



Advancing Digital Empowerment

of Libraries in Europe

Case studies example













| Library presenting the case study (Name, city, website and contact details) | Regional Library "Nikolay Vranchev", Smolyan, Bulgaria Website: https://www.librarysm.com/ General email: librarysm@abv.bg Contact email: pri_dari@abv.bg |
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| Title of the case study | First steps in programming with the Finch robot |
| Area of ADELE tool illustrated by the case study Please underline the selected area | Management Infrastructure, Equipment and Support Continuing Professional Development Self-reflection on digital competences Learning opportunities on digital competences for users Collaboration, Networking, and Community |
| Description of the experience: aim, methods and outcomes | The Finch robot is designed for computer modeling and informatics training. It also has support for a range of programming languages and environments. During the annual EU Code Week, a series of Finch robot training seminars are organized for children from around the Smolyan region, so that they can take their first steps in programming. Coding and digital literacy are presented to kids in a fun and engaging way. The aim of the initiative is to encourage children's creative expression through programming and to increase their interests in computer technologies. The seminars are led by the library IT specialist with the assistance of a librarian. They begin with a demonstration of the capabilities of the Finch robot and initial steps in programming. Finch is designed to allow students to write complex interactive programs. On-board features include: light, temperature and obstacle sensors; accelerometers; motors; buzzer; full-colour beak LED; a pen mount for drawing capability; USB port so no batteries are required. The children learn how to code different actions and to create algorithms for tasks for the robot to perform. |
| Resources needed to implement the idea Please, provide any link and/or send them in attachment | Tutors – IT specialist and assistant (librarian); Finch robot sets (as many as needed); Training room with enough space for Finch demonstrations; Laptops or desktop computers (as many as needed); Multimedia, Screen; Educational contents: Coding for Beginners: Using Scratch by Rosie Dickins and Jonathan Melmoth Online educational resources: https://www.youtube.com/watch?v=hPZYAK0b3_8&t=15s https://scratch.mit.edu/projects/editor/?tutorial=getStarted&fbclid=lwAR26TJQz1RBXYon8KNy-SFc6Hdt1l10gl0OZYqxYoJEuovfC5iSjpj0RuCo |

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Target groups

Children from 6 to 11 years – in kindergarden or primary school.

https://www.birdbraintechnologies.com/products/finch-robot-2-



| Elements of innovation | In 2017 five Finch robots were donated to the Regional Library in Smolyan by the American Embassy and the Global Libraries – Bulgaria Foundation. The first training seminars were held during EU Code Week that same year with local children. From then on the initiative became annual, and free seminars were held in other towns and villages in the Smolyan region. At that time the Finch robot training was innovative for kindergardens and schools because programming wasn't part of the school curriculum. The children were introduced to the Finch robot for the first time outside of their formal school environment – in the library, where tutors are different from their teachers. The demonstrations and activities take place in a fun and relaxed atmosphere. |
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| Tips to other library staff using this idea | Some suggestions: • Plan actitivities and tasks in advance according to children's age; • Match the Finch robot model to the programming environment; • Offer different or enriched lessons from the school curriculums. |
| Keywords | #robot #coding #digitaliteracy #equipment |
| References | Website: - https://librarysm.com/oktober18.html - https://www.librarysm.com/oktober.html - https://www.glbulgaria.bg/bg/node/33872 - http://www.deckiotdel.librarysm.com/gall.html?fbclid=lwAR11JygZ GCxqV6057goSSYAmF4fcmN4dZ1_PRuRQRXFxZ6fXrPUzZvIU HE4 - https://www.librarysm.com/%D0%BD%D0%BE%D0%B2%D0%B8%D0%BD%D0%B8/15_22.html?fbclid=lwAR10INmeywirk3KXKS PSPqb4kAO0L1BYMdMTGnNvv6prawUkafkQtbHr6G0 Social media posts: - https://www.focus-news.net/novini/regioni/Zavurshiha-iniciativite-ot-Evropeiskata-sedmica-na-kodiraneto-v-bibliotekata-v-Smolyan-1337782 |



