ELEARNINGNEWS ARTICLE

Year 4 - number 107 Wednesday 8 april 2020

Smart work and school at the time of the coronavirus: is Italy really ready?

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Despite the digital divide (the unequal distribution of internet access opportunities), "narrow" bandwidth and obsolete hardware, the health emergency linked to the spread of the coronavirus is pushing Italians to take great steps towards digitization.

The **smart working and eLearning platforms** are under attack and both general managers and school heads are at the forefront to ensure the **continuity of school and work activities**.

However, the digital divide is still very strong in Italy, more than in **other EU countries**: a quarter of the Italian population **does not have a home connection**, often by choice.

According to the latest ISTAT Cittadini e ICT report, the majority of households without home access to the internet indicates as the main reason the incapacity (56.4%) and 25.5% do not consider the internet a useful and interesting tool. There follow economic reasons linked to the high cost of connections or necessary tools (13.8%), while 9.2% do not surf the net from home because at least one family member accesses the internet from another place.

This is therefore the scenario in which many Italians have found themselves facing an emergency in the emergency, that of guaranteeing **school continuity** to their children and grandchildren and **work continuity** to those working in smart working.

In short, the extension of these new ways of carrying out professional activities and enjoying educational content clashes with a scarce or insufficient **digital culture** and is putting a significant percentage of families and workers, unable or without the appropriate tools to transfer these activities to the virtual environment, in great difficulty.

But that's not all: to make the picture even more complex also contributes the strong **infrastructural delay in Italy**. Optical fibre in Italy is currently the only technology capable of guaranteeing acceptable performance in terms of telepresence and streaming content transmission.

However, according to Agcom data (Guarantor of Communications Authority), updated in October 2019, about 35% of Italians are still not covered by an optimal network for Internet access (at least 100 mbit/s) and at least 5% are also excluded from basic ADSL connections.

According to Tim's Chief Technology and Information Officer, Michele Gamberini, the increase in traffic on the operator's network in Italy was 100%, with connections doubled since the beginning of the epidemiological crisis. It's a little better for mobile telephony, where the increase is around 20%, but the increase was mainly due to a mode of communication that had lost its edge in recent years, namely voice.

And, according to what the UNCEM (Unione Nazionale Comunità Comunità Enti Montani) says in a statement of February 27, "today in over half of Italy working from home is prevented by the presence of obsolete copper networks, waiting for the arrival of a fiber that can certainly revolutionize spaces and distances.

The effects of device-band-software triangulation therefore put a strain on the efficiency of time and space of remote activities. The risk is that the peak of Internet traffic experienced in Italy due to smart working and smart schooling will create inefficiencies or slowdowns on the network.

And it is precisely in this direction that art. 82 of Decree no. 18 of March 17, 2020, no. 18 (Measures to strengthen the National Health Service and economic support for families, workers and businesses connected to the epidemiological emergency by

COVID-19) with which the Government underlines the importance of the Internet as an essential service that, now more than ever, helps to sustain the Italian economy.

In order to cope with the growth in consumption of services and traffic on the web networks, the Government therefore calls on companies that provide electronic communications networks and services to take measures and initiatives to **enhance and guarantee uninterrupted access to networks** and to satisfy "any reasonable request for improvement in network capacity and quality of service by users".

In order to make **smart working and distance learning** efficient, innovative infrastructures must be rapidly put in place.