CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

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6.1. CONCLUSION

Despite the theoretical disagreement about the proper definition and practice of participation, it is now widely understood by people in all sectors of the development industry that such involvement can lead to more appropriate and sustainable development solutions and stronger citizen groups and communities.

Yet, there is almost universal uncertainty as to the best way of involving local communities in any given situation. The ways of citizens involvement in urban planning can vary a lot, each community needs to devise its own community planning process carefully to suit local conditions.

A vast range of methods is available with different uses and characteristics. These methods have long been used in public participation and certainly have their remarkable benefits and advantages that have proven efficiency for a long time in this field. However, there are some technical and financial disadvantages of using them which cannot be ignored for their great effect on the quality and quantity of community participation.

Planners can strive to give citizens a meaningful role in the development of plans and ensure that information is made available to the public in a convenient format and sufficiently in advance of any decision. Given this professional culture and ethical requirements, a clear model to use the Internet to facilitate participation will be professionally useful. It may also be possible that the technology addresses concerns raised by critics about conventional practices, allowing for new forms of information dissemination, social interaction and collaborative working.

Actually, the rapid development of the Internet, as a place of information dissemination provides researchers and policy-makers with considerable challenges on how best to realize the potential in the pursuit of worthwhile goals.

Information technology is dominating the contemporary world. It links the government, economy, society and culture, now most of government information can be obtained from websites and one can use email instead of mails to contact government officials or planner.

Citing rapidly expanding use, declining cost, and advancing technology, concludes that the "digital divide is disappearing" and the role of public policy will be to help those left at the fringes.

However, despite excitement about the potential for e-democracy, technical barriers remain. Administrative, technical, accessibility barriers and lack of public education about the use of technology can be the challenges and risk for Planners to use technology in planning process.

Hardware and access are necessary but not sufficient to expand e-democracy in planning. Public participation planning processes are not easily moved to online systems and may contain qualitative features that cannot be replicated through Internet technology. Also needed is a conceptual model to understand how Internet technology can contribute to a larger planning process.

Since 2000, a host of highly interactive and popular websites has developed that allow Internet users to share information, form communities, and interact in new ways. These websites share a common dedication to simplicity, usability, and interactivity. Collectively, they allow groups to communicate and collaborate online.

The technology offers a menu of tools well suited for planners' long-standing goals of sharing information, interacting with the public, and fostering community.

Though planning support systems exist, planners have not made the best use of them due to the lack of awareness about the type of technologies that exist and their use in the planning and participation process. It is important to review the existing technologies available for planning and participation processes, developed to provide planners with all the capabilities to fulfill their responsibilities with ease. These technologies help both the planners and the participant to communicate clearly based on facts and figure instead of assumptions or guesses.

Visual tools help to envision a realistic plan. Technologies used to analyze consensus, incorporate feed back in the plans and show the result to the participants provides power to citizen in a planning process as they can see their input has made a difference.

Planners use various type of participatory effort in their planning process but the typical type of activity seen are presenting and sharing the information, facilitating meetings, getting participants feedback on a plan, incorporating participants feedback in a plan, creating collaboration with participants, getting consensus and taking votes.

Every process and tool has it positive and negative aspect of it but if the positive aspect outweighs the negative aspect and risk of using the system can be minimized then using the tool to achieve an effective result will be a sensible decision.

The use of technology will help in reaching wider audience, will make information accessible any time, provide equal access to information and feedback to all participants and allow participant to think carefully about an issue. However, it takes a very good job of planning to accomplish a highly effective public participation planning programs.

The real challenge in designing public participation programs is to design an appropriate program, where the techniques matches the purpose of the program, reaches the interested stakeholders, and results in a clear linkage between the public participation process and the decision-making process.

The appropriate level of public participation is the level that best matches the situation. The difference in intensity of interest is often reflected in how the stakeholders will participate.

There is no public participation technique that will work in all circumstances. In order to facilitate the active participation of communities with the planning and development, it requires a whole range of approaches and a full menu of techniques. These approaches are likely to vary according to local preference, availability of funds, and the values of government officials.

However, In spite of the ambitious expectations from public participation, it cannot be argued that every participation activity meets those expectations. Therefore, the evaluation of public participation is essential in order to reflect on the degree of achievement of the goals, and to justify the allocation of resources, i.e., time, funds and efforts.

Even though IT diffusion has been proven to have significant spillovers on the world economy, these benefits have not appeared to be evenly distributed among countries. In fact, effective usage of IT equipment requires many other complementary investments including factors like human capital and the provision of a reliable telecommunication infrastructure which many of the developing countries still lack.

The *'digital divide'* commonly refers to the gap between those with access to ICT and those without; yet, many factors besides physical access contribute to these disparities, among which are:

- Strong Governmental Support
- A Suitable Legislative and Investment Environment
- A State of the Art Infrastructure and Investment in Human Resources

Even in developing countries with relatively high net ICT uptake, ICT is still out of reach of many groups, this is due to:

- **Lack of appropriate products:** products are often not designed to meet the needs of the poor, or those in remote areas. These groups can face constraints such as access to electricity (lacked by two billion people worldwide).
- **Cost:** roughly half the world lives on less than four dollars a day. Many potential users are too poor to afford any form of access to ICT.
- **Education:** even where there is physical access to ICT, many people do not have the technical skills needed to benefit from them.
- **Language:** Poor literacy is a problem with ICT such as the internet. Of those who can read, many know only a local language, while the internet is dominated by English-language content.
- **Human resources:** As in many sectors, the migration of skilled ICT professionals from developing to developed countries contributes to a lack of human resources to support ICT.
- **Lack of robust regulatory framework** for ICT can limit uptake.

However, many factors could contribute to bridging the digital divide. National governments, NGOs, industry and international donors all play a role, often work together.

Moreover, latecomer advantages enable developing countries to benefit from the rapidly decreasing prices of IT equipment resulting from technological innovations and R&D conducted by the developed world.

Also, using open source software which is provided for free on the Internet, in addition to importing used or low-specification computers are all considered low cost options that developing countries may benefit from.

Focusing on **Egypt**, as a leading country in North Africa & in the Arab World in the use of information technologies for governance, Egypt has witnessed a major technological development and an outstanding revolution in the domain of communications.

Not only the government invests in the nation's infrastructure, but it also creates a strong human base by investing in the nation's youth. New generations of Egyptians are now receiving a quality education and have plenty of opportunities for skills development and professional training.

However, despite the excitement about the potential of using the Information and Communications Technologies (ICT) to promote more efficient and effective government services and allow greater public access to information, the innovation in the area of participation has been limited to facilitate individual communication (e.g. email) to government officials. Despite advances in teleconferencing, the subtle aspects of face-to-face interaction cannot be easily substituted.

Before planners attempt to use technology in public meetings or build online tools, they should make sure citizen have the accessibility to use it. Cowley and Conroy explored the use of e-governance in municipalities and found that

> *"Beyond the issues of digital divide, there are issues of accessibilities for those with disabilities and for those who do not speak English."* (**Conroy et al**, 2004)

Moreover, although access to the Internet has grown considerably in Egypt, access remains unequally distributed among the country; not all the Governorates of Egypt enjoys the same ICT services.

The main challenge that should be addressed is the digital divide within the country itself, with more than 60% of Egypt's population lives in rural areas, the language barrier (Arabic contents and Arabic Domain Names), literacy rates, limited connectivity, awareness, in addition to telecommunications infrastructure, can consist a strong barrier for Planners to use technology in planning process.

In the experience of public participation in the planning process of El-Zwammel village, even though it was considered positive according to the Report of the effectiveness of participation prepared for this particular village, there were several negative aspects that have been noticed throughout the stages of the project.

The first step to achieve a successful engagement of the public is to identify the main stakeholders that should be committed to the collaboration in

decision-making process, and then specify how they can be approached and get notified.

In our case, Local residents were mainly represented by local public committee members as well as the representatives of the main large families, as they enhance the self-efforts, donations, and contribution either with land, effort or money.

There were different types of individuals that might be interested in contribution but were not successfully engaged, i.e. educated unemployed youth, household's women, & disabled. And since typically most of the young educated citizens are working outside the village due to the shortage in job opportunities, they hadn't had the chance to contribute by attending the meetings or answering the questioners.

Having the number of local participants in the public meetings who represented the different socio-economic groups of the society less than 0.12 % of the Total Population in El-Zwammel village raises the concerns regarding how adequate their participation was and whether they really reflected the actual desires and needs of the society they represented.

Also having just 20 persons to represent those affected by changing the corporate limit, while having an Urban Expansion of about 59 feddan on the rural area, seems quite unreasonable and actually rise the concern of how appropriate was the decision taken in the first place.

With the presence of the property data, the study team could have used the GIS capabilities to extract all property owners who would mostly be affected by this decision, and hence target them & invite them to participate in the decision making process.

Furthermore, holding public meetings, asking questions and submitting questionnaires were the only techniques used to communicate with the local partners which in return resulted in a huge amount of gathered information wait to be transferred to digital format in order to be properly processed and analyzed, besides of course the difficulty in reading some of the handwritings and the risk of losing or damaging any of the gathered hardcopies.

Moreover, Citizens have unequal levels of interest and understanding in public issues to motivate them to attend meetings, unequal access to meeting facilities, and unequal time to attend meetings, different channels should have been approached to engage inactive community groups such as telephone surveys or advanced Internet based programs such as CAPI (Computer Assisted Personal Interviewing).

Also, one of the drawbacks was the rise of self-consideration in contrast to the community benefit. Most of the local owners of the rural areas attached to the present built-up area showed the desire to donate the quarter of their lands in order to guarantee that their lands would be included in the new corporate limit for the beneficial profit. This also reflects lack of awareness regarding the preservation of the agricultural land.

Another drawback was presented in the inconvenience and lack of trust between the residents and the government to identify a new corporate limit and submit it to the localities to be implemented in the near future.

There is no doubt that the unique characteristics of face-to-face communications in building consensus, communicating complex information, or creating new ideas cannot be totally replaced by online communications. However, The Internet has tremendous potential to allow planners to enhance and improve existing participation techniques.

As an attempt to pay a quick glance on the technological level that actually exists in the village in order to assess the possibility of introducing more advanced information technologies in such society, it is worth mentioning that no data were found in the relevant authorities, or communication providers in Egypt such as Telecom Egypt or TE-Data.

There were no such record; all the involved parties were only interested in Cairo metropolitan, a fact that reveals the unequally distribution of ICT services in Egypt.

However, after a quick field survey in the village, several observations, & interviewing more than 15 villagers, with different ages ranging from 10-40 years old it was found that around 50% of the villagers have computers at home, 50% of which have internet connections & more than 70 % of the children were familiar with the use of computers, which clearly reveals the importance of promoting the use of ICT in education since it has developed a new generation of citizens who understand and are comfortable with the use of ICT in their daily lives.

Also, it was found that more than 80% of the highly educated youth are familiar with the computer programs and uses it in their daily operations at work, 50% of them have personal computers at home, and 30% have a face book account & an e-mail address, however, almost all the highly educated youth are working outside the village either in Cairo, or in big cities like Belbis or El-Zakaziq. This reflects the reason behind the fact that neither of those interviewed has ever heard anything about the project of upgrading El-Zwammel village that was held 4 years ago.

On the other hand, grown up men ranging from 30-40 years old have quite little knowledge of using the computer and barely use it, even though 50% of them possess a personal computer at home for the sake of their children.

Although access to the Internet has grown considerably in Egypt, access remains unequally distributed among the country; not all the Governorates of Egypt enjoys the same ICT services, the digital divide lies within Egypt itself.

Yet, with a strong human base by investing in the nation's youth, New generations of Egyptians receiving a quality education have plenty of opportunities for skills development and professional training, thus, advanced technologies and internet based programs can be easily tailored to fit in the framework of the planning process & overcome the drawbacks and consequently enhance the public participation creating an inclusive, democratic and equitable planning process.

Modern advanced technologies & Internet based programs can serve as a new venue for public conversation, potentially more accessible and flexible than any previous approach, consequently, can be a key to the promotion of a higher level of citizen participation in urban planning and design.

Yet the best example that can be provided is what has happened in Egypt the last few months. There is no doubt that Facebook and the Internet were responsible for the uprising in Egypt.

Facebook has seen a rise in publicity due to its use by protesters in Egypt recent public revolution. It has been reported that Facebook helped organize these rallies and disseminate information among protestors as well as the outside world.

The revolution actually started on Facebook in June 2010 when hundreds of thousands of Egyptians started collaborating intents.

> *"I've always said that if you want to liberate a society just give them the Internet." Said* ***Wael Ghonim****, a marketing manager for Google, and a key protest in Egyptian revolution, 2011*

6.2. RECOMMENDATIONS

The research conducted in this thesis has led to some useful results and conclusions on how the Internet based Techniques can extend the scope of participation and add a new dimension to the available methods, however, it has also uncovered many areas that need additional study.

The purpose of this section is therefore to identify various areas where further research is needed, these areas include the following:

6.2.1. A Framework of ICT Exploitation for E-Participation Initiatives

Researcher and literature has always supported the use of technology but there has been no attempt to inform planners about the availability of the technology and existence of number of technologies that can be fitted into the planning process.

The use of appropriate ICT tools for different e-Participation objectives at various phases of the policy-making process can serve to increase the effectiveness of e-Participation initiatives. This eventually contributes to the success of e-Government efforts in enhancing democratic processes.

This thesis has put together a list of technologies that can be used for various purpose of a planning meeting and enhance participation process. However, further research is needed to consider how planners and practitioners can engage public by using technology and how they can overcome the technological barrier to fit in technology in their planning process.

6.2.2. The Complexity of PP GIS Applications

The use, the potential and the limitations of online PPGIS are to be studied. Currently available PP GIS applications vary strongly concerning their included GIS functionalities and their complexity.

A potential danger is that if the GIS functionalities increase in a PP GIS application, also the complexity of a system may increase. High complexity of an application might prevent elderly and less computer skilled people from using it.

The complexity also strongly depends on the nature of the decision-making process itself and related possible level of interactivity.

Technically, PP GIS applications can be designed in a relatively simple way in the cases of one-way communication where the planning authority only informs the participating people about the planned actions. Complexity and needed GIS functionalities is higher in the cases of map-based discussion and involvement in decision-making.

There is a lack of practical, user-based testing of such applications where a minimum set of needed GIS functionalities can be defined and tested.

Further development of PP GIS applications should be based on the principles of intelligent user interfaces and decision making support systems that offer personalized information and the possibility of communication with the citizens.

6.2.3. Using Visualization Techniques for enhancing Public Participation in Planning and Design

Exploring alternative visualization techniques could be a necessity for ensuring successful communication. Planning processes vary in nature and different situations, ends and goals, and may require different visualization tools.

In order to facilitate public involvement in the consensus building process needed for community development, a lot of time and effort needs to be spent on assessing and sharing public concerns. New approaches for support for context sharing that involve visualizing public meeting records, among which:

Visualize the transition of topics to enable the user to grasp an overview and to find specific arguments.

Visualize topic-related information to enable the user to understand background.

Visualize the auditory scene to enable the user to find and to listen to paralinguistic (prosodic) information contained in audio recordings.

These approaches support citizens and stakeholders to find, to track, and to understand target arguments from the records of a public meeting.

6.2.4. Social Networking And Public Participation

It’s no secret that social media has a strong foothold in public participation. From influencing national revolutions in the Middle East to helping re-launch careers, major social networks like Twitter and

Facebook have the ability to spread information and connect users faster than ever before.

With regards to planning, social media is used as a tool in breaking down the barriers between planners and constituents, using the medium as a way to crowd source ideas and promote a bottom-up approach to a usually top-down practice. As a result, plans become more custom-tailored to the needs of the people, and citizens feel empowered in their ability to directly influence public policy.

The benefit to public participation initially seems obvious. However, the question as to whether social networking can fully engage the public, compared with face-to-face contact, is still open. The opportunity that social networking affords by communicating to a mass, global audience should not be underestimated though, and the online/offline worlds could well complement each other.

6.2.5. Bridging the Digital Divide between Urban and Rural Areas

The digital divide is the gap between those with regular; effective accesses to digital technologies, in particular the Internet, and those without.

The global digital divide is a term often used to describe the gap between more and less economically developed nations, while at the national level, there is often an urban-rural divide.

The language barrier, literacy rates, limited connectivity, awareness, in addition to telecommunications infrastructure, can create a strong barrier for Planners to use technology in planning process in rural areas.

The main challenge that should be addressed is how to bridge the digital divide within the country itself.