FeSTEM community platform: creating meaningful, mentoring relationships with experts in STEM

This poster presents an overview of an e-mentoring platform that aims to link Higher Education (HE) students in Science Technology Engineering and Mathematics (STEM) with experienced mentors in the field. Given the nature of this venture, we democratized the design process, encouraging for multiple voices from different stakeholders to be heard and inform the design process. This poster demonstrates the process adopted for building FeSTEM (Female Empowerment in Science Technology Engineering and Mathematics) e-mentoring platform and concludes with implications for research and practice in maximizing users' involvement in the design process.

FeSTEM community Platform

Methodology

Ethnographic and scenario-based methodologies and techniques were employed to capture and document user needs for developing an e-mentoring platform. By putting users in the heart of the design process, we aim at attracting a higher number of target users and at the same time tackle with unauthorized use.
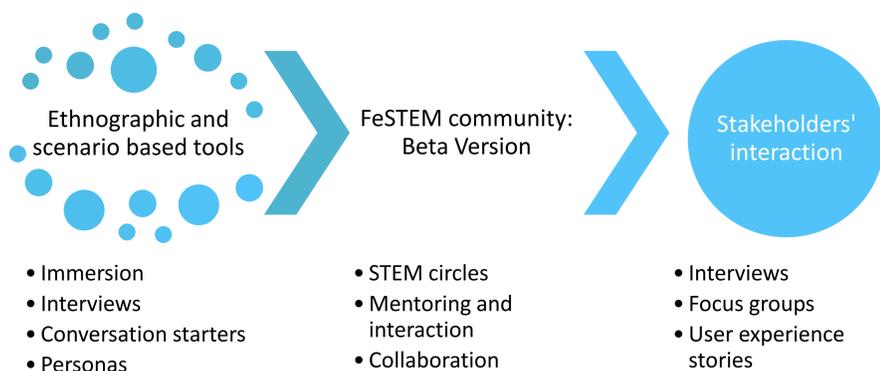

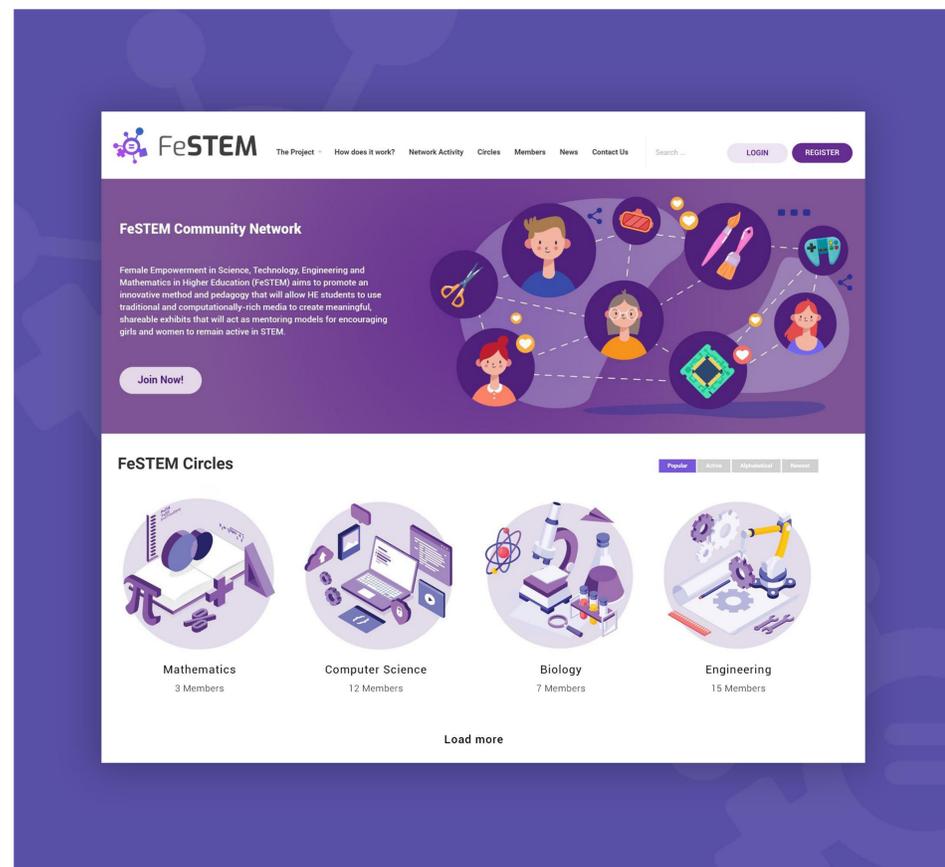Figure 1. Democratizing the design process.

Figure 2. FeSTEM platform interface (Beta version).

Platform Overview

Open-source technologies were used for the development and hosting of the platform. Apache Webserver was used to host the platform while MySQL / MariaDB were used to host the database.
The end platform is an interactive Web 2.0 based soliciting ideas and contributions and provoking debate and discussion. The Beta version of the platform hosts various communities, the so-called "Circles'. Circles have a prominent place on the platform encouraging discussion and interaction between users with common interests. The content of each circle is driven by the users in the format desired or in the format determined by the administrators of each Circle. In addition, every Circle has its own forum to encourage discussion, improve communication, increase collaborations and ultimately engage the members to their Circle and the platform in general. Except Circles, members are able to search for people that they know and then build up their own network of friends (see Figure 3).
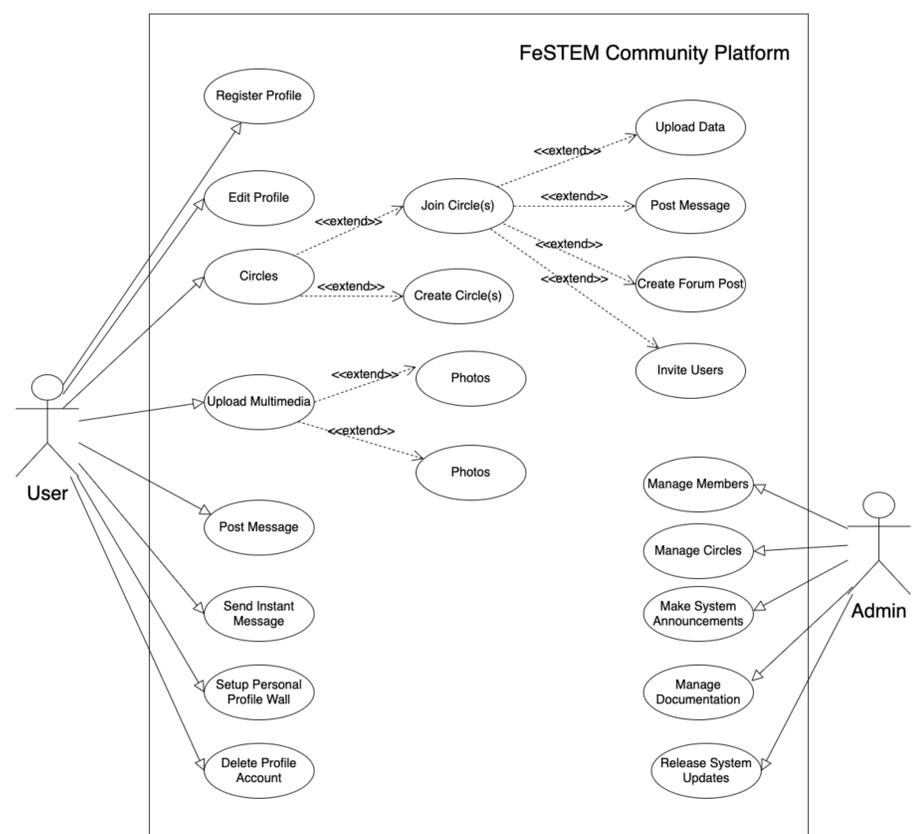

Figure 3. Use case diagram of FeSTEM platform.

Conclusion

Active engagement of users and consideration of human factors is instrumental in making decisions in all stages of the design process. User-Centered Design approaches can enlighten the design process and avoid flaws and strengthen usability and user-friendliness. The beta version is currently available and we invite people to join here (https://festem.network/).

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