



Moldova Country Brief

Connectivity in Education

A Crisis of Learning in Education...

In Moldova, there exists a crisis of learning in education. This is exemplified by out-of-school rates in the country, as well as those not achieving minimum proficiency. While 363,370 children and adolescents are enrolled in primary and secondary schools, **70,875 between the age of 6 and 17 are out-of-school**. Additionally, approximately **44.2% of children and young people do not achieve minimum proficiency** in foundational skills needed for further learning and skills development.^{1,2}

- Enrolled, achieving minimum proficiency
- Enrolled, not achieving minimum proficiency
- Out of School



... becomes acute.

When the COVID-19 pandemic disrupted in-person learning in Moldova starting in March 2020, the importance of devices and connectivity for the education system was placed in stark relief — as were the inequitable access to such crucial tools.

Increasing Importance of ICTs for Education

All strategies for continuing education during COVID-19 depended on ICTs as a medium for delivery. But **unequal preexisting infrastructure** in households and schools is also a major driver of the longer-term crisis of learning. Access to **connectivity** and **devices** is a **crucial enabler** of the learning process, particularly in:

- allowing a more effective administration of education systems, and
- developing digital skills to prepare students for the future workforce



COVID-19: Strategies for Distance Learning



Studii.md

77,000 users
by July 2020³



MoU between Ministries and ICT Industry Leaders



Distributed Educational Packages to Student without ICT Access

What's been done?

Government Strategies Addressing Challenges

In 2014, Moldova adopted the “Education Development Strategy 2014-2020” (Education 2020), which is the main policy guiding education. One objective envisioned by the strategy is to:

Ensure the effective integration of ICT in education through providing schools with modern equipment, developing digital literacy, and increasing the efficiency of school management through ICTs.⁴

In **National Strategy ‘Moldova 2020’**, Internet connectivity at school facilities is a priority. The specific objective is to enhance access to quality education by providing schools with modern equipment useful to the educational process. This includes the pilot project ‘One computer for each pupil’ in 10 schools, the provision of school libraries with modern equipment and access to the Internet, and the provision of schools with equipment to train students with disabilities. Digital Moldova also details the importance of digital literacy and ways in which the national curriculum can be adjusted to a more well-rounded use of ICTs.⁵

To improve the planning and management of the network of educational institutions, the Government is implementing an **Education Management Information System (EMIS)**, comprising a register of schools, pupils and teachers based on the school census, as well as regular and accurate collection of data in schools.⁶



Many solutions involve digital technology.

This, in turn, requires both connectivity and devices.



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What Gaps Remain?

Connectivity and Devices at Home⁷



460,607

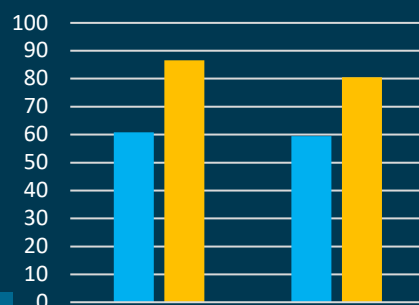
Moldovan households are not in possession of a PC



445,822

Moldovan households do not have access to the Internet

Contextualizing the Gaps



Est. % Households with Internet access at home

Est. % Households with PC at home

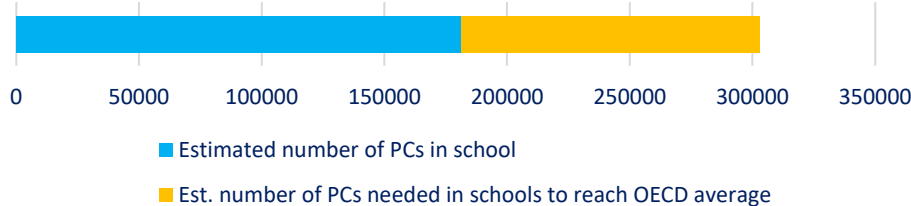
■ Moldova ■ EU-27 Average

Exacerbating pre-existing inequalities:

The persistent lack of PCs in households is particularly significant when lockdowns triggered by COVID-19 facilitated the transition of economic activity to the digital sphere and transferred both educational and work activities to the household.

Connectivity and Devices at School

Computers per Student in School⁸



121,444

computers are needed in Moldova to reach the OECD average of 0.83 PCs per student.

Not only is the number of computers insufficient, but most computers are outdated. Around 24,000 PCs are over 5 years old and thus warrant replacement to conform to the standards adopted by the Ministry of Education, Culture and Research in 2015.⁹

Mapping School Connectivity



Assessing the level and quality of broadband in schools, and proactively addressing infrastructure gaps, is increasingly important as students return to the classroom. This will ensure that connectivity is leveraged to deliver educational content and to manage the education system in an efficient manner, and that digital skills development is thoroughly included in curricula.

Filling the Device Gap in Schools

Low-Range Estimate¹⁰



High-Range Estimate¹¹

\$8.9 million

to reach the OECD average of 0.83 PCs per student.

\$103 million

to reach the OECD average of 0.83 PCs per student.



To bridge learning gaps, devices are only as important as the connection that supports them and the access to high quality content and learning they enable. Investment in school and household connectivity as well as content development and robust digital education is vital and must be considered alongside device provision.

Challenges to Efficient Spending



While Moldova is among the European countries allocating the highest share of the GDP to the education system (5.4% in 2018), its performance still shows modest results, which may suggest low efficiency in the budget allocations invested in education.¹²

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Moldova has a successful history of leveraging innovative financing mechanisms and multistakeholder partnerships toward achieving appropriate levels of devices and connectivity in education. Three key examples are outlined below.



“Donate Computer for Education”

In June 2020, the Ministry of Education launched this nationwide campaign to help digitize Moldova’s education system. The campaign’s main goals included: endowing schools with computers and connection to the Internet and creating conditions for people interested in donating computers to pupils. Within the framework of this initiative, the Ministry developed an interactive map with which potential donors could identify the number of teachers and students who do not have computer technology in each district.¹³

PPPs in Response to COVID

To alleviate gaps in digitalization and their negative impacts on educational outcomes for students, the “**Connecting Teachers**” campaign was made possible with the support of Orange Moldova.

Moldtelecom and Moldcell, in cooperation with the Ministry, also provided **free access to 50 Gb data packages** to teachers during the first two months of COVID-19.



ITU and UNICEF are committed

to helping the Government of Moldova and other stakeholders achieve national objectives. School connectivity is widely recognized as a means to a more efficient administration of educational systems, a building block in supporting innovative ways to distribute education content and increase access, and — most importantly — a fundamental prerequisite to endow pupils with the digital skills necessary to thrive in the job market. The achievement of appropriate device and connectivity levels, both at school and in the home, thus remain priorities of both the ITU Office for Europe and UNICEF Regional Office for Europe and Central Asia. Both offices cherish the opportunity to engage with partners and provide support through **technical assistance, capacity building and research**, as well as **knowledge exchange**.

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Endnotes

¹ Data from UNESCO UIS Database. <http://data.uis.unesco.org>

² UNICEF calculation of the number of students in primary, lower and upper secondary not achieving minimum proficiency in math; Data for Moldova is calculated using the latest figures available from UIS and PISA.

³ See: <https://www.eurasia.undp.org/content/rbec/en/home/stories/in-the-middle-of-covid-pandemic.html>

⁴ See: <https://www.globalpartnership.org/sites/default/files/moldova-education-strategy-2014-2020.pdf> ; See: http://mei.gov.md/sites/default/files/strategia_moldova_digitala_2020_857.pdf

⁵ See: <https://www.globalpartnership.org/sites/default/files/moldova-education-strategy-2014-2020.pdf>

⁶ See: https://idfi.ge/ge/Internet_access_and_use_in_georgia

⁷ ITU WTID Database.

⁸ PISA 2018 Results (Volume V); OECD 2020 (Figure V.5.4 School computers per student, school characteristics and reading performance)

⁹ See: https://www.unicef.org/moldova/media/4231/file/Working%20Paper%20Education%20and%20COVID-19%20in%20the%20Republic%20of%20Moldova_FINAL_English%20version.pdf%20.pdf ; See: <https://geostat.ge/media/35088/Availability-of-computers-in-Schools.xls>

¹⁰ This estimate is calculated using the cheapest smartphone available in the region, at \$73.60 per device. Price estimate is taken from A4AI price data, averaging the cost of the cheapest smartphones available in Georgia, Turkey and Ukraine. Although Smartphones are used as a proxy for the cheapest way to access online educational content and represent a baseline cost, they are not ideal for sustained learning nor comparable to PCs for educational purposes.

¹¹ This estimate is calculated using using a price of \$850 per computer and monitor, which is a UNICEF price estimation of a high-end computer and monitor more suitable for learning. It thus represents the most expensive end of the spectrum.

¹² See: <https://data.worldbank.org/indicator/SE.XPD.SECO.PC.ZS?locations=EU-AL>

¹³ See: <https://mecc.gov.md/ro/content/ministerul-educatiei-culturii-si-cercetarii-lansat-campania-nationala-doneaza-un-computer> ; See: <https://www.moldpres.md/en/news/2020/06/04/20004540>

¹⁴ See: <https://noi.md/ru/obshchestvo/chto-predprinimaet-minobrazovaniya-dlya-obespecheniya-distantsionnogo-obucheniya/>