

OPEN LINKED DATA, DIGITIZATION, COLLABORATIVE MAPS AND DRONES INNOVATING THE CADASTRE AND PUBLIC ADMINISTRATION

This issue of *Territorio Italia* focuses on the contribution that “digitization,” understood as an enabling instrument, can make to public administration, in terms of both policies and of a view to shared administration. Federico Morando makes a major contribution with regard to the line maintained by the journal, which since its creation had considered cadastral databases to be the “heart” of LISs (Land Information Systems), conceived as a land governance tool and as an occasion to reform public administration. The Author outlines the potentials that the “open data of public administration,” conceived in accordance with Open definition, might have. Morando discusses the legal aspects, outlines the regulatory framework, and examines the technological aspects, starting from the Recommendations of the European Commission and of Agenzia per l’Italia Digitale (Digital Agency for Italy). In particular, the linked open data approach might permit semantic interoperability and interchange of data within individual administrations or between different ones, thereby considerably increasing knowledge for various potential users, including the citizens themselves, and economic operators. The Author also recognizes the importance of georeferencing the data and the positive implications on the level of local policies and for geospatial analysis of the phenomena, on which the journal has published many articles. The Author discusses the case of open data on public property assets, identifying where they have fallen behind, but also their potential. This topic, of fundamental importance both with regard to the aspect of managing public property and as concerns any disposal, is treated both locally and nationally in a highly fragmented way, while a more detailed and spatially georeferenced knowledge might better support land development policies. Morando’s article makes immediate reference to the theme of reforming the Cadastre and the database, offering a glimpse of the innovative role that open data and linked data might play in creating a more collaborative Cadastre. He also makes immediately reference to an issue often dealt with by the journal: the “opacity of the real estate market” in our country, which entails constraints on the application of mass appraisal in estimating the market values of properties on which to levy real estate taxes – an estimate on which the fairness of real estate taxation depends.

This first article in the Journal lends itself to being linked to subsequent ones. Agostina Lodde analyzes, albeit mainly from the standpoint of law and of institutional arrangements, the European systems of real estate registration. The Author outlines a general yet useful overview that merits further analysis in upcoming issues of the Journal, specifically in accordance with the aspect of the technologies used in the various countries, with the aim of identifying the most advanced models. Property registers have considerable importance given the dual nature of “document registers” and “rights registers,” which are “tasked with publicizing the titles and protecting the property rights of third parties.” Lodde’s article analyzes the dominant legal traditions: the Civil Law prevailing in continental Europe and the Common law of the English-speaking world. As in the case of the interoperability of local and national public administration databases, the prospect is opening on the European level to interconnect the various European countries’ real estate property registers, in such a way as to facilitate the circulation of real estate information for professionals and citizens. Again in this case, it bears stressing that new research frontiers may be opened for university institutions as well, with analysis potential that expands the territory and once again incorporates the spatial dimension of economic and social phenomena. The real estate registers may thus be considered a genuine source of information and data that go beyond the purposes inherent to protecting rights. With Lodde’s article, the Journal aims once again to solicit contributions pertaining to the various countries’ specific features, in order to understand the potential for a Europe-wide recomposition, starting from the legislation regarding the legal, tax, and economic aspects in the real estate sector, considered in the broader sense.

Garnero and Ferrante's article discusses the results obtained from geotopographical information thanks to technological progress, and in particular to drones carrying sensors photogrammetric aloft in order to acquire territorial information. The interest in this article is due to the fact that the Authors analyze the potential for using these new technologies in cadastral activities in the future. Emphasis is placed on the role these new technologies might have specifically in the Reform process that has begun, highly concentrated on problems related to appraisal and perhaps little attentive to the role they might have overall. With them, a more collaborative and innovative cadastre can be developed, thanks to technological innovation considered as an enabling instrument capable of having multiple impacts both economically and socially. This is clear when considering the effect it may have in the development of new professions. The essay is noteworthy in that it responds to the Journal's objective of giving space to collaborations between authorities and universities to foster Best Practices. The results are due to the activities performed in the CAT-APR project, carried out in collaboration between the Italian Revenue Agency (Agenzia delle Entrate) and the Inter-University Department DIST of Politecnico di Torino and Università degli Studi. The Authors outline the regulatory setting, reconstruct the current state and photogrammetric applications in history, and anticipate the use of drones in cadastral applications, reporting the experimental results.

Coscia and De Filippi deal with issues of ICT as a means and not an end, and in their employment in collaborative digital platforms applied to urban planning and to shared administration: the Authors' outlook is that of city users through their active involvement. These questions are read critically and with outlooks for development in applied research starting from the results of the MiraMap pilot project, in Turin, in the Mirafiori Sud district, particularly for the aspects involving: trialling – thanks to the availability of new 2.0 technologies – a model of public administration/citizen collaboration in the process of surveying and analyzing needs; planning the interventions; capitalizing on resources; designing services; and territorial governance. The project implements and develops a prior experience from 2013 (CrowdmappingMirafioriSud) and highlights how the use of ICT can foster processes of transparency and strengthen the accountability of public administration, provided that the technology is a factor of enablement and not of social exclusion. The application of a methodology, based on the known Community Impact Analysis/Evaluation method, for ex-post impact monitoring and assessment is interesting (and original for the trial setting). A reading of its preliminary results, highlighted in descriptive form by the nature of impacts – financial and otherwise – generated by the project, in relation to the various parties involved, shows how no interest group was penalized by use of the MiraMap platform, aimed at supporting administrators in governing the territory, right down to the micro-design of public spaces.

Antonia Gravagnuolo re-proposes the use of “collaborative mapping” (Volunteered Geographic Information – VGI) for the construction of maps of cultural services, which employ the users' direct experiences. All the articles in this issue of the Journal are aware of the importance and potential of territorial information supported by GIS (Geographic Information System), responding to different purposes. All the proposals can find further developments through open linked data and thus support both public administration and cultural institutions which, as in Gravagnuolo's article, have the purpose of allowing the landscape to be enjoyed. On the topic of the landscape, the Author adopts UNESCO's historical recommendations on Historic Urban Landascape (HUL – UNESCO 2011), rearranges the approach of ecosystem services in the literature, and more deeply examines the case study of the Amalfi Coast, proposing a genuine methodology for constructing objective and shared maps of the landscape's cultural, recreational, and tourism services, based on the complex relationships that bind people to the landscape.

