A ROLE OF ICTs IN URBAN (AND RURAL) DESIGN

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ABSTRACT

In this article, we first put forth a proposal to improve public participation and suitable design for rural or urban areas. We will use Information and Communication Technologies to relate some main sectors of society. These sectors are universities, services and organizations related to urban/rural development, and one center to coordinating actions.

Then we will present our three experiments in our developing country according to the proposal.

INTRODUCTION

The idea, here, is about relating some universities to some certain organizations of society in order to increase proper participations to make a better place to live. This would be happen with using Information and Communication Technologies. This article firstly describes our main parts and the way of organizing them, secondly it would narrow down to our experiences.

We want to use ICT to connect residents’ views about their daily environments to expert’s points of view. We know that the client of urban or rural design is people. However, usually people’s interests are absent in urban/rural development. Planners decide for people sometimes without considering people’s views.

People who live in a place know the weaknesses of the place much better than anyone else. It seems connecting these two interests can bring us a better balance to design our daily environments.

MAIN PARTS OF PROPOSAL

In order to make a perfect connection between school and society’s organizations a coordinator center may sustain the actions. Therefore, our proposal has three main parts as following.

University

Since we are talking about urban or rural development, our main purpose includes architecture and urban plan/design faculties.

Figure1.Relating School's projects to society's organizations.
Related services

Related sections or services to urban developments such as housing ministry, municipalities, private or semiprivate firms, are other part of our proposal.

Coordinator center

Although two above parts may coordinate their activities themselves, a specific center can arrange the project perfectly.

ORGANIZING

1- There are some courses at architecture or urban design/planning faculties in which students have to prepare and hand in a project for it. Among these, there will be found some, which are proper for our idea. For instance, there is a course in these faculties by the name "Urban Space Analyses" or another course "Village Design" or even "final thesis". These courses can be realized by universities according to their goals and be introduced to coordinator center.

2- Current projects of society related to above courses have to be realized by either the related services or universities. Then they can be presented to coordinator center.

3- The coordinator center can suggest the selected projects to the teachers of proper courses. Teachers would bring those projects to their classes. Then not only students do their duties but also their motivations would increase when they understand that their actions are useful for the society.

At the end, Coordinator Center can do other works such as publishing the results, preparing lectures. Even this center can arrange some projects at international level. The center can make a connection between other universities around the world.

4- As all these are easier with using ICTs, so the coordinator center has to be equipped by sufficient facilities.

Figure 3 shows three main parts of our proposal and their relations. Each sector has to have its own webpage. All the websites can be organized by the coordinator center.
SOME SAMPLES

We had three experiments about the proposal. One of them in urban area and two others were in rural areas. In all of these, our main idea was proposing a proper way of people participation in order to improve urban development. We wanted to use Information and Communication Technologies in communicating residents and experts and expanded this link to make better districts to live. Although generally people do not have enough knowledge about design or planning, they know their problems and their living place much better than anyone does. We know that the most plans that are prepared by governments or agencies have to consider people's needs. Therefore, a correct link between these parts is necessary.

Sample 1: Designing a village

The main three sectors, in this experiment were as following:

University

For the rural areas, we chose "Village Design" course at architecture faculty, which is a course in Iranian architecture faculties regarding rural areas and vernacular design.

Related services

A consult engineer office that was working on an ancient village (Aghda) accepted our proposal. They informed other necessary and related sectors such as Aghda council to support the students. Aghda is an ancient village in central desert of Iran near Yazd city.

Coordinator center

Since Aghda has great cultural aspects in Iran, we suggested the center of Dialogue among Civilization to role as the coordinator center in our proposal.

In agreement with all three parts, the project started. Students used the information of the office and completed it. They divided in seven groups. Each group surveyed a part of Aghda. Finally, students put all their findings on a web page. They proposed their own guidelines and asked the residents and experts to share their ideas. In addition, students and experts' designs for Aghda were put on the web to request people's viewpoint about the case.

Sample 2: Designing some rural areas

In another experiment, we expand our activities. This time we asked tourism organization to introduce us some valuable villages. Again, we encouraged architecture and planer students to choose these villages. The coordinator centre was again the center of dialogue among civilizations. Figure 4 shows the activity of each sector.

Figure 4. Activities of each sector for sample 2.
Sample3: Designing a district of Tehran city

Here, we suggested a consultant group near residents who had proper skills to judge people's needs. According to our proposal, we arranged three main parts as following:

**District council**

We suggested an eight to ten-members council for each district of the area.

**Consultant groups**

The members of this group were chosen from students of architecture faculties in a course by the name "Urban Space Analyses". Students had to hand in a project at the end of their term. Almost three students (in a group) made each consultant group. Consultant groups had to survey and studied the strengths, weaknesses, opportunities, and threats of the district systematically.

**Meetings**

Surely, we had to arrange some meetings where residents, district council, consultant groups, and municipality representatives gather to discuss the points, attracting more participants and so. Residents knew their problems and their places best. Municipality representatives had knowledge of plans, budget, and their other opportunities. Consultant groups, students and their teachers could use a theoretical framework to categorize all points.

Consultant groups with the help of district council and resident started their survey. Each group gathered their results, proposed alternatives, and presented them on a webpage.

Therefore, each district had a webpage for itself including the studies, results and proposals. Residents could see the results and bring their own views on the website. They could compare their districts with others and proposed their ability to save the strength, improve weaknesses, use opportunities and considering the threats.

Considering other plans of the city is important. This activity can be a complementary action for strategic or structural plans.

**ADVANTAGES**

1- Probable success would happen around the areas according to residents' struggles.
2- Problems, values and characteristics of each place would be the fundamental of designing of the same place.
3- Social participations would increase.
4- Because of consultant group, fundamentals of urban design such as identity, creativity, sustainable development would be considered.
5- People's needs, expert's suggestions, governmental facilities will make the criteria of life qualities.

Although not all residents may have access to computer or internet, some public places can provide this kind of access. While students' suggestions may be so fantasy, their analyses have to be exact and scientific. Therefore, some major design ideas would be given to relative agencies. Students' motivations would increase when they realize their activities are coming into use.

It would be much better if we check this proposal in a small area and then run it for larger districts.

Suggestions and idea can be adopted by the local planning authority as supplementary planning guidance.

One of the most important advantages is considering real and virtual places simultaneously. People have face to face interaction and telecommunication at the same time.

We know that students' analyses usually can be accepted at both academic and practical levels while students' designs may be accepted only at academic level. In our proposal coordinator center can divide these steps and hold them to related sectors.
Figure 5.6. Some analyses and designs prepared for Aghda's village.
Figure 7.8. Some conceptual designs for rural areas (only acceptable at academic level)
CONCLUSION

Information and communication technologies have brought new possibilities to connect different and at the same time related sectors and services of communities to each other much better than past.

About urban design and development, in help of ICT, we can participate experts, semi experts, and residents in order to make a better place to live. In our proposal we paid attention to educational system, professionals, organizations and people. Connection between these parts, bring us participations, occupations, and development.

Communities in help of a consultant group, private and public sectors can improve their environments.

As in developing countries, organizations may not have sufficient experts and because of the large amount of population and lack of information and local authorities, our proposal may cause people to participate in their cities or villages and learn them little by little how to use ICT in real life and encourage them to take part for making good use of ICTs.

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