Editorial

Innovative ICT Based Solutions and (Im)migrants Integration

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For (im)migrants, understanding how to navigate a host country and how to access the existing social systems and the public welfare ecosystem are among the most difficult and confusing tasks. To improve their situation, recent advancements in information and communication technology (ICT) and services digitization represent an opportunity to enable (im)migrants to better grasp the complexity of the context in which they are inserted. This oftentimes requires actions from different stakeholders and citizens within the host countries. In addition to wide partnerships, new concepts, ideas, and ICT solutions are also adopted. Facilitating migrants' integration requires a "smart governance" adequately equipped with IT-supported integration services and engaged (im)migrants in the co-creation of IT solutions. They are promising to facilitate integration. However, to what extent can the use of ICT innovative solutions in a collaborative, co-design, and co-creation setting be instrumental in facilitating (im)migrants' integration? This question entails fostering dialogue between governments, business actors, third sector organizations as well as citizens and (im)migrants.

In this special issue, we explore how ICTs can contribute to providing migrants' inclusion and in general how to develop better links between theoretical and empirical research and policy practice related to (im)migrant integration. The collected articles give large emphasis to co-creation with a dual focus: on one hand it entails design suggestions supported by the engagement of all stakeholders including (im)migrants, and, on the other hand, with the co-evaluation, co-implementation, and co-validation of the insurgent solutions. The papers gathered in this special issue represent a collective attempt to bring together explorations of socio-technical innovations in migration studies as well as the identification of promises, pitfalls, and obstacles of ICT based techniques.

As highlighted by the European Commission, social innovation mobilizes each citizen to become an active part of the innovation processes (European Commission 2011). Meanwhile, new technologies can offer opportunities to assist (im)migrants in exercising their rights and accessing services that can help them to better adjust to their new life and feel valued as contributing members of the hosting society. However, to truly tackle inclusion and integration goals, coordinated and ambitious solutions at local, regional, national and supranational levels are required.

A common presumption is that the widespread adoption of ICTs over the last several decades enhances (im)migrants' integration. For example, several studies argue that ICTs enhance migration by improving the quality and quantity of spatial information (among others, see Cooke and Shuttleworth 2018) or enable (im)migrants to communicate more effectively with people and places left behind (Dekker and Engbersen 2014). However, empirical evidence on the relationship between ICTs and migrant integration is limited. Dekker et al. (2015) focus on how the intention to move influences the use of ICTs in the making of migration decisions. There have been few studies on the link between the use of ICT innovative solutions from one side and migration outcomes and migrants' abilities to be integrated on the other (Andrade and Doolin 2016).

In this special issue we acknowledge that ICT represents only one, although very relevant, dimension of complex service design processes that more and more require the

involvement of different actors with the aim to facilitate migrants' integration and to develop solutions that ease becoming EU citizens. Focusing on service design and on the role of ICT in developing better and more effective services for migrants according to their actual needs can be considered one of the integration strategies deployed by single countries, regions, or single cities. In this special issue, we adopted two conceptual lenses to select the articles that are included in it. The first one is socio-technical innovations based on migrants' needs that can be achieved through co-design and co-creation, especially by addressing the identification of societal needs and opening debates around them (Leligou et al. 2021). This approach fundamentally changes the relationships, positions, and rules between and among different involved actors and fosters an open process of participation, exchange, and collaboration with the relevant stakeholders, including end-users. Indeed, it requires crossing institutional boundaries and jurisdictions.

The second lens is represented by challenges and difficulties. We didn't want to catch only successful experiences, policies, practices, and technologies. We wanted to "see and touch" their failures, what did not work, the technologies that were too complex for the context in which they were developed or that were not fully utilized. In this sense, our aim is to contribute to a critical understanding of the nexus ICTs- (im) migrants' everyday life in what concerns access and use of some public and private services that are crucial to support the double way process of integration.

The five articles in this special issue discuss crucial topics such as co-creational approaches for the development of Artificial Intelligence (AI)-based solutions, ICTs and data protection regulations or new forms of digital control over people, especially vulnerable migrants. Leligou and colleagues in "Experiences and Lessons Learnt from the Evaluation of ICT Tools for and with Migrants" first provide an overview of co-designing a platform offering a set of tools to support migrants in their integration into the labour market in European countries. The authors evaluate the platform based on real-life settings in Greece and Spain through co-creation approaches. Through a series of assessments and collected feedback the paper finds that ICT tools are well accepted and appreciated by the target group to better navigate their needs. According to the authors, this high level of acceptance was achieved mainly due to the adoption of the multi-round co-design and co-creation approach.

In the second article "Participation and Iterative Experiments: Designing Alternative Futures with Migrants and Service Providers", Pollini and Caforio (2021) examine the theoretical approaches and designing processes of an AI-based digital companion by adopting participatory, iterative, and experimental co-creation approaches. The main objectives of their ICT-based solutions are highlighted as facilitating access to information for migrants and refugees as well as developing a dashboard for local service providers and validating the socio-economic impacts of the proposed solution in three countries, Italy, Spain and Greece. They indicate that service design and strategies cannot aim at a "one size fits all" solution due to the diversity of needs, challenges, and conditions of individuals.

Migrants' data protection is, without doubt, the most concern that has to be tackled especially when it comes to the (im) migrants' integration through ICT innovation solutions. This is precisely the subject of the paper by Zomignani Barboza and De Hert (2021) on "Data Protection Impact Assessment: A Protection Tool for Migrants Using ICT Solutions". The authors strongly argues that data protection assessment should consider not only the impacts related to data collection but also the specific situation and status of migrants. This article evaluates the status and prospects of Data Protection Impact Assessments (DPIA) and adapts them to the contexts in which they are deployed as well as indicate how to ensure that the specific aspects of handling migrants' data are considered in the process. The results show how a tailored impact assessment can provide significant knowledge to identify the risks and benefits of developing tools for migrant integration.

The article by Concilio et al. (2022) on "Co-Designing with Migrants' Easier Access to Public Services: A Technological Perspective" provides a co-design learning framework for the development of hackathons with the aim to ease migrants' accessibility to public

services. The paper highlights the crucial role of collaborative design to develop ICT solutions for and with migrants to overcome the bureaucratic and idiomatic barriers they experience in their interactions with formal procedures. The authors emphasize the relevance of interconnecting stakeholders in the co-design of services and enriching technology application developments through user-centric approaches.

In the last article of this special issue, the focus moves to the evolution of European integration strategy and the recognition of the fundamental rights of migrants with the paper by Regina and De Capitani (2022) on "Digital Innovation and Migrants' Integration: Notes on EU Institutional and Legal Perspectives and Criticalities". It offers an analysis of the current integration strategy and the possible alignment with the new European Digital Agenda. Meanwhile, the authors clearly highlight their concerns about infringing on data protection principles and establishing a mass surveillance framework. They propose rebalancing the legislative and operational point of view to avoid risks and to facilitate smooth integration and inclusion into European society.

To conclude, we want to express our gratitude to the authors and to reviewers, not only because they have provided valuable knowledge on this immediate and tangible topic of migration integration through ICT innovation solutions, but also because they have undertaken multiple revisions in the course of valuable conversations that have contributed to crafting a quite comprehensive special issue.

Author Contributions: Conceptualization, M.K., G.C. (Giuliana Costa) and G.C. (Grazia Concilio); writing—review and editing, M.K., G.C. (Giuliana Costa) and G.C. (Grazia Concilio). All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest: The authors declare no conflict of interest.

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