

The Visual Literacy White Paper

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Written by Dr Anne Bamford. Director of Visual Arts. Senior Lecturer in Interactive Media,
Art and Design University of Technology Sydney

What is visual literacy?

Visual communication is a process of sending and receiving messages using images. **Visual literacy** can be defined as the “ability to construct meaning from visual images” (Giorgis, Johnson, Bonomo, Colbert, & al, 1999: 146). To make meaning from images, the ‘reader’ uses the critical skills of exploration, critique and reflection. Lapp et al (1999) use the term “**intermediality**” to describe the combined literacies needed to read in a multi-media world. They stress the importance of active reading based on information visualisation and the importance of visual communication to capture attention, reinforce knowledge and increase audience responses. Visual literacy is about **interpreting images** of the present and past and **producing images** that effectively communicate the message to an audience.

The term “visual literacy’ was first used by the writer John Debes in 1968 (1968). Messaris (1995) defines visual literacy as the gaining of knowledge and experience about the workings of the visual media coupled with a heightened conscious awareness of those workings. Visual literacy includes the group of skills which enable an individual “to understand and use visuals for intentionally communicating with others” (Ausburn & Ausburn, 1978: 291). Visual literacy is what is seen with the eye and what is ‘seen’ with the mind. A visually literate person should be able to read and write visual language. This includes the ability to successfully decode and interpret visual messages and to encode and compose meaningful visual communications.

Visual literacy involves developing the set of skills needed to be able to interpret the content of visual images, examine social impact of those images and to discuss purpose, audience and ownership. It includes the ability to visualise internally, communicate visually and read and interpret visual images. In addition, students need to be aware of the manipulative uses and ideological implications of images. Visual literacy also involves **making judgements** of the accuracy, validity and worth of images. A visually literate person is able to discriminate and make sense of visual objects and images; create visuals; comprehend and appreciate the visuals created by others; and visualise objects in their mind’s eye. To be an effective communicator in today’s world, a person needs to be able to interpret, create and select images to convey a range of meanings.

There are many forms of visual communication including **gestures, objects, signs and symbols**.

Visual sign systems are everywhere. For example, dance, film, fashion, hairstyles, exhibitions, public monuments, interior design, lighting, computer games, advertising, photography, architecture and art are just some examples of visual communication. To be **visually literate** a person should be able to:

- understand the subject matter of images;
- analyse and interpret images to gain meaning within the cultural context the image was created and exists;
- analyse the syntax of images including style and composition;
- analyse the techniques used to produce the image;
- evaluate the aesthetic merit of the work;
- evaluate the merit of the work in terms of purpose and audience; and
- grasp the synergy, interaction, innovation, affective impact and/or ‘feel’ of an image

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The history of visual literacy

The significance of visual literacy has been apparent throughout history and across disciplines. For example, the reading of maps and x-rays has been vitally significant in our lives. Similarly humans have relied on images to make meaningful interpretations and understandings of sophisticated and complex ideas such as mathematical or chemical formulas or the reading of architectural plans. The mixing of linguistic and pictorial elements was seen as the best medium for explanatory representation of conceptual structures.

At about 12 months of age, children can read graphic imagery with some accuracy. They know, for example, that a photograph of an apple equates to a real apple. From about 3 years of age, they become deliberate producers of visual imagery and understand that graphic forms can be used to communicate. For example the picture of Daddy with an angry face shows I am unhappy with Daddy. By 3 years of age most children can use visual symbols to denote things. For example the circle and two sticks can be used to denote a person, the 'm' shape to denote a bird and so on. Researchers also believe that one of the first complex mental operation babies perform is to visualise and create memory pictures. For example, a child of 6-8 weeks has a clear memory picture of her mother and can distinguish this person from other woman, even those women who look very similar.

Visual literacy is a thoughtful and sustained form of understanding. Visual literacy is not something that is confined to a particular discipline or area of the curriculum. Rather it is something that should be taught from the youngest age and involves the intelligent consideration of images from a multitude of sources. **Visual literacy has emerged from a number of disciplines** including: ● Visual arts ● Art History ● Aesthetics ● Linguistics ● Literacy ● Philosophy ● Psychology ● Perceptual physiology ● Sociology ● Cultural studies ● Media studies ● Instructional design ● Semiotics ● Communications studies ● Educational technology

Why is visual literacy important?

Contemporary culture has become increasingly dependent on the visual especially for its capacity to communicate instantly and universally. A very high percentage of all sensory learning is visual. "A wise man once said that a picture is worth 100 words. But when visual symbols are used in place of words to express an idea or to evoke a feeling or a mood within us, it is necessary for the viewer to be able to understand the message" (Oring, 2000: 58) Oring (2000: 58) argues that "the need to learn to read visual images is an urgent one that touches at all levels in our society." Visual literacy levels directly determine our level of visual comprehension and the ability of the individual to be able to **read images in a meaningful way**. Pictures exist all around us. They surround us. The economy relies heavily on visual representation and a sense of design, style and 'feel'. Understanding pictures is a vital life enriching necessity. Not to understand them is visual illiteracy.

Visual images are becoming the **predominant form of communication** across a range of learning and teaching resources, delivered across a range of media and formats. The ratio of visual image to text is increasing. Charles Brumback, the chairman of the Newspaper Association of America said in 1995 that we are heading to a culture of 'visual literacy' He said, "As newspaper penetration falls, competitors cut into newspaper ad share, and the culture itself moves from textual literacy to visual literacy" (Fitzgerald, 1995). The proliferation of images means that visual literacy is now crucial for obtaining information, constructing knowledge and building successful educational outcomes.

Furthermore, Ausburn (1978: 287) argues that we live in an era of **visual culture**, which influences our attitudes, beliefs, values and life-style. Images inundate our environment, be it in the private or public domain, in a variety of different forms and through several channels of communication. Visual literacy allows a person to be able to discriminate and interpret visual actions, objects, symbols that they encounter in the world. Visual literacy encourages an appreciation and comprehension of visual communication. A lack of awareness of visual literacy effects your ability to be able to communicate effectively. By understanding the basic principles of visual literacy, people can produce images that communicate in a more efficient ways.

The grammar, syntax and semantics of visual literacy

Visuals are a system of representation and signification that allow us to produce and communicate thoughts and images about reality (Kazmierczak, 2001: 181). The symbols used in visual communication, unlike those of written and to a lesser extent oral communication are not a fixed vocabulary. There can be no dictionary of meanings for the symbols of visual communication. Firstly such a dictionary would be enormous, as the available symbols is as limitless as the human imagination and the graphic skills of humanity. Secondly, and very importantly, visual communication is made up of presentational symbols whose meaning results from their existence in particular contexts. Meaning is formed by seeing and thinking. The conventions of visual communication are a combination of universal and culturally based conventions.

Being visually literate is a combination of **syntax** and **semantics**. **Syntax** is the form or building blocks of an image. The syntax of an image can be regarded as the pictorial structure and organisation. Visual literacy includes, but should not be limited to, graphic composition of images (eg shapes, lines, colours, etc). It can also include things such as camera placement, editing and juxtaposition and point of view (eg low angle will make someone appear more imposing). This can also have other impacts such as to change your sympathy towards a character or raise tension. An image might also involve manipulation of proximity and placement (eg close-ups or zoom).

Some **examples of visual syntax** includes: ● scale ● dimension ● motion ● boldness
● arrangement ● framing ● motion ● depth ● dimension ● colour ● light ● shadow
● flow of movement ● juxtaposition of images ● perspective
● relative size of items within images ● line ● shape ● direction ● tone ● scale ● balance
● harmony ● contrast ● emphasis ● manipulation ● rhythm ● parody ● editing ● cropping
● labelling ● simplification ● symbolism ● metaphor ● layering ● motion ● location
● seriation ● space ● manipulation ● illumination ● resemblance ● visual/text relationship
● foreground ● background

Semantics refers to the way images relate more broadly to issues in the world to gain meaning. The word 'semantic' has a similar origin to the word 'sign'. Semantics are often closely related to **Semiotics**. Semiotics is the study of signs. In practice, visual semantics refers to the ways images fit into the cultural process of communication. This includes the relationship between form and meaning. Semantics might include looking at the way meaning is created through:

- form and structure
- culturally constructed ideas that shape the interpretation of icons, symbols and representations
- a social interaction with the images.

Some questions you might ask to **develop an understanding of visual semantics** include:

- Who created the image?
- At what point of history and in what context was the image created?
- Who commissioned the image?
- For what purpose was the image created?
- In what context is the image being seen?
- Who is the intended audience of the image?
- In what form(s) of media will the image be seen?
- What has been omitted, altered or included in an image?
- What does the image say about our history?
- What does the image communicate about our individual or national identity?
- What does the image say about society?
- What does the image say about an event?
- What aspects of culture is an image communicating?

While syntax and semantics can be studied individually, it is important that they are also looked at as they are combined within an image. Any form of literacy, but especially visual literacy, is not about simply learning a set of fixed skills or grammars. Literacy is a social practice. It is about the use of literacy and the beliefs, values and purposes for why you might want to read something or communicate. As with written and spoken literacy, visual literacy also differs depending on context and purpose. For example, a family photograph taken as a 'snap' to capture a happy family gathering is less likely to be as formally composed than the photograph taken of the school prefects. In this way, literacy changes according to its use. Similarly, visual literacy, changes depending on who is using it and why, for example the images used to communicate between adolescents (such as in rock or 'street' magazines) are likely to be different from those used to communicate between adults and children, such as the images in a history text book. The use of images also differs according to gender, ethnicity and age. It is important to remember that while the grammars of visual literacy may hold true across a number of media, each form of media (eg film, video, magazines, interactive media and so on) all have their distinct characteristics, skills and literacies.

Why teach visual literacy?

Visual literacy is a gradual process of gaining greater sophistication of perception, conception and visual and linguistic vocabulary. Students need to be able to make critical selection between the necessary and the unnecessary and "distinguish superficial, glamorous and pseudo-sophisticated messages from the real and valuable ones" (Ausburn & Ausburn, 1978: 288).

To some extent visual literacy skills develop automatically with little input required from teachers. Yet the automatic learning to read visuals tends to be only the lower order thinking skills. Ausburn (1978: 288) cautions that “the superficiality of pupils’ comprehension of much of what they view, suggests that the higher order visual literacy skills do not develop unless they are identified and “taught”.” Messaris (1995) argues that understanding the implications of images makes a viewer more resistant to the manipulative uses of images in advertisements and other contexts.

Images can be very powerful in our national and individual consciousness. Visual literacy involves problem solving and critical thinking and these can be applied to all areas of learning. Visual education provides a foundation for understanding and evaluating aesthetic intention and artistic skills. It also makes students more resistant to manipulation by visual means.

The teaching implications of visual literacy include the need to:

- develop critical thinking skills in relation to visual images;
- enhance verbal and written literacy skills and vocabulary to be able to talk and write about images;
- introduce image production, manipulation techniques and software to children at an early stage;
- integrate visual literacy across all curriculum areas;
- ensure there is a balance between visual and textual literacies in the classroom;
- be aware of visual literacy principles in the design of teaching and learning objects;
- pose questions to students about images;
- encourage students to look at underlying assumptions that are embedded in the images surrounding young people.
- encourage students to critically investigate images and to analyse and evaluate the values inherently contained in images.

Strategies to promote visual literacy

Visual literacy includes critical knowledge. This is best developed through exposure to interesting and varied images and through thoughtful and thought-provoking questioning and discussion. Critical knowledge includes discussing the ways images have been used throughout history, awareness of intentionality, of how an image, object or event has been put together to offer a particular kind of experience or to set up a certain kind of spectator. This should be done in a creative and innovative way so imagination is interwoven through the idea of being ‘critical’ and reasoned responses are combined with affective and imaginative responses. The aim is to create students who have a sense of aesthetic openness, but are also critically aware of the capacity of images to manipulate.

It is important that children are given the opportunity to experiment with graphic software. Exposure to graphics packages such as **Adobe PhotoShop** or **Adobe Photoshop Elements** broadens the scope for visual expression, allows discovery and is an ideal means for exploring individual visual thought processes. In addition, familiarity with graphics software packages provides students with enhanced visual presentation skills and develops expanded modes of communication. It is important to remember that technical skills develop through use. The teacher should provide creative experiences to allow exploration of the technology, but it is NOT important that the teachers be themselves technical ‘whizzes’. While minimal understanding of graphics applications is useful, teachers should focus on encouraging critical and creative thinking skills to be solved through exploration of graphics software.

Simple everyday things can be used to introduce visual literacy such as washing instructions on clothes labels, health of nutritional symbols on food, images on cereal packets, book covers (it is especially good if you can compare the book designs for the same book from around the world), WWW 'splash' pages, CD covers, pamphlets, computer games, video covers, films, comics, animations and DVDs

Some fun activities for introducing visual literacy could include:

- Videoing children pulling faces and interpreting the emotions being displayed.
- Looking at greeting cards and analyse the images, text types and relationship of text to images on and the 'feel' created.
- Looking at packaging in the supermarket. Talk about what is real and what is manipulated or created. Look for visual symbols on the packet. Look at Logos and text types used.
- Creating an image resource about a passion the children might have eg a PowerPoint using only images about dinosaurs, netball and so on.
- Creating visual dictionaries. For each letter choose stereotypical images and unusual (non-stereotypical) images. Find images in magazines, newspapers, brochures or online. Encourage children to gather the non-stereotypical images using digital photography.
- Taking digital photographs of the children and using Adobe PhotoShop or Adobe Photoshop Elements to manipulate and change their images.

The following table may be useful when talking about images:

| | |
|--------------------|---|
| Issues | <ul style="list-style-type: none"> ● What issues are being shown in the image? ● How is the way the issue is shown in the image similar to or different from how you see this issue in the world? ● What might this image mean to someone who sees it? ● What is the message of the image |
| Information | <ul style="list-style-type: none"> ● Where has the information in the image come from? ● What information has been included and what information has been left out? ● What proportion of the image could be inaccurate? ● What information presented is factual/manipulated/framed? ● What is the relationship between the image and any text? ● What impact does the size of images within the picture have? |
| Who | <ul style="list-style-type: none"> ● What people are depicted in the image (even if there are now actual people in the image, whose culture or experiences are being shown? ● Who created the image and for what purpose ● Who is the intended audience for the image? ● Whose point of view does the image take? |
| Persuasion | <ul style="list-style-type: none"> ● Why has a certain media been chosen? ● Why was a particular image chosen? ● Why was the image arranged that way? ● Is the information contained in the image factual? ● What devices have been used to get the message across to the viewer? ● How has the message been affected by what has been left out or is not shown? |

| | |
|--------------------|--|
| Assumptions | <ul style="list-style-type: none"> ● What attitudes are assumed? ● Whose voice is heard? ● Whose voice is not heard? ● What experiences or points of view are assumed? |
|--------------------|--|

Visual literacy and technology

Technology is increasingly at the centre of active learning and critical curriculum. Computers require different pathways to learning. Computers are sensory media for learning and can influence people by providing vicarious, first-hand experiences; by prompting insights into cause-effect relationships; and by allowing for cognitive and behavioural changes. One of the major changes as the result of technology is the development of new ways of communicating.

Human communication has always been made up of multiple codes, but as the information we need to communicate becomes more complex, diverse, deep and extensive, humans are exploring simpler ways to communicate that can make connections between increasingly complex forms. To address this need, the communicative environment is becoming dominated by images. Images play a major role in understanding the world. The “information age” has led to the need to process volumes of data quickly and efficiently and the adage of “a picture being worth a thousand words” is revealed in the way images are utilised in interactive media. From the moment we turn on a TV, computer or DVD, we are in the world of imagery.

Software such as Adobe’s image production suite including Photoshop, Photoshop Elements, Premiere makes the production and distribution of images incredibly easy. What the printing press did for written communication, Adobe graphic software has done for the visual. It is now cheap and easy to create full colour and moving visuals in a few seconds. The creation of images that were previously only the domain of professional artists and filmmakers are now available to anyone. Visuals, including animation, film and 3D virtual reality enable intelligent and interactive communication through all the senses. John Sculley, the former CEO of Apple Computers estimates that 98% of all the words and pictures created in the world today have been in some way computer mediated (Lester 1995:418). The IBM executive, Lucie Fjeldstead, when speaking in 1991 for the Getty Institute for Education spoke of the importance of making children more visually literate in the wake of the rapid expansion in technology, “We urge you to think critically about the meanings of what you are seeing, hearing, sensing and experiencing.”

Literacy will be about being able to imagine and model possible actions that might be taken into future world. These models will be communicated visually and sensually. Gozzi (1999) suggests that the real world has just become too dull by comparison to an imaginable world. Pivotal to communication on technology is the way images can be manipulated. The idea that ‘seeing is believing’ is now a naïve concept. Manipulated images serve to re-code culture. This virtual world becomes the new symbol system for the way in which we perceive the reality of images we are presented with. As Freedman (1998: 183) suggests, “We are now in the sixth wave (of communication), one of expansion to include all visual culture, which is grounded in global, socio-cultural concerns and what it means to live in increasingly image-based, technological environments”. Interactive mediums rely heavily upon visual imagery, movement, drama and sound to communicate.

Further Reading

Ausburn, L., & Ausburn, F. (1978). Visual literacy: Background, theory and practice. PLET, 15(4), 291-297.

Debes, J. (1968). Some foundations of visual literacy. Audio Visual Instruction, 13, 961-964.

Fitzgerald, M. (1995). NAA leaders disagree over the value of cyberspace.

International Federation of Newspaper Publishers Research Association, 128(12), 48-49.

Freedman, K. and F. Hernandez, Eds. (1998). Curriculum, culture and art education: Contemporary perspectives. New York, State University of New York Press.

Giorgis, C., Johnson, N. J., Bonomo, A., Colbert, C., & al, e. (1999).

Visual literacy. Reading Teacher, 53(2), 146-153.

Gozzi, R. Jr. (1999). The power of metaphor in the age of electronic media. Cresskill, New Jersey, Hampton Press.

Kazmierczak, E. T. (2001). A semiotic perspective on aesthetic preferences, visual literacy, and information design. Information Design Journal, 10(2), 176-187.

Kress, G., & van Leuwen, T. (1996). Reading Images. The grammar of visual literacy.

London: Routledge.

Lapp, D., Flood, J., & Fisher, D. (1999). Intermediality: How the use of multiple media enhances learning. Reading Teacher, 52(7), 776-780.

Lester, P. M. (1995). Visual communications: Images with messages. Belmont, California, Wadsworth Publishing Company.

Messaris, P. (1995, October 12-16). Visual literacy and visual culture.

Paper presented at the Image and visual literacy: Selected Readings from the annual conference of the international visual literacy association, Tempe, Arizona.

Oring, S. (2000). A call for visual literacy. School Arts, April, 58-59.

Interesting Websites

The Visual Literacy Association:

<http://www.ivla.org/>

Some history of visual literacy

<http://www.asu.edu/lib/archives/vlhist.htm>

New Literacies Project

<http://www.newliteracies.gseis.ucla.edu/>

<http://www.adobe.co.uk/education>

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