Smart citizens, smart administration – between rights and responsibilities

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Abstract

This paper`s objective is to offer an assessment of the level of accomplishment of the country`s obligations in smart developing the public systems of the local authorities, the citizenry`s competencies and also the way in which the fundamental rights are known and respected in the elaboration and implementation process of the local digitalization strategies.

Romania`s sustainable and intelligent development needs theoretical models, but also best practices where respecting fundamental rights and liberties should be valued. The public sector, the local administration`s services have to evolve and modernize for a smart and digital functioning in the use of citizens and with their support. Digital transformation through less bureaucracy and by walking through the specific steps – the digitization (by obtaining data) and the digitalization need to take in consideration also guaranteeing the constitutional rights and liberties. Conforming with specific rights and liberties legislation during the process of obtaining the status of an intelligent city represents a right and also a responsibility, in equal measure, for both citizen and authorities. Identifying and adopting policies, methodologies and developing practices of public systems as to become intelligent cities have to harmoniously incorporate legislation, technology, predictability, feasibility and acceptance by the citizen as a final point in the curve of a realistic level of expectation.

It is the state`s obligation to educate its people and companies regarding the benefits offered by the technology of information and by the electronic public services, to elaborate national plans for developing the digital competencies of citizens, but also of public administration, to elaborate and implement regulatory, supervisory and control measures of the digitalization process respecting the fundamental rights and liberties of its citizens at the same time.

Thus, two case studies will be presented and their means of application, by two city halls, the local digitalization strategies for optimizing the interconnection between citizen and public services.

Keywords: *the state`s obligation, digital competencies, regulatory, supervisory and control measures.*

Development of public administration services by smart technologies which are interactive with citizens is essential regarding several aspects: the subjectivity of the clerks is eliminated; time for answering the petitions is shortened; it allows solving them in a flexible schedule, according to citizens' time availability; it facilitates interconnecting the 'counters', meaning that various requests can be accessed by a single application; it sets up 'zero corruption'. Last, but not least, such a system stimulates citizens' pro-active attitude to use and update their IT knowledge.

A few decades ago, smart city objective seemed a SF issue, but nowadays it becomes both a new paradigm for organizing public servicesand a necessity which determines the economic and social development of community.The entire processis placed at crossroads, between two realities.On the one hand, theauthorities' requirements diversified and citizens' expectations related to them increased. On the other hand, IT technologies progress led to their simplification, so they can be largely accessed and, consequently, new procedures of communication between state and citizen can be adopted.

The range of smart technologies applicable to administrative issues is more and more diverse, so that they are practically available for any urban locality regarding costs, as well as adequacy to the community needs. Smart development of community can become real by identifying those dysfunctional points of bureaucracy, by rational dimensions of normal administrative procedures for a city to function and by political will to consistently diminish citizen's dependency on clerks' moods.

Smart city involves a profound knowledge of the realities in that community and a will to set up a new relation between citizens and authorities by a rapid and exhaustive communication, disregarding the political 'brand'. It represents a means to ensure citizen's access and contribution to the local policies, his involvement in local authorities' decisions, his consulting regarding the local budget projection and spending for the real needs of the community.

Solutions for smart city are based mainly on ensuring citizens' rights and raising citizens' awareness of their responsibilities, as well as on understanding what participative democracy means. The most important feature of smart technologies consists of allowing citizen to be placed in the circuit of administrative decisions. The rest represents effects: beginning an open dialogue between authorities andcitizen, identifying certain commonly agreed directions and realizing certain predictable programs for local development.

1. If there is no law, there is nothing

Smart technologies have one more effect: they prevent administrative bureau cracy to make some arbitrary, subjective decisions. For example, the famous 'approvals' continuously required from all kind of authorities in order for a citizen to get an authorization for construction are a kind of surgical knife used by a monkey. However, accessing that information *incloud* would make public authoritynot feel that 'authority' means dominating the citizen instead of serving him.

This reality leads to the truism according to which nothing is going to be done by itself regarding smartification of the administrative procedures unless a legal compulsory framework, including sanctions is adopted.

Nowadays, the internal frame for regulating this domain is vague and insufficient, rather optional than compulsory and rigorous. Smart technologiesoccur more seldom in various electoral programs and political engagements, but not in the set of obligatory features for a job description at the level of local stakeholders. It is not about those authorities are not able to configure a visionary plan, but they manifest rather reluctantly regarding this type of construction which is indispensable for the future of a country risking to remain disconnected from the global network of smart technology, involving all the implications of such a self-exclusion.

The direction of civilized world towards assimilatingsmart technologies in the publicsphereis obvious. The phenomenon can be stopped. The advantages are unanimously recognized. Still, the problem is just the pace of each community integrates in this rhythm. In our country there are all types of national strategies, 'feasibility studies' or plans at local or national level, but when it comes to real actions, there are only few and sporadic examples.Regulations in this domain are insufficient and lack predictability. Few examples are presented below.

By Ordinance of Education Ministry no. 2276/2020-2276/6152 regarding the assignment of "Eugen Ionescu" scholarships for 2020-2021, published in the Official Monitor no. 18/ 01.08.2021, only three universities in Romania, i.e. "Alexandru Ioan Cuza "University, "Asachi" University in Iaşi by the Facultyof Business Administration and Faculty of Civil Engineering and Building Services, as well as the Technical University of Building Services Bucharest by the Faculty of Civil Engineering, offer scholarships in the domains: *smart society*, *smart cities*.

By adopting the Decision no. 2010/40/UE of the European Parliament and of the Council regarding the frame for implementing smart systems of transportation in the domain of rode transportation and for the interfaces with other types of transport, released in Official Journal no. 39L/16.02.2016, European Commission invited European standardization organizations (ESOs) to elaborate the necessary standardsfor implementing and operational use of STI (smart transportsystem), respecting the conditions of inter-operability, compatibility and continuity.

The Directive no. 2010/40/UE sets up the necessity ofcertain urban-interurbaninterfaceswhich allow the inter-operability andthe continuityof transport services, disregarding thenetworks and borders. The urban areas are identifiedas "priority areas", optional for applying some services of informing in real time about the traffic. The first and the last kilometers of a journey for persons who travel usually belong to urban areas, so this information is essential for providing some informing services regarding the multimodal journeys at the EU level, which may contribute to a mobility without syncope.

Among the objectives set up by this Directive, the requirements regarding the increased efficiency and safety of urban mobility were included in a set of recommendations entitled "The Package regarding urban mobility", adopted in 2013, including domains such asurban logistics, regulations regarding access in urban areas and taxes for the users of roads, coordinated implementation of smart systems of urban transport and road safety in urban areas.

As for the local authorities' interest in developing and implementing smart projects, it would be necessary to initiate a studyregarding isolated experiences in implementingsmarttechnologiesaccording to some special decisions of local councils, which have successfully integrated the concept of urban lasting mobilityand developed it for the local communities.

Mobility planning – a term which needs clear defining- represents a key-element for the durable development and one of the most important challenges for the present cities.

The opinion of the community should be found and valued before the implementation of a city-mobile net project (application for urban mobility) begins, because it is about the quality of life in community and the strategy for urban mobility. In contrast to traditional approaches of transport planning, the new concept focuses especially on involving citizens and all the parts, on coordinating the policies among sectors (transport, land using, environment, economic development, social policies, health, safety etc.), among the various levels of authority and among the adjacent authorities. Sustainable plans of urban mobility require a long-term sustainable overview for an urban area, which take into account the extended costs and benefits for society, with a view "to internalize the costs" and to highlight the importance of evaluation[26], accompanied by a diversity of local specific challenges and needs. The reaction of community after those measures are applied alters the quality of the relation between authority and citizen, as it is questioned the stakeholders' good intention and it risks to compromise the involvement and the set of ideas and solutions that could have come from the local community.

The Decision no. 81/2017 regarding the modification and completing the National Strategy for research, development and innovation 2014-2020, approved by the Government Decision no. 929/2014 published in Official Monitor no. 155/02.03.2017 regulates, among others, Romania's participation in the European process of research, development and innovation, by assuming the role of leader or important actor of different research infrastructures. The regulation aims to stimulate interdisciplinary technological cores (*clusters*) by supporting many smart specializations, subordinated to the concept of *smart city.* Such solutions for integrated infrastructures for the needs of inhabitants in crowded urban areas determines our country participation in "the conceptual development, designing and using certain European research infrastructures, while the national scientific and technologic community expresses firm positions in this respect and there is a critical mass necessary for an important position in that infrastructure". The above-quoted decision mentions the existence of such projects, some of them emergent, included in national or European strategic documents, for examplethe roadmapfor Research infrastructures ESFRI (European Strategy Forum on Research Infrastructures) or the national one elaborated under coordination of CRIC (Romanian Committeefor Research Infrastructures), or those explicitly mentioned in the Government program at that time.

[26] https://www.eltis.org/sites/default/files/BUMP_Guidelines_RO.pdf, accessedin 02.12.2021

2. Legislating is a hub of paradoxes

In the introduction to the National Strategy for Research, Development and Innovation 2014-2020, it is stated that, judging by both international standards and internal needs, Romania does not have enough researchers. The critical mass of human resources for developing certain promising domains is missing and especially for interdisciplinary research and innovation.

The number of researchers in the business domain is decreasing, while the big companies with branches in Romania seem to be rather reserved when it comes to developing some local research centers and ranging the respective activities as research and development activities. Intra and inter domains mobility is limited, having a negative impact upon the circulation of technical knowledge and innovation. The access of private sectorto the public infrastructures of research is difficult, the provided facilities are limited and, consequently, the degree of using these facilities is low.

Admitting the reduced dimensions of the research and development sector in our country, the above-mentioned Strategy considers that the main cause for this reality is the reduced funding. In absolute figures, Romania spends almost 20 times less than the European average per capita for research and development. On the other hand, "the demand for research and development is reduced, it is not sufficiently stimulated and it does not sufficiently stimulate other economic sectors". The conclusion: "The research and development domain prove to be weakly connected both to the business environment and to the society, in general. Under such circumstances, innovation does not represent a central factor of economicand social development in Romania".

The state proves to be a weak partner in the domain of research and development, lacking vision and not allotting financial resources to capitalize smart technologybenefits, leaving the responsibility for adopting it to the business environment and local communities.

However, there are sufficient normative acts adopted rather for respecting Brussels recommendationsthan for respecting certain internal needs. When it comes to legislating, we represent a hub of paradoxes. A good example is the Ordinance of the Government no. 88/2020 regarding financial support allotting for preparing a portfolio of projects considered to be priorities for 2021-2027, which are to be proposed for financing from European fundings in the Operational Program Technical Assistance 2014-2020 and in the Operational Program Large Infrastructure 2014-2020 which aim also the domain of smart technologies specialization.

The Ordinance of the Government no. 156/2020 regarding certain measures for supporting the territorial development of urban and rural localitiesinRomania stipulates that urban administrative-territorial units, i.e. cities, sections in Bucharest and the areas with rural localities in their administrative-territorial structure, can include in their extended territorialarea a seriesof smart solutions, called *smart village* and *smart city,* which are to be financed from the non-refundable European funds, allotted to our country for 2021-2027.

The state and local authorities have to offer legal instruments to facilitate the access and implementation of informationaltechnologies, stimulating – or/and

compelling - local communities to put a rush on the transition to functioning in a smart system.

3. Information is power; how is it going to be used?

All the aspects the local administration is responsible for, which ensure the normal functioning of a community– transport, health, education, communications, services – need to be known and functional, but the dysfunctionalities need also to be identified, to be able to eliminate and to prevent them. Especially urbancommunities need and should use, if it is possible, all the facilities of urbane smarttechnologies, especially in the benefit of vulnerable groups. With a view to this, it is compulsory that the legislative platform for implementing the practical means and solutionsof using thesmarttechnologyensures the fundamental rightsfor each citizen. *Smart cities*represent a frame which has to guarantee the individual freedom and rights, offeringeach member of that communitythe certainty that his/her private life is protected from any intrusion or unauthorized surveillance.

The fundament of each smart application is the respect for human dignity, for the citizen rights and liberties, disregarding the nature of publicservices based on smarttechnology. Respecting this fundamental conditiondetermines the citizens' participation in making decisionsby local authorities, as well as their trust in the usefulness of newtechnologies. In order for a functional smart city to be developed, it is necessary for the citizen to understand, feel and behave as a reliable partner, to be listened to and respected.

Participative democracy is as important as facilitating the urban mobility by smarttechnology, developed especially according to the needs at local level, having connections at national level, when it is required. The process could begin with simple stages, such as the possibility to connect an entire section to smart energy or the possibility to develop smart delivery services at local level.

In all the situations, theconstant challenge of implementing anyadministrative smart solution refers to the degree of awareness of both local authority and citizen regarding the mutual responsibilities and respect the citizen rights and liberties.

4. Smart involves a collective wisdom

Smart cities mean much more than collecting data by the services of local public administration or by the applications introduced in the election procedure. One of the most important civil rights stated in the article no. 36 of the Constitution, referring to the guaranteed right to vote ensures the sovereign power of the citizens. Holding this legitimate and fundamental power is obligatory accompanied by the civic responsibility. This means that it is essential for all to vote after having been well informedand "to makea distinction between the electoral campaign promises and political programs and platforms program, on the one hand, and the things that can be accomplished and are important for us, on the other hand"[27].The concept and

[27]https://romaniansmartcity.ro/wp-content/uploads/2020/09/Ghidul_Alega%CC%86torului_Smart_2020_Asociat%CC%A6ia-Roma%CC%82na%CC%86-pentru-Smart-City.pdfaccessed on 02.12.2021

the implementation of *smart cities* are important for each citizen who will come closer and closer to the challenge of *smart citizen*.

There are very generous "smart levels" for developing the new local policies, such as connecting to the sources of electric power or the issues related to the old persons without families.

The issue referring to the aging of population should become a priority for society, also by designing and developing some ways for the seniors to access various services and their possible interconnection by smart technology. This type of challenges belongs to a perspective of smart cities development in the near future. The smartness of the cities lies in the level of applying smarttechnologies, both in the local administration and in the citizens' life, according to their needs. The concept ofsmart city refers to the level of collective wisdom of administrative and civil community.

During the process of applying smart technologies, each city faces the difficulty of finding a fair balance between respect for human dignity and citizen rights, on the one hand, and facilitating the access to high quality services, with proficient technologies, on the other hand. This represents a sensible problem, especially because a part of the datacollected at local level are centralized and relevant at national level. In particular, it is aboutdata referring to real estates and movable properties, to those goods which are subjected to local taxes.The possibility to pay the taxesusing the private mobiles raises questions about how the private dataare managed with full safety and how these data are used related to the governmental data.

These aspects represent real challenges because the possibility to collect such a huge amount of data should correlate to the guarantee of their protection. The measures and instruments of smart technology should include proceduresas smart as them, that could guarantee the constitutional rights regarding the protection of personal data.

In this respect, an old piece of news in the American media is famous:"The piece of news about the robot from Boston Dynamic that saved the hostages is less visible than the piece of news about the voice and behavior of a person that were perfectly simulated and used in a penal trial "[28].

The fact that this represents a vulnerable issue has been proved during the pandemics, too. Romanian society is divided by the procedure of restricting the access in various public areas on condition of scanning the QR codes of green certificates. The opinion that the respective scanning is, in fact, a hidden illegal procedure to access private data becomes more and more popular.

The general assault of the instruments of smart technologyrequires rules and basic principles to guarantee they function for the social benefit and in safety conditions, respecting the right to private life and for human dignity, as they offer reliability and full transparency, they respect confidentiality, values and principles of social relations ethics.

[28]Claudiu Marin DRĂGUȘIN, *Stadiul actual al eticii în domeniul iinteligenței artificiale*, Revista Dreptul nr. 3, 2020

5. The demands of using smart technologies

On April 8, 2019, the European Union communicated its vision regarding the ethicsof using the artificial intelligence.Referring to the use of thistechnology, there are formulated several requirements, in many directions:a)human involvement and surveillance: artificial intelligence systems should facilitate the existence of certain reasonable societies by supporting the involvement of human factorand by respecting the fundamental rights, without reducing, limiting or compromising human autonomy; b) robustness and safety: anartificial intelligence which we can trust requires the algorithms to be safe, reliable and solid enough to face the errors or inconstances during the entire period of functioning for artificial intelligence systems; c) respecting private life and data governance: citizens should have full control on their own data, which should not be usedfor their discrimination or prejudice; d) transparency: trackabilityof artificial intelligence systems should be ensured; e) diversity, non-discriminationand equity: artificial intelligence systems should take into account the entire set of abilities, competences and demands from the human factor and ensure the accessibility; f) social and environmental wellness: artificial intelligence systems should be used to accelerate positive social changesand to favorthe durable developmentand ecological responsibility; responsibility: there should be set up devices to ensure the responsibility and liability of artificial intelligence services and their actions"[29].

Respecting such requirements and principles contributes to identification, developmentand implementation of the best social policies. Once they are offered to the human resources involved in this process, the real challenge becomes using them for thedevelopmentof the most opportune and efficientsmart solutions. The interface isprovidedby computersand smart deviceswhich arecontrolled by people. But what happens when these devices fail or are out of order and the data collected in their storage space are likely to be lost or irrecoverably deleted? That is why their sustainability becomes a very important issue.

The pace of progress for smart technologies permitted the emergence of quantum computers, which wil linterferein virtual currencies cryptography. The universe built in these virtual coordinates seems to be over whelming for many people: „Crypto currencies have the potential to change the finances, by eliminating the intermediates and by bringing accounts to millions of nonbank persons in the entire world. On their turn, the quantum computers could change the way pharmaceutic products and materials are designed, by their extraordinary power of processing. However, there is a problem: block chain technology that provides crypto currencies could become vulnerable to sophisticated attacks and to fake transactions, if this quantum computation grows faster than the effortsto make digital money. Crypto currencies are secured by a technology called block chain, cryptography with public key. The system is present everywhere. It protects your online purchases and it jams communication sfor anybody else but the targeted addressee. The technology functions by combining a public key, which anybody can see, with a private key. If the present progress goes on, quantum computers will be

[29]Idem3

able to hackthecryptography with public key, creating a potential threat which is extremely seriousfor the crypto world, where some currencies are evaluated byhundreds ofmilliards of US dollars. In case the encrypting is interrupted, the hackers can violate the identity of legitimate owners ofcryptocurrencies, of NFTsor other digital actives"[30].

Facing such challenges, what could be called the legal safety of various technologic applications gets really important. "The concern for guaranteeing the legal safety is real inRomania, where the quantity of legislation increased, as a consequence of an increased complexity of law domain, determined by the development of new sources of law, especially the community and international ones, as well as by the evolution of society, of the emergence of new domainsof regulations. (…) In other words, does the activity of legislating ensures the quality of law, with respect to its conformity to the principle of preeminence oflaw and to the principle of the law safety, in its largest acceptation? The jurisprudence of Constitutional Court and European Court for Human Rights, recently marked by more and more frequently reference to the demands regarding the accessibility and predictability of law, can represent an answer to this question and, in the same time, a signal regarding the necessity to take action with a view to remediate certain deficiencies affecting more and more profoundly the Romanian judicial systemand, implicitly, the existence of the state of law. (…) The importance of respecting the principle of juridical safety for theexistence of the state of lawrequires a greater attention paid to the quality of law. As a consequence, even if the huge increase in number of the normative documents and their complexitycould be justified by historical, sociological, political, economic factors, an effort to impose discipline to the regulating excess, to subordinate the decreed norms to the strictness of juridical safety is necessary. It is an effort for theprimaryor delegatedlegislatorsand it involves the diagnosis of the problems, identification of adequate remedial actions, in the sense of organizing the activity of legislating by a rigorous underlying on the principles of legislative technique and by increasing the accessibility and predictability of the juridic norms"[31].

The above-mentioned aspectsprove that there are sufficiently enough solid reasons for the concept of *smart cities* should not remain above the citizens, as a mysterious system used by the people "chosen" or "designated" by therespective political regime, but, with respect to the state, it should become a subject ofpassing towards innovative waysfor the life of the communityand the relations between citizen and authorities, where the first one holds the priority.The specialists consider that the optimal transitionconsists ofsmall segments, in domainsof activity closely related to the citizen, so that monitoring the new procedurescould be realized as easy as possible. It is rational and practical to advance by step by step, stage by stage, in restrained areas so that, when a well-functioning modelis achieved, it could be applied at regional or national level, witha risk for an error to appear as reduced as possible.

[30]Cryptocurrency faces a quantum computing problem - CNETaccessed on 02.12.2021 andhttps://www.digi24.ro/stiri/sci-tech/lumea-digitala/doua-tehnologii-sunt-aproape-sa-schimbe-lumea-dar-ar-putea-intra-in-confruntare-directa-1734609

[31]https://www.ccr.ro/wp-content/uploads/2021/01/predescu.pdf accessed on 02.12.2021

Digitalization at the level of small localities/ cities represents a feasible objective because it allows testing and adapting the smart procedures to a more reduced extent, before generalizing them at the community or regional level.

6. Case study of pandemics

Real democratic societies are able to propose solutions for development and improvement of the relations between citizens and authorities. This requires powerful cities, local authorities willing to innovate and a real local locale autonomy.

Applying the public health policies decided at central level and implementedat local level, under pandemics conditions, especially regarding the access of students and teachers to the Internet network for on line education process, developedenoughgapsin the progress of this new and innovative form of didactic activities. Theavailable instruments for accessand the devices that wereusedshowed great differences among cities, rural and urban localities. Yet, suchdifferences generate irremediable consequences for theeducation andself-developmentof each childorteenager in those localitiesthat are not prepared for this exam of IT modernity. It was the first lesson and we need to learn from it that, before the transition to a more sophisticated conceptualization of smart cities, a good starting point in the system of developmentof asmart communitywould be the urgent effort to reorganize/reconstruct thefunctionalstructureofschoolswhich the local councils are in charge with, so they become efficient in the situation when on line education is required. The state should remain responsible for providing the necessary infrastructure, including also the partnership with the privatecompanies in the domain of digitaltechnology.

How many of the private companies in Romaniaare willing to offer solutions for smart cities? Or should the solutions come from the society, while the state should ensure the hub for connecting and implementing them? Smart community is not achieved by and reduced to purchasing innovative products. There is need for much more. The three actors – the local authorities, the companies involved in corporative governanceand the citizens should find means to work together in order to identifythe best innovativesolutions, that could be useful for everybody. If the stateis not a partner for citizens and companies in the domain, the solutions reached at or/and purchasedwill not be compatible with our rights and liberties, but they will match certain special, particular interests, to the detriment of smart cities project, without serving the realinterests of people and society.

Smart Cities should serve peopleinterestsand not confer morepower to authorities, who would become more able to strictly monitor citizens. **Smart Cities are forcitizens, not against them!** We should stay together for the civil development of this concept and for guaranteeing the citizens' rights and liberties when it is realized.

This is the instrument by which the cities could and should learn one from another. Local authorities need to identify legal solutions, while the state needs to ensure the legislative competitional support.

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