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Exploring the Role of Games and Gamification in Academic Libraries

Tjaša Jug (Faculty of Arts, University of Ljubljana, Slovenia)

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Introduction and theoretical framework

Since early childhood, games have been an important part of our lives. Not only do they represent an entertaining activity, but they can also strengthen cognitive skills, creativity, collaboration, and communication skills. Even among adults, approximately 66 % of them are considered (video) gamers (Entertainment Software Association 2022, 2-4).

Meanwhile, gamification represents a related concept that incorporates game elements and mechanics such as goals, competition, achievements, rewards, storytelling, and personalization, into non-game contexts, products, activities, and services to stimulate desired behavior (Deterding et al. 2011, 10-11; Jackson 2016, 8-9; Kapp 2012, 9-48, Kim 2015, 5-18; McMunn-Tentangco 2017, 2-35; Werbach and Hunter 2012, 17-83). When implemented properly, gamification can increase motivation, engagement, informing, learning, and problem solving (Kapp, 2012, 10). Unlike games, the goal of gamification is to solve real-world problems (Kim 2015, 14).

Games and gamification have proven to be effective tools in many areas, such as education, health activities and work. They also align with the goals of all types of libraries, as they support the development of various skills and promote literacy-related activities (Games & Gaming Round Table, n.d.). Games and gamification projects can be developed and used effectively for library introductions and orientations (e.g., Felker 2013; Malone 2018; Nourse Reed and Miller 2020), information literacy and library instructions (e.g., Markey et al. 2018; Smale 2015; Tewell and Angell 2015; Tekulve et al. 2015), and to increase user engagement and book circulation (e.g., Walsh 2004).

Although games and gamification are mainly associated with public and school libraries, they are also suitable for higher education. In addition to supporting research and pedagogical process by providing specialized resources, academic libraries can also offer direct assistance with education (Curizon and Quin͂o ́nez-Skinner 2019, 1-6). Their involvement is even more important within the Library and Information Science (LIS) higher education programs, where librarians should not only instruct but also serve as role models for their students. According to the IFLA Guidelines (Chu et al. 2022, 9) LIS education programs should, among other things, prepare future LIS professionals to develop a full range of pedagogical knowledge and skills. Therefore, inclusion of games and

gamified activities into the LIS educational process can also serve as a practical demonstration and therefore better prepare students for their future profession.

However, designing effective gamified activities requires careful planning and a variety of skills that many librarians do not have (Felker 2014, 20; Haasio and Mage 2020, 101), nor are they always included in the LIS curriculum (Elkins and Hollister 2020, 240).

The aim of the research was to investigate the current inclusion of games and gamification in the Slovenian LIS educational process at the Department of Library and Information Science and Book Studies at the Faculty of Arts. We also wanted to explore optimal ways to introduce games and gamification into the departmental library services that would meet the needs of users while meeting the goals of the higher education program.

Research questions

Since core knowledge and skills of the future librarians are acquired during their studies, we tried to examine current inclusion of games and gamification in the Slovenian LIS program. Therefore, our first research question was:

What are the practices and attitudes of LIS professors towards the inclusion of games and gamification in their courses?

We were interested in whether they introduce this topic in their lectures as well as if they are using them as tools to deliver knowledge to the students. We also wanted to find out:

What goals could an academic library achieve by introducing games and gamification into its services, and how can this approach support the LIS educational process?

Games and gamification can be used to support library orientation and information literacy courses, familiarize users with library services and collections, or even increase their engagement and book circulation. Therefore, our third research question was:

What gamified and game-related activities would be most suitable for implementation in academic library services?

Based on the results, we wanted to propose an efficient gamification project design that can be accomplished in collaboration between professors and their academic library.

Methodology

To better understand the attitudes of higher education professors towards the incorporation of games and gamification into the academic library and LIS educational process, we conducted interviews with main compulsory course holders at the Department of Library and Information Science and Book Studies, Faculty of Arts, University of Ljubljana. The interviews were carried out in January 2021.

The interview questionaries consisted of two parts. In order to familiarize the participants with games and gamification, basic definitions and links to various existing projects were provided in

the first part. The second part consisted of 11 open-ended questions and sub-questions. To ensure the best possible response rate and participation, we offered to conduct the interviews via Zoom video call or by completing questionnaires in a Word document, followed by an email correspondence with the participants.

Out of 11 invited professors, 10 agreed to participate in our research. Among them, one professor teaches courses in the book studies, 4 are experts in information science and 5 cover librarianship subjects. Only 3 participants chose to answer questions via video call, while others decided to communicate via email.

Research Results

The results show that professors at the Department of Librarianship, Information Science and Books Studies rarely include game-related content in their lectures. However, they see an opportunity to introduce this topic in courses related to marketing, digital learning materials, motivation, developing reading habits, public library services, digital libraries, and cataloging non-book materials, such as games and toys. In addition, only four respondents confirmed that they had used gamified approaches in their lectures or seminars in the past. Although they already use various techniques such as competitions, leaderboards, points, quizzes, role-playing and awards, they have not perceived these elements as gamification. On the other hand, they agree that certain activities can be turned into a competition or a game.

Almost all (9) participants said that they would contribute the content and help to design a game or gamified project for their course and would also reward students for participating in this activity. Furthermore, most participants are also willing to test themselves in the game or gamified project prepared by their academic library.

Professors see the value of gamification in library orientation and learning about its services and collections. They also believe that gamified activities could increase students' motivation to (independent) use library resources, improve their search skills, help them master the study materials, and make lessons more enjoyable. What is more, some of them also see great potential in games and gamification as support in introduction and learning more difficult topics, such as conceptual models.

Although participants were mostly in favor of incorporating games and gamification into library services and the higher educational process, they admitted, that they are not familiar with the students' attitudes toward games and whether these techniques would motivate them and facilitate their learning. Many of them also pointed out that they do not know enough about games and gamification to anticipate which approaches would be most appropriate to achieve the intended goals. They emphasized that all activities should be carefully designed to meet libraries as well as lecturers' objectives. Participants also agreed that an intensive, one-time event focused to a specific topic, can be more appealing and effective than a long-term collection of points and

achievements. Increasing library visits and book circulation should be only an indirect goal of gamified activities, while the primary focus should be on achieving learning objectives and recognizing the library as an indispensable resource for achieving that goal. Professors believe that for first-year students, more general games, such as escape rooms, that would introduce library services, spaces, and resources are more appropriate. Meanwhile for upper-level students, games should be integrated into the curricula and therefore focus on the specific topics and subjects.

Discussion and conclusion

Similar to the findings of Elkins and Hollister (2020, 240), the results of our study show that main course holders at Slovenian LIS higher education program rarely include games and gamification into their courses. As previously argued by Hassio and Mage (2020, 101), one of the reasons is the lack of educators' knowledge and skills to imagine and design gamified projects. However, most of them see the benefits in these activities and are willing to prepare gamified projects in collaboration with the departmental library. Moreover, our research has motivated some of them and gave them new ideas on how to include these topics and approaches in their lectures. They agree that general gamified activities are more appropriate for first-year students, while games designed for specific courses or topics are best for older students.

Soon after the research was carried out, one of the professors, in collaboration with the departmental librarian, integrated gamified activities such as quizzes, badges, and game, into the Subject Representation of Documents course. The students found these approaches fun, motivating and suitable for mastering subject matter.

Although we cannot generalize that games and gamification play the same role in every LIS curriculum, they can be incorporated in services of most (academic) libraries. Higher education offers an ideal environment for students to learn about the valuable role of librarians in education and recognize libraries as a source of knowledge and creativity.

REFERENCES

Chu, Clara M., Jaya Raju, Chris Cunningham, Jiuming Ji, Virginia Ortíz-Repiso Jiménez, Aida Slavic, Ana María Talavera-Ibarra, and Sohaimi Zakaria. 2022. IFLA Guidelines for Professional Library and Information Science (LIS) Education Programmes. Haag: IFLA. https://repository.ifla.org/handle/123456789/1987

Curizon, Susan, and Jennie Quin˜o´nez-Skinner. 2019. "Academic Libraries". In Encyclopedia of Library and Information Sciences, edited by John D. McDonald and Michael Levine-Clark, 1-13. Boca Raton: CRC Press.

Deterding, Sebastian, Dan Dixon, Rilla Khaled, and Lennart Nacke. 2011. "From Game Design Elements to Gamefulness: Defining "Gamification"". In Proceedings of the 15th international

academic MindTrek conference: envisioning future media environments, 9–15. New York: Association for Computing Machinery.

Elkins, Aron J., and Jonathan M. Hollister. 2020. "Power Up: Games and Gaming in Library and Information Science Curricula in the United States." Journal of Education for Library and Information Scienc 61, no. 2: 229–252.

Entertainment Software Association. 2022. Essential Facts About the Video Game Industry. https://www.theesa.com/wp-content/uploads/2022/06/2022-Essential-Facts-About-the-Video-Game-Industry.pdf

Felker, Kyle. 2014. "Gamification in Libraries: The State of the Art." Reference and User Services Quarterly 54, no. 2: 19–23.

Games & Gaming Round Table. n.d. "Why have games in libraries? Dealing with obstacles and challenges to bringing games into the library." American Library Association. Accessed October 31, 2022. https://games.ala.org/why-have-games-in-libraries/

Haasio, Ari, and Octavia-Luciana Madge. 2020. "Gamification and Games in The Libraries." eLearning & Software for Education 1: 98–103.

Jackson, Mindy. 2016. Gamification Elements to Use for Learning. Enspire. https://trainingindustry.com/content/uploads/2017/07/enspire_cs_gamification_2016.pdf

Kapp, Karl M. 2012. The Gamification of Learning and Instruction: Game-Based Methods and Strategies for Training and Education. San Francisco: Pfeiffer.

Kim, Bohyun. 2015. Understanding Gamification. Chicago: American Library Association.

Malone, Derek. 2018. "Escaping Library Orientation: The Introduction of Escape Rooms Into First-Year Experience Courses for Library Orientation and Familiarization." The Journal of Creative Library Practice. https://creativelibrarypractice.org/2018/01/03/escaping-library-orientation-the-introduction-of-escape-rooms-into-first-year-experience-courses-for-library-orientation-and-familiarization/

Markey, Karen, Fritz Swanson, Andrea Jenkins, Brian J. Jennings, Beth St. Jean, Victor Rosenberg, Xingxing Yao, and Robert L. Frost. 2008. "The Effectiveness of a Web-Based Board Game for Teaching Undergraduate Students Information Literacy Concepts and Skills." D-Lib Magazine 14, no. 9/10. http://www.dlib.org/dlib/september08/markey/09markey.html

McMunn-Tetangco, Elizabeth. 2017. Gamification: A Practical Guide for Librarians. Lanham: Rowman & Littlefield.

Nourse Reed, Karen, and A Miller. 2020. "Applying Gamification to the Library Orientation." Information Technology and Libraries 39, no. 3. https://doi.org/10.6017/ital.v39i3.12209

Tewell, Eamon, and Katelyn Angell. 2015. "Far From a Trivial Pursuit: Assessing the Effectiveness Of Games in Information Literacy Instruction." Evidence Based Library and Information Practice 10, no. 1: 20–33.

Walsh, A. (2014). The Potential for Using Gamification in Academic Libraries in Order to Increase Student Engagement and Achievement." Nordic Journal of Information Literacy in Higher Education 6, no. 1: 39–51.

Werbach, Kevin, and Dan Hunter. 2012. For the Win: How Game Thinking Can Revolutionize Your Business. Philadelphia: Wharton Digital Press.