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Citizen Science education in Slovak research library: case study from Central Europe

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Presenter Information

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Citizen Science education in Slovak research library: case study from Central Europe

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Topic: a) The changing landscape of research: open science; problem-based interdisciplinary research; community-based research; data governance.

Abstract:

Citizen science (CS) as the tool engaging people in scientific projects has a great potential for strengthening valuable relationships between academic community and public, democratization of science, building new specific competencies on both sides and supporting the values of civil society. Just now Slovakia, Central European country, is starting to discover its potential.

Academic libraries have a unique position to promote CS. All over the world, many academic libraries take on the role of citizen science centers. The benefits include adding an attractive reason to visit the library, opportunities to gain new skills, networking library staff with scholarly community, increasing visibility and impact of library activities.

The Slovak Centre of Scientific and Technical Information as a national research library opens the gate to promoting and developing CS in our country. To accelerate CS evolution in Slovakia, we developed the first Massive Open Online Course to enable everyone to learn cornerstones of citizen science. The course, hosted on the [EU-Citizen.Science](#) Moodle platform, consists of five sections: the concept of CS, how to design CS project, how to find partners, data and ethics issues and CS projects impact. All information is available in Slovak. We find the language issue important due to high diversity of knowledge and English proficiency in different groups taking part in CS projects. The course is supplemented by videos where CS projects representatives share their experience and good practice. We aim to address research librarians in Slovakia to increase awareness on CS, discuss its potential within their institutions and prepare the background for a national platform to offer more information on CS and enable participation in CS projects running in Slovakia.

Our CS skills training brings opportunity to encourage collaboration, create bridges among groups across society and make research libraries active centers of CS development in Slovakia.

Keywords: citizen science, e-learning, academic libraries, Central Europe.

Activities of National Scientific Library (SCSTI) to promote citizen science in Slovakia:

1.) information availability

OTVORENÁ VEDA CVTISR

Contact office for open science administers webpages offering basic information on open science in Slovak. We included citizen science section, searched for participatory projects running in Slovakia and created their list (<https://otvorenaveda.cvtisr.sk/projekty-obcianskej-vedy-na-slovensku/>). The term citizen science is not widely known and is not used by all the projects – some refer to themselves rather as volunteer monitoring or eco-educational program. We promote the concept of citizen science through articles in Slovak journals, webinars and presentations at local events for academic community.

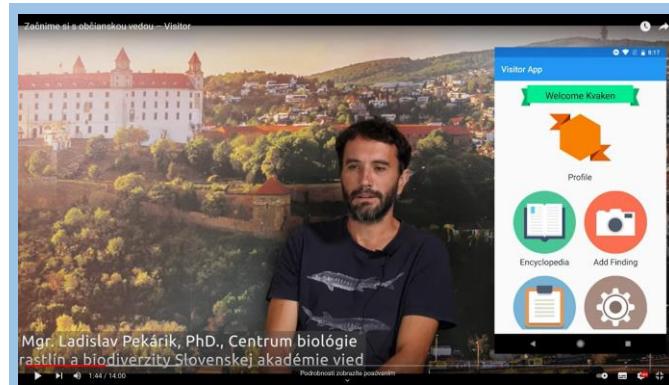
2.) education

We developed an introductory course on citizen science (MOOC type): **Začnime si s občianskou vedou**

– **Let's start with Citizen Science (2021):**

<https://eu-citizen.science/resource/256>.

Basic theoretical background on citizen science in our course is accompanied by videos with representatives of 12 citizen science projects sharing their experiences and inspiring other Slovak scientists or NGOs to engage in participatory research methods.



Ladislav Pekárik (Slovak Academy of Sciences), presenting the project Visitor and the mobile application enabling citizens to take part in monitoring of invasive species. All the videos with representatives of the projects are available on [YouTube channel of SCSTI](#).

3.) networking

We aim to address all groups of stakeholders in citizen science – researchers, NGOs, librarians, students, public. Our long-term goal is to create net of support for citizen science in Slovakia. We actively look for citizen science projects and invite their organizers to speak e.g. in webinars of SCSTI. **Recently we started to involve academic and scientific libraries**, which have (as places where people interested in science meet and gain information) unique position to promote participatory research. We contacted 50 Slovak academic and scientific libraries by e-mail with basic information on citizen science and offer to meet online. 12 libraries responded and discussed with us possibilities and terms of cooperation on the next grant-related plans to promote citizen science in Slovak academic environment.

Plans: 1.) translation and Slovak edition of LIBER guide **Citizen Science for Research Libraries** (DOI: <https://doi.org/10.25815/hf0m-2a57>);

2.) **citizen science workshop** for librarians and faculty, where they would learn, practice and brainstorm with representatives of local projects;

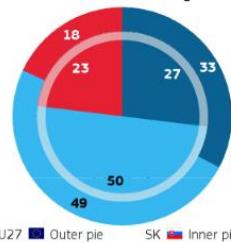
3.) building **Library kits** for citizen science (inspired by [SciStarter](#)), which may be borrowed by citizens, used by public at local events or by students in educational process.

Three of the libraries will take part in the plan. Several others are interested in the topic, do not have capacities to help, but wish to remain in touch and would send their staff for training to our workshop. The greatest limitation of libraries is financial and personal shortage, but they also perceive an opportunity in citizen science.

Libraries as centers of citizen science may become facilitators of progress and democratization in science, while gaining visibility, contacts and societal impact.



New scientific discoveries and technological developments (%)



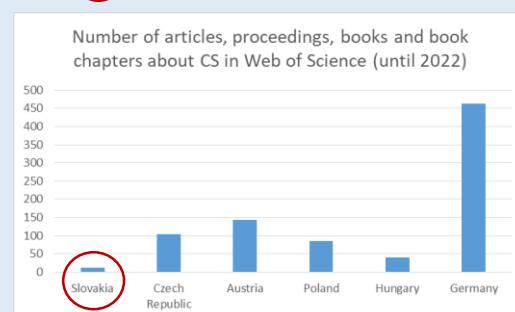
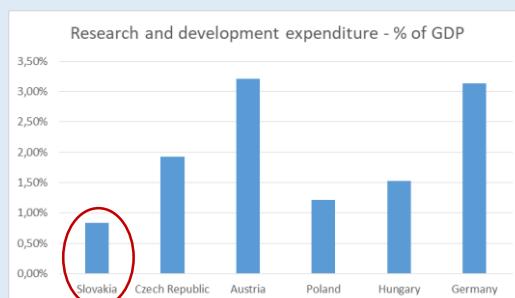
Source: [Eurobarometer 2021](#)

| | EU27 | | SK | |
|-----------------------|------|-----------|------|-----------|
| | 2021 | 2021-2010 | 2021 | 2021-2010 |
| Very interested | 33 | +3 | 27 | +5 |
| Moderately interested | 49 | = | 50 | -5 |
| Not at all interested | 18 | -2 | 23 | = |
| Don't know | 0 | -1 | 0 | = |

Evolution 04-05/2021 (EB95.2, EU27) – 01-02/2010 (EB73.1, EU27)

Slovakia

- Small country (5,4 million inhabitants) in the heart of Europe;
- Meeting of eastern and western cultural influences, dealing with „behind the iron curtain“ heritage;
- **Public interest in science is below average of EU** (Eurobarometer 2021);
- **Lowest research and development expenditure in EU** (0,84 % GDP);
- Underfunded and „introverted“ scholarly community, weak incentives for scientists to engage with public, lack of communication training, sparsely use participatory methods;
- **Communication gap between science and the public has consequences** – for example in the Covid pandemic lot of people in Slovakia didn't get vaccinated just because they fell victims to misinformation.
- **Citizen science may help to cultivate healthy relationship of science and public:** cooperate in meaningful activity, gain data and knowledge, develop new skills, discuss, build trust. However, concept of **citizen science is not yet widely known in Slovakia** and the term is used only by several researchers and NGOs.
- An opportunity may be provided by **relatively dense library network** (1 300 public libraries, 9 research and 55 academic libraries). **In the world, libraries successfully become citizen science centers.**



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