Visual literacy competency standards for higher education

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by the Visual Literacy Standards Task Force

The importance of images and visual media in contemporary culture is changing what it means to be literate in the 21st century. Today's society is highly visual, and visual imagery is no longer supplemental to other forms of information. New digital technologies have made it possible for almost anyone to create and share visual media. Yet the pervasiveness of images and visual media does not necessarily mean that individuals are able to critically view, use, and produce visual content. Individuals must develop these essential skills in order to engage capably in a visually oriented society. Visual literacy empowers individuals to participate fully in a visual culture.

Visual literacy defined

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.

In an interdisciplinary, higher education environment, a visually literate individual is able to:

 determine the nature and extent of the visual materials needed,

- find and access needed images and visual media effectively and efficiently,
- interpret and analyze the meanings of images and visual media,
 - evaluate images and their sources,
 - · use images and visual media effectively,
- design and create meaningful images and visual media, and
- understand many of the ethical, legal, social, and economic issues surrounding the creation and use of images and visual media, and access and use visual materials ethically.

Visual literacy and higher education

Across disciplines, students engage with images and visual materials throughout the course of their education. Although students are expected to understand, use, and create images in academic work, they are not always prepared to do so. Scholarly work with images requires research, interpretation, analysis, and evaluation skills specific to visual materials. These abilities cannot be taken for granted and need to be taught, supported, and integrated into the curriculum.

Notably, some K–12 and higher education standards include visual literacy as one of several key literacies needed for success in contemporary society. Many discussions of transliteracy, metaliteracy, and multimodal literacy also include visual literacy among the literacies important for today's learners. A diverse body of literature on visual literacy and visual studies also exists. Yet standards outlining student learning outcomes around

interdisciplinary visual literacy in higher education have not been articulated. The "Visual Literacy Competency Standards for Higher Education" addresses this gap in the literature and provides tools for educators seeking to pursue visual literacy with college and university students.

The "Visual Literacy Competency Standards for Higher Education" establish an intellectual framework and structure to facilitate the development of skills and competencies required for students to engage with images in an academic environment, and critically use and produce visual media throughout their professional lives. The standards articulate observable learning outcomes that can be taught and assessed, supporting efforts to develop measurable improvements in student visual literacy. In addition to providing tools for educators across disciplines, the standards offer a common language for discussing student use of visual materials in academic work and beyond.

Visual literacy and information literacy

The "Visual Literacy Standards" were developed in the context of the "Information Literacy Competency Standards for Higher Education," and are intended to complement the "Information Literacy Standards." The "Visual Literacy Standards" address some of the unique issues presented by visual materials. Images often function as information, but they are also aesthetic and creative objects that require additional levels of interpretation and analysis. Finding visual materials in text-based environments requires specific types of research skills. The use, sharing, and reproduction of visual materials also raise particular ethical and legal considerations. The standards address these distinct characteristics of images and visual media and challenge students to develop a combination of abilities related to information literacy, visual communication, interpretation, and technology and digital media use.

Implementation and use of the standards

The standards may be used as a whole, or in part, depending on curricular needs and overall learning goals of a program or institution. A visual studies course or a year-long series of courses involving visual materials may be an appropriate context for full implementation of the standards. In other circumstances, the individual standards may be more useful as stand-alone tools for teaching and assessing specific sets of learning outcomes. Depending on the assignment or project, it is possible that two or three of the standards would be applicable and useful, but the remaining standards would not be relevant. Implementation of the standards may also vary across disciplines, depending on how visual materials are used in that discipline. Individual disciplines may choose to articulate additional discipline-specific visual literacy learning outcomes.

The standards follow a linear structure, but it is understood that student information behavior is iterative.² Students may search, interpret, and evaluate simultaneously. Appropriate learning outcomes may be employed as needed, and visual literacy learning may not necessarily follow a progression from Standard 1 to Standard 7.

Visual literacy education is typically a collaborative endeavor, involving faculty, librarians, curators, archivists, visual resources professionals, and learning technologists. Integrating visual literacy into the curriculum requires partnerships and shared implementation strategies across academic departments and units. Libraries play an important role in this process by selecting and providing quality image resources, developing research and subject guides for images, teaching image research strategies, and raising awareness of the ethical use of visual media. Libraries are also established partners in working with students to develop the critical thinking and evaluation skills essential to participation in visual culture.

The accessibility of visual materials and the needs of differently abled individuals,

including visually impaired students, is an important consideration in visual literacy instruction and standards implementation. Adaptive or assistive technologies, such as audio descriptions of visual materials or multimodal access to visual media, could be components of an accessibility strategy for visual materials.

Standards development process

The "Visual Literacy Competency Standards" were collaboratively written by the members of the Visual Literacy Standards Task Force (VLTF), using the "Information Literacy Competency Standards" as a foundational document. In March 2010, the ACRL Information Literacy Standards Committee gave support to the ACRL Image Resources Interest Group's (IRIG) proposal to develop "Visual Literacy Competency Standards." The Visual Literacy Standards Task Force reviewed the visual literacy and standards literature and developed a public bibliography in Zotero; appointed an Advisory Group comprised of librarians, technologists, curators, and administrators; created a blog for communication and community engagement; conducted open meetings and discussion groups; and engaged in outreach with multiple organizations. The first public draft of the standards was distributed in February 2011.

Notes

- 1. Two of these standards are "Standards for the 21st-Century Learner," "American Association of School Librarians," 2007, http://www.ala.org/ala/mgrps/divs/aasl/guidelinesandstandards/learningstandards/ AASL_LearningStandards.pdf; and "NCTE Framework for 21st Century Curriculum and Assessment," National Council of Teachers of English, 2008, www.ncte.org/library/NCTEFiles/Resources/Positions/Framework_21stCent_Curr_Assessment.pdf.
- 2. Alison J. Head and Michael B. Eisenberg, *Truth be Told: How College Students Evaluate and Use Information in the Digital Age. Project Information Literacy,* Information School, University of Washington,

2010. projectinfolit.org/pdfs/PIL_Fall2010 _Survey_FullReport1.pdf.

Standards, performance indicators, and learning outcomes

Standard One. The visually literate student determines the nature and extent of the visual materials needed.

Performance Indicators:

1. The visually literate student defines and articulates the need for an image.

Learning Outcomes:

- a. Defines the purpose of the image within the project (e.g., illustration, evidence, primary source, focus of analysis, critique, commentary).
- b. Defines the scope (e.g., reach, audience) and environment (e.g., academic environment, open Web) of the planned image use.
- c. Articulates criteria that need to be met by the image (e.g., subject, pictorial content, color, resolution, specific item).
- d. Identifies key concepts and terms that describe the needed image.
- e. Identifies discipline-specific conventions for image use.
- 2. The visually literate student identifies a variety of image sources, materials, and types.

Learning Outcomes:

- a. Explores image sources to increase familiarity with available images and generate ideas for relevant image content.
- b. Investigates the scope, content, and potential usefulness of a range of image sources and formats (e.g., digital, print, subscription databases, open Web, books or articles, repositories, personal creations).
- c. Identifies different image and visual media types and materials (e.g., paintings, prints, photographs, born-digital images, data models).
- d. Articulates ways images can be used to communicate data and information (e.g.,

charts, graphs, maps, diagrams, models, renderings, elevations).

 e. Recognizes that existing images can be modified or repurposed to produce new visual content.

Standard Two. The visually literate student finds and accesses needed images and visual media effectively and efficiently.

Performance Indicators:

1. The visually literate student selects the most appropriate sources and retrieval systems for finding and accessing needed images and visual media

Learning Outcomes:

- a. Identifies interdisciplinary and discipline-specific image sources.
- Articulates the advantages and disadvantages of various types of image sources and retrieval systems.
- Recognizes how the image search process is affected by image rights and use restrictions.
- d. Uses specialized online or in-person services to select image sources (e.g., online research guides, image and reference librarians, curators, archivists, disciplinary experts).
- e. Selects the most appropriate image sources for the current project.
- 2. The visually literate student conducts effective image searches.

Learning Outcomes:

- a. Develops a search strategy appropriate to the image need and aligned with available resources.
- b. Recognizes the role of textual information in providing access to image content, and identifies types of textual information and metadata typically associated with images (e.g., captions or other descriptions, personal or user-generated tags, creator information, repository names, title keywords, descriptions of visual content).

- c. Recognizes that images are often organized differently than text-based information and that this affects the way images can be accessed (e.g., absence of full-text search, variations in controlled vocabularies, lack of subject terms).
- d. Identifies keywords, synonyms, and related terms for the image needed, and maps those terms to the vocabulary used in the image source.
- e. Uses images to find other images through exploration, social linking, visual search engines, or browsing.
- f. Performs image and topical research concurrently, with each informing the other in an iterative resource-gathering process.
- g. Assesses the quality, quantity, and appropriateness of images retrieved, and revises the search strategy as necessary.
- 3. The visually literate student acquires and organizes images and source information.

Learning Outcomes:

- a. Retrieves or reproduces the needed image using appropriate technologies or systems (e.g., download functions, copy and paste, scanning, cameras).
- b. Accesses physical objects as needed to support the image research objective (e.g., site visits to archives, repositories, museums, galleries, libraries).
- c. Organizes images and the information that accompanies them for personal retrieval, reuse, and scholarly citation.

Standard Three. The visually literate student interprets and analyzes the meanings of images and visual media.

Performance Indicators:

1. The visually literate student identifies information relevant to an image's meaning.

Learning Outcomes:

a. Looks carefully at an image and observes content and physical details.

- b. Reads captions, metadata, and accompanying text to learn about an image.
 - c. Identifies the subject of an image.
- d. Examines the relationships of images to each other and uses related images to inform interpretation.
- e. Recognizes when more information about an image is needed, develops questions for further research, and conducts additional research as appropriate.
- The visually literate student situates an image in its cultural, social, and historical contexts.

Learning Outcomes:

- a. Describes cultural and historical factors relevant to the production of an image (e.g., time period, geography, economic conditions, political structures, social practices).
- b. Examines the purposes and meanings of an image in its original context.
- c. Explores choices made in the production of an image to construct meaning or influence interpretation (e.g., framing, composition, included or excluded elements, staging).
- d. Describes the intended audience for an image.
- e. Explores representations of gender, ethnicity, and other cultural or social identifiers in images.
- f. Investigates how the audience, context, and interpretation of an image may have changed over time.
- 3. The visually literate student identifies the physical, technical, and design components of an image.

Learning Outcomes:

- a. Describes pictorial, graphic, and aesthetic elements of an image (e.g., color, composition, line, shape, contrast, repetition, style).
- b. Identifies techniques, technologies, or materials used in the production of an image.
- c. Determines whether an image is an original or a reproduction.

- d. Examines an image for signs of editing, alteration, or manipulation (e.g., cropping, color correction, image enhancements).
- 4. The visually literate student validates interpretation and analysis of images through discourse with others.

Learning Outcomes:

- a. Participates in classroom and other discussions about images.
- b. Seeks expert and scholarly opinion about images, including information and analysis found in reference sources and scholarly publications.
- c. Informs analysis with discipline-specific perspectives and approaches.

Standard Four. The visually literate student evaluates images and their sources.

Performance Indicators:

1. The visually literate student evaluates the effectiveness and reliability of images as visual communications.

Learning Outcomes:

- a. Evaluates how effectively an image achieves a specific purpose.
- b. Assesses the appropriateness and impact of the visual message for the intended audience.
- c. Critiques persuasive or manipulative strategies that may have been used in image production to influence interpretation.
- d. Evaluates the use of visual signs, symbols, and conventions to convey meaning.
- e. Analyzes the effect of image editing or manipulation on the meaning and reliability of the image.
- f. Determines the accuracy and reliability of graphical representations of data (e.g., charts, graphs, data models).
- g. Evaluates images using disciplinary criteria.
- 2. The visually literate student evaluates the aesthetic and technical characteristics of images.

Learning Outcomes:

- a. Evaluates the aesthetic and design characteristics of images (e.g., use of color, composition, line, shape, contrast, repetition, style).
- b. Evaluates the technical characteristics of images (e.g., resolution, size, clarity, file format).
- c. Evaluates the quality of image reproductions, based on indicators such as color accuracy, resolution, manipulation levels, and comparison to other reproductions.
- 3. The visually literate student evaluates textual information accompanying images.

Learning Outcomes:

- a. Evaluates information that accompanies images for accuracy, reliability, currency, and completeness.
- b. Uses observation of visual content to evaluate textual information.
- c. Verifies information that accompanies images by consulting multiple sources and conducting research as necessary.
- 4. The visually literate student makes judgments about the reliability and accuracy of image sources.

Learning Outcomes:

- a. Assesses reliability and accuracy of image sources based on evaluations of authority, and point of view or bias.
- b. Makes judgments about image sources based on evaluations of image and information quality.
- c. Critiques how an image source may create a new context for an image and thereby change its meaning.

Standard Five. The visually literate student uses images and visual media effectively.

Performance Indicators:

1. The visually literate student uses images effectively for different purposes.

Learning Outcomes:

- a. Plans for strategic use of images and visual media within a project.
- b. Selects appropriate images and visual media aligned with a project's purpose.
- c. Integrates images into projects purposefully, considering meaning, aesthetic criteria, visual impact, and audience.
- d. Uses images for a variety of purposes (e.g., as illustrations, evidence, visual models, primary sources, focus of analysis).
- e. Uses images for subject-specific and interdisciplinary research, communication, and learning.
- 2. The visually literate student uses technology effectively to work with images.

Learning Outcomes:

- a. Uses appropriate editing, presentation, communication, storage, and media tools and applications to prepare and work with images.
- b. Determines image file format, size, and resolution requirements for a project, and converts images accordingly.
- c. Edits images as appropriate for quality, layout, and display (e.g., cropping, color, contrast).
- 3. The visually literate student uses problem solving, creativity, and experimentation to incorporate images into scholarly projects.

Learning Outcomes:

- a. Experiments with different ways of integrating images into academic work.
- b. Uses visual thinking skills to clarify and solve problems.
- 4. The visually literate student communicates effectively with and about images.

Learning Outcomes:

a. Writes clearly about images for different purposes (e.g., description, analysis, evaluation).

- b. Presents images effectively, considering meaning, aesthetic criteria, visual impact, rhetorical impact, and audience.
- c. Discusses images critically with other individuals, expressing ideas, conveying meaning, and validating arguments.
- d. Includes textual information as needed to convey an image's meaning (e.g., using captions, referencing figures in a text, incorporating keys or legends).
- e. Reflects on the effectiveness of own visual communications and use of images.

Standard Six. The visually literate student designs and creates meaningful images and visual media.

Performance Indicators:

1. The visually literate student produces visual materials for a range of projects and scholarly uses.

Learning Outcomes:

- a. Creates images and visual media to represent and communicate concepts, narratives, and arguments (e.g., concept maps, presentations, storyboards, posters).
- b. Constructs accurate and appropriate graphic representations of data and information (e.g., charts, maps, graphs, models).
- c. Produces images and visual media for a defined audience
- d. Aligns visual content with the overall purpose of project.
- 2. The visually literate student uses design strategies and creativity in image and visual media production.

Learning Outcomes:

- a. Plans visual style and design in relation to project goals.
- b. Uses aesthetic and design choices deliberately to enhance effective communication and convey meaning.
- c. Uses creativity to incorporate existing image content into new visual products.

3. The visually literate student uses a variety of tools and technologies to produce images and visual media.

Learning Outcomes:

- a. Experiments with image-production tools and technologies.
- b. Identifies the best tools and technologies for creating the visual product.
- c. Develops proficiency with a range of tools and technologies for creating images and visual media.
- 4. The visually literate student evaluates personally created visual products.

Learning Outcomes:

- a. Evaluates personally created visual products based on project goals.
- b. Evaluates personally created visual products based on disciplinary criteria and conventions.
- c. Reflects on the role of personally created visual products as a meaningful contribution to research, learning, or communication.
- d. Validates personally created visual products through discourse with others.
- e. Revises personally created visual products based on evaluation.

Standard Seven. The visually literate student understands many of the ethical, legal, social, and economic issues surrounding the creation and use of images and visual media, and accesses and uses visual materials ethically.

Performance Indicators:

1. The visually literate student understands many of the ethical, legal, social, and economic issues surrounding images and visual media.

Learning Outcomes:

a. Develops familiarity with concepts and issues of intellectual property, copyright, and fair use as they apply to image content.

- b. Develops familiarity with typical license restrictions prescribing appropriate image use.
- c. Recognizes one's own intellectual property rights as an image creator.
- d. Identifies issues of privacy, ethics, and safety involved with creating, using, and sharing images.
- e. Explores issues surrounding image censorship.
- 2. The visually literate student follows ethical and legal best practices when accessing, using, and creating images.

Learning Outcomes:

- a. Identifies institutional (e.g., museums, educational institutions) policies on access to image resources, and follows legal and ethical best practices.
- b. Tracks copyright and use restrictions when images are reproduced, altered, converted to different formats, or disseminated to new contexts.
- c. States rights and attribution information when disseminating personally created images.
- 3. The visually literate student cites images and visual media in papers, presentations, and projects.

Visual Literacy Standards Task Force

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Learning Outcomes:

- a. Gives attribution to image creators in citations and credit statements to acknowledge authorship and author rights.
- b. Includes source information in citations and credit statements so visual materials can be reliably found and accessed by other scholars and researchers.
- c. Cites visual materials using an appropriate documentation style.

Appendix 1: Sources and bibliography

In preparing the standards, the taskforce consulted a broad range of literature on visual literacy, related literacies, and education standards. The complete bibliography consulted is publicly available in the ACRL/IRIG Visual Literacy Bibliography in Zotero (http://www.zotero.org/groups/acrl_irig_visual_literacy_bibliography).

Key sources

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