

2. Economics and Communication

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Self-adaptive Organisms: The Evolution of Organizational Models and Systems

1. Self-adaptive Organisms

A Self-Adaptive Organism is a system able to reconfigure its own structure and change its own behaviour during the execution of its adaptation to environmental changes. (Zhu 2015)

The function of a self-adaptive organism can be described in a recursive way: this entity updates its results, means and processes by thinking and acting, recycling knowledge to solve problems both inside and outside of itself.

Self-adaptation is an observable phenomenon: nature provides numerous examples of self-adaptive organisms. These models are used in biology, physics and chemistry as metaphors to create reference systems and metrics that allow us to improve and enhance organizational solutions in social and economic contexts.

2. Self-Adaptation in biology

When observing adaptive organisms, biology focuses on processes at the sub-organism level. Adaptations of organisms to environmental stresses are studied and developed using the latest molecular and physiological tools. Regulatory mechanisms are understood, including genetic constraints, physiological plasticity and the evolutionary history of the responses of organisms.

In biology, the sheer multitude of self-adaptive solutions implemented by natural organisms is overwhelming: plants, animals and micro-organisms convey crucial information for understanding the effects of an environmental change on the organisms, as well as the effects of organisms on the environment change.

This information together provides insight into how different communities (plants, animals, microorganisms) are interrelated and interdependent within an ecosystem, and how they determine the resilience of communities to environmental stress (Folke et al. 2007).

3. The Brain is a Self-adaptive Organism

Brain plasticity refers to the innate ability of the brain to adapt by forming new neural connections and strengthening synapses between existing neurons during

the course of our lives. This occurs in response to experiences, acquiring skills and learning. This also includes the exchanges of information between people and their cultural environment (Chiel and Beer 1997).

The ability to adapt allows us to assimilate new information and to create new memories. The most interesting aspect of the brain's plasticity is its ability to "put knowledge into operation", using everyday situations as catalysts for self-adaptation (Scott Kelso 1997).

4. Self-adaptation in Design and Engineering

Solutions in automation, robotics, bioengineering, artificial intelligence and information technologies replicate self-learning and self-organization – abilities that can be observed in natural organisms.

Designers and engineers imitate the behavior of autonomous organisms in designing and developing self-adaptive products and services. These systems are developing and autonomous structures that are able to store behaviors and situations, to exchange information with the environment and with other systems, and to select data and use it in appropriate contexts (Schönera et al. 1999).

Industrial automation has evolved so far that equipment and machinery are able to perform self-diagnosis and self-repair. These systems are equipped with artificial intelligence that can store and play behaviors due to experiences stored and shared continuously during their operations.

If we think about the technology services with which we interface daily, we see that they collect our behavior incrementally. Through data mining and user interfaces, they self-adapt themselves to us; digital media suggests products and services that match our tastes or our interests.

5. Self-adaptation in Sociology

Self-adaptive models are also being used in business organization and management. During these last five years, new organizational models for managing teams and projects have been designed and implemented (Zamaraeva and Pankratov 2013).

By applying biological models to changing organizations, we have seen that self-determination, self-regulation and self-control of individuals can increase rapidly in certain conditions. And by thus achieving a high level of autonomy, each person becomes a catalyst for self-adaptation skills in their entire group.

In my research, I have considered three different approaches to evaluate self-adaptation in sociology:

- Self-adaptation of groups when the environment changes.
- Self-adaptation of groups when objects and services change.
- Self-adaptation of groups when rules and roles change.

Considering the first point, there are many ways in which cultural changes have been induced by adaptation to environmental changes. Reduction of natural resources such as water and fertile land generates migration to more habitable places, and at the same time, self-adaptation in consumption for those who remain, for those who emigrate, for those who host. The occurrence of extraordinary natural events (e.g. earthquakes, floods) has produced devastation and simultaneously has refined prevention mechanisms and emergency services. And many people are working on the adaptation of organizational models to achieve stable conditions. Although the slowness of the response may be alarming, groups are refining their awareness of the impact of organizational structures and behaviors on the natural environment. As self-adaptive organisms, humans act simultaneously on their own structure (meta-cognition) and behavior (social responsibility).

With respect to the second point, I can see self-adaptation at work everywhere, every day. Many products and services have been launched in the last years, including mobile devices, apps, cloud computing and social media. By using these technologies, we are all changing our mindset and approach: we now use technologies to reserve a table at a restaurant, to buy tickets, to read a book or to watch a movie. This self-adaptation occurs due to a change in habits resulting from technological changes. After this first stage, all our self-adaptation mechanisms are activated: we imitate behaviors and structures learned from technologies, adapt solutions (e.g. resource sharing, peer to peer, e-collaboration), and introduce these solutions to social and economic organizations (e.g. open access, creative commons, crowd-funding).

At the third point I try to provide a view of an organization like an organism (group) of organisms (people), interconnected through “some pieces of culture”. These aspects of culture are rules and roles that we can already know or we can learn at home, at school, or in our workplaces. All of us have many stories to tell about times, styles, and ways to adapt ourselves to organizational changes. The renewal of an established culture generates conflicts and tensions between people and groups in adapting our structures and behaviors. Use a self-adaptive approach in managing cultural projects entails delegating power and responsibility to individuals (e.g. employees, managers, students and teachers). In this way, individuals’ capacity to adapt themselves improves. In turn, this personal self-adaptive improvement accelerates the self-adaptation of an entire organization. This kind of evolution will be demonstrated in the following chapters.

6. An Evolutionary Perspective in Business and Social Organizations

We are self-adaptive organisms: we reconfigure our structure (e.g. mentality, method, approach, style) and we change our behavior (e.g. relationships, actions, reactions) through the continuous exchange of information with the environment (Smith 2004; Adolphs 2009).

If we see ourselves as natural and cultural entities, with some physical and cultural characteristics, we can also consider our organization as a living entity that includes and merges different people and different cultural entities.

We can share information with our natural and cultural environments and this simple event causes a change: first in our mindset, then in our behavior, and finally in our organizational system.

7. Scope and Approach of This Research

For several years I have worked with many individuals in different profit and non-profit environments and collected extensive data about the self-adaptive skills that people already have and can improve when it comes to facing environmental and cultural changes.

As reference samples, I evaluated three different organizations in three different contexts:

- Volunteers: When we put together people with different cultural backgrounds but driven by common interests, the group's effectiveness and efficiency can increase rapidly. We can enlarge this perspective by describing ourselves as cultural elements of more a complex organism. Using an evolutionary approach, we can see that each individual increases their cultural dimensions and collaborates to reinforce the organism's structure during a continuous and incremental process. This organism evolves its common culture through the exchange of information of its components.
- Secondary School (K-12): When we introduce digital and non-digital tools in education, the different talents and attitudes of students can emerge more easily. Disruptive technologies applied to didactics allow teachers expand their modeling diagram and see digital technologies as new cultural dimensions entering into an established cultural organism: the secondary school. This complex system is made up of teachers, parents, roles, rules, tools and educational programs and this organism now includes new cultural dimensions (digital technologies) and simultaneously adapts itself and its cultural components (people, rules, contents).

- **Company Merger:** When we involve each person in merging two different companies into a new one, sharing and co-creation are ‘self-emerging’ attitudes in everyone. Considering two companies like two living entities, we point out cultural elements that can facilitate the adaptation of individuals to the new organism. This organism is born of the cross-fertilization of different cultural dimensions of each person. Employees were involved in a collaborative redesign of the company’s processes and rules. People with high levels of engagement are able to adapt themselves and change the solutions through daily practices. Important catalysts in this process include self-learning, self-regulation, self-repairing.

I was part of each of these organizations for 3–5 years, and I had the opportunity to follow them closely. This allowed me to measure the evolution of self-adaptation in both individual people and organizations, observing and identifying the elements that can facilitate change management.

By tracking the structure and behaviors of these organizations, we have identified which behavioral and structural conditions can accelerate or delay self-adaptation. And this has allowed us to design, test and refine methods and techniques to enable self-adaptation.

8. Progetto eXtra

Progetto eXtra is a group of volunteers living in a small town in Italy (Lombardy). There are 6,200 residents and 14 percent are foreigners. The mission of this group of people is to enhance the meeting and merging of different cultures. Group members share the same vision and interest: helping Italians and foreigners understand and exchange their cultures.

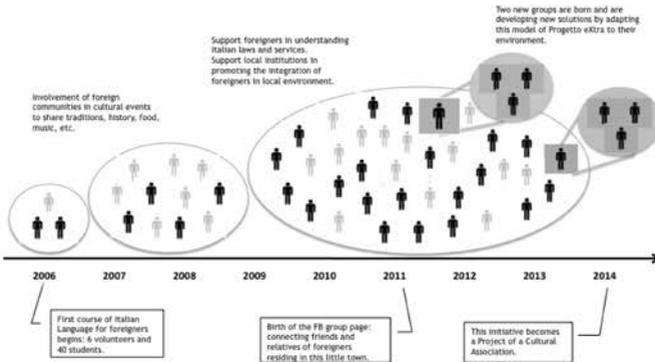
In 2005, the first course in the Italian language started, with five teachers and 40 students from 15 countries in attendance. Every year new students join Italian courses, attracted by the word of mouth from their fellow countrymen and by information shared in schools and public offices. In ten years, this organization has involved more than 400 people from 40 different countries and more than 20 Italian volunteers.

The volunteers also provide assistance to support foreigners in understanding Italian laws and help them interface with public authorities (social assistance, health care services, schools and services for children). The local community also makes efforts to involve foreign residents in cultural events sharing traditions, history, food and music.

This group supports local institutions in promoting the self-adaptation of foreigners to the local environment. All members of *Progetto eXtra* are “change agents” who make self-adaptation feasible and sustainable.

In 2012 and 2014, two volunteers collaborated with *Progetto eXtra* in order to understand how this community “runs” and to implement a similar solution. After one year of collaboration with *Progetto eXtra*, they started up a similar program in their towns. In other words, *Progetto eXtra* was imitated: these two volunteers developed and adapted the structure and behaviors of the ‘original solution’ to their local environment.

Figure 1



The evolution of this cultural project is summarized in the following key points:

- This group was born in a small community of people strictly linked to the social environment in which they live and work.
- Common interests are clear and explicit; there are no hierarchies or preconceived roles in this organism.
- Collaboration between this autonomous entity and local institutions has been always effective.
- Relationships between the members of this group are based on sharing and collaboration. The contribution of each person is voluntary and related to personal skills and experiences.

9. Generazione APP

Generazione APP is an experiment that tries to create solutions in which the “formal relationship” between the roles of teachers and students is radically transformed to benefit the “natural relationship” between individuals, and between the individual and the group. We want to demonstrate that this approach accelerates learning.

This initiative was born in 2012 at a public school in Italy. The goal was to develop a set of tools and actions that would help extend the offerings for students and the spectrum of evaluation for teachers.

I started this project in a small school near to Milan (Italy) in 2012 with a workshop titled “How Social Networks are changing the Way We Communicate” given to four classes of 12-year-old students.

During the first part of workshop, I shared with the students a set of “key indicators” for using the Internet and social media as “education and learning catalysts”.

In the second part of workshop, students explained to teachers how school could be transformed into a more attractive and interesting place. They presented their suggestions using drawings, mock-ups, videos, and slideshows, showing many interesting solutions that could be used to help make schools more engaging and exciting.

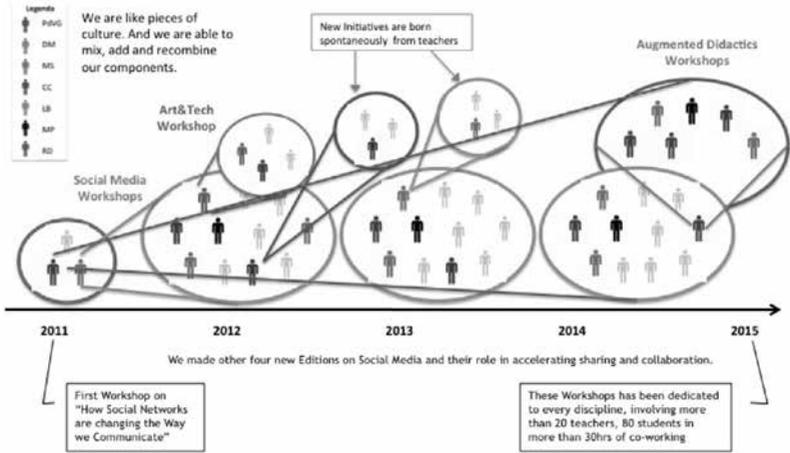
The students indicated that self-education models are more engaging, fun and profitable. Students and digital media are the change agents of self-adaptation in the school organism.

Due to the success of this initiative, from 2014 we implemented more than 40 hours of workshops with students and teachers for each discipline (mathematics, history, art, music, Italian, English and French languages, science), with the following common objectives:

- Introducing digital technologies in education and evaluation processes.
- Designing and implementing new instructional formats (Augmented Didactics).
- Reducing the gap between the communication style of adults and pre-adolescents.

The commitment and results shown by all students were very high, and teachers were astonished. We have held four sessions (from 2012 to 2015) of these workshops, involving more than 400 students and 25 teachers.

Figure 2



The evolution of this cultural project at a school provided the following findings:

- The idea for this project stems from informal meetings, and not from a 'big plan'.
- The common interest of parents and teachers is clear and explicit: educating the children. And for this reason, sharing and collaboration were and are the basis for the relations.
- Teachers launched digital projects, replicating the model into their sphere of interests and objectives and they self-adapt their own mindsets with regard to this digital revolution in education.
- Our organism (experimental classes and lessons) inherits an organizational code from the environment in which it is inserted.
- To perform these tasks in a public school, there are hierarchies, roles, procedures and standards that have to be respected. And this can result in delays in achieving innovations and changes.

10. Back to School

This last case study summarizes the activities made for merging two small companies into a new company: the first company was an ISP company (delivering solutions for video capturing, streaming and other Internet services), and the second company was a PR agency (press office, event management). The merger of these two organisms generated a new company in integrated communication. The merger took place from 2007 to 2009.

The aims of stakeholders were:

- Expanding the portfolio of services and products offered, which in turn would increase market share in digital PR and web services.
- Accelerating the development of a unique company culture through the mutual exchange of humanistic and technical knowledge.
- Increasing profits by creating streamlined and effective operational processes.

In this working group, I served as the program manager and business coach. This allowed me to introduce 'new pieces of cultural code' that companies did not yet have in their cultural DNA.

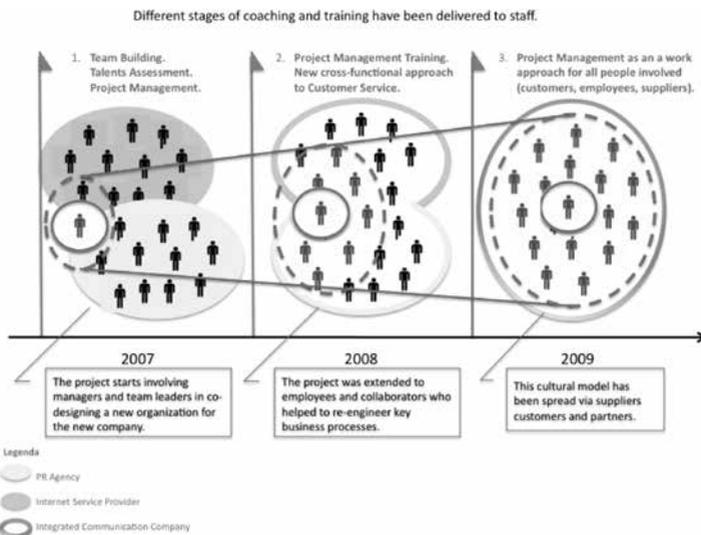
More than 50 employees and consultants were involved in a 'learning by doing' educational program.

During these stages, the employees learned methods and techniques for managing projects, developing new products and managing customers. These techniques were then applied to real projects and customers. The employees shared problems and co-created solutions and adapted themselves to a new way of working.

The work of internal reorganization was carried out involving all people to propose solutions and better manage this transformation. In this way, the dedication and enthusiasm of people was very high and as a result, very productive. There were moments of crisis and tension, which were even painful for some.

Nevertheless, feeling included in this process of change made the transformation more tolerable for everybody.

Figure 3



The elements contributing to the success of this project are the following:

- The interests of the two companies were clear and explicit: merging into a single company to increase profits.
- A change agent was included in the group to transmit new skills and methods for operations management.
- Organizations were streamlined, resulting in no overlap of roles and responsibilities.
- New hierarchies and roles were born from the merger and the adaptation of existing ones: the self-adaptation of each person spread out the entire company structure and behavior.
- Involvement of staff in research and development of organizational solutions increased efficiency and effectiveness.
- Concrete results in reducing time to market and project costs encouraged the spread of new practices in accounting and project management in the new company.
- Project management as approach to cooperation encouraged the spread of co-creative solutions: we have shown that project management approach can be considered a change agent for accelerating self-adaptation to internal and external changes.

11. Conclusions

The different groups analyzed had three structural variables in common: group size, the heterogeneity of components and the simplicity of rules.

The relationship between the elements of the groups was based on three “connective” elements: trustworthiness, reputation and reciprocity.

Evolution did not come from a blue print, but emerged from continuous exchange between the elements of the group and the environment.

The hierarchies (do – manage – control – decide) are less reactive than self-organizations that arise spontaneously when people want to find a solution to a problem.

Small changes in the initial conditions brought great benefits to the evolution of solutions.

People co-create solutions, sharing their own pieces of cultural code during the entire transformation process.

Considering organizations as living beings is no longer a simple metaphor, but it is a framework to accelerate and spread our ability to adapt as individuals and as organizations.

The self-adaptation process is a sequence of everyday practices. We refine solutions while we are experiencing them.

Gradually we improve our ability to learn by experiencing our ability to adapt to environmental changes.

In order to be able to adapt ourselves to external changes in a short time and without permanent damage to the structures and functions, we have to work on our skills of understanding and communicating with individuals and the environment.

Expanding our channels of communication simultaneously, we expand our opportunities for data acquisition, processing, learning and adaptation.

These projects and communities show that “co-built” businesses and organizations based on sharing, collaboration and co-creation are not only feasible, but profitable.

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Raffaella Folgieri

Technology, Artificial Intelligence and Keynes' Utopia: A Realized Prediction?

1. Introduction

In a globalization scenario, the current economic crisis has highlighted the weaknesses of the global economic system, strongly interdependent and increasingly dependent on market fluctuations and the geopolitical balance. The difficulty of getting out of the current situation is evidenced by the numerous efforts to find systemic solutions that would be able to cope with other future manifestations of a crisis of such a magnitude. An interesting aspect is represented by the emergence of themes that form the backdrop to the economic crisis but, at the same time, they represent the most obvious manifestations. Among these economic themes, unemployment is the one that most affects the public and scholars, representing, in a system in which the consumer is the pivot of the economy and international finance, the Achilles heel of economic recovery.

But what else could be expected, given the present scenario? Are there other contributing factors that have accelerated the process of crisis? Above all, does the technological acceleration that we have been witness to in the last decades represent an opportunity or an obstacle in the search for a new system of economic balance?

Taking a cue from Keynes' predictions in his famous speech *Economic Possibilities for our Grandchildren* (Madrid, June 1930), this work analyzes the link between technological progress and employment that is the responsible for rampant unemployment, critically tackling the major themes of the economy weighed against the progress of information technology and, in particular, of Artificial Intelligence.

2. John Maynard Keynes: Economic Possibilities for Our Grandchildren

In 1930 at a conference in Madrid, John Maynard Keynes delivered a speech entitled *Economic Possibilities for our Grandchildren*, in which he addressed the issue of unemployment in a far-sighted and completely innovative way, linking it to technological advances in the present and the future, among other things. In his speech, Keynes foresaw runaway unemployment that would have occurred mainly because of technological progress, which, over time, would take over the work

that used to be performed by human workers, thereby reducing the number of necessary working hours. This in turn would free up time for individuals to carry out different activities pursued not to search for remuneration but for personal growth or entertainment. Keynes' idea, which was then seen as a utopian idea, is, in fact, partially realized today. Germany, for instance, has solved the problem of unemployment in part by reducing working hours (the example of Volkswagen is significant here), realizing, in practice, the thought and the indications of Keynes. Unemployment is, today, in Italy up to 13.2%, with a peak among young people (15–24 years) of 40%. Other countries, however, are not better off.

In this speech, Keynes emphasizes that progress in general, and in technology in particular, is essential to the human aspiration to be free from wage slavery, opening a path to pursue more cultural and non-profit work. Yet Plato and Aristotle questioned the production of objects and practical activities by placing them in the background compared to the production of ideas:

Meanwhile, they dreamed future worlds, gods and heroes using robots. *“If every instrument – fabled Aristotle – could, once ordered, work by himself, if quills could knit alone, if the bow sounded alone on the zither, entrepreneurs could do without the workers and the bosses of the slaves”.* (*“The revenge part of Keynes”*, Domenico De Masi)

However, over time, a growing gap has been observed between the classes who can afford to reduce their work to a pleasant occupation and those for whom it was and is still a necessity for survival (referring to the birth of the proletariat).

Nevertheless, progress led to the surrender of the lower classes, who were able to live in degrading conditions and do exhausting work. New inventions, along with technological and industrial progress before then, gradually improved working conditions, providing a glimpse into the possibility of Keynes' envisioned utopia of total freedom from fatigue and physical work. Information technology, in recent decades, has accelerated this process, making the motto “less and less work thanks to the machines” an ideological banner that has fostered the development of technologies' and systems' optimization of time and resources. Every expert in these areas develops their own experiences, keeping in mind that information technology can help save time and labor. In contrast, however, this impulse was not met with a real reduction in the demands of work. In contrast, the less time it takes to carry out certain tasks has actually led to a greater burden for each worker. In this way, the amount of product divided by the time and manpower needed to produce it, although incremental for each product produced, generates, for a certain period of time, uncontrolled growth of the demands placed on each worker. Today this situation primarily concerns workers who have to deal, directly or indirectly, with the technology and with the use of technological means, while the

other categories experience progress not as liberation from work, but as a threat to employment. Along these lines, as clearly shown by De Masi, even organizational innovation has contributed to the reduction of labor required to produce goods or services. In fact, Taylor, the father of scientific management, provides several examples of the effect of organizational innovation on employment.

All of this may seem positive at first glance, the utopic desire for liberation from the need to work, but companies have not actually redistributed the workload to reduce working hours. Instead, they tend to reduce staff, up to a collapse in the entire system, with the boomerang effect of unemployment. In fact, growing unemployment (and therefore decreasing revenue per capita) consequently decreases the consumption of goods and services, with obvious repercussions for the entire economic system, which is already precarious because of delicate geopolitical balances, as previously mentioned. Therefore, reducing working hours is a principle, not a practice. In fact, according to the belief that the recognition of merit is closely related to the extension of permanence in the work place, new employees tend to prolong their working hours.

As De Masi states: "*homo faber* prevails systematically *homo cogitans* and especially the *homo ludens*, multiply, rather than reduce, the causes of unhappiness taken as 'natural' and even as a providential opportunity atoning of living beings".

We are therefore still far from Keynes' ideas about technological unemployment and its consequences. Nevertheless, the economist had anticipated the limits of his own theory, today practiced not with the desired effects, which states that unemployment should be combated by reducing taxes and increasing investment. While the technological acceleration we are seeing today was not yet predictable in 1930, Keynes realized that technology would indeed have a key role in the economy and that it would be a significant contributory cause of unemployment.

The first words uttered by Keynes in his speech at the opening of the Madrid conference were: "Right now we are suffering from a severe attack of economic pessimism. I think this is a very wrong interpretation of what is happening". These are words that ring true with the mood of contemporary times.

Keynes begins with a historical excursus to describe all the efforts made by man to free himself from the crushing weight of hard work before proceeding to explain how technological unemployment is a necessary and transient evil to reach liberation from work.

In his speech, Keynes distinguishes between absolute needs (exhaustible) and related needs (inexhaustible), predicting that we will soon be able to meet the absolute needs to devote all our energy to non-economic purposes, thus reaching the utopian ideal that humanity has always pursued. He speculates, in fact, that

there will be a first phase in which the work will decrease dramatically, which in turn will raise the need for the redistribution of employment. This phase is then followed by a second phase of a cultural nature, in which man will have the leisure time to occupy his free time with other interests. This will lead finally to the third phase in which a change in the moral code will serve as the culmination of the two transitional earlier periods.

As Keynes concludes:

I see us free, therefore, to return to some of the most sure and certain principles of religion and traditional virtue – that avarice is a vice, that the exaction of usury is a misdemeanour, and the love of money is detestable, that those walk most truly in the paths of virtue and sane wisdom who take least thought for the morrow. We shall once more value ends above means and prefer the good to the useful. We shall honour those who can teach us how to pluck the hour and the day virtuously and well, the delightful people who are capable of taking direct enjoyment in things, the lilies of the field who toil not, neither do they spin. [...]

of course, it will all happen gradually, not as a catastrophe. Indeed, it has already begun. The course of affairs will simply be that there will be ever larger and larger classes and groups of people from whom problems of economic necessity have been practically removed. The critical difference will be realised when this condition has become so general that the nature of one's duty to one's neighbour is changed. For it will remain reasonable to be economically purposive for others after it has ceased to be reasonable for oneself. The pace at which we can reach our destination of economic bliss will be governed by four things – our power to control population, our determination to avoid wars and civil dissensions, our willingness to entrust to science the direction of those matters which are properly the concern of science, and the rate of accumulation as fixed by the margin between our production and our consumption; of which the last will easily look after itself, given the first three. [...]

3. The Responsibilities of Artificial Intelligence

A phenomenon much discussed today is the emergence of so-called unnecessary work (Graeber 2013). Just open the pages of financial newspapers to read the growing concern surrounding this phenomenon, which is causing a deep malaise among those most affected. Technological unemployment, in fact, extends not only to industrial and production activities, but is also related to new intellectual activities, which are facilitated by easy-to-use technological tools and therefore cause the need for a smaller labor force.

Few people are willing to admit that their professional tasks could actually be carried out in significantly less time. In fact, many see the creation and maintenance of fictitious jobs at companies willing to create surplus labor market for

fear of falling into a kind of social depression that could cripple the current social order, based on the combination of production-consumption.

Indeed, psychology, and especially cognitive psychology does not underestimate this issue, noting that depression is a social phenomenon linked to modern times and periods of unemployment. When there is no concept of paid activity, such as in prehistoric times, are people depressed?.

In this scenario, since progress today is primarily technological, what responsibility can be attributed to this technology and, in particular, to Artificial Intelligence (AI), that is heading increasingly in the direction of creating machines and intelligent systems that might become capable of replacing humans, even in intellectual tasks?

When Keynes delivered his vision of this utopia, it generated a heated debate within the disciplines of automation, the forerunner of today's AI. Scholars wondered whether it was ethical to study automation, and what systems and technologies could replace man in his daily activities and work. This discussion continues today, especially in light of the effects of technological progress on employment.

Taken from a historical perspective, it is obvious that technological innovation and human work evolved and continued to evolve in a symbiotic way, increasingly defining a framework in which human intervention is less and less necessary. Electronics, automation, information technology and the culmination reached with Artificial Intelligence, have meant that the pace of change taking place has become more and more accelerated, causing confusion and distress in all that part of humanity that, still immersed in the daily needs, has not embraced the utopian vision of Keynes.

ICT in general has already provided support to daily activities and work, has streamlined workloads and, in many cases, transformed or even made obsolete some professions or trades. Publishing is the sector that is suffering the most from this process (Greco et al. 2013). AI is leading to changes having an even greater impact, which often is not obvious but that now pervades every aspect of our lives. Indeed, cybernetics, bionics, robotics, neural networks (and, more generally, machine learning algorithms) have brought about significant changes in productive activities and services. The use of artificial intelligence systems has been extended from applications in scientific computing to more general domains. Algorithms and intelligent machines are used in various fields. The economic, business, medical, industrial and legal sectors are among the most obvious, but in general, any area in which predictions need to be made (i.e. by applying a sort of human intuition) using data without sufficient prior knowledge are affected by the change. One example of this is fraud detection machines and algorithms

that can identify a fake check, fraud, or a scam, and lock the transaction. In the medical field, machine-learning methods are used for diagnosing and prognosing diseases, or for making efficient imaging machines that are able to detect pathologies. Automation, which is the field from which AI (cybernetics) has been playing an important role since World War II is a reality in industry today. The transport system uses AI algorithms (e.g. the state railways since the '80s) to regulate traffic. Even in the legal field, there are various applications of AI algorithms, such as the system SEL adopted by the Appeal Court of Rome, Italy, to automate the civil process, providing advice to judges to determine quickly the formal and substantial correctness of the preliminary stages of a trial. Scotland Yard uses an artificial intelligence system that can detect obvious similarities between different types of crime. Furthermore, experts in the financial markets use systems based on neural networks for making financial predictions. In the defense field, voice, writing and image recognition systems have been a reality for many years. In telecommunications, AI algorithms are used for signal cleanup (Vaseghi 2008). Weather forecasts are made using AI tools (Gardner and Dorling 1998). Search engines on the web, the systems of commerce and e-commerce are, too, based on AI algorithms (Lawrence 2000). Even in sports (Lapham and Bartlett 1995), or in the human resource selection process (Mehrabad and Brojeny 2007), these systems are used to improve process efficiency in, respectively, training and recruitment.

Today, our daily activities are based largely on Artificial Intelligence algorithms and the use of intelligent machines, though these instances may not be as obvious as the other applications mentioned previously. The wide field of AI includes, in fact, not only systems and algorithms, but also cybernetics and robotics, also more and more present in the daily life, not only in industrial automation, but also in applications such as exoskeletons (Yang et al. 2008) or robotic assistance to humans (Jacobsen et al. 2004). For instance, robot appliances, but also nurse cyborgs are already being used in some Japanese hospitals. In this socio-economic climate, Karel Čapek, who coined the term 'robot', foresaw in his play *RUR* (1920) (Čapek 2004) the possibilities inherent in the construction of artificial beings cheaper than the human being, but performing the same tasks. We have come a long way from Shakey (Nilsson 1984), the first mobile robot on wheels, which was created at the Stanford Research Institute in Menlo Park, California, during 1967–69. Think of the progress made with Asimo (Chestnutt et al. 2005).

In recent times, the excess labor force in industry was moved from manufacturing to services and, later, when it was revealed to be exuberant also in services, it was hijacked in the ICT sector (which employs 40 percent of the active population

in the advanced countries). What will happen after? Will there be other emerging sectors or, rather, the utopia of Keynes? Do the times require a slowdown?

If answer to this question seems to be an obvious 'yes' because humans actually have difficulty in adapting so quickly to the new social order, then why is AI accelerating to create machines that can replace humans?

One might say that all AI experts are proponents of a Keynesian utopia, in fact, now there are neural networks that replicate the mechanisms of the human brain almost completely and very closely. We should start from the past to fully understand how strong man's urge was to create machines that can replace us in everyday life. This calls to mind Pascaline (1642) created by Blaise Pascal, a computing machine created for calculations; Babbage's wheel calculators; the creation of ENIAC¹ (1946) by Von Neumann. In contemporary AI, machines and algorithms (ANN, Artificial Neural Network, SOM, Self Organized Maps, machine learning, automatic learning) tend to replicate and replace man, imitating his cognitive processes. These efforts aimed to create thinking machines, as created by Turing in 1950. When thinking of AI, who does not think of HAL, the on-board computer in the film *2001: A Space Odyssey* by Stanley Kubrick?

The great challenge of AI is to expand the capacity of artificial systems by combining the creativity, judgment, and intuition of human intelligence, with the speed, accuracy, and attention to detail of artificial systems. Without going into the philosophical or ethical questions, it is clear that being able to create a system that brings together human and artificial abilities can result in a product usable in any context, with some guarantee of success.

But will AI actually be able to create systems and machines that could replace humans?

In the field of AI, there is an eternal debate that pits those who support the so-called strong position against supporters of the weak position. In the philosophy of AI, the strong position (strong AI, a term coined by John Searle) argues that forms of AI can be made to reason and solve problems, and demonstrate self-awareness:

According to strong AI, the computer is not merely a tool in the study of the mind; rather, the appropriately programmed computer really is a mind. (John Searle)

On the other side of the debate, weak AI supports the use of programs to study or solve specific problems, excluding the possibility of achievement of self-awareness

1 The ENIAC was absorbing a large amount of electricity, so much so that its first power-up caused a blackout in the western district of Philadelphia. Like all the first samples of computers, it was very cumbersome, occupying a space of nine by thirty meters (180 square meters) and weighed about 30 tons.

for machines, which can never be defined as intelligent because they cannot actually think. About the IBM supercomputer Deep Blue², Drew McDermott wrote: “Saying Deep Blue doesn’t really think about chess is like saying an airplane doesn’t really fly because it doesn’t flap its wings”, arguing that Deep Blue possesses limited intelligence restricted by the size of its intellect. On the contrary, many refute this claim, arguing that Deep Blue only follows a program encoded in it.

Proponents of the weak AI argue that machines can never truly become intelligent, and therefore can never replace humans, while the supporters of strong AI believe that attaining true self-consciousness for machines will be possible in the future.

Von Herder asserts that there is no space for AI. He wonders, in fact,

“what does it mean to think? Speak inwardly, that is expressing itself marks acquired. Speaking means think aloud, in the flow of these thoughts, much can be for us only supposed and opined; but if I think really an object, it never happens without a sign. In thinking, the soul continually creates a unit of its manifold” (Von Herder 2002).

Conversely, Dennett argues:

Well, then how can the brain extract meaning from certain things? At what point can we talk about consciousness? These are the questions to which the cognitive sciences are trying to give an answer, trying to reduce the internal representation and those who experience the above representation of the machines. A computer can do it. The great insight of Turing was this: reduce the semantic machine to a syntactic machine. Our brains are nothing more than syntactic machines, which, however, extract meaning from the surrounding world, or work as semantic machines. We are in the presence of a paradox, but not a mystery, as many would have us believed. I do not believe in mysteries, they are only problems that we do not know how to approach. If we think we have found a mystery, we probably just misunderstood the problem. What is certain is that consciousness is less mysterious than you think: it develops from what the brain does – or how syntactic machine – and not by what it is made from. (Dennett 2006: 42).

The action of the mind unfolds, according to Searle, through intentionality, a basic property of the mind, a mental process that connects the inner world to the outside world.

The ability of speech acts to represent objects and states of things in the world – says Searle – is an extension of the most biologically fundamental ability of the mind to relate

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- 2 Deep Blue is the IBM RS/6000 computer equipped with 512 processors working in parallel and programmed to play chess. On May 11, 1997, it beat the strongest human chess player in the world, Gary Kasparov. No one argued that mankind had finally built a thinking machine, but the IBM computer had been shown to have an intelligent behavior greater than the challenger.

the body with the world, by means of mental states such as belief and desire, and, in particular, through action and perception. (Lyons 1995)

But does the strong position of AI tend to create thinking, creative machines? There are already many attempts to do so. Among others, Lamus³ was presented in July 2012, a super computer that composes classical music, designed and built at the University of Malaga by a research group in computational intelligence (coordinated by Eng. Francisco J. Vico), assisted by the pianist Gustavo Diaz-Jeres. The objective was to test the Turing test, and, in fact, the first concert on a computer (with the title *Can machines be creative?*) was streamed on July 2, 2012 and dedicated to Turing.

Even earlier, in 2010 in Udine, the poet and mathematician Hans Magnus Enzensberger created a machine that writes poems automatically, in complete independence⁴.

There are also mini-robots developed at the University of Lausanne, which, equipped with a brain based on artificial neural networks (imagine those of an insect), use a mechanism of 'electronic reproduction', evolving according to the laws of natural selection: the robots have the best chance to reproduce, and then to combine the 'digital genome' (or the weights of the neural network of the artificial brain) with that of another sample (randomly). Within a few generations, the robots have demonstrated an increase in intelligence, the ability to find 'food' independently (locating a charger) and avoiding 'poison' (a location similar to that of the 'food' but causes deactivation of the robot). Robots have also learned how to alert the presence of food to one another using light emitters they are provided with, thus developing a kind of language.

Furthermore, in 2012 at the Massachusetts Institute of Technology laboratories, researchers developed a prototype robot that can change its shape. The project was called Milli-Motein⁵ and its robots have extraordinary potential. Consider,

3 The first composition made by Lamus: <<http://www.youtube.com/watch?v=bD7l4Kg1Rt8>>.

4 The machine was manufactured by Solar SpA, Udine. Enzensberger "wanted to experience concretely the theory that has fascinated many writers, beginning with von Chamisso, poet at the turn of the eighteenth and nineteenth centuries, but especially the work of Raymond Quenau and of surrealists like Breton. The first, with its 'factory of potential literature' has shown that you can write a million of billion sonnets starting from the verses of one poem".

5 Milli-Motein is a robot similar to proteins, which naturally change their shapes. See "I robot di Losanna" (episode of SuperQuark): <<http://www.rai.tv/dl/RaiTV/programmi/media/ContentItem-446dbf19-e344-401b-b7fe-67698c4daad5.html?p=0>>.

for example, potential applications in domestic daily life, such as a lamp that can be transformed into a cup.

Finally, the SyNAPSE system (Systems of neuromorphic Adaptive Plastic Scalable Electronics) announced by IBM in 2009 emulates brain capacity linked to feelings, perceptions, actions, interactions and cognition. IBM's aim is to build a chip for cognitive calculating. In cooperation with a team of researchers from the Lawrence Berkeley National Lab and Stanford University, the company has built a particularly innovative simulator of calculation mechanisms, memory and communication. It is also innovative for the biological details inspired by the neuro-physiology and neuroanatomy⁶.

AI efforts are, however, currently oriented towards the creation of computational models that can simulate intelligent systems (or be used by intelligent systems) to understand, but even more so to reproduce the workings of the human brain. Intelligent systems that derive from or benefit from this are the most diverse: think of agents, robots, systems in the environment, entertainment and learning applications that are already an everyday reality, tools that replace humans in their activities.

All this might be frightening, obviously, for all the reasons already discussed. But then why do humans want to create intelligent machines? Why do AI scientists pursue these goals?

It is not easy to answer these questions, and the Keynes' utopia seems the most plausible explanation: the reasons are to be found in the human aspiration to gain more free time and the brain-spiritual dimension.

Surely AI, above all other ICT disciplines, has great responsibilities in today's employment crisis and, moreover, the process has not yet been arrested: every day machines and systems are becoming not only more powerful, but also more creative. If we believe, in fact, that AI will always be in the service of intelligence and of human motivation, then it is sufficient to develop fast, flexible, powerful and mobile systems and adapt over time to the connected changes. If, on the contrary, the intention is to make the most of the opportunities to develop these machines, then artificial minds need to show human characteristics, such as creativity, mindful of the inherent risks. Therefore, technology and AI will wonder if the machines will have to feel part of a connected reality or simply be the means of connection, thus favoring, or slowing down, the process of realization of the Keynes' utopia, for which they are largely responsible.

6 Currently IBM has stated that the system shows the characteristic of a cerebral cortex of a cat (about 4,5% of human brain).

4. Conclusions

With regard to Keynes and his utopia, what aspects are still timely, and which have forcefully returned to the forefront? It appears that we are right in the first phase predicted by the economist. In fact, even Japanese efficiency had to surrender, due to the increase in unemployment caused by the progress of technology (think of Fujitsu which, despite the success of the company, has laid off thousands of people and announced a hiring freeze). Staff reductions, in fact, no longer concern only businesses that are in crisis. Instead, it extends to all the companies that have chosen or, rather, had to choose a high-tech model, opting for what is now called “jobless growth” or “development without employment” (Caballero and Hamour 1998). But will this model really result in greater levels of creative, richer intellectual activity, a life pervaded by aesthetics, freed from economic needs, the objective of which will be the subjective self?

Keynes' speech seems prophetic in light of what we are experiencing. It is hoped that his utopia will soon come to fruition, raising us from the overwhelming and inevitable anxieties of the middle period in which we are living. We can't say if the technology and, in particular, the AI can be of help in the solution to the current situation, or act as accelerators for the final structure advocated by Keynes. However, surely the involvement of technological disciplines makes them responsible for the pressure of events, if not for the entire process.

Obviously, AI is not yet able to totally replace human beings. Instead, systems and machines created using AI technology are becoming a valuable source of support to the human decision maker in a growing number of situations, or as a replacement for dangerous or heavy kinds of work. It goes without saying that progress in general has always led to a transformation and, given the acceleration of technological progress, even in this case technology has led to the disappearance of certain professions and trades. However, the responsibility of technological progress and AI, which is state-of-the-art technology, must be shared with social and economic practices, which thus far have not had the effects suggested by Keynes (e.g. reduction of working hours) but try to maximize profits at the expense of liberation from work as put forth in the Keynesian utopia.

Meanwhile, waiting to see if the Keynesian utopia will be realized, humans will have to live with fears about the misuse of technology, which have found expression in artistic masterpieces such as *Brave New World* (Aldous Huxley 1932), *Modern Times* (Charlie Chaplin 1936) and *1984* (George Orwell 1949), who were able to masterfully interpret fears of technological domination present in the collective imagination.

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Angela Lupone

The “Green Beautiful” Option for the WTO-Multilateral Trading System: Cutting the Edge between Feasibility, Pragmatic Approach and Utopia in Governing the Multiple Aspects of Globalization in Food Markets

1. The Green Beautiful as a Possible Option for Planet Earth

Green Beautiful is the name of the marvelous utopian planet and the ideal society of the future depicted by Coline Serrau in the outstanding but unfortunately not very well-known French movie *La belle verte*, acted in, written, and directed by Serrau in 1996. On Green Beautiful, people live conscious, healthy, peaceful, simple lives in harmony with body, mind and nature, and enjoy longevity. Technology has evolved to the point that it is already overruled, even overhauled by biological knowledge and phenomenal quantum consciousness. Hence, the film is a sort of “from the future back to the origin of mankind”.

Indeed, a long trip has brought humanity from the Big Bang through wars, disasters, the so-called progress of the Industrial Era and extremely stressed technological evolution to the edge of its own existence. This continues on and on in a sort of circle that has developed back (or further on) to the potentialities of human nature itself. Hence, the human mind on Green Beautiful is able to do everything we still use technology for all by itself. In fact, telepathy is a common communication tool. Through telepathy, the inhabitants of Green Beautiful can move to Earth and other planets, can ‘disconnect’ and drive back to awareness, presence and good will exhausted earthlings’ minds. Furthermore, newborns receive and spread strength and nourishment from simply being held in one’s arms.

In order to communicate through telepathy from Earth, the inhabitants of the planet use water: fountains, lakes, wash-basins, bathtubs, etc. Water is not only the source of life, but the basis of communication and relations. Thus, water becomes the common heritage of humanity that must be protected in order to ensure communication for future generations. On Green Beautiful there are ‘concerts of silence’ but also ‘sessions of laughter’. People eat everything: fruit, vegetables, olives, kebabs of raw vegetables and grains, but no meat. Instead they

eat beans. Finally, everything is agreed and settled peacefully in the yearly planet meeting held on the top of a mountain and headed by the eldest member of the community, Ozam – and when they reach the summit, people are so exhausted they don't want to quarrel anymore.

In short, *La belle verte* provides a unique and unusual look at our own world of material bondage, environmental decay, the dictatorship of money and the marketplace, inverted or diverted value perception, widespread confusion, loudness to the point that we cannot even hear our own interior voice. On the one hand, the message is encouraging: Green Beautiful is our own planet itself, just a couple thousand years in the future. On the other hand, if Green Beautiful really is a possible option, the question is how do we manage to become Green Beautiful, and how do we succeed in tackling the basic needs of planet Earth? With regard to my research interests, namely international trade law, specifically the WTO's approach to intellectual property rights, non-trade concerns and food safety issues in the view of balancing the market's rules and humanity's needs, the question becomes: have we already started out on this trajectory, and if so, do we have the necessary tools? Are we already doing something to boost individual consciousness and general environmental well-being in the globalized society without threatening the achievements reached from the multilateral trading system and through other forms of institutional market integration at the international, regional or bilateral level? In short, where are we, and where are we going?

But, let me go back to the movie and to the annual planetary meeting headed by old Ozam as mentioned previously. There is a special point on the assembly's agenda entitled "travels to other planets". Even though Green Beauty's inhabitants aim to learn from their neighbors, nobody has been to Earth for 2000 years! Surprisingly, it is the only destination, at least at the beginning of the story, without volunteers willing to travel to it. The reason for this is that Earthlings are supposedly unable to teach anything to move further forwards. From the perspective of Green Beautiful, on Earth society continued to degrade, as one tells who had previously been on Earth. This individual also believes that there is nothing that can be done for Earthlings. In this respect, it had been really difficult down there, and life on Earth is marked by the "law of the strongest, squashed women, massacres and *no distribution*". In short: "they would have needed centuries to recover". Furthermore, if one wanted something, he couldn't get it without money, even food. "But *to eat* is a *necessity*. We die if we don't eat", Mila's son says indignantly. "But they do this. If you have no money, you have nothing", is the final severe remark. In this context, it is worth noting that "necessity" is one of the main principles

defining the evolution of international trade law and shapes WTO Members’ commitments to health and environmental protection, as well as food safety issues¹.

The description of “Earth’s Industrial Era”, something Green Beautiful had passed about 3000 years before, is similarly severe. Serreau herself defines this era as “competition, literacy, mass production of useless objects, wars, nuclear technology, destruction of nature, diseases without cures, a prehistoric period”. Not surprisingly for a contemporary audience, there was even a country where women had to wear veils on their faces and they did not have the right to drive a car!

Of course there is much more in the movie, but another aspect of life on Earth nowadays seen from the futuristic Green Beautiful worth mentioning is the “hierarchy” since “the men think they are superior to the women, adults are better than children, the human beings are superior to animals and plants and there are races”, as an old woman explains. Viewed from Green Beautiful, Earth is a big planet, with many different continents, which results in diverse groups of humans separate from each other. When they meet, some groups think they are superior to others, which can result in mass killings. One thing that makes Green Beautiful distinct from Earth is that they have a single race, a single climate, and a single *way of development* on their little planet. Surely this makes everything easier, but it is not because Earthlings didn’t have the chance: they didn’t even try².

Here we arrived at our question of what I dare call the ‘state of the art’. Does international trade and/or economic law sufficiently consider the Green Beautiful option in managing issues such as food safety and security, access to medicine, technology transfer, environmental threats, and the protection of biological diversity, animal and plant health, traditional knowledge, and human and basic rights?

Before moving on, let me stress another interesting statement in the movie. Indeed, this brings me a little further from the main topic of this article. Nonetheless, it is connected to other studies collected in this volume, specifically the issue of communication and the tools that can be used to enhance and increase it. Ozam and some other people on Green Beautiful do not want to give up the Earth. However, most of the participants at the assembly are convinced that Earthlings are not open to communication, as one young man shouts. So, the question becomes: are humans actually already like this? Are we playing with computers instead of exercising our brains? Are we really only using 10 percent of our brain’s capacity? Communication plays an important role in the movie. Unfortunately, it is not

1 See Boisson De Chazournes (2010) and Mavroidis (2012).

2 It’s worth noting that later in the movie it will be Ozam himself who will be defined as a racist by Mila, the protagonist.

possible to focus on this point now, but let us keep this question in mind. Certainly, there is partial overlapping between the issue of strengthening conscious societal and individual behavior with respect to safety-related matters at the international level and through international cooperation. And the issue of promoting fair and effective use of technologies and communication tools in order to avoid them becoming threats for individual rights and freedoms.

Finally it is Mila who travels to Earth. She wants to know where she comes from, as her mother was an Earthling.

2. Promoting Adequate Food Access Through Consumer Behavior and Consciousness

As already pointed out, Green Beautiful had passed through an industrial era. Perhaps surprisingly from our point of view, this period was followed by the so-called 'Era of Processes', surely an alarming scenario. Indeed, at that time all the people who produced products that damaged human health and the health of the environment had been judged as culprits of genocide and of committing crimes against the planet! Who were they? The food and chemical industries, weapon factories, tobacco and alcohol, pharmaceutical and nuclear industries, car producers, architects, and the many doctors and politicians who had become rich by allowing it to happen. This evolved into a civil war. The Time of Boycotts followed. It was the human community's ultimate weapon. The inhabitants of Green Beautiful didn't buy things anymore and threw things away that caused harm. In fact, fewer purchasers meant less power. Even the army and the police could not do anything about the boycott. It was the "chaos before renaissance". Given the historical trajectory of Green Beautiful, the question becomes: do we too, necessarily have to go through this chaos as a kind of path of purification in order to regain control of things, instead of being led by them?

Looking at the WTO-Multilateral trading system, I personally do not think that we will come to the desperate point described in the movie. In this respect, the GATT (General Agreement on Tariffs and Trade) already had tools in place at the time of its adoption. The WTO, almost through newer jurisprudence of the WTO/Dispute Settlement Body (DSB) and WTO/Appellate Body (AB), seems to be searching for more practical and sustainable solutions, since throwing out the baby with the bath water is not a viable solution³. In any case educating individuals on awareness and on conscious societal behavior is becoming a fundamental

3 Referring to the SPS Agreement see EC-Approval and marketing of Biotech Products, WT/DS291/R (2006); Australia-Salmon, WT/DS18/AB/R (1998); with respect to Miriam Bait, Marina Brambilla and Valentina Crestani - 9783631666838

goal of national and international governance and politics related to trade in food, access to medicines, the protection of biological diversity.

When considering food safety governance in the WTO multilateral trading system, for example, we must accept the fact that members approach the issue differently at the regulatory level. There are historical, cultural, economic, developmental, political and religious reasons for this. Nevertheless, food travels as does any other good; it passes frontiers with its qualities and its dangers. National restrictions on trade aim to combat health risks, among other goals. Nevertheless, these restrictions can easily hide or impose protectionist measures. International cooperation and cooperation among international organizations and non-governmental institutions is growing in order to avoid further food crises. On the other hand, harmonized systems of safety regulations based on general standards are being adopted or recognized by relevant international organizations, such as the WHO, Codex Alimentarius Commission, the International Office of Epizootics, various international and regional organizations operating within the framework of the International Plant Protection Convention to elaborate *ad hoc* standards or widen the acceptance by states in mutual recognition of national and private safety standards and certifications⁴. This cooperation boosts trade and international relations, building bridges and bringing states (and people) closer together.

Food quality, adequacy and safety must be protected without compromising access in less developed countries. This could mean, for instance, accepting the use of GMOs in contrast to the level defined by high national standards of protection. In this context, it is up to the international community to set, if necessary, new *fora*, rules, or procedures for the protection of general values and needs at stake, including quality, traditional farming and combating situations that threaten agriculture such as land grabbing, which threatens biodiversity, traditional knowledge and agricultural methods, and the rights of local populations.

An important question is whether this kind of balancing among different interests and non-economic concerns connected to trade should be the principal task of the existing WTO-Multilateral trading system in a world moving quickly towards emerging forms of plurilateralism through Regional and/or Preferential Trade Agreements (RTAs, PTAs) aimed at enforcing, at different levels, WTO-plus or WTO-extra regulations⁵. It is a challenging goal I would personally welcome.

the TBT Agreement see US-Tuna II, WT/DS/381/R (2012); US-Clove cigarettes, WT/DS406/AB/R (2012).

4 Even though there is already concern about the growing power of certification agencies. On recognition of technical and safety standards see Howse (2011).

5 Hufbauer and Cimino Isaacs (2015).

Furthermore, it should include related aspects of the action against international corruption and international organized crime connected to trade in food and medicine.

But to return to awareness as a tool to boost sustainable and science-friendly development that could help avoid something like the so-called Boycott Era in Green Beautiful, I cannot resist repeating that educating about conscious societal and individual behaviors must remain, (or become) the fundamental goal of national and international governance and politics, especially if related to safety, trade in food, access to medicine and the protection of biological diversity. Incidentally, this also means promoting a commitment to protect, occupy, or even conquer the right to exercise one's freedom of choice in light of adverse or "bad" market forces. Simply *banning* access to unsafe food or GMOs from a foreign country, for instance, is no longer enough. Instead, there is a need for civil society to demand overall protection of biodiversity and traditional farming practices at the international and transnational level. With regard to these points, consumer behavior is already positively evolving: production processes that endanger human, animal and plant life are often prohibited by laws or at least condemned and boycotted by consumers. In many states and in the European Union, production and distribution processes are almost (or supposed to be) traced and products' features clearly marked. It goes without saying that governments, companies, and groups are influenced by civil society's pressure and mood, which is becoming increasingly relevant and effective, but also dangerous for power players, given the easy and open access to social networks.

From another perspective, poorer countries have also gained stronger consciousness with respect to their own needs and opportunities. All of this is influencing economic relations and the future role of the multilateral trading system. Even though the steps forward do not yet appear to be remarkable, they are proving that we are moving in the right direction. Nevertheless, we still have a long way to go, and civil society could play a stronger role in confirming that unsafe, spoiled, counterfeit, insufficient, undiversified, and inadequate food and foodstuffs are real threats to trade. Subsequently, the challenges the international community and the transnational society will first have to face in order to neutralize the potential danger of all this are not bans or restrictions to trade, but continuing to develop and spread methods and tools for positive integration for safety issues among members. If we look at the WTO Agreement on Sanitary and Phytosanitary Measures (SPS) and its latest interpretation by the Dispute Settlement Body (DSB) and the Appellate Body (AB), there are opportunities for a better future⁶.

6 For relevant jurisprudence see *supra*, footnote 3.

3. Trying to Avoid the “Boycott Era”: WTO Tools for Sustainable Balance in the Food Trade and Other Safety Issues

Starting from the multilateral trading system first set by the GATT in 1947 and developed further during the Uruguay round (1986–1994), let us take a brief look at the main threats we are being confronted with, along with some legal tools already available for enforcing food safety in international trade law.

First of all, are food safety requirements an obstacle to free trade in the multilateral and market-oriented trading system? Indeed, the core of the current debate on food safety and international trade might be summarized with the following questions:

- How do different national food safety regulations interact in our interdependent world?
- Should the WTO consider these food safety regulations as simply barriers to trade? If so, should the aim be to reduce or abolish them in one way or another? Or should the “national level of protection” be considered a *unicum* that needs or even deserves to be preserved and protected?
- How does one get around this dilemma?

With regard to the specific significance that the issue assumes in international trade in general, is it currently possible to assert that national food safety requirements which somehow refer to internationally accepted parameters (such as the widely-held acceptance of a general right to ‘adequate’ food) prevail – limiting them – over those of international trade in the free trade context? Considering some of the latest developments in WTO practices and jurisprudence, I tend to (carefully) say yes.

In particular, measures *necessary* to protect human, animal or plant life on the basis of *national level of protection* adopted by a given member, are presumed to be compatible with GATT. However, “if not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or a disguised restriction on international trade” (Art. XX Chapeau GATT).

As a matter of fact, and exactly through Art. XX, Chapeau trade requirements have for the most part prevailed in the comparative evaluation of interests at stake,

7 Along these lines, see Echols (2008), Raustiala (2008) and Scott (2008), with particular reference to the role of the Committee on Sanitary and Phytosanitary Measures and the WTO Dispute Settlement Body.

as confirmed by the practice of the WTO/Appellate Body. Even though correct from the strict regulatory perspective, unfortunately this approach does not take into sufficient consideration the point of view set forth in *Green Beautiful*. In other words, a food safety issue is relevant insofar as it is trade related. Consequently, an issue is relevant insofar as it is trade related. This approach first requires checking if, and within which limits, food safety today is considered trade-related by the WTO system itself, and if so, under which conditions can an internal restrictive measure affecting international trade⁸ be justified when it comes to food safety matters?

Indeed, considering the harsh economic repercussions recorded in cross-border trade relations and the consequences on the international and internal judicial level linked to the latest scandals and food disasters, the link between food safety and well-balanced international trade cannot be denied. Though this relationship between cause and effect is generally acknowledged, when it is a matter of specifically evaluating the compatibility of a given restrictive national measure on international trade in WTO law, the members' standpoints prove to be very distant from each other. This also applies for cases in which safety standards agree upon common means of operation to be established. And this both from the North-South perspective (developed countries' positions in respect to the ones of developing countries with reference mainly to the sustainability of measures asserted by developing countries), as well in the North-North relationship among peers/developed countries. One simply needs to go back to the hormone-treated meat case⁹ or to point to the divergent positions of the United States and the European Union on GMOs and recall the ongoing discussion in the EU around the supposed negative effects of the potential Transatlantic Trade and Investments Partnership (TTIP) with the USA, particularly in the food sector.

Given the fact that the multilateral trading system is aimed above all at hindering protectionist practices by members, there are fortunately several rules within the GATT (General Agreement on Tariffs and Trade), GAS (General Agreement on Services) and TRIPS (Agreement on Trade Related Intellectual Property Rights), i.e. limitations on trade in goods, import restrictions or other prohibitions linked to food safety that may justify an exception to general principles.

8 Reference made to decisions listed in footnote 3.

9 WT/DS26/R/USA *EC Measures Concerning Meat and Meat Products (Hormones)*. Complaint by the United States. Report of the Panel, August 18, 1997; WT/DS26/AB/R – WT/DS48/AB/R *EC Measures Concerning Meat and Meat Products (Hormones)*. Report of the Appellate Body, January 16, 1998; Adinolfi, G. 2004, La soluzione delle controversie in Venturini, G. (ed) *L'Organizzazione mondiale del commercio*, seconda edizione: Milano, Giuffrè Editore, 231–241.

For example, this is true whenever there is a danger to health or the need to intervene in combat practices that may mislead the consumer (Art. XX lit. b) and lit. d), General Exceptions); whenever there is a risk of food scarcity within a member state or quality control must be ensured (Art. XI.2 lit. a), lit. b), lit. c), General elimination of quantitative restrictions); and whenever the packaging of goods may be misleading or fraudulent (Art. IX.2, Marks of origin). In general, restrictive measures are temporary (Art. XI.2b) and must be carried out in compliance using the principle of non-discrimination (Art. XIII).

In the adoption and implementation of national measures, transparency and publicity are to be guaranteed (Art. X. 2), and the principle of necessity and coherence of the measure must be complied with. Finally, scientific evidence attesting to the appropriateness of the trade-restrictive measure must be provided. With regard to quality, reference should be made above all to the TRIP's Agreement in addition to Article IX of the GATT. In any case, this all falls within a broader context aimed at understanding the role of the WTO in relation to issues which, though not always covered by the WTO multilateral treaties, are already debated in the WTO Committees as they have an impact on the international balance of economic interests and basic human needs within the WTO. Other measures are set out by the SPS Agreement (Agreement on Sanitary and Phytosanitary Measures), in the Agreement on Agriculture, as well as in the Agreement on Technical Barriers to Trade (TBT) and in the Agreement on Import Licensing Procedures. The discipline established under the SPS Agreement is particularly relevant for the purposes of reducing trade constraints by way of approximating national legislations. Here it is worth mentioning that the harmonization mechanisms are established under Art. 3 and the provisions relevant to equivalence and mutual recognition appear in Art. 4. As already noted above, international standard-setting bodies, whose role within the multilateral trading system has been redesigned by the principle of prevalence of international law, acquire special relevance when it comes to harmonizing objectives. The Agreement grants these bodies a sort of indirect power of attorney, which has raised some criticism in connection with the asserted legitimacy deficit of such institutions.

With respect to intellectual property and the aim of balancing economic interests and fundamental needs, reference should be made to the international regulation of certain intellectual property rights, such as geographical indications, patents, plant species and brands, as well as to the impact of domestic and international trademark exhaustion regimes and to the growing phenomenon of trade in counterfeit food. Indeed, the rules governing geographical indications (intended as indicators of food quality) have implications for food safety (Arts

22–24 TRIPs). Negotiations within the Doha round and so-called TRIPs-plus and TRIPs and regional or bilateral agreements substantially strengthened and extended international protections, even though the primary purpose of this was not safety¹⁰. Another new aspect relevant to food safety is represented by the relationship between the TRIPs Agreement and the international regime of the previously mentioned and so-called triplet: biotechnology, biodiversity and traditional knowledge¹¹. When dealing with international trade law on food safety, we cannot avoid taking into consideration newer trends that go beyond the WTO, such as ongoing TTIP-negotiations or other already concluded RTAs and PTAs¹². Apart from the harsh question of the WTO/DSB's jurisdiction with respect to RTAs/PTAs, which is very uncertain and controversial, most of the regulations at stake could well be subject to future evolutionary interpretations and applications by the WTO bodies, potentially contributing to the harmonization of standards and to the acknowledgement of policies (international, regional or even national ones) connected with food safety on an international level. Symbolic of this is the action taken by the SPS Committee with reference to the Codex Alimentarius¹³.

4. Facing Food Safety Complexity at The Doha Round

The Doha Ministerial Declaration dated November 14, 2001 already reaffirmed the joint commitment of all WTO members to emphasize some collective interests that go beyond the pure aim of trade liberalization, including the promotion of sustainable development, environmental conservation and healthcare, specifically food safety in future multilateral negotiations. WTO members thus

recognize that under WTO rules no country should be prevented from taking measures for the protection of human, animal or plant life or health, or of the environment at the levels it considers appropriate, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, and are otherwise in accordance with the provisions of the WTO Agreements. (para. 6)

10 See e.g. Free Trade Agreement between the European Union and its Member States, of the one part, and the Republic of Korea, of the other part (signed on October 6, 2010, provisionally applied since July 1, 2011). For more information on TRIPs-plus agreements see: Grosse Ruse-Khan (2011), Seuba (2013) and Roffe / Escudero / Seuba (2015).

11 See Taubman / Wager / Watal (2012).

12 See literature cited in *supra* at footnote 8.

13 On the subject, see Scott (2007).

At the same time, members reaffirmed the obligation, within negotiations relating to the WTO Agreement on Agriculture, to ensure that the special, differentiated treatment for developing countries allows these countries to cope with their needs, including food safety (para. 13), as well as the importance of implementing and interpreting the TRIPs Agreement in a manner supporting public health (para. 17).

In any event, the perspective of the Doha Declaration with regard to future negotiations strengthens what has already been implied in some of the covered agreements. Reference may be made, although to a limited extent, in the very Preamble of the WTO Agreement, which defines the general objectives of the Organization (in particular, the sustainability of development and environmental conservation), to the general exceptions of the GATT Agreement 1994 (Art. XX) and of the GATS Agreement (Art. XIV) that makes it possible to waive the duties of trade liberalization for the purposes of protecting the basic needs of society. Furthermore, the Preamble to the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement) affirms members’ desire to “improve the human health, animal health and phytosanitary situation in all Members”. Moreover, as far as the basic principles of the TRIPs Agreement are concerned, members may adopt measures that are necessary for protecting the food supply and public health (Art. 8).

Unfortunately, several obstacles to the development and implementation of this perspective have appeared¹⁴. Furthermore, the Doha round started more than fifteen years ago and is currently in stalemate. Since a conclusion of the Round is not likely in the short term, the means of protecting food safety are promoted mainly in harmonization efforts driven by relevant international organizations dealing with standardization processes, bilateral governmental cooperation and voluntary recognition of the equivalence of certifications.

14 Indeed, the WTO Dispute Settlement Body, though proving to be attentive to issues related to the protection of health, operates within the narrow limits of interpretation of what is set out in the agreements. See for example, in the WTO Appellate Body’s decision *EC-Hormones WT/DS26/AB/R, European Communities – Measures Concerning Meat and Meat Products (Hormones)*, Report of the Appellate Body, January 16, 1998, where it was stated, in reference to the precautionary approach established by Article 5(7) of the SPS Agreement, that such a rule “has not been written into the SPS Agreement as a ground for justifying SPS measures that are otherwise inconsistent with the obligations of Members set out in particular provisions of that Agreement” (para. 124).

5. The Issue of Qualification, Its Implications for International Food Safety Governance and Final Remarks

There is one issue that remains at the forefront due to its far-reaching implications: food safety qualifications, which includes product quality. Thus, international trade law tools with reference to safe food mean not only identifying multilevel protection measures in forms of international, regional or bilateral co-operations that safeguard against unsafe, spoiled or counterfeit food, but also mechanisms based on common criteria that facilitate the international monitoring of the use of harmful substances contained in food. It also means checking the authenticity and conformity of the quality and origin indications. Furthermore it implies promoting the mutual recognition of standards and national certifications in the context of limiting their restrictive effects on international trade. The more the observer probes into these mechanisms, the more he or she becomes aware of the many issues at stake, particularly the economic and political interests involved. It becomes evident that health dangers often stem from political and economic choices; the mandates of several international organizations overlap and the variety of ethical and cultural values held by different regions and populations play a fundamental role. But this is not all. Issues like the relationship between food safety and international organized crime recently caused headlines in Italy, in other European countries and in the US, which is particularly alarming¹⁵. Last but not least, one should not overlook the debate regarding the use of biotechnology in food production.

In order to prevent misunderstandings, we must always bear in mind that at the international level, the concept of food safety refers to two different situations: the right to (access) food, on the one hand, and the right to safe food and food quality on the other¹⁶. There is no doubt that there are points in common, with intersections and some overlap between the two areas, so that for the most part it is not possible to deal with the former without also taking the latter into consideration¹⁷. And there is no doubt that the latest contemporary practice in international cooperation and relations takes the issue of food safety and quality as one of the cornerstones of international governance strategies, also relating to

15 See for example Saviano (2012).

16 The English language uses the name of food security in the first case and food safety in the second one. There is extensive doctrine on this point. See Moyo (2007); Hospes / van Dijk / van der Meulen (2010); Breman and Termeer (2010); Szajkowska (2010).

17 Hospes / van Dijk / van der Meulen (2010).

the right to food and the right to health in general¹⁸. On the subject of healthcare and food quality in particular, several other important matters converge, especially if food security is also intended as the ‘adequacy’ of food ‘in relation’ to the basic needs and requirements of a given human, societal or local group.

In addition to the aforementioned issues that are often regulated or otherwise addressed by international law and intergovernmental cooperation, there are other, more general or specific points of view. Consequently, this implies (the need for) coordination of actions and cooperation among international organizations in many fields to promote development, environmental conservation, and to prevent and deal with man-made disasters including wars and humanitarian crises, safeguard traditional knowledge and biodiversity, as well as ensuring access to technology and, finally, respecting cultural, traditional and ethical or religious values linked to food.

In fact, food safety is a political, economic and/or cultural matter. Yet it is a ‘global’ one. As such, it needs to be ‘governed’ and not necessarily ‘regulated’ by international cooperation. This can no longer be accomplished simply by using traditional tools of such cooperation. Given the particular nature of food safety, it is increasingly (even within and by international organizations themselves) being addressed using other informal instruments of a more political nature, through mediation, and with soft law. These tools have been shown to be more capable than traditional ones involving and making private parties interact with institutional ones on a local level and in the international arena. And so, on the one hand we find private parties engaged in production and distribution processes, and on the other hand, institutional actors, lobbies and NGOs aim to protect individual interests of a more private nature at the global level, as for example consumer protection associations¹⁹.

Using the example of food safety, I highlighted how the numerous issues at stake intersect, which has led some international organizations to extend *de facto* their sphere of activity well beyond the original boundaries, especially in well-known food crises, such as mad cow disease, bird flu and the poultry dioxin scandal²⁰. The repercussions from these emergencies crossed national borders, with serious consequences both for private operators and global economic growth. Consequently, the direct link between healthcare, food quality, and international

18 Johnson (2007); Dunoff (2011).

19 See Raustiala (2008).

20 In this sense, the international economic institutions themselves e.g. the International Monetary Fund and the World Bank, have become increasingly involved in healthcare, food safety and food quality.

trade has come to light²¹. This helps explain why we cannot avoid drawing attention to the relationship between food safety and the (evolving) WTO trading system²².

Moreover, it is still a largely unexplored area that reveals interesting potential²³. Significant is the role of the WTO's Committee on Sanitary and Phytosanitary Measures (SPS Committee) in relation to the international harmonization of safety standards by way of cooperation with (and incorporation of) Codex Alimentarius and NGOs to fill what was defined as the "global gap between private standards and international cooperation"²⁴. Similarly, I think this can also be said for the TRIPs Agreement and its implications for food health issues. Other intersections may also come to light with time in relation to the actions promoted in various 'sensitive' sectors by the World Intellectual Property Organization (WIPO).

Particularly in respect to TRIPs, while the matter of labeling origin is more clear, at least concerning the existing link between the name of origin and a specific quality of the product, an issue which goes far beyond the economic right of exclusive use of the designation of origin itself, other potential TRIPs issues and/or situations are arising that need to be 'governed'. These adhere, as already mentioned above, to the protection of biodiversity, traditional knowledge and to the 'exclusion' of these from being patented. The debate on the limits of patent rights gives rise to further arguments that are variously supported by international practices. It outlines in a new and heterogeneous way the confrontation among basic human needs between local governments and corporations on the one hand, and the 'glocal' human community in a wide sense on the other. The fact is that the discussion is set far away from the traditional North-South approach. In this context, the issues connected with technology transfer entailed by the production of safe and adequate food, as well as with checking safety levels are important to remember. Technical assistance in the checking procedures by richer countries on behalf of developing ones plays an important role too. Finally, there is a need for straight coordination with WIPO's activity, particularly regarding specific objectives in developing countries.

Lastly, I would like to draw attention to a further aspect of food which has not really been taken into consideration so far, but which, in my opinion, is becoming

21 It also touches on trade in services in a limited sense. For more on the WTO's GATS Agreement and with reference to the migration of doctors and nurses from the African continent, see Gathi (2010); spec. Aginam, (2010).

22 See Hufbauer and Cimino-Isaacs (2015).

23 In this sense, with reference to the WTO's SPS Committee, see Scott (2008).

24 See Scott (2008: 263).

particularly worrisome with respect to food market governance in the broadest sense. I am referring to the presence of large corporations in the international market, which dominate food production as a whole²⁵. Indeed, just a few multinational companies are the main operators in the agricultural and food industries in the international arena. The maximization of profit, which is any company’s priority, tends to clash with the societal necessity to safeguard the general public’s most fundamental needs. Biological and food diversity do not necessarily coincide with profit, since the pursuit of profit might entail risks for food safety. We should therefore ask ourselves what role (if any) the WTO or other institutions should play when it comes to safeguarding food safety and ultimately human and environmental health. In fact, notwithstanding the investments and fair competition regimes, as of today, they are not an integral part of WTO regulations.

Indeed, the WTO seems to have assumed a role that goes beyond its primary goal of hindering protectionism and liberalizing international trade. The WTO has reverted to debating non-trade matters, such as food safety. As it currently stands, do necessary food safety requirements relating to internationally accepted parameters take precedence over trade requirements, even within the context of the WTO? There are encouraging signs that we are moving in this direction, where one will be able to say that the obstacle to the balanced performance of trade within the WTO is the ‘absence’ of food safety, rather than national standards of protection, particularly if mutually agreed upon or internationally recognized.

At the beginning of this study, I posed the question of whether international trade law is evolving towards the “Green Beautiful Option”, or in the opposite direction, towards the tremendous “Era of Boycotts and Massacres” described in the movie. Taking an optimistic view, the answer to the question of whether we are headed towards the first option is “sort of, but not yet sufficiently”, and “for sure not” with respect to the other scenario.

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25 See Raj (2007); Magrini, (2012).

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Gloria Regonini

Administrative Simplification Between Utopia And Nightmare

1. A Common Nightmare: Bureaucracy

Almost a century ago, Max Weber described the competitive advantage of bureaucracy over previous forms of organization of public agencies with the following words: “Precision, speed, unambiguity, knowledge of the files, continuity, discretion, unity, strict subordination, reduction of friction and of material and personal costs – These are raised to the optimum point in the strictly bureaucratic administration” (Weber 1925d, 1978: 973). On the grounds of such vision, Weber believed that the efficiency and self-referential nature of the bureaucratic machine foreclosed a source of risk for representative institutions, incapable of exerting effective control over its activities.

Today, delays and inefficiency of public agencies feed into the feelings of dissatisfaction common to many citizens in a wide range of countries differing in terms of their institutional settings, organizational cultures and political balance. Bureaucracy has been blamed for many of the failures of public intervention, and those who complain about its inadequacy range from Nobel Prize¹ winning scientists to D-Day² veterans, as well as entrepreneurs and families, taxpayers and recipients of welfare subsidies.

In Italy, discontent stemming from lengthy and complex administrative procedures is widespread. From international adoptions to certificates attesting major illnesses, from scholarships to tax returns, from stadium building projects to fishing, there is no area of human activity that is not perceived as burdened by the unbearable weight of red tape.

International comparisons broadly confirm one fact: Italian opinion of public administration is not the result of a collective prejudice, but is based upon solid objective evidence of serious inefficiencies. According to the Worldwide Governance Indicators (WGI) published by the World Bank between 1996 and 2014, Italy

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- 1 “Nobel winners say scientific discovery ‘virtually impossible’ due to funding bureaucracy,” Rebecca Smith, *The Telegraph*, June 2, 2014.
 - 2 “Veteran’s anger as French bureaucracy threatens to derail 70th anniversary of D-Day”, *Sunday Express*, April 21, 2014.

performed consistently below average among high-income OECD countries with respect to all governance dimensions. Particularly significant was the deviation in the values of those indicators, which are most directly related to the functioning of public administration: government effectiveness, regulatory quality, and control of corruption (World Bank 2015).

2. A Common Dream: Simplification

If bureaucracy can be regarded as a nightmare, simplification is the dream that politicians, regardless of their political orientation, constantly promote as the ideal model of good governance for a healthy relationship between citizens and public administrations.

The goal of 'zero bureaucracy' holds considerable charm, as politicians, journalists and bloggers know very well. The battle between the evil of bureaucracy and the sake of simplification is often described with military or religious metaphors (e.g. an anti-bureaucracy 'task force', 'war', 'ban', 'vision', 'mission', 'crusade'). The promise is that simplification can be similarly achieved by simple means: the deed can be done by just cutting, deleting, or getting rid of regulations, offices, or procedures.

The Italian case clearly indicates that the relationship between means and ends is not so linear. Twenty years of simplification initiatives have revealed how the dream can transform itself into a new nightmare, producing the reverse of what was expected. In fact, hundreds of measures taken by governments on opposite ends of the political spectrum – involving different governmental levels, appointing simplification ministers and town councilors and depleting considerable human and financial resources – have produced a layering of rules that have generated enormous costs for policymakers, without conferring any substantial benefit.

3. The Usefulness of Extreme Cases

In many ways, Italy's relationship with paperwork has atypical features, making it an extreme case: "The Italian legislative corpus has long represented a labyrinth for even the shrewdest legal practitioner because of its complexity and sheer volume" (Borghetto and Visco 2015: 106). Even among Southern European bureaucracies, Italy is notable for the persistence of its legalistic and formalistic administrative cultures (Galanti 2011).

Yet the unexpected and unintended effects in this field are not exclusively an Italian anomaly. That the utopia of simplification can be transformed into its

opposite is not a remote hypothesis. Indeed, in radical libertarian theory, this is an inevitable outcome, as stated by David Graeber with his ‘iron law of liberalism’: “Any market force, any government initiative intended to reduce red tape and promote market forces will have the ultimate effect, increasing the total number of regulations, the total amount of paperwork, and the total number of bureaucrats the government employs” (Graeber 2015: 7).

The empirical evidence reported in international comparisons of the bureaucratic burden leads to more cautious evaluations. If it is true that no nation is completely immune to this problem, the opinions of citizens and entrepreneurs in terms of their relationships with their nation’s administrations vary greatly from country to country. Italy consistently places below the average in measures of regulatory quality, a finding that can be used as a magnifying glass to better examine the dynamics that lead to worse outcomes in order to tackle them more effectively: “The ‘generalizability’ of case studies can be increased by strategic selection of critical cases [...] Atypical or extreme cases often reveal more information because they activate more actors and more basic mechanisms in the situation studied” (Flyvbjerg 2001: 77–78).

The case study examined in the following pages relates to all the measures implemented in Italy to reduce the administrative burden on businesses.

4. Simplification for Businesses

Since the 1990s, and even more so after the economic crisis of 2008, Italian entrepreneurs have been complaining about the unbearable burden of bureaucratic procedures that affect each phase of their activities, from starting a business, to its possible developments or its termination

In surveys conducted in recent years to gauge the opinions of business leaders within the Global Competitiveness Reports of the World Economic Forum, the ‘Inefficient government bureaucracy’ item almost always ranks first among ‘the most problematic factors in doing business’ in Italy.

Complaints of entrepreneurs often carry a tone of exasperation due to the sheer amount, complexity and slowness of required administrative formalities. In 2014, for example, Antonello Montante, legality delegate of Confindustria, declared: “Bureaucracy causes more damage than the Mafia”³.

3 La Repubblica, Palermo edition, February 25, 2014. Antonello Montante, who is also president of Confindustria Sicilia, is under investigation for accusations of Mafia-related activities as of January 2016.

These criticisms have had a strong influence on the decisions made by political institutions. Moreover, in the last decade, the simplification of administrative procedures for businesses, especially for small and medium enterprises (SME), has become an explicit, continuous and non-controversial objective, even for the European Union. With the Small Business Act (SBA) of 2008, the Commission set the following objectives for itself: “Design rules according to the “Think Small First” principle” and “Make public administrations responsive to SMEs’ need[s]”⁴. These principles, together with the finding that the little progress made by some countries, including Italy, are regularly reaffirmed in the annual European Competitiveness Reports.

On a national level, Italian governments, regardless of political orientation, have adopted numerous measures since 2008, such as draft-laws approved by Parliament, executive orders, rules of procedures, codes, and three-year plans, all of which were aimed at easing the administrative burden placed on Italian companies. Political leaders have learned to give attractive ‘nicknames’ to these laws: “Masters in our own home” (2001), “Cutting administrative burdens” (2008), “Development Decree” (2011), “Simplify Italy” (2012), and the “Decree of doing” (2013).

During that same period, all twenty Italian regions have implemented a number of agreements signed with the central government and have produced laws and simplification decrees on important matters within their jurisdictions relating to trade, agriculture, forestry, fisheries, the environment, health and social services, urban planning, construction, health, and civil protection.

If the outcome of the government’s actions were measured by the number of words approved by means of formal deliberations, the simplification for SMEs ‘Italian Style’ would deserve an extremely positive assessment. But it is not so. The main objective of simplification is to make it easier to open and run businesses in Italy. With respect to this aim, the most recent international comparisons confirm the persistence of a strong delay. The Doing Business 2016 report (World Bank 2016) places Italy among the lowest-ranking European countries. The evaluation is particularly low for operations that directly involve the public administration and the judiciary power, such as paying taxes and enforcing contracts. The Global Opportunity Index 2015 by the Milken Institute (Wickramarachi and Savar 2015) places Italy in the same negative position with respect to the ability to attract investments, with a continuous drop in performance since 2009. Even according

4 Commission of the European Communities 2008. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions – “Think Small First” – A “Small Business Act” for Europe, <<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52008DC0394&from=EN>>.

to the Global Competitiveness Report 2015–2016 by the World Economic Forum, while Italy has recovered some positions compared with previous measures, productivity remains low, “as a result of long-standing constraints such as burdensome red tape (139th) and labor market inefficiency (126th)” (World Economic Forum 2015: 30). Nevertheless, although government bureaucracy is confirmed as the most problematic factor for doing business in all the advanced economies, Italy’s position is still clearly far behind the average.

After more than a decade of simplifications, this paradoxical result has been recognized in documents published by the Italian government itself: “The long and uncertain time, the excessive costs and the large number of obligations continue to represent a major obstacle for those who want to ‘do business.’ Over the years, regulatory announcements and measures have followed one another, yet they have failed to effectively address this crucial issue for the country’s growth and development”⁵.

In fact, the never-ending process of making laws and subsidiary legislation has generated perverse effects. The continuous layering of interventions concerning planning consents, environmental safety, and company registrations for tax and social security purposes, causes standards to overlap and intersect with each other, increasing uncertainty among the very public officials who should enforce them, and among the citizens who have to comply with them.

5. A Perverse Problem

In some respects, the fact that the regulation of SMEs is a never-ending process can be regarded as normal, as technologies change, the economy changes, and their impact on the environment as well as on working conditions and products themselves also changes.

But the Italian case pushes itself far beyond these progressive adjustments. A cross-section of the initiatives stratification can be found under “company simplification” on the Ministry for Simplification and Public Administration’s website⁶. The 229 web pages listed represent a catalog of broken dreams of various successive governments, with their ‘cutting-laws’, ‘new agendas’, public consultations, and memos ‘containing explanatory guidelines’. Pages and pages are repeated with the same objectives, without a logical connection, no milestones (and often no dates), were it

5 Governo Italiano 2015. *Agenda per la semplificazione 2015–2017, Rapporto di monitoraggio agosto 2015*, <<http://www.italiasemplice.gov.it/versione-testuale-news/agenda-impresa/>>.

6 <<http://www.funzionepubblica.gov.it/home.aspx> (accessed on January 28, 2016)>.

not for some reference to the decrees, reported in the form of unreadable PDF files⁷, as if no one will ever bother to check up on their promises to see if they were kept.

In other words, SMEs comprise one of the sectors currently facing greater complications in legislation.

This significant growth in complexity produces the very opposite effects of those desired. First of all, public officials find it very complicated to keep abreast of the constant changes, to review the forms and use databases built under now-obsolete laws.

For the recipients of these interventions, compliance is difficult, even for those with the of best intentions. As anyone can see in following specialized blogs, engineers spend more time studying decrees than new building materials.

For the past several years at the end of each December, the sitting government sends the Parliament a bill called the *Milleproroghe* [A Thousand Deferrals] also in official documents, and which delays the enforcement of new and old rules for six or twelve months. This established practice is clear proof of the ‘Italian Style’ regulation difficulties.

The final result is the implosion of the very meaning of the word law, as recognized in the ruling of an administrative court: “The sequence of cascading referrals [...] makes the *voluntas legis*⁸ almost unfathomable”.

This contributes to undermining trust in institutions and the civic spirit of loyal cooperation in a country that consistently ranks very low in international surveys with respect to these aspects of political culture.

6. Two Changes in Perspective

When a problem is so extensive and persistent, it is often technically labeled as ‘wicked’ (Conklin 2005; Grint 2005)⁹, despite attempts made to resolve it. Wicked problems have vague definitions, many interrelated causes, and different features

7 For instance, an essential document like the General Directive for administrative action and the management of the Office for the 2013 government program. <http://www.governo.it/AmministrazioneTrasparente/Performance/direttive/2013/direttiva_programma_governo_2013.pdf> and <http://www.funzionepubblica.gov.it/media/1118913/decreto_unita_%2029_aprile_2013.pdf>.

8 Ruling N. 01946/2014 REG.PROV.COLL. N. 00336/2014 REG.RIC. <<https://www.giustizia-amministrativa.it/cdsintra/wcm/idc/groups/public/documents/document/mdax/otc3/~edisp/yplijz2rj6nc6vckwdp2soltre.html>>.

9 Australian Government – Australian Public Service Commission 2007. *Tackling Wicked Problems A Public Policy Perspective*, <<http://www.apsc.gov.au/publications-and-media/archive/publications-archive/tackling-wicked-problems>>.

in different contexts. Solution attempts require the integration of many skills and often produce patchy, nonlinear effects with a mix of positive consequences and negative externalities.

In any case, when facing a wicked problem one should try to change the perspective. In 2013, a mouse conquered the web with an enviable number of views thanks to a video taken as he was trying to steal a cracker¹⁰. To do that, he had to climb onto a step. The video records him while tries in vain for dozens of times to push the cracker onto the next step, in reality just managing to fall back on himself. At one point, the little mouse interrupts his vain efforts and jumps on the step without the cracker.

This move allows him to observe the matter from above, from a new perspective. Once back down, the little mouse builds on what he has seen and, with some minor adjustments, he finds the right position to push the crackers on the step, and then he flees with his prize.

In the following pages, we will try to apply the example of the mouse to administrative simplification, proposing two dramatic changes in perspective. The first involves a shift from a legal approach to a policy one, analyzing the problem using the knowledge provided by social and behavioral sciences. The second change of perspective implies the reversal of the opinion that simplification may be the product of mere reduction or elimination of procedures. To really simplify, one must have an extraordinary ability to deal with the unavoidable complexity of adjustment in our open societies.

7. From Laws to Policies

The Italian fiasco in the field of simplification underscores one fact: the reduction of laws through new laws has the same credibility of Baron Munchausen's pulling himself out of a mire by his own hair. A real improvement of the relationship between citizens and administrations will not result merely from a legal logic, albeit graciously concerned with its own self-containment. Official documents have actually come to this conclusion: "As it is acknowledged, in the past, simplification measures were entrusted mainly to laws. Poor attention, if none at all, was paid to their practical application. The result is that, as citizens and enterprises know too well, many of the announced simplifications remained 'on paper'"¹¹. When the entire horizon of regulation remains within the boundaries of the legal perspective, and the production of formal laws is considered the only form of

10 <<https://www.youtube.com/watch?v=Uc1PbkdqRno>>

11 Governo Italiano, note 6.

intervention, the very meaning of the law vanishes, becomes undetermined and loses the precise connotation that could come from the comparison with other epistemological perspectives, which provide a different interpretation of what institutions do.

In the following pages, we will try to place the simplification in another semantic space, in another ‘finite province of shared meaning’ (Schutz 1962): one that revolves around the concept of public policy. First of all, this entails linking the choices, whether formal or informal, explicit or implicit, of different actors in and outside institutions, using a collective problem as a common thread. According to the definition provided by James Anderson, public policy is “a purposive course of action followed by an actor or set of actors in dealing with a problem or matter of concern” (1984: 3). Secondly, this perspective requires the collection and use of the knowledge produced by social and behavioral sciences through the observation of real actors: politicians, but also street-level bureaucrats (Lipsky 1980), specialists, and the recipients of these interventions. This breakthrough, which began in the United States over 50 years ago, has an important consequence for this present study: without close observation of the actual behavior of the regulators and those they regulate, it is virtually impossible to develop any simplification proposals that will get through ‘the road test’.

But applying this analytical frame to the Italian case and analyzing the war on bureaucracy as a case of (re)regulatory policy means adopting a totally different perspective from the categories in which the rulers and the ruled in this country interpret their objectives and their choices. Italian, like all the Romance languages, has a single term *politica* to define the two spheres of action that the English language calls ‘politics’ and ‘policy’. In the practical use, the first meaning absorbs the second. When the term *politica* is accompanied by the indication of a specific public sector intervention (e.g. education, pensions), it refers to all of the laws on a particular topic. The official website of the Italian government for monitoring the implementation of the executive program only mentions “law proposals and delegated legislation” approved by the Cabinet¹². One would search in vain through the website for documents that describe the internal logic of the various measures, their expected results, the actual stage of implementation, and any impact assessment or evaluation of the results obtained.

12 Governo Italiano, *Monitoraggio dell'attuazione*, <<http://www.programmagoverno.gov.it/monitoraggio-dellattuazione-programma/monitoraggio-su-attuazione/>> (accessed 27 January 2016).

In other words, the policy analytical capacity (Howlett 2009) of Italian government institutions is not only very low (Bertelsmann Stiftung 2015), but is also a skill often unknown to decision-makers themselves.

Switching from a legal perspective to a policy one means drawing upon a much wider range of governmental tools and broadening the range of factors that may influence their effectiveness: “Regulatory policy is the framework within which rules and alternatives to rules are considered, evaluated and implemented by government and public authorities seeking to influence the behavior of private actors in the economy” (Lunn 2014: 21).

If we begin by considering the possible tools of government, even in this case the family of words used in the Italian language creates important mismatches of meaning when compared with English. For instance, the Italian term *regolazione* is not the simple equivalent of ‘regulation’, because the former is absorbed as a synonym by the term *regolamentazione*, the formal definition of the tiny details of laws, which unlike ‘regulation’, leaves no room for the use of soft instruments, such as interpretation, position statements, and guidelines. ‘Regulation’ can be discretionary, participatory, or negotiated. *Regolamentazione* can only be top-down, command and control.

Secondly, adopting a policy perspective means broadening the range of factors that should be considered to explain the poor performance and to improve the effectiveness of interventions. The first striking fact that emerges from the reconstruction of the decision-making processes of the past decade is that the simplification arena is crowded with many actors, from the European level to the national, to regional and local ones. The venues that gather actors (boards, technical committees, task forces, etc.) keep changing their names, composition, and responsibilities with a form of institutional Keynesianism: instead of digging holes and then filling them up, organisms are first created and then eliminated, but only to be recreated under a different name. Established in 2005, the Parliamentary Commission for simplification itself also changed its name and responsibilities in 2009.

8. The Network

If we look at the most influential actors, we will note that a large part of the relevant decisions are made within “iron quadrangles”¹³ who have at their corners politicians with a strong presence of SMEs in their councils, organizations representing the interests of various categories, administrative executives called

13 With reference to Griffiths’s (1939) ‘iron triangles’ among the congressional committees, the bureaucracy, and interest groups.

to enforce the laws, and professionals, who, for profit, act as middlemen between those who are regulated and the public administration and politicians.

In the analysis of the relationship between politicians and public administration, it is necessary to distinguish between the dynamics that emerge in the public communication arena and those that develop in institutional decision-making bodies. The ambiguity of the term ‘bureaucracy’, which can be seen both as a group of people that make up an untouchable privileged class or a set of complex and onerous procedures, represents the link between these two arenas. When politicians are (or try to be) in the spotlight of old and new media, bureaucracy is singled out as a caste that hinders the implementation of innovations decided by those who govern¹⁴. This game of scapegoating and blame avoidance (Weaver 1986) is vital in a country whose levels of public trust in politicians are the lowest in Europe, with a continuously negative trend¹⁵. When they instead hold legislative or executive roles in parliament or in the ministerial offices, politicians hardly pay attention to the linearity and formal clarity of the decisions they make, as evidenced by the bleak opinions of the Legislation Committee of the Chamber of Deputies.

Moreover, this ambiguity also characterizes the questions that organizations promoting the interests of SMEs address to the politicians with whom they are closest. On the one hand, the representatives of these groups complain about the unbearable weight of red tape. On the other hand, the regulation process is invoked, even in its most baroque forms when it comes to defending its market position threatened by foreign investments, especially in the field of trade, when trying to safeguard the products protected by quality marks, or when deregulation threatens to disrupt established business routines. The old Italian saying ‘the law is interpreted for friends, and applies to enemies’ has become ‘simplification is for friends, red tape for competitors’.

9. Administrative Logic and Risk Aversion

The analysis of the role of administrative officers in charge of applying detailed rules and standards highlights the gap between the legal approach and the policy approach, which follows a social and behavioral perspective. The first approach is only measured

14 The Prime Minister Matteo Renzi declared before an audience of entrepreneurs: “We need to take up a violent war against bureaucracy. I’m using the word violent because we have no alternatives” (11th April 2014).

15 CESifo-Database for Institutional Comparisons in Europe, *World Economic Forum, The Global Competitiveness Index Historical Dataset 2005–2014*, <<https://www.cesifo-group.de/ifoHome/facts/DICE/Values/Political-Values/Politics-and-Policy/public-trust-politicians/fileBinary/public-trust-politicians.xls>>.

in one way: the degree of compliance of acts with the prescriptions set forth in long and complex legal provisions. The second approach has allowed us to understand the multiplicity of the tensions and contradictions that officials at different levels have to manage or at least absorb for many decades, namely since Herbert Simon's fundamental work *Administrative Behavior: A Study of Decision Making Processes in Administrative Organizations* (1947). Considering public officials not as followers of a procedure for the enforcement of laws, but as actors in the implementation process, has important consequences both for the descriptive prescriptive levels. Regulatory policies for SMEs are aimed at influencing the behavior of individuals and businesses to protect public goods such as competition, the quality of the environment, and workplace safety. Their implementation is effective as long as administrative burdens are proportionate to the gravity of the feared harm, and applied appropriately and selectively, taking into account the past behavior of those who are regulated, and aim to shift from detailed preventive authorizations to a prompt identification of violations.

This ability to articulate distinct modes of regulatory implementation is quite utopian in the context of Italian public administration. First, the regulatory inputs that spill over public offices have formal features, as we have already pointed out, which are totally incompatible with their selective application and, in this case, smart. The number and frequency of laws, cross references, and the way in which the texts are written, are so jumbled that it is impossible to understand which are the purposes and which the means, which are the primary objectives and which the secondary ones. The typical language of a simplification law contains formulations like: "subsections 3 and 4 of Article 8 shall be repealed... paragraph 1a of Article 31 is repealed". Often, the changes relate to laws passed just a few months previously. In this situation, the only possible strategy for survival is the *ipse dixit*, "he himself said it", and that is the servile dependence on the interpretation memos written by superiors.

In Italy, in fact, there is a lack of consideration of how bureaucratic burdens take a toll on public administrations, which are called upon to implement laws, including simplification ones. The false assumption is the total flexibility and absorption capacity on the part of public services. However, in other countries the bureaucratic costs for public servants themselves are monitored and reported within tolerable limits. An interesting example is the 2007 British initiative 'Cutting Bureaucracy for Our Public Services', which sought "to reduce the amount of unnecessary bureaucracy faced by frontline public sector workers"¹⁶ through the bottom-up identification of the 'key irritants' to which they are exposed.

16 National Audit Office (NAO) 2012, *Reducing bureaucracy for public sector frontline staff: Briefing for the House of Commons Regulatory Reform Committee*, <<http://www.nao.org.uk/publications/201206/1200016.pdf>>

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The perverse complexity of regulatory inputs affecting the activity of civil servants has two serious consequences. The first is the absence of effective transparency in procedures, which creates a corruption-prone environment¹⁷. As is well known, Italy consistently holds a very low position in international rankings in terms of its ability to fight corruption. In a country with a strong presence of organized crime, this is not a minor problem. The second consequence is less obvious and is related to the fact that the same extreme complexity of laws ordinary citizens are confronted with also concerns the legal framework of the civil service. For an official-type, the principle “a form (or a stamp or a signature) more is better than one less” is a self-defense strategy, because it means less risk of being caught or blamed by superiors and control authorities in the case of checks. In fact, in the case of an investigation of a public servant’s responsibilities, the proportionality and appropriateness of criteria would be of little or no importance. Neither are there incentives or protections for those who venture down this road.

The usual reference to the principal-agent theory as an explanation of the bureaucrats’ behavior focuses on moral hazard as a source of inefficiency and lack of responsiveness. In the Italian case, this model succumbs to an alternative explanation in many situations. In 1964, Victor Thompson convincingly linked bureaupathology to the sense of personal insecurity inducing officials to give an abnormal priority to self-defense over the objectives of the organization which they work for, displaying behaviors such as “close supervision; failure to delegate; emphasis on regulations, quantitative norms, precedents, and the accumulation of paper to evidence compliance; cold aloofness; insistence on office protocol; fear of innovation; or restriction of communication” (Thompson 1964: 100). Although convictions for breaches of public laws affect a small percentage of employees, nevertheless, the stress, length and economic costs of these proceedings are so high that extreme risk aversion becomes the rational choice.

10. The Hidden Requirement of Simplification

The fourth important group of actors in regulatory policies for SMEs are intermediaries, i.e. professionals who get paid to replace the entrepreneur in interactions with administrative offices and deal with required formalities on their behalf in

nao.org.uk/wp-content/uploads/2012/10/0910_reducing_bureaucracy.pdf>. The NAO acts as a watchdog for the British parliament.

17 In 2015, Italy ranked second-to-last among other EU members. See Transparency International 2016, *Corruption Perceptions Index 2015*, <<https://www.transparency.org/cpi2015>>.

the fields of taxation, social security, urban planning, public health, etc. In Italy, these intermediaries are widespread figures. A behavioral approach allows us to understand the ambiguities and contradictions implicit in this position, even linking it to other similar professions. In the area of justice, for example, Italy, together with Luxembourg and Greece, is the country with the highest number of lawyers per capita and the length of legal proceedings is consistently higher than in other countries (CEPEJ 2014).

Even in the case of intermediaries acting in the name of the SMEs, objectively speaking, this thriving business has opposing interests to those pursued by the simplification policies, which aim to make it easy for the user to access the administration directly and autonomously. An important confirmation of this conflict came from the president of the National Institute of Social Security (INPS), which handles almost all the national pension and welfare services. In a letter to a major national newspaper, the president Tito Boeri wrote: “[...] not a day passes now without my receiving a letter from some representatives of labor consultants that threaten retaliation against INPS. My fault? Having declared at a public meeting that [...] Companies must no longer necessarily resort to intermediaries, career counselors and tax advisors and should instead interact directly with us, reducing the costs for businesses”¹⁸.

This action has uncovered an underdeveloped aspect of our analysis of the four main actors in the regulatory policies for SMEs. Despite the frictions and mutual accusations used by the media, the elements of this network ultimately support and legitimize each other, because a change in efficiency would create problems for everyone, including the users themselves. Plans for simplification tend to systematically ignore one fact: post-bureaucratic administration does not demand fewer skills from all employees and policy makers, but rather different and more specific skills, such as being able to access channels of digital interaction; understanding English terms that increasingly often refer to the conceptual horizon of the Common Law and not to the more familiar continental Civil Law; and taking responsibility for choices that can easily get through *ex ante* checks, but are then subjected to more onerous *ex post* verifications. These are all innovations that require considerable knowledge and skills. If we compare these skills with those used by small business owners, who are loyal to the old routine based on political patronage, face-to-face relationships in administrative offices, or *carte blanche* delegation to intermediaries, simplification appears to be more demanding than the traditional red tape.

18 Tito Boeri, *Non opporsi alle innovazioni*, Il Sole 24 Ore, 17 October 2015.

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This finding is of particular importance in Italy because our country has a very significant delay in the sector of adult skills. According to the 2014 OECD Adult Skills Survey (PIAAC):

In Italy, the mean proficiency scores of 16–65-year-olds in literacy and numeracy are significantly below the average of the countries participating in the Survey of Adult Skills (PIAAC). In literacy and numeracy, the younger adult population (16–24-year-olds) scores significantly below the average of the OECD countries participating in the Survey [...]. In Italy, 26.9 percent of the adult population (16–65 year olds) reports no prior experience with computers or lacks very basic computer skills¹⁹. To fully reap the benefits of simplification, users need significant expertise, which is quite scarce in Italy, and the situation is not any better if we consider the skills administrations must possess in order to create physical and digital communication websites that ensure both a pleasant user experience and provide effective solutions for those who access them. Unfortunately, the necessary skills and cultural understanding to build channels of this type are almost completely absent in the Italian public administration because of the generally older age of its employees, which is caused by the contraction of turnover due to the high public debt. This situation perpetuates the predominance of legal training, which until a few years ago was a necessary and sufficient condition for recruitment. This indirect adverse selection isolates the Italian administration from the technologies and communication styles used by younger generations and cross-border users.

An example of this deficiency is the troubled implementation of the Points of Single Contact (PSCs), a European Commission project launched together with the 2006 Services Directive: “They should become a single contact point where SMEs can easily obtain information, submit applications and collect decisions or other replies without having to deal with a multitude of authorities at different administrative levels, as is the case today” (“Points of Single Contact: Doing business made easier”²⁰).

In June 2015, the European Commission commissioned a research study to assess “the performance of the PSCs in the 28 EU member states and three EEA member states against the PSC Charter criteria”²¹. The evaluation was not

19 OECD 2014. *Italy. Adult skills (Survey of Adult Skills, PIAAC)*, <<http://gpseducation.oecd.org/CountryProfile?primaryCountry=ITA&threshold=10&topic=AS>>.

20 <http://ec.europa.eu/internal_market/eu-go/docs/psc_en.pdf>

21 European Commission 2015. *The Performance of the Points of Single Contact. An Assessment against the PSC Charter*. Luxembourg: Publications Office of the European Union.

independent, having been entrusted to Capgemini Consulting and Eurochambres: Chambers of Commerce are found in many countries, including Italy, and are the main actors in the design and operation of the PSC²². Although the assessment of implementers-evaluators has on the whole placed the Italian PSC 'business in a day'²³ above the European average in terms of formal delegation of functions, the usability of the website is still considered disappointing when verified bottom-up: "Mystery shoppers indicated that the PSC is non-intuitive and difficult to navigate. The ease of use of the portal currently does not match customers' expectations. This refers, among others, to the extent that activities were integrated (necessity to use many different websites), the experience of technical difficulties and the extent to which users were confident that they were doing the right thing"²⁴.

11. Front Office, Back Office and Political Dividend

One of the most important contributions to the breadth of literature on digital government is the identification of the fundamental difference between the so-called back and front offices: Back Office: This is the overall term for all processes and areas in a business enterprise or public authority which are carried out in the background for the citizen or customer and are not directly visible. It includes the internal processing of applications and queries received by the administration. [...] Front Office: By contrast with the back office, the processes, which take place in the front office, are processes in public administrative transactions that are visible to the customer. The further steps of processing the customer's request then take place in the back office of the administration. (Anttiroiko and Mälkiä 2007: 1553)

This distinction is crucial in an era in which websites represent the most visible face of institutions. Today, the first judgment of a public policy is made on the basis of its digital identity. Emblematic from this point of view is the story of the Obama administration's website for the Affordable Care Act, HealthCare.gov, launched on October 1, 2013. When the website crashed in the first days, many commentators defined the problem not as a technical one, but as the failure of the reform itself. On October 20, 2013, President Barack Obama addressed the matter, publicly admitting that there was "no excuse". Once the technical problem had been solved, in April 2014, the Secretary of the Health and Human Services announced her resignation.

22 Chambers of Commerce often rely on Capgemini consultants.

23 <<https://www.impresainungiorno.gov.it/>>

24 *Italy. Performance of the Point of Single Contact*, (29/06/2015), <<http://ec.europa.eu/DocsRoom/documents/11138/attachments/1/translations/en/renditions/nativ>>

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Even the policy goal to reduce red tape for businesses must first be translated into “a transformation in the business experience of frontline regulation” as mentioned in one presentation by the Better Regulation Delivery Office UK²⁵.

But the simplicity of the front office implies a large and complicated number of tasks for the back office. The greater the difference between what end users see and what is processed in the back office, the greater the chances of a satisfying experience for the user. Unfortunately in Italy, public administrations continue to bend the needs of the front office against the back office ones. To escape this logic, a great effort in observing actual user behavior must be made to empirically verify which cognitive maps they use and which shortcuts they take when accessing a website to interact with a public office. User strategies and expectations are a stronger objective constraint than laws and codes in determining the success or failure of the regulation, because these factors are not influenced by government decrees, but by the user experience that citizens consolidate surfing on global websites to shop online or to download films. Ignoring this fact is like ignoring the force of gravity in the engineering design of a public building.

Unfortunately, the persistent work of the back office does not pay out political dividends in terms of visibility, and it potentially eliminates one of the central actors in the policies for SMEs: the intermediaries, who in turn have strong links with interest organizations and politicians themselves. In a country where ‘making a law’ is considered the natural solution to every collective problem, and a large part of the political show is occupied by the tensions that accompany the law-making process, while very scarce resources are dedicated to the evaluation of its real effect, this is not a cost-effective strategy.

12. Conclusions

If used as a magnifying glass to detect problems and tensions in other nations, the reconstruction of the Italian regulatory policies for SMEs points to two important conclusions. First of all, the objective of simplifying administrative procedures is of paramount importance in influencing the degree of public confidence in institutions and the competitiveness of the national economic system. Secondly, the contribution of social and behavioral sciences brings to light problems and solutions that neither jurisprudence nor the classical economic theories of regulation can provide.

25 Russell, Graham 2012. *Enforcement and Inspections. A Journey Towards Change. BRDO and the UK context*, <http://www.oecd.org/gov/regulatory-policy/S1_UK_A%20journey%20towards%20change.pdf>

Since the 2008 publication of *Nudge: Improving decisions about health, wealth, and happiness* by Richard Thaler and Cass Sunstein, the interplay between the objective of simplification and the institutional use of behavioral sciences has taken on a well-known name: nudge. While this volume has been able to highlight the contribution that behavioral sciences can provide to regulation in both descriptive and prescriptive terms, however, this potential has been compressed to some extent and under-used because of an almost exclusively psychological approach to the dynamics that affect the individual choices of those who are regulated.

In this essay, I have instead tried to show that there are other analytical perspectives that can use the knowledge provided from observations of the actual behavior of the regulated and the regulators. Studying governments and the governed not from a juridical logic, but from a policy one, entails recognizing the strong influence authors such as Charles Merriam and Harold Lasswell have impressed on this discipline. The difference here, compared with fields such as behavioral economics and psychology, is that the actors are considered in their social dimension, since they are immersed in a web of relationships without which the criteria to evaluate the profitability of the alternatives they face would not emerge (Wildavsky 1987; Dunn and Kelly 1992).

The contribution that comes from a policy perspective on the issue of regulatory simplification may seem paradoxical: the first step in simplifying is to recognize the tremendous complexity involved in identifying and managing an acceptable balance between the needs of the individuals, their rights, their preferences, and the needs of the society that these same individuals belong to.

Attempts to bypass this uncomfortable but realistic conclusion have obvious limitations. In Italy, the path of simplification as a strategy of subtraction and getting rid of rules has been pursued with determination. On March 23, 2010, a real stake sealed this strategy: “Over 375,000 laws and repealed regulations were burnt at the stake. Literally. Armed with ax, pick and blowtorch the Minister for Simplification Roberto Calderoli set fire to a huge wall of boxes made up of all the provisions repealed through the work of his ministry”²⁶. After six years, however, no one has ever noticed a reduction in the bureaucratic burden that can be traced to this gesture.

A second shortcut consists in understanding simplification as deregulation by other means. This strategy has often resulted in stopping the search for the difficult balance between public assets and private interests, giving more importance to the latter. In many cases, this results in shifting complications to other arenas,

26 Corriere della sera, *Calderoli brucia le leggi abrogate*, March 24, 2010.

such as by increasingly appealing to courts to settle disputes between rights that nevertheless are entitled to formal protection: for example, the freedom of trade, but also the right to health.

A third way is the one explored by simplification through the use of ‘nudges’ (Sunstein 2013). As previously pointed out, the libertarian paternalism that inspires it can easily lead recipients to make choices without a clear understanding of the overall costs and benefits implicit in the proposals to which they subscribe (Bubb and Pildes 2014).

All of these three paths are likely to lead only to a superficial simplification, moving away from the indirect effects of these strategies on the difficult political, social and economic balances upon which our civil coexistence lies.

In short, trying to keep it simple is not only complicated²⁷, it is also complex (Boisot 2006; Geyer and Cairney 2015).

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27 Roz Strachan, *Trying to keep it simple? It's complicated*, May 28, 2014, Digital Marketplace Blog, Cabinet Office, Government Digital Service, <<https://gds.blog.gov.uk/2014/05/28/trying-to-keep-it-simple-its-complicated/>>.

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