

The Infographics which are designed for environmental issues

Esra Tuncali *, Department of Graphic Arts, Faculty of Fine Arts, Hacettepe University, Ankara, 06800, Turkey.

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Abstract

Infographic is the transformation of information, sources and data in graphic format, to make them clear and easily understandable. In these graphics, sophisticated topics and maps are designed in a simple and explanatory way by means of stories. Infographics are seen in media and published works either in a scientific or simple level. In order for the world resources to fulfill not only today's but also future generations' needs, the basis for a sustainable life should be provided today. Organizations like Greenpeace run campaigns in accordance with the principals of protecting bio-diversity, in order for the contribution of raising awareness in society for future. These organizations often use infographics in their campaigns. Infographics contain a lot of research-focused information by quoting several sources. By the help of these researches and design, infographics form an effective way to transmit topics like "environmental issues and what to do about them", to the target population.

Based on the above explanations, how infographics deal with the issues like "nuclear hazard, the decline of biologic diversity and environmental pollution" is analyzed in this article. Furthermore, how people reach infographic design is described, and campaigns of environmentalist organizations were examined. As a result it is concluded that, in terms of the mentioned environmental issues, infographics are beneficial tools to raise awareness and to effectively transmit them to people, particularly in social media and other similar channels.

Keywords: Infographics, environment, graphic design

* ADDRESS FOR CORRESPONDENCE: **Esra Tuncali**, Department of Graphic Arts, Faculty of Fine Arts, Hacettepe University, Ankara, 06800, Turkey. *E-mail address:* esra.tuncali@hacettepe.edu.tr / Tel.: +90 546 728 10 78

1. Environmental issues

It is possible to say that graphic design is far more effective, direct and faster than other information methods in order to develop environmental awareness and stimulate desired behaviours. We can say that Infographics are effective methods to develop environmental awareness compared to other recent graphic design methods.

The increase in environmental issues both in the world and our country brings the question of what to do into the minds. Climate changes, temperature increases, glacier changes and changes in the nature and natural vegetation caused countries to take joint action in the international area and these environment-threatening issues were accepted to be global issues as well as international issues (Baykal, 2008).

According to H. Baykal – T. Baykal;

‘When the research, publications and observations concerning the environment are examined, it is possible to collect the environmental issues under certain headings. These issues are included in the following list without any priority’;

- Nuclear accidents
- Stratospheric ozone cracking, the increase of UV radiation
- Losses in genetic resources and biological diversity
- The quality of springs and underground water

International institutions contribute to raise awareness of the societies by organizing campaigns in line with the principles biodiversity protection. There are many such international and national organizations such as Greenpeace Republic of Turkey Ministry of Environment and Forestry, WWF, TEMA Foundation, ÇEKÜL foundation, ÇEVKOR Foundation, TÜRÇEV Foundation (Ministry of National Education, Family and Consumer Services, 2011).

Greenpeace witnesses the environment crimes that turn our planet into an unlivable place by non-violent direct protests and brings them up via media. It organizes campaigns based on scientific data. They organize peaceful demonstrations in order to witness a crime against the environment and create pressure on the criminals by drawing public’s attention.

One of the campaigns started by Greenpeace Turkey was the nullification of Environmental Impact Assessment (EIA) Report made for the nuclear power plant planned to be constructed in Akkuyu. The negative effects of Fukushima and Chernobyl Nuclear Disasters, known to be among the greatest environmental disasters of the world, continue and are thought to continue even after years. Although nuclear investments and the share of nuclear energy in the total energy production diminished within the last 20 years, a nuclear power plant is planned to be constructed and it has many risks.

Also, nuclear threat is not the only issue in Turkey. The decrease in biological diversity, the disappearance of natural life in the coastal lines and pollution are other issues to be dealt with by infographics method.

1.1. Sustainability

Sustainable development is the method of providing economic growth and prosperity by protecting the environment and the life quality of all humans. According to the definition made by UN Commission on Environment and Development in 1987, "Humanity has the ability to make development sustainable to ensure that it meets the needs of present without compromising the ability of future generations to meet their own needs."

According to the article of Dr Merih Kerestecioglu, as a clear indicator of the importance of environmental awareness and working for this aim, Turkey National Environment Action Plan (NEAP) was completed in 1998. National efforts were fortified with international efforts and Turkey signed many international agreements in addition to the Rio Declaration.

Graphic design is able to transmit information to the receiver via striking methods even in comprehensive and complex issues such as ecology and sustainability. A well-designed image of environment might be more striking than pages of writing. In this case, graphic design and sustainability meet thanks to designs that increase environmental awareness and draw attention to environmental issues. Although in some of these designs the content of the message is environment, in some the design itself, the materials and the method of production are also environmentally friendly (Selamet, 2012).

2. Infographics and their design

Figures and tables should be embedded and not supplied separately. Although infographics are made use of while introducing a product or sharing data in design, its significant points might be overlooked from time to time. In order for an infographic to be limpid and legible, designers should pay attention to some points.

What should be considered in information design is to make complex data stack limpid for and accessible to the target body. To ensure this, designers arrange data groups as schemes, graphics or diagrams (Twemlow, 2011). Today infographics are tools preferred by content marketing experts in design and communication. Sharing info via striking and eye-catching infographic designs has become faster and easier. With information graphics, computer, math and statistics experts might do and develop process informing with one symbol.

Main principles in the design process, definition of the problem, collecting information, being creative, solution and implementation process are main elements in infographics (Becer, 2005). Just like in every communication tool, intelligibility and explicitness are rather significant. The infographic should be designed to be read and understood easily. The reasons why infographics are enjoyed and popular; Visual expression is always more easily perceived and intelligible and catchy. It is enjoyable and far from being boring. Apart from these three elements, people's need for visuality and more importantly for esthetics distinguishes.

First of all, you need a scenario you will design to tell. Without a good scenario, infographic would be composed of visual representations of numbers only. Infographics starting with an attractive scenario involve people in and people want to see or read more of them. When you want to prepare infographics, it will be rather attractive to start with designing directly.

In order to prepare a good infographic, it is useful to examine the structure of the available data. Although brands make use of infographics while introducing a product or sharing data, they sometimes fail to notice the above mentioned aspects. In order for an infographic to be intelligible and legible, some aspects should be considered.

Because too much writing will scare the reader, it is important to be selective while including data in an infographic. A lot of data might be gathered as a result of research and analysis, yet the most significant and catchy one should be selected and included in the infographic. Thus, the most striking and catchy data regarding the research will attract the reader.

2.1. The use of infographics in web

It is not possible to generalize in websites designs, but the width of the content pages range between 500 and 800 pixels. When put in these pages, the sizes of the infographics may decrease or when the width is 500 or 600 pixels, the information might not be easily read. The size of the infographic might be big to be of good quality, but it is significant to ensure that the visual, graphic and writings are read easily when the size is smaller. The reader might open the infographic in another tab/window; or might want to read the data in the same page. For this reason, although the infographics are designed in a big size, it is important to consider that the content is legible in smaller scales. Furthermore, it is important to consider that these contents might be viewed on tablets or smart devices. The screens of these devices are smaller compared to computer screens. Another thing is that long infographics may tire and bore the reader. There is no standard length for an infographic, but if you have the chance to divide it into parts, you can categorize the data and publish in different time periods.

2.2. Infographics in creating environmental awareness.

In the late 1970s in Germany environmental education was started to be given at schools, and by developing multidisciplinary studies, the integration of consumer education and environmental education was emphasized (Fegebank, 1990). In our country environmental education started in the 1980s. Environmental education should gain the individual, family and thus the society environmental awareness, and knowledge, skill and experience to figure out present and future problems. This education and awareness raising process is a constant social activity to be organised (Nazlioğlu, 1991). In order to raise environmental awareness, environmental education and raise responsible producers and consumers in the society one of the ways is using informative and attractive designs. According to Andrew Sloat "The purpose of graphic design is to prod people into action or to inform them. If one aspect of this role is to create a well-intentioned environment, it is even better."¹ Graphic design is a visual tool that sounds by the current political or social situation. Today, there is opposing and protesting design richness for the designers. Current events and political situation push many artists and designers to use what they can do thanks to their abilities and opportunities for the sake of their beliefs. Also, they are directed to develop and discover new messages and methods (Twemlowa, 2011).

Especially today with globalisation and the increase in related social and environmental issues, although it is clear that design, designer and design education for the sake of a sustainable future might play a major role, the confusion in terms of awareness and knowledge level and things to be done in practical terms among designers and design educationalists is at its peak.

The power of media and especially social media should be discovered and used by the designers while raising environmental awareness. One of the designers who understands the power of media and uses it to announce social issues to the public is Natalie Jeremijenko. She has developed projects she defined as "activities attractive to the media", which is a performance work that can be viewed by

¹ Andrew Sloat, *Drainage Ditch*, New York, ABD

various viewers. With the help of social media, environmental awareness and education has started to be gained thanks to infographic design. Together with NTV Green Screen program Monitera have examined the shares on Twitter regarding the environment and prepared “Environmental Awareness Report on Twitter” after examining 29000 Turkish messages (NTV, 2012).

According to this report there are 7 million Twitter users in Turkey only 20000 of who shared regarding environmental awareness. Among the 1.7 million daily tweets only 960 dealt with environmental issues. Talks regarding environment are followed by genetically modified organisms (GMO) with a percentage of 22. The campaign started by Greenpeace “I am not buying that!” was hashed out on Twitter.

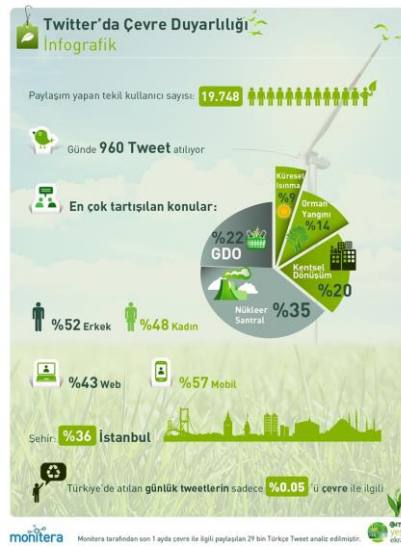


Figure 1. Name of the figure Infographic for Environmental Awareness Report on Twitter Source: <http://www.ntv.com.tr/arsiv/id/25377122/#storyContinued>

Urban transformation project ranked third with a percentage of 20 after the draft law enforced in May. Especially after this draft passed into law, there were many ironic shares on Twitter regarding the phone line “Hello, Urban Transformation Line” which was opened to answer public questions regarding the project.

3. Conclusion

Infographics is a visual representation of information. Designers often use it to explain complex things in a simple way. For many years infographics could be found in magazines, brochures and other printed materials, but now it's becoming a part of the digital world. So infographics can be used for effective tool by designers.

Within the light of this information, it is seen that infographics are useful tools in terms of memorability, aesthetics, and currency of information. In terms of aesthetics and memorability infographics are easier to understand whereas long texts are eye-straining. Presenting visual information requires creativity. Also, the correct use of information, information storage and the message given to the target group is important. Especially in terms of environmental issues this message is more important and affects the aim of the campaign. Also Environment infographics and

data visualizations are key to better understanding some paramount environment topics like resource scarcity or global warming.

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