

# Reverse Urbanization How Remote Working and Technology are Changing Cities

Emiliano Mandrone<sup>1</sup>

<sup>1</sup> INAPP (Istituto Nazionale per l'analisi delle politiche pubbliche)

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## Abstract

The interaction between the health emergency and the available technology produces an extraordinary metamorphosis of social and economic customs. This energy has released an intense centrifugal force that has displaced activities and people quickly and radically, with strong consequences on the structure of cities. To properly metabolize these changes, adequate cultural processing and specific services are needed.

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## *Index terms—*

## 1 Introduction

ities make an extraordinary contribution to culture and the economy, growth, and progress. They feed needs that become a demand for services that, in turn, become employment: a virtuous circle as Lucas and Jacobs argued, a multiplier of human, social and financial capital, an environment of contamination and synthesis of new and different ideas, where needs are created and satisfied, in short, they are selfnourishing.

In 2018, a UN report estimated that 54% of the world's population lives in urban areas, and the incidence is destined to rise to 70% in 2030. However, the rapid decomposition of urban areas for the changed social customs post-Covid, makes it necessary to reconsider these projections.

When a force (demographic, financial) acts on a space, pressure is created; in our cities, this tension has taken the name of stress, traffic, competition, congestion, cost of living... Some examples: ? Parisians have only 22 square meters per person of housing, perhaps because on average they cost 10 thousand euros per meter, +248% since 2000. This created huge gentrification of the Ville Lumiere, which expelled workers, employees, and families away from the city streets. As well as in London, Milan, San Francisco. ? Rome is wonderful in August! This cliché implies that with fewer people the city becomes more pleasant and livable, the infrastructure and services appear adequate, traffic and queues disappear. ? There are fewer and fewer citizens and more and more users in the center of our cities: students, workers, tourists. The imbalance should be corrected to avoid the Venice effect: a city without its citizens.

? The fragility of urban ecosystems is surprising: in New York, local services generate 96% of employment and so, when 1/3 closed for Covid, 500 thousand unemployed were instantly created. ? Stockholm and Berlin, to refer to the most recent cases, have a serious problem of rental housing. The supply is insufficient, and this drives up the rents, creating a strong social tension since a large part of their (high) incomes go into rent.

The Economist (2021) reflected on the hundred years of established routines gone in pieces: from the office to the school, from crowded Bus to congested traffic, from weekend queues to rows at the restaurant. That regularity -nice or ugly -is over. It takes a little adaptation to overcome the initial disorientation but now we know that it could work! Covid-19 was the detonator of a series of reorganization processes that only a few countries had already started: smart-work or teleworking has become an available option, an irreversible achievement. Yet another case of serendipity: looking for a solution to the epidemic, we have discovered new forms of provision of work performance.

The health emergency has succeeded in what so many urban planning policies have failed: rationalizing the distribution of activities and population. This decreased the pressure. But the pressure is a bit like inflation: too

much overheats the system, too little turns it off. Will the low concentration of human and social capital have the same activation capacity as the city?

Will the virtual system be able to do without its physical nodes? From squares to blogs, from shopping malls to e-commerce, from universities to social networks, people connect, exchange data and things, share economic, technical, and cultural resources, discuss, and offer solutions that become innovations and fuel development. A handover is underway: will the digital environment replace the physical one as the hatching ground for progress?

The perfect storm hit the city. On the one hand, technological progress has allowed the dematerialization of a large part of the work activity, now made at a distance. On the other hand, the health emergency has made social distancing a desirable, sometimes indispensable, condition. These two trends are sustained, leading to an acceleration of the change in habits and customs, social and work.

The interaction between the health emergency and the technology available is producing an extraordinary metamorphosis of social and economic patterns. Suddenly, citizens are exposed to a centrifugal force that projects them away from each other: the worker from the workplace, the student from the school, the researcher from the university, the customer from the store. Technology and the pandemic conspire together against the city, understood as a "container and content", compromising its economic value, and undermining its cultural role.

The flight from the city has already brought down rents and sales of commercial properties (more elastic at the price of residential ones) and, in a complementary way, increased the demand for larger houses and outdoor spaces. However, a more hidden truth seems to emerge: the value of the centre of our cities is above all a real estate value. Banks and insurance companies own properties of a very high value that is justified by the centripetal pressure that the production of goods and services feeds on very specific areas of our cities. If this pressure falls, the value of these real estate assets decreases accordingly. Remote work shuffles the cards and misaligns the hierarchies of real estate values. This change destabilizes the economic systems that base their strength on real estate assets.

Geography without space and time. In the digital season, space and time are increasingly relative and the centre-periphery or north-south antitheses also fade. Even the geography will be redesigned no longer based on history, distances, or orography but concerning the download speed, the delivery time of a package or the cost of energy.

This "digital-health" counter-reform has given rise to a process of decongestion of cities that, indirectly, will have repercussions on the development strategy of internal or remote areas -provided they are connected -which will finally be able to repopulate with activities, projects, and people.

However, the risk of displacement is high. Reverse urbanization -redistributing resources concentrated in the city-center -will change the socioeconomic structure. Highly anthropized environments are great catalysts for human, financial and technological resources that take time to be converted. The settlement could be traumatic: a strong relocation of the population, a general downsizing of commercial real estate and an eccentric demand for services compared to the more structured areas (south-working). Are offices, subways, restaurants and half-empty shops a step towards a -so longed for -society more on a human scale or the beginning of a downward spiral, of decline?

Technological change (Mandrone, 2018) requires adequate cultural elaboration to address new moral dilemmas (autonomous driving, priority in care, conditionality), transform ethics into legislation, social norm, and algorithms, and make informed choices in the presence of strong uncertainty.

Beyond the solution of the health crisis, Covid has been a detonator that has activated many processes irreversibly. A vir(tu)al statesman who, finally, has started remote work and cycle paths; given importance to health, school, and research; relaunched bogged down public works and restored centrality to the general interest. It has triggered many changes that ordinarily would have taken years to see the light.

We have entered a hyperbolic phase: machine learning, pandemics, big-data, climate, quantum computers... will twentieth-century rules and institutions be able to keep up? The very strong hybridization between the disciplines and the transversality of the digital plan requires a profound updating of the relationships between all the components of the system: adequate measuring instruments, new codes, different reward systems must be built? By breaking down the "work-presence" totem, it has even created the conditions to make social security reforms credible; to achieve gender, generational, territorial and environmental equal opportunities, for demographic revival; to update health, school and welfare, to rethink the territory and reduce pollution. Only 24 months ago, many tried to counter change by feeding doubts and fears, proposing conservative solutions to protect position rents, opposing the updating of our social system.

Traditionally, technological progress has always "added mass" to our lives: cars, household appliances, plants, etc. At a certain point we began to "remove mass" with a process in stages: first miniaturization (valves-transistors), then dematerialization (letters-faxemail) and, finally, convergence in a single instrument of multiple functions (smartphones, notebooks). This evolutionary process has had a huge impact on our way of life. It would be stupid not to use it to better live the workplace, as we do for everything else.

The aversion to policies of social inclusion and redistribution of resources is due to an error of perspective: the cause is exchanged for the effect. An error of focus that leads to an intransigence with the variable effect depending on whether you look at the rich or the poor, women, or men, young or old, the north or the south ... immigrants or recommended. Covid has been an extraordinary natural experiment that has shown in a plastic way how the impossibility of working or producing income or doing business may not depend on the individual,

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making the social stigma that has often accompanied the beneficiaries of subsidies or social treatments or bonuses disappear.

There was a lot of improvisation. The burnout was strong. Extraordinary resilience. You will have to learn to manage your free and worked time, to rethink the places of work and life, to delimit the spaces, to Volume XXI Issue VI Version I 22 ( ) review the value sets (Mandrone, 2020) and social canons. It will change the home, the school, the sport, the buses, the shops, the work, the weekend, the guide, the money, the Public Administration... The liquid society of Bauman is the prequel of the digital world: data flow, images, information, ideas, georeferencing create an environment where conventional references no longer exist. Where traditional categories fail, where it is not easy to orient themselves because of the third dimension. Digital shuffle cards. Individuals with undefined connotations, now workers, then users, first consumers, then producers: economic gender fluid.

The ecological transition also means decongestion (Oke, Mills, Christen, Voogt; 2017), and technology is of great help in this because it promotes the dematerializes documents and digitizes services, offering a digital work plan potentially equivalent to the traditional one.

To prevent history from repeating itself, bureaucracy must be simplified, controls must be improved using data and technology, work together to plan actions in the territories, make investments with a broad perspective, consider the cost of operation and not only that of carrying out the work, improve local administrations, build public goods.

The economic forces, bearers of conservative demands, see in the redistribution on the territory of people, work, knowledge, and value as a dangerous reclamation because it damages consolidated interests, like any radical reform. We must not forget what we have seen, withdraw from our positions (Bojovic, Benavides, Soret; 2020).

Things are changing. In the United States, 10 million people are looking for a job. And companies fail to close 8 million open positions. Paul Krugman (2021) wrote, "Workers don't want their old jobs on the old terms". The remotely workable job is the new segmentation of the digital labour market (Mandrone, 2021).

In addition, the remotely workable job can be an alternative strategy for those who had opted for a modulation of the supply of non-standard work, like part-timers or seasonal workers.

Resources should be used to upgrade a new social system, not to restore the last backup!



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