Who's afraid of the fourth industrial revolution?

n recent months, much has been heard about the fourth industrial revolution. Some people are concerned about it, as it could aggravate the serious problem of unemployment suffered by some countries, including our own. In this article, I will briefly discuss how the Catalan economy could be affected by it.

Firstly, what is the "fourth industrial revolution"? Generally, it means the overall effect on the economy of current technological innovations, such as those due to robotics, artificial intelligence, new information technologies, genetics, biotechnology, nanotechnology and 3D printing. Why are people worried about it? Because

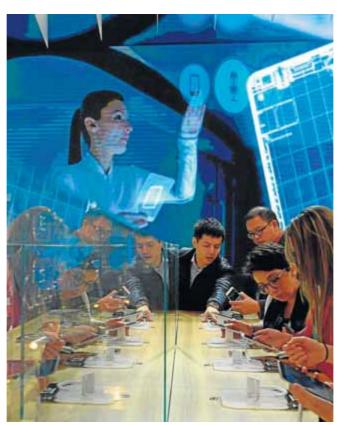
robotics, along with artificial intelligence, makes it possible to replace some types of qualified human labour –not only in repetitive tasks (whether manual or mental) – with machines. This is in fact already happening right now, but the outlook is that it will only accelerate.

Technological innovation

However, is the high unemployment in Spain or the European Union attributable to technological shock? In fact, no. We see that in more technologically advanced countries than Spain, such as the United States or Germany, the unemployment rate is much lower (21% versus 5% and 4%, respectively). Moreover, technological innovations have advanced steadily since the scientific revolution in the 17th century, although progress has not been uniform.

In any case, what must be done to meet the challenges of this new technological wave? A 'neo-Luddite' attitude, that is, trying to prevent or circumvent technological advances would be completely sterile and harmful, as history has amply demonstrated. It is more reasonable from the economic point of view to make the most of these new opportunities and mitigate as much as possible their adverse effects, such as loss of jobs in some industries and professions and increasing inequality.

How can that be done in Catalonia? In the current situation of financial stifling by the Spanish state, it is very difficult. However, the independence process under way can provide the tools needed, such as institutional support for businesses to adopt new technologies and thus increase their competitiveness, as well as the improve-



A group of visitors trying out the latest smartphones at this year's Mobile World Congress in Barcelona./ AFP

ment of education and its adaptation to the new technological environment. At the same time, we must support those workers displaced by the machines, so that they remain employable.

More jobs at home

This will be easier in the situation of more economic growth expected with independence, once the high current fiscal deficit with the Spanish state is removed and economic policies are adapted to the structure of the Catalan economy. In fact, a study by economist Josep M. Vázquez states that the impact of independence on employment would see 475,000 new jobs

created, counting direct and indirect effects with the creation of the necessary state structures and a normal level of investment in infrastructure after the low level that has lasted for decades due to Spanish government policies. Thus, the Catalan unemployment rate, currently at 18% could fall to 7%, lower than the EU level, if the labour force were to stay at the level it is now. It must also be said that independence will boost investment in research, development and innovation, leading to a more advanced economy, and young Catalans will have many more scholarships and job opportunities. As a consequence, they will not be forced to emigrate, as they are now with today's youth unemployment rate of 39%. In addition, the social policies of the Catalan Republic would have resources for the reduction of the economic inequalities that could be generated.



"You have always been, and will always be, one of us. Thank you, Johan" From a joint letter in tribute to Joan Cruyff from the seven living Barça presidents (Montal, Carrasco, Núñez, Gaspart, Reyna, Laporta, Rosell and Bartomeu)

All seven men who have headed FC Barcelona from Agustí Montal, who signed Cruyff in 1973, came together in a rare but moving show of unity to express their gratitude to one of the most extraordinary footballers the club – and the world – has ever seen.