womENcourage 2020 Hackathon

One of the 17 Sustainable Development Goals (SDGs) is aimed at ensuring inclusive and equitable education and promoting lifelong learning opportunities for all.

According to the 2020 GEM Report¹, a quarter of a billion children, adolescents and youth are not attending school. 25% of all countries have laws requiring children with disabilities to be educated in separate settings. 40% of the poorest countries failed to support learners at risk during the COVID-19 crisis.

To achieve SDGs by 2030, all countries in the world should ensure that:

- All girls and boys complete free and quality primary and secondary education leading to relevant and effective learning outcomes.
- All women and men have equal access to affordable and quality technical, vocational and tertiary education, including university.
- There is a substantial increase in the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
- Vulnerable groups, including persons with disabilities, indigenous peoples and children in vulnerable situations have equal access to all levels of education and vocational training.
- There is a substantial increase in the number of qualified teachers, especially in disadvantaged areas, where the equity gap in education is exacerbated by the shortage and uneven distribution of professionally trained teachers.

Information and communication technologies are powering a revolution in digital learning, which has become one of the world's fastest-growing industries. Mobile devices allow students to access learning assets anytime, anywhere. Teachers use mobile devices from literacy and numerical training to interactive tutoring.

At the same time the current global COVID-19 pandemic caused closures of schools and universities sending more than 1.5 billion young people home. Students, parents, teachers and communities continue to cope with social isolation while exploring how to keep studying, obtaining new skills in a myriad of available online learning content, social media platforms and collaborative tools. Those with no or little connectivity are further isolated.

For students, parents, teachers, educators, and others, home confinement has brought the additional attention and need for an innovative learning paradigm, one centered on practical and real-world digital skills. This time is particularly challenging for almost 50% of the global population who lack access to broadband internet.

Therefore, this year’s hackathon, we challenge you to create software solutions for education that can make a difference. In more detail, the prototype you develop during the hackathon, should aim to meet one (or more) of the following goals:

- Expand access to knowledge for various socio-economic groups including youth, mid-level professionals and senior citizens.
- Reduce barriers to skills development, technical and vocational education and training.

● Increase and diversify learning opportunities, so that youth and adults would acquire relevant knowledge, skills and competencies for decent work and life.

● Assist in developing high-level cognitive and non-cognitive skills, such as problem solving, critical thinking, creativity, communication skills and conflict resolution, which can be used across a range of occupational fields.

● Empower teachers and educators, assist in their recruitment, remuneration, and motivation, supported within well-resourced, efficient and effectively governed systems.

Your task

First, narrow down the problem. How can technology make a difference in today’s education? Decide what kind of issues you are going to focus on within this general theme. You may want to specify one or more:

● Target audience for the product you want to develop (their age, profession, nationality, background, skill set, disability etc.),

● Strategic goal within the education theme,

● Development platform for your app (Web, mobile etc.).

Second, design your solution. What features does your Minimum Viable Product need to have in order to meet your goal(s)? Make sure to take into account:

● Any constraints of your audience such as accessibility of the interface or the quality of the Internet connection,

● The resources you have access to, for instance the IBM Watson AI Services\(^2\),

● The background of your team, e.g. design experience, business expertise, technical skills, educational background,

● The amount of time you have to prototype it - the project presentations start at 18:00 Baku time!

Thirdly, prototype your solution. Although it may be challenging to do pair programming virtually, encourage collaboration within your team. You can use online development tools such as GitHub to share the code with each other and keep track of what everyone on your team is working on.

Finally, prepare your pitch. A hackathon pitch is a concise line of talk that could persuade potential investors that your project has a potential to make a difference. Agree with your team how you are going to present your project to the panel of judges. Here are some questions you may want to include answers to:

● What is the specific problem within the education theme that your team is solving?

● Who has this problem?

● How does your project solve the problem?

● What is your competitive advantage? Why is your solution better or different than others?

● What is the impact your solution can make (social, financial etc.)?

Demonstrate the jury how your product works. You may also consider sharing links to the app or code in your presentation.

\(^2\) https://womencourage.acm.org/2020/workshops-and-tutorials/#workshop-0B