POSTER

**Use of Social Network for Academic Purposes: the case of the University of Zagreb, Croatia**

Keywords: Academic Social Network Sites, Scholarly Identity, Academia.edu, ResearchGate, Google Scholar

**Introduction**

Comprehensive evaluation of research performance is an increasingly important task for the research and publishing enterprise in the era of digitization, open access, and diversification of social networking (Gasparyan et al. 2017, 1). Academic Social Network Sites (ASNS) are being adopted as a new scholarly communication platform and faculty are encouraging them to online promote their scholarly work (Asmi and Madhusudhan 2015, 2; French and Fagan 2019, 157; Ovadia 2014, 3). ASNS target the academic audience and provide services directed to the community of students, research scholars, teachers, and other academic stakeholders (Ovadia 2014, 2). On social networks users can establish a personal profile, connect with other users, track activities of their connections, and establish new ones (Meishar-Tal and Pieterse 2017).

**Theoretical framework**

The term “academic social network sites” includes a variety of online platforms which have sought to bring the benefits of online networking to a specific academic audience. Working within this definition and applying it to online services aimed at academics, ASNS can be divided into two categories: those which have been developed primarily to facilitate profile creation and connection (analogous to Facebook; examples include Academia.edu and ResearchGate (RG)), and those with a primary focus on posting and sharing academic-related content and have subsequently added social networking capabilities (such as Mendeley) (Jordan 2019). Scientometrics is facing a challenge on how to measure and evaluate the online activity (eg. these sites produce statistics on the number of views, downloads, followers) which can give a perspective on the social nature of science, and can be considered as a scholarly impact and popular attention (Ortega 2015; Priem and Hemminger 2010).

Earlier studies also indicate a necessity to study the characteristics of the platforms users and ASNS functionalities in order to detect if only a specific type of discipline is using them (Ortega 2015). Several studies mention in research by Ortega, 2015 demonstrate that specific ASNS have a skewed population (eg. on Academia.edu the humanities represent the majority of the users and are the most active users group, on Google Scholar (GS) are dominant scientists from computer and information discipline, and on RG biology researchers have a slight dominance). A study by Van Noorden, 2014 showed that researchers use different ASNS for different purposes (eg. RG and Academia.edu were mainly used for connection and collaboration and uploading papers).

**Research questions**

The aim of this study is to investigate the scholarly identity of the University of Zagreb on the ResearchGate, Academia.edu as an ASNS, and Google Scholar as a search engine with researchers’ profile.

The following research questions are analyzed:

1. Are some research fields more prone to using academic social sites?

2. Do some research disciplines prefer to use one academic site over others?

**Methodology**

Croatian Scientific Bibliography (CROSBI) covers scientific research and scientific publishing of Croatian researchers. A research was conducted in May 2019 in CROSBI, focusing on all eight scientific disciplines, the year 2018, and researchers with a unique research ID number in the Register of researchers of the Republic of Croatia from the University of Zagreb. In every discipline, CROSBI limits the results to the top 100 researchers according to their scientific productivity in 2018. The researchers from our sample were then verified and categorized in the discipline according to the affiliation on their profile on GS.

**Results**

The sample consisted of 604 researchers (303 male and 301 female) in CROSBI divided by discipline as follows: technical sciences (18%), biotechnical sciences (17%), social sciences (16%), humanities (15%), biomedicine and health (14%), natural sciences (10%), interdisciplinary sciences (8%), arts (2%). From this number (604), 84% of researchers have profiles on GS. 507 researchers use GS, with almost equally distributed usage in all disciplines (e.g. technical science (91%), biotechnical science (91%), biomedicine and health (88%) and social science (87%). More than 498 authors have an h-index <1 (powered by Google Scholar Metrics) on their profile, one scientist from natural sciences has the highest h-index of 119, followed by another scientist from the biomedicine and health field with an h-index of 41. The scientists with the most references on their GS profile are from technical sciences followed with the scientists from biotechnical and biomedicine and health.

From total number (604), 55% of researchers have profiles on Academia.edu. The disciplines with the most profiles are arts (70%), humanities (68%), and social science (66%). Less represented profiles are from technical science (43%), biotechnical science (45%) and biomedicine and health (43%).

From total number (604), 79% of researchers have profiles on RG. The disciplines with the most profiles are: biotechnical (94%) and biomedicine and health (88%), technical science (85%) and natural science (81%).

**Discussion & Conclusion**

Since social media are intended to support the collaborative creation and dissemination of knowledge, it is not surprising that scholars have explored their use for academic purposes (Zeng et al. 2010, 14; Nández and Borrego 2013, 782). Although researchers from natural sciences make a small percentage in a sample (CROSBI 10%), 83% of researchers have a profile on GS and have the largest number of citations per profile (52223). Having a profile on GS is a helpful tool in making researchers visibility, primarily by increasing the citation number of their work, and can lead to an international collaboration of institutions. Research results have shown that scientists from biotechnical science, biomedicine and health, technical science and natural science tends to use more RG as ASNS, while scientists from arts, humanities, and social science tend to use more Academia.edu as ASNS.

**Research limitations/implications** – The results are based on a single case study. With time more and more scientists may join Academia.edu, RG and GS causing various changes in data and giving different results. There are also filtering limitations in CROSBI (the selected sample consists of scientists who have submitted (not cited) the most papers in 2018, limited to the first 100 scientists per discipline).

**Originality/value** – This study provides new insights on the impact of social network in academic contexts by analyzing the user profiles and benefits of a social network service that is specifically targeted in this context at the academic community in Croatia.

# REFERENCES

Asmi, Nowsheeba Ashraf, and Margam Madhusudhan. 2015. “Academic Social Networking Sites: What They Have to Offer for Researchers?” *Journal of Knowledge & Communication Management* 5 (1): 1. https://doi.org/10/ggbg3w.

French, Rebecca B., and Jody Condit Fagan. 2019. “The Visibility of Authority Records, Researcher Identifiers, Academic Social Networking Profiles, and Related Faculty Publications in Search Engine Results.” *Journal of Web Librarianship* 13 (2): 156–97. https://doi.org/10/ggbg3v.

Gasparyan, Armen Yuri, Bekaidar Nurmashev, Marlen Yessirkepov, Dmitry A. Endovitskiy, Alexander A. Voronov, and George D. Kitas. 2017. “Researcher and Author Profiles: Opportunities, Advantages, and Limitations.” *Journal of Korean Medical Science* 32 (11): 1749. https://doi.org/10/ghcwbh.

Jordan, Katy. 2019. “From Social Networks to Publishing Platforms: A Review of the History and Scholarship of Academic Social Network Sites.” *Frontiers in Digital Humanities* 6. https://doi.org/10.3389/fdigh.2019.00005.

Meishar-Tal, Hagit, and Efrat Pieterse. 2017. “Why Do Academics Use Academic Social Networking Sites?” *The International Review of Research in Open and Distributed Learning* 18 (1). https://doi.org/10/ghcwbp.

Nández, Gemma, and Ángel Borrego. 2013. “Use of Social Networks for Academic Purposes: A Case Study.” *The Electronic Library* 31 (6): 781–91. https://doi.org/10/f5hwmh.

Ortega, José Luis. 2015. “Disciplinary Differences in the Use of Academic Social Networking Sites.” *Online Information Review* 39 (4): 520–36. https://doi.org/10/f7p9j8.

Ovadia, Steven. 2014. “ResearchGate and Academia.Edu: Academic Social Networks.” *Behavioral & Social Sciences Librarian* 33 (3): 165–69. https://doi.org/10/ghcwbn.

Priem, Jason, and Bradely H. Hemminger. 2010. “Scientometrics 2.0: New Metrics of Scholarly Impact on the Social Web.” *First Monday* 15 (7). https://doi.org/10.5210/fm.v15i7.2874.

Zeng, Daniel, Hsinchun Chen, Robert Lusch, and Shu-Hsing Li. 2010. “Social Media Analytics and Intelligence.” *IEEE Intelligent Systems* 25 (6): 13–16. https://doi.org/10/cpjmqx.