
HELLO CITY!

DISCUSSING URBAN PLANNING IN
THE AGE OF CONNECTED CITIZENS

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1. INTRODUCTION

Before the digital revolution, the way cities communicated with it's citizens was mostly a close-circuit, top-down, one-way direction messaging. As Anthony Townsend remarks in his book "Smart Cities: Big Data, Civic Hackers, and the Quest for a New Utopia": *"A century ago, the telegraph and the mechanical tabulator were used to tame cities of millions". But today, as we know, the cities grew so complex that they can not be "tamed" that easily anymore.* The digital age has provided the citizens with the tools to discuss and to influence the city more directly, putting the pressure on the municipal governments to provide them (the actual users) and not the city (as a system) with better solutions. In this way, contemporary urban planners have to deal more and more with the issues of politics, public relation and policy making then solely with the issues of design, aesthetics or functionality.

The "Hello City" article scratches the surface of the increasingly complex relation between the citizens and the cities (it's government and it's planning authorities). Modern technology allows more access to information, giving voice and a podium to groups who would previously not be included in the process of planning. How to deal with this changing context of planning is something urban planners should take into account for the future.

Digital technology transcends boundaries and countries, and the article bases it's quick-scan research on the data from two cities: one from the developed, West-European economy (Rotterdam, the Netherlands) and one from emerging,

South-East European economy (Belgrade, capital of Serbia, figure 1). The results paint two very different pictures about how citizens see the urban challenges in their immediate surroundings, and how they communicate and organize themselves in a spontaneous way, using technology to overcome the social, political, economical or cultural obstacles.



Figure 1: Maps of NL and RS. Source: Wikimedia Commons.

2. WHO IS A CONNECTED CITIZEN?

2.1 Brief contextual background of Belgrade and Rotterdam

The two cities come from a very different context, but they do share a typical European approach in urban planning and design (*figure 2*).

ROTTERDAM, NL



1 KM²

INNER CITY LIMITS

BELGRADE, RS



Both cities experienced devastation of its central areas in the Second World War, and both cities have energetically embraced new (predominantly Modernistic) approaches in urban planning following the WWII years. In the last 6 decades, Rotterdam enjoyed relatively steady, unbroken economical development and prosperity, while that of Belgrade was interrupted by the fall of the Communist ideology and civil war at the end of the 20th century.

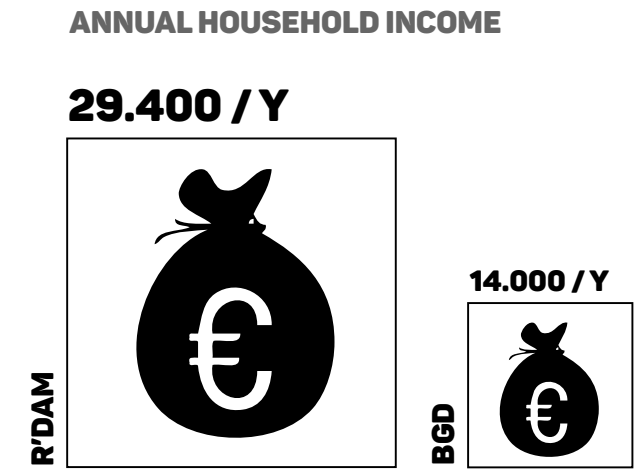
Figure 2: Satellite images of Rotterdam and Belgrade. Source: Wikimedia Commons. Graphic adaptation: Milena Ivković

Today, Belgrade is the capital of a country with approximately 7 million people and promising economical growth. Some 20 % of the inhabitants of Serbia live in Belgrade, making it by far the most important urban hub. In comparison to Rotterdam, the city of Belgrade is two times larger, both in scale and in population.

Only 3% of the total Dutch population (of 17 million) lives in Rotterdam. Together with Amsterdam, The Hague, Leiden and Utrecht, Rotterdam is a part of the dense urban network of cities at the western coast of the Netherlands, an economical powerhouse with total population of more then 6 millions.

The following table (figure 3) shows the disparity in the economical “well off” of the citizens in the observed cities. The average annual income (per household) is twice as high in Rotterdam then in Belgrade. In addition to this, the unemployment rate is higher in Belgrade (around 20%) then in Rotterdam (around 12 %).

	gross labor participation and unemployment	income per year / per household
Belgrade	650.000 total labor force, of which 20 % unemployed (ca.129.600)	14.000 Euro
Rotterdam	291.000 total labor force, of which 12,6% unemployed (ca. 36.600)	29.400 Euro



2.2 Profiling the connected citizens in Belgrade and Rotterdam

To understand the connected citizen – a city dweller using technology daily - one should look into the presence and availability of digital technology. The data to illustrate this can not be easily pinpointed to a city, so we will lean on the national data.

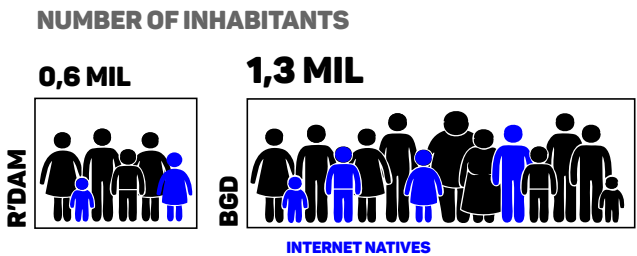
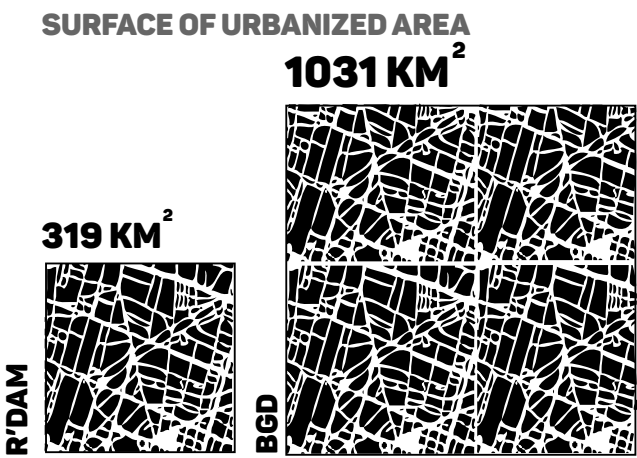


Figure 3: Basic statistic and economy indicators of Rotterdam and Belgrade. Source: City of Rotterdam “Facts and figures” Rotterdam, 2012, Rotterdam, Institute for informatics and statistics, “Belgrade in figures”, 2015 Belgrade; Graphic interpretation: Milena Ivković

The crucial term in understanding the profile of the connected citizen is the so-called “Internet native”. As defined in “Serious games: a new route to training, fun and cultural change ¹⁾”, Internet natives are those born after 1985, persons who never knew other context than the hyper-connected, digital world with all its gadgets. The way they are communicating and participating is heavily dependent on the technology, putting them at the core of digital citizenship.

Digital citizenship depends heavily on the citizens’ possibilities to access the Internet – this specific aspect is often referred to as the digital inclusion (or exclusions). In Belgrade, approximately 47% of the households have access to broadband Internet, which is quite low in comparison to the 61% of the households in Rotterdam⁴⁾. The costs of the Internet subscription and the computer hardware are almost the same in Belgrade as in Rotterdam. Considering the significant differences in the income per capita (*figure 2*) it is difficult for Belgians to keep up with the digital literacy.

If we take a look at the number of mobile phones use in Serbia, we get an interesting picture: the number of mobile phones in Serbia is higher than in the Netherlands. Generally, in Serbia there are approximately 120% more mobile phone numbers²⁾ than inhabitants, according to Internet Live Stats. This means it is quite common that a person has several mobile phones and numbers. In the Netherlands that percentage is around 93%.

Another interesting indicator is the number of active native-language websites per capita, data

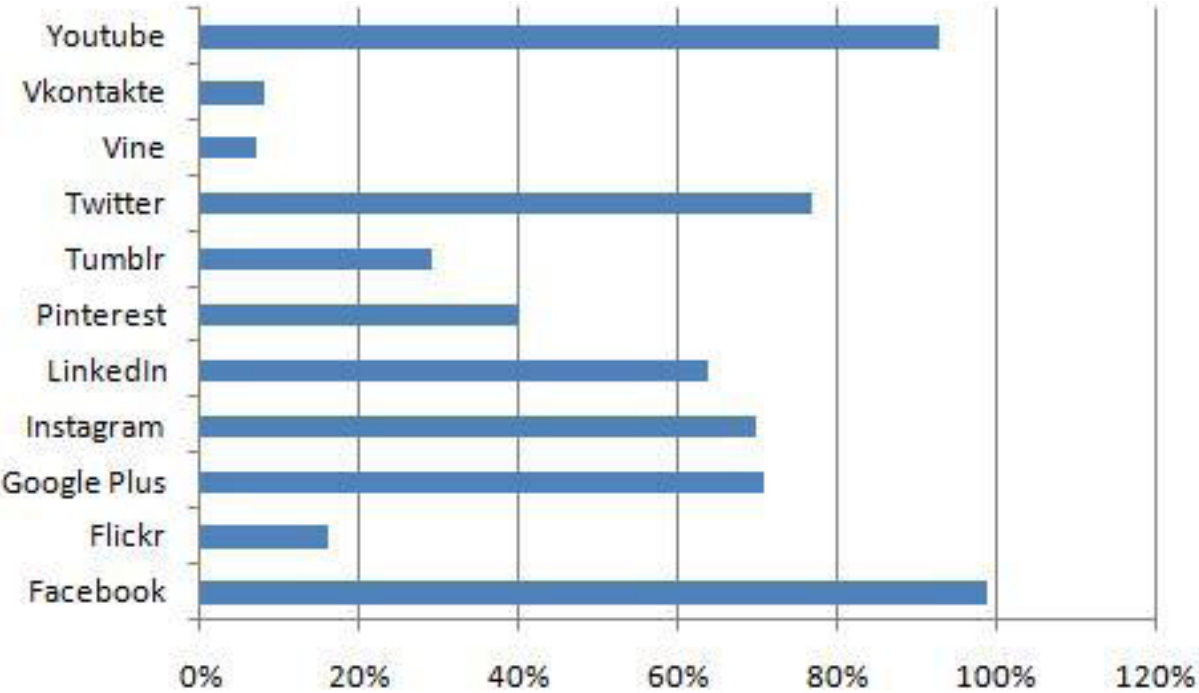
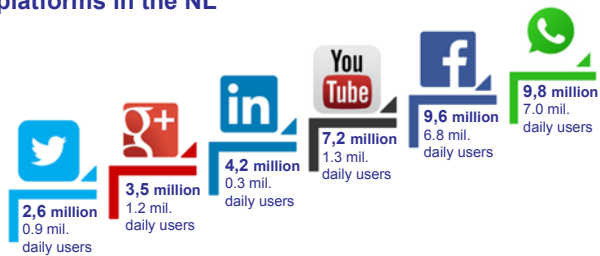
which can be easily find on Google Analytics. In the Netherlands, there are some 98000 registered native language websites (6 native language websites per 1000 citizens) and in Serbia, there are only 4000 registered websites (less than 1 native language website per 1000 citizens). Internet space in Serbia offers far less content and services in the native language. Digital culture in Serbia, thus, is less based on a network of the native language websites, but instead depends on the foreign language (predominantly English) websites and social media.

Going deeper into the intricate details on how different demographics use Internet and its content is a complex task, especially if we would like to pinpoint precisely how do citizens of particular cities (Belgrade and Rotterdam in this case) use the Internet to get involved in urban planning or urban policy topics. Precise quality data related to specific use in each city is difficult to find as the open data. Relying on the general data about mobile use (in Serbia and in the Netherlands), we can say that mobile technology and smart phones in particular are crucial for including the wider social layers of citizens into a new ways of participating. In the countries with emerging economies (like Serbia), the advantages of mobile technology are quite obvious: the cost of the device (smart phone instead a laptop) and monthly fees (a phone subscription instead a home network) are relatively affordable. In terms of enabling greater participation in urban planning, it seems that mobile technology is the right platform to use.

The lack of developed market for Internet-based, native language services in combination with cultural aspects also plays a great role in Serbia (and Belgrade). If we look at some basic data about the use of most popular social media outlets (such as Facebook, Twitter and Instagram) in both countries, we see some interesting differences. While Facebook use is quite popular among Serbian young population, in the Netherlands it seems that Facebook is becoming the tool “of the parents and grandparents”. (figure 4) Use of Instagram exploded in the Netherlands in the recent years, while it’s usage in Serbia is rather low. (figure 4) The same goes for Twitter. (figure 4) WhatsApp social media application, (the most used app in the Netherlands in the last year), has almost no traction in Serbia.

Figure 4: Number of users of social media in Serbia, and top 6 most popular social media platforms in the Netherlands.
Source: AdriaTalk RS; Newcom Research and Consultancy, NL

Top 6 most used social media platforms in the NL



3. How does the connected citizen discuss the city?

3.1 *The method of observation*

The paper will look further into the phenomena of civic engagement and urban planning participation using digital media in two different urban contexts.

To start with, civic engagement in urban planning is not actually a very popular segment of the Internet. Entertainment, news, sports, pop-culture figures, fashion, and cooking recipes – they all have far larger audiences than urban development or urban planning topics. Most of the time, urban planning topics are part of some other themes, such as “Society”, “Politics”, “E-governance”, “Culture” and “Smart City”. However, general impression among planning professionals is that urban issues do motivate larger amounts of people to take serious action, and that social media somehow plays a major role in channelling the sentiment about particular urban developments. In his critique “From Habitat II to Pachamama: a growing agenda and diminishing expectations for Habitat III” Prof. Michael Cohen⁵⁾ underlines that official international bodies and world-wide conferences on planning still do not use the potential of the digital media to better convey its messages. Still, trying to rationalise on this impression and collect the solid numerical data behind the process of civic engagement in urban planning is quite a challenge.

In the digital world, the success of an interactive social medium (an application, an website, a Facebook page, a Tweet, or a You-tube channel)

is measured by a diverse typology of indicators. Sometimes the indicator is a number of active users; sometimes the number of likes, or the number of downloads and clicks. The diversity of measurement indicators often gives a twisted image about the real relevance of the topic.

From the rational side, the good way to measure the interaction between the citizens and the city is to observe the statistics of available city-service applications, such as parking, shopping or public transport applications. These service app’s cover great variety of urban life, the users are registered and verified, and sometimes there is also a payment involved. All these parameters can give a solid numerical database to measure how the connected citizens see and interact with the city, and what kind of services they need to better use the city.

But while city-service applications are primarily commercial outlets, social media offers a free, open platform to the participation and discussion of the urban life. Social media has become ubiquitous tool, and the dominant communication weapon in terms of initiating civic engagement around any topic. In the world of Internet natives, “present awareness” (receiving information in real-time, anywhere, anytime) a component incremental to social media, is winning over some other digital ways of expressions, like e.g. the websites. More about this decline of the website as an effective tool when it comes to urban activism can be found in the excellent article “Why aren’t activist websites fulfilling the dialogic promise?” by Erich J. Sommerfeldt, Michael L. Kent and Maureen Taylor.³⁾

Considering the relevance of the social media, and the variety of social media outlets, the paper will further concentrate on observing only Facebook data, since this particular platform is the biggest “common denominator” in both cities, Rotterdam and Belgrade. Using quick-scan approach (a rapid investigation method) to derive ready-made facts, the paper will move towards giving an inspiring picture of the phenomenon of how citizens perceive their city in the digital age, and give directions for other deeper investigations.

3.2 Quick-scanning the Facebook

Citizens participation – whether it is a call to action, opinion poll, criticism, political activism or simply organizing an urban farming lot – is still very much determined by informality, a typical characteristic users’ communication on the major social media outlets.

By quick scanning a selection of Facebook pages, the paper takes a closer look on the inter-connections between spatial levels of proposed action (city level, neighbourhood level), what is the topic of the action and who is initiating (or administrating) the action by moderating the content on the page. Other relevant subjects of research are what kind of content is placed on the page, and what are other ways of connecting with the topic and with other people of similar opinion.

The observed data is only a snapshot of the activities, which are relevant at the moment of the research (summer 2016). The main criteria in choosing the relevant Facebook pages are two-

fold: the number of “likes” page has received, and a number of members of the page.

The following figure 5 presents the top-10 pages dealing with Belgrade on the city-wide level. It is followed by the similar overview on the neighbourhood level (*figure 6*). The same comparison is also done for the top-attractive pages dealing with typical Rotterdam issues (*figures 7 and 8*).

BELGRADE - CITY LEVEL

LIVE FROM BELGRADE'S TRAMS AND BUSSES	WE DON'T GIVE UP BELGRADE	BLACK AND WHITE BELGRADE
>187. 000	> 55. 000	> 37.000
2014	2015	2011
Daily life in public transport	Criticism of urban planning	Historical urban photography
Criticism, fun, info	Political activism, policy critic	Culture, research, fun
> unknown <	Registered civic group	Private initiative
e-mail	website, mail, Twitter, #tags	e-mail
BELGRADE WITHOUT MASK	BELGRADER	STREETS FOR CYCLISTS
> 29. 000	> 10. 800	> 9.000
2015	2013	2011
Public spaces	Cultural agenda of the city	Promotion of cycling
Criticism, social activism	Fun, info, mildly critical	Awareness, activism, critical
> unknown <	Registered media	Registered civic group
> not disclosed <	website, mail, Twitter, #tags	website, mail, Twitter, #tags
BELGRADE FLOWER FESTIVAL	HUMANS OF BELGRADE	CRITICAL MASS BELGRADE
> 5.900	> 4.000	> 4.000
2011	2013	2014
Green public spaces	Portraits and stories of the city	Annual cycling festival
Raising awareness, promotion	Culture, fun, charity support	Criticism, fun, info
Registered NGO	> unknown <	Registered civic group
website, mail, Twitter, #tags	> not disclosed <	website
CAMPAIGN FOR SUSTAINABLE AND FREE P. TRANSPORT		
>2.000	ORGANIZED	LIKES, MEMBERS
2015		ACTIVE SINCE
Public transport	SPONTANEOUS	CONTENT
Raising awareness, activism		AIM
Registered NGO		INITIATORS
website		OTHER MEDIA

BELGRADE - NEIGHBOURHOOD LEVEL

PRESERVE THE OLD CITY	SAVE OUR PARK IN THE BLOCK 9a	MUNICIPALITY OF NEW BELGRADE
>13. 000	> 1. 100	> 400
2014	2015	2015
Neighbourhood open forum	Green public space	Neighbourhood open forum
Cultural preservation, news	Activism, raising awareness	Culture, urban renewal, news
Municipality of Old City	Private initiative	Municipality of New Belgrade
> not disclosed <	mail	website, e-mail
SAVAMALA SOCIETY	PRESERVE CETINJSKA AND ZETSKA STREET	
> 200	> 200	
2015	2013	
Images of Savamala neighb.	Neighbourhood open forum	
Culture, social activism, info	Urban noise awaranness	
> unknown <	Informal citizens' group	
> not disclosed <	e-mail	
	ORGANIZED	LIKES, MEMBERS
	SPONTANEOUS	ACTIVE SINCE
		CONTENT
		AIM
		INITIATORS
		OTHER MEDIA

Figure 5: Belgrade – city level action, top 10. Source: Facebook; Systematization: Milena Ivković

Figure 6: Belgrade – neighbourhood level action, top 5. Source: Facebook, Systematisation: Milena Ivković

ROTTERDAM - CITY LEVEL

OPENING OF <i>DREAMLINE</i> CABLE CAR LINE	ROTTERDAM INNER CITY	HUMANS OF ROTTERDAM
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>30. 000	> 24. 000	> 18.000
2016	2013	2011
PT initiative for a CCar in 2018	Stories and news in inner city	Portraits and stories of the city
Promotion of CCar transport	Renewal projects, culture	Culture, fun, charity support
SME / private	City of Rotterdam	Private initiative
e-mail	website, mail, Twitter,	website, e-mail
ROTTERDAM	ROTTERDAM CELEBRATES THE CITY	OPEN ROTTERDAM

> 16. 000	> 17. 000	> 15.000
2014	2015	2012
Development of the city	Building heritage festival	Civic initiatives, open forum
Open forum, news, services	Culture, fun, promotion	Social activism, culture, news
City of Rotterdam	City of Rotterdam	Local media group
website, e-mail	website, mail, social media #	website, mail, YouTube, #
ROTTERDAM FROM BEFORE	RIGHT ON ROTTERDAM	WE WANT A NIGHT METRO IN THE WEEKEND

> 12.000	> 10.000	> 8.000
2015	2014	2016
Historical urban photography	Cleaner city, waste separation	Extension of metro services
Culture, research, fun	Environmen. activism, charity	Activism, civic initiative
Private initiative	City of Rotterdam	Private citizen
> not disclosed <	website	website, mail, social media #
ROTTERDAM'S HARVEST		

>8.000
2015
Urban farming
Raising awareness, promotion
Registered NGO
website, mail, social media #

ORGANIZED	LIKES, MEMBERS
	ACTIVE SINCE
SPONTANEOUS	CONTENT
	AIM
	INITIATORS
	OTHER MEDIA

4

ROTTERDAM - NEIGHBOURHOOD LEVEL

COZY ROTTERDAM NORTH	NESSELANDE NEIGHBOURHOOD PREVENTION	WE DELFSHAVEN
>2.800	> 2.300	> 1.000
2012	2013	2015
Activities, public spaces	Neighbourhood safety	Civic initiatives, open forum
Culture, fun, community	Info exchange, awareness	Social activism, culture, action
SME / local media	Registered civic group	Municipality of New Belgrade
website, mail, social media #	website, mail, social media #	website, e-mail
MIDDELLAND BEAUTIFUL	KATENDRECHT NEIGHBOURHOOD IN CHARGE	
> 500	> 400	
2015	2015	
Civic initiatives, open forum	Civic initiatives, open forum	
Culture, social activism, ideas	News, events	
> unknown <	Private initiative	
> not disclosed <	> not disclosed <	
	ORGANIZED	LIKES, MEMBERS
		ACTIVE SINCE
		CONTENT
	SPONTANEOUS	AIM
		INITIATORS
		OTHER MEDIA

5

Figure 7: Rotterdam – city level action, top 10. Source: Facebook; Systematization: Milena Ivković

Figure 8: Rotterdam – neighbourhood level action, top 5. Source: Facebook, Systematisation: Milena Ivković

3.3 Understanding the results

On the Rotterdam city level, it is the municipal government who is administrating several very well visited pages. The municipality acts as a facilitator and promoter of the civic engagement and cultural values of the city, carefully framing the topics, and providing the platforms for connecting the citizens around certain issues (figure 8). The Facebook page becomes an extension of the city’s policy (sometimes not necessarily and *urban planning* policy, but an *issue* closely intertwined with the sense of urbanity) and an instrument to popularize it.

In Belgrade, on the other hand, (figure 8) the registered civic groups and NGO’s are taking the role of “moderators” of the discussion about urban issues, very clearly blending city’s functional problems with political activism. The Belgrade municipality is much less active on the city level topics on Facebook, placing their attention more on the neighborhood level, as we shall see further in the paper.

Although it is a much smaller city, Rotterdam has more active Facebook users discussing the neighborhood level the Belgrade. On the opposite, citizens of Belgrade are far more active when discussing and organizing around the issues in the city level.

The statistics of figure 5 - 8 show that amount of pages initiated by the municipality (Rotterdam case) and by civic groups (Belgrade case) are larger then amount of spontaneous or “unknown citizen” pages. But if we look from the point of absolute popularity, one interesting fact comes

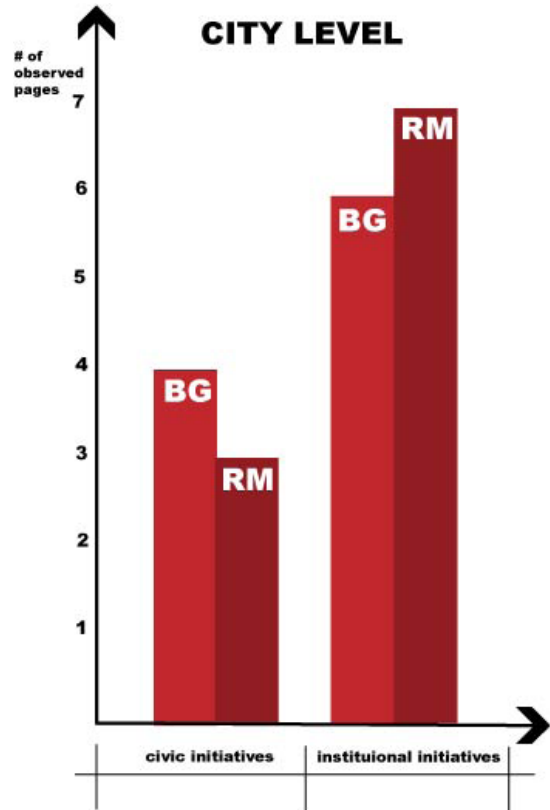


Figure 9: Who is initiating the engagement in Belgrade and Rotterdam on the city level? Source: Facebook Systematisation: Milena Ivković

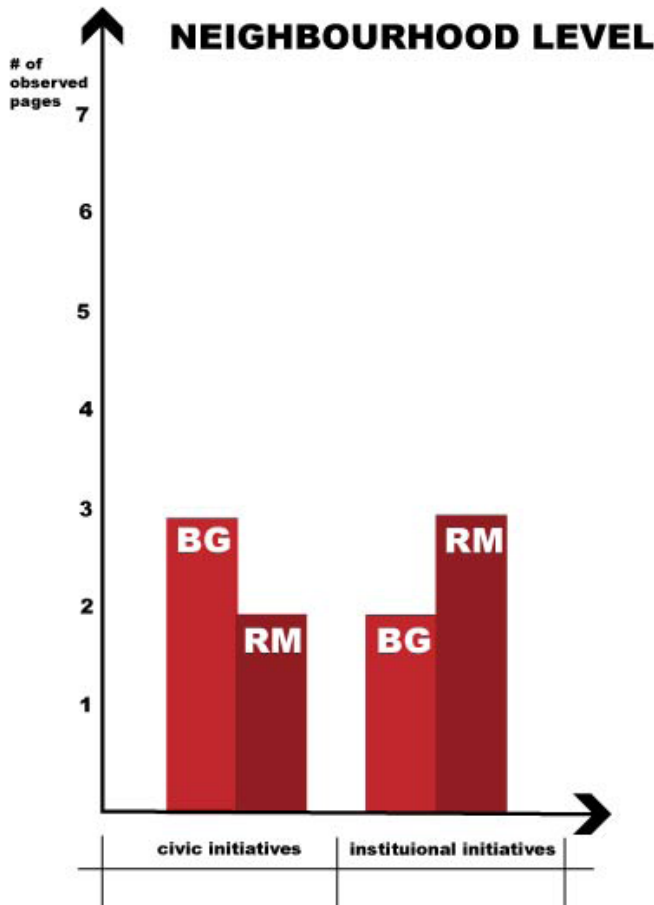


Figure 10: Who is initiating the engagement in Belgrade and Rotterdam on the neighbourhood level? Source: Facebook Systematisation: Milena Ivković

up - in Belgrade, e.g, the most popular page (by far) is the one with unknown initiators (the page called “Live from Belgrade’s trams and busses”).

The issue of public transport is one of the most attractive issues among observed pages, in both cities. A SME (small medium enterprise) from Rotterdam managed to successfully “pitch” their idea about installing a cable car in the city centre, gaining more then 30.000 likes in just couple of months. Even if it never becomes reality, the initiative could have a “snowball effect”, and make a cross-over from the realm of “spontaneous Facebook initiative” (perceived as not-so-serious) to a relevant urban planning topic.

This question of who is initiating actions is quite different if we look at the neighborhood and street level. (figure 10)

In Rotterdam, the neighborhood-level activity on Facebook is lead by the organized civic groups, with very clear concerns: safety, greenery, and general quality of life of the neighborhood. Although this paper observes only a small sample, it can be said that on this spatial level, the Rotterdam municipality does not carry a big role.

The situation in Belgrade is quite the opposite. The municipality is trying to take more active lead on the neighborhood level, using Facebook as a channel to establish open forum about pressing issues, and going into dialogue with citizens.

We can also see a clear attitude distinction in what is important when it comes to activism on the neighbourhood level. Content-wise, the spontaneous, bottom-up Belgradian pages deal

more with spatial urgency and open social criticism, while similar pages from Rotterdam are more focused towards discovering and preserving the spatial values of the neighbourhood. (figure 11)



Figure 11: Popularity of urban activism based on observed pages Source: Facebook; GGraphic interpretation: Milena Ivković

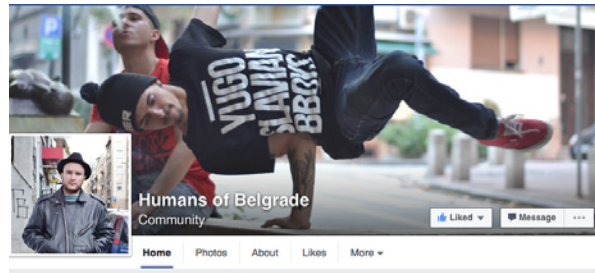
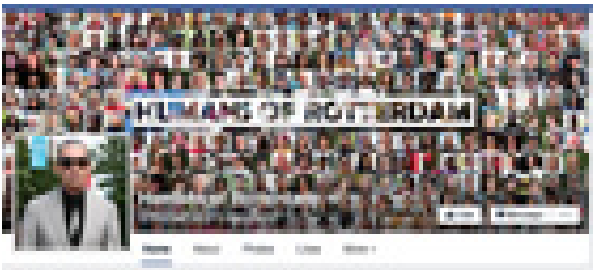
3.4 Analyzing the pages with similar content

Similar or identical pages’ content ranks differently in Rotterdam and in Belgrade. (figures 4,6,9) Pages calling upon the nostalgic past times (such as ones displaying the historic city photo’s) are relatively more popular in Belgrade then in Rotterdam. One of the probable explanations for this is that the harsh reality of everyday life calls for evoking the nostalgia for some other rimes and values.

Digital realm offers a variety of themes dealing with civic pride and sense of belonging to a city. Activism in not everyone’s “cup of tea”, and inspiring people to take a different perspective on their city is sometimes more engaging that continuously asking them to choose “for” or “against”. The Facebook page “Humans of ...” is one of the many artistic civic pride projects focused on celebrating the individuality of the citizens and the diversity of urban life in the present time. “Humans of ...” offers a good comparison base, because it has it’s local version in Rotterdam and in Belgrade.

By the first look, the Rotterdam page is more popular then it’s Belgrade counterpart. Judging by the number of followers, (figures 4 and 6) this subject is experienced as less engagement-worthy in Belgrade. On the other side, pages dealing with improvement of the public transport are both very popular in the observed cities.

a)



b)



c)



Figure 12 Similar subjects, different cities: a) civic pride b) better public transport solutions c) city's history. Source: Facebook Systematisation: Milena Ivković

4. Final conclusions

The life in modern cities is inseparable from the presence of digital technologies. The phenomenon of digital literacy and social media allows different groups of citizens to connect or take action about the issues they find important. After some quick observations on the differences between connected citizens and their preferences in Belgrade and Rotterdam (using Facebook as a medium for observing the behavior when it come to discussing important urban topics in the emerging and developed economy) we can summarize several interesting points.

Firstly, the pace of quick urbanization that polarizes and increases the inequality is one of the main civic concerns in the emerging economies. With the availability of technology it is getting easier to talk about it. Comparing Belgrade's underlying currents of criticism, actions and discussion on the several Facebook pages with the Rotterdam ones, there is a clear expression of doubt and skepticism if the city will ever be developed in the "right way". The general feeling among Belgrade's connected citizens is that of 'endangerment'. There is a need to protect the human-scale city from what is perceived as aggressive, profit-driven development. This fear of loosing the quality of (communal) life to quick urbanization is very much present. The availability of mobile technology and the benefits of being able to voice your opinion on the social media without being totally visible to the top-down city government is a major driving force behind the ways how urban development has been seen and discussed.

If we take the example of Rotterdam, the discussion among citizens is not less critical, but the focus is on staying at the "right side of development" and moving towards innovative ways of preserving and upgrading the existing quality. The municipal government is ready to show less of its governmental and executive side, and tries to act as a catalyst to civic processes enabled by the technology.

What can urban planners learn from these few quick conclusions? First, the connected citizens are here to stay, regardless of the current state of urban development, and are using the available technologies more and more to express their opinions and criticism. But also to organize themselves when it comes to solving problematic issues. Secondly, municipalities and planning authorities should not be passive beacons of delivering the information about how and when the city will develop. Instead, they should try to clearly connect different aspects of physical planning with civic causes, and use digital communication channels to create approachable stories which citizens can understand and get inspired by. Some future research could focus more on these tactics, since urban planning is getting closer then ever to be merged with other disciplines.

Endnotes

- 1) Serious games: A new route to training, fun and cultural change
March 2005 Executive Technology Report, Peter Andrews Chuck Hamilton, IBM Centre for Advanced Learning (CAL) in Vancouver, British Columbia
- 2) *"Use of ICT in Serbia"*, Report by institute for Informatics and Statistics, Belgrade, Serbia, 2014.
- 3) Activist practitioner perspectives of website public relations:
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- 4) This data is derived by extrapolation of the nation wide-data available on analytic sites such as Internet Live Stats and Google Analytics)
- 5) Michael Cohen is a Professor of International Affairs at The New School in New York. He worked on urban issues at the World Bank from 1972 to 1999 and participated in the Habitat I and Habitat II conferences.

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