

GENERATION WEB 2.0:
USING NEW TECHNOLOGIES IN
THE PUBLIC SECTOR IN EUROPE

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CESI AND CESI-EUROPE ACADEMY

The European Confederation of Independent Trade Unions (CESI) defends the interests of over 5 million workers towards the European institutions and represents 41 trade unions in 28 EU and accession states. Since 2005, CESI has been a recognised European social partner and, in this capacity, is regularly consulted within the framework of social dialogue at European level.

The CESI Europe Academy is CESI's training centre. Through symposia on EU topics, the Academy provide its members with the possibility of delving deeper into current social and political issues in Europe and engaging them in debates with policy-makers and international experts.

Among the topics of past projects we cite a common area of freedom, security and justice; the recruitment and retention of public sector employees in Europe; transnational administrative cooperation in Europe; high-quality public services; the role of public service in the integration of migrants in the EU; the promotion of diversity within the public service in Europe; the mobility of health workers within the EU; lifelong learning; health and prevention at workplace; the conciliation between professional and private life, flexicurity.

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PROJECT: "GENERATION WEB 2.0: USING NEW TECHNOLOGIES IN THE PUBLIC SECTOR IN EUROPE"

The European Confederation of Independent Trade Unions (CESI) organised a symposium entitled "Generation Web 2.0: Using New Technologies in the Public Sector in Europe" with the support of the European Commission. The symposium took place in Tallinn, Estonia, on 26 and 27 June 2014. Approximately 120 representatives from trade unions attended, as well as 22 experts from various EU member states and neighbouring countries.

The Tallinn symposium constituted the main stage of a project aiming to enrich the debate concerning the challenges linked to the digitalisation of the public sector in Europe, taking into account the assets and risks this entails for both employees and citizens.

Thanks to the extensive debate that took place at the symposium, and in compliance with the project delivered to the European Commission, CESI has drafted this booklet to share experiences and best practices. With the aim of disseminating the ideas presented at the symposium, and so that they may act as a foundation for the anticipation and management of change, this booklet will be distributed on a local, national and European level, along with a charter of principles for the participative and responsible inclusion of workers in the set-up and use of information and communication technologies in the public sector.

CHARTER OF PRINCIPLES FOR THE PARTICIPATIVE AND RESPONSIBLE INCLUSION OF WORKERS IN THE SET-UP AND USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE PUBLIC SECTOR IN EUROPE

Following the symposium on the issue of “Generation Web 2.0: Using New Technologies in the Public Sector in Europe”, organised by CESI, which took place in Tallinn (Estonia) on 26 and 27 June 2014 thanks to the support of the European Commission, the representatives of CESI identified **ten key principles to improve the implementation of ICTs with the aim of ensuring high-quality Public Services.**

1 AN EXEMPLARY ADMINISTRATION

- 1 • The implementation of new technological tools aims to improve the services provided and the relationship with their users, in order to open up the administration to citizens. This opening improves the image of public services, namely when they make use of “e-participation”.
- 2 • Public services are available to all. Thus, digital contents must be adapted to the various categories of public, including disabled users or users that are not literate in new technologies. The equal treatment of users requires different modes of access to services. The move towards digitalisation must not create new inequalities.
- 3 • In order to be efficient, the administrations must possess adapted equipment that is ergonomic and easy to use. Criteria such as service life or respect for the environment (ecolabels) must be taken into account, namely at the time of calls for bids for the provision of IT equipment.
- 4 • Public administrations must be particularly attentive when it comes to ensuring the protection of its citizens’ and agents’ data. New technologies must not curb citizens’ confidence in the institutions. Their trust also depends on the ability of the public sector to maintain a certain level of technological know-how (own programmes, maintenance, server and internal network management, etc.).

5 COMMITTED EMPLOYEES

- 5 • Employee training is essential to benefit from all the added value that technologies in constant evolution can offer the public sector. The specific needs of employees, interaction with citizens on social networks, the generation gap and ethical principles related to ICTs must also be taken into account. Training is added value, both for the employee and for the employer. Thus, it must take place during working hours. Informal competences and training of employees must be valued and recognised. European certification would make this objective easier to reach.
- 6 • The independence of the agents, the sense of urgency and the overload of information linked to new technologies must be taken into account and support must be provided in order to prevent the generation of new sources of stress at the workplace. Moreover, IT tools must not become monitoring tools which put more pressure on the employees, with the possible creation of new psychosocial health problems.
- 7 • Time optimisation linked to the computerisation of some tasks must be accompanied by redeployment measures that are discussed with the employees – not to staff cuts. The quality and efficiency of the public sector depends on its ability to get the most out of its human talents and resources.
- 8 • Official documents or internal documents in public organisations must take into account the increasingly blurred borders between people’s professional and personal lives, namely by integrating telework and the usage of mobile devices.
- 9 • Managers play a key role in the deployment of new technologies: they must assess the training needs in cooperation with the employees. They must be aware of the benefits offered by these new technologies and encourage their use, while also providing support and control relating to abuse or misuse (e.g. linked to telework).
- 10 • The anticipation of change is the cornerstone of the good implementation of new technologies. It must be based first and foremost on a regular, open social dialogue to assess the needs of the administration and users. In addition, the social dialogue can lead to a better appropriation of the digital strategy of public administrations.

The representatives of CESI commit to disseminating these results, promoting these great principles and are available to all European and national players with the aim to constantly improve the services provided to citizens and the staff’s working conditions.

THE IMPACT OF ICTs IN THE TEACHING AND EDUCATION SECTOR

The use of new technologies in the sector of teaching and education remains an ambiguous subject: indeed, their use is not limited to the administrative management of schools and teaching, they are a component of teaching itself, both from a didactic and methodological point of view, as well as being integrated into the curricula (ICTs as a subject matter). In addition to this “professional” usage of ICTs, one must take the students’ “personal” use of these technologies into account. Often, these students demonstrate great skill at managing them, using IT tools to do their homework and as a means of communication. The application of ICTs in education is manifold: on the one hand, new technologies act as form of pedagogical and didactic support (e.g. e-learning, use of interactive boards, tablet computers in class, use of the internet for research tasks, etc.); on the other, the negative impact of new technologies seems to be increasing (e.g. use of the new media for fraud or – even worse – cyberbullying, threats on platforms such as Facebook, Twitter and so on). These actions often have a negative effect on behaviour in schools and educational facilities. It is interesting to see how teaching and management personnel can play a role in the prevention and awareness-raising concerning these matters.

THE GREATEST TECHNOLOGICAL CHANGES

Since the beginning of this new millennium, new technologies have become an integral part of school and teaching management, as well as of the curricula and methodology applied. Indeed, generally, school administrations have files on their students where they can file school reports, and decisions regarding promotion, for instance, which give a succinct overview of the students’ development. A number of improvements have also been made relating to the IT management of teaching staff, e.g. the organisation of timetables by means of a specific computer programme that is able to detect errors, the migration from communication on paper to collective e-mails, and direct links between the schools and the ministries.

Over the years, ICTs have gradually moved from being a subject matter in itself (e.g. IT lessons) to become an integral part of several subject matters. The internet has become a tool for research and interactive boards allow the visualisation of different types of phenomena in natural science classes, for instance. Generally speaking, IT tools help students do their personal work. An important innovation also occurred with the creation of online courses: access to basic training (e.g. second chance qualifications) and to further education (e.g. university) is granted to adults.

SOCIAL NETWORKS

Many schools use internet and intranet systems. Recently, the use of the cloud has also been applied to make communication between the various parties more efficient. Secure pages on school networks allow the students to exchange information with their teachers, who in turn use them to make teaching materials or additional exercises available. Social networks such as Facebook are the increasing target of criticism in the field of education. The reason for this is that social networks blur the borders between users’ personal and professional lives, yet a certain distance in the relationship between teachers and students is fundamental. This is why in Germany, for instance, many of the federal states have banned teacher-student communication via Facebook. Social networks have also led to the emergence of new problems which directly involve schools, such as cyberbullying. Often, young people attack others online in their personal lives, and the consequences of such bullying in cyberspace are felt in schools and in class, amongst the students. Thus, the question remains: are school directors and teachers responsible for dealing with cyberbullying? Are they allowed to interfere in their students’ “personal” lives? Clearly social networks have had an important effect on schools’ community lives and on the behaviour of students. Moreover, they often generate additional conflicts that are difficult to manage.

SPECIFIC ITC TRAINING

Specific ICT training concerns mainly students whose IT skills have developed in various classes, in an interdisciplinary fashion. Indeed, practically all subject matters taught make use of one or the other new technology and require that students master them (e.g. geometry, design, bibliographical software programmes). Teachers who want to work with these tools usually participate in ongoing training courses.

Administrative, non-teaching staff manage schools with the help of specific programmes that are partly designed for schools, but sometimes they are general programmes for HR management, budget management, for instance (i.e. related to civil service in general). Tasks applied in these specific areas require specific training.

CONSEQUENCES ON THE STRUCTURE OF EMPLOYMENT AND PROVISION OF SERVICES

In the teaching and education sectors, ICTs do not have a direct impact on employment structures. They should never influence human resources. Indeed, the teaching profession is based on contact and interaction with students. Teachers could never be replaced by didactic software programmes that cannot determine the specificities, personalities and individuality of the learners. Even in the context of distance learning, the physical presence of a teacher is required from time to time so that he/she may answer the students' specific questions and provide them with more information and explanations.

Of course, ICTs represent added value in education if they are adapted to the needs of students and are properly integrated into traditional courses and used in a responsible fashion. The greatest risk resides in the fact that IT tools can be misused for purposes such as fraud, cyberbullying, plagiarism and the like. ICTs can even, in the worst case scenario, have a negative impact on the services provided. The administration and management of schools have become easier thanks to the various IT solutions at hand, without a doubt.

FORECAST

In the areas of teaching and education, ICTs will especially play a role in the fields of didactic methods and access to resources. However, online courses do raise a considerable number of questions: what about copyright, rights of reproduction and rights to remuneration, for instance? ICTs will surely make communication between the various partners involved in schools easier. Think of electronic class logs that enable every participant - students, teachers, parents - to access information. What remains quite certain, however, is that teachers will never be replaced by ICTs. The impact of the latter, therefore, on human resources and recruitment will remain minimal.

EXAMPLES OF BEST PRACTICES

The implementation of new technologies in the education and teaching sectors is taking place on two levels, i.e. on the level of school administration, class management, and communication between the various partners and on the level of teaching itself.

The administration of a school is made easier thanks to the computerised management of information, for instance, which enables the immediate access to required personal data to provide the necessary support to the students, e.g. notes and student development information, family situation, address, etc.

Many schools nowadays work with an "electronic" class log book. Thanks to this tool, all the players have access to the relevant information such as a calendar of the homework and classwork, accessible to teachers, students and parents; notification of absences and disciplinary measures, accessible to directors and heads of class; etc.

As to the teaching itself, IT has made distance learning more effective. Indeed, distance university courses and virtual schools often provide support to working adults who want to increase their knowledge; the possibility of e-learning therefore greatly increases their chances of changing career paths or being promoted in their current job.

CONVITTO NAZIONALE “VITTORIO EMANUELE II” OF ROME: SCUOL@2.0

The Convitto Nazionale Vittorio Emanuele II of Rome has been awarded the Scuol@2.0 title. It is one of the 13 establishments that have been participating in a pilot project since 2011 within the framework of the Italian Digital Agenda Plan adopted by the Italian MIUR (Ministry of Education, Universities and Research). This public establishment has 1,900 students. Its pedagogical project focuses on culture, multilingualism and inclusion. Initially, new technologies were experimented in 4 multimedia classes (“2.0 class”); now, they are used in the 77 2.0 classes. This includes the use of the interactive digital board (“LIM”) instead of the traditional board: teachers and students work on tablets and e-learning platforms, both at school and at home. The teaching contents are selected in accordance with the supports used, in collaboration with training bodies and the evaluation performed by editors.

Digitalisation does not only concern the subjects taught. The school’s website is the primary information and communication tool to communicate with users. Every student has a digital school card (which can also be used for other services, such as transport, leisure activities, etc.). Every year, on 5 February, the establishment also participates in the “Safer Internet Day” which raises awareness amongst the students about internet security and safety and the risks linked to the use of new technologies, in collaboration with “Save the Children”.

The implementation of a project like this one requires time (calls for tenders for the NICTs, teacher training), funding (Ministry, European projects) and many partners, such as a network of editors, schools (partnership to design joint online courses) and foundations who funded the purchase of some digital tools.

In 2013, OECD published a report on the Italian strategy for the development of digital schools, where the “Convitto Nazionale” is mentioned, amongst others.

THE IMPACT OF ICTs IN THE SECURITY SECTOR

The arrival of new technologies has considerably changed the security sector, and more specifically, the police.

The smooth flow and speed of information exchanges, the availability of documents to a wide public, the implementation of urgent searches and the evolution of forensics are in large part the result of advances in the area of new information and communication technologies (ICTs).

It is obvious that workers have played an essential role in the implementation of ICTs, because in most cases, they are self-taught in the use of most of these new tools that were supplied by the administration. Today, it is still true that administrations do not possess the structures or the means to train their agents fast.

Indeed, new technologies appear and become operational very quickly, and it is very difficult to train workers in real time.

In addition, new technologies become obsolete practically as soon as they are launched on the market.

Thus, training does not take place due to lack of funds and this penalises police officers who are sometimes the object of administrative sanctions if they misuse social networks for personal purposes. Some administrative lawsuits and sanctions could be prevented if training took place.

The presence of police trade unions on social networks is very important nowadays. Trade unions often play the role of public authorities when it comes to information provided to agents.

For the police, the creation of software for criminal proceedings (LRPPN), the creation of files, computerised registries and the set-up of a professional messaging system (INTRANET) have profoundly changed working methods.

The exchange of information and speed of execution have increased in an incredible fashion and enable the more efficient search for individuals in several areas (e.g. sex offenders, organised crime, large-scale banditry, drug trafficking) on a national and European level (Schengen file, EUROPOL...), as well as on a broader international level (INTERPOL). The next stage should consist of the establishment of a true European strategy to fight cybercrime, which knows no borders or other boundaries and which should consequently be dealt with on a European or international level.

Another considerable impact of ICTs in the security sector is the introduction of videosurveillance. This improves safety levels for citizens and the protection of people and possessions. It also permits the search for evidence to solve criminal cases or offenses, as well as in the search for information in cases of surveillance. The development of videosurveillance, biometrics, facial recognition and existing files are additional measures that are made available to investigators when they are searching for suspects.

For example, in investigations, the speed of processing complaints with appointments leads to a better follow-up of cases and time savings related to the acknowledgement of victims and case-solving.

Indeed, new technologies do not prevent direct communication with the victims and the respect of individuals' rights.

To the contrary, ICTs improve services rendered to the population. ICTs should also offer better working conditions to police officers – not generate an additional workload.

Moreover, fitting cameras in vehicles aims to help police officers in their work.

ICTs should never be used to spy on police officers; they should not be used to control the agents' work and therefore become an additional constraint.

New technologies also help employees protect themselves, both in technological and legal terms, against sites such as COPWATCH. States are responsible for launching systematic legal proceedings against cyberviolence and fight against the ills of the internet.

The renewal of IT equipment and the continuous training of agents to ensure the safety of citizens are indispensable.

The impact of ICTs could be developed in the context of bringing the police closer to the population.

New technologies are tools to improve the reception of victims, limit waiting times, control flows and personalise attendance.

Virtual police stations for the registry of declarations, runaway minors and oppositions to minors leaving the territory would probably be considered helpful by the population.

However, touchscreen kiosks could never replace a police officer.

Sometimes, the application of new technologies goes hand in hand with staff cuts because public authorities believe that humans can be replaced by machines. This is a fundamental mistake, of course: behind a computer screen or a videosurveillance terminal there must be human beings that are able to intervene at the right moment.

Humans must remain at the heart of our systems and concerns. Our role, as trade unions, is to preserve the jobs of our agents and the quality of the services provided to citizens.

POLICE 2.0: TWEETS BY THE SPANISH POLICE

Created in 2009, the [@policia](#) Twitter account now has practically 1,140,000 followers. This makes the Spanish Police the most followed Spanish institution on this social network and the no. 1 police body in the world in terms of followers – beating even the FBI! The Twitter account was created to give the Police a more modern image, as well as to act as a reference for the national press. Very fast, it became popular amongst citizens too.

Today, this account helps the Police disseminate information relating to prevention campaigns as well as inform citizens on police operations (e.g. the fight against alcohol abuse, drug trafficking, cyberbullying or sexual abuse), demonstrations and other news. It also gives citizens safety advice, responds to complaints made on Twitter and refers users to the adequate services. This tool also encourages collaboration between the Police and citizens and the latter's active participation. The final aim is to guarantee a better, truly public service.

In order to make communication via Twitter more efficient, contents are adapted to the time and the tone is direct, sometimes even provocative, thus adapted to Twitter users. All this requires a great deal of planning, training, professionalism on behalf of the agents, creativity and ability to react, as well as adapted equipment (computers, tablets). Behind the [@policia](#) tweets, there is a team of young, dynamic agents with different profiles: they have studied psychology, sociology, journalism and communication.

Interaction may be virtual, but the results can be truly tangible. Let's give you the example of a very dangerous murderer on the run: thanks to one tweet by the Spanish Police, providing the name of the fugitive led to 5,500 retweets, 4.5 million informed citizens, 17 incoming calls which ultimately led to the capture of the criminal in 12 hours.

THE IMPACT OF ICTs IN THE HEALTH SECTOR

MAJOR TECHNOLOGICAL CHANGES

e-Health encompasses healthcare practices which are supported by electronic processes and communication. This can also include health applications and links on mobile phones (m-Health).

Innovations, such as e-Health, can contribute to ensure the desired quality, accessibility and affordability of healthcare and promote self-management of patients or users.

Major changes have been witnessed through the spread and increasing availability of internet and telecommunication based technologies. These developments mean being able to transport medical data such as medical records (e.g. x-ray pictures, blood test results) but also being able to perform telemedicine, i.e. physical and psychological treatments and telemonitoring of patients functions.

Furthermore healthcare professionals can exchange practices between each other and e-prescription eases the transfer of prescriptions between doctors, patients and pharmacists.

These actions can often take place in real time and can avoid travels and waiting times both of patients and healthcare professionals.

Data exchanges can be made by the patients themselves, e.g. when they send pictures of an injury to the doctor, using their mobile device, or between healthcare professionals exchanging more complete patient records, which could be useful during holidays.

Throughout the development of improved digital infrastructure in the last decade an increasing share of the European population as well as healthcare facilities such as hospitals have access to internet and broadband connections.

Hospitals and practitioners can exchange clinical information with external healthcare providers or professionals. Hospitals can also provide patients access to the either part or the entirety of their medical records.

Patients can also be trained how to monitor themselves e.g. through wearable devices. The demand for such devices has been rising in recent years, allowing patients to be much more independent.

USE OF SOCIAL MEDIA

Social media encompasses internet based applications and networks in which people can interact with each other and exchange information. With the availability of smart phones, extensive broadband coverage and relevant medical apps, regular use of social media has become even easier. Social media can offer information, peer support services and real time interactions with clinicians etc. and are especially useful in the field of E-Mental Health. However, while offering advantages such as low cost, easy accessibility and anonymity, concerns with regard to privacy and confidentiality remain.

SPECIFIC TRAINING ON ICT

The use of medical devices needs training both patients and healthcare professionals. For healthcare professionals in particular, this training needs to be included in their initial training and education and be built upon through advanced training and education which takes place as part of their work.

CONSEQUENCES OF ICT ON WORK STRUCTURES AND WORKING CONDITIONS

Work structures are affected insofar as healthcare workers in the best case are not obliged to travel unnecessarily (the same principle applies for patients) when for example they have to take care of patients in remote and deserted regions.

CONSEQUENCES ON SERVICE DELIVERY

Critics say that service delivery is above all becoming depersonalised as patients have less and less contact with healthcare workers, with personal and even tactile contact often being considered a crucial element in successful healthcare and healing.

There is also a permanent risk linked to the use of technology, since patients and healthcare workers may not be sufficiently aware of or trained for the right use of this technology. Devices may also be defective when no technician is present.

Patients might also not be able to take responsibility for their own monitoring.

NEW PROGRESS TO BE EXPECTED IN THE SECTOR

The European Commission launched an e-Health action plan in 2012 and aims to foster and improve e-Health by

- clarifying areas of legal uncertainty;
- improving interoperability between systems;
- increasing awareness and skills among patients and healthcare professionals;
- putting patients at the centre with initiatives related to personal health management and supporting research into personalised medicine;
- ensuring free legal advice for start-up eHealth businesses

CONSORTIUM ARSENÀL.IT: FROM MEDICINE TO TELEMEDICINE

Founded in 2005 as a “Consortium for telemedicine”, [Arsenàl.IT](#) has become a specialised eHealth research centre in the Italian Veneto region. It groups the 23 local authorities for health and hospital foundations in the region.

Arsenàl.IT aims to improve the quality of the health services provided to citizens, as well as the working conditions of the health providers’ workers. How? By identifying innovative and sustainable solutions for the healthcare system which make use of the advantages of new information and communication technologies. Arsenàl.IT issues guidelines for a standardised use of ICTs, by supporting the inter-operability of healthcare information systems in all the associated companies. Arsenàl.IT does not only deal with technical aspects. In order to “rethink” the system for it to become an efficient eHealth system, several factors must be taken into account: clinical efficiency, logistics, and technological, ethical, legal, economic issues, as well as users’ perceptions.

Arsenàl.IT has participated in several regional and European eHealth projects:

- HEALTH OPTIMUM (Health OPTIMization throUgh teleMedicine): implementation and development of teleconsultations in neurosurgery, tele-labs, neurological teleconsultations;
- Veneto ESCAPE: development of a digitalisation system and digital management of clinical files, while ensuring these files keep their legal validity;
- DOGE: creation of a network of services for GPs and paediatricians to share patients’ clinical data.
- SUSTAINS: making it easier for patients to directly access their data online.
- RENEWING HEALTH: home telemonitoring for patients suffering from chronic cardiovascular conditions, chronic obstructive pulmonary disease (COPD) and diabetes.
- Regional electronic health file (2012-2015): revision of social-health-related processes by means of digitalisation and data-sharing. This implies a full reorganisation of the regional information system linked to patients’ health. The file is the result of investments and results that had already been achieved in the past and developed thanks to a new model. It is based on a bottom-up approach, with the greater participation of the operators involved in the definition of guidelines and guiding documents so that they can be used in real contexts concerning social health and in healthcare contexts. Over 1,000 healthcare operators in 17 regional workgroups and 23 corporate groups are involved in this project.

In January 2014, the European Parliament adopted a [Resolution on the eHealth Action Plan 2012-2020 – Innovative healthcare for the 21st century](#).



With the financial support
of the European Union



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