

PARTNERS:



Robotic Teacher Community



Demonstration of Roteco: An informative, collaborative platform with a unique community ecosystem

Introduction

The Roteco demonstration will present the DNA of the Roteco project, the collaborative platform and its contents and how Roteco is currently supporting its community of educators. Roteco encourages synergies with FabLearn Europe / MakeEd and in the spirit of open-ended exploration encourages the possibilities.

Blikstein (2013) suggested community building and dissemination of FabLearn / MakeEd work through: 1) Tools for exchange of experiences between participants; 2) A crash-course in some of the theoretical foundations in the field; and 3) A web-repository of relevant literatures, research methods, instruments, and institutions working in this field [1]. Roteco offers those possibilities. The makerspace visiting program for schools (Assaf 2019) at the University of Teacher Education St. Gallen in Switzerland [2] is put forward as a notable example with sharing its courses and expert articles on Roteco activities.

The goal of the Roteco project: a community of teachers

The goal of the Roteco project is to create a vibrant community of school teachers in the field of robotics and computational thinking who share classroom practices around educational robotics, are informed about the new developments in the field and offered trainings in the use of the robots. The *Roteco.ch* website is a collaborative platform with the aim of making information about educational robotics friendly and accessible. To support the start and building of a community of teachers, the Roteco project designed, developed and animated a web platform under the domain name *Roteco.ch*. There are several platforms for teachers and for educational robotics, however, *Roteco.ch* was developed considering and starting from specific needs expressed by teachers. This encourages the possibility to bring about a bottom-up development of teaching tools that could support the needs of the teachers. In addition to the platform, Roteco also offers training courses for teachers, educational resources and participates at different events to promote educational robotics, such as the FabLearn Europe/ MakeEd 2021 Conference.

Description and design rational

As of May 2021, *Roteco.ch* hosted more than 697 learning activities in the three platform languages, had more than 1044 active teachers and more than 113 courses related to educational robotics. More than 209 news items, 194 events and 79 stories complete the offer of contents for this teacher community. Since February 2019 there have been 132,000 views of the website, and this will continue to grow. It is funded by the Swiss Academy of Sciences and the ETH-Board. We welcome the FabLearn Europe / MakeEd community to join Roteco. The platform is in French, German, Italian and English soon to come.

The *Roteco.ch* platform is designed and developed through a constant involvement of teachers and members of the community. Roteco welcomes the FabLearn / MakeEd community to join with us as we grow and adapt to community needs and feedback as well as expert input.

Conclusion

Roteco encourages community building for educators and would support the dissemination of FabLearn / MakeEd through supporting the exchange of experiences between participants through:

- 1) The sharing of activities, news, and events on the Roteco platform such as: <https://www.roteco.ch/de/events/post/fablear-n-europe-makeed-2021-2/>
- 2) Promote theoretical foundations in the field through sharing course offerings through www.roteco.ch and thereby to all of the Roteco community
- 3) Providing a platform that will serve as a web-repository of relevant literatures, research methods, instruments, and institutions working in this field [2]. The Roteco community offers those possibilities and encourages both of our communities to discover, learn and contribute in an open-ended manner to each other.

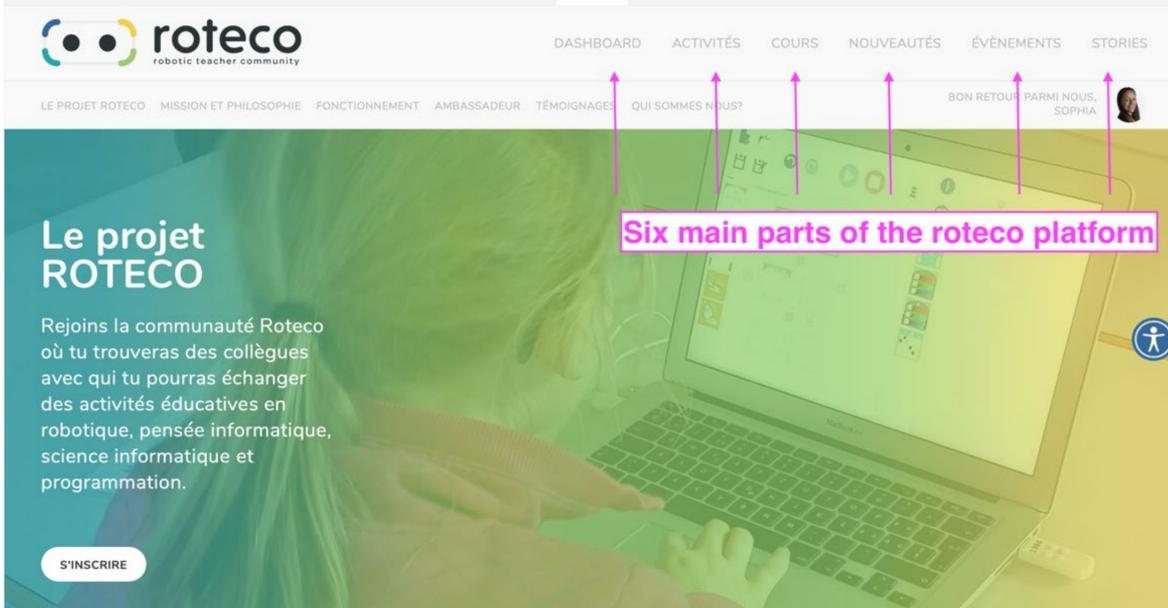
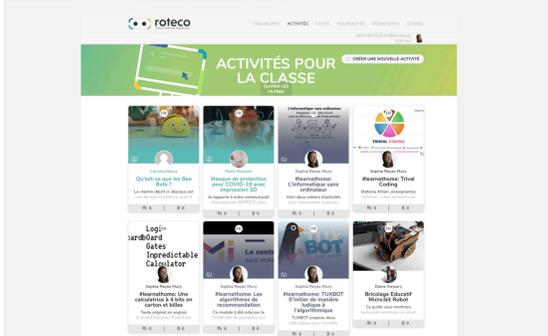


Fig. 1 Roteco homepage in French



www.roteco.ch

Fig. 2: 'Activities' Section (Available when registered in Roteco. Welcome! Roteco is open to all educators and free.)

References

[1] Paulo Blikstein and Dennis Krannich. 2013. "The makers' movement and fablabs in education: experiences, technologies, and research." Proceedings of the 12th International Conference on Interaction Design and Children. Association for Computing Machinery. 613-616. <https://doi.org/10.1145/2485760.2485884>.

[2] Dorit Assaf, Josef Buchner, and Andreas Jud. 2019. "Evaluating a Makerspace Visiting Program for Schools at a University of Teacher Education." Proceedings of the FabLearn Europe 2019. New York, NY: Association for Computer Machinery. 1-3.

PH St. Gallen and Schwyz's Roteco links (each link is in all three Roteco languages: Italian, German, French)
<https://www.roteco.ch/it/activities/post/microbit-sfida-minigolf/> ('Activities' Section available when registered in Roteco. Welcome!)
<https://www.roteco.ch/de/stories/artikel/making-macht-schule-ein-framework-fur-die-umsetzung-eines-maker-orientierten-unterrichts-in-der-praxis/>
<https://www.roteco.ch/fr/stories/articles/imake-it-inventez-programmez-et-construisez-votre-monde/>

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