



Technological Upheavals and Work

Towards a collective undertaking in training and education that will ensure dignity through work for each person

“We were created with a vocation to work. The goal should not be that technological progress increasingly replace human work, for this would be detrimental to humanity. Work is a necessity, part of the meaning of life on this earth, a path to growth, human development and personal fulfillment.”

Pope Francis, Encyclical Laudato Si’, para. 128.

Our societies are confronted with a new era of technological development that is liable to have profound consequences. Some have called this era the “fourth industrial revolution”¹ with reference to the upheavals created by the latest technological advancements – in computing power, for example, or in connectivity or biotechnology.

Some of these new technologies impress us:

- A cellphone that can track health indicators, thanks to a clever app.
- Self-driving cars that safely get us to where we want to go.
- The sharing economy of companies like Uber, Airbnb, and others, that allow unutilized or underutilized resources to be tapped into.
- Automated factories (with 3D printers) where small runs of components and other goods can be produced close to markets.

Our governments, sensitive to this, see the need for a “digital strategy”.

On the other hand, we worry – often rightfully so – about the impact that these new technologies will have on employment, or at least on certain kinds of employment. Will machines replace people? Even if they don’t replace them, will they have an impact on salaries, on income and wealth disparity? These are fair questions, especially if we consider that, in the fourth industrial revolution, it is the process of production itself and the very distribution of goods and services that are transformed. In other words, we are no longer dealing merely with the replacement of human labour by machines, but with the reshaping of the means of production and distribution.

Some consequences of this new era of technological development

Like every technological development, this new phase bears opportunities for advancement and dangers of regression. As a society, it behooves us to foster the former and reduce the latter. In order to act, let us question ourselves on the potential impact of technological development on collective well-being, on work, on the distribution of wealth and on social cohesion.

¹ This was the theme of the World Economic Forum in Davos in January 2016.

- **Impact on collective well-being (the common good):** Smart systems have the potential, among other things, to help humanity to master climate change, to cure disease, and to reduce mounting healthcare costs. Better production processes can place better-quality goods and services at the disposal of a larger number of persons, at low cost and with a better use of material resources. On the other hand, technology can enslave human beings, keep them under surveillance, and corrupt them. As a society, we have choices to make and a duty to be vigilant. As Christians, we can and must assert, in the course of social debates, our fundamental options in favour of the common good, human dignity, and protection of the most vulnerable.
- **Impacts on employment:** Clearly, in some sectors, technological upheavals are having a destructive effect on jobs. The decline of manufacturing jobs is one example, even in the case of manufacturing operations that have returned close to home from countries where labour is cheaper.² We also note the reduction of employment in some service sectors where new processes have emerged, such as online sales. On the other hand, some high-level jobs have become possible and indeed necessary due to the greater mastery of technology.
- **Impact on income distribution:** As with every upheaval, the fourth industrial revolution creates winners and losers. Indeed, technology exerts pressure to lower working conditions for average income earners when it takes their place carrying out certain tasks. At the same time, because digital communications allow access

to the best technological solutions available worldwide, their owners receive substantial incomes. In a word, average income earners end up losing out, while high-income earners earn even more. The more modest incomes, for their part, are largely untouched because the new technologies do not have the potential to replace the human tasks to which they are linked, such as childcare or care for the elderly.

- **Impacts on social cohesion:** Impacts on employment and on income distribution can combine to produce a strongly negative effect on social cohesion, that is, on “*the network of relationships of trust, dependability, and respect for rules, all of which are indispensable for any form of civil coexistence*”.³ This can open the door to populism on the left as on the right, as we can see in many developed countries.

Thus it seems essential to us to imagine and to implement effective ways to counter the negative impacts of this new phase of technological development on the labour market.

Some paths toward a solution

How can we foster employment and better wealth distribution and thus social cohesion, without going against the tide of this new era of technological development? How can it be done without spilling over into self-sufficiency and a closing of borders?

In the case of job loss, as Pope Francis says in *Laudato Si'*, “*helping the poor financially must always be a provisional solution in the face of pressing needs. The broader objective should always be to allow them a dignified life through work.*”⁴

² We might think here of cutting-edge factories built in North America at the expense of facilities hitherto set up in Asia. While we are pleased at the ecological progress this implies (e.g., fewer goods need to be shipped), we may regret that more jobs have not been created.

³ Pope Benedict XVI, *Encyclical Caritas in Veritate*, para. 32.

⁴ *Laudato Si'*, para. 128.

1. To accomplish this, a first solution, which may appear self-evident, would be to offer people a better formation so as to allow them to be the subjects, not the objects, of technological developments; to form them, but also to accompany them in their journey so that they might be equipped with traits that will allow them to be fulfilled and to express their creativity through work.



The concrete means to bring this about are familiar:

- Quality basic education for our children, inside school and out: an education that will allow them to assimilate knowledge but also know-how, various skills (including adaptability), and an ongoing desire to learn.
- Combating early school leaving (“dropping out”).
- Obtaining a first university diploma.
- Professional training.
- Ongoing formation in the workplace.
- Re-training for the unemployed that is better adapted to the labour market.
- According to some experts, the speedy development of cognitive and social skills at an early age (0 to 4 years) is also important.
- The accompaniment of a loving family that values skill development and self-esteem.

In a word, it seems wise to respond to technological development by investing even more than we already do in the development of human capital.

2. A second solution would be for governments to implement or strengthen measures that make it easier to hire workers. Depending on priorities, such measures might target young people in their first jobs, depressed regions, or particularly hard-hit employment groups. Measures might also be put into place to stimulate the interest of business in work relative to technology.⁵

3. Finally, a third solution would be to favour the development of local solutions and grassroots decision-making structures. As Pope Francis says, “*in order to continue providing employment, it is imperative to promote an economy which favours productive diversity and business creativity.*”⁶

Ensuring a suitable level of employment and meeting the aspirations of the greatest number will be the most effective ways to keep income disparities from getting worse. Once the dignity of each person is more respected, it will be easier to maintain social cohesion.

As we do so, we are not excused from our duty to help and protect the most underprivileged, of those who (for instance) are not in a position to undertake the new direction in training. Social and governmental mechanisms of direct transfer will allow a redistribution of the fruits of technological progress to those who may not necessarily otherwise benefit from them; this too will foster social cohesion.



⁵ We might think here of payroll taxes which, at the margins, can have a dissuasive impact on hiring.

⁶ *Laudato Si'*, para. 129.

Call to genuine mobilization

The educational and training project for which we are calling is not just the government's business. It ought to be a collective undertaking, broad and varied, in which all are involved. Indeed, our wish is that the entirety of Quebec society mobilize itself. Partnerships can be envisioned among government, teaching establishments, instructors,

teachers, businesses, and even sponsors and patrons. It is ultimately a matter of allowing each person to contribute to life in society through his or her work and, by so doing, to fulfill his or her potential and to "bring out the potential which [God] himself inscribed in things".⁷

"Work should be the setting for this rich personal growth, where many aspects of life enter into play: creativity, planning for the future, developing our talents, living out our values, relating to others, giving glory to God."

Pope Francis, Encyclical Laudato Si', para. 127.

Happy Workers' Day
to one and all!



A publication of Conseil Église et Société (Council on Church and Society)

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Original Title: Les bouleversements technologiques et le travail

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⁷ *Laudato Si'*, para. 124.