

Tactile communication design for visually impaired people: Tactile magazine page

Arzu Gurdal Dursin *, Faculty of Fine Art Visual Communication Design Department, Abant İzzet Baysal University, Golkoy, Bolu, Turkey.

Aysegul Gurdal Pamuklu, Faculty of Fine Art Visual Communication Design Department, Abant İzzet Baysal University, Golkoy, Bolu, Turkey.

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Abstract

This study was designed tactile communication design products for the visually impaired. In this study, it is aimed to enable visually impaired people to be aware of the animate, moving and changing life.

As a method, the visually impaired were interviewed about problems. Answers were sought for the following open-ended questions.

1. Are there any advertising posters and brochures designed for you around where you live?
2. Through which tools are you informed by the advertisements and notifications?
3. If there were tactile advertisement and bulletin boards designed for you outdoors, would you use them?
4. If the billboards at the bus stops were designed for you with annotated tactile signs, how much useful would they be?
5. Would you use them if there were informative advertisements and notifications placed on the stair railings?
6. Would you read if there was a part for you at the daily newspapers and magazines?

The interviews were analyzed and analytical materials devoted to the problems were produced. The visual images which are visual communication materials and posters, billboards, notice boards which are made by using visual typography were redesigned by using tactile images and Braille alphabet. While the products were being designed, designing products were used. For the printing process, special prints were used which can make embossed printing with hot pressing.

As a result; the produced tactile products were presented to the visually impaired people. About these sample products, the visually impaired people stated that by means of such beneficial initiatives, they feel themselves not drifted away from society and besides with the help of these kinds of products; they feel

*ADDRESS FOR CORRESPONDENCE: **Arzu Gurdal Dursin**, Faculty of Fine Art Visual Communication Design Department, Abant İzzet Baysal University, Golkoy, Bolu, Turkey. E-mail address: arzugurdal@gmail.com

like they are considered important and present in this society. By the help of such tactile communication designs which are made and will be made, the visually impaired people will find themselves in ordinary daily life and they will be able to get rid of their existing feeling of insufficiency. It is thought that, these kinds of studies will prevent them from cutting their social ties with the society.

Keywords: tactile communication design, tactile graphics design, tactile infographics

1. Introduction

Communication design is a method of transporting/transmitting information to the target audience in the expected manner by converting it to an understandable form. It is usually known as an information exchange system thought for the people who can see and hear. Especially visual communication design is a creative process which communicates by combining technology and design. Nowadays, information exchange has been increasing with the rapidly developing technology and the methods are changing. Particularly, innovations at advertising and promotion sector brings the importance of the images back on the agenda. Every day, although every person doesn't realize millions of images, they read them. Especially images at advertising and promotion sector are the most important design elements in terms of instant information and striking their attention.

Visual communication design products are products which are quite meaningless for visually impaired people. Unfortunately, because of the fact that these products only appeal to the people who can see, the people who are visually impaired cannot be aware of hundreds of information around them. The people who are visually impaired cannot read posters, billboards and brochures. They cannot see the advertisements on giant screens. Walls on which posters are hung, bus stops on which announcements are hung or advertisements which are appearing on screens are meaningless for them. Big advertisements on buildings, neon signs and animated indicators don't make any sense. In short, dozens of images, means of communication we see every second in the streets don't apply to them. Then, how are they informed? How are they informed about the advertisements and announcements? Unfortunately, they aren't usually informed. Because there aren't any tactile advertisement and bulletin boards for the visually impaired people. There aren't any commercial films that doesn't appeal to the image.

These kind of situations cause the impaired people to isolate themselves even more from the society. According to the researches, medical, physical and educational dimensions of disability concept in literature and various methods of communication design concept which are focused on the message and target audience, are often discussed. However, there are quite few analytical solutions by using tactile communication design methods in order to overcome the communication problems of visually impaired due to their physical disability. For this reason, it is believed that this research will draw attention in aforementioned areas. Moreover, it is also foreseen that if they are produced, these kind of products will contribute in the social lives of a lot of visual impaired people.

According to World Health Organization, there are 180 million visually impaired people and people with low vision in the world (Tatham, 2003). Unfortunately, only very few of these people can live without help from others in their social life. Yet today, with the help of computers and software which we can name as information technology, there are a number of supplementary tools which are processing, transforming, storing, protecting, transporting and providing safe access of information.

With the help of the tactile designs which will be produced in accordance with the possibilities provided by this technology, it is a matter of fact that visually impaired people will easily have communication channels to access information. What is needed to be done is to detect the problems so that every appropriate discipline can find solutions according to themselves. This study is carried out based upon this idea. Owing to the tactile communication materials shaped as a result of two sciences working interdisciplinary, it is aimed to facilitate the lives of visually impaired people.

2. Tactile Communication Design: Tactile Magazine Page

Tactile diagrams are perceivable graphical information technology thought for visually impaired people which are formed by raising the surface by using various printing methods. Braille alphabet is used as written language. Braille is a common and universal tactile alphabet designed for visually impaired people. However, by only using Braille writing, it is difficult to provide complete and meaningful communication at the designs.

As visually impaired people's perceptions of images are different compared to normal people, design elements must also be different (Dursin, 2013). Braille remains as a common writing system limited to transfer information to visually impaired people. In other words, while Braille writing is perfect for conveying written text, it is limited for illustrating a graphic element. Describing each expression with only text causes incomplete and insufficient definition. Just as it is within the purpose of visual communication design, conveying the information instantly and perfectly is possible at tactile designs. However, what is different is the way users read the designs with their hands and fingers instead of their eyes. For this reason, tactile designs are the products which are prepared and produced according to special rules.

On a tactile design, there might be figures, symbols, lines, colours or spaces. However, each used element or elements must be drawn dependent on the text. Besides, it is necessary to comply with international tactile design standards.

Some of the criteria to be considered in the page layout is as follows;

- Drawn visuals should help to make the right decision.
- Must focus on real needs.
- Must transmit the message directly, not in a roundabout way.
- Necessary detail information must be given.
- Must lead directly to the addresses.
- Must create a Social network with other users.
- Must provide the communication.
- Must specify physical address.

The designed products

- Must be designed by trained designers
- Must be provided with ease of production.
- Must be suitable for the use of all kinds of visually impaired people.
- Must be considered according to environmental factors (Conell, 2007).

Studies which are conducted in recent years show that with the help of developing technology and as the society's attitude towards impaired people has been changing, people with disabilities gained more self-confidence. Especially after the development of printing machines, printed sources have become easily accessible and this increased the demand of impaired people for tactile reading. In this study conducted based on this need, «X magazine» prepared one page for the visually impaired people as tactile page to let them read by touching.

2.1. Material Design-Production

The content of the designed magazine page is fashion. On the page which is prepared for female and male visually impaired, there are information like prices, brands, product specifications and where to buy. Also there are informative texts on clothes for the fashion of the year, fashionable colours and varieties. The way how the images are applied is shown on mannequin figures drawn with special embossing method. Hats, skirts, blouses or shoes are illustrated with certain colour codes by embossing tactile surfaces (See Fig. 1, 2, 3, 4). For the colours, special tactile lines are coded. All the special codes and necessary detail definitions are located in a special section at the bottom of the page with a heading called “transcriber’s note”. This form of design is made in accordance with international design standards BANA (Braille Authority of North America, Acta.), Guidelines and Standards for Tactile Graphics. (2010), America: Braille Authority of North America (2002).

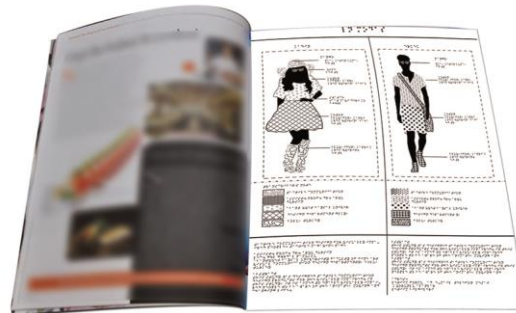
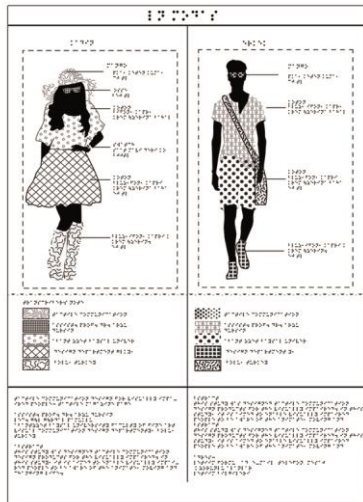


Fig.1. Sample of tactile magazine page about female and male fashion designed for visually impaired people. (Design: Arzu Dursin, 2015).

Fig.2. Tactile magazine page sample taking place at the fashion magazine. (Design: Arzu Dursin, 2015).



Fig. 3. Tactile magazine page sample about only female fashion designed for visually impaired people. (Design: Arzu Dursin, 2015).

Fig. 4. Tactile magazine page sample about only male fashion designed for visually impaired people. (Design: Arzu Dursin, 2015).

At the page layout, just like it is at the sample document template prepared by Purdue University, descriptive information of all the fabrics used in the document are given. This is important especially at complicated designs that show spaces, cloth or skin tissues. The designs of which the meanings of points or arrows are changing, the explanatory parts must be located on the right of the document or below it.

3. Method and Finding

3.1. Research Question

As a method, the visually impaired were interviewed about problems. Answers were sought for the following open-ended questions.

- a) Are there any advertising posters and brochures designed for you around where you live?
- b) Through which tools are you informed by the advertisements and notifications?
- c) If there were tactile advertisement and bulletin boards designed for you outdoors, would you use them?
- d) If the billboards at the bus stops were designed for you with annotated tactile signs, how much useful would they be?
- e) Would you use them if there were informative advertisements and notifications placed on the stair railings?
- f) Would you read if there was a part for you at the daily newspapers and magazines?

4. Results and Suggestion

- a) They said that there aren't any magazines or advertising brochures designed for them around them.
- b) Majority of them are being informed from advertisements and announcements through listening to the radio or television. About the majority of them receiving help from their families and close friends.
- c) They expressed that there aren't any tactile advertisement and promotional products where they live.
- d) All of the people expressed that, they would want to use tactile advertisement or promotion products
- e) All of them want the production of the promotional products hung inside or outside to be tactile.
- f) They expressed that, if there were daily published newspapers and magazines having parts designed for them, they would certainly read them.

As a result, as it can be understood from the answers, visually impaired people will be very happy to read magazine supplements prepared for them. Besides, they express that, these kind of studies make it easier for them to adapt themselves to the social life.

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