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Active Usage of ICT in Jewellery Art Design Courses

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Abstract

The aim of this study is to determine the effects of Information and Communication Technologies usage in the area of jewellery design which is the rising sort of arts. The research is a qualitative research. By using “content analysis” methods, datas from scientific studies will be examined and results will be shared. It is thought that the study will be useful for illuminating the usage of information technologies in jewellery arts design area.

Keywords: Jewellery Design, Digital Jewellery, Information and Communication Technologies

1. Introduction

Jewellery is a form of personal adornment, such as brooches, rings, necklaces, earrings, and bracelets. With some exceptions, such as medical alert bracelets or military dog tags, jewellery normally differs from other items of personal adornment in that it has no other purpose than to look appealing, but humans have been producing and wearing it for a long time – with 100,000-year-old beads made from Nassarius shells thought to be the oldest known jewellery [1]. Jewellery has been used for a number of reasons: Currency, wealth display and storage, Functional use (such as clasps, pins and buckles), Symbolism (to show membership or status or religious affiliation), Protection (in the form of amulets and magical wards) [2]. Today, it is also observed that the usage of Jewellery is changed and the people are exited used for different various purposes.

At this point digital technology is being woven into the very fabric of our lives, both occupying and shaping the world which we inhabit. Despite recent interest in experience centred design, researchers and practitioners in interaction design have been heavily influenced by the concerns of the work place, leading to a preoccupation with the notion of the task [3]. On the whole, designers operate under the working assumption that digital technologies are there to meet the information processing and communication challenges that arise in our lives.

In Jewellery design area; various aspects such as investigation, analysis, creativity, and development are the important factors. In the design process, designers have to deal with all of these aspects to balance beauty and usability of products. Several *computer-aided design* (CAD) packages have been developed to facilitate the designers' activities; nevertheless, there are only a small number of CAD tools that can support designers' activities since conceptual design [4].

Nowadays it getting more common to graduate from jewellery design departments from universities than before. Analysis of higher education institutions offering education programs in Jewellery design today, the courses in the program are basically the same, only difference is seen that the contents and applications.

Method

This study is a qualitative literature survey. The researches and models were examined and classified. Also the programmes of jewel design departments at universities in Turkey were determined and classified.

Jewellery Design(J.D.) Programmes in Turkey

Totally there are 17 universities and 21 J.D. Programmes that train skilled and qualified people in the jewel industry. 3 of them are Private university (17.6%) and 14 of them are state university (82.4%). Also 4 of them has second education training programs.

Table 1. Universities have J.D Programmes in Turkey

Universities have J.D Programmes in Turkey	Number of Programmes
Private Universities	
Beykent University	1
Istanbul Aydin University	1
Istanbul Arel University	1
Public Universities	
Adnan Menderes University	2
Afyon Kocatepe University	1
Ataturk University	1
Balikesir University	2
Çanakkale University	1
Dokuz Eylul University	2
Dumlupinar University	2
Gazi University	1
Gaziantep University	1
Kocaeli University	1
Marmara University	1
Mugla University	1
Mersin University	1
Suleyman Demirel University	1
Total	21

When lectures accordance with the programs are examined, it is seen that some courses are changed according to programmes but the overall content of package is common. Here are the all courses involved in programmes.

Courses: Foreign Language (English) I, Professional Mathematics, Turkish Language I, History of Atatürk Principles and Revolution I, Information and Communications Technology, Technical Drawing, Jewellery Basic Techniques, Metallurgy, Pattern, Jewellery Production Techniques, Gemstone Processing, Basic Art Education, Industrial Applications I, Jewellery Design, Business Management I, Professional Chemistry, Faceted Gemstone Cutting, Jewellery Casting Technique, Computer Aided Jewellery Design I, Jewellery Ornament Techniques, Professional Ethic, Jewellery Design and Production of Different Materials, Electrometal Plating, Computer Aided Jewellery Design II, Collection Preparation, Exploration and Mining of Gemstone, Tailormade Jewellery Design [5].

Looking at the content of courses in current jewelry design programs, it is seen that to the use of technology was limited with computer-aided design [6].

From the very beginning the synthesis of designers have created by using different materials and artistic creativity, combining technology products. Ongoing process designers: supported their product created with their own techniques and different materials with technology. Also production technology has improved its process to respond to the needs of the time. This process can be considered together with new techniques revealed the understanding of different fashion and style. The resulting of this innovative production technology which plays a very important branch in crafts, added different understanding in jewellery design [7].

On the other hand, the production process of today's designers can be handled as an example of contribution of technological developments in this area. In this context, many jewelry designers can

create maximum 50-80 products per week because of using only handmade jewelry design skills. It is taught that these numbers will be increased with the using of Computer and technological tools [7].

Finally it can be said that; Ever since it began, the design of jewellery has been a synthesis of artistic creativity and production technology. Over the ages, artisans, with their overwhelming imagination and creativity, have been looking for new materials and techniques and have been supported in their work by new materials and technologies [8]. The need for improved weapons is said to have driven production technology, but the decoration of arms followed on immediately. These newly learned and adopted techniques then influenced the work of the designers in all other decorative areas and created fashions. The combination of precious materials, innovative production technology and excellent handicraft led to jewellery which is so specific for a particular period of time that the date of origin of relics can be determined [9].

Today's Trends

Ubiquitous computing technologies are defining an emerging cultural fabric that is becoming interwoven into everyday life and giving form to 'digital culture', through which human meaning and communication derives from the potentials of such Technologies [10]. At this point, the digital jewelry concept stands out.

1.1. Digital Jewellery

Schwartz Noted that

"The thinking behind digital jewellery is that as you push more functionality into pervasive devices, they are getting harder to use: smaller screens, tiny inputs, or just trying to talk and input at the same time; all these become a challenge. By taking the interface apart, putting it in the appropriate places, and allowing them to communicate wirelessly, IBM thinks it has a practical way to solve the problem. So we have a microphone on a pin or necklace, an earpiece on an earring or ear cuff, and a ring with a track point. There's a bracelet with text entry or dialling capability as well, or it might even have a small display." [11]

Digital Jewellery is the fashion with embedded intelligence to helps solving problems like forgotten password and security badges. It is also defines as nascent catchphrase for wearable ID devicez that contain personal information like passwords,user's identification, account information, licence, creidt card etc. However, the practice of wearables development (i.e. technology worn on, in, or close to the body) is predominantly technology-driven [12].

Whilst this approach may enable us be aware of the relationship between technology, jewellery and communication. Also need of change in the understanding is the most effective point in the area.

Method

This study is a qualitative literature survey. The researches and models were examined and classified. Also the programmes of jewel design departments at universities in Turkey were determined and classified.

Results

A critical contextual review reveals that wearable digital objects are fast emerging phenomena, but that the majority of existing approaches to their development, both conceptual and physical, are from

outside the field of contemporary jewellery. In consequence the majority of developments commonly miss many of the subtleties and dynamics of what contemporary jewellery can be. Notable differences relate to interpretations of the aesthetics of jewellery, the relationship jewellery may have with the body and the role jewellery may play within human relationships. This critique is extended through the notion of the gadget. Current approaches to the design of wearable digital objects are led chiefly by an opportunistic use of the body as a mobile location serving to satisfy an increasing desire for ubiquitous computing. Such approaches encourage interpretations of digital objects as function led devices that have a transferable significance, are part of a fast paced consumption cycle and neglect considerations of emotionally rich interactions between people and digital objects[13]. At this points it is seen that the need of understanding in the area of jewellery and its education.

Today is the age of technology, it is inevitable that the effects of continuing development as in many areas, crops up also in jewelry design area too. At this point, the contents of educational programmes of this area in the higher education institutions in many countries, seem are insufficient. In this context, it is important to regulate the current training programmes and be aware of actual applications and examples. It is thought that the most important action is to insufficient the scientific studies in the area of handicrafts as in other areas of the social sciences. Therefore, it is recommended that studying more in both theoretical and practical applications depending on the area to help to identify the problems and create solutions for them.

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