Keeping Up with Technologies to Improve Places

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Edited by

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Cambridge
Scholars
Publishing

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This book first published 2015

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

ISBN (10): 1-4438-7739-5
ISBN (13): 978-1-4438-7739-8

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PREFACE

Keeping up with technologies to improve places is a book of the selected best papers presented at the 1st International Academic Conference on Places and Technologies, held at the University of Belgrade – Faculty of Architecture on 3rd and 4th April 2014. The conference was organized by three partner organisations; University of Belgrade - Faculty of Architecture, Professional Association Urban Laboratory and University of Belgrade - Faculty of Philosophy, with the aim of bringing together leading researchers, professors and PhD students, as well as practitioners, in order to create a platform for sharing knowledge and know how in the fields of growth, new technologies and environment. The stated goals point to the necessity of a multidisciplinary approach, identifying relationships between technological development, environmental protection and social change. Consequently, the conference program and speakers were to focus on the knowledge of several academic disciplines: engineering and technical sciences, humanities and social sciences. The main tasks of the conference are defined as follows; discussion on the current issues related to the future of society and places, design of places, facilities and infrastructure in line with new and future needs of inhabitants, development of institutions and regulations with the aim of creating an appropriate and high quality environment, and the creation of favourable conditions for the advancement of innovation and business.

As we have received a variety of very interesting and innovative research papers as made by young scientists and their mentors from all over Europe, we are proud to share them all in one place, something which was made possible by Cambridge Scholars Publishing, who recognized the importance of the subject and the value of the papers, in deciding to publish this book. In accordance with the main goal and tasks, the book includes 25 papers structured into three main parts. The first part, *Urbanism and Technologies*, covers the topics of a) urban planning and technologies, b) big data, apps, social networks and micro blogs in urban planning and design, c) urban design and technologies and d) historical centres, building heritage and technologies. The second part, *Architecture and Technologies*, includes papers in the fields of a) sustainability, sustainable buildings and technologies, b) green strategies and technologies,

c) innovative materials, systems and technologies and d) cultural patterns, architecture and technologies. The third part, *Places, technologies and Related fields,* deals with the issues of a) geodesy and modern cartography and b) mobility and technologies.

As the editors of this book, we want to express our appreciation to all the authors and our partners from Cambridge Scholars Publishing for their kind invitation, cooperation and help in preparation of the book.

Editors

Belgrade,

25th December 2014

PART 1:

URBANISM AND TECHNOLOGIES

CHAPTER ONE

OVERCOMING BARRIERS TO GROWTH

STEPHEN PLATT[1]

Abstract | Cambridge is the centre of the greatest concentration of high technology firms in Europe. Economic activity in the sub-region has expanded over the last 50 years and there is intense and increasing pressure for further growth. But prior to the mid-nineties growth was highly constrained by policies dating back to the 1950s. (Holford and Wright, 1950)

In 1997, concerned about the constraints on growth in Cambridge, the University Department of Architecture brought together people from local government, planning, development and the business community to discuss the future of the region in a forum called Cambridge Futures. The Cambridge Futures initiative, and the public consultation, had a major impact on development in the Cambridge area. In particular it overcame local politicians' perceptions that the public were opposed to growth and demonstrated that it was possible to engage a wide range of stakeholders in thinking strategically about the future.

This paper describes the results of the modelling exercise and findings of the public consultation. It also analyses the factors in Cambridge Futures' success: leadership, ambition, evidence, participation and cooperation. This stakeholder and public engagement is relevant to other cities facing public opposition to change and the analysis of key success factors is relevant to other places trying to overcome barriers to high tech economic development.

Keywords | Growth, barriers, Cambridge, futures, planning

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Introduction

This paper describes the period from 1997-2004 when the policy of restricting the growth of Cambridge was ditched and the growth agenda embraced, and it brings the story up to date by describing how the city is dealing with the challenges of the National Planning Policy Framework. Cambridge has successfully developed a process of gaining public backing and community support for change, by setting up organisations to deal with coordinating the big issues and by developing and delivering a strategic plan for growth. This is the story of how people in the University, local authorities and business came together to debate the issues, how a case for change was made, and how the planners and elected members implemented the changes. (Platt, 2013)

Context

One of the UK Government's priorities is to support growth, and to make sure that the planning system plays its part in this. But growth is not always easy since people tend to oppose major changes and because we need to balance growth with environmental and social concerns. The Government has addressed this by simplifying the planning system with the new National Planning Policy Framework (NPPF, 2012). The Cambridge sub-region is a prime example of the dilemma of balancing growth and restraint. The population is forecast to increase by 28% and the number of households by 33% by 2031.

Cambridge Phenomenon

Cambridge is the centre of the greatest concentration of high technology firms in Europe. Economic activity in the area has expanded over the last 50 years and there is intense and increasing pressure for growth. (Wicksteed, 1985; Garnsey and Mohr, 2010) A new book entitled The Cambridge Phenomenon (Kirk and Cotton, 2012) identifies 1,000 technology and biotechnology companies in the Cambridge cluster, plus 400 support organisations, that together employ over 40,000 staff. Robert Koepp (2002) nominated Cambridge as Europe's silicon fen and compared it to Silicon Valley, California. He describes the evolution of the symbiotic relationship between University science and engineering and high tech innovation. He also analyses the logistics of location. Segal Quince Wicksteed, in 2011, said *"planning of future development is a hot topic in*

the Cambridge area where the challenge is to provide for rapid development in sustainable ways that maintain quality of life".

Cambridge planning history

The history of postwar planning in Cambridge since 1950 can be divided into five distinct periods. (See Appendix 1)

1 Restricting growth in the city 1950-65
2 High-tech expansion of the University 1966-79
3 Neighbourhood planning and green-belt policy 1980-98
4 Housing growth agenda 1997-2009
5 Plan implementation 2010 to date

Prior to 1996, planning policies sought to restrict the population of Cambridge and constrain development to within the green belt and it was not until the mid 1990s that things began to change. The City Council produced draft proposals in the 1997 Local Plan for an urban extension but the proposed changes to the green belt did not get through the planning approvals process. The University was also having difficulty getting approval for proposals. The real watershed was a visit by a delegation of the Malaysian Government in 1997 which outlined their plans for a super high-tech corridor. Discussions identified two apparently conflicting goals: Cambridge must exploit its position to become a global player in high-tech and Cambridge and environs must preserve its architectural and environmental heritage. (Ablett et al, 1998) A report by Mott (1969) identified ICT as key in resolving this dilemma and made nine recommendations about how ICT might be applied to improve various sectors and systems, including transport and traffic management. But in 1998 the City Council produced an urban capacity study which concluded that although there might be scope for some additional capacity it was considered to be minimal. (Cambridge City Council, 1998) The consequences of these planning polices may be summarized as follows:

> *The increase in the number of jobs and households within a restricted land supply had led to rising property prices. People employed in the City and its fringe had been forced to live beyond the Green Belt where cheaper housing more than offsets the cost of travel into Cambridge.*
>
> *Population growth in surrounding villages and market towns had been amongst the highest in the country. As a result there was a daily influx of nearly 40,000 workers from outside the City, increasingly outnumbering resident workers. Congestion in the access roads had risen, increasing emissions and pollution.*

Cambridge Futures

In 1997, concerned about the constraints on growth in Cambridge, Louis McCagg, a volunteer in the University's development office, persuaded academics in the University Department of Architecture to bring together people from local government, planning, development and business in a forum called Cambridge Futures. (Carolin, 2004)

	Economic Efficiency	Social Equity	Environmental Quality
1. Minimum Growth	●	●	● ● ●
2. Densification	● ● ● ● ●	● ● ● ● ●	●
3. Necklace	● ●	●	● ● ●
4. Green Swap	● ● ● ●	● ● ●	● ●
5. Transport Links	● ● ●	● ● ●	● ● ● ●
6. Virtual Highway	● ●	● ●	● ● ● ● ●
7. New Town	●	●	● ● ● ●

Qualitative comparison of the seven options – the more bullets, the better the option.

Figure 1: Cambridge Futures – comparison of options

Cambridge Futures produced the evidence and modelled options that were influential in changing attitudes to growth. The consequences of each option were assessed in terms of economic efficiency, social equity and environmental impact. Virtual reality movie clips were made to help the public visualise what each option might look like. (Echenique, 1999)

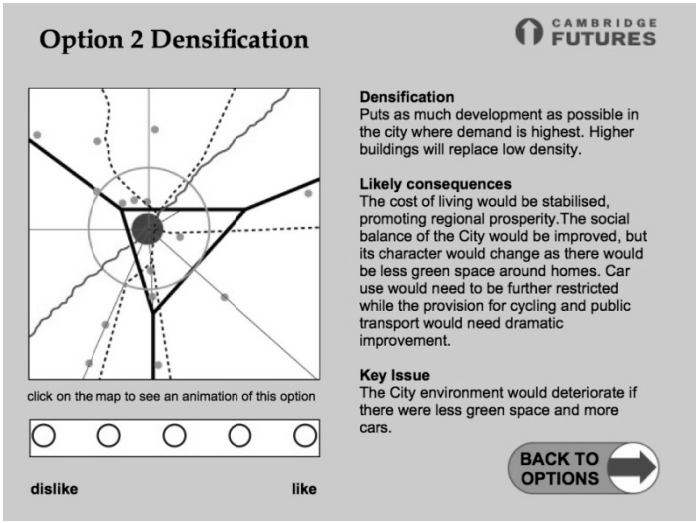

Figure 2: Cambridge Futures–example of an options survey of public opinion

In 1999 Cambridge Architectural Research was tasked with surveying the public's reaction to these options and they were responsible for devising and administering a survey that formed part of an exhibition at various venues in the region. (Platt, 1999a) People were able to comment on the proposals by filling in a tear-off or by using a computer-based interactive questionnaire. A total of 650 people answered the survey. 52% lived in the city and 48% in the region. 59% used the interactive computer survey. The options were described in terms people could relate to. Respondents were asked to indicate on a simple 5-point scale how much they liked or disliked each option. There was also a set of eight controversial statements, for example the headline in the local press at that time – "Cambridge is full".

The findings of the survey were published in a clear report on two sides of an A3 sheet. This simple document proved to be influential. Professor Peter Carolin said at the time: *The public consultation exercise was a most amazing piece of research, it proved to politicians that Joe Public is not as stupid as the tabloid press would have us believe*. (Platt, 1999b)

One of the main findings was that there was little support for the 'status quo'. Options that won the least support were closest to the then current planning policies of 'minimum growth' for the City of Cambridge and 'necklace development' of villages outside the green belt. And people accepted that Cambridge could not be kept the same and that if nothing was done it would only get worse. There was also clear backing for public transport and reducing traffic congestion, which led to Cambridge Futures 2, for which CAR also did the public consultation.

Not surprisingly, there was also clear evidence of nimbyism, and people wanting the growth somewhere other than where they were living. Most importantly, there was clear support for growth.

The popular view was that people wanted a balance of development in Cambridge and in the region. The survey suggested that a planning strategy which aimed for some growth in Cambridge through densification and selective expansion into the green belt, together with growth outside Cambridge based on public transport links, would be most likely to meet the aspirations of people in the region. And this is more or less what the Structure Plan delivered four years later and what we are experiencing now.

About the same time, in 1998, the Cambridge Network was founded by an influential group comprising the then Vice-Chancellor of the University of Cambridge, Lord Broers, with businessmen and entrepreneurs. Peter

Dawe, an entrepreneur and member of the Network, argued that the supply of land for housing must be increased, that the environment needed enhancing and transport needed improving. (Dawe and Lindsay, 2001)

The growth agenda

In parallel with the work of Cambridge Futures the local authorities developed a radical growth strategy for the Cambridge Sub-region through the review of Regional Planning Guidance for East Anglia which was adopted in 2000. (RPG6, 2000) This set an ambitious target for housing growth together with a sequential approach to its location from within the built up area of Cambridge outwards. In 2000 the Government issued technical guidance on doing multi-modal transport studies. (DETR, 2000) The result was the Cambridge to Huntingdon Multi-Modal Study which provided the policy basis for the Cambridge to St Ives guided busway and the planned improvements to the A14 corridor. (Department for Transport, 2003)

Within the strategic framework set by RPG6 the local authorities commissioned studies by Colin Buchanan (2001), DEGW and Llewelyn-Davies that informed the Structure Plan adopted in 2003. (Cambridgeshire County Council, 2003) This made provision in Cambridgeshire and Peterborough for 70,200 additional homes between 1999-2016. The plan maintained the green belt as a key mechanism for defining the limits of urban growth and preserving the character of Cambridge but also detailed the location and phasing of land to be released from the green belt. The Structure Plan was accompanied by a Local Transport Plan. (Smith, 2003)

The strategy was carried forward into the Regional Spatial Strategy (RSS) for the East of England. This set an ambitious target for growth of 2,800 dwellings per year, a 40% increase in the rate achieved during the 1990s. In 2004 Cambridge was included in the Government's Sustainable Communities Plan as a key component of the London-Stansted-Cambridge-Peterborough Growth Area.

Both the Cambridge City and South Cambridgeshire District Councils produced Local Plans. (Cambridge City Council, 2006) In 2008 Central Government issued the East of England Plan as a revision to the RSS. This upped the numbers of jobs and houses. In the Local Plan Review 2013 the City has been consulting on Issues and Options to try to meet present challenges.

The recent abolition of the RSSs, together with the winding up of Regional Development Agencies and other coordinating bodies such as Cambridgeshire Horizons has meant that the local authorities are now reliant on a 'duty to cooperate' across borders to maintain the vision for strategic planning in the Cambridge sub-region.

In 2013 the Planning Advisory Service (PAS), part of the Department of Communities and Local Government, commissioned the author of this paper to conduct a case study of planning in the Cambridge area and how the policy of restricting growth of the city was ditched and the growth agenda embraced.

The study reported on interviews with 13 key players in the drama. They included planning officers and planning portfolio-holding elected councillors who were in post when the new growth strategy was being debated and decided. They also include the leading lights in Cambridge Futures. The results of these interviews are summarized under five headings: leadership, ambition, evidence, participation and cooperation.

Leadership

Leadership is critical in the process. Planners and councillors in the City and County were crucial in leading and delivering the agenda for change. Along with others on the Executive of Cambridge Futures, lead players provided a mix of personalities, background and expertise. Timing was also crucial. Cambridge Futures started just before the Structure Plan process and influenced the system. Later and it would have been too late.

Ambition

The Cambridge growth strategy adopted through this process represented a step change in thinking about the future shape of Cambridge and its surrounding sub-region. Cambridge Futures drove the ambition and helped shape the debate that guided the first three stages of the process by articulating the consequences of different approaches to the growth challenge, and by illustrating the options in a way that stimulated wide public engagement. It also took some of the flak, clarified the degree of opposition to growth, and was useful in raising the profile of all that officers and members were trying to achieve.

Evidence

Clear and transparent evidence was crucial in informing decision-making and in convincing people about growth. Cambridge Futures modelled 7 options, including no change. The outcomes of each were summarised in terms of things people could relate to such as jobs, traffic, house prices and impact on open space.

Participation

Cambridge Futures asked people in the Cambridge sub-region their opinion about the options and whether they agreed with a set of statements. The option that won least favour was the status quo. People recognised that if nothing was done, things would get worse. The statement that received least agreement was 'Cambridge is full'. This gave elected members the confidence that they had public support for a growth strategy. This meant that Structure Plan proposals about the green belt, densification and new settlement did not meet with the kind of opposition other places have experienced when proposing big changes.

Cooperation

The final thing to stress is the importance of cooperation in a place that lacks a unitary authority. Prior to 1996 the various local authorities – Cambridge City, South Cambs, East Cambs and Huntingdon District Council, Peterborough City Council and Cambridgeshire County Council – did not cooperate or coordinate their planning. Partly thanks to Cambridge Futures providing a forum for officers and members to meet on neutral territory, and perhaps more importantly because the four key local authority leaders of the process came into post at the time or two or three years later, things changed in the late nineties and it became possible to build a new consensus around taking a more positive approach to accommodating future growth.

Applying the lessons elsewhere

Can these insights from Cambridge be applied elsewhere? Or are the timing and circumstance in the late nineties so specific that Cambridge is a unique case? To make progress the key lesson is to bring opinion formers together in a neutral forum to discuss the issues in a non-adversarial manner.

We are fortunate in the economic strength in the Cambridge region. Cambridge is a vibrant area with a high quality of life. People want to move into the area and firms want to locate here. It is clearly a bonus planning in a university town with a strong social fabric. Cambridge Futures was also fortunate with the timing. Whether the Cambridge experience is replicable depends on whether people are willing to work together, to find the leaders, develop the ambition, produce the technical unbiased evidence and win over hearts and minds to the big idea.

In support of applying the lessons elsewhere the author applied a similar approach to Cambridge Futures, albeit in a more limited way, in three other cities – Aylesbury, Maidenhead and Medway. The findings again demonstrated that the general public is much less opposed to growth than politicians suppose if presented with good evidence and a set of options. (Platt et al., 2004)

Key lessons

The first key lesson is the importance of having an agreed strategic vision amongst the key players, both within the various local authorities, but also within the business community, academia and the wider community.

A coherent structure of strategic planning across an economic sub-region to make decisions about the location of growth, the enhancement of the landscape and the provision of physical, social and cultural infrastructure is also important.

The value of a cross-sector think tank such as Cambridge Futures is that it works alongside the statutory authorities and can ‘think the unthinkable’ at an early stage of a plan review process. It can also engage local communities in a more open and accessible way than the more formal statutory processes. This think tank produced the comprehensive evidence base for testing and evaluating different strategic options for growth.

Finally and not least, local leadership, both from political leaders and from Planning Directors, together with maintaining continuity of leadership over time is crucial. Cambridge also benefitted from a dedicated delivery team, Cambridgeshire Horizons, which supported local authorities in implementing their growth strategy and helped them define and secure high quality standards in the new communities being planned.

Conclusions

To date only part of the vision for Cambridge has been achieved. Densification of the City and some of the urban extensions are happening, but two of the biggest pieces in the jigsaw – huge missing segment of the Northern Fringe East and the new settlement of Northstowe – will not be delivered by 2016. On transport, there are better rail links to London and Felixstowe, the guided busway, and new stations, but the A14 upgrading and a traffic demand management system are still pending. There is clearly a great deal still to be done.

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Appendix 1

Cambridge Planning History

Period of restricting growth in the city and directing growth to surrounding settlements

1950 Cambridge Planning Proposals, Cambridgeshire CC, Holford W & Wright M
1952 Cambridgeshire County Development Plan, Cambridgeshire CC
1955 Town Map, Cambridgeshire County Council
1956 A Guide to the Cambridge Plan, Cambridgeshire County Council, Derek Senior
1957 Green Belt defined, approved in principle by minister, and given status of planning policy
1964 Proposal for Bar Hill approved
1964 South East Study, Central Government, Reference to growth pressures in Cambridge
1965 Cambridgeshire Development Plan Review, Cambridgeshire County Council
1965 Cambridge Town Map, Cambridgeshire County Council, Adopted

Period of high tech expansion of the University

1966 The Future Shape of Cambridge, Cambridge City Council, Gordon Logie,
1968 East Anglia – A Study, East Anglia city region. Economic Planning Council
1969 Mott Report, Cambridge University, Proposes limited research related expansion
1969 County Development Plan, Cambridgeshire County Council, Excludes Cambridge
1970 Cambridge Science Park
1971 Cambridge Study Area Review, Cambridgeshire County Council, Adopted
1974 A Study of the Cambridge Sub Region: Professor John Parry Lewis DoE
1974 Swinnerton-Dyer Report, University of Cambridge, Long term development
1979 Cambridgeshire Structure Plan, Cambridgeshire County Council

Period of neighbourhood planning and continuation of green belt policy

1984 Newnham and West Cambridge District Plan, Cambridge City Council
1985 The Cambridge Phenomenon, Segal Quince Wicksteed
1986 Romsey Local Plan, Cambridge City Council, ,
1988 St Matthews Local Plan, Cambridge City Council
1989 Cambridgeshire Structure Plan, Cambridgeshire County Council
1991 Regional Planning Guidance for East Anglia
1992 Cambridge Green Belt Local Plan, City, County, SCDC
1996 Cambridge Local Plan, Cambridge City Council
1998 Cambridge Green Belt Towards 2016, Cambridge City Council

Period of housing growth agenda

1997 Cambridge Futures founded
1999 Cambridge Futures 1, Land use study and consultation
2000 Regional Planning Guidance for East Anglia to 2016 (RPG6), Government Office
2003 Cambridgeshire & Peterborough Structure Plan, Cambridgeshire CC
2004 Cambridgeshire Horizons established
2004 Cambridge Futures 2, Transport study and consultation
2006 Cambridge Local Plan, Cambridge City Council
2008 Regional Spatial Strategy for the East of England, Government Office
2007 Lessons from Cambourne, CAR

Period of plan implemenation

2011 Cambridgeshire Quality Panel set up to review major development proposals
2012 NPPF, National Planning Policy Framework promotes localism
2013 Regional Spatial Strategy for East of England scrapped
2013 Development in CB1 around Cambridge railway station
2014 Urban extension in Trumpington Meadows/Clay Farm, SW Cambridge
2015 Urban extensions in NW Cambridge begin on site

CHAPTER TWO

SAVING URBAN PLANNING FROM ANOTHER UTOPIAN MODEL

DANIJELA MILOJKIC[1] AND MARIJA MARUNA[2]

Abstract | Criticism of wide civic participation, as a means for every citizen to actively engage in decision making, including planning processes, has a long history and numerous voices. Although the model is plausible for its openness and somewhat necessary for achievement of contemporary democratic standards (governance transparency, accountability etc.), civic participation has long been criticized for its ineffectiveness, inefficiency and utopian characteristics. Yet, the very notion of the need for the wide public to participate in important decision making processes came along with another novelty—the development and the widespread use of informational technologies. Emerging genres of online platforms combine specific technologies with various actors and activities, thus fostering different types of interpersonal interactions. They are becoming sources of information and platforms for public expression, and complementing traditional media. It is inarguable that new technologies, which support deliberation and information dissemination, can contribute to the increase of civic participation. A completely new range of modes of expression enables citizens to voice their opinions and to be heard, while fast and novel forms of information dissemination contribute to citizens' awareness and knowledge about different matters. It may seem that the circle of conditions for successful civic participation has now been closed. In this article we will discuss the possibilities of civic participation/engagement in urban planning processes through

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informational technologies, in relation to the conditions that civic participation needs and the critiques it is exposed to.

Keywords | Urban planning process, Civic participation, Online communication tools, Information gathering

Civic participation: problems with the masses, problems with individuals

The participatory model in urban planning was derived from "efforts to reinterpret a progressive meaning for democracy in Western societies" (Healey, 1992, 145). While considering progressive democracy, Healey aligned herself with the position of those authors who state that democracy needs a system which promotes discussion, debate and competition among many divergent views, and that open debate, access to power centres and general political participation are key requirements for democratic public life. In an era of what are often referred to as democracy crusades across the international scene, participative models of urban planning (among others) play roles in generating transparency and accountability of governance. When successful, they can contribute to the quality of proposed plans and strategies by introducing different views and sources of information. Still, the main problem with participatory planning lies in its applicability in different situations and consequently in its success rate. It became evident that on many occasions participatory processes do not function, and that in some cases they can be counterproductive (Bohman, 1966; Warren, 1992; Mansbridge, 1999; Guthman and Thompson, 1996). This deficiency with participation was adopted by planning along with the benefits of the participatory model in democracy, a model which has been subjected to considerable criticism. The critique is mostly focused on this model's utopian character, depicted in what Hauptmann (2001, 399) calls "nostalgia for simpler societies and majoritarian biases"—the presumption that society is willing and apt for participatory processes, that it has the necessary characteristics to support the open and democratic participatory decision-making processes, and that the decisions made by citizens would be better, fairer and impartial in relation to those made by experts (Healey, 1992; Innes, 1995; Fischer and Forester, 1993).

Deliberative democrats who expose the participatory model to critique literally number the characteristics of society which disqualify it for participatory processes and point to problems with the demands of participatory processes with regard to citizens. They do not argue against participation in general, but envision it as less of a "mass" event—as an

engagement of groups and organizations with clear and operable interests and goals. They claim that citizens can contribute to politics meaningfully and intelligently and should be enabled to do so more often if they want to; but it must not be an obligation for them, or something that governance and the entire political system rely and depend on (Cohen, 1997). The advantage of deliberative democracy (in the sense of a system with a less utopian character) is that it does not involve an idea of the ideal society where everyone's opinion is equally relevant. They suggest a system where opinions clash and the one that passes the test of the public can be accepted. They disagree with the notion that citizens' participation in decision making leads to changes in their own interests and changes in the social structure itself, as alleged by participatory theorists (Hauptman 2001).

The first set of critiques directed at participatory democrats concerns citizens' **will to participate** in the first place. Warren (1999a; b; 1992; 1996) based his criticism on understanding that the complexity of society makes the ideals on which participative theory relies impossible to exercise. According to him, the theory of participatory democracy is essentially too reliant on the mistaken belief that people enjoy politics. Warren believes that this is a romantic dogma. Bohman (1996) argues that participatory democrats extrapolated participation in every field of life and cast a utopian shadow on their own positive democratic ideals. This requires participants to fulfil excessive obligations, as well as hold excessive qualifications, while the processes themselves take forever. According to Warren, citizens will see participation in politics as a burden, without great results, and let themselves succumb to cynical apathy, leaving the entire process to a handful of enthusiasts who will make decisions on behalf of others on the authority that this participatory process will give to them (ironically in relation to the ideals of participatory theory). Also, for most people participation in decision-making activities means loss of personal freedom (in the sense of free time) without specific gain (Guthmann, 1993).

Another issue is the problem of **majority strength and the psychology of the masses**. Benhabib (1996) and Gutmann and Thompson (1996) claim that most radical versions of participatory democracy are not apt to protect individual interests and human rights from the tyranny of the majority and mandatory consensus. In their influential work, Dye and Zeigler (2008) state that the irony of democracy is that the elite must rule wisely if the "rule of the people" is to survive. In their view, the masses are "authoritarian, intolerant, anti-intellectual, nativist, alienated, hateful and violent." Gutmann and Thompson (1996) state that in order for the

political discussion to be of good quality, it has to be carried out among citizens of equal status who can provide each other with reasonable, carefully constructed and morally justifiable arguments in the context of mutual respect. Ethically speaking, it is not certain that decision-making by all citizens results in a high quality of laws and policies, nor that mere participation is a justifiable reason for such outcomes.

Lastly, the very idea of wide participation undermines one of participation's key concepts: that it can help **self-development of personality**. Bachrach and Botwinick (1992) and Warren (1992) state that this is based on the mistaken assumption that ordinary citizens have the capacity to expand their interests in order to be able to identify the common good in those interests and to devote themselves to it. The utopian component is contained in the premise that implementation requires a society where everyone is equal and a society which is not dominated by greed. According to these authors, we should not have a lot of faith in the reasonableness of ordinary citizens, and should consider the masses to be largely passive on matters of policy and poorly informed about public affairs and politics.

The way in which participatory processes and their participants are envisioned hampers their efforts to achieve transparency of processes, quality of developed planning documents and accountability of decision makers. Still, the benefits of participatory processes, if it is assumed to be possible to avoid the problems, are multiple and justify experimentation. Citizens possess detailed data about the problems and potentials of areas under planning processes that no other analysis can reveal. In order to distil the benefits of the participative model from its problematic entirety, we must take into consideration the deficiencies presented by deliberative democrats. One possible way to overcome these problems is found in online communication. Many online platforms already provide venues for different participants (visitors, members, clients, donors etc.) and different forms of participatory activity (connecting with organizations, searching for information, learning about a policy field etc.) (Bruszt, Vedres and Stark, 2005). Without dealing with other problems or potentials of the participative model, the aim is to examine which forms of online communication can help to extract the above stated benefits from the participative model, while annulling the specific problems presented that the model has.

Types of online communication

People use the Internet on a daily basis for a wide range of activities that could be considered to be "participation"—communicating, seeking information, content creation and so on (Livingstonea, Bobera and Helspera, 2005). The content is no longer created and published by individuals, but instead is "continuously modified by all users in a participatory and collaborative fashion" (Kaplan and Haenlein, 2010, 61). A vast amount of literature already covers different characteristics of online communication for participation in politics and other spheres of public life (Shah, Cho, Eveland and Kwak, 2005; Bakker and de Vreese, 2011; De Zúñiga, Puig-I-Abril and Rojas, 2009). Online communication tools that can be used for participation purposes (i.e., collecting information) have the characteristic of enabling the user to transfer information to others—in private or public settings. Also, this information must remain visible for a limited or unlimited time, sufficient for others to see it and/or note it. These are synchronous online communication tools (instant messaging, chats, conferences etc.), asynchronous (e-mail, thread discussions, blogs, wikis etc.) or hybrid forms (collaborations etc.). They demand different kinds of commitment and, due to their characteristics, provide different forms of information. We will compare ways of receiving data from citizens through new online technologies (which do not demand investment of time for travel from one place to another to participate) with problems of the participatory model.

Users' will to participate in online communication: People use online communication when other obligations allow them to and from the intimacy and comfort of their houses or workplaces, most of the time sharing and receiving information through some of the tools mentioned—posting comments, chatting, sharing documents, blogging and so on. All of these tools are accessible, fast, inexpensive and de-territorialized, with reduced formality and increased freedom and ease of use (Bruszt, Vedres and Stark, 2005; De Zúñiga, Puig-I-Abril and Rojas, 2009) in contrast to public discussions organized in public spaces and buildings. People use social networks on daily bases and comment on things they wouldn't bother to find and comment upon elsewhere (even on the Internet)—it is easy and accessible.

Since people are already using the Internet and searching through different data, they are likely to see and/or join more discussions than they would if they were invited to participate in a civic hall, for example. McKenna and Bargh (2000) stress anonymity as an attractive online communication feature, along with choice about when to participate and the control one

has, in the form of taking time to think about on-going correspondence. Users have a choice as to which subjects they will comment on, which debates they wish to join, what they wish to learn and with whom they want to communicate. Different forms of communication tools enable them to choose how much they want to contribute: that is, how much time they wish to invest in relation to the information they want to transfer.

Majority strength and the psychology of the masses in online communication: The boundaries delineated by cultural constructs of race, gender, social position, authority, appearance and so on can be by-passed in online communication to create a clear interaction (Reid, 1991). In this way the system gives voice to each individual interested, instead of to just those who are the loudest in the crowd, and each argument receives an equal amount of attention (being a way of communicating where everyone has the same chance to speak or be heard). The chances of individuals leading a great number of people from the mass to support their views and influence others are thus smaller. Different types of information exchange support this benefit. When citizens do not wish to state their opinion publicly, they have the option of sending personal messages in online communication—asking questions or sharing data through emails and instant messaging in relative privacy. Kiesler, Siegel and McGuire (1984) have described a distinct feature of social anonymity of online communication in comparison to conventional forms of interaction. Since they are anonymous, users of online communication tools thus behave in a more uninhibited manner than they would in face-to-face communication—without social context cues to inhibit a free exchange between people (Reid, 1991).

Self-development through online communication: People already use different forms of online tools for learning or receiving information. Chats and threaded discussions enable fast information dissemination and exchange. Conferences enable the transfer of more complex knowledge in an attractive way, from conference organizer to public, with the possibility of commenting. Blogs enable each citizen to elaborate on the matter of their interest and share opinions on it through comments and sharing links to other blogs. They are useful for disseminating the latest information, creating an environment open for conversation about different topics, and for more intensive information flow and learning (Bransford, Brown and Cocking, 2000). Wikis can help gather and receive information on a given subject from a larger number of interested parties, gathering information in one place, and affording reliability checks from citizens themselves (Smith, Mills and Myers, 2009). The educative element of online communication is most obvious in the case of "lurks"—people who join a

community and do not post, but search for information and learn (Nonnecke, Andrews and Preece, 2006, 7).

Avoiding utopian presumptions about online communication

Despite this overheated rhetoric, it is also necessary to observe the down-sides of online communication tools if they are to be used in planning, in order not to fall into another utopian model. The most observed problems with participation are people's motivation to react, even from their homes, and finding ways of motivating them. People comment on and read about the subjects which are of direct interest to them (for amusement or information). This can be viewed as advantageous for planning, since only interested parties will react on the subject, but can be a draw-back, since less people means less information on the planning area and on decisions made. Unfortunately, the potential to create platforms with wide, active and loyal communities is not always achieved. Many communities fail and a variety of communities suffer from a deficit of visible content contribution.

Many authors deal with this problem using social science research and finding different modes of motivating people to interact. Social scientists point to varied and multiple factors influencing one's online contribution to a group, such as: the size of the group, the group and its members' attractiveness, expectations of performance, the importance of contribution outcomes, incentives, and the probability for interacting again (Karau and Williams, 1993; Oliver and Marwell, 1998). Ludford et al. suggest that community members "like receiving information about the unique perspective they bring to the group and participate more because of it" (2004, 7). Scandalous or controversial topics are effective tools for stimulating participation (Guerin, 2003), which is an advantage for planning where most situations are controversial (concerning politics, economy, design etc.). This can be an advantage, but many problems are attached to this kind of information sharing. According to Ludford et al. (2004, 7) "flame wars" should be avoided, since they bring more "heat than light", but can encourage discussion when disagreement is permissible. "Flaming", the expression of anger, insults and hatred, is a common phenomenon in all forms of computer-mediated communication, but social sanctions are present and operators have the ability to "kill" users (Reid, 1991). The role of operators is multiple and can be of utmost importance for motivating the community to participate, through their roles of conversation stimulator, conflict resolver, summarizer of debates,