Keeping Up with Technologies to Create the Cognitive City

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TABLE OF CONTENTS

PART 1:

INNOVATIVE METHODS AND APPLICATIONS FOR SMART(ER) CITIES

CHAPTER ONE

TOWARDS A FRAMEWORK FOR UNDERSTANDING THE SYNERGIES BETWEEN PUBLIC SPACES, PEOPLE AND TECHNOLOGIES

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Abstract | This chapter is concerned with how digital technologies are changing habits, expectations and motivations in the use of public open spaces. These digital developments are a challenge for society and pose questions about social practices and planning and design approaches to public spaces. These factors might also challenge the future development of information and communication technologies (ICTs). The discussion in this chapter is based on exchanges of knowledge and experience carried out within the COST[5] Action CyberParks. The leading issue of CyberParks is how to use ICTs to transform our cities into more human environments, rather than just more high-tech places, and to understand that "smartness" should be people-friendly. The structure of the project introduces the importance of comprehensive and trans-disciplinary development. A theoretical approach and framework from the perspectives of ethnography and technology are under development. These will help us to better understand (potential) interactions, and both are at the centre of this discussion.

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Keywords | ICTs and public open spaces, digitally mediated public spaces, research methodologies.

Intersections and Synergies

Digital technology (embedded computing, global internet access, wearable sensors and smart devices) is developing at an accelerated pace, breaking many social and political taboos but also opening up new opportunities. Over the past three decades, the world has become increasingly hyper-connected, melting together the real and virtual worlds and this makes the exchange of information and data via the Internet and its associated services accessible and immediate (WEF, 2016). The interactions between the use of technology and the use of public spaces are not new, but they are increasingly creating new forms of social interactions and practices, and with them socio-spatial representations and relationships. This demonstrates the need for re-thinking urban design practices, which in turn might also have an impact on the development of ICTs and their devices. The intertwining of real and virtual worlds also opens up new ways of advancing knowledge, gathering and interpreting the data, and disseminating the acquired knowledge. This chapter makes the case for (re)inventing tools for reading, understanding and guiding knowledge about social space and, more specifically, about socio-spatial relationships (Menezes, 2012).

A real opportunity of ICTs lies in their ability to enhance communication with (potential) users, transforming the production of public open spaces into an interactive process, and enabling creative community participation and empowerment. Building such digital bridges creates the need for research towards advancing knowledge about, on the one hand, the use of public spaces (ethnographic perspective), and on the other hand, the opportunities digital technologies and their devices can offer (technological perspective).

The concept of "*public open spaces*" is broadly defined in order to recognise how the built-social environment intersects with and influences socio-spatial practices. Public open spaces, such as parks, gardens, squares, plazas, etc., have been at the centre of a range of planning, environmental, social and cultural disciplines. These have investigated the context and the environment in which public open spaces are developed, and evidenced their benefits for a sustainable and, more recently, a smart city (Šuklje & Smaniotto, 2015). Regarding this work, the pertinent aspect is the public access to a space, enabling interaction between people and

also between people and their environment, creating the so-called public life. The resulting socio-spatial practices coexist alongside each other, at times peacefully, at times at odds, juxtaposed or interlinked. The question is whether the expansion of technology into public spaces will result in changed social practices, and whether this will provoke conflict.

The concept of "*information and communication technologies – ICTs*" and their materialisation in different devices and services also has to be understood from a broad perspective. It starts from their capacity to be applied in various areas of human life, associated with promoting the simplification of processes, well-being and prosperity (Markauskaite, 2006), to their capability to create environments that are more inclusive, and to the ease and relatively low cost of the collection and dispersion of information and data. Such benefits also present us with significant social challenges. As Thomas (2014) highlights, people are smitten with technology; the central question to be addressed is how to harness the collaborative power of ICTs to encourage people to be involved in decision-making about their environment and to lead more active lifestyles. This refers to another opportunity that the development of technology, applications and devices is creating. It concerns the collection and production of enormous databases, which offer researchers, planners and designers a better understanding of a place, people's behaviour and their needs, values and motivations, as well as the problems and obstacles in relation to the use of urban open space.

The interrelationship between ICTs and the urban/physical environment is mostly discussed within the concepts driven by technology, and recently "smart cities" have emerged as a powerful tool to drive the future of cities. But more and more authors argue for the importance of another, more people-oriented vision, rather than those oriented towards control, efficiency and predictability. The networked city should be more about encountering the unexpected and dealing with differences (de Lange, 2015). Further, the author argues that the smart city, as with many of these technology-driven solutions, ignores the active role of citizens and their contributions. Such neglect, by thwarting initiatives and a sense of ownership, can even have adverse effects on public life at large. Many smart city policies do not empower citizens to become active "players" and "hackers" of their own cities "as they are obsessed with high-tech solutions, assuming that technological fixes can by themselves solve complex urban problems" (de Lange, 2015).

The concept of "*synergy*" will also be used broadly to recognise how people, and their social practices, the built environment in the form of public open spaces, and digital technology intersect with and influence each other. New technological forms have altered how people socialise and interact, and this raises a new set of issues about how people use urban space, opening new challenges that planners and policymakers need to consider.

This work explores the transformation of the use of public open spaces in the context of societal changes and paradigm shifts in technology and in the way in which they interact with each other. To illustrate the interactions, we can use the image of more and more people using smartphones or tablets in a public space, or street furniture that enables the charging of devices or enabling WLAN access; such "improvements" are already taken for granted. Both make changes visible in the physical world but are also making use of the interface of ICTs with public spaces which might result in different situations. Another example of a very recent phenomenon is Pokémon Go. This craze dragged adolescents and young people away from their computers in droves onto the streets and into parks. To meet them in public spaces is much more common now than just a few months ago, even if they are armed with smartphones on the hunt for virtual figures. What is, for the moment, only a superficial interaction, could become the embryo of bringing young people, the future users of public spaces, more intensively into and more connected with the places, if we succeed in building sustainable digital-physical bridges.

Cyberpark - the Hybrid Space

In the context of digitally mediated public spaces, the CyberParks Project coined the term cyberpark from two different perspectives. From a spatial planning perspective, a cyberpark is seen as a new type of urban landscape where nature, society, and (cyber)technologies blend together to generate hybrid experiences and enhance people's quality of life. From a media perspective, cyberparks are media spaces, channels and platforms concerned with the development of public open spaces. The CyberParks Project, therefore, is an attempt at redefining public open space, focusing on it not only as a construct of a solid, actual place along with the reflection of its physicality on people, but also as a hybrid mode of human/space communication (Ioannidis et al., 2015). This also places an emphasis on the user's experience of the space through technology. Ubiquitous technologies used in sociable and sharable ways make the

virtual visible or augment the actual landscape. Frick's definition of the supportiveness of public space that concerns the relationship between "people and things" beyond its clearly physical-spatial characteristics (Frick, 2007) seems to confirm some of the ideas behind the emergence of cyberparks – that we need to relocate our appreciation of "things" and connect their materiality to a growing digital world. As human outdoor activities and actions adapted to a fast-growing human/space/machine synergism stretch public spaces beyond their physical existence and turn them into more mashed-up constructs, so hybrid places, and as such, hybrid spaces, enable people to connect with peers in new ways.

Cyberpark's hybridism is deliberately not approached as a purely socio-spatial dimension; in fact, it is often a formless aspect that dramatically affects the development of our internal cognitive constructs. However, the way it manifests on the shaping of people's outdoor behaviour, preferences and choice is yet unexplored (Ioannidis et al., 2015). To face this challenge, research on the interactions between people, spaces and technologies has to explore the role of ICTs on the basis of their being a facilitator for human/environment interaction.

In this regard, the questions tackled by the CyberParks Project are highly relevant. It will increase understanding of how new digital technologies are changing the habits, expectations and motivations of urban open space users on one side, and on the other, of how the development of ICTs can increase possibilities for new uses and elements, or even types, of urban open spaces, as well as new types of social interactions, participation and involvement.

Integrating Disciplinary Research into a Multidimensional Framework

The goal of this interdisciplinary research, in our case, on the ways people use public spaces and the role and opportunities offered by digital technologies, is to define the dimensions and their variables, which are critical forces for understanding the actual, social processes of producing public spaces. The aim is to contribute to the delineation of answers that meet the needs of future users, transforming spaces into more sustainable and welcoming places. The concepts being developed by the CyberParks Project offer an in-depth focus on how to understand social practices, public life and technological challenges. This interdisciplinary angle ensures a broad understanding will serve as the basis of a well-integrated

interdisciplinary perspective, as it is the intersection of disciplines which reveals the most interesting aspects.

The concepts help to compile the aims and activities at different levels and include dimensions and variables in the scientific analysis that also help to broaden understanding, despite the complexity of the topics, and examine the implications of the acceptability and transferability of the approach of CyberParks. These general concepts described from a disciplinary approach will allow the design of an interdisciplinary framework.

People and Social Practices

As an urban land use type and spatial resource, a public open space is challenged by the social interactions of the people in it. The spatial practices of citizens in general, and of users in particular, creates a physical and social environment that has impacted on how we perceive, understand and use the space, making it a complex socio-spatial entity (Menezes and Smaniotto, 2016). The proliferation of ICTs in urban life adds another layer – the virtual. This has led scholars to speculate about the exclusiveness of ICTs, their perceived contribution to increasing privatisation and privatism in urban society (i.e. their role in widening the gap between the public and private realms), and their contribution to the reduction of encounters with "others" or strangers (Hampton et al., 2010; Hampton and Gupta, 2008; Hatuka and Tich, 2014; Leyshon et al., 2013). For example, Hampton et al. (2010) used observations and face-to-face questionnaires and interviews to study people's use of wireless internet connections on personal mobile devices in public and semi-public spaces in a number of North American cities. The study predominantly focussed on people aged 19-64. This work found that although the availability of WLAN in public spaces increased people's use of such spaces, they were found not to be active participants in the social activities of the public spaces (i.e. they were "silent spectators"). The research found that the use of wireless internet on personal mobile digital devices in these spaces afforded a public privatism whereby people could engage in private personal activities and their private social networks while in a public space, thus they were not active participants in the public space. Further, the work of Leyshon et al. (2013) examined how young people locate themselves in the city through their use of GPS-enabled mobile phones. Their work was partly concerned with the role of GPS-enabled mobile phones in young people's navigation through and exploration of the city. While the study found that young people were less likely to "get lost" in the city and had greater confidence in exploring new places as a result of

their GPS-enabled mobile phones, they also found that the mobile devices proved a distraction from their surroundings in that they were less inclined to observe or engage with the surrounding environment. These sorts of findings create concerns about the diminishing value of public space in a traditional sense, about the declining significance of the city and urban spaces in the digital era, and about the potential of ICTs to generate and increase social inequalities, as well as reduce opportunities for encountering "others" in the city (Valentine, 2008). While there are these emerging concerns, we know very little about the positive role that ICTs can play in encouraging greater encounters and engagements with urban public space. That is why this framework for social research is being developed.

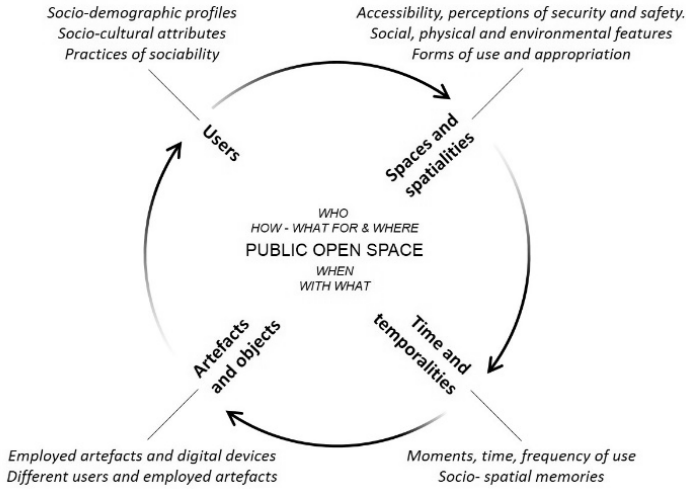

Fig 1. Capturing the Cyberpark concept: the dimensions and their characteristics which capture the diversity of social practices in public spaces.

To better understand the implications of personal smartphone usage on the social and urban spaces of the city, a new and improved methodology is required. Despite the extent of digital data available and the rapid diffusion of personal ICTs, research to date on the social uses, experiences and implications of personal technological devices on public spaces has primarily adopted traditional methods of inquiry, such as, for example, field-based observations coupled with interviews and/or surveys with technology users (see Hampton et al., 2010; Hampton and Gupta, 2008; Hatuka and Toch, 2014; Leyshon et al., 2013). Some recent studies have

started to make use of online surveys, to connect to a digital space and engage with those pursuing increasingly digital lives. Hoffner et al. (2015) studied young people's attachments to their personal mobile phones and examined how mobile phones functioned as affective technologies in this regard. Their methodology involved an online survey of smartphone users. To summarise, the overall point here is that recent research on the uses of ICTs, and related social implications, still relies overwhelmingly on fixed methods of inquiry and of face-to-face methods that ask people to describe or account for their uses of personal mobile devices and their uses of public spaces. This is where a new framework is required that is able to explore the complexity of new social relationships and (real and virtual) socio-spatial experiences. The framework has been designed to guide researchers who aim to conduct research on people's use of ICTs in urban public space. Fig. 1 provides an overview of the four main dimensions in order to understand how socio-spatial interactions occur. The main questions are *by whom*, *how (for what* and *where), when* and *with what* a space is being used. Although these dimensions are strongly interrelated, they are not set as sequential stages, but they are different programmatic contents for an ethnographic study. Fig. 1 shows only the main aspects that outline these dimensions, as they have to be broken down into variables that provide answers for these dimensions. Menezes & Smaniotto (2016) provide an overview of the dimensions, their comprehensive description and the variables. While these four dimensions advance the knowledge of the physical nature of a space, its functionality, and people's relationships to the space and the meaning they ascribe to it, a further dimension is needed to analyse the intersections between ICTs, planning and citizen participation. Of particular interest are local participatory practices, expectations of the public spaces and the relationship between the logic of socio-spatial exclusion and the digital divide.

ICTs and their Interface with Public Open Spaces

ICTs are among the technologies that have experienced fast growth in the last decade. Every few months new tools and devices are developed which open new ways of exploration that were unimaginable some years ago. Most of these tools have not been designed for a specific application, and thus they can be useful for different purposes when focusing on public open spaces. Moreover, the same tool is likely to be of certain interest for stakeholders with different profiles who would eventually exploit the features that adapt better to their own goals. These three factors together, namely, the fast evolution and growth of ICTs, their generic design

suitable for multiple applications, and a variety of stakeholders with different interests, present the need for a concept of classification where all ICTs somehow related to public open spaces should find their place and be easily located. It must be flexible enough to accommodate different approaches and technologies of different types, but at the same time, it should be kept as simple as possible to be useful in practice. This critical balance between the breadth of coverage in technologies and stakeholder profiles on the one hand, and the ability to understand and the simplicity of use on the other hand, poses a major challenge in outlining the main conceptual pillars. Our proposal is based on a layered approach with a top layer defining the three basic modes of using ICTs in the context of public open spaces: Research, Design and Implementation. These modes represent the stages of the creation, and later use, of public spaces and are, of course, strongly interlinked without definite beginnings or endings. These ideas are represented graphically in Fig. 2, where the basic modes of Research, Design and Implementation have been linked through curved arrows to form a circular structure.

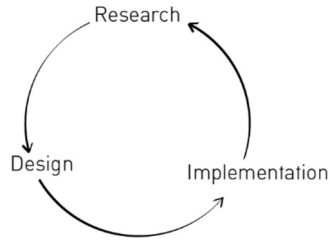

Fig 2. The three major dimensions in the CyberParks concept.

In a second layer below the circular core shown in Fig. 2, particular uses or attributes of the main modes are defined following a branch structure that provides great flexibility to this framework, since new ideas can be easily incorporated by adding new *branches* without having to modify the underlying scheme. In our proposal, the Ideation and Creation sub-modes stem from the Design main mode, the Stage, Mode and Source categories from the Research mode, and the Hardware, Social and Service attributes detail the Implementation mode in a second layer. From this second layer, new branches can be defined, thus establishing a third level of concreteness that should be enough to conduct an unambiguous classification of most ICTs of interest. Figure 3 shows an example of this three-layered framework. More layers could be added to this structure to reach the desired level of detail in one particular branch.

Once this framework has been laid out, any ICTs related to one of the basic uses defined in the core layer can be easily categorised by going down to the third layer through one or more paths. As an example, geolocation services, defined as those software tools that provide contextual information based on the user's location (Steiniger et al., 2006), constitute a powerful tool for the Research main mode. This tool provides environmental, quantitative data (Mode and Source) during the Acquisition/Production Stage. But it is also an essential technology in the Implementation mode that, as can be deduced from its definition, does not require the deployment of a particular hardware infrastructure. Figure 4 shows the graphical categorisation of this technology in the proposed framework.

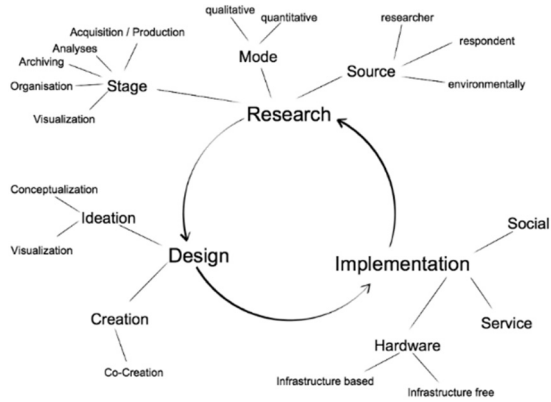

Fig 3. Example of the three-layered framework.

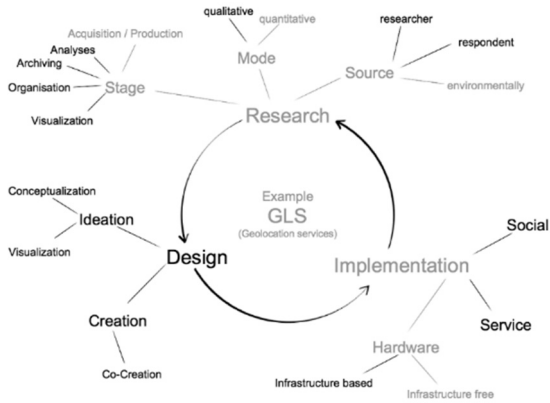

Fig 4. ICTs classification example: geolocation services.

It is important to state that the general framework shown in Fig. 3 is not a definitive, fixed structure. On the contrary, it just represents the materialisation of a procedure for classification based on the definition of different layers of concreteness that grow from a common root of strongly interrelated modes of use. This procedure can be used as the backbone for alternative approaches.

Cyberpark – An Integrated and Multidimensional Framework

The creation of knowledge about synergies between public spaces, people and technologies requires both an interdisciplinary and multidimensional perspective, as well as a multi-methodological approach. This approach demands not only the application of different methodologies, but also the need to combine and articulate these with different research techniques and tools. For example, observation combined with methods of visual analysis (i.e. photos and videos), conducting an online survey, creating behavioural maps using the support of ICTs, and interviews, both face-to-face and through video conferencing, etc. Just as the expansion of ICTs into the real-world space creates the hybrid space, this multi-methodological approach also brings out a hybrid perspective of research in terms of the disciplines involved, the dimensions of the study, and the methods, techniques and tools applied – their application will depend on the focus of the research and its theoretical orientation – as different disciplines have different aims. Although reaching consensus across a diversity of approaches and theoretical orientations is difficult, several useful points can be endorsed within the CyberParks framework.

The integrated framework is also useful for aiding the development of people-friendly smart cities or people-friendly public spaces. As we noted above, vast technologies are entering both the market and the city at a rapid pace, but often these technological innovations can enter the market quickly and have detrimental effects. For example, a new “smart” screen can be added to an urban public space to enable people to look up local information, but if that screen is located at a height that cannot be accessed by people in a wheelchair or by children, or if the screen is not user-friendly to those with limited technological literacy, then the technology has an exclusionary dimension. Therefore, we must adopt an integrated framework that enables us to have a full appreciation of the user and their needs, and allows for the development of ICT tools that can actively encourage wide participation in urban public spaces, rather than exclusion, bringing people and technology together for people-friendly urban spaces.

Taking the *user* as one of the major actors in all matters concerning public open spaces needs some previous understanding, as users represent entire segments of the population, be they the elderly, children, women and men, or the poor, the ethnic minorities, etc. These users sometimes have similar needs but more frequently, they have different interests in public spaces and enjoy them in a different manner. Focusing on analysing *users,* the way they *use* the space, along with the support of ICTs, as in the case of geolocation services, can provide exact insights into how users benefit from/utilise the existing space's geography and topography. This delivers an answer about whether the space stimulates interesting visual experiences.

Discussion and Conclusions

Studying and building a theory on the planning and social impacts of ICTs, as well as their political, economic and cultural contexts, is not an easy task because their use is in constant and accelerated development and transformation, in turn resulting in new interrelations. Even if most of the ICT tools have not been designed for a specific application in public open spaces, they can be useful for different purposes. However, the combination of this fast evolution and growth, the tools' generic design suitable for multiple applications, and a variety of stakeholders with different interests, necessitates an increase in the knowledge of this whole area and to this end, this work proposes a framework.

The real and virtual worlds are melting into one another, and this creates new forms of social interactions and practices, socio-spatial representations, spatialities, and provides evidence of the need to re-think urban design practices. The new forms of interaction and practices, which create places, can naturally be a source of problems because with interaction conflicts may arise and technological fixes alone cannot solve them. Not only are new approaches required in urban design practice, they are also required in research approaches to this field. As Fig. 1 highlights, new approaches are required in ethnographic and social studies of urban public spaces, people's use of space and their engagement with ICTs, as an increasing technological pervasiveness is creating new socio-spatial dynamics. Cyberpark, the hybrid space, is more than a concept; it is an attempt to understand public open space not only as a socio-physical construct, but more as a hybrid mode of human/space communication and also more than human-computer interaction.

From a research perspective, ICTs can address a wide range of practical issues as they offer additional and alternative approaches and practices,

which can lead to new co-authored and shared results. Following the example of planning, which starts from design and comes to creation, and then based on innovative collaboration becomes co-creation, research can become co-research. This is an essential step, when research is actually collaborative and even co-creative, as is advocated in this work.

An integrated multidimensional framework does not simply present more data, but actively produces meaning, generating new visions and understanding of public open space which support decision-making and a re-shaping of urban policies. ICTs, on the other hand, can transform the production of public open spaces into an interactive process, enabling creative community participation and the empowerment of citizens. Lastly, it is important to recognise that creating inclusive public open spaces is a never-ending process. The same applies to research on the interactions between people, spaces and technologies, which as we move towards co-research will ultimately enhance both shared analyses and the generation of knowledge through negotiated perspectives.

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www.cost.eu/COST_Actions/tud/TU1306.

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CHAPTER TWO

POST INDUSTRIAL CITIES: CREATIVE PLAY - FAST FORWARD BELGRADE 2016

EVA VANIŠTA LAZAREVIĆ,[1]
MARIJA CVETKOVIĆ,[2] UROŠ STOJADINOVIĆ[3]

Abstract | In the post-industrial society of today we are witnessing a rather odd phenomenon: only a few industries have survived, high fashion being one of them, and they have, in recent times, interacted mainly by using technological gadgets; the overabundance of free information offered through the internet has practically disabled our ability to realistically evaluate facts, often leading to consequences such as spoiled tourists who have to be catered for through the repackaging of the heritage sites found in cities, with hand-held applications for guiding them as they move and as they search for new experiences offered by the cities of today which are constantly competing with each other.

In order to save cities in this cruel world full of competition, to help them regain their youthful, fresh and interesting appearances, architects and planners are seeking the right answers and suggestions on several issues: what should we focus on while re-thinking the City? How can we bring in tourists and investors? Can we improve the social frame? How can we regain the citizens' pride? Perhaps by keeping or restoring their jobs? How can we maintain a creative and enthusiastic attitude under terrible social

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conditions? This necessary fusion with new technologies – does it really improve a city or does it simply disable a city's ability to move forward? This paper discusses the hypothesis that a mixture of creative industries and new digital technologies can improve weak social structures by providing small jobs and by revitalising the city in general.

Using Belgrade as a case study, my Master class students attempted to build an integrative platform entitled Bel_app_grade, which will provide the necessary all-encompassing data in one place. This paper is also about a presentation of their idea. Creative play – the new city of the 21st century is moving at a fast forward pace.

Keywords | Post-industrial cities, sharing, creativity, and integrative platform

Post-industrial societies: competence, collaboration and sharing

The social context of the 21st century could be referred to as a post-industrial community and it is likely that the majority of us are unaware of what it is all about. This new society involves significant change in the state of affairs where services have taken over and are generating wealth; production has fallen to second place and is less important. This new society is also known as an information society, an economy of know-how, a post-industrial economy, a network economy or a convivial society which brings with it considerable changes. Knowledge or know-how has become a valid form of capital and the production of ideas and creations have, it would seem, become an important method used to grow economies. The new actors of social progress belong to a younger generation of people. They are "Professionals" or "Specialists" – scientists and experts in creative industries as well as IT professionals. They are the ones creating a new world, miles away from the world that older generations living in Europe grew up in. This drastic split between different generations indicates something more: two thirds of the active population is out of touch with the flow of business, unequipped to deal with the latest technologies and newly established relationships.

Behavioural economy, computer-generated architecture, and theory and cybernetics are the areas where know-how is a prerequisite for young people and they are learning as they go, with less effort, as this is what they have always done (the mentioned generations were born in the era of the internet and the expansion of PCs). The objective is to create *human*

capital[4]. So-called "know-how", social and personal attributes which include creativity, are intertwined in such a way to produce work, thereby producing economic value. Marx's thesis on one's own hand-made production being a measure of the value of our own work is, it might seem, an almost abandoned concept.

The behaviour of fashionistas has become a universal guideline. The fashion industry has gained in popularity through advertising and media. Fashion insists that members of today's societies maintain eternal youth and freshness, although we know from experience that such a goal is unreachable. This too may be imposed on other entities – cities, for example. Universal questions and desires are imposed: how do we create and present ourselves in a good light? How do we physically shape ourselves so that we are easily recognisable and readily fit in? How do we gain recognition of a widespread acceptance all the way up to and including admiration? How do we attain the eternal fountain of youth? Who, and what kind of behaviour is considered positive, and who remains a loser and left behind in the process? Numbers and amounts have been imposed upon us, bars constantly raised.

Competitiveness is not only a trend but also a desirable behaviour, a concept fostered by a capitalist society. The focus of such competitiveness can be described as a desire to achieve more with less. We are striving to attract as many acclamations as possible (i.e. LIKES) regardless of whether our behaviour remains within ethical boundaries.

Why is it that we often think that the pace of life has accelerated in the 21st century? The answer to this question is not just because of new technologies; it also lies in a true fear and awareness of the inevitable passing of time and the possibility of losing resources. A fear of even the slightest hint of (biological) insecurity makes us act. The 21st century has created a type of magnified selfishness, flatteringly proclaimed as direct self-preservation in this new era.

The most influential people of today are those individuals who have the most followers on Twitter, and what causes their popularity may be quite incomprehensible and often ephemeral. The number of followers one has is an assessment "per se" and seems to demonstrate personal quality. However, statistically, this is precisely how high-paying jobs are obtained.

[4] Human capital is a combination of know-how, skills, abilities and personal relationships, necessary in order to generate economic value through labour.

This is where we finally enter the sphere of recognition and can choose freely between branches of successful business, thereby gaining the freedom a rich life offers, which includes the ability to participate freely in consumerism.

The phrase "If you're not on *Google* - you probably don't exist" has crept into our subconscious, so now, before meeting someone in person we review them online, evaluate them by their profiles on social networks, which takes just a second, and with this information, we come to quick generalisations about a person that may in fact be completely partial. Interactivity has contributed to the fact that we are subtly but definitely drawn into objective and ruthless critique on a daily basis. Our network of acquaintances and influence is growing. Competition is considered desirable, positive and as something that "propels us forward faster".

Another key word of the 21st century is *collaboration*. It is unnatural in its essence, just as excessive force is in competition. It is expected that various professions work and operate together, even though until yesterday they were opponents. They now jointly collaborate to observe issues for the purpose of finding more complex and superior solutions. It is understood that by considering issues from various angles, through different paradigms and aspects, it is easier to come to more expedient and complete solutions. Placing younger generations from various professions into so-called *hubs* marks a shift. It is assumed that physical closeness in informal spaces stimulates mutual creativity. Connecting the youngest and the oldest in the population, men and women doing the same creative jobs, people from both private and public sectors, and experts of various ethnicities is viewed as a welcoming *mix* and has been proven to produce good results.

Sharing is the third aspect of an entirely new behavioural form and the idea represents both savings in resources as well as ensuring sustainable development. Platforms which offer carpooling for the purpose of saving money and petrol, using privately-owned vehicles as taxis, or exchanging privately-owned flats, were inconceivable solutions just a decade back, when anything "personal" was not considered as consumer goods. Each exchange of this type is reviewed and instantly available online. Furthermore, cameras track our every move, both at work and in our vehicles. We compete for the best reviews and evaluation marks. We have become more careful and prudent.

In comparison with life in the last century, it seems that we are spending a lot more energy in fighting for an even lower standard of living. Facebook is the best representative of our time, full of other people's content. The perfect example of an initial idea with creative brilliance, a valuable product, generating great amounts of money through marketing in its second phase. Globally, Facebook has become free entertainment for the whole planet; it is a gift of the 21st century.

Are creative cities based on cognitive thought or do they require emotional intelligence?

Creativity is about innovation and *entrepreneurship*. It's not just about coming up with ideas. It includes development studies as a discipline. We perceive cities as products; gatherings which were built by creative individuals. Successful people, citizens of the world, who have stayed mostly in metropolises are fully aware of the power of the leadership they have in their hands. Some believe that emotional intelligence is twice as important as both technical and analytical skills put together.[5] The importance of loyalty in this process is unquestionable. No single task of great importance can be achieved without honest and open team work.

Today's leaders have to be positive, available, warm, empathetic and optimistic and all of these traits are essential elements of their intuitive emotional intelligence. Moreover, they are trained to feel how an atmosphere is developing and consequently how to react. One of the roles of the right brain is to choose art and creation over numbers, analysis and rationality. It seems that we will need to use this intellect more often for the requirements of the 21st century. Our sense of space, visual recognition and our ability to create and feel music are all due to our right brain. The designated, renewed, fresh and vivacious *Leader Cities* will have to be led by the leaders of tomorrow: those who are cognitively aware but also emotionally advanced and enriched.

The overall atmosphere will be taken into consideration while evaluating cities. Attractiveness, warmth and charisma will be an expectation and they will set the tone and create the overall impression of the cities. Their side effects on consumers will be reviewed and carefully evaluated. What attracts people into new cities no longer rests solely on recognising architectural heritage. A creative new city may not have any attractive landmarks yet can still be recognised as an enticing place. Both Curitiba

[5] http://www.danielgoleman.info/topics/emotional-intelligence/

and Medellin, two cities which have been listed in the top five creative cities in the world, represent two extreme examples of this.

Cities began competing with each other, each striving to become more attractive than the others. Unfortunately, a large number of *new* tourists prefer *fast and affordable* over *quality and insight.* This new target group is hard to satisfy in competitive cities. Statistically speaking, these young *new* tourists have less education; they are employed as a result of their skills and online training. They have access to large amounts of information (often insufficiently corroborated) and, therefore, are easily bored. Creative support must be made available in this particular area. Some of the new branding ideas are surprisingly unusual and are more able to powerfully attract these tourists: for example, war tourism in war torn areas, swimming with the sharks in the Red Sea, or war enactments with historical weaponry for the purpose of releasing negative energy. Another appealing factor may be sex tourism and/or even underage prostitution, as we find in Thailand. *New* tourists are proficient, tough and they consume less. They desire action. The phrase "*quick and dirty"* resonates with a Wall Street of the 80's and has seeped into everyday life. It will play a significant part in tomorrow's life as long as it remains well wrapped within state of the art technology.

The best possible score given by interested tourists will indirectly launch such cities into their second phase, i.e. becoming the targets of large investment. The more popular the cities, the more they will be able to attract powerful investors and succeed in increasing their vitality. By gaining visibility, obtaining a place in the network of cities that are "on the map", cities have an easier time showing off their attractiveness. Unattractiveness should be avoided at all costs; this pulls with it a slew of negative symbols which we all find menacing, from ageing and powerlessness to insecurity and poverty, even crime.

The most unusual cities in the world have become centres of *selected elements of anything smart*, branded by creative geniuses. Sometimes the reasons for this are quite unusual and in no way related to the context of the city but usually they are linked to tradition or intertwined with the city's history. During the hardships of the economic crisis, consumerism, for example, had to come up with a new way of developing relationships in order to strengthen cities from within, opening up an entirely new area. Creativity as a method was statistically proved to be a suitable replacement for consumerism. The public is expected to demonstrate their creative skills as a sort of replacement for their lack of financial power.