DYNAMIC REPORT OF
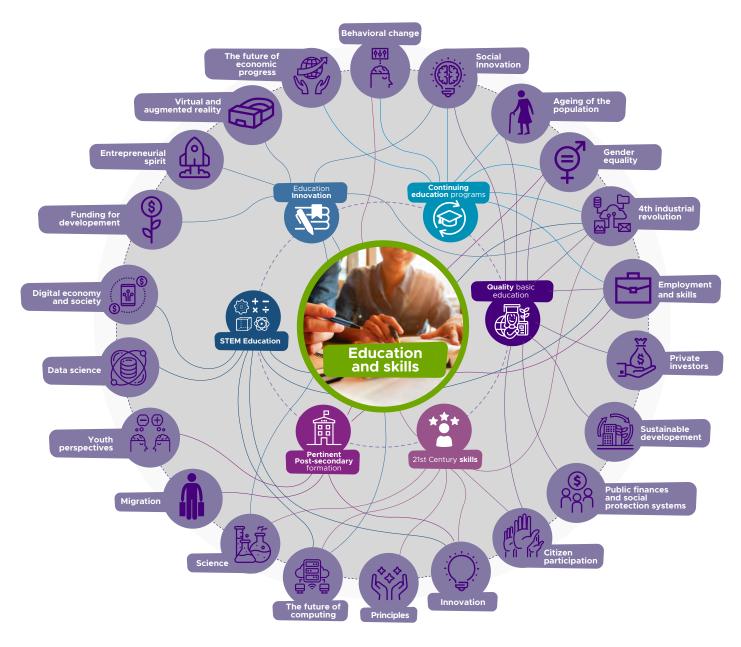# STRATEGIC INTELLIGENCE

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

Behavioral change

The future of economic progress

Social Innovation

Virtual and augmented reality

Ageing of the population

Entrepreneurial spirit

Gender equality

Education Innovation

Continuing education programs

Funding for developement

4th industrial revolution

Digital economy and society

Quality basic education

STEM Education

Employment and skills

Education and skills

Data science

Private investors

Youth perspectives

Pertinent Post-secondary formation

21st Century **skills**

Sustainable developement

Migration

Public finances and social protection systems

Science

Citizen participation

The future of computing

Principles

Innovation

May 2021
Source: Strategic intelligence
World Economic Forum

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1.

Continuing
Education Programs

Generally, education ends early in life, which is a disadvantage for labor market productivity. Adult education is vital to ensure that those that are already in the workforce and their employers, are able to deal with the challenges created by the fourth industrial revolution. Providing flexible learning, or helping employees to acquire new skills, will be a key method of mitigating unemployment and unequal access to resources.

CENTER FOR GLOBAL DEVELOPMENT

How Do Early Child Development Interventions Affect Mothers?
In Most Cases, We Don't Know.
20th of May 2021

Lots of children in low- and middle-income countries do not receive the nutrition or stimulation in early childhood that will help them thrive later in life. In recent years, many countries (along with their international partners) have increased investments in programs seeking to meet that need: parent training classes, increased access to daycare and preschool programs, nutrition supplementation, cash support, and more.

ASIAN DEVELOPMENT BANK

In Pakistan, Private Sector Partnerships are Key to Improving Education
12th of May 2021

Education is essential aspect of human development, it develops cognitive skills and enhances the productivity and innovation of a country's population. Since 2010, the provision of free and compulsory quality education to children aged 5 to 16 has become required in the Constitution of Pakistan and expansion of education opportunities has been embraced in the country's national long-term strategy. Even though overall school enrollment and educational attainment have improved countrywide over the last two decades, Pakistan still faces grave challenges in providing high-quality and adequate education to eligible children. Almost 23 million, or 44% of children between the ages of 5 and 16, are out of school.

FRONTIERS

"Fake news" or real science?
Critical Thinking to evaluate COVID-19 information
3rd of May 2021

Few people question the important role of critical thinking in students who become active citizens; however, the way science is taught in schools is still more oriented towards "what to think" than "how to think. Researchers understand critical thinking as a tool and a higher order thinking skill needed to be an active citizen when dealing with socio-scientific information and making decisions affecting human life, for which the COVID-19 pandemic provides many opportunities. The COVID-19 outbreak has been accompanied by what the World Health Organization (WHO) has described as a "massive infodemic". Fake news stories covering all aspects of the pandemic spread rapidly through social media, creating confusion and misinformation.

FRONTIERS

Comparing the Emergence of Technical and Social Sciences Research in Artificial Intelligence
26th of April 2021

Applications of Artificial Intelligence (AI) can be examined from perspectives of different disciplines and research areas ranging from computer science and security, engineering, policymaking, and sociology. The technical scholarship of emerging technologies usually precedes the discussion of their societal implications but can benefit from social science insight in scientific development. Therefore, there is an urgent need for scientists and engineers developing AI algorithms and applications to actively engage with scholars in the social sciences. Without collaborative engagement, developers may encounter resistance to the approval and adoption of their technological advancements.

LONDON SCHOOL OF ECONOMICS

Casuality and complexity in impact statements: is it time to rethink a one-size-fits-all approach to writing about impact?
3rd of May 2021

As part of the REF assessment researchers across STEM and SSH disciplines are required to write about the impact of their research in essentially the same format. Drawing on a linguistic analysis of REF Impact statements from 2014, Andrea Bonaccorsi, highlights key differences between statements being made by scholars in STEM and SSH disciplines and suggests differences in the causality of impact between the disciplines warrant a reconsideration of how these statements are produced and judged.

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2.

Quality
Basic Education

More than 263 million young people around the world do not go to school. Basic education should provide a stronger foundation to learn new skills in the future. Unequal access to education leads to a unequal access to opportunities and can permanently hinder the students' potential to learn new skills in the future. Technological innovation could be a good way to tackle this problem.

BROOKINGS

To "build back better," we must connect young people to jobs and education

20th of May 2021

Even using a relatively small allocation of dollars, state and local leaders can build a youth workforce development system that is more holistic and that can be self-sustainable beyond the current crisis to better prepare youth for success in life and in work.

RAND CORPORATION

Understanding the cost to deliver high-quality, publicly funded pre-kindergarden programs

6th of May 2021

Researchers at the RAND Corporation use the data collection and modeling to estimate the cost of a high-quality, publicly funded pre-kindergarten program. They describe the challenges in understanding the total costs of the program and the implications for the policy makers.

CENTER FOR GLOBAL DEVELOPMENT

A symposium on Girin Beeharry's manifesto for global education

19th of May 2021

Earlier this year, Girin Beeharry stepped down as the inaugural director of the Bill & Melinda Gates Foundation's global education program. But he's not going quietly. His recent essay, "The Pathway to Progress on SDG 4," is essentially a manifesto for international actors in the education sector. In it, Girin diagnoses deep failures in the sector he's helped shape in recent years, and lays out his vision for what needs to change to get back on track toward the United Nations' Sustainable Development Goal of quality education for all (SDG4).

SOUTHERN VOICE

Is Education Technology the great equalizer? Lessons from Kenya

19th of April 2021

To reach the most vulnerable child population, Kenya must adopt multiple learning modalities, ranging from television and radio to mobile technology.

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Colonial era education can explain regional political inequality in Africa

16th of April 2021

SPRINGEROPEN

The educational power of humor on student engagement in online learning environments

26th of April 2021

The primary goal of the study is to investigate the effect of the usage of humor on behavioral, emotional, and cognitive engagement in online learning. Humorous elements were integrated into the online learning components. The mixed-method study was conducted over 14 weeks with the participation of 74 university students in an online university course. As a result, elements of humor can be integrated into materials for attention grabbing, recalling, feedback, and humor breaks. A diversity of humorous elements created a significant difference and improved behavioral engagement for course materials, discussions, and assignments. However, humorous elements did not contribute to the behavioral engagement for quizzes.

Ministerial appointments are highly coveted government positions among the political elite in Africa and elsewhere. This is for good reason. Cabinet ministers enjoy some amount of discretion over the allocation of resources, especially in countries with weak institutions and weak legislatures. This turns a cabinet post into a very valuable means to satisfy one's constituents. A wealth of research shows that political elites disproportionately favour their home region, especially in less democratic countries.

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3. 21st Century **Skills**

Learning courses are updated very infrequently and usually they are not adapted to the fourth industrial revolution. The 2016 report "The Future of Jobs" published by the World Economic Forum pointed out that the basic competences of the 21st century, such as complex problem solving, critical thinking, creativity, collaboration and digital literacy are important to allow people to be flexible enough to adapt to the changing needs of the labor market.

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

COVID-19 is reorienting ethnografic fieldwork in Africa towards digital methodologies

20th of May 2021

The use of digital media does not simply erase the inequalities of access. Chagonda proposes an exploration of new media by foregrounding the lens of 'digital inequities'. Do digital methods simply replicate older inequalities which have been a feature of social science research? For example, Europeans with faster internet connections may benefit from advantages while many African colleagues face higher data costs and (often) poorer connections. In some cases, the wave of digital optimism threatens to obscure attention to inequalities as to whose voices are amplified by digital technologies.

BOCCCONI KNOWLEDGE

You can be creative thinking outside the box

7th of May 2021

We can like powerful cars, but a successful slogan reminds us that "power is nothing without control". In the same way, firms need creativity, but creative employees risk being useless if they don't conform to existing norms in the organization. Luckily, and somehow unexpectedly, Beatrice Manzoni (SDA Bocconi and Department of Management and Technology), in a paper co-authored with Federico Magni (Hong Kong University of Science and Technology), finds that creativity and conformity can coexist and conformity, in some cases, can even have positive impact on creativity.

RAND CORPORATION

K-12 Teachers use of and access to science-specific instructional materials, feedback and professional learning

21st of April 2021

In this Note, researchers use a survey from the 2020 American Instructional Resources Survey to examine how teachers' science instruction is supported and whether these supports differ from those that teachers reported for English language arts (ELA) and math instruction.

SPRINGEROPEN

The performance of some machine learning approaches and a richer context model in student answer prediction

26th of April 2021

Web-based learning systems with adaptive capabilities to personalize content are becoming nowadays a trend in order to offer interactive learning materials to cope with a wide diversity of students attending online education. Learners' interaction and study practice (quizzing, reading, exams) can be analyzed in order to get some insights into the student's learning style, study schedule, knowledge, and performance. Quizzing might be used to help to create individualized/personalized spaced repetition algorithms in order to improve long-term retention of knowledge and provide efficient learning in online learning platforms. Current spaced repetition algorithms have pre-defined repetition rules and parameters that might not be a good fit for students' different learning styles in online platforms.

RAND CORPORATION

Differences in the evolution of the cannabis market in two legalized states

13th of April de 2021

This paper is the first to examine the data from Washington's cannabis markets along with those in Oregon, two states that are similar with respect to legalization of retail cannabis sales but that differ in terms of their regulatory frameworks.

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

Nutrition, cognition and social emotion among preschoolers in poor, rural areas of South Central China: Status and correlates

27th of April 2021

Existing empirical evidence suggests that the prevalence of undernutrition in remote and poor, rural areas is still high among Chinese children. While evidence reveals that undernutrition may detrimentally affect child development, studies focusing on rural Chinese preschoolers are sparse.

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There is a disconnect between the skills needed for a job and the training that is given. Without the proper modifications to the education and training systems, this gap between supply and demand is expected to increase considerably. To deal with this, it will be very important to go back to align global talent sources with market needs. However, closing this gap will be increasingly difficult, as the requirements of skills change rapidly, especially in fields like information and communication technology (ICT).

BROOKINGS

Explainability won't save AI
19th of May 2021

Much of artificial intelligence, and particularly deep learning, is plagued by the "black box problem." While we may know the inputs and outputs of a model, in many cases we do not know what happens in between. AI developers make choices about how to design the model and the learning environment, but they typically do not determine the value of specific parameters and how an answer is reached. The lack of understanding about how an AI system works, in some cases even by the people who have developed it, is one of the reasons AI poses novel safety, ethical, and legal considerations, and why oversight and governance are especially important.

CENTER FOR GLOBAL DEVELOPMENT

Can Ghana maintain school quality after abolishing secondary school fees? We may never know.
12th of May 2021

Each year over two million secondary-school students across Nigeria, Ghana, Sierra Leone, Liberia and The Gambia sit coordinated tests known as the West African Senior School Certificate Examinations (WASSCE). In a new CGD working paper, undertaken by researchers from CGD and IEPA-Ghana, they look at English and maths papers in West Africa's leading high-stakes exams and show that they can vary significantly in difficulty from year-to-year. If exams are not comparable over time then this has implications for countries that rely on results as they make education policy and for fairness for the candidates who sit them.

THE WORLD BANK

Thinking Inside the 'Box': Pakistan Turns to Education TV During COVID-19
19th of May 2021

In response to the COVID-19 pandemic, Pakistan quickly deployed the federal program TeleSchool for Pakistani students, and the provincial program Taleem Ghar for students in Punjab. Communication campaigns were deployed via local mosques, and social media and newspaper advertising, leveraging public figures such as the Prime Minister. Support was provided to beneficiaries before and during programing. Resources such as TV broadcast and rebroadcast schedules and links to lessons can be easily accessed by users in one place.

BROOKINGS

Is free college a good idea? Increasingly, evidence says yes
10th of April 2021

In just a few short years, the idea of free college has moved from a radical idea to mainstream Democratic thinking. President Biden made free college one of his core campaign planks, and one that the first lady has been promoting for years. In his recent address to Congress, the president also signaled that he is ready for legislative action on a scaled-back version of the idea as part of his American Families Plan.

5.

Digital fluency
and STEM skills

Science, technology, engineering, and math skills are at the core of the fourth industrial revolution. Therefore, young people must develop digital fluency and STEM skills from a young age if they want to be prepared to thrive in the workplace and in modern society.

HARVARD BUSINESS SCHOOL WORKING KNOWLEDGE

Why America needs a better bridge between school and career

19th of May 2021

Over a year into the COVID-19 pandemic, there are hints of optimism as more people gain access to vaccines and the federal government injects more stimulus money into the economy. Yet, the outlook for workers remains mixed. The crisis has exacerbated existing inequities, and recent jobs gains reflect persistent disparities based on race, gender, age, and educational attainment. Coming out of the crisis, providing more workers with pathways to economic stability will depend in large part on forging stronger connections between education and economic opportunity. America's fragmented systems of education and training have too often reinforced barriers between working and learning, rather than bridging the worlds of education and employment.

FRONTIERS

The role and value of out-of-school environments in science education for 21st century skills

7th of May 2021

The global "wicked" problems we face in the 21st century call for 21st century competencies. The formal education system is hard pressed to foster these competencies within the science curriculum. Accordingly, we argue that out-of-school science education can function as an alternative pathway to 21st century competencies among learners. We present four distinct community case stories on teaching science in out-of-school environments and link them to a number of key challenges linked to achieving 21st century competencies.

RAND CORPORATION

Did experience with digital instructional materials help teachers implement remote learning during the COVID-19 pandemic?

4th of May 2021

Researchers examine teachers' use of digital and comprehensive curriculum materials during the 2019–2020 school year and whether the digital materials are connected with the main curricula and how the use of digital materials before the pandemic was connected with teaching during school closures.

BROOKINGS

How can real-time performance data lead to better education outcomes?

6th of May 2021

Over the past two decades, the role of data in international development has expanded rapidly. Policymakers, implementers, funders, and researchers are increasingly using data to make important decisions around resources and priorities. This coincides with the shift from a focus on outputs, such as Millennium Development Goal 2 of universal education attendance, to outcomes, such as Sustainable Development Goal (SDG) 4's emphasis on the importance of learning. This focus on outcomes, coupled with increases in data literacy, is bringing a renewed focus to demonstrating and measuring the achievement of positive outcomes for the beneficiaries of social programs around the world.

Educational
Innovation

Before the pandemic, initiatives were being generated to create educational materials and content in a more technological and intuitive way. Different technology companies like Amplify and Knewton have been digitizing textbooks and creating content based on gamified learning, and others like Coursera, edX and Khan Academy have revolutionized education through massive open online courses (MOOCs). However, many challenges remain at the primary and secondary levels of school, as put by in evidence the pandemic, when more than half of the population in 71 countries did not have access to the internet for remote learning purposes. Also, more innovation is required in the schools curricula, balancing hard skills like reading, writing, and math with soft skills like problem solving and creativity. Therefore, it is profitable to expand the investigation of pedagogy, to make use of data and tests that allow the best performance with all types of groups of students, even those that are difficult to access.

NATURE

University of Cape Town's battle to tackle a racist legacy
18th of May 2021

Six years after a statue of Cecil Rhodes was toppled, students and staff at the South African university are still working to improve equity and representation.

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

What works for knowledge brokers? Assessing the communication challenge of linking research to policy.
5th of May 2021

Across universities and other research institutions, knowledge brokers play an important role in linking researchers to potential users of their research. Reporting on a recent survey, Sandra Messenger and Sarah Foxen highlight the challenges that knowledge brokers face and how, as a community of experts, open conversations on communication strategies may help stimulate personal reflection and input into individual and collective approaches to widening researcher awareness of policy engagement opportunities.

HARVARD KENNEDY SCHOOL – BELFER CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS

Perspectives on public purpose
26th of April 2021

A framework for enabling change "I'd like to cover some of the things I've learned about building and implementing effective science and technology policies

INSTITUT MONTAIGNE

Impetus for reform: Higher education and research in France
8th of April 2021

France must undertake structural changes in higher education and research around a clear strategic line, a strong governance and collective commitment of all academics, institutions and the stakeholder government parties.

WOLRD TRADE INSTITUTE

Innovation, digitalization and skills development for the implementation of objective 18
31st of March 2021

Objective 18 of the Global Compact for Safe, Orderly and Regular Migration (GCM) aims to foster the mutual recognition of qualifications, competences and skills, as well as to promote demand-driven skills development and ensure decent work for labour migrants. The researchers offer a concise overview of reports submitted by States during the first meeting to review the Compact in the UNECE (United Nations Economic Commission for Europe) region, which took place in November 2020. Fifty-six countries (in Europe, North America, the Caucasus, Central Asia and Western Asia) were invited to highlight specific measures developed for implementing Objective 18 of the GCM.