SMART CITIES TACKLING CITIES TURNING POINT
MORE OF THE SAME IS NOT ENOUGH

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"If we open a quarrel between past and present,
we shall find that we have lost the future"
Winston Churchill, 1874 - 1965

1. Societies at turning point

Children born today may live until 2100. Cities must be prepared for them. How should that be done? And how new paradigms and new basis of city life should be combined with the struggle to overcome current crisis?

Our solidarity with new generations obliges us to change. Changes should include new political approaches, new technologies, new concepts and new paradigms. Energy, agriculture, transportation, green space, regional development, urban design and housing, will all need to change. We are now living an ecological overshoot, consuming more resources than the planet can replace, dredging down the stock of natural resources. Assuming present trends, the World in 2030 will have 14% more population and will need 50% more food, 45% more energy and 30% more water.

It's no longer bearable the unquestionable fact that "we are living as if we have an extra planet at our disposal. We are using 50% more resources than Earth can provide. Unless we change course that number will grow very fast – by 2030, even two planets will not be enough" [1].

Society is at a turning point, the transition from the end of the Industrial Age to the New Age. The progression was from Agropolis to Petropolis. Now the transition is from Petropolis to Ecopolis. During Agropolis and Petropolis the rhythm of innovation allowed long term experimentation. Now innovation shall be tested during a few times.

"Business as usual" presents several global risks that can severely threaten human society.

1 http://www.worldwildlife.org/pages/living-planet-report-2014

2. Cities population and demography

Spatial Planning embraces valences in different areas, through social sciences, dealing with sociologic and demographic different behaviours of in the territory. By observing 200 years period of migration from rural to urban areas, unparalleled world population growth, present and future, can be concluded. Today's reality of human settlements is urban. In 2007, 50% of the population lived in urban areas. In 2050, 66% is estimated (figure 01).

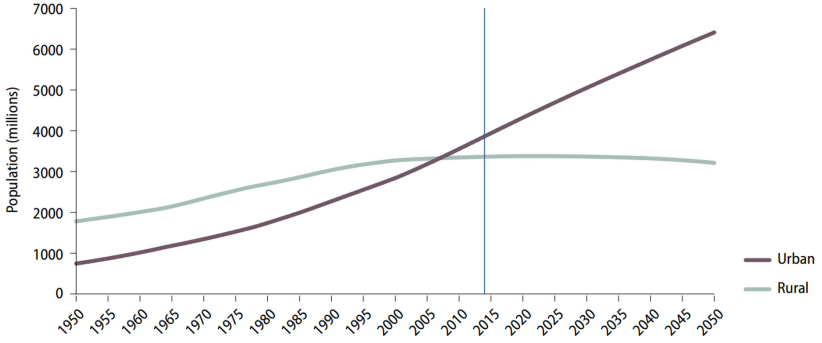
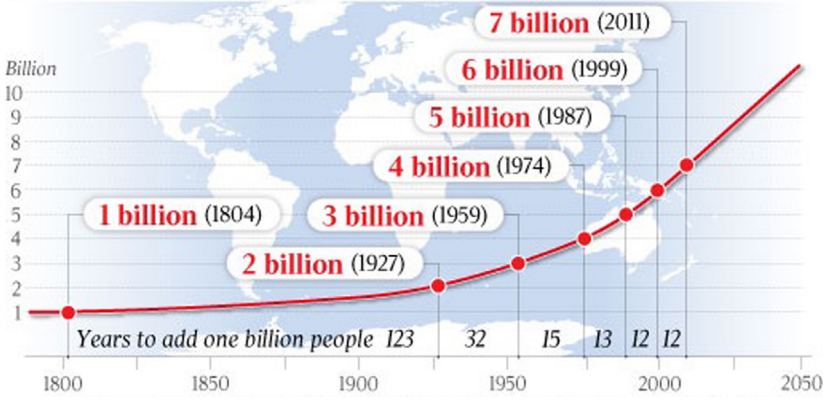


Figure 01: Urban and Rural population (source UN 2014)

It took 300 milion years to reach the first billion, 130 to add second billion, 30 years to add third billion, 15 years to add fourth billion, and now each billion come every 12 years period, including for future trend (figure 02). Due to globalization of economy, new complex agglomerations network were created. United Nations expects the world to have in 2030 even higher concentration of population in mega cities, big cities and medium-sized cities, with a unbalanced spatial distribution (figures 03 and 04).

Figure 02: World Population in increments of 1 billion (source UN 2014)



The number of people living in cities in each country of the World in 2010, together with the percentage of the population in countries with large urban populations.

Figure 03: Global urban population growth in 2010 (source Business Insider)

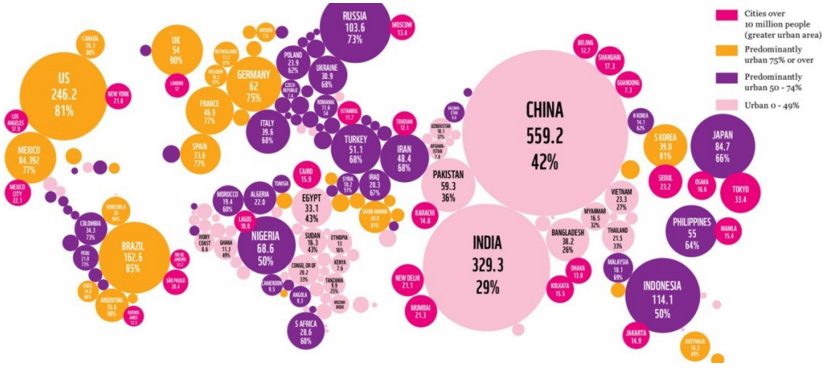
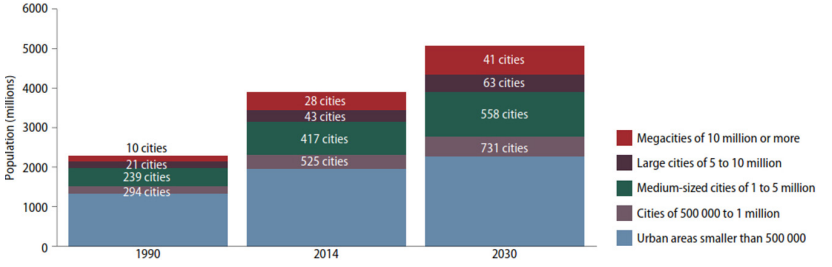


Figure 04: Small Cities Population Growth By 2050 (source UN)



Cities with more than 10 million people, classified as megacities, strongly challenge urban sustainability goals. The growth of population, their aging patterns and migration challenges Cities and Regions all over the world. Solutions become urgent (figure 05).

"Observe our cities, is to see our future. But based on what we have seen so far, that future does not look promising", statement from Ismail Serageldin, Vice President of the World Bank.

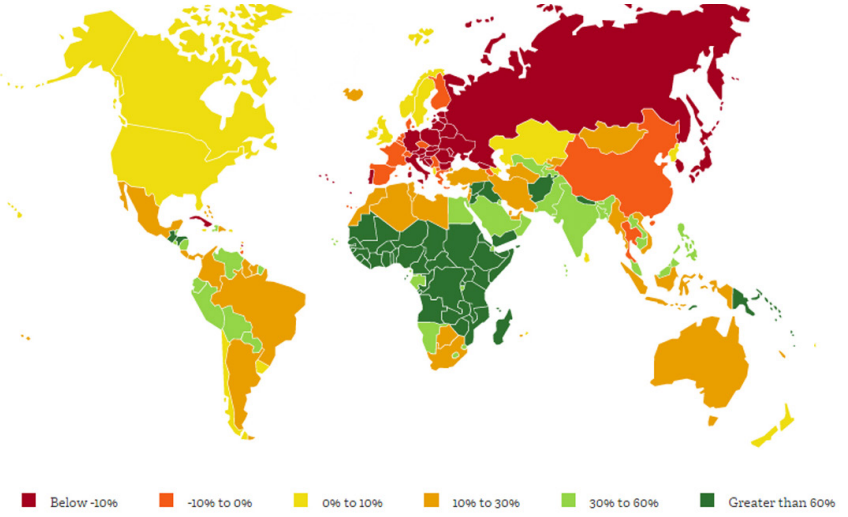


Figure 05: Growths of working-age populations (ages 20-59) relative to 2010 (source UN)

3. Cities growth and evolution

Through last 200 years, several breakthroughs at society level supported growth and ensure development for modern societies and their cities. *Both Social Changes and Technology Evolution* allowed progress with high concentration of people and activities in cities.

SOCIAL CHANGES WERE SHAPING CITIES

(e.g.) Increasing life expectancy; family units shrunk because of birth rate decline; one-person households increased; working hours are diminishing and more flexible; number of hours devoted to culture, sports and leisure are increasing; mobility of work places obliges to a flexible housing market; number and size of travels are increasing; new lifestyle choices.

TECHNOLOGY EVOLUTION TRANSFORMED CITIES

(e.g.) Steam engine, sewage collection and disposal systems, radio, rail road, metro underground, internal combustion engine, automobile, airplane, jet engine, steel, elevators and skyscrapers, motorways, new glasses, television, real estate financing, solar cells, microchip, high-speed trains, space flight, personal computer, credit card, mobile personal phone, world wide web, containers ships, shopping centres, light mobility systems, recycling (RRR) systems, optic communication cable.

In the past popularization of new technologies was a long process. Now, due to globalized information networks, production structures and international trade, popularization of new technologies is extremely fast. Planning is more uncertain.

4. Main drivers of urban change

Nowadays, there are five main drivers of changes in our cities and towns that are leading cities' future discussion.

MAIN DRIVERS

(1) GLOBAL AND LOCAL DEMOGRAPHY, based on migrations, population evolution and composition; (2) TECHNICAL INNOVATION, based on information technology, communications grids, big data, biological, biochemical, genetic and materials science technologies, robots, thinking machines; (3) ECOLOGY THREAT, based on the relationship between humans and the Earth's ecological system, mainly atmosphere and climate balance, energy matrix, consumption, natural resources and biodiversity; (4) SOCIAL EVOLUTION, based on changes of lifestyles, family structure and relations, working conditions, mobility, housing, leisure, culture and education patterns; (5) ECONOMIC AND POLITICAL CHANGES based on new balances, interconnected holistic global/local economy, different relationship between capital, labour, markets and governments and new forms of democracy.

It will be a revolutionary change based on the speed of transformations and on interrelationships almost unlimited between them, like never happened during human history. Again, uncertainty in these circumstances becomes bigger. Spatial planning is classically focused on people´s life, upgraded in the last decades by including future generations. The challenge might be regaining and updating Spatial Planning mission and their planner's role.

5. Cities and planning evolution

Since ever, societies were settled on cities. Such outstanding invention during history had moments of rethinking around urban problems and threats. Planners argued models and theories, leading or anticipating cities future and people's expectations.

Facing the need to plan and organize new cities of the Roman Empire, with "*De Architectura libri decem*" (Ten books of Architecture), Vitruvius (70bC/15bC) guided cities design for its network expansion around the Mediterranean. These solutions took years to construct, to test and to adapt. Nowadays this time was dramatically reduced, and we have to deal with more variables.

Facing hinterland consumption, with "*Cities in Evolution*" in 1915, Sir Patrick Geddes (1854 – 1932) introduced the concept of "region" into planning, coined the term "conurbation", and established *survey* before *planning*. Later, modernism applied: survey, analysis, plan[2].

Facing industrial impact on health and quality urban areas, with *"garden cities of tomorrow"* in 1898, Ebenezer Howard founded the Garden Cities Movement. Proposed new suburban towns, of limited size, planned in advanced, with benefits of both town and country. The proposal was that Garden Cities would constitute a network of towns surrounded by agriculture and nature.

Facing cities' growth, with *"masterplan for Broadacre City"* in 1934, Frank Lloyd Wright proposed dispersed housing, with highways built crossing agrarian fields, high-rise office buildings, and residential quarter of the ratio of one acre per residence. It influence the growing suburbs sprawl in American cities.

2 Environmental impact assessment was introduced in the 1960's. Sustainability appointed new methodologies. In the near future new ones will appeared based on the main planning subjects: Spatial and sectorial holistic integration, planning and ecosystems, planning and community involvement and empowerment, appropriated solutions (applying global principles to local solutions) and revitalizing urban tradition. Global Impact Assessment will be a component;

Nowadays, this model is unsustainable due to low density sprawl and car use dependence, responsible for high commuting costs.

Facing cities' growth and profit from skyscraper's technologies, modernism movement appear, first with a new vision for "Urbanism" in 1928, and later (after CIAM[3]) with *"The Radiant City"* in 1935, Le Corbusier introduced zoning for mono-functional use. Initially this model aimed better living conditions for the residents of crowded cities, but later influences major European cities under World War II reconstruction or urban expansion. It also aimed to answer to systemic and functional demand, to solve inadequacy of existing urban infrastructure to a new emerging urbanization reality. Due to functional segregation patterns, leading to systemic and social pathologies such as congested networks and absence of liveable and vibrant public spaces, this model is strongly contested since the sixties.

Facing London reconstruction requirement due to severe bombing of World War II, with the County of London Plan (1943; co-authored by John Henry Forshaw) and the Greater London Plan (1944), Sir Leslie Patrick Abercrombie (1879-1957) tried to avoid a big concentration of population by resettling the population to news towns, self-sufficient communities connected by an improved network of roads and railroads. With a new visionary planning concept for new towns, he influences "new towns act" in 1946 and the creation of new towns around the world.

Facing many US city neighbourhoods decline, opposing modernist planning era, with *"the life and death of large cities"* in 1962, Jane Jacobs argue another urban planning theory advocating *"four generators of diversity"* that *"create effective economic pools of use"*, changing the way of thinking in planning for future generations of planners. Also, with *"a city*

3 Congrès International d'Architecture Moderne, translated: International Congress of Modern Architecture;

is not a tree" in 1965, Christopher Alexander criticizes the tree diagram, where each part interacts with the whole through a hierarchical and pyramidal relationship, proposing alternatively the *"open structure"* model named *"natural"* city, settled over time and structured as a *"semi-lattice"*.

Facing the need to *"replace the polluted, bulldozed, machine-dominated, dehumanized, explosion-threatened world that is even now disintegrating and disappearing before our eyes"*[4], with *"design with nature"* in 1969, Ian L. McHarg pioneering the concept of ecological planning, showing how to design and build better structures in a healthier relationship between the built environment and nature.

Facing the planet limits, a theoretical revolution was made by introducing sustainability concept, greatly associated with the publication of *"the limits to growth"* in 1972 by Donella and Dennis Meadows, launching the debate on limits to support human economic expansion. After, the Report from UN-WCED, known as *"our common future"*, in 1987 Gro Harlem Brundtland, targets multilateralism and interdependence of nations in the search for a sustainable development path. Institutional global recognition comes in 1992 at Earth Summit (UN Conference on Environment and Development), on the Rio Declaration on Environment and Development *"that recognizes the integral and interdependent nature of the Earth, setting of principle and responsibilities to guide future development and safeguard the common environment"*. The document became known as Rio Declaration.

More recently, sustainable strategies were proposed for *"cities of tomorow"* in 1998 by Peter Hall, along with *"cities for a Small Planet"* in 2000 by Richard Rogers. Institutional documents followed such as *Charter of Leipzig* (2007), or *Declaration of Toledo* (2010), although this last one is more focused on cities regeneration.

4 Lewis Mumford ecstatically put it in his Introduction to the 1969 edition;

Growing urban global problem and financial crisis led to the emergence of a variety of concepts, incorporating sustainability, adjusted to changing realities, namely: compact cities, carbon free cities, self-sustainable cities, integrated resilient cities, efficient cities, and analytical cities or smart cities. This last concept integrates tools possible due to new technologies.

Four authors that refresh us with new theoretical frameworks in terms of cities' future: François Ascher recalls the start of the third era of hyper-modernism based on networks communication and the end of urbanization era; Peter Hall recovers the importance of local regeneration projects and actions in favour of best cities and better quality of urban life; Andreas Faludi suggest new future for planning and the role of states and individuals in building a policy agenda, contribute to the European Spatial Planning main documents; and finally Susan Fainstein retrieving the utopian concept of the *fair city* of Plato, and incorporating on today's cities challenge fairness, in opposition to inequality and exclusion

6. Urban planning main issues

The current crisis can be an opportunity to make the necessary changes. These changes will challenge Spatial Planning.

How to think the future? As the Industrial Age produced new urban models, theories, methodologies and practices, other models will be produced during the coming Age. How to create them? How to create better quality of life? How to deal with urban transformation recreating towns and cities with humanity, to the citizens, happiness and solidarity as they go about their daily urban life? How to deal with urban transformation? How to solve the relationship between personal wishes and collective objectives? How to integrate sectorial focus in a holistic way? ...or how to

achieve integration between several scales approaches?

To look for new methodologies is necessary, namely: to analyse why the usual solutions are not enough; to solve the new problems, such as global warming, lack of biodiversity, healthy urban conditions, and alter the energy matrix; to structure the doubts so that ignorance can be turned in doubts; to consider the history of planning, to rethink the traditional solutions and to note how, when and why, they are failing or not; to deal with uncertainty; to consider that global solutions shall be adept to local conditions, that is appropriated solution; to be sure that law doesn't solve all problems.

Therefore, that will be the new role of spatial planning?

Spatial planning, in the past, in a much resumed way, assumed as: monumentalist when it was important to give a good image to the centre of important cities; *hygienist* when public wealth was very important in the relation with urbanism; *expanding housing* when it was very important to promote better housing conditions; *modernism* with the idea of disconnection between cars traffic and pedestrian systems, opening large freeways for cars, and the creation of new materials, such as steal and quick elevators, allow the construction of higher buildings; *regulatory*, when it was important to regulate the planning, the design and the construction; *functionalism*, when urban function were the focus; and *strategic*, when the operational proposals required a special focus in the most important subjects. Today, neither of those approaches can be brought as best solution, even if all of them are important knowledge to create solutions that tackle problems locally. Still *"more of the same is not enough"*.

Now, Spatial Planning should consider stepping further on main issues.

Eco-urbanism; Climate change; Biodiversity; Participating Democracy; Cohesion, economic, social and territorial, the three basis of Lisbon Treaty; The values of Spatial Planning.

Spatial Planning should recover its great civilizing role to integrate territorial, technological, social, economic, and environmental policies, visions, strategies, targets, programmes, plans and actions. Spatial planners have to go further than study actual situation, and aim to comprehend, and perhaps control tendencies for future scenarios, in order to ensure and pursue a new vision of cities and regions.

7. Spatial Plannig agenda

A transition of ages is always a long and difficult period, in which it is necessary to overcome major problems, solving the short term ones in the scope of the long term transition. The way to an Ecological civilization on a healthy planet obliges us to seek new solutions. This unprecedented moment is an opportunity to rethink policies, institutions, objectives, methodologies, models, to renew focus and every day practices.

During the last century, philosophy, sciences, arts, technology, policies, economy, society, citizens' rights, family structure and working conditions changed deeply. Changes are required also in planning: new theories, new objectives, new movements and new methodologies. New paradigms follow these changes. Today's Spatial Planning agenda at European Level acknowledge this concern, and lays on two major enlightened documents.

With institutional origin, *"in 2013 Barcelona General Assembly of ECTP-CEU approved in April 2013 - The Charter of European Planning*[5]*."*

THE CHARTER OF EUROPEAN PLANNING 2013

The Vision for Cities and Regions – Territories of Europe in the 21st Century: (1) Integrated & connected cities and regions (territories); (2) Social Cohesion & Connectivity (3) Economic integration &connectivity (4) Environmental Connectivity (5) Spatial integration: synthesis

With experts and researchers origin, *"during the 10th Biennial of European Towns and Town Planners, keynote speakers and participants from several countries with different experiences and expertise, concluded that in the near future, spatial planning should consider 10 great challenges, 10 principles and 10 permanent practices"*.

THE CASCAIS DECLARATION 2013

10 GREAT CHALLENGES: defending the relevance of territory, avoiding climate change, improving biodiversity and preventing losses, ensuring sustainable energy management

ensuring food security supply, avoiding social tensions and promoting social inclusion of population, reducing the ecological footprint, promoting integrated and strategic urban regeneration, upgrade planning through networking systems, and valuing the public space, towards friendly cities;

10 PERMANENT PRACTICES: applying metaterritorial and metasectorial governance, making continuous and integrated approaches, applying sustainability in action, making balanced decisions, strengthening the role of EU (spatial policy & planning), actively looking for community involvement and empowerment, dealing with uncertainty, shortening the distance between theory and practice, applying multi-term approaches, and think globally, compromise regionally, act locally.

5 The Charter of European Planning BARCELONA 2013, The Vision for Cities and Regions – Territoires of Europe in the 21st Century, by ECTP-CEU (The European Council of Spatial Planners – Le Conseil Européen des Urbanistes);

Our culture is changing. We will look for better and not for more, for sustainable and durable and not for consumable, for a more intelligent economic model incorporating scientific knowledge, technology, quality, cohesion, environment, cultural values, social values as well as territorial values, which are, planning values.

Spatial Planning is a key component for the New Age.

8. Technology and smart cities

Planning on uncertain future always required more advanced instruments. Smart cities are a vast field of innovations possibilities to plan and manage cities. Still such a global name where *"it fits all about technology"* needs some thinking, since it's one of cities evolutionary major improvements. As detailed in *HABITAT III ISSUE PAPERS, 21 – SMART CITIES, New York, 31 May 2015* (not edited version 2.0), in preparation for Habitat III Quito October 2016, *"many definitions of "smart city" exist, and "smart" approaches have been understood differently by different people and sectors"*. Still, common understanding can be establish on SMART, based on urban system performance, on technology use, even if only embrace one of urban thematic (e.g. mobility, namely smart mobility), introducing innovative infraestruture solutions and including process dimension (e.g. to engage citizens, towards smart participation).

We are crossing planetary capacities mainly in climate change, biodiversity, carbon cycle. In a few years is expected to reach more domains. If we don't behave according to our natural limits we will not ensure safe existence. We shall apply smart technologies in a smart and strategic way to have smart solutions for people and living conditions (in the economy, in the mobility and in the environment with smart governance), that is Smart Planning. Smart planning is a full staged process with objectives,

strategies, and goals. Smart technologies are the tools of smart planning. Each territory will adopt the global principles and the local solutions according to their characteristics. This is the *appropriated methodology*.
The idea that technology can deliver for all cities standard solutions can lead to big errors. Smart cities shall adopt scientific method and shall be tested, after analysis, diagnosis, and impact studies. In most cases smart technologies are applied in a top down way. Smart technologies can also help using a bottom up way.

We want to have a transition towards cities that are safe, healthy, liveable, now and in the future. All cities are consuming and transforming flows of input. Also, are always producing flows of outputs. It is necessary to have updated statistics of cities' metabolic flows to promote strategic ways of optimizing inputs and outputs, profiting from recycling and reusing. These strategies will bring new infrastructures and consuming patterns.

The metabolic approach is essential to understand and to act in cities and in the relationship between cities and hinterlands. Applying "material flow analysis" is a helping methodology integrating Spatial Planning and environment, towards circular economy and systems, recycling and maximising renewable, with minimum pollution and wastes. Therefore, new infrastructures will appear in the future.

It is important to transform current linear economy in a circular one. Cities and towns will develop in a different economy with the application of innovative technology.

Until today we are not creating growth without adversely affecting environment. From now we must change, maintaining growth, but with new technologies not affecting environment.

NEW INFRASTRUCTURES NEEDED

(e.g.) Local small scale renewable energy technologies can substitute centralized energy systems; smart grids and meters can benefit local communities; flood control, upgrading existing systems; clean public transport substituting existing ones; buildings can be adapted instead of being demolished and reconstructed; retrofitting of buildings to reduce energy demand; turning buildings into power plants to collect energy on the facades and roofs; avenues can be redesigned to pedestrians and bicycles, can have different uses during hours of the day; dry sewage systems can save water; fitting water capture and grey water recycling into homes to save 30% of water consumption; local sewage treatment can substitute central ones; water desalinization can save energy transporting fresh water from long way; solid waste in anaerobic digesters to provide energy and compost.

SOCIAL INNOVATION AND SOCIAL PATTERNS

The pattern of consumption can change, from the property of the car to the mobility as a service, from the actual products consumption to sustainable ones, from owned used to share based using websites, application and networks platform's, from traditional democratic representative models to innovative forms of governance closer to direct democracy.

The Big Disaster is that currently most of the solutions adopted are *"business as usual",* non-sustainable and non-resilient, applied in developed countries in the past decades.

9. Information, participation and governance

According to the *Democracy Index - Economist Intelligence Unit* in 2014, 52 countries are considered democratically deficient regimes with authoritarianism standards, while only 24 countries are identified as stable democracies.

It is assumed democracy as a timeless condition where there is an evolutionary process, identifying several forms of democracy. In the present context of urban transformation and the emergence of new lifestyles served by a multitude of technological possibilities, the questions are:

a) Doesn't immobility tend to the decay of democracy?
b) Or will democracy continue its evolutionary process?

This question is in the public debate[6].

Today's, democracy tend to be threaten, due to: rising abstention rates; increasing schooling did not bring correspondence in strengthening civic / political; lack of education and training mechanism for political citizenship; birth of new model of *"network society"*, with massive and fast access to information; and also *"individualism society"*, redefining social relations.

Nevertheless, historical changes have been made towards democracy and individualism: historical, religious and cultural reasons lead to the liberalization of European societies; growth of literacy and education - important for citizenship in freedom; originality of Western individualism that is related to the notion of *"freedom and rights"* helped build democracies; and reinforcement of individualism in freedom leads to pluralism and free association.

6 Conferência Política e a Democracia, Maio de 2015: A história virtual do futuro da Democracia, por Micael Sousa;

However, *Public* and *media* attention have severe impact in urban life: despite the widespread withdrawal of political life, still exist causes that mobilize citizens; related to issues of proximity and impact on people's lives, eventually leading to punctual wraps, not continued in a regular and constant exercise of political citizenship.

The television uniqueness becomes statement: there is no democracy without access to information; television remains the main cultural instrument and Media influencing family life, although it might be concerned in creating consumers rather than educating citizens.

The *"Removal of citizens from political life empties the traditional power of forces in society" (Moises Naim)*. Emptying political citizenship leads to democracy degeneration.

What is the future of democracy?

"Politicians are slaves to public opinion. So the important thing is to help transform the dominant public opinion, rather than convince politicians."

Thomas Piketty - author of "The Capital in the XXI century"

The freedom and rights of the people are so directly related to the possibility to vote as the representative legitimacy mode. However, in the background there is a need to schedule the opportunity to intervene in the city's decision, placing in citizens the responsibility to participate. Like *Robert Putman* demonstrated in 1993, involving citizens (civic engagement) in urban life is an essential challenge that contributes to the city progress.

The solution may be to place civil society at the centre of life policy, a natural process of Democracies. Here, the information and communications technology have advantages: access to the massive amounts of information, in real time or asynchronously; reduction of distances and communication

times; possibility of interactive computerized communication, marketing potential and audio-visual media to bring new and attractive information; computerized accessible social networks; way to involve people and ability to test the direct and semi-direct democracy.

Yet, there are risks in the use of ICT, on the Internet, namely: control by new entities and internet independence loss; degradation of human relationships; excess informative direction (mono culture), isolating users of more general forums and society; and anonymity that takes the disclaimer attitudes.

This model based on ICT possibilities has already proven to benefit democracies in specific issues, such as deliberative referendum of city life matters or participatory budgets with collective projects.

It is also worth mentioning the support semi-direct and civic advisory from the combination of the new ICT, facilitating information sharing, the elements to be analysed in various initiatives and decision-making, discussion forums and online consultation or even online voting for particular issues (possibly non-binding character).

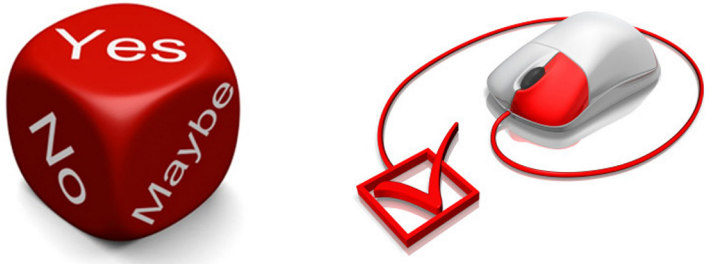


Figure 06: Participation in a click, approaching the decision to ease a game

Is trending to direct democracy an ideal for the future? In the nineteenth century, *Stuart Mill* argued that direct democracy would be ideal, but there practical limitations dictated the need of representative option.

Direct democracy has always been impossibility even in ancient Athens, where all citizens had presence in *Pnyx* but voting was by representation and appointment. The possibilities of new information and communication technologies can help achieve the principles of direct democracy through software tools built for this purpose. The future of democracy may involve the progressive tendency to mode and more direct options exercise of citizen participation.

It is possible to test urban experience of direct democracy supported by cyberdemocracy solutions, starting with the small scale, creating local pilot areas deliberation: neighbourhoods or areas of well-defined users: to favour connection with existing local authorities; creating permanent debate by computer social networking, support decisions on public interest cases, or simply in the discussion and sharing of information.

In this context, citizens will favour more ways to increase the representation and direct democracy, encouraging participation in urban life and the city's choices, itself a challenge of urbanism: tend to better governance. Technologies stimulate this new reality.

10. Conclusions

BETTER CITIES AND SUSTAINABLE FUTURE

In order to achieve common objective, better cities and sustainable future, it is important:

- Creating safe, healthy, liveable cities, now and in the future;
- Remaking the relationship between Humanity and Nature;
- Having consume patterns compatible with World ecosystem's;
- Promote Social Inclusion;
- Creating New Green business and opportunities;
- Revitalizing urban tradition;
- Creating a better governance;
- Mobilizing technology for these and other principles.

SMART CITIES

As in the past, it is important that cities' planning and management adopts strategies with smart technologies and infrastructures that:

- Contribute to a sustainable and resilient relation with Nature;
- Create growth without affecting environment;
- Are flexible and can be change according to necessities;
- Adopt the scientific method and test the validity of application to each territory instead of adopting standard solutions;
- Include the application to social problems, such as poverty, discrimination and inequality;
- Contribute to a sustainable and resilient metabolism;
- Transform linear economy and flows in circular ones;

Today's urban planners embrace wider experience, building bridges between different areas of expertise, that due to smart cities possibilities, offer new conditions to better and faster decisions, based on update big data. Therefore, the future urban planner, is wide knowledge based, and open to new platforms of understanding and respect, since several themes have proven their importance on dealing with cities management, and only a holistic approach seems to bring some enlightenment on how should we prepare our cities, our societies for tomorrow's future. Therefore:

SPATIAL PLANNING

A new holistic science of Spatial Planning is arriving. Spatial Planning must:

- Regain their main concern: PEOPLE and NATURE;
- Re-centring on environment and ecology problems: ECO-URBANISM;
- Improve governance methods: more DIRECT DEMOCRACY;
- Regenerate cities and towns: URBAN QUALITY OF LIFE;
- Benefit from technology, towards cities tending to be SUSTAINABLE AND RESILIENT.

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