in Serbia who are getting an academic education, and we will check this with a qualitative methodology. In order to answer this question in our research, focus groups were organized with young women studying at the University of Kragujevac and at the University of Pristina with temporary Head office in Kosovska Mitrovica, a total of 5 focus groups with 8 respondents each. A total of 40 young women: 2 focus groups with 8 young women each studying at the University of Kragujevac, 2 focus groups with 8 young women each studying at the University of Pristina with temporary head office in Kosovska Mitrovica and 1 mixed group with 8 young women and with one and another university. The focus groups were audio-recorded, after the respondents gave their consent. Focus groups lasted about 60 minutes on average. The central topics in the focus groups were: educational and teaching purpose of social network platforms, networking of scientific workers, presentation of new scientific achievements and exchange of information between scientific workers and the general public, and practical application of skills acquired through available social network platforms.

### Data processing

The main goal of the research is to examine the role of available social platforms in the educational and educational purposes of young women in Serbia. In order to reach this goal, the main task in this research was to answer the question of whether young women use social networks for learning and whether, in addition to learning, social networks are also used for the dissemination of scientific knowledge either to the scientific public or to other interested parties. Data processing was done by initial or open coding. The pattern of initial coding analysis is: describing the phenomenon, discovering categories, nominating categories, generating categories. Type of initial

coding: it started with frontal analysis, segmentation and finally ended with coding. Data were processed in MAXQDA software. The second part of the research also aimed to examine whether social networks are used for learning and dissemination of knowledge by young women in Serbia who are getting an academic education.

Main objectives of the research

To examine the level of expression of the use of social networks for learning among young women in Serbia who are getting an academic education; To examine the level of expression of the use of individual social networks (facebook, Instagram, linkedin...) among young women in Serbia who are getting an academic education; To examine the level of expressiveness of dissemination of knowledge to the scientific public through social networks among young women in Serbia who are getting an academic education; To examine the level of expressiveness of dissemination of knowledge to the general public via social networks among young women in Serbia who are getting an academic education; To examine the level of expressiveness of connecting with other young scientists through social networks among young women in Serbia who are getting an academic education.

Statistical data processing

Data processing was performed in SPSS version 20. Descriptive statistics measures were used for statistical data processing.

Sample

The research targets young women, aged 18-32, actively participating and educating at the University of Kragujevac and the University of Priština, with temporary head office in Kosovska Mitrovica, in the Republic of Serbia. The average age of the respondents was 22.25 years. They were students of all three levels of study (basic, master, doctoral studies) at the Faculty of Technical Sciences and the Faculty of Sciences and Mathematics of these two universities.

### 3. RESULTS

Results, analysis and initial coding of the focus groups

Three evaluators in the MAXQDA program who extracted mutually similar terms from the transcript did the frontal analysis of the research. The evaluators distinguished the following categories: social networks as a means of informal communication, social networks as a means of communication between students, social networks as a means of communication with teachers, social networks as a means of communication with people who have the same educational and scientific interests, social networks are an important aspect for acquiring new information from the STEM field, Social networks offer numerous educations from the STEM field, Through social networks I engage to provide education to other colleagues, through social networks I engage to educate the public, through social networks I achieve my professional engagement, through social networks I participate in various types online discussion, through social networks I attend various scientific conferences, through social networks I connect with people who have the same professional and scientific interests as me, through social networks I connect with Faculties that offer me education and professional engagement which I need.

From these broader concepts, the following categories are distinguished:

**Social networks as a communication channel:** social networks as a means of informal communication, social networks as a means of communication between students, social networks as a means of communication with teachers, social networks as a means of communication with people who have the same educational and scientific interests.

**Social networks as a tool for engagement and learning:** Social networks are an important aspect for acquiring new information in the STEM field; Social networks offer numerous educations in the STEM field. Through social networks I engage to provide education to other colleagues, through social networks I engage to educate the public, through social networks I achieve my professional engagement

**Social networks as a platform for collaboration:** Through social networks I participate in various types of online discussions, through social networks I attend various scientific conferences, through social networks I connect with people who have the same professional and scientific interests as me, through social networks I connect with Faculties that offer me education and professional engagement that I need it.

**Results of quantitative analysis**

38 participants, i.e. 95%, stated that they use social networks.

They use the following social networks: Facebook, Instagram and LinkedIn.

38 or 95% of them use social networks as a means of informal communication.

Social media platforms as a means of communication between students are used by 38 of them, i.e. 95%.

Social media platforms are used as a means of communication with teachers by 35 of them, i.e. 87.5%.

Social media platforms as a means of communication with people who have the same educational and scientific interests are used by 30 of them, i.e. 75%.

Social media platforms are an important aspect for acquiring new information from the STEM field, say 29 of them, i.e. 72.5%.

Social media platforms offer numerous educations in the STEM field, say 25 of them, or 62.5%.

Through social media platforms, I engage in providing education to other colleagues, say 9 respondents, that is, 22.5%.

Through social media platforms, I engage in educating the public, say 6 respondents, or 15%.

I achieve my professional engagement through social media platforms, say 5 respondents, that is 12.5%.

Through social media platforms, I participate in various types of online discussions, say 2 respondents, i.e. 5%.

Through social media platforms, I attend various scientific conferences, said 1 respondent, that is, 2.5%.

Through social media platforms, I connect with people who have the same professional and scientific interests as me, say 10 respondents, i.e. 25%.

Through social media platforms, I connect with Faculties that offer me the education and professional engagement that I need, says 1 respondent, i.e. 2.5%.

#### 4. DISCUSSIONS

This study showed that 95% of young university-educated women use social networks. In addition, 95% of women use social networks as a means of communicating with other people. Such a high percentage of the use of social networks is also confirmed by the official data of the GlobalStats platform, which shows that the total share of the use of the Facebook social network in Serbia in November 2022 was 82.74%, Instagram 9.14% and LinkedIn 0.16% (StatCounter Global Stats, November 2022). In contrast, as world's largest professional network, LinkedIn only has roughly 10 % college age users out of more than 400 million members (Ling, Murphy & Luo 2016). In addition, in the period between 2005 and 2013, the percentage of people using various forms of online social communication in the United States grew from 8% to 72% and reached 81% by 2017 (Mavrodieva & Rachman 2019).

Study showed that very low number of woman, 15%, use social media platforms for education of the wider public and only 5% of woman use social media to participate in online discussions. Study published by the International Journal for the Scholarship of Teaching & Learning, confirmed that activities should only occur in traditional academic forums, and they did not view Facebook as an appropriate venue for course-related discussions. However, 12% of Facebook participants said they would have participated more if discussions were held on eLC platform (Hurt, Moss, Larson, & Lovelace 2012).

This study has contributed to the literature by identifying the gender differential adoption of social media as important resource for education and development. However, it was limited by the sample size focused on two Universities in Serbia but it is recommended that future studies be implemented across different districts in Serbia and Balkan region to better understand social media as educational and learning resources for young woman in Serbia.

#### 5. CONCLUSIONS

This study showed the clear potential of the social media platforms Facebook, Instagram and LinkedIn as a crucial resource for acquiring education, knowledge, networking and maintaining personal and professional contacts among young women in Serbia. The data obtained during this research will serve to improve academic performance and accept the concept of using social networks for educational purposes. On the other hand, this study can serve the academic and general public to create educational programs for young women and promote the use of available social media platforms for educational and scientific content. Also, the study proves that social media platforms are a tool that will de facto enable the strengthening of educational and social potential, but as a resource for acquiring new knowledge among young women in Serbia.

#### ACKNOWLEDGEMENTS

This research was done as part of the program named "Kosovo and Metohija between nation identity and European integrations" number III47023, and funded by the Ministry of Education, Science and Technological development.

#### REFERENCES

- Alnjadat, R., Hmaid, M. M., Samha, T. E., Kilani, M. M., & Hasswan, A. M. (2019). Gender variations in social media usage and academic performance among the students of the University of Sharjah. *Journal of Taibah University Medical Sciences*, 14(4), 390–394. <https://doi.org/10.1016/j.jtumed.2019.05.002>
- Arquero, J. L., & Romero-Frías, E. (2013). Using social network sites in Higher Education: an experience in business studies, *Innovations in Education and Teaching International*, 50(3), 238-249, DOI: [10.1080/14703297.2012.760772](https://doi.org/10.1080/14703297.2012.760772)

- 
- Bouton, E. & Asterhan, C. S.C., (2017). Teenage peer-to-peer knowledge sharing through social network sites in secondary schools. *Computers & Education*, 110, 16–34. <https://doi.org/10.1016/j.compedu.2017.03.007>
- Chugh, R., & Ruhi, U. (2018). Social media in higher education: A literature review of Facebook. *Educ Inf Technol* 23, 605–616 . <https://doi.org/10.1007/s10639-017-9621-2>
- Greenhow, C., & Askari, E. (2017). Learning and teaching with social network sites: A decade of research in K-12 related education. *Educ Inf Technol* 22, 623–645. <https://doi.org/10.1007/s10639-015-9446-9>
- Heidi, H., Smith, E.A., Kim, H.J., & Meister, P. (2019) “The Gender Readings Gap in Political Science Graduate Training” *Journal of Politics*. <https://doi.org/10.1086/704784>
- Hurt, N. E., Moss, G. S., Bradley, Ch. L., Larson, L. R., Lovelace, M., Prevost, L. B., Riley, N., Domizi, D., & Camus, M. S. (2012) "The 'Facebook' Effect: College Students' Perceptions of Online Discussions in the Age of Social Networking," *International Journal for the Scholarship of Teaching and Learning*: 2 (6) <https://doi.org/10.20429/ijstl.2012.060210>
- Kiera, Ch., Stephanie, S. M., Ruchira, T. N., & Kathryn, M. Y. (2022). Beyond Girls’ Education: Pathways to Women’s Post-Marital Education in Matlab, Bangladesh, *Feminist Economics*, DOI: [10.1080/13545701.2022.2082510](https://doi.org/10.1080/13545701.2022.2082510)
- Mavrodieva, A., & Rachman ,O. (2019). Role of Social Media as a Soft Power Tool in Raising Public Awareness and Engagement in Addressing Climate Change (122; <https://doi.org/10.3390/cli7100122>)
- Murphy, L., & Luo, J. (2016). Using Social Media to Promote STEM Education: Matching College Students with Role Models (LNAI, volume 9853)
- Sarsons, H. (2017). Recognition for Group Work: Gender Differences in Academia, *American Economic Review: Papers & Proceedings*. 107(5), 141–145.
- Thanavathi, C. (2022). “The powerful influence of social media on women’s education” *Shodha Prabha (UGC CARE Journal)*: 15 (47), ISSN: 0974-8946