PRESS RELEASE

PhET Interactive Simulations launches new Fellowship program to promote STEM education in Africa and Latin America

32 PhET Fellows have been appointed across Africa and Latin America to accelerate the adoption of engaging and research-based teaching and learning practices in STEM education

12 May 2022 – PhET Interactive Simulations, a University of Colorado Boulder project, announced today the launch of its inaugural PhET Fellowship program, welcoming 32 Fellows to support the promotion of science, technology, engineering, and math (STEM) subjects in schools and universities across Africa and Latin America. This program is part of the PhET Global initiative, supported by the Yidan Prize Foundation as part of the prize project activities of 2020 Laureate Carl Wieman.

STEM fields are among the most critical to drive the socio-economic development of a country and prepare their citizens to tackle the challenges of the 21st century. With a high percentage of young persons among their populations, Africa and Latin America, in particular, have significant potential to benefit from advancements in STEM. However, according to the African Development Bank, less than 25% of African higher education students pursue a career in STEM, and both regions struggle to provide quality STEM education at scale.

To support STEM education in these regions, PhET has recruited 32 Fellows—15 from Africa, and 17 from Latin America—who are teacher leaders in secondary or tertiary education. These Fellows will promote robust teacher communities and advance students’ access to quality STEM education, reaching at least 1,600 teachers across the two continents. In Africa, Fellows originate from Botswana, Ethiopia, Ghana, Kenya, Malawi, Namibia, Nigeria, Rwanda, South Africa, The Gambia, Uganda, and Zambia. In addition to working in their own communities, these Fellows will work with each other across the region and the globe.

Together, they will accelerate the uptake of research-based math and science teaching and learning approaches through PhET simulations, build a community of local STEM experts, and reach thousands of students—giving rise to future generations of STEM professionals.

PhET Interactive Simulations provides free access to a collection of over 150 engaging, game-like computer simulations to support STEM learning. They are designed for students to learn through play and exploration—which is how they actually learn—emphasizing the connections between real-life phenomena and the underlying science. These simulations have proven to be effective for a wide range of students—even for those without access to physical laboratories. They can be run online, or downloaded to play offline for learners and teachers worldwide. They are available in 101 languages, including Amharic, Arabic, Chichewa, Dutch, French, German, Hausa, Igbo, Kinyarwanda, Portuguese, Sotho, Spanish, Swahili, Tswana, Twi, and Yoruba.

Celebrating its 20th anniversary this year, the PhET project has delivered over 1.1 billion simulations worldwide, with more than 250 million online simulation sessions taking place on average per year. With the rise of remote learning due to COVID-19, PhET has more than doubled in usage since 2020. In Africa and Latin America, the usage growth has been even larger, increasing 5 times across Africa and over 10 times across Latin America. Collectively, the regions have run PhET simulations online over 64 million times since March 2020, not including any offline use.
Professor Carl Wieman, founder of PhET Interactive Simulations, and a Yidan Prize and Nobel Prize laureate, said: “Education and the ability to think scientifically are fundamental for people to learn how to make better decisions and be more successful in all aspects of their lives. Through this Fellowship program, we are nurturing a pool of local talent to advocate for a scientific approach to teaching maths and science. We especially want the most marginalized students to benefit from high-quality STEM education, so that they are better prepared to face the challenges of tomorrow.”

The PhET Fellowship will support each participating individual’s pedagogical and leadership growth for 18 months, as they continue in their full-time roles in education. The program will take place in two phases—with 80+ hours of professional learning to build skills and knowledge of PhET resources, and 70+ hours of professional leadership practice to support teachers’ use of PhET simulations across their regions.

Edward Ma, Secretary-General of the Yidan Prize Foundation, said: “Carl and the PhET team have been creating new possibilities through digital STEM education for two decades. They apply the science of learning to equip learners around the world with skills to think like a scientist. The Yidan Prize Foundation is very proud to support PhET’s new Fellowship program. We hope that more schools and teachers will see the value of engaging learners through research-based STEM education, and accelerate its adoption across Africa and Latin America.”

These Fellows will join PhET’s upcoming Africa Share and Discuss webinar on 18 May 2022. The webinar will allow PhET users in Africa to share insights on how to support students’ motivation and interest in STEM education, and effectively incorporate PhET simulations in classes. Click here to register.

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ABOUT THE YIDAN PRIZE

The Yidan Prize Foundation is a global philanthropic foundation, with a mission of creating a better world through education. Through its prize and network of innovators, the Yidan Prize Foundation supports ideas and practices in education—specifically, ones with the power to positively change lives and society.

The Yidan Prize is an inclusive education accolade that recognizes individuals or teams who have contributed significantly to the theory and practice of education. It consists of two prizes, working in harmony: the Yidan Prize for Education Research and the Yidan Prize for Education Development. They’re designed for impact: laureates receive a project fund of HK$15 million over three years, helping them scale up their work, as well as a gold medal and a cash prize of HK$15 million (shared equally for teams).

For more information visit yidanprize.org or contact media@yidanprize.org. Find us on Facebook, Instagram, Twitter and LinkedIn.
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