

Bringing Life to Illustration and Illustrating the World in Movement through Visual Literacy

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Abstract. “If a picture is worth a thousand words”, as Arthur Brisbane said, journalist of the New York Times in 1911, how many words would equal the hundreds of frames containing in an animation? In this equation as any other, illustration and animation are complex visual expressions, full of shapes considered as symbols, characters of stories, real or fantasies which have strong links that increasingly intermingle thanks to the new technologies and applications that the transmedia world allows. Through visual literacy, either using still images or in movement, we learn to see, to feel and re-think our reality by playing with visuals, full of emotions. These ones are extremely relevant in the learning process and interpretation of experiences which produce our thoughts and feelings. Emotions affect our decision making, problem solving and focus attention, aspects which we work on during the creative process of an animated movie or making illustrations. We present animation, including illustration as part of the process, as a social emotional learning tool and media to enhance wellbeing and work neuroplasticity; by means working on aspects from cognitive neuroscience, such as attention, transportation or emotional simulation.

There are numerous scientists such as Richard Davidson, Paul Ekman or Dan Siegel, who study the effects of our emotions in our behavior and brain functions; unfortunately there are almost no existing references regarding how the creative process of images or animated movies help our emotional brain to develop and learn to perceive or re-create data. The closest attempts are the studies from professors Uri Hasson, Paul Zack or Jeff Zacks, who acknowledge the impact of storytelling and live action movies on our brains and behaviors.

Thanks to the emerging CrossMedia, Transmedia and Multiplatform; together with books, video games and digital applications; we can easily combine illustration and animation, learning more about their common aspects and differences. Under this perspective it doesn't seem so different illustrating the animated world, as animating the world that we try to illustrate.

Keywords: Visual Literacy, animation, illustration, social emotional learning, neuroplasticity.

1 Introduction

Since the beginning of Humanity, men have left evidence of the visual expression of concepts and emotions through storytelling, long before the invention of Gutenberg's press or the appearance of digital platforms and media, which have helped to impulse and disseminate worldwide illustration and animation.

Starting from the paintings of the Mesolithic and Neolithic caves, through the Mesopotamian Art *Standard of Ur*, S. XXVI B.C. or the ancient Egyptian *Book of the Dead* S. XV B.C., this need to tell stories visually continued in the High and Late Middle Ages: in illuminated manuscripts and illustrated books, to accompany texts. The *Book of Kells*; *Genesis of Vienna*; or Dante's *Divine Comedy* S. XIV, exemplified among other works, a legacy of illustrated narratives containing an implicit temporal sequencing, which would correspond with the current graphic script known in animation as a storyboard.

That assessment of the spatiotemporal division is evident in various paintings such as in the ceiling of *The Sistine Chapel* (Michelangelo, 1512), generating different readings for each frame and in turn, a sense of canvas as a page that contains a fragmented sequence, similar to the use of narration and illustration in comics or current graphic novels, such as *Persepolis* (Marjane Satrapi, 2000) or *Wrinkles* (Paco Roca, 2007), which were brought to the big screen as animated feature films. This transition from a fixed illustrated format to the animated action, is the subject of study of this article, in which we appreciate and expose visual literacy, as the link and root of the commonalities that nowadays make possible their combination and interaction with the new technologies.

The technological advances have allowed the use of still or animated images to communicate visual information, constituting the basis of a visual language. They have developed their own specifications to the present day, depending on the field they're applied to: as we will discuss in the first section in relation to the educational context and audiovisual communication. We also emphasize some of the main contributions on visual perception from Rudolf Arnheim for a better understanding of reading images.

Once the common ground on which the images are built is established, we will review the main similarities and differences between animation and illustration through some artists who experienced both fields: Mary Blair, Tadahiro Uesugi, Carlos Porta, Isidro Ferrer or Paula Sanz Caballero; are nearby examples from the illustration world to help us to understand the logic and interest for what the use of illustration is being increasingly more present in the animated world and vice versa. We need to make sense of what we live and by expressing through visual arts, we learn about ourselves and others, over all, we communicate valuable information at the same time that we may entertain an audience.

"I would rather entertain and hope that people learned something than educate people and hope they were entertained" Walt Disney

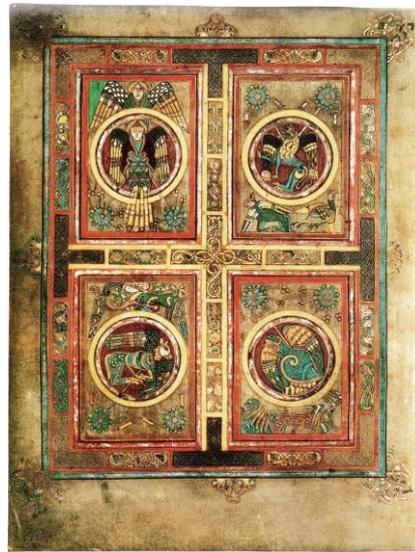


Figure 1. Book of Kells, c.800. Trinity College. Dublin

2 Relating Visual Perception with Visual and Emotional Literacy

At the Animated Learning Lab we understand that the image in movement unites the mind with the body through the thinking process and the sensory perception. Our brain would become the camera which edits the reality perceived in temporal sequences, editing and filling gaps; while our mind would be the director, the sense of self, who gives meaning based on the information extracted by the senses, influenced by our cultural background and upbringing. The brain is the organ built to change in response to experience (R. Davidson, 2009). Animation can be an artistic expression binding the perception of the external world in motion with the inner world of personal interpretation, expressed in graphics, games or/and movies; it combines science with arts. Furthermore we use animation as a media of learning in order to promote critical thinking and cultivate a sensitive mind with a wise feeling.

To make this cultivation flourish, first, it is important to understand how we perceive the world, everything starts with perception. Beau Lotto is an artist and neuroscientist whose research at Lotto Lab (UK) has a great impact with his experiments to show how we build our reality based on perception, in his own words: “we create our history, our meaning” (Understanding perception. Lotto. 2015).

Meanings which are encoded in elements which compose visual representations, Rudolf Arnheim (1904-2007) helped us to comprehend those elements and how artists meet sciences with the application of the Gestalt to visual arts. In his work *Visual Thinking* (1986) he proclaims that all reasoning comes from observation without existing separation between them; in the same way there shouldn't be a separation, either we shouldn't underestimate the perception of the reality of the physical or real world.

Secondly, we must be careful how we respond to these external stimuli to create meaning of the visual information that our brain captures, in order to express it clearly and be understood. Visual literacy provides a common language which instructs us to read images, we can communicate and decode the messages, independently if they're a fixed images or in movement; while cognitive neuroscience gave us some answers to understand how our brain make sense of that reality to be more open minded and expand our creative horizons, as well as we can be more conscious and in control of our creation.

“We found ourselves saddled with a popular philosophy that insists on the division. Not that anybody denies the need of sensory raw material. The Sensualist philosophers have reminded us forcefully that nothing is in the intellect which was not previously in the senses.”¹

The definition of Visual literacy still in dispute between audiovisual professionals and the linguistic world. The term is attributed to John Debes, founder of the International Visual Literacy Association in 1969. Dr. Anne Bamford contributed it to the studies with “*The Visual Literacy White*



Figure 2. Scketch watercolor children. McBean. Easter Africa. 1976

¹ ARNHEIM, Rudolf. *Visual Thinking*. University of California Press. 1972.

Paper" (Adobe, 2003), which is probably the most clear explanation and exposition of this visual language and the relevance to learn it. From our educational and creative perspective, we corroborated her study and the words of the Scottish illustrator George McBean: "Visual literacy is what we understand of the images and in this case, what we learn from them-."2

Through observation and the production of illustrations and movies we can learn visual literacy, arguing with trained experts, technical and formal aspects of composition: color, shape, line, texture, internal rhythm, transitions, camera angle etc. The designer Donis A. Dondis (1924-1984) published in this regard the syntax of the image, "*A primer of visual literacy*" (1973), which became an essential book and bibliographic reference to any visual artist. She remarks the importance of learning the visual language to communicate: "to see has come to mean understanding" (A.Dondis.1973.pp7). Dondis exposed not just the basic elements of composition with a bite of art history, but other aspects that must be considered when creating a picture, this implies to expand our ability to see means in order to enhance our ability to both understand a make a visual image. Creation in order to communicate requires knowledge, self-awareness and it has to have a functional purpose. Good artists are good communicators, skilled in crafts as in visual and emotional literacy; they add a meaning to the art work.

As we mentioned before animation is a visual thinking and feeling media, meaning we need both, the technical skills and the language that facilitates the understanding of the thinking and feeling. Understanding our feelings corresponds to the area of emotional intelligence (Daniel Goleman, 1995) and what it's called emotional literacy, "emotional literacy—intelligence with a heart—can be learned through the practice of specific transactional exercises that target the awareness of emotion in ourselves and others, the capacities to love others and ourselves while developing honesty and the ability to take responsibility for our actions." (Claude Steiner, Book 1, 2002).

Visuals representations, as any other artistic work, are reflections of our realities, with an emotional content besides the conceptual idea that give us an aesthetic experience. In other words of Arthur Koestler (1964), "The essence of the aesthetic experience consists, as I have tried to show, in Intellectual Illumination-seeing something familiar in a new, significant light; followed by emotional catharsis-the rise, expansion, and ebbing away of the self-transcending emotions. "

3 Moving from Illustration to Animation

Despite of sharing a common ground and literacy, animation and illustration differ in details that matter when one artist intends to transfer his work to another form of visualization. Thus we see illustrators and directors of animation as Dylan White³, who finds the timing and design, as for example, specific skills that one illustrator has to consider to train further if he wants to try animation.

The animation pioneer, illustrator and cartoonist, Winsor McCay (1869-1934), experienced in his creations: sequencing actions, camera movements, keyframes and animation cycles; until he finally produced *Gertie the Dinosaur* (1914). Whose first screening was on a stage where he interacted with the audience. It is considered the first animated film whose character had a personality that would influence future animators and production studios as the Fleisher brothers or Walt Disney, all of them excellent artists and innovative in how to make the leap from the cartoon to the animated image.

It was at Disney's studios where a great illustrator Mary Blair strongly influenced the productions style of the 50s, such as in *Alice in Wonderland* (1951), *Peter Pan* (1953) or *Cinderella* (1950). She

² Viborgs Animation Festival, Denmark. 2012.

³ Dylan White. Creative Blog, <http://ruralidyll.tumblr.com>

achieved a great style by the simplicity and harmony of its forms, an exquisite use of color and very dynamic compositions, in which the liveliness of her characters was notorious. She has great knowledge of visual composition and sensitivity appreciated nowadays by many animators and concept designers. The illustrator Tadahiro Uesugi, has as Mary Blair, a great sensitivity in the treatment of light and color that led him to work and influenced the style of the animated film *Coraline* (Laika, 2009). Uesugi mentally conceived images in movement, another factor and connection point between illustration and animation, which can be considered as a creative skill that many artists have, which facilitates the transition from working illustration as sequential images which must have continuity. Another artist who works illustration and animation is Carles Porta, he doesn't only stand out for his very recognizable graphic style or short films, *Francesc lo Valent* (2001), but he is also an educator who has been inspiring people with his travelling workshop Puck Cinema Caravan, to learn more about filmmaking and visual literacy by screening all kind of animated shorts.

Puck shows animation films of those who are not used to be shown on TV. It selects films from all over the world looking among the endless artistic talents that have produced the *medium* over time. The menu is diverse but selected. It is dedicated especially to the spirit. The aim is to awaken the passion for animation films. Or simply retrieve the cinema experience in a particular way. And enjoy a moment of a great little audiovisual work.⁴

Paco Roca, great cartoonist and Paula Sanz Caballero, a fashion illustrator, have inspired with their respective styles as well modern films with difficult topics like Alzheimer's, such as *Wrinkles* (2012) or more juvenile animated shorts as *Needle* (2008).



Figure 3. Puck Cinema Caravana.

The idea of communicating a message is the mainstay of the creation of illustrations and animated films full of ironies, reports or even personal perceptions of the same reality. They offer an invitation to the audience to reflect, to be immersed in a universe of fantasy, translating themselves

⁴ Fragment of the presentation online of Puck Cinema Caravana
http://www.tombscreatius.com/doc/puck_esp.pdf

to an imaginary world full of color and movement, with characters whom they feel identified and situations which they may learn from or get inspired by. In illustration, animations usually are simpler, graphical and sometimes very rigid or somehow limited. Contrary in the animated world these appreciations become more visible when working the physical laws of weight, gravity and transformation along with other aspects that Disney studios developed under the 12 principles of animation, *The Illusion of Life* (1981). Animation can also be done with a few snappy keyframes giving the impression of coarseness or certain rigidity that can work, depending on the purpose and style of the project. As it happens with the graphic artists Becky Bolton and Louise Chappell, *Good Wives and Warriors*⁵, which style has been carried by Adidas, Swatch and MTV for their advertising campaigns. Both artists see animation as a new dimension to experiment with illustration and installations for their future exhibitions.

These are just some of the many illustrators who are increasingly daring to explore their limits through animation, as they find an arena where they can expand and play with the impossible, especially with the new apps and technology. Nevertheless formal aspects of animation like character design, the study of movement, the 12 principles of animation and observation, are skills that an illustrator has to implement in his learning; in the same way, that an animator would need to pay more attention in the plastic treatment of an illustration, with a bigger focus in the elaboration of details and polished look, considering as well the treaty of typography with the image, when is required.

3 The World of APPS, Animating Illustrations

Technology has influenced and facilitated the transition and mix of media among different artistic disciplines, creating a space of infinite possibilities to experiment with.

Currently with the use of the Internet, traditional media such as press, television and printed books, have been digitized and incorporated more assiduously animations and illustrations to attract new readers and consumers, from emoticons to advertising. Reason enough why learning visual literacy is crucial for a better understanding and correct use of information to avoid manipulation and misunderstandings. The old written letters on paper and greeting cards have become emails and digital cards where illustrations are animated. Companies like Blue Mountain or Hallmark have developed special cards playing with augmented reality; others as Cuentosinteractivos.org uploads stories of illustrations and simple animations for young audiences. The LIM platform offers the possibility of creating an interactive book for educational purposes, which you can share and download for free.

The current market ranges from comics, for example, *Murat* (Motiv, 2014), children's books or graphic novels, like *Choose Your Own Adventure*, which appeared in the late 80s and still can be found in the original English web *Choose your own Adventure*. The use of movement in all these formats enriches the experience of the reader.

The field of video games and apps is the great gold mine to explore all the possibilities for the interactive world. In Animated Learning Lab, Denmark, we developed a philosophy based on Lev Vygotsky (1896-1934). We incorporate the use of apps in animated workshops, where we learn by playing as a natural and effective way as when it happens when we are children.

Behind all these formats, a new software Draco, from Autodesk Research, studies the possibility to animate illustrations in a very simple way. Another example where entertainment, education,

⁵ Good Wives and Warriors <http://www.goodwivesandwarriors.co.uk/>

illustration and animation find each other, are the puzzles-games such as *Amphora*, Moondrop Studio⁶.

Throughout this study we have seen how the artistic visual representations emerge from the need to transmit information, to communicate ideas and feelings on paintings, illustrations, comics or animated films. All converge towards playing, interactivity and merging formats, creating new solutions and alternatives of visual communication.



Figure 4. Lay out “*Sbrug Island*” APP. Alina Constantin.

3 Results and Conclusions

- Both animation and illustration are visual representations that complement each other and together constitute a learning tool of great visual strength, motivation and effectiveness for teachers and students. The demands of users in the digital market have produced new forms of learning, such as E-learning⁷.

⁶ Moondrop Indie game studio <http://moondrop.no/>

⁷ European Distance and E-Learning Network. <http://www.eden-online.org/>

- Illustrations, static or developed in sequences like comics or graphic novels, are a means to develop imagination and autobiographical memory, becoming a great cultural and historical media to preserve legacies.
- Animation offers another way to read illustration, re-producing the spectator's movement that, initially he could create in his mind, to visually imagine the actions represented at that precise instant sequenced on paper.
- To adapt illustrations into audiovisual productions and vice versa, we must be aware of the formal and specific technical aspects of each means for a proper integration.
- The use of animation and illustration together offer a great alternative to the traditional education methods to nowadays incorporate visual literacy in the curricula.
- Animation and Illustration are educational and entertaining tools for an informative and therapeutic use. CrossMedia, Transmedia are the new platforms, whose holistic view not only integrates various artistic forms, if not viewers, presenting us a new way of conceiving visual communication and learning.

To finalize we encourage, on one hand, educators and creatives to investigate what social and communicative aspects improve with the application of visual storytelling and audiovisual productions in various field work. On the other hand, we hope to promote the integration of visual literacy at early age in educational institutions. We believe that if we make a good use of new developments and acquire greater awareness of how we perceive and communicate information, we can create a more pleasant and tolerant environment in a world which every day is more mixed; facilitating integration and resilience. Animating the thinking of illustrators, and illustrating the states of the "anima", we enrich our social and intellectual life, awakening with new eyes to observe an illustrate a world in constant movement.

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Figure 5. Coffee time. Scketch for an animated short. Inma Carpe