

The Family in the Face of the Digital Cultural Revolution

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Families have always been faced with job uncertainties. But today these are not exactly the same as yesterday. After the revolutions of writing and printing¹, the digital cultural revolution represents a third revolution in the communication of knowledge but more so, it contributes in its own way to bring humanity, in the terms of the Davos Forum² (Jan. 2016), into “the beginning of a Fourth Industrial Revolution. Developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing and biotechnology”. All these are combined in the NBIC and are not only changing jobs, their conception, trade and its modalities, but also people themselves, their brains, and all human activities ... Whether we like it or not, the revolution of emerging technologies is on the move like a huge tidal wave, jostling and moving everything in its path. No one knows exactly where it will lead us as of today.

Uncertainties exist therefore not only in employment that will be transformed, but those of interactions between technological developments and the human beings and his/her environment, between the experience of families and the places where they live and work. This is not a matter of being technophobic or technophile, but of clarifying the changes that are taking place and supporting families pulled in many directions without clear solution. In this brief contribution we are concentrating on business and professional activities in their interaction with the family.

I am making the assumption that the family, while being threatened by some aspects of the current digital revolution (intrusion into the private life to the point of exploding the already fragile family structure) remains a resource all the more precious and rare, allowing the connected individual to be at a distance from the company and to remain a relational person, capable of empathy and compassion.

¹ This is the third revolution according to the philosopher Michel Serres who in *Petite Poucette* (Le pommier, 2012) writes: "Little by little, knowledge is objectified: first on rolls, on vellums or parchments, writing supports; then, from the Renaissance, in books of paper, printing media; finally today on the Web, support message and information."

² DAVOS 20 Jan. 2016, “*Future of Jobs Report*”.

Evolution of professional activities

The digital revolution is transforming professional activities profoundly: some trades are disappearing, others are being created. Carl Benedict Frey and Michael A. Osborne³ published a survey in 2013, examining how susceptible 702 detailed occupations on US labour market are to computerization. They analyzed the number of jobs at risk and the relationship between an occupation's probability of computerization, wages and educational attainment. According to their estimates, about 47 percent of total US employment is at risk. These data have been confirmed by a lot of other studies and reports, giving quite the same figures: artificial intelligence will grow into national economies and half of current jobs will disappear or be transformed.

In fact, it is the complete labour market that will change. And this does not only take the form of jobs being lost and gained; current jobs will evolve, with automation taking over all the repetitive tasks and creating new tasks... In such an economy, there would be no need for administrative or production tasks for example. Cars, buses, trains, will be automated... This may potentially mean unemployment and difficulties for families, but also new opportunities⁴.

New jobs are appearing. And some of them outside the company, in a common place rented by a company, or more and more often, at home. In this case, the family is directly impacted.

Factories⁵ are gradually converting to connected systems (cyber-physical systems) which, thanks to mass-processing software for sensor systems and driving actuator systems, make the production process more flexible. The stated goal of these systems is to reduce production time cycles, increase flexibility by accepting last-minute changes, and increase plant efficiency. Potentially this means more stress for the workers and thus for families...

This evolution is all the easier as the digital revolution has opened up a two-sided market⁶, through companies acting as bilateral platforms: being both the user of a product or service and the resource provider. Where ever I am, at home or elsewhere, I can order things through electronic commerce, precisely through a platform constituted by the site which is addressed to customers on the one hand, and to sellers of products, on the other hand. In this way, I can hire a chauffeur-driven car, do carpooling, book a hotel... It is a real economy for families, and also a freedom of choice and decision without having to move. In the same vein, insurance

³ Carl Benedict Frey and Michael A. Osborne, *The Future of Employment: How susceptible are jobs to computerisation?* Oxford Martin School 7, September 17, 2013, 72 pages, <https://www.oxfordmartin.ox.ac.uk/publications/view/1314>.

⁴ In some countries, there will be a shortage of manpower due to demographic decline (see Japan).

⁵ Hubert Tardieu, « La troisième révolution digitale. Agilité et fragilité », *Études*, 2016/10 (Octobre), p. 31-42 : « L'usine se convertit progressivement aux systèmes connectés (les systèmes cyber-physiques) qui, grâce à des logiciels traitant en masse les données de systèmes de capteurs et pilotant des systèmes d'actionneurs, permettent de rendre plus flexible le processus de production. L'objectif affiché de ces systèmes est de réduire la durée des cycles de production, d'augmenter leur flexibilité en acceptant des changements de dernière minute et d'accroître l'efficacité des usines. »

⁶ The two-sided markets were highlighted fifteen years ago by Jean Tirole, Nobel Prize winner in 2014 with the example of payment cards.

companies are proposing « *Pay as you drive* » services, according to the number of kilometers you drive in the year.

After the digital cultural revolution, work will probably be closer to craftsmanship than an assembly-line kind of repetition⁷, and this has a lot of advantages. But in interacting with robots, will individuals not be formatted, robotized? Will they not be put online with their family exposed to incessant data gathering, sharing the same vulnerability as all data (hacking, stealing...)? And artificial intelligence will impose its own law: determining what is acceptable and what is not, the gestures to be executed (without thinking...), etc.

In this sort of data-driven society, the major bottleneck will be the acquisition of the needed skills to work with digital technologies... Meanwhile, in Europe as of 2016, according to *Europe's Digital Progress Report*⁸, 44 % of the EU population did not have enough basic digital skills, they lacked sufficient digital skills to meet their current needs. This represents an urgent demand for policy makers, otherwise there will still be more unemployment, inequalities, and poor families will become even poorer, excluded, “outcast and “leftovers” according to the words of Pope Francis in *Evangelii gaudium* (N° 53).

The Policy Officer, Martin Ulbrich⁹ makes this demand: he wants skills for the digital age, not just digital skills: “Workers also need the skills which machines do not have: social intelligence and empathy, i.e. the capacity to deal with other humans in a humane way, and creativity, i.e. the capacity to think out of the box. In a world where rationality in the form of digital technologies is abundant, other forms of intelligence come at a premium – and this is yet another paradox.”

Here then, families, even though threatened, remain a strong resource and must be supported to remain a resource.

Families as a Resource

The more companies are computerized, the greater the risk of extending work to the private sphere and family life; a fortiori when professional work is done at home. This has advantages but, the risk of being connected all day is also high, it drains out from the lifeblood of families, who then no longer have the opportunity of maintaining this critical distance that enables one to objectively assess the situation. The number of burnouts is growing in many companies today.

⁷ « Après la troisième révolution digitale, le travail sera plus proche de l'artisanat que du travail à la chaîne. » Hubert Tardieu, « La troisième révolution digitale. Agilité et fragilité », *Études*, 2016/10 (Octobre), p. 31-42. Quotation p.40.

⁸ Europe's Digital Progress Report SWD(2017) 160 <https://ec.europa.eu/digital-single-market/en/news/europes-digital-progress-report-2017> Report EU / Study 27 April 2017

⁹ Martin Ulbrich, Policy Officer, DG CONNECT, “Digital Economy and Skills Unit, Impacts of digitisation on employment in Europe”, NL *Europeinfos*, n° 208 - October 2017.

The human being is also flesh, spirit and soul; made for relationship with the other, for love, personal fulfillment etc. The family becomes therefore a decisive place. It's a make-or-break situation. If privacy is invaded by professional work, if the connections do not stop, the family explodes. It is not made to deal both with the stress of professional work and the experiences of family life, of being a father, mother, spouse ... we are discovering today that the family can be, provided it is preserved, a haven of relaxation, renewal, or of peace. In any case an opportunity to break away from the connected company. It is, by its moments of relaxation, sport, leisure, vacation..., the only place sufficiently attractive to allow its members not to be glued to their smartphones, checking all day, a behaviour which, according to Betsy Sparrow¹⁰ from the University of Columbia, decreases our effectiveness. The law acknowledges today in some countries like France, the right to be disconnected at home. The family can be a source of resistance to what is not essential, and thus a real breather: not only is this not in opposition to the company, but returning to their jobs, workers are generally much more effective.

Rather than seeing only job uncertainties, I dream of a digital revolution that allows families, thanks to new professional frameworks, to have more time for themselves. Businesses have everything to gain. Even if it means reviewing the salary grid, the definition of a professional job... The company is only a winner if the family is too, if the human remains at the center, not a robotic human, but a relational person, with emotions, - and not without adapted skills - leading to an "integral development" according to the expression of *Centesimus Annus* (n° 43). The real challenge today and tomorrow is learning to live. And the reciprocal benevolence allows considering family life differently than through the evening shouting match.

Abstract (introduction of the paper)

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Uncertainties exist therefore not only in employment that will be transformed, but those of interactions between technological developments and the human beings and his/her environment, between the experience of families and the places where they live and work. This is not a matter of being technophobic or technophile, but of clarifying the changes that are taking place and supporting families pulled in many directions without clear solution. In this brief contribution we are concentrating on business and professional activities in their interaction with the family.

¹⁰ Betsy Sparrow, professor of psychology at the University of Columbia, quoted from *Science*, by Romina Rinaldi, « Vers des cerveaux Google ? », Magazine *Sciences Humaines*, Les grands dossiers des sciences humaines, N°50, Mars-mai 2018, p.64-67) : "People who think that the computer will keep the information are much less effective at remembering it themselves ...". Information is encoded differently in the brain when a cybermemory is available around.

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