

## **Review Article**

# **The Role of New Technologies in Promoting Social Interactions in Architectural Spaces**

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**Abstract:** As human is a social being whose social needs are met in architecture collective spaces, so the existence of spaces which can meet cultural-social needs of human are necessary. In recent decades, changing life style in societies cause fading collective activities and people communities in metropolis. Nowadays, there are no residential districts, narrow alleys and local squares and markets. High residential complexes, wide streets, highways and big and small commercial complexes are replaces which not only provides growth of social relations and interaction but also causes fading popular community in cities. Nowadays, most social-cultural concepts of society will be forgotten which are in the form of festivals, national-ritual shows and religious mourning in society and no other spaces are available except limited spaces in cities which are bed for happening these events. So, the most important issue is considered the lack of spaces which can respond to these activities. Residential complexes are expected to meet different needs of their residents by allocating spaces with desired quality so that they're not obliged to reach themselves for meeting their cultural-social by spending high cost and long time so that they can meet their needs.

**Keywords:** Social interactions, collective space, cultural-social ceremonies, technology, adaptable architecture

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## **INTRODUCTION**

The position of thought about collective spaces in residential cities and districts is considered in this time. As human is a social being which his social needs are met in architecture collective and public spaces and Iran previous architecture has considered the concept of collective life in urban spaces particularly in residential neighbourhoods such that the body of neighbourhoods of ancient cities of Iran meets cultural-social needs of their residents but in recent decades, changing life style in societies cause fading the presence of people in collective spaces while in present era, the presence of technology is bold and architecture spaces aren't excluded from this category and are affected by technology [3]. This research is following to create architecture space by considering the importance of social interactions in present time which can revive social events in our culture by having technology and establishes the spirit of life in social spaces of residential complexes by attending people in these communities. Society as a bed and environment in which human lives is affected by different factors like worldview, ideology, culture, society, history and needs of people. Present century sees unprecedented changes in different scientific, social-cultural, political and economic fields. Human influence on molecules and atoms from one hand and access to far depths,

communication inclusive revolution and changing industrial era to communication era and technology are all the result of human civilization. Human society is affected more. These changes in architecture result in formation of new schools and attitudes which considers technology as an effective factor which has the ability to respond changes created in society [6]. Changing societies defines new form of needs for today's human which responsiveness to these needs from new kinds of structures and spaces. Skeletal transformation of residential neighbourhoods can be mentioned which have the task of meeting needs of people in the form of unit residential space (private life) and also the task of meeting collective needs of people in the form of norms of society (public life). Unfortunately, in forming today's residential complexes, providing private life is in priority other than public life. In fact, public space is what remains in additional or accidentally among masses and the consequence of this definition is fading social interaction in public spaces of these complexes. By defining needs of people and meeting them, living in these complexes is possible [5]. On the other hand, the issue of lack of space is arisen in these complexes like what we see in most residential complexes. Technology can help in removing these limitations as an effective factor and result in creating architecture. We see improper use of technology in different phases of

design. This research considers the influence of social-cultural changes of society on architecture spaces during time such that technology is considered as an effective factor in meeting needs of people in designing. Nowadays we see changing residential neighbourhoods to high residential complexes. Complexes which their growth is vertical unlike ancient neighbourhoods and has defined new life in height for residents. Individualization is following fading social-cultural concepts of society which is the result of a millennium civilization and result in losing spirit of collective life in these complexes. On the other hand, population increase and issue of lack of land in today's metropolis justify these complexes, so, research about spaces in architecture which have the ability to adapt with different cultural-social needs of society is necessary and technology can also help in architecture as an effective factor and result in creating spaces which have the ability to adapt with aforementioned limitations in these complexes [16].



**Fig-1: Social space**



**Fig-2: Naghshejahan as a social space**

## RESEARCH METHOD

Research method is analytical-descriptive method which has benefited from theoretical studies. Theoretical studies include relation of social interaction and architecture and also the influence of technology on architecture and examine skeletal studies and involve

the analysis of social activities in residential complex site.

## LITERATURE REVIEW

Creating spaces which meet social needs of people is an issue which we see by considering urbanization in different societies, spaces which have the ability to hold different social events according to special culture of that society. With a look to history of architecture and urbanism in Greece we see sacred hills of Acropolis or Ogura square in Rome, Forum and ancient Iran and then by entering Islam, the scene of mosques, center of neighbourhoods which were considered as centre of popular communities. On the other hand, discussion about technology after industrial revolution was highlighted in West [3].

## SOCIAL INTERACTIONS

Human is a social being and has lived in the form of groups and tribes from the beginning of history. Living in group form meanwhile task division and increasing physical and mental safety helps humans grow because by reducing necessary primary activities for living by task division, dealing with other aspects particularly, spiritual needs of human will be possible. Other discussion which is considered in social and group life is development and sublimation training. Living in the community make allows that people can be aware about knowledge, abilities and talents of each other and move towards learning and if these communications are suitable and guided help people and society grow better [1].

Andre Gutten in "urbanism in the service of human" book, considers tendency to social life as mental and spiritual needs and evil instinct and states that: attention to mental and spiritual needs of human is important for his prosperity because human finds his existence by these needs and judges about his thoughts and spirits. These needs are: durability of family life, living in the community, leisure, diversity, controversies and finally intellectual and mental relaxation.

The importance of social relationships is to the extent that human life can be considered in direct relation. If we consider life" those people around us, the most usual ways which we visit them or those life ways which there are in universe, "life" is in close relation with social relationships and is considered as inseparable category.



**Fig-3: interactions among children**

The person becomes socialized in two ways:

1. Formal: performance methods are in structured form.
2. Informal: established by mutual relation with the peers and membership in informal groups.

Finally, if we want to define social interaction can acknowledge that social interaction is a process which people transfer the meanings which have in their mind. They use not only words but face expressions, the tune of sound and body language [6].

### **Social spaces**

Undoubtedly when human communities are talked, manner and quality of formation of these communities comes to mind because human is in conflict with space for each action in human communities. One of the most important spaces in architecture and urbanism is social spaces, the ones in which human can meet their collective needs. Different examples of such spaces in ancient architecture of world like Ogura, Forum and different urban squares can be mentioned.

### ***The role of body in social relations***

Archaeology and history have proved that civilization of each society coincides with symmetry, size, form, application and format of that society.

As human is a social being and has social needs which needs spaces of collective spaces for meeting this need, in fact, these spaces react against human behavioural actions in community and it's the result of these actions and reactions which result in formation of do's and don'ts, values, norms and finally culture of society. So, social spaces can be considered as collective behaviours of human which can meet cultural-social needs of human. Cultural-social concepts which have been transmitted from generation to generation are stagnated due to different reasons in today's modern world. Our architecture spaces aren't matched with collective needs of society and large masses have formed the structure of our cities which no

attention is given to their open spaces and nowadays we see a society in which all people spend their energy and attempt in movement from one point to other point and pause spaces in cities are changed to pass spaces which the result of all these events is fading popular communities in society. So, thinking about creating spaces which can meet social needs of society in the form of our culture seems necessary [7].

### ***New technologies***

After industrial revolution in West and quick advancement of sciences and technology and formation of western new society based on modern technology regarding that western societies are in suitable conditions from cultural, social, political and economic viewpoint and regarding scientific, economic and technologic backwardness in Iran, general approach is towards entering modern sciences and technology from West in different fields. Contiguity of culture and other peculiarities of Iran with its modern technology have caused abnormalities. Despite that regarding today's needs of Iran society which should be increased by using modern technology is using modern technology. So, to take advantage of the benefits and being away from its damages, intellectual and philosophical bed of modern technology and also the influences which will be created in biological space should be considered [2].



**Fig-4: the role of technology in social spaces**

But what is the nature of new technology? In Heidegger's opinion, the nature of technology is special proportion which is found for man in new era and has settled the world in special way. In his opinion, this proportion is perception of base of extension and expansion of new sciences. New sciences caused this proportion not to be achieved and in fact, these sciences are acted like tools for achieving what we call nature of technology [11].

### ***The impact of technology on architecture***

The presence of technology in different fields is from the formation of initial thinking, design and construction process to exploitation from impact on different shapes and affect differently on architecture. Nowadays, look to technology in Iran architecture is from quantitative and physical point and its non-physical dimensions will be neglected [17]. Some have

considered technology as an ineffective tool and think no impact on its surrounding environment. On the other hand, technologic thinking of modern man which is originated from changes made in theoretical and scientific fields after industrial revolution, affect all fields of human life and from other hand, as it's proven in environmental psychology which environmental and surrounding elements affect on human, so, the presence of thinking, process and technological works aren't effective on human. The architecture which is originated from thoughts, goals and needs of human will be changed in case of changing in insight, value and needs of human which will be seen during human life [13].

At first sight, technology seems to be tools and machineries but by thinking in scientific and philosophical texts about technology, it will be specified that technology involves wider range, it includes method of thinking and attitude to subject, process and method and final result which involve theoretical thinking and principles, method and process of design and construction, materials, tools and machineries and finally final work. So, it includes physical elements and also human activities. The combination of these cause creating and constructing architecture works [15].

#### **Digital architecture**

Innovating new tools means creating new spaces. It's risk of participation into new spaces, accepting available plans and accepting the possibility of deviation. By opening new three-dimensional spaces or inaccessible realms for measurement, accommodation and dwelling, area of architecture and spatial arts are beyond vision of theories. Crossing the limiting boundaries and new advancement requires new architecture [18].

Architecture is an area of human knowledge which due to close relation with human and way of his life, process of problem solving requires considering different aspects of constitutive of human mental formation. But we live in a space which is man-made and do different activities: we work, rest, have fun, train. So, architecture is an art which should be crystallized for creating a space according to human mental formation affected by main changes of societies, concepts and scientific, philosophical, art and social events. In deliberation about the ancients, their architecture is illustrative of technical, scientific advances and their cultural features. In a general view, three main agricultural-industrial and information changes can be considered in human societies which according to need and feature of that era, architecture has special specifications of that era [4]. As in first mutation, architecture was static, frozen and typical and in second mutation massing, wide and open spaces without bearing and standard wall was necessary to

meet its needs like exhibitions, airports and rail stations. Currently, third mutation of architecture should be responsive of today's human spaces.



**Fig-5: digital technology in spaces**

Traditional architecture has little ability to suitable and enough response for complicated questions. Change of architecture productions depends on changes in thinking about architecture and architecture practices [9].



**Fig-6: digital technology in spaces**

Cultural and social revolution which is the cause of telecommunications and information technologies rapidly causes changes in way of human life. We're living in era of quick changes, during this time, data will be transferred without that they're seen directly, information is replaced by material exchanges and direct and verbal communications by virtual interactions. The population of metropolis and lands which was previously culturally dependent and physically limited in an area are now fixed [8]. The collection of these change cause changing architecture themes like: identity, location, space and most importantly changing nature of human is considered as the most main factor in architecture by means of modern technologies. These changes, the bed in which architecture forms cause substantive changes such as change in ideas, design processes from one hand and technical changes such as change in way of construction, technologies used in building from other hand. Patrick Schumacher writes that" social changes

push architecture by considering collection of new personalities, digital media direct architecture to an unexplored territory of opportunities [12].

Oosterhuis in a thinkable interpretation about the impact of modern technologies on human and architecture write that: when technology captures an object, the object cannot be remained as before. Technology is growing and developing with high speed and use our objects as a software for technological objects, as an automobile uses driver as a software for passing on its way. It's specified that human development and advancement isn't final goal of evolution but technology is gradually evolving on our dominant position. What were technological developments of human body for increasing human's power move towards changing to complicated tools and unpredictable behaviours. Nowadays, technology is becoming out of control [14]. Architecture objects are targeted by technological attacks. These objects are part of global networks which are connected by cables to each other. Objects are connected to basis database and their behaviour and shape (form) is able to be planned. Texts peculiar to each object feeds data from databases which are upgrading themselves in real time. Today's architecture objects can be really revived. Architecture has no fixed final image, its visual and visible form exactly like climate isn't predicting. Architecture is becoming out of control [10].

## CONCLUSION

It can be said that human advancement in life isn't possible without technology. What is certain is that technology isn't a tool for better efficiency but has nature and impact. Technology affects all aspects of human life and changes values and thinking of human and finally society. Human can make it concordant with his social-cultural values with his own will and determination. Architecture isn't excluded from this category.

The impact of technology on architecture caused that human effort is based on building flexible buildings which have the capacity of adapting with different needs and conditions. Instead of heavy and rigid systems, light and flexible kind will be important and wherever adaptable spaces are needed that how a building is made which can meet needs and conditions, this architecture will be important. So, by taking advantage of flexible technologies, spaces can be designed which are changeable with different needs.

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