

Digital Governance Challenges for ICT-Enabled Innovation of Social Protection Systems in the EU

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Abstract ICT-Enabled Social Innovation can help making existing service more efficient and effective, but also produce new services as a result of integration among different policy silos. Information and Communication Technologies (ICTs) can also promote conceptual innovation in the sense of changing the base (empirical and analytical) upon which policy are first designed and later evaluated. Building on extensive literature review and analysis of case studies conducted as part of the research on ICT-Enabled Social Innovation (IESI) conducted by the European Commission's Joint Research Centre, Institute for Prospective Technological Studies (JRC-IPTS), this article discusses, the results of an analysis of three selected case studies, exploring the relationship between different typologies of ICT-enabled social innovation implemented and the broader social protection system in which they are embedded in, contributing to determine if a relationship is identified between the nature and type of ICT-enabled social innovation and the modernization of social policies, considering the broader digital governance space in which they are implemented.

Keywords: ICTs, governance, social policy, innovation, EU

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Introduction

Across most EU countries policy efforts increasingly focus on innovation, yet more and more impinging on the concept of 'social innovation', emphasizing also the possibilities of ICTs to contribute modernising social protection systems while at the same time maintain financial sustainability of the public budget. ICT-Enabled Social Innovation can help making existing service more efficient and effective, but also produce new services as a result of integration among different policy silos. It can also promote conceptual innovation in the sense of changing the base (empirical and analytical) upon which policy are first designed and later evaluated. This is especially the case with regard to what are called Personal Social Services of General Interest, which are key means used by all welfare states to realise social, health and employ-

ment policy objectives and they are fundamental cornerstone for social protection systems as they, along with benefits, cover different types of risks that an individual can face during his/her life course. For this reason, in 2013, the European Commission launched a Communication on the Social Investment Package (SIP) urging Member States to prioritise social investment and the modernisation of their welfare systems in order to address unemployment, poverty, and social exclusion challenges brought about by the economic crisis and sustainability challenges posed by the ageing population trends. ICT-Enabled Social Innovations have come to be considered a key pillar of the SIP. Many initiatives have been launched and funds allocated, yet there is no evidence on the results obtained. In this context the European Commission's Joint Research Centre, Institute for Prospective Technological Studies (JRC-IPTS) in collaboration with DG Employment, Social Affairs and Inclusion (DG EMPL), has launched a research project, short-named IESI, to better understand how ICT-Enabled Social Innovation can support the implementation of the SIP and in turn have impact on social policy reforms in the EU.

This paper, building on extensive literature review and analysis of case studies conducted as part of the IESI research, aims at exploring the relationship between different typologies of ICT-enabled social innovation implemented and the broader social protection system in which they are embedded in, contributing to determine if a relationship is identified between the nature and type of ICT-enabled social innovation and modernization of social protection systems. For this purpose, the paper analyses the potential impact of ICT-enabled social innovation in three cases of national initiatives promoting social investment to support the modernization of Social Protection Systems in EU Member States. In doing so the analysis contribute determining what the main drivers and barriers to support the modernization of social protection systems are and what the specific impact generated by ICT-enabled social innovation initiatives promoting social investment in achieving this goal is.

The paper is structured as follows. In Section 1 we discuss the background and motivation of the analysis. In Section 2 we introduce the conceptual framework that has been used for studying the case studies, which are then presented in Section 3. Section 4 concludes outlining the conclusions and future research directions.

1 Background and motivations

Innovation can be defined as the implementation of a new idea that leads to a change in practice in order to create some kind of value, where the terms can refer either to the output or the process itself [1]. In the public sector innovation can result in changing the way it functions, the way it exerts its conditioning role (e.g. from a regulatory and administrative procedural perspective), and also by inducing innovation in the private sector through its activities [2]. The latest trend is currently that of ICT-enabled public sector innovation, from e-Government to the current focus on Open Government [3]. Yet, although the number of studies on public sector innovation is growing, they do not yet represent a consolidated body of literature [4], [5]. In the majority of cases, the concepts and theories developed from the private sector are simply applied to the public sector. For example, the concept of open innovation has been recently investigated in its translation from the management research, mainly

focused on the private sector, to the academic research in e-Government [6]. Considering now *social innovation*, it is often recognized as a fuzzy or a 'quasi-concept' [7], [8] and the research on the topic cannot be ascribed to any paradigm within any single social science [9], [10]. Yet, among the different definitions of social innovation, in this article we adopt the perspective of the European Union [11] on the basis of [12], which looks at social innovation as innovations that are both social in their ends and in their means, new ideas (products, services, and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships and collaborations. Strictly related to social innovation are social services, actually the focus of the cases discussed in the subsequent Sections. As for this issue, the concept of Social Services of General Interest (SSGI) was introduced for the first time by the European Commission in 2006 [8]. It identified two broad types of services: a) Statutory and complementary social security schemes covering the main risks of life; and b) Services provided directly to the person (e.g. social assistance services, employment and training services, childcare, social housing or long-term care for elderly and for people with disabilities, defined as Personal Social Services of General Interest - PSSGI). In 2007, the Commission refined its definition of PSSGI and highlighted a certain number of objectives that social services pursue –such as responding to vital human needs, contributing to non-discrimination and creating equal opportunities [8]. The Commission also highlighted the principles of organization, which are common to these services, such as solidarity, proximity, comprehensiveness, personalization and an asymmetric relationship between user and provider [8]. The diverse documents show that social services play a prevention and social cohesion role, not only helping people to live in dignity and enjoy their fundamental rights, but also to fulfil their potential and to take part in society.

Taking the above issues into account, at the state of the art a comprehensive interpretive framework bridging public sector and social innovation is missing. In what follows, we provide a contribution to the debate on the role and impact of ICT-enabled innovation to modernise public sector and social policies, discussing a comprehensive conceptual framework subsequently applied to three case studies.

2 Conceptual framework

In this article we adopt the conceptual framework proposed by two of the authors [13], [14] to assess ICT-enabled innovation for governance and policy-making, based on three key value drivers, *Performance*, *Openness*, and *Inclusion* and their relationship with *Governance model characteristics*, i.e., state governance system, cultural administrative tradition and socio-economic characteristics of the context of intervention. As for value drivers they can be evaluated in terms of corresponding quality dimensions [15]. The framework also considers the network governance configurations enabled by a given set of digital governance systems. The changes to digital governance systems impact on the governance configuration of the stakeholders' networks (for example, moving from e-Government to Open Government implies the entrance of new actors and a novel role to citizens in public services and data production). Thus, the conceptual model provides a 'map' for understanding which policies can be designed for an appropriate governance of digital innovation initiatives and

reforms in the public sector. Finally, the typology shown in **Figure 1** complements and exploits the outputs of the application of the conceptual framework.

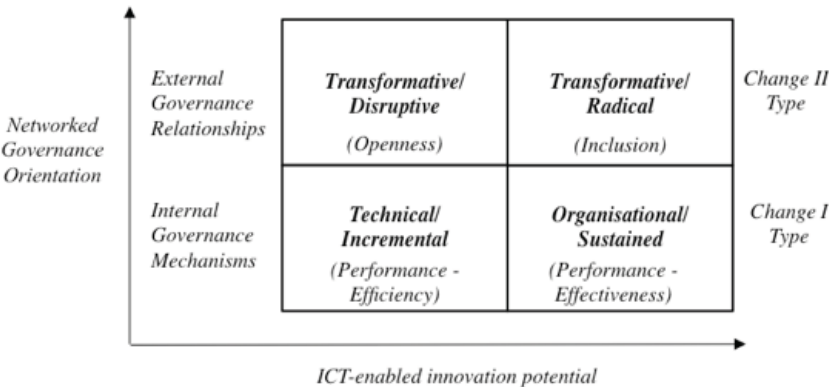


Figure 1. Typology of changes for exploiting the ICT-enabled innovation potential

According to the typology, ICT-enabled innovations can produce changes in governance processes in various ways [13]: *technical/incremental change*, guided mainly by the *performance as efficiency* value driver and enabled by *internal governance mechanisms*; *organizational/sustained change* guided by the *performance as effectiveness* value driver and enabled by *internal governance mechanisms*; *transformative/disruptive change*, guided by the *openness* value driver and enabled by *external governance relationships*; *transformative/radical change*, guided by the *inclusion* value driver and enabled by *external governance relationships*.

In what follows we provide the reader with an application of the framework and the typology to the case of ICT-enabled innovation of Social Protection Systems in the European Union (EU), on the basis of the data from the case studies conducted by the JRC-IPTS as part of the IESI research. The three cases have been chosen out of a pool of 14 in-depth case studies, selected from the JRC’IPTS IESI Database including at present 420 initiatives across the EU, 210 of which have been analysed. The cases have been drawn for the interesting characteristics they present in terms of ICT-enabled innovation ‘within’ the public sector and their potential to transform the social protection systems in different welfare states in the EU.

3 Case studies

3.1 Pôle Emploi 2015

Pôle Emploi, the public employment service in France, launched a “Pôle Emploi 100% Web” initiative to provide free personalized e-support services to its main stakeholders across France to boost employability and employment. The main benefits of the initiative are improving the access, take up, and quality of online services for jobseekers in France. Outputs from the initiative included 700 video interviews and 200 connections to e-learning courses among 1,400 jobseekers signed up in 2013.

The initiative is embedded in a long-term public strategy, aiming at (i) reinforcing counselling services to improve access to job vacancies, (ii) engaging with employers through advisors who inform them about the services provided, (iii) improving the quality of services provided by enhancing physical facilities, transparency, digital access, and access in rural areas, (iv) developing more closer relationships with the State, the regions, and social sector partners. The initiative allows users to establish a contact with a dedicated counsellor, which identifies the most appropriate service options to the user's profile. The service is based on regular and personalized interactions (web cam, mail, chat). The jobseeker also has an access to online content: information on specific trades recruiting, tips for resume writing or for job interviews.

The transformative use of ICTs and social innovations, improved beneficiaries' digital skills and increased employment opportunities, helping fight digital exclusion and reducing social isolation. ICTs, leveraging on a centred and secure use of unemployment information, contributed to an open process of co-creation of employment and employability e-services, based on the interaction between jobseekers and counsellors. ICT solution was based on information and training platforms, online services customized to needs and requests of users, and social networking technologies.

Pôle Emploi's website is the leading French job site in terms of attendance, with 5.2 million monthly unique visitors in December 2014, well ahead of Indeed or Bon Coin, thus can be recognized as a coordinator of French labour market intermediary initiatives, thus an aggregator of other market players.

3.2 *Crossroad Banks for Social Security (CBSS)*

Crossroad Banks for Social Security (CBSS) is a case of combination of back office integration and ePortal solution developed in collaboration amongst about 3.000 social security institutions of Belgian social security services. A network for electronic information exchange has been developed, allowing both cross-sectorial integration between public and private institutions, and vertical integrations among national-regional-local administrations. All the connected institutions can mutually consult their database and exchange up to 220 different types of electronic messages.

The objective of CBSS is to provide socially insured persons and companies with effective, efficient and user-focused services. To this end back office re-organization and integration, and a front office revision have been conducted. The key objective of the back office was to re-organize all processes and relationships with each social security institutions to obtain (i) a proactive, efficient and effective allocation of social security benefits on the bases of the characteristics of the insured person; (ii) electronic sharing of information available in one of the 3.000 social security institutions with all the others; (iii) avoidance of task duplication across institutions; (iv) provision to the policy makers of integrated statistics. The front office was re-organized (i) to deliver integrated electronic services to the target groups in a personalized way, via an access method (e.g. application to application, file transfer, portal) chosen by the user; (ii) to provide users with integrated services that comprise information and transaction which are managed through and integrated customer relationship management system; (iii) to provide personalized service which are based on the logic that the users require.

CBSS is thus conceived as a brand new ICT architecture with five main distinctive dimensions: information modelling, unique collection and re-use of information; management of information, electronic exchange of information, protection of information. Impacts produced are related to (i) significant cost reduction in messages exchange through institutions; (ii) time reduction between the query and the reply; (iii) reduction of administrative burden. The use of the network also offers the possibility and complementary benefits of an automatic granting of certain benefits (old age pensions, complementary benefits on the basis of the social security status, etc.).

3.3 *Italian National Institute for Social Security (INPS)*

All types of services delivered by the Italian National Institute for Social Security (INPS) are available online and payable through the corporate website, the contact centre as well as authorized intermediaries. The scope of the initiative was simplifying the administrative procedures, improving the ease of control of information by citizens, and producing savings in the management for the administration and therefore for the public sector as a whole. Among ICT enabled social innovation factors, openness has in particular enabled the institutional information system to a greater integration with the outside world, with quantifiable benefits of increasing quality of services and in reducing time and costs for service delivery. ICT was crucial for this innovation to be successful, also due to the introduction of processes of IT-demand and governance, and resulted in simplification for the end users and improvements in the welfare benefits rendered by INPS, a long chain “end-to-end” that led to achieve tangible results, through the full involvement of all functions directly and/or indirectly impacted. ICT helped to provide an inter-sectorial integration, fostering the collaboration between government and service delivery providers in private or non-for-profit sectors. Investments made in ICT provided the necessary instruments to pursue improvements in the accessibility, traceability, accountability, monitoring and controlling (which reduced undue benefits and frauds), and in the level of quality of delivered services. The processes managed electronically are now 99.8% of the overall processes.

The digitalization resulted in a reduction in management costs, registering savings in the last three years of 7% a year, and contributed to the recovery efficiency of the organisational system through a more efficient allocation of the internal staff and a decrease in workload, resulting in a savings of around 1,000 full-time equivalent. Leveraging on its capability to allow other Italian Public Administrations to benefit from its application portfolio, INPS is going to play the role of a central “hub” for the Italian Public Administrations, being the owner of the most critical data regarding citizens and users.

4 Conclusion

As shown in the Table 1, the cases analysed all mainly address internal governance mechanisms first. This however does not mean that they are not strongly setting the basis for a fundamental paradigmatic shift in the way these organisations operate and interact with beneficiaries. This is particularly thanks to ICTs that are used in

innovative ways in all cases. More important is the potential use of innovative approaches based on emerging ICTs, such as data analytics and predictive modelling, that are being explored that shows the promising potential for transformation of the social protection systems such initiative may generate in the years to come. This seems to be in line with the fact that innovation in the public sector is often a long-term and gradual process as shown by the Crossroads bank in Belgium and the INPS case in Italy, which are the result of over twenty years of digitalization and adaptation to the changing environment and that may now come to maturity adopting new strategies and technological paradigms. It is less so in the French Pôle Emploi, which seems to have a more user-oriented approach, although results of the impact of the initiative is not yet clear with regard to the contribution to the modernization of social protection in the respective countries. In this regard, it is interesting to note that different *Governance model characteristics* (i.e., state governance system, cultural administrative tradition and socio-economic characteristics of the context of intervention) seem to play a subsidiary role with respect to the potential played by ICT-enabled innovation in supporting reforming Social Protection Systems.

Table 1. Comparison among countries and projects’ characteristics

Initiative	Country	State Govern- ance System	Cultural adminis- trative tradition	SocioEconomic characteristics (OECD Life index 2016)	Value driver	Networked Governance Orientation	Type of change
Pôle Emploi 2015	France	Central- ized	Civil law	6.4	Perfor- mance (<i>Effective- ness</i>)	Internal governance mechanisms	Organiza- tional/ Sustained
CBSS	Belgium	Federation	Civil law	7	Perfor- mance (<i>Effective- ness</i>)	Internal governance mechanisms	Organiza- tional/ Sustained
INPS	Italy	Central- ized Regional- ist	Civil law	5.2	Perfor- mance (<i>Efficien- cy</i>)	Internal governance mechanisms	Tech- nical/ Incre- mental

Some preliminary conclusions however can be formulated. The analysis of the cases in fact shows that ICTs play a crucial role in promoting social innovation and social investment, identifying possible solutions to cope with the increasing complexity of social services delivery. The new technologies support public authorities, working with a smaller amount of resource, in rethinking of the service management and service delivery models, and integrating service providers in order to gain efficiency, help in closing the gap between supply and demand, enhancing skills and capabilities and broadening the range of demands. In this respect, the development of a policy framework supporting the objectives of reform initiative and their sustainability is key, and should go along with defining partnership and commitment between the stakeholders at different levels. At a more operational level, the simplification and

the automation of the procedures increases access to the services, fostering a direct relationship between the providers and users. From the experiences analysed it is thus clear that the active involvement of the beneficiaries and end users enhances the performance of the services delivery system, contributing to the continuous improvement of the services offered. Yet, ICTs are a necessary but insufficient requirement for the achievement of the greatest effect of social innovation and social investment. ICTs development and implementation must go along with an organizational reshaping and re-engineering that can enable organizational structures to cope with the innovations brought by ICTs within the portfolio of services and the service delivery model.

In this connection, although this article provides a first attempt to assess the relationship between different typologies of ICT-enabled social innovation and the broader social protection system in which they are embedded in, further research is needed to better understand the potential impact such initiatives promoting social investment could have on the modernization of Social Protection Systems in EU Member States. For this purpose, the proposed next step of the research is to extend the application of the framework considering more in depth the social investment perspective, as well as enlarging the scope of the research to all European countries and also including non-European welfare models in the human and social services sector.

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