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Chapter 2

Evolution of Marketing in Smart Cities through the Collaboration Design

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Additional information is available at the end of the chapter

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Abstract

Our time sees more and more cities striving to grow into smart cities, which makes this market to grow with a considerable pace. However, there are many challenges of these processes such as municipal budgets, disposability of skilled staff, privacy and cyber security concerns, etc. Besides, by the technology-driven smart city development, an essential thing has been lost on the way—the human dimension. While the world has started to recognize this deficiency, the hunt for the right methodology to do better has begun, and so an open run to understand the relations among humans, technology, and society in order to manage their effect on business and economy. This development will eventually enter the perspective of the electoral body of democratic societies, thus influencing public policy. It will provide the room to a new equilibrium within the triad: people, businesses, and public policy. Being close to the population and their everyday needs (smart), cities will no doubt act as a push factor to these developments. Propelled with technology change and new values, the private-public-people partnerships (PPPP) will earn the pace. The communicators, bringing new relationship to life, are in this way challenged by metadesign: designing for the "new" designer(s)—the empowered end user. Therefore, for the communicators, the next challenge for marketing in smart cities is the creation of tools and methodologies for the new forms of the collaboration design. After presenting the unique factors that are driving the growth of smart cities in different parts of the world, authors identify important challenges that still need to be overcome in different markets. Special focus will be given on the discussion of contemporary challenges of public policy seen through smart cities development, which by requiring new marketing design is exercising pressure on public policy. Smart cities marketing design will be discussed from the perspective of the need to hear human needs, and at the same time to support the functionality of the 4Ps. Its concrete role will be in bringing understanding of the need for collaboration, which can reduce costs of public policy, thus enlarging benefits of collective action in smart cities.

Keywords: smart cities, marketing of smart cities, collaboration design, PPPP, economic policy

1. Introduction

Unfortunately, smart city has become one of the very popular buzz words [1, 2]. Even more, what might be meant by a "smart city" has become a kind of inspiration for imagination of the communication experts in many tech corporations as well as public institutions striving to warrant trust around projects sometimes small, but often very big. We say unfortunately, because we know that buzz words quickly loose in popularity and disappear, while the interest to improve the efficiency of community/urban services and guarantee a sustainable well-being needs to remain.

There really is chaos around the naming and definition of this important field evolving already for decades. Its vivid evolution, additionally to a complex mix of technologies, has been shaped also by social and economic factors, governance arrangements, and policy and business drivers, has brought many expressions with overlapping concepts in use today: "Intelligent City," "Knowledge City," "Sustainable City," "Talented City," "Digital City," "Eco-City," etc. [3].

On one side, "Smart cities are anticipated to create huge business opportunities with a market value of $1.565 trillion by 2020 on global level" [4]. On the other side, we are facing the reality in which a vast amount of new technologies and "smart projects" never start "to get life," or better said, entire "smart districts" are built in which nobody really wants to live. By the technology-driven smart city development, an essential thing has been lost on the way—the human dimension.

We recognize, at this stage of development, the important role of communication experts is to steer the development in the right direction by simplifying concepts in order to make them understandable for everyone—from mayor to the citizen—in order to create an ecosystem in which future cities can flourish.

The second part of the chapter will try to clear the reasons why PPP—meaning public-private partnership should be extended to PPPP—public-private-people partnership. The third part will discuss the challenges which economic policy meets due to course of development of the idea of smart city (marketing). In the fourth part of the chapter, we will represent state of the art of the evolution of marketing in smart cities. Fifth part of the chapter brings conclusions.

2. Understanding the development toward 4Ps

As an example of an approach by introducing communication experts, we use the definition used in the vocabulary of the survey Smart Municipalities 1.0 just running among all municipalities in Slovenia by PROPI[1]. For better understanding here, main concepts are simply explained: *Smart municipality optimally uses all available sources to create solutions for problems and fulfill citizen needs with the aim to guarantee the quality of life in the municipality ecosystem in a way that permits every member to contribute at her highest level of utility* [5].

[1] PROPI is a project office co-founded by Association of Municipalities and Towns of Slovenia and intiators of FLAPAX – European Smart Community Accelerator which server as the connector and enabler of the smart city development among Slovene municipalities.

Figure 1. From smart place to smart community. Source: [3].

This new way of communication around smart development is fruit of understanding of the development by stepping aside and avoids the discussion about the right smart expression of the field. We rather try to understand the essentials of the evolution toward smart community and possible further development. We tried to demonstrate this point of view with the help of **Figure 1**.

To better serve research and study of the communication streams and challenges in the development instead of the term "smart city" in the figure is used the term "smart place" to emphasize the big shift between the technology-centered view, focused on the development and optimization of the space as such, and the upgrade to smart community. If we walk through main milestones, we see Smart place 1.0 focused on how ICT can improve functionality of a place, the 2.0 upgrade still place and technology driven although already addressing issues of good city governance, starting building public-private partnerships for urban management and putting emphasis also on sustainability and inclusivity. The big change is where we are standing now, with the urge for a shift in mindset—shift from technology to human-centered approach in which technological solutions follow and serve human needs. We are starting to talk about smart community, which stands for new partnerships and with it the raising of the concept of PPPPs, public-private-people partnerships, which fully embraces the idea of citizen-centered approaches.

As it will be later presented, the so-called 4Ps open many new challenges for marketing development as well as for economic policy in smart cities, and with them rises the urge for collaboration design. But this is not only a marketing domain. Marketing is only part of a system in which everything and everyone is connected as knots of a net; we need to understand city or municipality as an ecosystem. In order to do so, the development and effects in economic policy will first be analyzed.

3. Challenges for economic policy

Here, we discuss the challenge that is being put in front of economic policy due to the processes of emerging of smart cities. We will look for most typical factors that will influence

the economic policy practice. The perspective and theoretical ground used here will refer to economic policy being faced with changes in technology and with changes of electoral body reasoning. Here, we are not going deep in the study of literature on crisis of democracy as we just want to list the facts presented in literature that prove the environment democracy is faced with when entering its specific forms when collaboration in smart cities is concerned.

Moving closer to the population as is the case in (smart) cities, no doubt represents a new challenge to traditional state and its economic policies. Already, we have quite a pressure on representative democracy, which sometimes is slowing carrying out of economic policy decisions met by the national economic policy. The traditional solution here has been delegation of economic policy functions from the national to regional level. When talking about the changes in structures in the course of smart cities development, the population interested for action is defined by the city rather than by region and has specific requirements if compared to the regional level. Therefore, to design the collaboration and supply it with competencies and responsibility will, apart from reorganizing arts of inclusion in cities, require also delegation of functions, which up to now were reserved for the national level. Typically, it has been the case with environmental issues. However, in our case, one would expect higher interest also in areas such as education, health care, transportation, and so on. Besides, there is also a qualitative dimension of this restructuring: in the same nation, different cities may have different perspectives, comparative advantages, and will therefore want to participate with the use of different instruments of economic policy—related to the fields stressed above. Furthermore, we must understand that due to different emphasis of different cities also other elements will vary—such as inclusion of population, art of collaboration, marketing, environmental requirements, logistics and transport, international connections, security issues, and so on. Therefore, it must be clear that with so many criteria to follow, "no practical design can realistically hope to fulfill the rigorous demands of any particular model" [6].

Abstention of population from political life derives from their disaffection with (representative) democracy and became one of central concerns in the EU [7] Citing literature [8] recognize these as factors that harm representative democracy: disaffection with politics, lack of political literacy, dissatisfaction and mistrust toward government and politicians, the decline of membership of political parties, increasing power of actors without electoral accountability, failure and ineffectiveness of representation of common or special interests, and complex governance arrangements evading transparency and accountability.

The fact that modern representative democracy is in crisis should be offset in falling of *voters' turnout*, deteriorating numbers of *party membership*, lowering of *trust in politicians*, and general loss of *interest in politics* [9], and is pointing to the fact that these downturns of democracy are more felt in times when there little seems to be at stake.

In their well-oriented systemization of literature [8] are with the help of citing the literature pointing to the facts that have influenced theory and practice of democracy in recent years. They are the shift from government to governance, depolitization of former policy issues bringing in the influence of experts and managers without electoral accountability, malpractice of democrats, neoliberal minimalist view on public sphere and democracy, transformation from ideology-driven to issue-specific politics, concentration of media on sellable stories, and emerging democratic innovation.

From the facts presented above, it seems that political parties no more are an adequate instrument to attract and to steer people's interests. We believe that here information technology and social media bear quite a responsibility for such trends. In the field of IT, we have witnessed the developments from huge computers in cellars of companies with limited number of monitors being placed in offices. The dependence of users from the main computer has been reduced ultimately after personal computers overruled the scene. Now, a cell (smart) phone has enough capacities, memory, and programs, so it can actually act as a computer. People now are free to gather information and to link at any time. They, of course, use this technology also to shape their networks according to their individual criteria and interests. What is the hampering function of political parties is that they actually find hard to assemble these networks into a certain form of clusters. Besides, once there, they can in no time change their orientation and (interest) environment, when actions of a party or of a group of politicians are no more in position to address the problems they see or treat as relevant.

Therefore, the first issue is how to establish an environment for collaboration between all stakeholders. Here, it is no doubt that despite complexity and stochastic environment it is a public authority that is needed for promotion and organization of participation [6]. The authority success to attract collaboration will further enhance democracy [10] as it "will only thrive if people engage with it" [11].

After accepting and mastering of such approach, economic policy will only come over its first task. The next one will be joining forces and gain support for the planned action by gathering the interests of informed and benevolent population—collaborates. Here, one should expect widening of up to now often experienced public-private partnership into public-private-people partnership, which we discuss below. From the point of economic policy here, we have direct inclusion of so-called derived agents of economic policy[2]—interested population. This task will, however, be far from simple. Recently, there have been number of studies [12] proving that private sector practice is intensively eroding democratic principles.

From the side of economic policy and collective action, the situation when they are determined for action sometimes resembles of chaos. It is not unusual for a public attitude that in such situations the discussion on a benevolent dictator steps in. As much as it may seem strange to Western way of thinking, we do not have to look much around and in the past to find an example, where electoral body has prized a politician who openly promoted him/herself as intolerant to institutions of democratic order. We should not ignore recent developments in the field where "the world is facing a democratic crisis through unprecedented restrictions on the freedoms of expression, association, and peaceful assembly" [12]. Here, we will, however, presuppose that in a smart city, the democratic culture will prevail and that economic policy

[2] Typically, original agents of economic policy have been government as a body with competencies acquired at general elections and central banks, international organizations plus regulatory bodies without electoral accountability. So-called derived agents of economic policy, who also do not possess electoral accountability, also influence economic policy measures. Here we include formally organized interest groups such as trade unions, chambers of commerce and other interest groups such as individual (big) companies and projects (e.g. a project to build an underground transport network in a city) pensionists, students and interested population.

will be looking for a path where it will try to form a consensus first by unveiling its plans and stepping forward with transparent action.

4. Evolution of marketing in smart cities

As we have learnt, the world has started to recognize that the smart city development has lost the human dimension on the way. The hunt for the right methodology to do better has begun and so also an open run to understand the relations among humans, technology, and society in order to manage their effect on business and economy[3].

In this process, the communicators can and should play a very important role and help steering the development into the direction of inclusion of population. Therefore, we now bring the focus back to communication and marketing. We want to analyze the challenges arising with the urge to develop new ways of collaboration within city or municipality ecosystem and possible sources of inspiration for development of right approaches.

4.1. Redefining the roles

The communicators in smart cities are forced to bring new relationship into life and redefine the roles of members of the city ecosystem. Experiences show that traditional approaches need to be upgraded. But, where to start? The imperative is to start from the scratch: put humans in the center and rethink the current methods and perceptions.

If really starting from scratch, the first thing to recognize is the end of the era of "A sells a product or service to B"—the one-direction relationship between a seller (in our case a city) and a buyer (citizen) in which B has very limited or almost no possibility to influence the development of the product or service. In most cases, he is only forced to use it. New media and technologies are perfect tools to bring dynamics into this relationship(s). And, we can see how fast these dynamics find place in the business environment.

In product business, new ways of manufacturing and distribution are emerging that can effectively scale mass manufacturing down to small series of products marketed over the internet, or even unique products manufactured at home. The industrial designers need to rethink their role with modern methods of fabrication and distribution in which end users participate as designers. Designers become, therefore, the role to design the tools and techniques to support end users, as the designers and makers of the products they need, want, and desire [13].

Maybe an analogy with the industrial designers can help communicators in smart cities understand their new role. The challenge for the industrial designer will be in metadesign:

[3] Cyberneticists have already started this mission at the early beginnings of the development of computers in 1950s. They envisioned an evolutionary co-learning by exploring and redesigning our own organism to organism/multipleorganism relations/machines as groups and communities led by pioneer enterprises like Biological Computer Lab and the institute Matriztica [14].

designing for the "new" designer(s)—the empowered end user. And so is for the communicators: the next challenge for marketing in smart city is about the creation of tools and methodologies for the new forms of the collaboration design for the empowered citizens.

To use this analogy efficiently, we need to analyze the changes in the city ecosystem facing the digital transition. First, everything changes at a much faster pace. Second, cities need to create more products and services to sustain our society as ever before, hopefully in a way that bring more meaning to us and not vice versa. Third, not only more, also faster and better should the novelties be. Last, but not least, they should be sustainable—survive in a future different from today.

Cities limited their role so far rather to those who institute policy and procedures, develop urban planning, and create services. But this needs to change. Analysis and simple extrapolation governed by political processes will have to give way to imagination and more original creation [15]. What preconditions are needed to create space for new relationships and collaboration? How to hack the so called 1% rule which states that in online communities only 1% of the users actively create new content, while the other 99% of the participants only lurk, observe [16]? Unfortunately, the soft skills that are necessary to build sustainable communities are often overlooked in smart city and technology programs [17].

4.2. Culture of collaboration

In the era of optimization, there is a basic concept that many miss; if we want to increase the efficiency, we need to understand the inefficiency. We can take inspiration from the energy business, where first companies are already boosting the efficiency through this kind of approach [14, 18]. It is only a question of focus, which helps understand and therefore easily make improvements.

Let us simply use it for our purposes. If we step away from the focus on how to increase the development of smart city field and try to find the inefficiency in its development, we learn that the problem is not in technology or in lack of funding, although these are generally most addressed issues; the main bottleneck is lack of collaboration. International studies show that conflict costs managers 20–30% of their time [19]. One can simply make the math and understand gravity of this aspect.

Not only neglected, if addressed, often this issue remains tagged with the shallow conclusions. Lack of collaboration is due to lack of interest; this is indeed the fastest conclusion, but the real work to be done is to dig for true reasons behind lack of interest [20]. Here we find trust, different level of knowledge and expertise level, insufficient information about the personal impact through involvement, etc.

Cities or municipalities have a double task, they need to find way and space to grow culture of collaboration inwards (within own employees and structures) and outwards (with citizens and other stakeholders). Trying to take advantage by use of existing methodologies, such as DESI—The Digital Economy and Society Index—a composite index that summarizes relevant indicators on Europe's digital performance and tracks the evolution of EU member states in digital competitiveness, rather ends with frustration. Also, with other similar indexes, we very

quickly turn back to technology-driven perspective in which skills such as using a mailbox, editing tools, installing new devices, etc. are addressed [21].

The other way is the re-discovery of soft skills. Talking about them, it is worth remembering that we lived in tribes for millennia, long before we learned how to speak. Emotional connection is our default. We only added words and symbolic logic much later [22]. The force of logic therefore cannot be the driver by the collaboration design. The real issues are recognition and ability to define own needs, trust, status, culture, peer pressure, intergenerational dynamics, and many other things which marketers will need to manage in order to foster the collaboration.

The question that arises quickly in discussion about citizen involvement is whether more is really better. Decision-making at a government level is about large-scale, long-term projects bound to regulatory, financial, and political constraints. Again a hint from industrial design sector: for social innovation, where designers operate in a social context, professional designers estimate that about 5% of their colleagues possess the necessary skills to deal with new and different complexities [15]. In other words, 95% of colleagues are estimated not to have the necessary skills. Involving larger public to co-creation of solutions would mean the involvement of untrained and unskilled participants. Here enter the communicators, who need to distinguish between different scopes and create processes, which empower participants in a way that compensates for their lack of experience.

For more reasons, we can learn from the good praxis of citizen involvement through the NASA Space Apps Challenge, coined as the world biggest mass-collaboration and an unprecedented international cooperation among governmental, academic, and business world. Space Apps is the NASA incubator innovation program focused on inspiring creative souls regardless of their background or skill level to engage with open data and address real-world problems, on Earth and in space. The challenge occurs annually over 48-h in 2017 in 180+ cities with 25,000+ participants from all over the world. NASA publishes real challenges in more categories and participants contribute to solve them [23].

There are many initiatives organizing the so-called hackathons around the world. The reason for Space Apps to be the largest and to grow so fast might also be in its topic. Space is something that unites and not divides. Talking about space bring persons forget about their local "divisions." Additionally, space field has a long history of interdisciplinary collaboration.

It would be too fast to conclude that we have found the perfect formula and cities just need to copy it in order to involve citizens. After 6 years of the "classic hackathon" format in which participants get a table, some of them sit and work there also over night, eating pizza and drinking energy drinks, first findings come that this is actually not the best way to foster innovation. This year, a team at the Vienna location, not by chance lead by a cyberneticist, was analyzing the last findings in neuroscience and study ways in which through movement and contact with nature humans could innovate better. Especially if aspiring to create cross-generational collaboration, including younger and older citizens. Quoting the team lead Dr Pawlik "We need to understand life and organisms better. This will help us, human organisms, to evolve and redesign our communities on Earth and design new communities in space, on other planets, in a community-building way that permits every member to contribute at her best." [23].

4.3. Creating space(s)

We have been addressing many aspects and opened many questions. For communicators to act concrete tools should be developed to help them design the collaborations. As stated before, cities need to act outwards and inwards. When addressing citizens the hardest lost is, if in any way an initiative has awoken interest, to lose that. Therefore, before starting anything, it is smart to think also of how will the awoken collaboration stay alive. In which direction to move and in which better not to move?

As stated before, cities need to create sustainable services and solutions that should survive in a future different from today. We can only aspire to find the right way, if we know where the development is going. Here, a glimpse to the possible future: *Imagine a world of people and machines. A world … where everyone and everything is connected all the time as knots of a net; where traditional barriers, such as time, distance, and cost are eliminated or drastically reduced; where culture is not a matter of geography, but of personal interest; where mobility without movement exists; where people and machines communicate in different ways on three communication levels; person-to-person, person-to-machine, and machine-to-machine. Imagine a world where people and machines work, study, entertain…and live together. Welcome to the world of Netlife."* [24].

Let us not fall in the usual trap and limit all our attention to our concerns around the new role of technology gained through artificial intelligence and forget all the rest. Communicators can only exercise their mission if focused on collaboration and the challenge to bring the 1% active user society toward "Netlife." Yes, machines will play an important part, but hopefully only in the role of fulfilling human needs.

Where to focus now? What should be considered by communicators, while creating space(s) for collaboration? According to the facts stressed above and our suggestions, we believe that a holistic approach to action could be presented in a form such as The Collaboration Sensometer presented in **Figure 2**. It illustrates the situation and helps identifying the main factors.

It complements the innumerable sensors of the current smart city projects with a new task—to help sense the citizen collaboration. As long as citizens are merely faced with the launch of new services with the only possibility of choice to use/buy them or not, it has little or no sense to organize hackathons just for sake of doing it. A hackathon is a momentarily very popular collaboration format, which is only gaining its meaning, if a city or municipality wants to involve citizens in the co-creation of the new solution from the very beginning. A hackathon is not the right format, if only comments for a chosen concept are desired. There are many formats at hand (in the figure for the illustration just some of them) and the virtue is to find the right mix of them. By misusing the formats, authorities often do more harm than good. At best, different formats for different projects fostering the collaboration in different stages of the process.

Transforming users into active participants is the right way to go and strive toward supporting as many as possible to become proactive initiators. Not to forget here is that once the collaboration has built tighter relations and citizens have been experiencing co-creation, it is important never to make the steps back and at once give them by a new project only the possibility to comment. Once a user has entered the space of a participant and experiences its possibilities, he/she will very likely disagree to have the door of this space closed, and even more, if one has

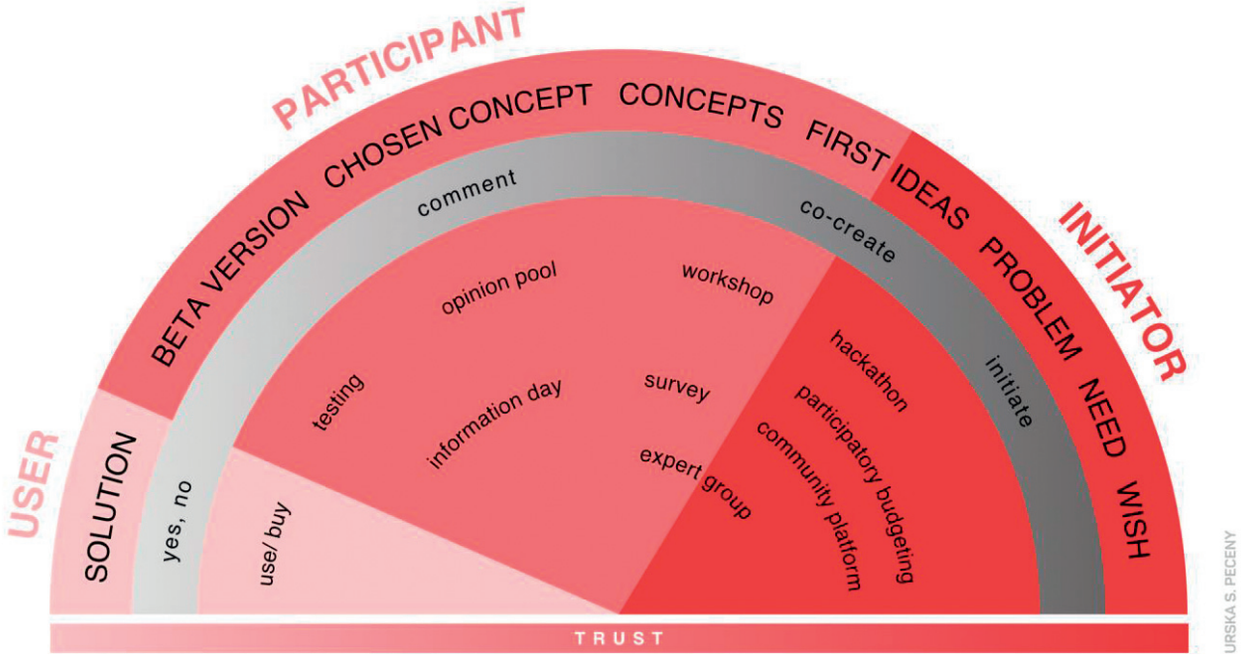

Figure 2. Collaboration sensometer.

experienced the space of initiators and for example participatory budgeting[4]. The way back is bound to loss of trust.

Here, we come back to the mentioned point that before starting anything, it is smart to think also of how the awoken collaborations will stay alive. The strategy needs to define how will trust be respected and cultivated. The largest the space of collaboration, the more extensive information, better tools, more refined methods, and deeper shared values are required. The right speed to drive from mainly passive user community to proactive initiator community depends on the context. As stated before, cities or municipalities have a double task; they need to find way and space to grow culture of collaboration inwards and outwards. Before approaching citizens, the sensometer can also help understand collaboration inwards.

5. Conclusion

In this chapter, we tried to point to the facts that have already been changing not only the idea of smart cities but also the idea of economic policy and smart cities marketing. The fact is that despite being one of triggers of changes in direction of smart cities there is the point where technology as well as idea of cybernetics that it ones brought should be controlled.

[4] Participatory budgeting offers citizens at large an opportunity to learn about government operations and to deliberate, debate, and influence the allocation of public resources. It is a tool for educating, engaging, and empowering citizensand strengthening demand for good governance [25].

The idea of smart cities will flourish as long as it is successful in bridging the gap that technology and business developments has caused in last decades—the position and inclusion of people. When connected with the smart city (place) growth and development here a typical instrument of coordination of investment must be addressed: public-private partnership. The idea which decades ago still offered (budgetary) sustainability to bigger projects has become obsolete. The reason is fast development of independence of population regarding information gathering and network building independence. Therefore, it is natural from the basic understanding of nature of technology development that armed with new technology devices and options the population should be included as a partner in most important projects in their environment public-private-people partnership (PPPP).

What seems a simple organizational task becomes very complex when we try to forecast people's attitude and reactions on proposals on collective actions in their living environment. When their reactions and actions are expected to be stochastic, we can logically expect bigger costs of any action (investment). Here, even well designed economic policy is not enough, as it still comes from (mostly) national level. In order to meet this challenge, logical decision will introduce smart city marketing. This marketing will not be based only on sustainable information, but will have to be supported by special communicators, who will understand the difference between collective design of economic policy and custom approach appropriate for local community of the smart city (place).

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References

[1] Schleeter R. Why Cities are the Solution to Climate Change: Q&A with Ani Dasgupta. Washington: World Resources Institute; 2015. [Internet] Available from: http://www.wri.org/blog/2015/01/why-cities-are-solution-climate-change-qa-ani-dasgupta Accessed: October 20, 2016

[2] Farthing S. Marketing in a smart city. Digital Marketing Magazine [Internet]. 2015. Available from: http://digitalmarketingmagazine.co.uk/digital-marketing-data/marketing-in-a-smart-city/2031; Accessed: October 23, 2016

[3] Starc Peceny, U. The future of marketing in smart (city) market. 2017. Forthcoming.

[4] Frost & Sullivan. Global Smart Cities Market to Reach US$1.56 Trillion by 2020. Frost & Sullivan; 2014. [Internet] Available from: http://ww2.frost.com/news/press-releases/frost-sullivan-global-smart-cities-market-reach-us156-trillion-2020 Accessed: October 23, 2016

[5] Pametne občine 1.0. Survey Run by PROPI, June 2017 [Internet]. 2017. Available from: https://www.1ka.si/a/132139 [Accessed: June 10, 2017]

[6] Smith, G. Studying Democratic Innovations: From Theory to Practice and Back Again. ECPR Workshop Nicosia: Studying Forms of Participation. [Internet] 2006. Available from: https://ecpr.eu/Filestore/PaperProposal/45a1920a-281f-41c9-a7e7-b52bb88d4a2d.pdf. [Accessed: June 10, 2017]

[7] ECPR – European Consortium for Political Research. Standing Group on Democratic Innovations. [Internet] 2017. Available from: http://standinggroups.ecpr.eu/democraticinnovations/ [Accessed: October 23, 2016]

[8] Ercan SA, Gagnon J-P. The crisis of democracy: Which crisis? Which democracy? Democracy Theory. 2014;**1**(2): 163–181

[9] Tormey, S. The Contemporary Crisis of Representative Democracy. Papers on Parliament. No. 66. Parliament of Australia. [Internet]. 2016. Available from: http://www.aph.gov.au/About_Parliament/Senate/Powers_practice_n_procedures/pops/Papers_on_Parliament_66/The_Contemporary_Crisis_of_Representative_Democracy [Accessed: June 10, 2017]

[10] Crouzel, I. Democratic Innovations: Reshaping Public Governance? Field Actions Science Reports [Internet]. 2014. Available from: http://factsreports.revues.org/3619. [Accessed: June 10, 2017]

[11] Lawson, E. and Jenke, E. Let's Ask More of Australian Democracy. Adelaide's Independent News. [Internet]. October 21, 2015. Available from: http://indaily.com.au/opinion/2015/10/21/lets-ask-more-of-australian-democracy/ [Accessed: June 10, 2017]

[12] CIVICUS. State of Civil Society Report. [Internet]. 2017. Available from: http://www.civicus.org/index.php/state-of-civil-society-report-2017; 2017 Accessed: June 10, 2017

[13] Saakes, D. IKEA Hackers: The Lampan. In Open Design Now. [Internet]. 2011. Available from: http://opendesignnow.org/index.html%3Fp=451.html [Accessed: June 10, 2017]

[14] Pawlik L. Towards a future we desire? In: Barbara V, editor. Patterns American Society of Cybernetics, Systems Thinking and Chaos Theory Network Newsletter, Fall, 5–10 Peel HR Whitepaper. Building a Collaborative Workplace. March, 2013. [Internet]; 2007. Available from: www.peelhr.com.au/LiteratureRetrieve.aspx?ID=139221 Accessed: June 10, 2017

[15] Mulder, B. Design and Government. In Open Design Now. [Internet] 2011. Available from: http://opendesignnow.org/index.html%3Fp=429.html [Accessed: June 10, 2017]

[16] McConnell, B.; Huba, J. The 1% rule: Charting Citizen Participation. Church of the Customer Blog. [Internet]. 2006. Available from: https://web.archive.org/web/20100511081141/http://www.churchofthecustomer.com/blog/2006/05/charting_wiki_p.html [Accessed: June 10, 2017]

[17] Marin F. From 'smart cities' to 'smart citizens': When technology meets activism. OUI Share Magazine. [Internet]. 2017. Available from: http://magazine.ouishare.net/2017/03/from-smart-cities-to-smart-citizens-when-technology-meets-activism/; Accessed: June 10, 2017

[18] Bankhamer A. 2017 Start-ups für eine bessere Welt. In Profil, Verlagsgruppe NEWS. Available from: https://www.profil.at/portfolio/innovation/start-ups-fuer-eine-bessere-welt-8226083 [Accessed: June 10, 2017]

[19] Seensy. 2017. Available from: http://www.seensy.me/ [Accessed: June 8, 2017]

[20] Kraus N. The challenges and possibilities for regional collaboration among small jurisdictions. State & Local Government Review. 2012;**44**(1):45-54

[21] The Digital Economy and Society Index. [Internet]. Available from: https://ec.europa.eu/digital-single-market/en/desi [Accessed: June 10, 2017]

[22] Godin, S. (2017). With the Sound Off or On? [Internet]. 2017. Available from: http://sethgodin.typepad.com/seths_blog/2017/04/with-the-sound-off-or-on.html [Accessed: April 11, 2017]

[23] NASA. Spaceappschallenge. [Internet]. 2017. Available from: https://2017.spaceappschallenge.org/ [Accessed: June 10, 2017]

[24] Starc U. Netlife communication [dissertation]. University of Salzburg; 2001

[25] Shah A, editor. Participatory Budgeting, Public Sector Governance and Accountability Series. Washington: The International Bank for Reconstruction and Development/The World Bank; 2007

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