

Alcaldía de Medellín Distrito de Ciencia, Tecnología e Innovación

@SapienciaMed

# OBSERVATORIO



#### A look over the main educational **news and tendencies** of the international landscape

With the purpose of contributing to the strengthening of post-secondary education in the City, Sapiencia carries out a tracking of the initiatives and the processes related to education in different international scenarios, through the Strategic Intelligence (SI) tool of the World Economic Forum. This brings the possibility to learn and identify projection opportunities for the educational processes of the city.

Some findings of the examination made between February 25th and March 30th 2023 are shown in this report below.

### ESSENTIAL SOFT SKILLS

Soft skills are related to the implementation of a combination of social and communication skills, aptitudes and the ability to approach others, such as: creativity, flexibility, problem solving, critical thinking and teamwork. These skills begin to develop from basic education and are strengthened and refined in secondary and post-secondary education, as well as in adult life in the workplace. They are important not only to achieve greater adaptability in future jobs, but also to improve people's quality of life.

Taking into account the importance of strengthening soft skills, Sapiencia has included, within its offer of the Arroba Medellín digital citadel, different courses focused on contributing to the well-being of individuals inside and outside work scenarios, also has included tools to improve the different skills of people, as well as fundamentals for entrepreneurship.

An international news article that is related to the training of soft skills is shown below.



Here's why education systems must start adopting a 'skills first' approach.

World Economic Forum March 30th 2023

The World Economic Forum has been leading a global initiative to improve the education of skills required in the 21st century (cognitive, interpersonal and physical). In January 2023, the report "Defining Education 4.0: A Taxonomy for the Future of Learning" was published with the support of the LEGO Foundation, which presents a comprehensive set of skills, attitudes and values to prepare young students. Boys and girls need to learn to collaborate, to have empathy and kindness, to care for each other and the environment, as well as to solve problems and think critically. These skills are important to live a fulfilling life and to contribute to the job market and society in general. One of the premises of the report is: "the future of education lies in empowering young learners to embrace and develop their unique human qualities, those that are unlikely to ever be replaced by technology." This article addresses key points about what businesses, governments and education can do to equip boys and girls with the right skills.

## 2 QUALITY EDUCATION

Education is one of the tools that offers more and better opportunities to break the circles of poverty of millions of people and create better possibilities for just and democratic societies. Although progress has been made to improve access. quality, continuity and permanence in education. new local and global challenges constantly arise. such as the appearance of the COVID 19 pandemic, emerging migratory processes in different territories and the maintenance of wars as way of conveying differences and conflicts. These conditions have made it difficult, as stated in the fourth objective of the Sustainable Development Goals (SDG) to guarantee an inclusive, equitable and quality education that promotes learning opportunities throughout life, for everyone

Sapiencia is committed to the democratization of knowledge in the Special District of Science, Technology and Innovation of Medellín, for this reason it has a wide range of programs including scholarships and forgivable loans, which allow access and permanence of students at different levels of post-secondary education , providing programs focused on a professional level (EPM Fund, Participatory Budget, best athletes and best graduates) and Postgraduate studies (Extending educational frontiers, Enlaza Mundos, Advanced Training) and specialized Continous education with training in Specialized Talent.

Below there is an international news article regarding quality education.



Giga annual report 2022: Connecting 2.12 million children to the Internet

**Giga** March 1st 2023

In the world, more than 2.7 billion people do not have access to the internet, for this reason, in 2019, Giga was created, an initiative of the International Telecommunications Union (ITU) that aims to provide internet access to girls and especially young women, so they can enjoy and take advantage of the power of connectivity, regardless of where they were born or where they live. This program is supported by partners, governments and technology providers. The 2022 report shows the innovations and milestones achieved, sharing experiences in countries such as Brazil, Palestine, Sudan, among others. By the end of 2023, Giga aims to have mapped the locations of 2.5 million schools and support 40 countries through connectivity initiatives.

## **3** CONTINUING FORMATION PROGRAMS

Due to the constant changes that the productive sector is going through, it is necessary to provide training that allows the updating of knowledge, skills, attitudes, rules and concepts for people of all ages, which implies continuing education inside and outside traditional schools.

Sapiencia runs a disruptive continuing education program, through the launch of two university citadels, one physical and one virtual,

the first of which is the Citadel of the Fourth Revolution and the Transformation of Learning (C4TA), where training is given to the population of the city in different programs and levels as specialists in various technological processes. The focus of the second citadel @Medellín is virtual education, where online programs of Post-secondary Education, Education for work and Specialized Talent are also offered.

Below there is an international news articles related to continuous training programs:



Innovation and technology enabling gender equality

PNUD March 7th 2023

In the era of the digital revolution. Technology has changed our lives, including the way we access education. But we need to be careful to not continue existing patterns of gender inequality. Innovation and technology can support our work for gender equality and the empowerment of all women and girls for sustainable development. Transformative technology means inclusivity in education but also in other spaces where women still are underrepresented. On this International Women's Day, we want to highlight the importance of technology as a tool to reduce the gender gap. In 2020, UNDP together with Samsung launched the initiative called, Generation17. Today, 14 young leaders from different parts of the world have benefited from this digital partnership, so we invited three young female leaders from Bangladesh, Viet Nam and South Korea.

### PERTINENT POST-SECONDARY EDUCATION

The need to modify the curricula has been expressed by some representatives of the business sector and the graduates, since there is a gap between the knowledge acquired in the educational processes and the skills required in the business world, as a result of the different technological changes that occur in the world. For this reason, it becomes necessary to have joint effort between the actors of the educational society to reduce this gap and the risks that derive from it.

In 2020, Sapiencia modified its mission purpose through Decree 019, which has made possible to lead the formulation and the implementation of programs, plans and projects for the consolida-



Pedagogy, technology and the refugee experience in higher education in the mid-west and north africa: sustainable learning pathways to teacher's digital fluency UNESCO March 14th 2023

tion of Post-Secondary Education. In this way, the

public policy for post-secondary education (PPEF

for the Spanish acronym) is being built, which

consists of establishing a system that integrates

Secondary Education, Higher Education, Training

for Work, and Specialized Continuina Education

through a modular and sequential training model

associated with the National Qualification

System and its components, to achieve the

highest degree of training according to the needs,

interests and potentialities of the people, the

An international news article regarding pertinent

productive sector and society in general.

post-secondary education is shown below:

This report shares the project findings of the Higher Education Pedagogy and Technology in the Refugee Context: The State of Play and Paths Forward in the MENA Region. What the authors discovered, above all, was the almost ubiquitous absence of policies, resources, guidance, and incentives to support teachers of refugees in some of their most fundamental work: course design, student assessment, student engagement, digital pedagogies, the time and tools for self-reflection, communities of practice, and data-informed teaching. Cultivating teacher's faculty and capacity both inside the classroom and out will be a hallmark of post-COVID higher education. Without faculty, all other initiatives to improve student outcomes are hobbled. The project's overall goal





## **OBSERVATORIO** Sapiencia

is to foster access, inclusion, and academic success for higher education learners in the Middle East, particularly refugees and other displaced persons, through the effective combination of pedagogy and technology.

### **DIGITAL FLUENCY AND STEM EDUCATION**

STEM education consisting of those areas of knowledge related to Science. Technology. Engineering and Mathematics, currently is presenting a high demand in the world of work. leading to plan how can students be equipped to acquire these skills that are necessary and transversal to all areas of knowledge. This digital fluency builds on basic digital literacy, adding the ability to apply critical thinking and ethical considerations when using or developing digital technologies and/or data processing.

courses focused on these areas, which allows the acauisition of skills for the so-called industry 4.0. which includes software development, programming languages, automation and intelligent manufacturing. among others, that allow a greater articulation with the technology industry. Likewise, a dissemination and awareness strategy is carried out to promote women's access to post-secondary education programs related to the software valley.

Sapiencia, through the Talento Especializado program offers a series of free and modular

Some international news articles about the actual landscape of STEM education are listed below



Moving from Access to Accessibility: The Deception of the Digital Divide in Development PNUD

The digital divide has been conceptualized as the gap between those who have

access to ICT and those who do not. To bridge these differences, it is generally accepted that a broader diffusion of digital technology would resolve these divergences. However, access does not equal accessibility.

Simply providing the tools to participate in a democratic society does not guarantee participation, nor the closing of the digital divide. In this sense, if technology is seen as the platform that will equalize those who have historically been disenfranchised, the priority must be digital inclusion. This concept brings together high-speed Internet access, information technologies and digital literacy in ways that promote success in communities and individuals. This is an area in which such accessibility is education, where learning opportunities depend on socioeconomic circumstances and in which processes such as e-learning become a tool to overcome these inequalities.



The Digital Accessibility: A **Special Insight** 

UNICEE March 8th 2023

The text presents an assessment of the implementation of the course "Development of digital skills for adolescents with visual disabilities", an initiative of the Asian Society "Zhan" for the Rights of Persons with Disabilities and the Representative Office of the United Nations Fund. United Nations Children's Fund (UNICEF) in Kazakhstan. This is a process focused on skills for employment and social entrepreneurship in adolescents with visual impairments



with digital technologies and gain independence through working with technological programs and devices. With these new skills, they will be able to do important activities such as

From

from 10 to 19 years old. During the course, participants were trained to work

downloading books, using the browser, the voice assistant on electronic devices and calling a taxi by application.

## **EDUCATIONAL** INNOVATION

Educational processes have been undergoing changes, which were accelerated after the pandemic and the mandatory use of virtual education, making it necessary to think about education in the short, medium and long term. Educational technologies are emerging around the world, and this represents great opportunities to improve access to education, but also poses challenges in terms of its application and evaluation. In this way, research in pedagogy is relevant, which can demonstrate the performance of the different technologies: their applicability and monitoring for all students, even those with specific needs

information search strategies are carried out that allow identifying the main technological initiatives that are carried out at an international level, in order to com and transfer knowledge that is useful to experts and/or decision makers, such is the case of the dynamic reports and the issues notes

the Sapiencia

Observatory.

Below there are some international news articles about educational innovation:



When learning goes digital: **Reflections on urban youth living in** poverty in Malaysia PNUD

March 8th 2023

This research highlights the difficulties faced by Malaysian students during the pandemic, especially those living in urban areas, which corresponds to 75% of the population of this territory, of which 30% are classified as "urban poor". Faced with the limitations of digital infrastructure and domestic environments that are not conducive to learning, the government took some measures so, in April 2020, it started a TV program known as "Pendidikan", a space on a television channel managed by the Ministry of National Education, where educational programs of various school subjects were transmitted. This served as an alternative for students who could not access the Internet, because TV penetration rates in homes are higher than that of the Internet.

In addition, the Ministry of Education also launched a digital learning platform that incorporated material from leading educational technology brands, including Google Classroom, Microsoft 365 and Apple Teacher Learning Centre. Among the conclusions of this report. It is highlighted the need to reduce the existing digital divide in terms of access to devices and/or a stable connection, as well as providing economic support to the most vulnerable communities in urban areas.



Meet Eduten, the edtech startup with the potential to become a 'Blue Unicorn' that impacts the learning experiences of 100 million children

UNICEE March 20th 2023

UNICEF and Extreme Tech Challenge (XTC) launched the UNICEF EdTech Prize in 2022 with the aim of identifying female entrepreneurs from around the world who are working on game-changing digital learning solutions and show the greatest potential to become "Blue Unicorns1", companies that have an impact

on the learning experiences of at least 100 million boys and girls. The 2022 UNICEF EdTech Award went to Eduten: a gamified mathematics learning platform from Finland that reaches one million teachers and students in more than 50 countries, contributing to improving learning outcomes. With a content library of 200,000 mathematical problems, Eduten's Artificial Intelligence (AI) engine helps teachers adapt content to the learning pace of each student and is adaptable to many cultures, languages and curricula.

<sup>1</sup> They are technology companies, usually startups, that reach a value of one billion dollars without being listed on the stock market.

## THE FUTURE OF WORK

The world of work is changing rapidly and it is necessary to design new healthy work models to channel this change towards the creation of stronger livelihoods and sufficient co-guarantees. Job creation was already high on the global agenda before the global pandemic disrupted labor markets in different territories. In this context, the education sector recognizes that is needed an articulation with the different actors in society that elaborate policies that can help, ideally, both workers and their employers. The best approaches will take into account changing demographics and changing work roles, and use disruption as a means to design workplaces that are truly responsive to the needs of evervone.

Sapiencia offers programs focused on improving the employment profile of its beneficiaries in order for them to transition more harmoniously into the labor market. For this, it has provided a wide range that is responsible for covering the most pressing needs of the labor market and the 4.0.industry in the short and medium term. Thus, it offers disruptive courses on technological megatrends that will impact the vast majority of jobs, such as: Artificial intelligence, Data Science, Blockchain, among others.

Here it is an international news article related to the future of work



STRATEGIC WORKFORCE PLANNING AS A COMPETITIVE ADVANTAGE Oliver Wyman 26th February 2023

Regardless of the size or the industry, organizations seek to establish broad and strong digitalization objectives as part of their strategic bets. However, while they often focus significant effort on creating and implementing digital technologies, few apply the same diligence to ensure their workforce is organized, sized, and adequately equipped in digital skills. Actively identifying workforce requirements based on new tools and techniques and defining the required skills and capabilities is the foundation through which organizations effectively align organizational talent with strategic objectives, thereby enhancing people as the engine of transformation. While many companies implement performance appraisal programs, few regularly seek to identify gaps in their workforce, which prevent them from achieving strategic objectives.

## **EDUCATION IN** THE WORLD

observatorio@sapiencia.gov.co



