Education in Visual Communication Design Studies in the Age of Globalized Knowledge

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Abstract-The emergence of "the Global Information Society" has entailed Man's full acquisition of the necessary knowledge and skills so that Man, as the basis of civilization, could survive and withstand. Those who fall distant to the opportunities and the amenities provided by the latest developments in information technologies seem to be heading towards estrangement from the social flux as well as face possible difficulties to continue professional business life. The task of educating individuals who can effectively take part in "the Global Knowledge Society" is the responsibility of educational institutions among which universities come forth with their leading role in the process. The main goal of this paper is promoting consciousness regarding the rapid developments especially in the modern communications media and their cultural and economic effects as well as outlining a model that serves to make the necessary knowledge and skills possible in pursuit of success in the Information Age.

Keywords: Media in flux, systems, informatics, cybernetics.

1. Media in Flux

Because of the fact that it is the engineers who develop the new communication technologies, it has become quite difficult for the theoreticians to fully grasp the characteristics of these technologies. The emerging gap can only be bridged by specialists who are knowledgeable about technology, informed of sociological theories and skilled at using as well as creating new communication tools. This condition aggrandizes the role and responsibility of the outstanding communication schools of our time.

The Department of Visual Communication Design is built on the rapid change, which the modern communication tools, systems and institutions are put through in terms of dimensions and contents as well as the social ramifications that they cause. Apart from the changes in the areas of manufacturing, technology and commerce, the changes in the cultural and political spheres also enhance the functions of communication.

While the focus of discussions in communication studies was placed on the radio, TV, printed media and cinema until only a few decades ago, we are confronted today with the prevalence of the complicated, diversified and puzzling means of communication. Of these various new devices, the audio-visual multi-media seem to have the leading definitive role.

All these advances truly justify the reason our age is called "the Information Age" Beginning with the conventional post and telegram; the computer network, which extends almost everywhere, has brought about an "information society."

2. The Present Condition in Turkey

While sorting out many significant and astonishing processes, Information Technology creates a host of new problems, not only in the developing countries, but also in advanced countries as well. The problems in the advanced, affluent societies center around such issues as information garbage, security, excessive information flow, the isolation and the alienation of the individual, whereas the problems in developing countries indicate the additional aspects of dependency (in technology, economy, culture, politics and law) as well as the limitations over the imported technologies in terms of the way they should be functioning.

Just as seen in many developing countries, the socio-economical effects of the creative potentials, which the new communication and information technologies, offer have not been fully recognized and appreciated in Turkey as yet. The Department of Visual Communication Design, with its crucial task of training the individuals who would be able to grasp and use these technologies creatively, has only been recently ushered in the schools of communications/arts in Turkish universities. Besides, these undergraduate programs need to be supported through well-structured graduate programs.

3. The Significance of Visual Communications Design

The 20th Century has been an age of mass media and communication; it is difficult to surmise what kind of communication tool will prevail in the 21st Century. The future shock which we have yet to undergo due to how usual/conventional communication tools will turn into haunting residues of the past already confronts us with a vital question: How unready and defenseless are we vis-à-vis the changes in the field of communication? There are many scenarios and some of them are pretty scary [1].

All these made a serious impact on the existing fields of communications and arts:

The digital techniques in video and sound processing, including the non-linear digital editing, have increasingly been replacing the analog imaging and sound-recording methods as well as linear analog film editing. Cinematography is in an irrevocable process of merging with the digital visual effects and three-dimensional animations. The high-definition and internet-compatible digital television sets also make the TV screen an interactive media. Therefore, the syllabi, the methodology and the aesthetics instructed in departments of cinema and television need to be reconsidered dramatically.

In much the same way, the conventional press (printed media) is put through a revolutionizing process as the virtual and verbal high-tech models are ushered in, transferring the press into the cyberspace and the advertising sector on to the desktop [2]. As the fields of graphics, sculpture, industrial design and art gradually became electronically applied, the fine arts applications and aesthetics, too, became subject to profound changes.

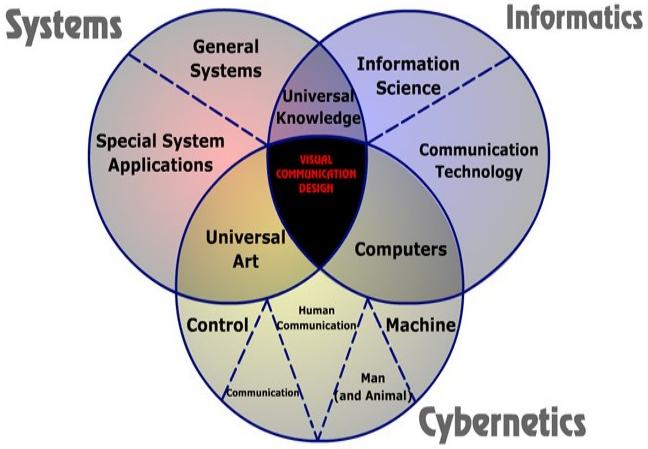
Three-dimensional modeling and simulation have been increasingly and intensively placed at the architects' and interior designers' disposal for their uses in designing.

Furthermore, it is an imperative to take into consideration that computer technology and its networks are gradually merging with communication tools. Today a single connection (i.e. a PC which is connected) to the net makes it possible for you to listen to the radio, watch the TV, follow the printed press, send and receive e-mails and even have televised meetings.

As a multi-disciplinary field, the Visual Communication Design integrates an all-encompassing syllabus that suits the latest visual forms and communicative technologies of media. While carrying out this syllabus, it makes possible for the students to soundly comprehend the swerving nature of the creative applications in these fields as well as gaining them a sense of how the future of arts and technology might be shaped. It is for this reason that the Department has more advantages than the conventional, established departments with the same or similar academic focus.

4. Systemology and Epistemology

The Department of Visual Communication Design has adopted the General Systems Approach as the common theoretical framework, which is based on a holistic method of reasoning. The sciences of system and knowledge offer a multidisciplinary and interdisciplinary perspective, incorporating elements from social sciences, behavioral sciences, engineering, physical sciences and cultural research. The subject in focus should be evaluated in harmony with the perspectives of informatics, cybernetics and the General Systems Approach, taking into consideration its technological, social, cultural, political, legal and economic aspects.



In today's multi-disciplinary perspective, Visual Communication Design is located in the intersection area of Systems, Informatics and Cybernetics. Prof. Dr. Emin Doğan Aydın
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5. Communication and Informatics

For any communication, a communication system is needed just as for any information exchange a system of information is required. A communication system consists of physical, electronic and social structures that provide and facilitate messaging between two or more people. A system of information, on the other hand, provides and facilitates messaging between two or more people as well as a person and another system of information or two by means of its physical, electronic and social structures.

Although information systems technology is similar to the communication system in many ways, they are different from each other in terms of the ways they are used: Information systems have been designed for interpersonal communication. Simply put, all the inputs and outputs are called "information" whereas the inward or outward movements of information are called information system manipulation.

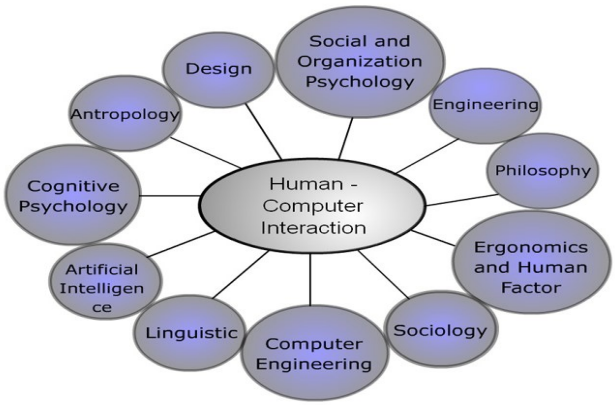
To prevent confusion, we should note that, when using a computer system there are basically two activities that take place named as input and output. The first one takes place on the data that remain apart from the system software, involving what could be qualified as "the manipulation" of the information system, and consisting of the processes conventionally recognized to be the information manipulation, data retrieval, creating database or data processing. The second one, the system navigation (the user interface) [3], involves the user's clicking a button and the system's responding to it, by which the user sends data (input) to the system.

Communications is wholly different from information manipulation. Yet, the increasing popularization of the electronic systems blurs this distinction. Complex

information systems either "interlocutor" with us or demand us to respond to them when we need assistance or data! These interactive human-machine processes replace many one-to-one human interactions of daily life.

Human-Computer Interaction is accepted as a multi-disciplinary application area, which is related to 11 basic disciplines.

- Computer Engineering
- Cognitive Psychology
- Social and Organizational Psychology
- Ergonomics and Human Factor
- Basic Engineering Sciences
- Design
- Anthropology
- Sociology
- Philosophy
- Linguistics
- Artificial Intelligence



Disciplines Related to Human Computer Interaction
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What's more, importantly, each single electronic communication tool necessitates exactly the same behavior the information systems require us to do. For instance, when we alter a web site, we navigate across the system and make changes in the data. All interactive media ranging from three-dimensional virtual simulations to web sites, from interactive video installations to interactive televisions are considered as systems of interaction. The most fruitful approach would then be accepting that each system of communication entails a manipulation of the information system [4]. The fact that the increase in the use of computer and computer networks in our time makes it an imperative to incorporate the science of information into all sorts of instruction in the schools of communication at universities.

The typical curricula and programs provided in the fine arts and communications departments in Turkey so far comprise cultural studies, media research and some courses borrowed from social sciences as well as some practical education accompanied by some limited equipments. Students often graduate without a proper practical knowledge and grasp of the technology and the information systems, which they would have to use in the designs demanded by the market. Then, the expertise required for the professional carriers are meant to be completed or made up for outside of the university, at extra-curricular workshops and seminars, or through internships at various media, news agencies, radio and TV institutions as well as the advertisement agencies. Such being the case, the school time is split into two. Most of our students start preferring to work in the market to studying at school and take their midterms and finals.

In the 2002-2003 academic year, (Visual) Communication Design undergraduate program was opened as a part of the Faculty of Communication, to train individuals on computer aided "Visual Communication Design" technology, which has gained a widespread application area after the 1990s. Admission to this program is through proficiency test and it is one of the most distinguished undergraduate programs of our country, as it consists of intensively computer aided courses on multi-disciplinary "Visual Communication Design" subjects.

The power of information technology makes itself felt particularly at media education and can be explained as in the below:

1. Computer technologies help to save time in writing, drawing, image processing, redaction and layout considerably.
2. The facilities provided by high-tech pull the costs down since all the newspaper and TV procedures can be coped with in a single room.
3. The facilities provided by the web, as in web publishing, pull down the higher costs of duplication and distribution by simply dispensing with them.
4. www and e-mail database facilitate access to sources of information.

Since this undergraduate program on "Visual Communication Design" is very new, there are very few specialists for instruction and researching in this field. For this reason, to have continuity in education and bring up specialists who will make researches and work in "Visual Communication Design" field, it is necessary to open a graduate program in this field.

Main objective of Visual Communication Design Department's graduate program is to bring up researchers on Visual Communication Design in the following fields:

1. Analysis (User Reaction Tests, Usability Measurement)
2. Design (Interactive Media, Interactive Object, Interactive Space Design)
3. Programming (Software Development for Interactive Media)

The intenetion of the program is to find out what kind of a mechanism and system is necessary for Humans to get their expectations from the Computer

- Accurately
- Easily
- Effectively

The first computer was so heavy that it was impossible to carry; it was very expensive and had a very impractical structure when it started to be commercially sold in 1950s. In 1970s, the first personal computer was developed with better technical means and it was relatively cheaper than the first one. Now as a result of the silicon chip technology, computers have entered into every aspect of our daily lives. Personal use of computer provided new application fields for the computer in various occupational areas from education to trade, defense industry to entertainment.

For computer applications to be accepted by a wide range of users and computers to be used effectively, the interface, which enables the interaction between the computer and the user, should be very perfectly designed.

The specialization area that studies interface design was called HCI, derived from the first letters of Human Computer Interface/Interaction.

The concept of user interface appeared at the beginning of 1970s and it was also named as Man-Machine Interface (MMI). Human-Computer Interaction or Man-Machine

Interface deals with principles of design that plays an important role in the agronomical designation of the computer, screen, mouse and keyboard and is not limited with the design of interfaces on the computer screen.

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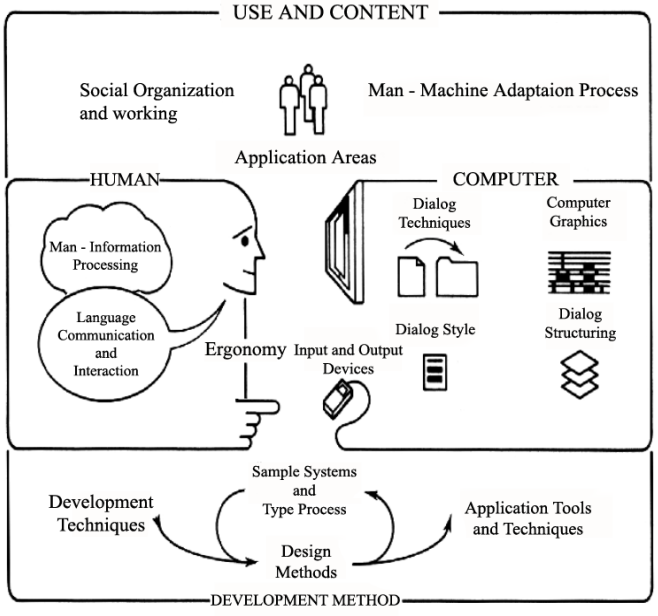
The main goals of this graduate program are cited below [5-6]:



Basics of Human - Computer Interactivity 1996 Jenny Preece

- To offer graduates who are well informed about global developments in a variety of arts and communications technology and who have a strong creative incentive backed with a complete theoretical background.
- To inform the participants about the theories of arts, aesthetics, visual culture, informatics, general systems and cybernetic methods, and to instruct them about the rapid changes and the impacts of communications with regard to technology, dimension and content, within the framework of deduction theories.
- To give a notion of the social, cultural and economical implications of any creative activity and its relation to the existing body of universal art in order to give the student a wide perspective over their own work
- To instruct about the planning, functioning, processing and structure of information and communication systems. To teach the appropriate manners of utilization to come up with the best possible design options.
- To instruct about the social and economic utilization of the general system, structures and data-sources, communication systems /organizations / vehicles / channels and networks in society.
- To teach the terms and concepts about the information systems and the description of the databases and databanks which are permanently accumulated and updated in a large scale; and to scrutinize over their application areas and utilization in the functioning of informatics.
- To study various research and innovation projects in order to find solutions to the different application fields and practical informatics functions in an independent and critical approach; and to supply expertise on system analysis and synthesis.
- To supply information, related to the planning, innovation, application and integration of the international applications and practicing of information sciences.
- To obtain the understanding of the problems and efforts related to the security and completion of the information sciences /networks / and data.
- To evaluate and find out solutions about one dimensional information flow, and technological, cultural, political and legal dependency in the world.
- To supply information about the technological transfer from the point of view of functional signs its choice and application.

As costs increase in media sector continuously, the people in the sector face the need to catch up with the advances in step with the technology so as to have their legs to stand on in a highly competitive environment where the TV-watchers needs keep changing [7]. This condition makes a new personal profile necessary, one who can use a broad variety and selection of technological media instruments with their hybrid skills.

In view of the above, it is needless to say that universities and schools of communication are responsible for, and thus, ought to enterprise in the required software and hardware for the information support to be provided for their departments.

This simplified yet clear expression of a need emphasizes the significant role of technology, information support and their good applications in terms of bridging the yawning gap between the developing countries and the affluent societies in "the global village", taking into consideration the socio-economic elements and variables. The rational use of new technologies in education encourages the students for doing exciting work and opening new windows to the possibilities of furthering and expanding the field.

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