Introduction

The International Conference on “Literacy in a Digital World” was organized by UNESCO at its Headquarters in Paris, France, on 8 September 2017 to mark the occasion of International Literacy Day 2017. It was attended by over 210 participants, including the UNESCO Director-General, special guests and representatives of over 50 governments, as well as representatives of multilateral and regional organizations, non-governmental organizations, the private sector, civil society, and experts from different regions around the world.

The Conference was opened by Ms Irina Bokova, Director-General, UNESCO, followed by remarks from H.R.H. Princess Laurentien of the Netherlands, UNESCO Special Envoy on Literacy for Development, and H.E. Ms Sarah Anyang Agbor, Commissioner for Human Resources, Science and Technology, African Union Commission.

Mr Oscar Vargas Castillo, a learner from the prize winning ‘AdUlTiCoProgram’, Colombia, gave a testimony about the transformative power of literacy learning.
Key issues raised during the Plenary Sessions

Session 1: Rethinking literacy in a digital world

Moderated by Ms Koumbou Boly Barry, UN Special Rapporteur on the Right to Education, this session’s panel included: Mr Dan Wagner, UNESCO Chair in Learning and Literacy; Mr Yves Punie, Senior Scientist, Directorate for Innovation and Growth, European Commission; Ms Katarina Popovic, Secretary General of the International Council for Adult Education, Professor at the University of Belgrade; and Dr Willy Ngaka, National Coordinator of the Centre for Lifelong Learning, Makerere University.

Key questions

- What are knowledge, skills and competencies required in digital economies and societies?
- What kinds and levels of literacy skills are required in a world increasingly mediated by digital technologies?
- How can such literacy skills be related to a broader set of knowledge, skills and competencies required in the 21st century?

Key messages

- The concept of literacy is context-specific and is ‘relative’ rather than ‘absolute’. It also evolves as surrounding environments change, as literacy today includes digital skills. Given the speed of technological development, literacy is a moving target. We are all illiterate in some respects at different points in time.
Efforts to map evolving digital skills and articulate different types and levels of such skills are ongoing. One example is the European Commission’s Digital Competency Framework for Citizens (DigComp2.1). It identifies 21 digital competences, each with eight possible proficiency levels. While the framework was developed for EU citizens, it could be adapted to different environments. However, caution should be taken to consider the challenges and appropriateness of applying a single definition or framework across different contexts.

A holistic approach to literacy is required, linking the learning of traditional literacy and digital skills with the acquisition of other types of competences, such as critical thinking, empathy, tolerance, indigenous knowledge, as well as political and financial competences.

Digital technology is providing an opportunity to shift the focus on ‘access to learning opportunities’, to ‘quality of provision’ with attention paid to learning content. Supporting all professionals in formal and non-formal education, including teaching-related professionals, could be another area of policy focus. Also important is ensuring collaboration between digital and education experts.

The online world is not a reality for approximately half of the world population. Ensuring adequate infrastructure and equitable access to digital technology for all is fundamental for equity and equality in education.

Session 2: Promoting programmes that advance literacy in a digital world

Moderated by Mr Raafat A. Radwan, Senior consultant to the Arab Labour Organization for Human Development, the five laureates of the UNESCO International Literacy Prizes shared their knowledge and experiences in this session. The laureates were: Mr Philip C. Abrami, Director & Honorary Research Chair, Centre for the Study of Learning & Performance, Canada; Ms Rana Dajani, Founder and Director, We Love Reading, Jordan; Mr Carlos Fernando Benitez Zapata, Secretary, Secretariat of Information and Communication Technologies, Colombia; Ms Amna Waheed Khalid, Executive Advisor, The Citizens Foundation, Pakistan; and Ms Mignon Hardie, Executive Director, Fundza Literacy Trust, South Africa.
Key questions

- How do digital technologies help literacy programmes in reaching out to those who are in need and enhance the quality of teaching and learning?
- How does digitization help literacy programmes promote the use of mother language, multilingual approaches to learning, and cultural diversity in local contexts?
- How can digital technology help enrich literate environments and create a space for lifelong learning?

Key messages

- As shown by the award-winning literacy initiatives, the effective adoption of digital technologies in literacy programmes can increase access to learning opportunities, improve teaching and learning, and help better the management of programmes.
- Literacy programmes can equip learners with the skills required to use digital technologies, together with other competences, so that learners can access, analyze, and synthesize information mediated by written, printed and digital text. A panelist said that ‘technology must work for us, rather than making us its slave’.
- Key factors for effective programmes include: a solid scientific base for programme design, implementation, and monitoring; partnerships; tackling root causes of literacy challenges and generating voluntary and sustainable collaboration in local communities; creating agents for positive change; and using stories related to people’s lives as a powerful tool to engage people in literacy learning.
- Some challenges encountered by the programmes include: limited infrastructure and connectivity; high cost of data; management and insufficient capacities of staff; inadequate motivation of learners and stakeholders; and sustainability and scaling-up.
Session 3: Literacy in a digital world: Risks and responses

Moderated by Mr Gatot Hari Priowirjanto, Director of the Southeast Asian Ministers of Education Organization (SEAMEO) Secretariat, the following four panelists in this session discussed the risks and responses regarding literacy in a digital world: Mr Héctor Mauricio López Velázquez, Director-General of the National Institute for Adult Education (INEA), Mexico; Ms Camilla Croso, President, Global Campaign for Education; Mr Hechemi Ardhaoui, Education Specialist, ALECSO (Arab League Educational, Cultural and Scientific Organization); and Ms Emilie Colker, VP of Global Marketing Campaigns, Director of Project Literacy Campaign, Pearson.

Key questions

- In what ways is increasing digitization deepening the digital divide from a literacy perspective? In what ways are technologies alleviating such divides and leading to greater participation?
- What kinds of multi-stakeholder responses are needed to magnify the benefits of digital dividends, and minimize the risks?
- Participation includes issues around privacy and security as well as cultural and linguistic diversity. What responses are needed to protect people and promote diversity?

Key messages

- While the digital divide is a source of serious concern, for many people the literacy divide comes first. For greater equity and inclusion, we need to address the digital divide in terms of access to digital technology and the necessary skills required. Although some examples of interventions to reduce the digital divide are promising, further efforts are required to equip people with both traditional literacy and digital skills as well as other types of competences (e.g. critical thinking).
• It is important to overcome associated structural inequalities that influence digital usage and skills acquisition, being especially attentive to barriers against women and girls, rural people and other marginalized groups.

• For effective learning of literacy, digital skills and other competences through formal, non-formal and informal pathways, a number of aspects must be considered, including appropriate pedagogical approaches, teacher training, the use of mother language and a learner-centred approach that recognizes the prior knowledge of illiterate people. Literacy learning in the digital age must focus on dialogue, interaction and critical thinking. Technology should never replace human interaction.

• It is critical for all the necessary stakeholders to work together. Partnerships can be fostered between governments and external stakeholders, including civil society, teachers, and the private sector. The media should be held accountable in a post-truth era. Moving forward, a vertical model of collaboration that connects partners at local, country, regional and global levels can be explored.

• We must be aware of the potential risks related to transparency, privacy, intellectual property rights and data security. When data is needed for personalized learning, monitoring, and policy development, people need to be asked to give permission to ensure there is the right balance between data gathering, analysis, and privacy. Power relations need to be examined. Digital security should be included in curriculums.

Session 4: Literacy monitoring and assessment in a digital world

Moderated by Mr Manos Antoninis, Director, Global Education Monitoring Report, UNESCO, this session had a presentation by three speakers after which participants discussed issues related to the key questions. The speakers were: Mr Andreas Schleicher, Director, Directorate of Education and Skills, OECD; Ms Silvia Montoya, Director, UNESCO Institute for Statistics; and Mr John Gitabi Kimotho, Senior Deputy Director, Kenya Institute of Curriculum Development, Kenya.
Key questions

- How can digital tools be used to better measure literacy levels?
- How can digital skills best be assessed?
- How can real time data and data analytics advance the monitoring of literacy skills acquisition and management of national information systems?

Key messages

- Understanding the nature of the digital skills and literacy required today, as well as the changing context in which they are learned and practiced, is a starting point for measuring such skills. In our contemporary world with ambiguity, complexity, and dynamic situations, in which knowledge is easier to access, literacy is no longer mainly about extracting knowledge but more about constructing and applying it. For global monitoring, however, conceptual clarification of digital skills is required. The measurement of skills needs to consider an evolving context and skills demands as digitalization makes more impact on our society and economy, and raises issues related to equity, inclusion, empowerment, and democracy.
- In Kenya, digital literacy is one of the core competences in basic education and is integrated into many subject areas. In addition, a Kenyan example shows how digital technology can support adult literacy surveys and the transformation of education for children. The government developed the Kenyan Education Cloud (KEC), which brings together a community of practice for educators, the competency-based curriculum, materials and learners. The Government is about to use data analytics to monitor the trajectory of individual learning for better teaching, policies and resource management. In light of the concept of lifelong learning as a continuum of proficiency levels, both formative and summative assessments will be used where appropriate.
- Global monitoring of digital skills with cross-country comparability is complex due mainly to lack of access to digital technology, conceptual and methodological challenges, as well as socio-cultural issues that affect the methods of adoption and use of digital technology (e.g. perception of digital technology). Despite these challenges, digital skills are measurable.
- The OECD measures literacy and digital skills through its programmes, notably the Programme for International Student Assessment (PISA) and Survey of Adult Skills. These assessments use digital instruments to measure digital skills. Results of these surveys show that only one out of ten people aged 55-65 in industrialized countries have the necessary digital skills to manage digital information. In countries participating in PISA, especially non-OECD countries, there are young people who are low performing in literacy. Even young people who have access to digital technology are not always capable of processing the information accessed. The risk of low performance is cumulative and multi-dimensional, and underperformance in literacy has extensive repercussions. Reducing underperformance in these areas is central to raising the overall performance of education systems.
- Regarding SDG4 monitoring, the current literacy statistics, based on administrative data, have limitations in terms of, for instance, data availability, and the ability to accurately capture skill levels and background information (e.g. profile of people).
For SDG4, there are 11 global indicators, including several literacy-related indicators for Targets 4.1, 4.2, 4.4, 4.6, and 4.7, for which data availability needs to be increased. Real-time data and data analytics are other areas to be explored. It is important to decide on the appropriate measures to be used at global and country levels according to the purposes of the measurements. At the country level, building capacity (financial and human) to administer measurement is key.

- Equipping children and young people with traditional literacy and digital skills is an investment that a country should make. Measuring their skills is also useful as early detection of skills deficiency can inform appropriate policy-making.

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**Award Ceremony of the UNESCO International Literacy Prizes**

At the end of the day, the 2017 UNESCO International Literacy Prizes awards ceremony took place to recognize and reward excellent literacy practices from around the world in connection with this year’s ILD theme, Literacy in a digital world.

Directed by Ms Lindsey Nefesh-Clarke, Founder and Managing Director, Women’s Worldwide Web (W4), two programmes from Canada and Jordan and three programmes from Colombia, Pakistan and South Africa were awarded, respectively, the 2017 UNESCO King Sejong Literacy Prizes and the 2017 UNESCO Confucius Prizes for Literacy. Each winner received US$20,000, a medal, and a diploma.