

Design and intelligence development

By Martha Gutiérrez Miranda

Human beings are born with several potentialities marked by genetics; nevertheless, today we know that we can develop some others through certain stimulus, like design.

The author Howard Gardner¹ (1983), creator of the Multiple Intelligences Theory, defines intelligence as «the capacity to solve problems or elaborate products that can be valuable in one or more cultures». When defining the intelligence as a capacity, Gardner turns it into a developable skill. Even though the genetic component and the social and cultural interaction are not denied, today it is known that besides being born with genetically marked potentialities, we can also develop some other ones from the environment, experiences, educations, etc.

The previously mentioned makes one think about agents or elements that allow us to develop these capacities, and after thinking it over, one can reach the conclusion that design is one of these. Although it might seem pretentious, I dare say that part of these intelligences that Gardner talks about, are promoted and stimulated through design and its presence in the continuous management of information and products that involve culture and daily life.

One of the eight kinds of intelligence of the previously mentioned theory is precisely the visual-space intelligence, that besides allowing us to be capable of perceiving reality, making mental reproductions of it, recognizing forms and objects in different conditions and circumstances and relating them to basic elements such as lines, figures and spaces, also allows us to feed the memory and the association capacity through the visual, as well as to enrich our experiences with the world and the others from the image plane.

Added to this and recognizing the importance of the Gardner model in the development of these multiple intelligences, it results that even the products and «artifacts» made by a designer allow, through the graphic representation, to make a metaphor of the world in our mind and develop those important aspects like the inner representation of reality, or even stimulate our imagination while building new realities.

Biologically, the sight sense is the first one to be developed, and before to learn how to talk and communicate through other ways, we learn to see and recognize people and images. Therefore, the visual messages are the first we learn to recognize and are the ones that get faster to our brain, even stimulating other kinds of intelligences, like the emotional, the interpersonal and the intrapersonal, the verbal and the musical, because all of them require different visual references to be achieved.

That is the reason why today, in practically all the fields, the importance of the visual as a way

to potentiate this and other intelligences has been accepted. The media, technology and design with a high visual component usage favor the answer of people's learning with this sort of intelligence, because the contents are organized through images, forms, spatial contexts and elements such as color, which organize and ease the assimilation and its development.

The design and the graphic expression help to have a better information reception and provide motivation to assimilate the world and reality in general. We know very clearly that the learning and comprehension are eased if the information comes along with visual elements that offer a higher communication level and a more complete form of interpretation.

Based on the previously discussed, I would dare to restate the commitment of design in the social order; because the graphic design answers to the needs of a society, it's everywhere, in all we make, in all we see and in all we buy; we can see it immerse in all that surrounds us. The image cannot be splitted from civilization. From the oldest prints of humanity until the virtual reality images, they all offer to our eyes images precisely, meaning symbolic objects that let us own the world and stimulate our multiple intelligences.

When we look at a simple image, what we are really looking at is a representation full of conditions and experiences that wants to communicate us something. A complex assimilation process begins to work inside each mind that sees an image, that will relate itself with the concepts and experiences that have been stored in the life of each individual to convert this image in a symbol (Beirut, et al. 2001).²

The designer creates an image with the purpose of allowing it to connect with someone's life, memory, experience, individuality and consciousness, to create a new concept and therefore transmit a message that, besides being memorable, causes the expected reaction in the individual. The image should be strong and attractive enough for the target audience, but above all, the message should be organized to be clearly read and codified, so both image and message become a symbol.

In this way, the designer cannot be considered as just an expert in the visual-space intelligence, but also as a professional that perceives the world to then produce images in graphical terms to use them as resources to interpret reality; therefore, a designer's mission is to build visual messages with the purpose of «affecting» positively the knowledge, the attitudes and the behavior of people. The designer is responsible of the visual elements creation to fix and re-fix the everyday life and to contribute with the identification and creation of other supportive actions aimed to reach the established objectives, meaning the desired reality.

Therefore, I consider necessary to stimulate our designers' visual-space intelligence, addressing first all of those who have the commitment to educate professionals in this area, to achieve their maximum level in all the intelligences, with the purpose of conceiving the profession again in its highest social commitment and to accomplish the integration of design products that improve the experience and life in society.

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1. Gardner, Howard (1983). *Inteligencias Múltiples, La teoría en la práctica*, Barcelona: Paidós.
 2. Bierut, Helfand, Heller, Poynor (2001). *Fundamentos del Diseño Gráfico*, Argentina: Ediciones Infinito.

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