

## 39<sup>th</sup> ARA Congress Visual Literacy in the Digital Age

Dr. Isabelle Sabau [cyberedu22@netscape.net](mailto:cyberedu22@netscape.net) and Dr. Carmen Sabau

**Abstract:** Visual literacy is a major component in today's expanding digital world of mobile technologies and media saturated environment, especially in the growing domain of online learning. Visual literacy consists of three components - visual thinking, visual learning and visual communication. This paper proposes to discuss various practices used in humanities and art history courses to aid learners in developing higher acuity of visual literacy and thus enable them to become more discerning and informed thinkers and citizens.

### Introduction

From the earliest times with the advent of language and imagery, human beings have attempted to interpret, understand and imagine their relationship to the natural world and each other using various forms of communication. The world of sensory perception and experience was recorded in a variety of representations, such as paintings and sculptures revealing the process of extrapolation and abstraction of the evolving human brain. The two dimensional imagery often simplified the real object and led to the development of signs and symbols, which by the 4<sup>th</sup> millennium BCE gave birth to writing. The oral traditions of prehistoric humans were eventually transcribed with the invention of writing and through the advent of written documents information and ideas were preserved and spread. As historian David Christian explains in his TED Talk on Big History, "What makes humans different is human language. We are blessed with a language, a system of communication, so powerful and so precise that we can share what we've learned with such precision that it can accumulate in the collective memory" [1]. The methods of communication proliferated as communities grew into cities with complex hierarchical and social interactions, along with trade and technological advances, leading to an ever-growing expansion of inquiry, discovery

and invention. The power and immediacy of visual imagery led to the proliferation of artistic creations and conventions visible in the monumental architecture and sculpture of the ancient world, which proclaimed the power of the gods, kings and priests. The language of visual messages was encoded and its repetition resulted in widespread visual literacy. In the 15<sup>th</sup> century, the printing press revolutionized the means for dissemination of information ever widening the growth of ideas. As the modern times arose, beginning with increased exploration and continuing towards the industrialization of the 18<sup>th</sup> and 19<sup>th</sup> centuries, a faster pace developed in the lives of ordinary human beings. The rapid development of technological advances diminished opportunities, access and time and yet led to various social movements of democratization, individualism and nationalism. These movements reveal the search for freedom dignity and democracy, which is increasing to our modern day. Throughout history, the visual image has retained its prominence for its instantaneous communication and even propaganda. The evolution of technology and predominantly of the electronic, digital world, which enabled the expansion of visuals and especially multimedia has resulted in the necessity for increased attention to visual literacy in the learning process.

## 2 Visual Literacy

Today's proliferation of digital and mobile technologies enables any individual to participate in the consumption and creation of digital and visual media. "The new digital media provide new ways of engaging with each other, with information, and with the world" [2]. Digital literacy is the ability to develop, read, present and share meaning in different modes and formats; to create, collaborate and communicate effectively; and to understand how and when digital technologies can best be used to support these processes. Digital literacy involves critically engaging with technology and developing a social awareness of how various factors, including commercial agendas and cultural understandings, can shape the ways in which technology is used to convey information and meaning [3]. Contemporary culture is wrought with a cacophony of visual and multimedia bombardment, dramatically impacting the required literacies of the 21<sup>st</sup> century. Visual literacy pertains to the essential skills of examination and critical thinking about visual media, thereby empowering individuals to participate successfully in the increasing visual culture of today's world. The Association of Colleges and Research Libraries, a division of the American Library Association defines visual literacy: "Visual literacy is a set of abilities that enables an individual to effectively find, interpret, evaluate, use, and create images and visual media. Visual literacy skills equip a learner to understand and analyze the contextual, cultural, ethical, aesthetic, intellectual, and technical components involved in the production and use of visual materials. A visually literate individual is both a critical consumer of visual media and a competent contributor to a body of shared knowledge and culture." [4]. Visual literacy facilitates individuals to decipher the messages, symbols, propaganda or advertising that the different means of digital communication

have produced. In order to acquire visual literacy, one needs to be able to deconstruct images into their component elements and, at the same time, to decipher the deeper meanings within the compositions. Visual expressions from the past reveal different modalities of seeing the world and oneself in relation to the environment. From devotional images to portraits and abstract works, colors, lines and shapes have been used to portray or evoke emotion. Past masterpieces inspire us and even challenge us to enter in a dialogue with them, thus furthering the connection with the past.

All learning begins with wonder and basic curiosity, which leads to questions and the thirst for further inquiry, which in turn promotes life-long learning. Visual literacy is perhaps more important today than in the past, due to the increasing visualization, video, and multimedia that are used on the Internet and in various types of advertising. But it is the power of vision – looking and seeing – that is paramount as Leonardo explained in his discussion of vision "The eye, which is said to be the window to the soul, is the primary way in which the receptacle of the brain may more fully and magnificently contemplate the infinite works of nature, and the ear is the second, gaining nobility through the recounting of things which the eye has seen... (from the Ashburnham II manuscript, 19r around 1492)"[5]. While the human eye can apprehend images spontaneously, it needs training to decipher, understand and manipulate them.

Visual literacy incorporates three main components: Visual thinking, Visual communication and Visual learning. In its broadest term, Visual literacy is defined as the ability to read and create visual information, to think and solve problems visually, and to interpret and evaluate those visual messages that bombard us each day. Visual thinking incorporates graphs and visualizations along with a variety of means of interpreting data in order to discover correlations in different

informational materials or statistics. Visual thinking includes the manipulation of objects and their organization, as well as the creative use of data. Visual communication pertains to the effective use of images to convey ideas, to persuade people and even to produce propaganda. YouTube and Facebook have become the most commonly used vehicles for the dissemination of visual media throughout the globe. Visual learning incorporates the analysis of images, their deconstruction in terms of messages and meanings, their cultural information and social impact.

Visual literacy begins with visual phenomena which include signs and symbols, icons, representations, recreations and illusions, which are based on a variety of gestalt principles such as symmetry, figure-ground relationships, proximity diversity and similarity. The successful combination of these elements and principles of art underscore the idea that the whole is much greater than its individual parts, or to use a well-known cliché –a picture is worth a thousand words. The meaning of the term ‘icon’ has grown from its original spiritual and religious connotation, to encompass, as Martin Kemp explains: “[the] Definition of a visual icon - an iconic image is one that has achieved wholly exceptional levels of widespread recognizability and has come to carry a rich series of varied associations for very large numbers of people across time and cultures, such that it has to a greater or lesser degree transgressed to the parameters of its initial making, function, context, and meaning” [6]. Today icons are used to signify various merchandize brands, convey political or social ideas and even draw the spotlight on popular celebrities.

The very basics of a visual image pertain to line and shape, value, color, texture, movement, balance and unity, scale and proportion. It is the manipulation of these elements that indicates the function of the image, the message and meaning of a visual representation and thus a complete

description of a visual image provides the starting point for analysis. Visual literacy encompasses a number of different areas of study. First, one needs to begin with a close observation of the elements used in the image to fully describe the image, followed by research to identify the artist, if known, the style and time period. The materials and techniques used to create the work are closely connected to the purpose and function of the piece and the impact the image had when first revealed as well as subsequent interpretations of the work. Visual literacy also impacts morality and ethics in terms of copyright and intellectual property or the opposite, censorship and privacy. The extensive use of Facebook and other social media requires careful and critical decision making for the types of images one ought to share with the world. The creation of visual media is also an important aspect of visual literacy, allowing for experimentation and graphic representation of data. The overwhelming amount of accumulated data on the Internet can be visualized in various ways from graphs to infographics allowing for the discovery of patterns and connections [7]. The interpretation and analysis of images includes investigation of contexts and meanings as well as functions and purposes for the work. The intended audience as well as the individual viewer, completes the work via personal responses, emotions and reactions to the piece, thus making a visual work a continuous artistic dialogue, which combines the past and the present while suggesting the future.

### **3. Digital learning**

Learning is one of the most important and fundamental activities of human beings. Education provides a central aspect in any society today both formal and informal. While the purpose and function of education has dramatically changed over the last century, as the need for education grew and expertise was increasingly sought, the pursuit of education has also

entered the business world based on the new digital possibilities and appropriating business practices. A variety of programs, including online courses, have been created to provide opportunities and flexibility for the general population to benefit from educational offerings. With the advent of the electronic age and digital technology, increased opportunities for learning have arisen in the online world. Online education is mitigated through technological interfaces, such as a computer, tablet or smart phone. Basic computer skills as well as a reliable connection to the Internet are necessary for online learning. Despite the fact that online learning lacks face-to-face encounters, this new delivery method has the capability to provide comparable quality instruction to the more traditional educational delivery methods. A variety of software is available to connect participants in an online course and provide opportunities for asynchronous discussion, synchronous chat and the creation of a variety of materials both textual and multimedia.

Today's technology enables fast interaction, research and inquiry through the use of the Internet and hyper link software. The ability to have a vast array of information and data practically at ones fingertips, through an internet connection, increases the potential for deeper learning through discovery and connections of relevance to today's world. Learning and education provide the foundation for the necessary skills to examine the data and draw interpretations and relevance to the present world. To this end critical thinking skills of analysis and synthesis are paramount and necessary across the curriculum. Learning is a necessary activity that is both desired and lifelong. In this context, visual literacy lends itself easily to the online environment. Emerging digital pedagogy emphasizes the central position of the student and the increasing flexibility of the media. Mobile technologies today literally provide for the anywhere, anytime

participation of the learners within their environment. The enormous databases accessible through the Internet and the evolution of sophisticated technologies for both visualization and imagery compound the possibility of amplifying the connections between different areas of research. To promote lifelong learning, the innate curiosity of the student must be developed and this can be accomplished by revealing the connections and the relevance of the subject under study to everyday life. The Internet allows for easy to accomplish links between different areas and subjects that can provide further insight into a given image. From the chemical analysis of the materials used in a work, to the stylistic analysis of the work and available historical data, additional information can be gathered about objects from the past, which may reveal their functional or aesthetic purpose. The celebration of diversity of the current world emphasizes a variety of experience and multiculturalism. But as symbols, colors and images have different meanings across the globe, the skills of visual literacy are necessary for both sensitivity and tolerance. The interactive elements of an online course prompt individuals to connect given imagery to their contexts, the artist or historical periods, to the myths or icons being presented, and thereby to discover deeper meanings within the works. Such an inquiry of necessity would bridge a variety of subjects and cultures incorporating diverse experiences as well as personal interpretations.

#### **4. Components Online course**

The design process for an online course is very similar to that of a traditional class with the exception of the means of communication and interaction. One begins the process with clearly outlined learning objectives which indicate the purpose and function of the course. The quality of the course depends not only on the interaction between participants, but also on the

material studied and structure of the class. The learning objectives are followed by a variety of instructional materials, which promote and enhance the learning process, leading to a deeper study of the material. The students demonstrate their level of understanding of the material through a variety of projects, portfolios, exams or discussions. Successful learning depends of the active interaction of the participants engaged with both the content and each other in the common search for meaning and understanding. Carefully crafted discussion questions can lead the student on their own paths of discovery and further their inquiry into the subject. Critical thinking skills can be developed for the analysis of various media and materials for the course. For example, in a humanities course a variety of the visual and performing arts would be connected with literature, religion, history, economics and political or social movements. In business and science courses, simulations, experiments and data visualization form a key component of learning. But the ultimate goal of all learning is gaining a deeper understanding of oneself and of the modern world by becoming a critical independent thinker able to connect information, make successful decision and solve various problems.

### 5. Conclusion

The digital media of today's world is transforming the way human beings gather, process and evaluate ideas and information. Traditional reading is increasingly being supplemented by browsing, listening or viewing material on the Internet. Visual literacy teaches us about the different relationships between human beings, the interconnectedness of various ideas and subjects, the ubiquity of the visual means

of communication ultimately enabling each of us to participate fully in the modern world and thus it requires careful, vigilant and critical scrutiny in its use.

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