

Open Education 2030

Call for Vision Papers

School Education

Girls are going to save the world!

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Let's build a pan-European gamified, online platform, supported by (female) mentors and role models, for engaging girls to carry out socially-oriented projects in their communities using Science, Technology, Engineering & Mathematics

1. The world needs more girls and women in STEM (science, tech, engineering & math) fields

- Too few girls and women take up studies and careers in STEM fields
- Too few women are leaders in STEM fields
 - important priorities and decisions are made and research and activities carried out without female involvement and input
 - involvement of girls/women in leadership has positive impact on families, community and wider society with their involvement
- The world, our species and our fellow creatures suffer from the lack of women in STEM
- Something needs to be done to change this pattern!
 - From an early age
 - In a hands-on, result-oriented, practical and fun way!

2. Gamification is a way to engage girls to start, carry out and finish projects that help their broader communities (see: <http://www.urgentevoke.com>)

- Gamification is gaining broad acceptance as a way to engage and keep audiences engaged in projects with a remote-ish result horizon
 - Games are fun because they are built on incremental payoff structures
 - Competition, and incremental reward keeps participants engaged in all stages of the process
- Learning is easier and more effective when it's fun
- Gamified, project-learning that has a concrete result is appealing to girls and provides functional, expert and social skills that are reusable

OPEN EDUCATION 2030. JRC-IPTS CALL FOR VISION PAPERS. PART II: SCHOOL EDUCATION

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- Girls, boys, let's face it, everyone is excited by activities that are fun, hands-on, rewarding (personally and for others) and result-oriented

3. Making STEM social, result-oriented and positive will get more girls engaged in these fields

- Girls want to use science and technology to help people and society
- Practical, project-orientation with concrete, measurable results, milestones and timelines drives engagement
- Support of experts and role models in fields creates transfer of know-how and inspiration for girls

4. Matching girls with (female) mentors in STEM fields has an added-value

- It increases the likelihood of success for projects started
- It gives girls role models to look up to and aspire to become, particularly in STEM
- It puts practical knowledge of experts and role models back into practice with young people
- It has the added promise of spurring innovation, research and entrepreneurship by girls who become mentored by female and male role models in STEM areas

5. Spill-over and multiplier effects

- Such an online community can be buttressed and supported by webinars and face-to-face workshops/classrooms by experts and “young role models” created by the network
- The online platform can promote pan-European teams working on large-scale, real problems faced by real scientists, researchers, entrepreneurs and communities everywhere
- It can drive research and innovation by young people (girls) in fields that are traditionally closed to them
- This work can be linked to exchange programs, interfacing with kids in other countries and even on other continents to bring solutions to communities in need around the world
- The platform can be integrated with MOOCs and other online knowledge tool making the entire process user-driven and coached by real, committed people and role models
- It can connect with life-long learning and e-learning communities to activate the silver generation and promote cross-generation innovation, especially among girls and women

6. Conclusions

- Girls need STEM knowledge and empowerment for the benefit of humanity, the planet and our fellow creatures.
- Learning needs to be fun.
- Youngsters need studies and careers that have a practical, beneficial and positive impact on the world.
- The world needs girls (and boys!) active in their communities doing good.