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#### In the Public Eye: Toward the Electronic Transparency of Planning Process

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## 1 ABSTRACT

The numerous technological possibilities have significantly improved the performances of contemporary planning. The open access to information and continuous upgrading of data bases have certainly raised the level of interaction between planners/professionals and public audience/users, leading to a better understanding of sensitive urban mechanisms, anticipated development options and available spatial resources. The digitization of planning process has also become an important issue in developing countries, especially related to problems of public participation and visibility of information.

Similar problems were detected in Serbia, causing delayed implementation of plans, but also blurring investment possibilities. However, during the last decade a number of planning institutions have been using web platforms to present different planning documents to the public, facilitating communication with different groups of users and providing valuable information about planned transformations.

The paper discusses a relationship between contemporary cities, their digital skeleton and planning trends, focusing on the expected and achieved transparency of planning process. The case of Serbia is emphasized, considering the possibilities of digitization in the field of planning/urban development. The selected examples (Pozarevac, Belgrade and Zrenjanin) will be presented, the main elements of the applied enetworking will be analyzed and the possible obstacles in a process of upgrading will be identified.

## **2 INTRODUCTION**

The city of the 21st century has gradually become an open system shaped by the increasing significance of technology and information. The role of planners is changing and adjusting to new trends, shifting the focus to innovative methods, techniques, strategies and procedures. The upgraded complexity of planning has become a necessity of/for further urban development which should provide better understanding of fast-changing urban processes, efficiently tackle the problems of multiplying urban realities and facilitate preferred inter- and multi-modal nature of urban spaces.

The existing technology, with its various applications and implications, is frequently labeled as an important element of urban culture. Reflecting its power on all levels and scales, technology pervades cities, stimulates interaction between urban space, urban society and innovations, and opens numerous perspectives and possibilities. However, urban socio-technical change could face problems of obduracy/inflexibility, which might reflect in urban development. Hommels (2005) identifies three different conceptions dealing with this problem - concept of frames, embeddedness and persistent traditions.

The concept of frames could be found in urban planning and design and applied to situations in which both users and planning/technology experts are restricted by the rigid ways of thinking and interacting. The concept of embeddedness emphasizes the importance of interlinked social and technical elements, clarifies heterogeneous nature of a city and its networks and considers technological inflexibility of urban systems or their elements. The concept of persistent traditions is focused on structural, cultural and symbolic factors influencing the inflexibility of urban structure and its technological background.

Technology also provdes new tools which might help citizens to find information, connect with others (groups, communities, experts, administrative bodies etc.) and to participate in planning process transcending traditional spatial, social or economic boundaries. Simultaneously, technology increases efficiency but often decreases opportunities for socializing and making contacts. Changing the traditional dynamic and the rhythm of everyday life it also affects space organization and emerging typologies in many ways.

# **3** CONNECTING THE PLANNING REALMS

The link between cities and advanced technology has generated numerous alterations in our perception of urban surrounding, processes, groups and individuals. Digital and physical worlds have become intertwined, allowing mutual recognition and more-less synchronized functioning of both multiplying communities and challenging identities. The way we communicate also defines urban planning and design. Consequently, the performances of the current technological realm guide our actions in physical space, as well as within numerous analogue and digital networks.

## **3.1 Public participation**

The real effects of public participation in the process of urban planning have often been questioned both by numerous authors and the public. According to Fung (2006), by applying a synchronized participation of citizens and government in the planning process it could be possible to achieve three democratic values - legitimacy, effectiveness, and justice. However, the problems related to the involvement of representatives of all citizens, relevant inputs and ability of citizens to join the process are still present and mostly unsolved. Still, the active public participation, which includes more responsibilities for the planning outcome and implementation, has also been recognized as a precondition of sustainable urban development.

It is important to notice that we can identify several groups of participants in the process of decision making, but they rarely represent all interested parties. In general, these groups are determined by their role in planning process, as well as by their potentials, resources, knowledge and level of influence. Therefore, we can distinguish three main categories - the professionals (in charge for the proposal of the plan), the decision makers (local government and city authorities) and the public (which has to be well informed, highly motivated and trained to act and contribute to the process).

The theory and practice of participation has evolved since 1969 and the famous Arnstein's essay "A Ladder of Citizen Participation". In general, a contemporary political theory has distinguished two modes of decision making - aggregative and deliberative (Cohen, 1989; Gutmann and Thompson, 1996). Simultaneously, the practitioners have developed many methods and techniques in order to recruit participants (e.g. random selection - Fishkin, 1995), to facilitate meetings and to design entire participation processes adjusted to possible (and inevitable) civil disputes, regulatory challenges and law making (Connor, 1988; Creighton, 2005).

The trend of public participation also affected the methodology of planning process. Instead of experts and urban administrators who were traditionally in charge of creating urban plans, the contemporary comprehensive planning includes and supports an extensive involvement of citizens and nongovernmental stakeholders (Brody et al., 2003). Consequently, a number of participatory techniques has been created and used, ranging from interactive workshops and meetings to Internet websites (Creighton, 2005).

In general, there are five basic types of engagement which aim to inform, consult, involve, collaborate and empower participants.

The main objectives of these engagements are:

- providing objective information to stakeholders which could be used for building skills and knowledge of the community;
- obtaining feedback from the community on various analysis, options and decisions which can be used for future policies and plans;
- ensuring understanding and consideration of public concerns and aspirations;
- working with a community in order to cover every aspect of the decision, develop alternatives and identify preferred positions;
- ensuring power (and shared responsibility) of the public in the final decision-making.

Although the direct public participation could be manifested on all levels of governing, it is evident that the highest efficiency could be achieved on local and regional level. The citizens could be involved in the process of various analysis, stimulation, conceptualization, implementation and evaluation of decisions, especially those related to environmental issues, public services (education, public health etc.), economic and social development. However, there is always a noticeable tension between citizens and experts, which is the



result of an imbalance of resources and knowledge of these two groups. Therefore, it is necessary to provide a high level of decentralization, local control and direct participation, maintaining the fragile equilibrium.

### 3.2 Wired, viral or virtual?

Beside traditional modes of participation, the advanced technology has introduced benefits of e-participation which is supposed to provide cyber-democracy and enable creation and functioning of virtual democratic communities. The created inter and intra urban e-networks have also influenced a new perception of public spaces, which provide and support interaction within and across urban communities, but via digital interfaces and tools. These on-line meeting places could be seen as an improvement of the level of democratic participation, but frequently they could be used as another tool of political manipulation or a testing ground for anticipated changes. Although declaratively open and transparent, the digital realm of contemporary cyberspace has its own system(s) of control and boundaries, which often has a boomerang effect both on users and the system's security.

In order to follow recent patterns of 24/7 accessibility we have to be continuously linked and interactive. Consequently, e-networking represents a new supporting system and social glue that saturates all areas of our lives. Producing new and redefining existing urban processes and relationships, electronic web has upgraded urban tissue with superimposed digital realm. Introducing a completely different set of values, opportunities and social constructions, digital infrastructure has directly or indirectly guided latest urban transformations in order to create a perfect (efficient) setting for further increase of electronic interconnections.

Mitchell (2000) described cities of the 21st century as systems of interlinked, interacting, silicon- and software-saturated smart, attentive, and responsive places. And indeed they have become complex interfaces affecting a new logic behind urban restructuring - on spatial, functional and social level. However, it is evident that digital nodes of gathering, interaction and intellectual exchange cannot completely replace physical ones, although they certainly provide easier flow of information and ideas, representing an additional connector between public and professionals (planners, architects, urban designers) and an efficient tool for social and economic integration. However, in order to work properly, all these access points should provide 'both freedom of access and freedom of expression' (Mitchell, 2000). Sometimes, the availability of different options could direct users towards like-minded participants in the process, which might cause creation of homogenized groups and disable favorable discussions and debates originating from different perspectives.

The relationship between technology and community, although frequently emphasized as a necessity which leads to a better accessibility, transparency and democratization, actually represents an insufficiently defined and simplified field of interaction, in which participants usually act as passive consumers of information, instead of being their active producers (Schon et al., 1999). However, in order to reach a higher level of participation, especially in the planning process, it is essential to extend the role of technology, activating its communicative potential, instead of using it as an advanced data base.

## 4 PRACTICE AND LEARN

Although Serbia ratified the Aarhus convention (1998), which is supposed to grant the public rights regarding access to information, public participation and access to justice concerning environmental issues, some of the most important principles of this convention are not included into the latest Law of building and construction. This law, as well as its predecessors, only guarantees the planning procedure which requires the public presentation of spatial/urban plans, but not the actual participation in the conceptual phase of the plan. After the public display, all comments, questions and remarks are sent to the team in charge of the proposal, which is obliged to react and respond to them. However, even in this limited participation, a number of problems have been detected:

- the structure of public meetings is too rigid and controlled by the authorities which moderate them;
- the presentation of the plan (its language and elements) are not adjusted to non-expert participants;
- meetings are usually organized during working hours, which excludes some of possible participants from the process;
- meetings/public presentations are usually organized in the municipal building, which might not be accessible to all interested parties (due to financial limitations or available time);

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- some meetings could be obstructed by small, but aggressive groups of citizens;
- majority of citizens is not aware of the fact that they could participate in the planning process, or they do not know how to obtain that right.

Evidently, the Serbian model of public participation does not provide training for active participation in the conceptual phase of the plan or decision-making. Instead, the public is only informed about the proposal, allowing the possibility for reaction and comments.

According to Serbian practice and laws, cities and municipalities are obliged to create spatial and master plans for their territories, which are re-evaluated every five years. Master plan of a city, representing a strategic document, should provide guidelines for anticipated land use and public investments. Since the document does not include actions which tackle the level of individual property, citizens are usually not motivated to participate in the planning process which does not maximize their personal benefit (Djukic, Milovanovic, 2003). However, there are some examples which represent a certain improvement, especially in the field of public participation based on electronic accessibility.

### 4.1 Working together: the city of Pozarevac

During the last decade, Pozarevac adopted several urban plans and the new Master plan 2025, was created by the team of the Faculty of Architecture, University of Belgrade. Methodological framework was based on a planning paradigm which used variables generated by the prevailing condition of general social and economic uncertainty. During the conceptual phase a data base was established, a catalog of existing sites/locations was created, as well as an atlas of their potentials. The structure of the catalog could be directly used for an interactive map, enabling faster access to information related to current and planned land use, identified condition of urban infrastructure and possibilities for further implementation of the plan. This kind of application would certainly facilitate general e-accessibility providing a higher transparency of anticipated transformations.

The concept of the Master plan was supported by an extensive participation of citizens and the outcome of this phase was included in a program for the Master plan (Ralevic, 2006). It is interesting to notice that the Serbian legislative does not formally recognize the importance of public participation in this phase. Instead, it is considered to be an important element of the next phase, suggesting a necessity of public meeting(s) before its official confirmation by the City Assembly.

During the planning process related to the Master plan of Pozarevac, citizens were asked to express their views and ideas related to the identity and value of urban spaces and ambiances. The survey with closed-ended questions was conducted, along with a series of systematically reviewed meeting minutes ('meeting-in-a box'), thematic panels with local experts and brainstorming, which included relevant maps and photos. This methodology engaged lay stakeholders i.e. the unpaid citizens with a deep interest in some public concern, willing to be involved and to represent those with similar interests. Simultaneously, many associations, NGOs, professional associations, but also public officials and representatives, took part in these meetings and discussions. The conclusions resulted from three separate rounds and were structured around three complex topics - (1) land use, urban land rent, heritage and value; (2) green, tourist and sport activities and facilities; (3) traffic and land equipment. The result of this process also emphasized some special concerns about a typology of housing and density, public services in local communities, new parks and green areas, lack of parking lots, connections with antique Roman city Viminacium, as well as a problem of neighboring rural areas.

Since February 2012, the city of Pozarevac is using a specific e-service, as a possible channel of communication between city government and citizens. During the last two years the service detected 56 questions addressing the city authorities. About one third of them is related to communal issues, but some of the questions might be solved by revising the existing documents and implementing new measures. It is also interesting to notice that some questions overlap with conclusions generated from meetings which followed the process of master planning - from those underlining the traffic problems (available parking space, quality of street pavement, signalization), inadequate infrastructure, street furniture, accessibility for all groups of users, to legal issues and environmental conditions.



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Fig.1: City of Pozarevac - official web-presentation: section for questions, as a channel for communication between local government and citizens.

#### 4.2 Improving accessibility: the city of Belgrade

During the preparation of the Master plan of Belgrade in 2003, public participation was also included into the first phase of the process. The conceptual phase used the method of 'random participation', targeting all interested parties. Several hundreds of Belgrade citizens communicated with a special team in charge for the preparation of Master plan, using various media - from phone calls, to emails. After the completion of the second phase (and before the official approval of the plan), citizens also participated in the public meeting which gave them a detail insight into the document. Although majority of citizens were mostly interested in small-scale interventions i.e. a level of their own lot or building, approximately one-fifth of the present citizens was interested in the problems of public good, giving a number of useful ideas and suggestions related to crucial urban issues - green network, urban infrastructure, main bridges, articulation of river banks, protection of certain areas and buildings, quality of the environment.



Fig. 2: Town Planning Institute of Belgrade, web-site: frequently asked questions related to different aspects/problems of urban development (e.g. planned activities and capacities, procedures, public presentations of plans etc.)

Following this practice, the Town Planning Institute, as the leading planning institution of Belgrade, has posted all planning document related to the development of Belgrade and enabled an interactive approach to the documents produced during the last six years. The Institute has also opened a special e-service oriented towards citizens, intensifying the communication between the users of urban space and experts of the Institute. The majority of questions has been related to the process of implementation of approved plans, as well as to other areas of spatial development and transformation, on all levels and scales.

## 4.3 Increasing efficiency: the city of Zrenjanin

The city of Zrenjanin has also established a mode of e-government. The web-site of the city administration includes a section related to planning documents containing all levels if plans - from the Regional and Master plan, to the plans of general and detail regulation of urban zones. The documents (textual files and drawings) could be downloaded from the site by all interested parties. The site also incorporates two interesting services - 'The office of quick responses' and 'System 48'. The first one provides information about urban sites/locations, including the data about potentials and limitations of a particular building lot, defined by the planning documents. The 'System 48' is used for communal problems, which could be reported by phone, text messages or Internet. It interlinks services of all public institutions founded by the city of Zrenjanin, enabling efficient response to identified urban problems and demands of citizens, as well as facilitating their solution. The system is active non-stop and within 48 hours all users receive a status report about the activities related to the problem.



Fig. 3: City of Zrenjanin, web-presentation: 'System 48' - a user-friendly service of e-government, which enables interaction between citizens and all institution founded by the city.

The web-site of the city administration has another user-friendly option, which enables citizens to check the status of their documents (to be issued or applied for). However, this e-platform does not provide information about the content of user's requirements, remarks and comments (in contrast to the platform in Pozarevac), or the insight into frequently asked questions (which is possible in the case of Belgrade).

## **5** CONCLUSION

The contemporary technology enables improvement of traditional methods of public participation during the planning process. However, its success still depends on numerous elements which should increase the motivation of citizens to participate in planning activities, provide necessary information about detected problems and actions which might have spatial consequences and train citizens to formulate and express their opinions and suggestions in all phases of the process.

The best results could be achieved when participation represents an inseparable part of all phases of the process - from conceptualization, decision-making to implementation. The electronic transparency of planning is preferred because it increases the accessibility of information, provides different possibilities for training and education of the public, and ensures continuous and interactive participation. However, in spite of numerous advantages, it cannot be used as a substitute for other, more traditional techniques, but just as a complementary tool which might increase efficiency of interaction.

Although Serbia still has to increase the significance and influence of public participating, as well as its electronic support, it is noticeable that some positive changes have occurred since 2000. However, they are mostly related to the final part of the planning process or post-planning activities, when electronic transparency represents an option for gathering information and communicating with urban services and institutions. Therefore, it is necessary to further develop integrative potential of e-platforms for participation, provide a stronger political support, increase scope and intensity of use, as well as a level of inclusion. The



organization and structure of services also influence the overall results and efficiency, but they mostly depend on implemented tools, financial support and continuity of application.

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#### 7 REFERENCES

BEDFORD, T., CLARK, J., HARRISON, C.: Limits to new public participation practices in local land use planning. In: Town Planning Review, Volume 73, Issue 3, pp. 311-333. Liverpool, 2002.

BRODY, S.D., GODSCHALK, D. R., BURBY, R. J.: Mandating citizen participation in plan making: Six strategic planning choices. In: Journal of the American Planning Association, Vol. 69, Issue 3, pp. 245 - 264. 2003.

COHEN, Joshua: Deliberation and Democratic Legitimacy. In: HAMLIN, Alan, PETTIT, Philip (eds.), The Good Polity: Normative Analysis of the State, pp. 17-34. New York, 1989.

CONNOR, D. M.: A New Ladder of Citizen Participation. In: National Civic Review, Vol. 77, Issue 3, pp. 249-57. 1988.

CREIGHTON, James L.: The Public Participation Handbook: Making Better Decisions through Citizen Involvement. San Francisco, 2005.

DJUKIĆ, Aleksandra, ČOLIĆ, Ratka: Gradjanin - od pasivnog korisnika ka aktivnom ucesniku u procesu planiranja/Citizen - from passive user to active participant in a planning process. In: BOGDANOVIĆ, Ruzica, STOJKOV, B. (eds.), Principi i praksa odrzivosti u razvoju naselja u Srbiji, pp.376-389. Belgrade, 2000.

DJUKIĆ, Aleksandra, MILOVANOVIĆ, Danijela: Participacija gradjana u kreiranju i ocuvanju identiteta gradova. In: International scientific conference INDIS 2003 - proceedings, pp. 95-104. Novi Sad, 2003.

DREWE, Paul: ICT and urban form. Urban planning and design – Off the beaten track. Delft, 2000.

FISHKIN, James, S.: The Voice of the People: Public Opinion and Democracy. New Haven, CT, 1995.

FUNG, Archon : Varieties of participation in complex governance. In: Public Administration Review, Vol. 66, Issue Suplement 1, pp. 66-75, 2006.

GUTMANN, Amy, THOMPSON, Dennis: Democracy and Disagreement. Cambridge, MA, 1996.

HOMMELS, Anique: Studying Obduracy in the City: Toward a Productive Fusion between Technology Studies and Urban Studies. In: Science, Technology and Human Values, Vol. 30, Issue 3, pp. 323 -351, 2005.

MITCHEL, William John: E-topia: "Urban life, Jim - but not as we know it". Cambridge, MA, London, England, 2000.

PUŠIĆ, Ljubinko: Odrzivi grad: ka jednoj sociologiji okruzenja/Sustainable city: towards sociological environment. Belgrade, 2001. RALEVIC, Miodrag: Modelovanje urbanog procesa/Modeling of Urban Process. Belgrade, 2006.

- SCHON, Donald A., BISH, Sanyal, MITCHELL, William J. (eds.): High technology and low-income communities. Cambridge, MA, 1999.
- STUPAR, Aleksandra: Shaping the image of globalization: The role of technology in urban regeneration. In: GETZINGER, Guenter, WIESER, Bernhard, BAMME, Arno (eds): Yearbook 2008 of the Institute for Advanced Studies on Science, Technik und Wissenschaftsforschung 57, pp. 297-317. Graz, 2009.

TODIĆ, Dragoljub, VUKASOVIĆ, Vid: Pravo na adekvatnu zivotnu sredinu/Right for sustainable environment. Belgrade, 2001.

VUKELIĆ, Jelisaveta: Neposredno učešće građana u donošenju odluka na lokalnom nivou vlasti u Srbiji. In: Sociologija, Vol. LI, Issue 3, pp. 291 -312. Belgrade, 2009.