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User interfaces – Accessibility and human factors

Guidance on text alternatives for images

Recommendation ITU-T T.701.11

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Recommendation ITU-T T.701.11

Guidance on text alternatives for images

Summary

Recommendation ITU-T T.701.11 gives guidance on how to create text alternatives (also known as "alt-text") and what information to put in text alternatives.

This Recommendation applies to all still images that are used in any type of electronic document. It also applies to individual images within a slide show. The alternative text guidance provided in this Recommendation is not applicable to moving images (e.g., movies).

This Recommendation is a twin text with ISO/IEC 20071-11:2019 "Information technology – User interface component accessibility – Part 11: Guidance on text alternatives for images", prepared by ISO/IEC JTC1 SC35 "User interfaces".

History

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FOREWORD

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

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Introduction

The saying that "A picture is worth a thousand words" recognizes that images can present a wealth of information. It is important that alternative textual descriptions or representations present a comprehensive account of the purpose and content of images to people unable to see or interpret them.

Text alternatives help people who cannot see the images to understand what the image is of or the purpose it serves by providing the same information in textual form. Text alternatives can be useful to those with visual impairments, those who turned images off in order to improve webpage loading speeds, and those who cannot understand the image being displayed. They can also aid search engines in finding images. This Recommendation provides guidance for user interface, web and document developers to help them create informative descriptions for various types of illustrations.

While some sources of guidance advocate that text alternatives be kept short, it is important that they provide an equitable alternative to the image. ITU-T H-series Supplement 17 | ISO/IEC Guide 71 states "A system provides equitable use if it allows diverse users to accomplish tasks in an identical manner whenever possible or in an equivalent manner when an identical manner is not possible". This Recommendation provides guidance intended to help developers create equitable text alternatives.

The guidance contained in this Recommendation is intended to be used by the person who creates content and/or text alternatives to be placed in an electronic document. There is no expectation that this person will have any additional expertise beyond understanding the contents of the document and why an image was chosen to be placed within the document.

While the main intent of the guidance within this Recommendation is the creation of text alternatives, the information identified in this guidance could be placed in the main document text, reducing the length of the resulting text alternatives. However, placing information in the main document text does not fully replace the function of having some text alternatives for each image.

Recommendation ITU-T T.701.11

Guidance on text alternatives for images

1 Scope

This Recommendation gives guidance on how to create text alternatives and what information to put in text alternatives.

This Recommendation applies to all static images that are used in any type of electronic document. It also applies to individual images within a slide show.

This Recommendation does not apply to moving images (e.g., movies).

NOTE 1 – While text alternatives can be implemented via various mechanisms in various types of electronic documents, the contents of this Recommendation are not dependent on the choice of implementation mechanism or of electronic document type.

NOTE 2 – Guidance on making moving images accessible is contained in [b-ISO/IEC TS 20071-21], [b-ISO/IEC 20071-23] and [b-ISO/IEC 20071-25].

This Recommendation is a twin text with ISO/IEC 20071-11:2019 "Information technology – User interface component accessibility – Part 11: Guidance on text alternatives for images", prepared by ISO/IEC JTC1 SC35 "User interfaces".

2 Normative references

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

None.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 content [b-ISO/IEC/IEEE 23026:2015]: Interactive or non-interactive object containing information represented by text, image, video, sound or other media.

3.1.2 essential information [b-ISO/IEC 20071-23]: Information that is necessary to understand the content and/or its function.

3.1.3 helpful information [b-ISO/IEC 20071-23]: Information that provides a thorough understanding of the content to some users.

3.1.4 importance [b-ISO/IEC 20071-23]: As it relates to information, level of need for users to know information about content.

3.1.5 significant information [b-ISO/IEC 20071-23]: Information that provides a more detailed understanding of the content for most users most of the time.

3.1.6 unhelpful information [b-ISO/IEC 20071-23]: Information that does not help users understand the content and/or can interfere with that understanding.

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

3.2.1 abstract: Type of content intended to present important major data, information, object, relationship, and/or conceptual components, without faithfully representing them as they occur in the natural world.

EXAMPLE – Cartoons, abstract art (where the basis for abstraction can be recognized), graphs and charts.

3.2.2 caricature: Content showing the features of its subject in a simplified or exaggerated way.

3.2.3 cartoon: Semi-realistic content that is usually intended to be entertaining.

NOTE – It is typical for cartoons to include unrealistic situations, e.g., animals talking, people performing physical actions that are not possible.

3.2.4 component: As it relates to images, identifiable part of an image that provides content for the user.

NOTE 1 – Types of image component include (but not limited to) shapes, objects, persons, areas, and text.

NOTE 2 – Text components can include natural and/or formal languages (such as mathematical equations).

3.2.5 composite image: Image created by combining individual images or components of individual images, which can each be accessed as independent components of the composite image.

3.2.6 computer-generated illustration: Image created by a computer based on data that it has available to it.

3.2.7 control (information): Information that can be used to take some action which manipulates data, other objects or their attributes.

3.2.8 diagram: Image containing a graphical representation of a set of (physical, logical, conceptual or other) objects or components and their (physical, logical, sequential or other) relationships.

3.2.9 drawing: Image created as an original work through the artistic actions of a human.

3.2.10 event (information): Information about a state change, message indicating the occurrence of an action, or conveying a significant change in the world.

3.2.11 image: As it relates to digital content, graphical content intended to be presented visually.

NOTE – This includes graphics that are encoded in any electronic format, including, but not limited to, formats that are comprised of individual pixels (e.g., those produced by paint programs or by photographic means) and formats that comprised of formulas (e.g., those produced as scalable vector drawings).

3.2.12 logical (relationship): Relationship information about what entities are interacting and how they interact.

3.2.13 main body of text: Textual content of a document that is always presented to the users.

3.3.14 map: Image containing a geospatial representation of geographic data.

3.2.15 moving image: Image where the contents are dynamically changing.

NOTE – This includes realistic moving images (often referred to as movies), abstract moving images (often referred to as cartoons), and even non-representational moving images (often referred to as light shows).

3.2.16 non-representational: Type of content intended for decorative purposes without the intent to represent any particular natural world data, information, objects, relationships and/or concepts.

EXAMPLE – Art presenting colours and textures (without any recognizable objective contents).

NOTE – Diagrams, maps and computer-generated illustrations are often presented as composite images.

3.2.17 photograph: Electronic copy of an image of something that has its own independent existence in the real world.

3.2.18 physical (information): Information about phenomena which have a concrete existence.

EXAMPLE – Objects, agents or scenes that have a physical existence.

NOTE – This can include states and histories of objects.

3.2.19 physical (relationship): Spatial relationship information about where one entity is in relation to another entity.

3.2.20 primary alternative text: Main text alternative provided to users of screen readers.

NOTE – Different technologies and platforms provide various mechanisms for containing and presenting primary alternative text.

EXAMPLE 1 – In HTML 5.2 and EPUB, primary alternative text is provided in the "alt" attribute of the img tag.

EXAMPLE 2 – In PDF, primary alternative text is provided through the /Alt entry in a structure element's dictionary.

3.2.21 quantitative (information): Statistical information or numerical data and the relationships between the numbers.

NOTE 1 – Quantitative information is often presented in a graphical manner.

NOTE 2 – Quantitative images are often used for comparison between related sets of data, such as comparing net profit over a period of time.

NOTE 3 – Examples of quantitative images include charts and graphs.

3.2.22 realistic: Type of content that is perceived by the user to faithfully represent data, information, objects, relationships and/or concepts in the natural world.

EXAMPLE – Photographic images, pictures intended to be true-to-life, diagrams used to illustrate how to assemble a set of parts.

3.2.23 relationship type: Information about an association between entities.

3.2.24 secondary alternative text: Additional text alternative provided to users of screen readers beyond primary alternative text.

NOTE – Different technologies and platforms provide various mechanisms for containing and presenting secondary alternative text.

EXAMPLE 1 – In HTML 5.2, secondary alternative text is provided in the "longdesc" attribute of the img tag.

EXAMPLE 2 – In EPUB, secondary alternative text is provided through the "role" attribute.

3.2.25 sketch: Rapidly executed freehand drawing that is not usually intended as a finished fully-realistic work.

NOTE – Sketches are often monochrome line drawings, with or without shading.

3.2.26 slide show: Set of images that replace one another periodically.

NOTE 1 – The replacement of one static image by another static image can be controlled automatically by the system (in which case the timing for each image is usually predetermined) or manually by the user (where the timing for each image is determined on a case by case basis).

NOTE 2 – Slide shows are usually composed of static images but can include short movies. The interval between static images in a slide show are considered longer than in a movie, such that the motion being portrayed by the slide show would appear staggered instead of smooth like in a movie.

3.2.27 state (information): Properties of the environment, objects or agents that remain constant during a period of time.

3.2.28 static image: Image where the set of image components and their relationships to one another do not change over time.

NOTE 1 – This includes images where the content/representation of individual image components can change over time, e.g., indicators where the value they are indicating changes in real time.

NOTE 2 – The concept of static image is used for all images that are not slide shows or moving images.

NOTE 3 – This use of static image is similar to the use of "still image" in [b-ISO/IEC 13249-5]. However, it differs in that a static image can have moving components. [b-ISO/IEC 13249-5] states "A still image user-defined type is generic to image handling. It addresses the need to store, manage, and retrieve information based on aspects of inherent image characteristics such as height, width, and format and based on image features such as average colour, colour histogram, positional colour, and texture. It also addresses the need to employ manipulation such as rotation, scaling as well as similarity assessment".

3.2.29 temporal (relationship): Relationship information about when some action or entity occurs.

3.2.30 text alternative: Alternative text: textual description or representation of an image.

NOTE 1 – By storing this description or representation in text format, it is able to be rendered in any available modality.

NOTE 2 – The main audience of text alternatives are the users of screen reading features.

NOTE 3 – Text alternatives are often provided to screen reader users in the form of primary and secondary alternative texts of an image.

NOTE 4 – Generally, "text alternative" is used to refer to any text alternative, while "alternative text" is used to refer to text alternatives for images that are contained in attributes of an image.

3.2.31 value: Quantitative information describing properties of an object.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

ARIA Accessible Rich Internet Applications

EPUB Electronic Publication

HTML Hypertext Markup Language

IC Image Component

SGML Standard Generalized Markup Language

WI Whole Image

5 Conventions

There are no particular conventions that apply to this Recommendation.

6 Text alternatives for images

6.1 Uses of text alternatives

Images are often used to convey a large amount of information, whether it is a diagram for constructing a desk or a photo of what happened at a birthday party. In one glance, a person can retrieve a large amount of information and have a general understanding about the remaining content in the document in which the image resides.

NOTE 1 – While text alternatives are primarily developed for electronic documents (including computer applications, apps, and websites); they can also be helpful in printed documents that can be read out to a user.

Images are sometimes used to supplement or complement the document content or can be another representation of the same content. However, sometimes the image stands alone or adds information that is not part of the other document content. Any information that is present in the image but not the other document content does not get conveyed to those who are unable to see the image. Text alternatives are needed to convey that information.

There are many reasons why a person can need text alternatives, including (but not limited to):

a) the person has a visual impairment;

b) the person is using a program that aurally reads the document content while doing something else (e.g., the person is listening while driving or cooking);

c) the device being used to view the image is unable to properly display the image or the image is difficult to see (such as on a small mobile device);

d) the person turned off images on their web browser to increase loading speed;

e) the person cannot understand and/or interpret the image; and

f) the text alternative can be used by search engines to find an image.

Tools (such as screen readers) exist that can read aloud text that appears in a document to those who cannot or are not looking at the screen. If an image can be described and represented textually, then the tools can also read the text alternatives aloud.

NOTE 2 – The term "text alternative" is used to represent the text equivalent of an image, regardless of where that text resides. The term "alternative text" is generally used to represent a text alternative that is technically provided as an attribute of an image.

Text alternatives can include a description of what the image looks like and/or an interpretation of what the image represents or its function. Different text alternatives can be developed for the same image, differing in length and (as a result) information. Technology often allows for a primary alternative text as well as a secondary alternative text to be attached as attributes of an image. Providing both primary alternative text and secondary alternative text can give the user a choice in the amount of detail they wish to receive about an image.

Images can mean different things to different viewers. However, images are added to a document for particular purposes with the intent of meaning certain things to all viewers. In order to write informative text alternatives for an image, it is important to first know the information intended to be represented in the image. It is difficult to share knowledge about an image with others if the alternative text developer does not have knowledge of what the image is intended to convey to the reader. Therefore, it is important to gather or identify as much information as possible about an image.

It is preferable for the developer of the electronic document to also be the developer of text alternatives for images included in the document.

NOTE 3 – While various experts can analyse an image to a greater extent (e.g., for cataloguing purposes in a library of images), it is important that people involved in this procedure understand the information content that the image is intended to convey within the document in which it occurs.

This Recommendation presents a method for identifying information about an image and then structuring text alternatives for the image.

6.2 Presenting text alternatives

6.2.1 General

There are three possible locations for presenting text alternatives for an image:

a) within the main body of text;

b) within the primary alternative text attribute of an image;

c) within the secondary alternative text attribute of an image or within secondary alternative text that is linked in some manner to the image.

NOTE – Clause 12.4 provides guidance on the use of these three locations for presenting text alternatives.

6.2.2 Text alternatives within the main body of text

The information contained in well-written text alternatives can often help users who can see an image to understand or interpret the image as it was intended by the document developer. In situations where the information contained in a text alternative is considered beneficial to all (or most) users of a document, this information can be presented in the main body of text, either as part of the main text or in a special addition to the main text that is identified as acting as a text alternative to the image, rather than as alternative text attribute of the image that requires special efforts to access.

Where text alternatives are included within the main body of text, they are not limited in length and can take one or more paragraphs to provide detailed descriptions of the image and detailed discussions of its intended purpose.

6.2.3 Primary alternative text

Primary alternative text is the usual location for text alternatives for images in most documents. The primary alternative text is usually displayed (in a hidden manner) to tools such as screen readers. Some tools present the primary alternative text automatically by default, while the user needs to request the secondary alternative text.

Where alternative text is considered beneficial for all readers it can be placed (with a suitable notation identifying it as alternative text) in the main body of text, as long as the primary alternative text is used to refer to the location of it in the main body of text (see clause 12.4.6).

Some types of electronic documents have a limitation or restriction on the length of the primary alternative text.

NOTE – Some screen readers will sub-divide alternative text entries that are larger than 125 characters.

In order to limit the size of the primary alternative text, it is often viewed as an overview of the image content, what the image is about, or the function of the image.

Short primary alternative texts (due to character length limitations) may not be sufficient to convey the full amount of information provided by the image. Where primary alternative texts are limited in length, secondary alternative text becomes an important means of communicating the complete meaning/content of an image.

6.2.4 Secondary alternative text

Where it is available, secondary alternative text generally does not have limits on its length and therefore can contain a larger amount of information about the image. It can consist of details about the image that could not be part of the primary alternative text.

Since there is no limit on the amount of information, it can include information that some users might not need. The importance of each piece of information about an image can help to determine if the information is presented in the primary alternative text, secondary alternative text, both primary and secondary alternative texts, or not at all (see clause 12 for a discussion of levels of importance).

7 Procedure for creating text alternatives

The creation of suitable text alternatives (regardless of where they are located) shall be based on a thorough understanding of the image, its components, its purpose and context in the document where it is contained.

This can be done by applying the following procedure:

a) Identify the type of image (clause 8)

   Identify the type (and if applicable the sub-type) of image.

b) Identify the purpose of the image (clause 9)

Identify and describe the purpose of each image. This step influences which image components and which pieces of information are important for the user to know.

This involves answering the question "Why?"

c) Identify the image components (clause 10)

Depending on the purpose of the image, identify the image components. This step is necessary to properly identify pieces of information about the image that can be important to the user.

This can be done in a two-stage process:

1) Identify the image as a whole;
2) Identify the image components of the image.

NOTE 1 – Identifying image components is an iterative process. Individual image components can be further separated into a number of (lower level) image components until all components that are important to describe have been identified.

d) Identify the information (content) presented by the image (clause 11)

Depending on the purpose of the image, identify the content about an image and its components.

This involves answering the question "What?"

NOTE 2 – "Who" is a specific instance of "What" that involves recognizable people.

NOTE 3 – While identified content is complex, it can become useful to separate that image (or image component) into several (lower level) image components, in order to better be able to identify simpler content components.

e) Evaluate the importance of the information about the image (clause 12)

Considering the purpose of the image, evaluate the importance of the identified information about the image to focus on the most important information to present in the text alternative(s).

NOTE 4 – Importance is based on the need of users to know information about the image and is related to the purpose of the image (or image component) and context in which the image is presented. Different information becomes important depending on the purpose of the image and the environment or context of the image.

NOTE 5 – This can help to eliminate less important information and to identify if the information already obtained is sufficiently important to satisfy the purpose.

f) Compose the text alternatives (clause 13)

Organize the important information to improve its readability and allocate to the primary or secondary alternative texts of an image and/or to the main text.

NOTE 6 – Organization involves both structuring and writing text alternatives.

g) Evaluate the text alternative (clause 14)

Evaluate potential text alternatives (by someone other than the person who created it) to check that it suitably describes the image within the context of the document within which it is contained.

NOTE 7 – While it is ideal for this to involve actual user testing, it is important that this step not be omitted due to lack of available users or other resources.

NOTE 8 – Evaluation by a colleague or friend is better than no external evaluation at all.

8 Identifying the types of image

8.1 General

Identifying the type of an image provides a quick impression regarding the purpose and possible contents of the image. People looking at an image use this information to give them a "first impression" of what to look for when looking at the image.

NOTE – While there are many additional types and sub-types that could be identified, beyond those in this clause, it is important not to make the identification of types too complex for the users to understand. More detailed types and sub-types are primarily important to those users who will recognize the distinction that the type or sub-type conveys.

8.2 Drawings

A drawing is an image created as an original work through the artistic actions of a human. Because it is an artistic creation, even the most realistic of drawings will be influenced by the style and intent of the human creating them.

NOTE – Drawings can be realistic, abstract/non-representational and can contain realistic, abstract/non-representational components.

Drawings can be divided into various sub-types, including:

a) Realistic drawings, where the content of the image is perceived by the user to faithfully represent data, information, objects, relationships, and/or concepts in the natural world;

b) Sketches, where the content was a rapidly executed freehand drawing and is not usually intended as a finished, fully-realistic work;

c) Caricatures, where the content shows the features of its subject in a simplified or exaggerated way;

d) Abstract drawings, where content of the image is intended to present important major data, information, object, relationship, and/or conceptual components, without representing them as they occur in the natural world;

e) Non-representational drawings, where the content of the image is intended for decorative purposes without the intent to represent any particular natural world data, information, objects, relationships, and/or concepts.

8.3 Photographs

A photograph is an electronic copy of an image of something that has its own independent existence in the real world. As such, photographs are expected to be realistic representations of the real world.

NOTE – This is not to say that the real world could not be manipulated for purposes of "staging" a photograph to show a particular scene.

While the photograph is a true rendering of the object(s) that it illustrates, those objects can themselves be realistic, abstract, or even non-representational.

While most photographs do not need to be further distinguished by sub-typing, it is important to recognize that a photograph, which has been modified from the real-world scene that it was an image of, is a modified photograph (rather than just considering it as a photograph).

8.4 Diagrams

A diagram is an image containing a graphical representation of a set of (physical, logical, conceptual or other) objects or components and their (physical, logical, sequential or other) relationships.

There are a wide variety of sub-types of diagrams, and often many variations on many of these sub-types. Some sub-types of diagrams include: activity diagrams, assembly diagrams, block diagrams, class diagrams, component diagrams, concept diagrams, entity-relationship diagrams, flow

diagrams, graphs, interaction diagrams, logic diagrams, object diagrams, state transition diagrams, structure diagrams and use case diagrams.

When choosing the name of a sub-type to use in alternative text, it is important that the chosen name be meaningful to the intended users.

It is generally more important to describe the intended information content (semantics) of a diagram than the physical characteristics (syntax) of the diagram.

8.5 Maps

A map is an image containing a geospatial representation of geographic data.

NOTE 1 – While a map could be considered as a sub-type of a diagram, the concept and use of a map is so well established that it is useful to consider maps as a separate type of image.

Maps can be presented in two or three dimensions and can contain information on two or three dimensions.

While there are many characteristics that could be used to distinguish between (to sub-type) maps, the most important characteristic to use in identifying a map is to identify the physical area that is the subject of the map.

NOTE 2 – Other characteristics often belong as part of the purpose of the map.

In addition to representing physical areas, some interactive "maps" are used to present users with a choice of different options, contained in various adjacent physical areas.

8.6 Computer-generated illustrations

A computer-generated illustration is an image created by a computer based on data that it has available to it. Because it is created based on data, the permanence of the image is not guaranteed. Changes to the data could result in a different image being created at a future point in time.

NOTE – Drawings created by humans utilizing computerized tools (including computer renditions of drawings) are not considered computer-generated illustrations.

Computers can generate a wide range of images, including diagrams, maps, and images that appear similar to drawings or photographs.

8.7 Composite images

A composite image is an image created by combining individual images or components of individual images.

Composite images can be created by humans or by computers, based on a variety of individual images that could each be created by a human or by a computer.

The main distinction in composite images is whether or not the individual component images can be separately addressed, and thus have their own separate text alternatives.

a) If the components cannot be separately addressed, then the image behaves as a single image, with a type of composite image and (if needed) multiple sub-types identifying the type (and, if applicable, sub-type) of each of the components.

b) If the components can be separately addressed, then the important issue is whether or not the complete composite image also has its own text alternative. If it does not, then information about the membership of the individual component images in the composite image can be important in the text alternatives of each of the components.

8.8 Identifying image type in text alternatives

8.8.1 Identifying the image type of single images

The type (and, if applicable, sub-type(s)) of the image should be identified by a word or a short phrase at the start of the text alternative.

NOTE 1 – This is typically done in combination with the statement of the purpose of the image (see clause 9.6).

NOTE 2 – The type of image is not typically important for images that are used to label other information (see clause II.1.4).

8.8.2 Identifying image type of composite images with separately addressable components

a) If a composite image has separate text alternatives for the entire image and for component images, then the type (and, if applicable, sub-type) of the composite image and each of the separately addressable component images should be identified by a word or a short phrase at the start of the appropriate text alternatives.

b) If a composite image only has text alternatives for each of its component images and it is not possible to add a text alternative for the composite image as a whole:

   1) An initial invisible component image should be added to the set of component images, as the first image in the set, so that it can be a source for an alternative text for the entire composite image;

   2) The type (and, if applicable, sub-type(s)) of each component image (including the component image representing the entire composite image) should be identified by a word or a short phrase at the start of the appropriate text alternatives.

9 Identifying the purpose of the image

9.1 Introduction to purposes

A purpose identifies "why" an image is being presented as part of a document. It often identifies the function that the image serves within the document.

NOTE 1 – Text alternatives are context dependent and thus are different from information used for cataloguing of images within an image library.

Along with information on the type of image, information on the purpose of the image is important in letting a person know whether or not to read the entire text alternative.

The image was chosen to be in the document for one or more reasons (purposes). It is important that the intent of the document developer had for choosing the image is achieved by the text alternative.

NOTE 2 – The context in which the image is used can help to understand the purpose of an image, especially when this is explained in the main text reference to the image.

The purpose and context of the image will also affect the understanding of the document. An image can have an effect on the understanding of the document content in two manners:

1) Objective information can influence intellectual or knowledge-based understanding. Objective information is factual and/or logical.

   EXAMPLE 1 – In a bar chart, the statistical data and axis information are objective information.

2) Subjective information can influence affective or emotional-based understanding. Subjective information consists of emotions, concepts, opinions, and judgments that are not necessarily universally shared.

   EXAMPLE 2 – Different cultural interpretations of symbolisms in a painting are subjective information.

Purposes can be classified in terms of:

– informative purposes;

– control purposes;

– decorative purposes;

– formatting purposes.

NOTE 3 – While it is important to identify the purpose or purposes of an image, it is usually not productive to try and identify the purposes of individual components of an image. Information on the components of an image belongs in the main content of the text alternative (see clause 11).

9.2 Informative purposes

Most images are intended to provide information to the user that supplements, and/or provides an example of content that is also presented textually, usually within the same document.

NOTE – While an image can seem to duplicate information presented in the main text, it is important to consider what additional information it can be providing, including alternative approaches to understanding the information.

Images used primarily for informative purposes generally contain some information that is important for the user to receive, beyond the purpose for which the image was presented.

9.3 Control purposes

Images are often used as the basis for developing controls.

NOTE – Images can be used with/as controls such as buttons, sliders, knobs, icons and links.

EXAMPLE 1 – An image is used as the target for a hyperlink.

EXAMPLE 2 – Various areas on a map are used as the boundaries for links that take the user to detailed information relating to that area.

The ability to associate text alternatives with these images depends on how they are implemented. In cases where the images are separately addressable from the controls, it is both possible and useful to provide suitable text alternatives.

9.4 Decorative purposes

9.4.1 Decorative images that convey affective information

Decorative images are often ignored by creators of text alternatives. However, this can result in failure to provide screen reader users with important information.

The use of images for decorative purposes can be intended to add visual appeal to a document. This visual appeal can be important in attracting and retaining the attention of users to a document.

"Decorative" images are often used to present emotional and subjective information and thus are also presented for informative purposes (see clause 9.2). If text alternatives are not used for such images, screen reader users are deprived of getting the same information that is provided visually.

EXAMPLE – Where a decorative image is intended to convey humour, not providing a suitable text alternative will fail to convey the intended result. While the intended meaning can be subtle, it is not meaningless.

9.4.2 Decorative images with minimal information value

The information present in some decorative images is of minimal importance.

Providing text alternatives for such images can create unnecessary work for users of text alternatives.

If a decorative image does not present information with some level of importance (see clause 12.2.5), then the text alternative for that image should be empty.

NOTE 1 – Empty alternative text can be used as a means to deliberately provide no textual image description where text alternatives are not needed or appropriate,

Some situations of where text alternatives may not be needed or appropriate include:

a) an image that is used only to fill space that otherwise would be empty;

NOTE 2 – Background images composed of colours/textures are often used for the sole role of making webpages appear attractive, without adding any particular meaning to the webpage.

b) an image that is excessively used where redundant complete text alternatives for each usage would provide a hindrance to the user.

NOTE 3 – A corporate logo is used instead of standard bullets to precede items in a list. The items in the list can also be recognized as items in the list from their formatting, and thus knowledge of the existence of the bullets (or images used to replace standard bullets) does not provide any additional information on formatting. Furthermore, repeatedly providing the same text alternatives for each of these bullets could become annoying to screen reader users.

NOTE 4 – This is different from the single use of a logo on each page of a document or system where it is important to at least acknowledge that the image is the corporate logo.

NOTE 5 – It is best to analyse all images according to the procedure in clause 12 and to allow the importance level of descriptive information to determine whether or not text alternatives are needed.

9.5 Formatting purposes

Formatting organizes, separates, and/or highlights some information to distinguish it from other information.

Mark-up languages, such as Hypertext Markup Language (HTML) and Standard Generalized Markup Language (SGML), provide explicit means for formatting text entries. If they are properly used, the addition of images, such as horizontal line separators, only provides additional redundant formatting.

NOTE 1 – Empty alternative text can be used as a means to deliberately provide no textual image description for images that are only used for formatting purposes.

NOTE 2 – While developers often fail to provide text alternatives for images used for formatting, the use of such images instead of or in addition to standard formatting methods often is also done for decorating the document (see clause 8.2.4).

NOTE 3 – Even if an image used for formatting has multiple image components, these components are not significant or useful in describing the purpose of the image for formatting.

NOTE 4 – The existence of components used for formatting within an image can appear to have some importance. However, this can be described focusing on the relationship between the components, without needing to describe the means of formatting used, unless they also fulfil some other purpose in the image.

9.6 Identifying purpose in text alternatives

9.6.1 Describing the purpose

While the purpose of the image can be considered in terms of four general classifications (informative, control, decorative, formatting), the text alternative should (implicitly or explicitly) identify the specific purpose of the image instead of just naming a general classification of purpose.

EXAMPLE – Rather than just staying that the image is "informative", the first sentence of the primary alternative text for an image is "Figure 3 is a flowchart that illustrates the process for (name of the process)."

9.6.2 Stating the purpose briefly

It is important that statements of purpose help the reader to quickly decide whether or not to read the rest of the text alternative.

Where statements of purpose are included in a text alternative, they should be briefly stated in the first sentence of the text alternative.

NOTE 1 – Further details about the purpose (within a text alternative) are provided by identifying the content and identifying qualifications and relationships to the content.

NOTE 2 – Where the purpose of an image of a person is to put a human face to the discussion, the purpose in the text alternative can be simplified to stating that image is a photo or drawing of (name of the person).

EXAMPLE – The text alternative for an image without a caption starts with the sentence, "This (image) is a photo of Albert Einstein."

9.6.3 Avoiding redundancy with captions

Some images are accompanied with a caption that provides a brief statement of its purpose. In such cases, repeating the statement of purpose (and especially repeating the caption) in text alternatives is not helpful.

a) If a caption is associated with an image, and it provides a suitable statement of the purpose of the image, text alternative should not restate the purpose.

   NOTE 1 – Within HTML 5.2 it is possible to use the caption as part of the text alternative.

b) If a caption is not associated with an image, either a caption should be added to the document containing the image or the text alternative for the image should identify the purpose at the start of the text alternative.

   NOTE 2 – This statement of purpose could be worded in a manner that would make a suitable caption for the image.

9.6.4 Considering the context of use

Where appropriate, a brief reference to the context of use of the image may be included as part of the identification of the purpose of an image.

9.6.5 Considering both objective and subjective purposes

It is important that statements of purpose recognize both objective and subjective purposes.

If the purpose of the image includes presenting subjective/emotional/motivational information, then this aspect of the purpose should be described in text alternative.

9.6.6 Text alternatives for images used for formatting purposes

It is not necessary to provide text alternatives to describe the use of images solely for formatting purposes, provided that the formatting information is otherwise provided to the user textually or through markup.

a) Simple, non-decorative graphic elements (e.g., blanks or lines) to separate or format other content should not be implemented as images so that they will not have text alternatives.

   NOTE – Blanks, lines, and other simple graphic elements can be implemented using text.

b) Where text alternatives are provided to describe images that are used solely for formatting purposes, the text alternative should be described as simply as possible, merely identifying the purpose of the image, without the need for identifying the type of image or describing the contents of the image.

   EXAMPLE 1 – Text alternatives for a border between two sections of a form states, "Separation between personal information and product information".

c) Where decorative images are used for formatting, a text alternative should be provided to describe the image, similar to text alternatives for other decorative images,

   EXAMPLE 2 – Fancy borders are used instead of spaces to visually highlight the separation of different chunks of content on a webpage. While these borders do not provide any significant content, the distinction between the different chunks of content is primarily provided by the proper use of headings. However, these fancy borders have a second purpose in that they are also used for decorating the webpage.

9.6.7 Further information for images used for informative purposes

Where an image is presented for informative or control purposes, it is important to provide additional information in the text alternative beyond just identifying the type of image and its purpose(s).

Where an image is presented for informative purposes, the text alternative shall also include an identification of the important components and information presented by the image.

9.6.8 Further information for images used for control purposes

Where an image is used in conjunction with control purposes, the text alternatives shall provide information about its relationship to its associated control(s).

10 Identifying the image components

10.1 Images and image components

The complexity and structure of an image will determine the complexity and structure of appropriate text alternatives. Many images present some levels of complexity that can affect the experience that a viewer of the image is intended to have. Ignoring this complexity can often result in text alternatives that are not a full alternative to the image.

Many images can be broken down into image components where a number of image components can present additional important information to the user. Most image components represent real or logical objects.

EXAMPLE – Each person, object, shape, text, landmark, or step in a process can be considered an image component.

Where the background or border of an image is important, they can be considered as additional image components.

Whether or not a component is identified and elaborated upon depends on how important information about the component is with respect to the purpose and context of the image.

10.2 Text components

It is not appropriate to use an image to present only text that could be otherwise presented as a text element within the document within which it is contained.

EXAMPLE 1 – Where stylized text is desired, it is preferable to accomplish this stylization using (fancy) fonts rather than by using an image of stylized text.

However, there are many instances of images that contain textual components.

EXAMPLE 2 – Where showing a page from a particular book is involved, it is often more appropriate to use an image of the page than to recreate the page using formatted text.

10.3 Uniquely identifying image components

Where multiple components are involved, it is important that each component is uniquely identified so that it is meaningful to the reader of the text alternative. This can help to identify information unique to the component and to identify relationships with other components.

The type of an image component is often very important in understanding its role within an image.

In many cases, an image component can be uniquely identified by referring to it using a generic type of object as its name.

EXAMPLE 1 – Some examples of components identified using a generic type include: a man, a baseball player, a car, a building, a table, a tower.

NOTE 1 – Generic types of components generally involve only general everyday knowledge available to a user. They do not deal with specific branding or specific naming of an object within the image.

In some cases, it is possible to uniquely identify an image component with a specific name that provides further meaning to the image component.

EXAMPLE 2 – Some examples of image components identified using a specific name include: Alan Touring, Babe Ruth, the Batmobile.

In some cases, a specific identifier is created by adding a specific name to a generic type. These qualifications are usually made because of their being readily identifiable.

EXAMPLE 3 – Some examples of image components identified with a qualified type include: King Arthur's round table, the Eiffel tower.

Where multiple image components are of a common type, it is important to uniquely identify each image component in a manner that distinguishes them from other instances of similar objects while recognizing their similarities. This can be accomplished using both a specific name and a generic type.

EXAMPLE 4 – An entity relationship diagram contains image components including: a museum entity, an artistic work entity, an exhibition entity, and various named relationships.

In addition to graphical objects appearing in an image (or image component), textual objects sometimes also appear. Where the text is readable, it can be considered to be specific content that is to be identified in the primary alternative text of an image.

EXAMPLE 5 – A picture of a highway includes a road sign that indicates that Saskatoon is 30 km further down the highway.

Identifying an image component typically does not interpret the meaning of these objects beyond identifying them, unless these components are intentionally being used symbolically.

10.4 Structuring information about images and their components

To gather as much information as possible, it is important for an image first to be considered as a whole entity before then considering components of the image. Some information can be present only when the image is viewed as a whole.

NOTE – In an image with multiple components, the components can be considered individually or as a set of components.

Because an image can have a vast amount of information, some images can be further analysed by identifying several parts (called image components) and then identifying information about each part (or image component). Breaking down the image into several parts allows for focus on the details of those particular parts, resulting in more information about the image. An image component could be broken down further into additional image components, if needed.

[This paragraph contains *a long version of* alternative text for Figure 1 *suitable for inclusion in main text*] Figure 1 provides a structure diagram of information that can be used to describe an image. In it, there is information about the whole image and also information about various image components. This structure recognizes that different images can have different numbers of image components. There are also relationships between each of the image components and the whole image, which imply that information about the whole image is more important than information about the image components. Information for whole image includes: the image's type, the image's purpose, and information on the content of the whole image. Information about each image component includes: an identifier of the component and information about the content.

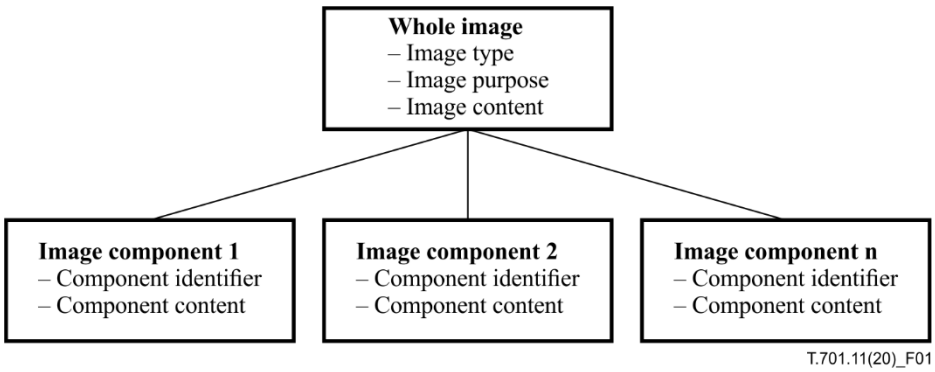

Figure 1 – Structure of image information

A much shorter version of the text alternative for Figure 1 (to meet character length limitations of text alternatives stored as an attribute of the image and designed for screen reader access) could be:

Figure 1 provides a structure diagram for a whole image (WI) and its image components (IC). Information about WI includes: a type, the purpose, and information about the content. Information about each of the ICs includes: an identifier and information about the content.

This is a structure for use in identifying information and not for wording the resulting text alternatives. It is recognized that some of the same information can appear multiple times. The intent of this structure is to identify as much information about an image as possible. Redundancies can be resolved in the organizing and writing of the text alternatives (see clause 13).

EXAMPLE – A piece of information identified at the whole image level could be identified again at the image component level or it could be identified as part of multiple image components. It is not necessary for the information to be unique.

NOTE 2 – While it is important to identify all of this information, size constraints and the importance of the information will then be used to decide which elements of information are included in the actual text alternatives.

10.5 Dealing with image complexity

10.5.1 Use of image components

Components of images should be identified and analysed, whenever this helps to identify important information.

10.5.2 Textual information in images

The treatment of text within an image depends on whether or not a typical reader viewing the image would be able to read the text.

a) Each separate instance of text, which is in the language of the main body of text, within an image should be considered as a separate component of the image, so that its importance is considered in its treatment within the alternative text of the image.

b) Text that is blurred or in a different language from the language of the main body of text should be treated as information about the image component in which it occurs.

   NOTE – It is sufficient for the text alternative to acknowledge that there is blurred text or that there is text that appears in a foreign language. If knowledge of the foreign language is relevant to understanding the image, the name of the foreign language can be specified.

10.5.3 Information about whole images

Information to be gathered in the development of text alternatives for whole images should include:

a) the image type;

b) the image purpose;

c) information about the content of the whole image;

d) information about the image components.

10.5.4 Information about image components

Information to be gathered in the development of text alternatives for image components should include:

a) a unique identifier for the image component;

b) information about the content of the image component.

11 Identifying the information (content) presented by the image

11.1 Content of an image or its components

The content of an image includes all the pieces of information about the image that satisfies the purpose of including the image in the document.

There are four main types of content:

a) Subjective content – provides information about how to interpret the rest of the content (see clause 11.2).

b) Objective content – provides factual information regarding what is obvious in the image (see clause 11.3).

c) Relationship content – provides information on how the image or image component relates to the document and/or other components (see clause 11.4).

d) Interaction content – provides information on any interactions associated with an image component (see clause 11.5).

The identification of this content is intended to provide the main information out of which text alternatives can be constructed. It focuses on "what" and "who" is in the image and "what" this should mean to the reader.

Where applicable to the type or intended purpose of the image, this information can be elaborated on in various manners.

11.2 Subjective content

Subjective content describes the (affective) meaning of the image (or image component). Identifying subjective content involves interpreting the intended meaning of the image. Subjective content can include concepts, theories, symbolic meanings, intended emotions, opinions, judgments, and other explanations that go beyond factually identifying individual components and obvious relationships.

NOTE 1 – A description of the subjective content of an image is different from a statement of purpose of an image. The subjective content identifies the meaning of the image or image component while a purpose identifies why the image was presented (see clause 9).

The following questions can be considered in analysing the subjective information presented by images (or image components):

a) What concepts are associated with the image or the image component?

b) What is the image or image component representing or symbolizing?

c) If the colour(s) of the image or image component is symbolic, what is the colour(s) representing?

d) What themes are represented?

e) What emotions are being expressed?

f) How is the user expected to respond emotionally (with feelings, judgments and opinions) to the image?

g) What other subjective information is important for users to know?

NOTE 2 – These questions are best answered by the person who placed the image in the electronic document. If that person is not available to answer these questions, creating the text alternative will involve making informed personal judgements to answer these questions.

11.3 Objective content

Objective content presents (cognitive) facts that describe the image (or image component).

It is usually preferable to identify images (or image components) as specifically as possible when analysing an image. Decisions will later be made regarding the importance of including this information in text alternatives (see clause 12) and how to organize the information (see clause 13).

The following questions can be considered in analysing the objective information presented by images (or image components):

a) "What are the characteristics of the image (or image component)?"

   1) Is there textual content that needs to be known?
   2) Are there characteristics of physical objects that need to be known?
   3) Is there information about a person in the image that needs to be known?
   4) Are there perceptual properties of objects or persons that need to be known?
   5) Are there artistic characteristics that need to be known?
   6) Are there quantities that need to be known?

b) "Where is the setting of the image?"

   NOTE 1 – See also clause 11.4.5 for further considerations relating to physical (spatial) relationships of images and image components.

c) "When does the image take place/represent?"

   1) Does the time period need to be known?
   2) Are states involved or changing that need to be known?

   NOTE 2 – See also clause 11.4.4 for further considerations relating to temporal relationships of images and image components.

Depending on the image, its purpose and context, further elaboration of these questions can be important.

NOTE 3 – Appendix I discusses possible elaborations to some of these questions in detail. Appendix II discusses further considerations related to particular types of images.

11.4 Relationship content

11.4.1 Relationships

In addition to identifying images (and their components), it is important to identify relationships between images (and their components), both with each other and with the document in which they are displayed.

For images with multiple image components, the relationships between those components can be essential to the understanding of the image. Relationships are especially important for diagram type images.

Relationships are more complex and more diverse than merely answering "What relationships occur?" The relationships that are important to be considered and described are those that provide an

understanding that support the purpose of the image. It is important to consider the various types of relationships that can be illustrated in an image.

Relationships can be categorized into:

a) actions;

b) logical relationships;

c) temporal relationships;

d) physical (spatial) relationships.

11.4.2 Actions

Actions identify what is happening in an image with respect to one or more image components.

NOTE – Actions include instantaneous events and longer-term activities.

EXAMPLE 1 – A person is running.

EXAMPLE 2 – A child is throwing a ball.

EXAMPLE 3 – A car is driving down the road towards the city.

Actions can be described in general or specific terms.

Generic actions involve only general everyday knowledge available to a user.

EXAMPLE 4 – Some examples of generic actions include: skipping, cutting, chopping.

A generic action can be qualified in a manner that elaborates on it or that distinguishes it from other instances of similar actions.

EXAMPLE 5 – The action of jumping can be qualified as: jumping over hurdles at 8.5 m/s.

EXAMPLE 6 – The car drove around the puddle, rather than through it.

The following questions can be considered in analysing the relationships presented by images (or image components):

a) What interaction or action is taking place in the image?

b) What or who is performing the action in the image?

c) What or who is the object of the action in the image?

d) How is the action being performed in the image?

e) What is the expected result of the action in the image?

f) What other information about the action in the image is important for users to know?

11.4.3 Logical relationships

Logical relationships explain how some element(s) (e.g., an image or image component) interact(s) with some other element(s).

EXAMPLE 1 – Entity relationship diagrams and class diagrams illustrate different logical relationships between various (entity or class) components.

Logical relationships are often referred to by more specific terms that name the type of relationship.

NOTE – Some specific types of logical relationships include: associations, flows, parts, instances, responsibility and/or authority.

EXAMPLE 2 – The student has a book.

EXAMPLE 3 – Exhibitions are held at a museum.

EXAMPLE 4 – Part A (the seat) is connected to the bicycle at location F.

EXAMPLE 5 – The customer order includes the name of the customer and the items being ordered.

While it is usual that both the subject and the object will be a part of the image being described, it is possible that either the subject or the object will only be implied. Where the image makes such an implication, it is important that the text alternatives make the user aware of this being implied.

EXAMPLE 6 – The sailor is scanning the horizon. It is implied that he is looking for land. This relationship could be stated as, "The sailor is scanning the horizon looking for land" if the implication is valid (as opposed to looking for other ships or the weather). Otherwise it would be more suitable to state the relationship without mentioning an object, just as, "The sailor is scanning the horizon."

11.4.4 Temporal relationships

Temporal relationships explain when some action occurs or the time in which an entity occurs.

NOTE 1 – This is a different use of time from just identifying when the image takes place (see clause 11.3).

NOTE 2 – Temporal relationships can be found in many images including images containing: assembly lines (in a factory), assembly diagrams, flow diagrams, and state transition diagrams.

This can include when apparent (or intended) changes to an image (or image component) occurs. It can include providing information on the sequencing of events.

EXAMPLE – Flow diagrams and state transition diagrams illustrate one or more possible temporal sequences and their possible consequences.

Sequential relationships can be:

– linear (where one element leads to a single other element);
– branching/hierarchical (where one element leads to multiple other elements);
– cyclical/networked (any element in a set of elements eventually leads to all elements in the set, including itself);
– sets of one or more of the above.

Individual sequential relationships can be:

– one directional;
– bidirectional.

The following questions can be considered in in analysing the sequential relationships presented by images (or image components):

a) What is the basis (or purpose) of the sequential relationship?
b) What types of sequential relationships are involved (linear, branching, cyclical, one directional, bidirectional)?
c) If there is a start and/or end point(s) to the set of relationships, what are the start and/or end point(s)?
d) What are the individual steps (components) of the relationship?
e) What is a suitable basis (or method) for logically ordering the individual steps (components)?
f) How is each step (component) related temporally to the other steps (components)? This can include:
    1) connections to previous and following steps (components);
    2) time involved in individual steps (components) or for the transition between steps (components);
    3) logic (decision or event) involved in moving from one step (component) to another.
g) What other information about the sequential relationship is important for users to know?

11.4.5 Physical (spatial) relationships

Physical (spatial) relationships explain where an image (or image component) is located in relation to other physically occurring elements in the image or in the document in which the image is positioned.

NOTE 1 – This is different from the setting pictured in the image (see clause 11.3).

NOTE 2 – While physical positioning can be easily identified, it is important to recognize which physical relationship are important and which can be ignored.

EXAMPLE 1 – A photograph shows a physical layout of objects. However, it is important to determine which physical relationships are important to understanding the intended meaning of the photograph.

EXAMPLE 2 – Assembly diagrams and component diagrams illustrate the intended physical relationships between components. Where an image of the side or back of a computer is intended to show the possible inputs and outputs to the computer, knowing the relative locations between a headphone output port and a microphone input port can be important to help users to properly insert the correct cables.

EXAMPLE 3 – Maps focus on the spatial relationships between the components that they illustrate.

The following questions can be considered in in analysing the physical (spatial) relationships presented by images (or image components):

a) Where is the image (or image component) spatially located within the document (or image)?

   NOTE 3 – This can be answered in terms of the coordinates of the image (or image component). There are various ways in which coordinates can be expressed based on, such as:

   1) The coordinates of the top left corner of the image component relative to some other component or to the entire image.
   2) The coordinates of the centre of the image component relative to some other component or to the entire image.
   3) The coordinates of the top, bottom, left, and right of the image component relative to some other component or to the entire image.

b) Where (in general) is the image (or image component) located with regards to the object (e.g., document, image, image component) that contains it? (For example, upper left, lower right.)

c) Where is the image (or image component) relative to other entities (surrounding content, or internal components)?

   NOTE 4 – Relative positioning can be used to express various spatial relationships including: above, below, to the right of, to the left of, in front of, behind, touches, crosses, overlaps, contains, within.

11.5 Interaction content

It is important to explain what types of actions can be performed on images or their components. Many images and image components are only intended to provide information to the user, without allowing the user to manipulate or otherwise interact with them.

Where interactions with an image or image component are possible, it is important that these interactions be identified both to avoid unintentional activations of these actions and to be able to intentionally activate desired actions.

The following questions can be considered in analysing the intended use of images (or image components):

a) How is the user supposed to interact with the image (or image component)?

b) What action is the user supposed to perform in order to interact with the image (or image component)?

c) What is intended to result from interacting with or performing an action on the image (or image component)?

d) What can go wrong in the interaction with the image (or image component)?

11.6 Analysing the information presented by an image

a) Depending on the type and purpose of the image, further information about the main content of the image and its components should be analysed. This includes:
   1) Subjective content;
   2) Objective content;
   3) Relationship content;
   4) Intended use content.

b) Where an elaboration of some main content appears to be useful, this elaboration may be done, prior to evaluating the importance of the content.

12 Evaluating the importance of the information about the image

12.1 Importance is context dependent

The context in which the image is used helps to determine the importance of pieces of information about the image. The same image can be used for different reasons or purposes. Depending on the purpose and context, different pieces of information become important or unimportant. Therefore, different text alternatives (including in the main text and in primary and secondary alternative texts) can be created for a single image.

NOTE 1 – The importance of a piece of information can change when the purpose and/or context of the image changes.

NOTE 2 – In situations where the image presents unique information, this information adds to what is presented in the main body of text. Additional objective, subjective, and relationship information presented in an image is important to the understanding of the document.

NOTE 3 – In situations where the image complements (restates, modifies, elaborates, supplements) the main body of text, the image can also contain information that is not provided in the main body of text. Complimentary objective and subjective information can be important to the understanding of the document. A full understanding of the image can provide a better understanding of the document.

NOTE 4 – In situations where the image adds visual appeal, the image creates or modifies the mood of the document, the information can be focused on the subjective rather than the objective understanding of the document. While images used for visual appeal can have little or no objective information, the subjective information they present can be important to a full understanding of the document.

12.2 Importance

12.2.1 Levels of importance

There are four levels of importance (essential, significant, helpful, and not important).

12.2.2 Essential information

Essential information is necessary to understand the image within the document in which it appears.

Essential information needs to be presented either in the main body of text (when referring to the image) or in the primary alternative text.

NOTE 1 – By placing essential information in the main body of text (when appropriate) it ensures that all users (not just users with screen readers) will have access to this information.

Essential information can have some or all of the following properties:

– It is aimed at the target audience.

– It needs to be known in order to comprehend the document.

– Most people want/need it most of the time.
– The user would be confused as to what the document is talking about without this information.
– Without it, the user has no idea why the image is there or what the image is for.
– It provides a good first impression of the image.
– Based on this information, the user will determine if they need/want to know more about it.
– For the content provider, this is the information that the content provider absolutely wants to tell people about.
– It provides the essence, purpose, function, or intent of the image.
– It identifies that the image conflicts with the main body of text and that this conflict is intentional.

NOTE 2 – As more of these properties apply, it is more likely that the information is essential.

NOTE 3 – Both the image type and image purpose are usually essential information. Other information can also be essential, especially when it fulfils more than one of the above properties.

12.2.3 Significant information

Significant information provides a comprehensive understanding of the image within the document in which it appears, when such information is desired by the user (based on the user's understanding of the essential information). Significant information satisfies the detailed interests of most users most of the time.

Significant information needs to be presented either in the primary alternative text or in secondary alternative text.

NOTE 1 – The placement of significant information depends on the amount of essential information that is already contained in primary alternative text.

a) Where all the essential information has been placed in the main body of text, then significant information can usually be placed in the primary alternative text.
b) Where a large amount of essential information has been placed in the primary alternative text, then significant information can be better placed in the secondary alternative text to avoid overloading the primary alternative text.

Significant information can have some or all of the following properties:

– It is aimed at the target audience.
– It gives a more detailed and thorough understanding of the image and/or document.
– It is information that could be obtained from viewing the image by more than a quick glance.
– The user needs to know about it while reading the document, in order to understand the document.
– The user can decide to know more based on the essential information. This information goes into more details about the essential information.
– Without this information, the user has an idea of what the image is about and the reason the image is there but does not have a detailed understanding about it.
– This is information that further explains and gives more details on what the content provider wants to tell the users.

NOTE 2 – As more of these properties apply, it is more likely that the information is significant.

12.2.4 Helpful information

Helpful information provides more detailed information about the image for those users who wish to further explore or understand the image, beyond its intended role within the document.

Because helpful information is only of interest to some of the users some of the time, it is not appropriate to be placed in the primary alternative text.

Helpful information may be placed in secondary alternative text or in a separate document that is linked from either the main body of text or the primary alternative text.

Helpful information can have some or all of the following properties:

– It provides specific details that can be of interest to some who are the target audience of the document.
– It is targeted towards very specific audiences (other than the target audience) or a subset of the target audience.
– It provides the user with a better understanding of the image when the user is not an expert in the topic area or not the target audience of the document.
– It reassures users that they have not missed something of greater importance.
– Without this information, the users have a fairly complete understanding of what the document is about but can have some things that they still want to know.
– It includes different or other possible interpretations of the information being expressed by the image.
– The content provider uses this information to clarify some things for some people.
– It includes optional extra information that is seldom wanted or needed but elaborates on what is already there.

NOTE – As more of these properties apply, it is more likely that the information is helpful.

12.2.5 Not important information

Information is not important if it does not help to provide much additional understanding of the image. This can include information that is not appropriate to consider given the context of the image within the document.

Information which is not important is inappropriate to be presented to users either in the main body of text or in text alternatives.

Information that is not important can have some or all of the following properties:

– Very few to no users will want to know or care to know this information.
– It is rarely helpful.
– It is not important enough to mention.
– Without this information, the user knows everything they want or need to know in order to understand the document and/or image.
– This is information that can result in unintended confusion and does not help users understand what the content provider is saying.

NOTE – As more of these properties apply, it is more likely that the information is not important.

12.3 Textual content in images

Receiving information about text in images is generally important to understanding the content of the image. The manner of making text available will depend on its importance level and the amount of text involved.

a) Large amounts of text can be too large to fit in the primary alternative text and can be better placed either in the main body of text (if essential or significant) or in secondary alternative text.

b) Short amounts of text can be placed either in the primary alternative text of an image or, if they are of lesser importance, within the secondary alternative text of an image.

c) Portions of text, where some of the text is obscured, can be placed according to their importance.

12.4 Using importance to allocate information to text alternatives

12.4.1 Including subjective information in text alternatives

a) Where the meaning of an image (or image component) is essential, this meaning shall be included within the main body of text or the primary alternative text of an image.

b) Where the meaning of an image (or image component) is significant, this meaning should be included within the main body of text or the alternative text of an image.

c) Where the meaning of an image (or image component) is helpful, this meaning may be included within the secondary alternative text of an image.

12.4.2 Including objective information in text alternatives

a) When it is essential to identify an image (or image component) in terms of objective content, this identification shall be included within the main body of text or the primary alternative text of an image.

b) When it is significant to identify an image (or image component) in terms of objective content, this identification should be included within the main body of text or the alternative text of an image.

c) When it is helpful to identify an image (or image component) in terms of objective content, this identification may be included within the secondary alternative text of an image.

12.4.3 Including relationship information in text alternatives

a) Essential information about relationships shall be described within the main body of text or the primary alternative text of an image.

b) Significant information about relationships should be described within the main body of text or the alternative appropriate text of an image.

c) Helpful information about relationships may be included within the secondary alternative text of an image.

12.4.4 Including information on associated activities in text alternatives

a) Information on associated activities shall be included in the primary alternative text of an image.

b) Where only a single action can be performed, information on this action may be combined with identifying the component as an active component.

c) Where multiple actions can be performed, the image component should first be identified as being an active component, and then the various possible actions should be identified.

12.4.5 Dealing with large amounts of essential information

Where there is more essential information than will fit in the available space in the primary alternative text of an image, all of this essential information shall be placed in a text alternative in the main body of text.

12.4.6 Placing text alternatives in the main body of text

Where the text alternative for an image is included within the main body of text:

a) if the document type allows specifying an image-description relationship in a machine-readable way, this shall be used in addition to the manner specified in b);

EXAMPLE 1 – In HTML 5, the accessible rich Internet applications (ARIA) attributes *aria-describedby* and *aria-details* can be used to indicate such a relationship.

b) the text alternative shall be preceded by a phrase indicating that it is serving as the text alternative for the image;

NOTE 1 – This explicit phrase is important for conveying the purpose of the text alternative to persons who can otherwise think that this information is redundant with other parts of the main body of text.

EXAMPLE 2 – The text alternative in the main body of text is preceded by, "[The following paragraph provides the text alternative for Figure 3]".

c) the primary alternative text for the image shall indicate that the text alternative for the image is presented in the main body of text;

EXAMPLE 3 – The primary alternative text for an image is, "The alternative text for this image is in the main body of text, immediately preceding the image".

d) the text alternative in the main body of text should precede (rather than follow) the image;

NOTE 2 – It is preferable for the text alternative to immediately precede the image, unless formatting considerations make this impractical.

e) text alternatives shall not be placed in annexes, appendices, or other locations removed at a distance from the image for which they apply.

12.4.7 Handling conflicting information

Text alternatives for an image are intended to inform users of information that the image is communicating. There can be times when the image presents information conflicts with what is presented in the main body of text. The conflicting information could be intentionally or unintentionally presented.

a) If the conflicting information is intentionally there, then the information should be pointed out and explained as part of the text alternatives or the main body of text. Since the conflicting information was intentionally made available visually, it should also be made visible in text alternatives or the main body of text.

b) If the conflicting information is unintentionally there and recognizing this, the decision is made to retain the image despite the conflicting information, then the conflicting information should not be presented in the text alternatives.

13 Compose the text alternatives

13.1 Composition

There is a difference between identifying information about an image and composing suitable alternative text from that information. Once the information has been analysed for its importance and allocated to a particular type of text alternative (main text, primary alternative text, or secondary alternative text), care then needs to be taken to organize and word the information in a manner that works with the main text.

13.2 Organizing the information

13.2.1 Eliminating duplications

The guidance on identifying image components (see clause 10) and identifying the content of images and their components (see clause 11) is intended to help identify all the important (see clause 12) information about an image and its components. In following this guidance, it is possible to identify some information multiple times (which is better than missing some of it).

It is important to remove redundancies when creating text alternatives, in order to make them concise and quick to use.

EXAMPLE – Most relationships are two-directional. Thus, if A is part of B, then B is composed of various parts including A. Only one of these two expressions of the relationship is needed in the text alternative in order to inform the reader.

13.2.2 Fitting into the context of use of the image

An image fits within its context of use. This context of use, especially information presented prior to the image and the caption of the image, can help a user to understand the image. This context of use can be important both to what is said and what is not said in text alternatives.

It can help to identify where the image provides further information and can suggest how to tie this information when presented in a text alternative into the information presented in the main text.

Where a document contains an explanation of an image, or other information that is also presented in the image, this information does not need be repeated within text alternatives, unless the image presents additional information related to it.

NOTE – This is especially relevant if the information is presented in the main text before or near the image.

While this Recommendation does not provide guidance on writing captions, it is important that captions are not repeated word for word in alternative text.

13.2.3 Independence of importance from order

Importance is used for selecting the information to present, but not necessarily the order of presentation. While it is important to identify the type and purpose of an image before elaborating on the image, the order of presenting the rest of the information within a text alternative will depend on its context of use, the flow of the document, the style of the document and needs of conciseness and readability.

13.3 Wording text alternatives

13.3.1 Flow with the document content

It is important that the text alternatives be written in a way that when read it flows with the rest of the document content. Depending on how and where the image is positioned in the document, the text alternatives can be read at different times.

EXAMPLE – A screen reader can begin reading the webpage content about Napoleon's adventures, then reads the text alternatives for the image of Napoleon, and then continues reading the webpage content about Napoleon's adventures. Flow can be improved if the text alternative speaks of this as an image of Napoleon the adventurer rather than just an image of Napoleon.

13.3.2 Style

Since text alternatives are part of a document, it is important that they be worded similar to how the main body of text is worded.

EXAMPLE 1 – Where the main body of text is worded very formally, the text alternatives are also worded formally.

NOTE – Style refers to how something is worded, not what is included in the wording. Thus formal styles, as well as all other styles, can be used to convey both objective and subjective information about an image.

EXAMPLE 2 – Where the main body of text is worded like a story the text alternative is worded in a manner that fits into the story.

13.3.3 Conciseness and readability

While "a picture can be worth a thousand words", it is seldom desirable or appropriate to use nearly that many words to describe a picture in its text alternatives. It is important to get the message stated concisely and readably.

Writing concise and readable text alternatives can be assisted by:

a) combining ideas with simple, commonly understood words rather than expressing each of them in phrases or sentences;

b) introducing jargon and other concepts needed to understand and/or describe the image in the main body of text prior to the image;

c) keeping sentences simple, breaking complex ideas into multiple sentences.

If the important information presented by the image is short, there is less need to identify the purpose and type of image. Presenting the simple information is often sufficient.

As the amount of important information presented by an image increases, so does the usefulness of identifying the purpose and/or type of the image before presenting this important information. This will aid the reader in deciding whether to read the remainder of the text alternative or not.

13.4 Creating text alternatives

Once each piece of information has been allocated to the main body of text, the primary alternative text, or secondary alternative text (see clause 12), organizing information into text alternatives should involve:

1) removing redundancies within the identified information;

2) composing appropriate wording for the text alternatives;

3) evaluating the text alternatives (see clause 14);

4) iterating these steps until the text alternatives are acceptable.

14 Evaluate the text alternative

14.1 The range of evaluation issues

Text alternatives should be evaluated to ensure that they:

a) describe the type, purpose and context of the image;

b) work with the main body of text.

14.2 The range of evaluation methods and testers

Text alternatives should be evaluated by a range of methods involving different types of testers.

a) It is preferable that text alternatives within documents be evaluated by vision impaired users. This can determine if the text alternatives provide important information and whether or not the text alternatives flow with the surrounding content. It can also identify further questions about the image that visually impaired users may need to be answered.

   NOTE 1 – Since the text alternatives will more frequently be used by visually impaired users, they are the most appropriate people to perform the evaluation.

   NOTE 2 – Visually impaired users are not usually to evaluate how completely a text alternative describes the important information of an image.

b) Where visually impaired users are not available to evaluate the text alternative, sighted users can evaluate text alternatives in the document with the images not visible.

   NOTE 3 – Evaluations by users able to see text alternatives for images that they cannot see only approximate the evaluations that would be performed by visually impaired users. Users able to see have different expectations and needs that will influence the results of such evaluations.

   EXAMPLE – A webpage, using a text-only web browser or a web browser with images not presented to view the webpage can help a sighted individual experience a web page where text alternatives are needed.

c) The evaluation of text alternatives by people who can see the image can help determine if the text alternatives truly represent the content of the image and communicate the important information (or identify important information that is missing).

Appendix I

Further elaboration of objective content of images

(This appendix does not form an integral part of this Recommendation.)

I.1 General

This appendix contains considerations that can be applied to the elaboration of a wide variety of images, and is especially relevant to drawings and photographs. Appendix II contains considerations that can be applied to specific types of images.

I.2 Characteristics of the image or image component

I.2.1 Elaborating on physical objects

Each object in the image can be considered as an image component. The following questions can be considered in creating text alternatives for images (or image components) involving physical objects:

a) What does the object represent?

b) What is the brand/model/part name (number) of the object?

I.2.2 Elaborating on people

Each person in the image can be considered as an image component. The following questions can be considered in creating text alternatives for images (or image components) involving people:

a) Who is the image or image component of?

b) What does the person look like? (Age, sex, nationality, hair colour, eye colour, hairstyle, etc.)

c) What is the facial expression of the person?

d) What is the person doing?

e) What position is the person in? (Standing with hands across the chest, for example.)

f) What other information about the person is important for users to know?

I.2.3 Elaborating on perceptual objects or persons

Perceptual content describes the physical appearance of the object.

NOTE – Perceptual content describes low-level perceptual features of an image (or image component), in a manner similar to that possible by basic vision detection systems.

Typical perceptual features include: colour, texture, shape and pattern.

EXAMPLE – Some perceptual features can be expressed as: blue, yellow, blue-green, aqua, smooth, rough, round, square.

Perceptual content does not assign any meanings to any of these features. Meaning belongs within subjective content.

The following questions can be considered in creating text alternatives for the perceptual properties of images (or image components):

a) What (are) the colour(s) of the image (or image component)?

b) What is the shape of the image (or image component)?

c) What is/are the size/dimensions of the image (or image component)?

d) What is the texture of the image (or image component)?

e) How is the image (or image component) positioned? (For example, sideways, angled, and facing left.)

f) What other perceptual information is important for users to know?

I.2.4 Elaborating on artistic characteristics

There are various artistic characteristics that can be used to describe an image.

It is generally possible to distinguish between:

a) a realistic image (or image component);

b) an abstract image (or image component);

c) a non-realistic image (or image component).

For works of art, it is often important to distinguish the school to which the image belongs (impressionist, surrealist, etc.).

It is sometimes possible to distinguish the source of the image.

I.2.5 Elaborating on locations/settings/places

While locations are also dealt with under "Where", there are situations in which a location is a significant component of an image. In these situations, a location also becomes a "What".

NOTE – It is better to identify redundant information than to miss identifying important information. Redundancies can be eliminated when the actual text alternatives are written.

The following questions can be considered in creating text alternatives for images (image components) involving locations or places:

a) What is the location, setting or place depicted in the image (or image component)?

b) What specific landmarks are visible in the image (or image component)?

c) What other information about the location is important for users to know?

I.2.6 Elaboration on quantities

The following questions can be considered in creating text alternatives for images (or image components) with quantitative information (such as charts and graphs):

a) What is the quantity?

b) What is the quantity associated with?/What does the quantity represent?

c) What is the unit of the quantity?

d) Is the quantity fixed or dynamic?

e) What is the precision (or statistical significance) of the quantity?

f) What is the trend that can be interpreted from the data?

g) What do the axis or axes represent?

NOTE – To present the specific quantitative data, the data can be presented in a table while a summary or analysis of the data can be presented in the form of text alternatives.

I.3 Some temporal properties of images or image components

I.3.1 Introduction to temporal properties

There are two types of temporal properties to consider

a) Temporal properties that are part of the information that is presented by an image (or image component), including:

   1) time periods;

   2) events.

b) Temporal properties relating to changes in an image (or image component) including:

   1) image components which change in order to represent state information;

2) images within slide shows.

NOTE 1 – While moving images are outside the scope of this Recommendation, it is recognized that some information relating to change can apply to the images (or image components) that are within the scope of this Recommendation.

NOTE 2 – While the focus of various temporal properties is "when" something occurs, the wording in the following sub clauses does not always use the word "when".

I.3.2 Elaborating about time periods

An image (or image component) can be readily identifiable with some particular time period(s), such as:

– time of day (e.g., morning, midday, afternoon, evening, night);

– special days (e.g., holiday celebrations);

– time of year (e.g., spring, summer, autumn, winter, January);

– historic period (e.g., the 1960s, the Victorian era, the stone age).

If time period information is readily identifiable regarding an image (or image component), then it is important to be included within the primary or secondary alternative text of an image (or image component) according to its importance level.

I.3.3 Elaborating about events/activities

Events in people's lives are often synonymous to activities and can be related to actions (see clause 11.4.2). An image (or image component) can be readily identifiable with some particular event/activity (e.g., a birthday party, a wedding, a picnic, a baseball game, baking a pizza).

In more scientific terms, events are usually considered to occur instantaneously when something changes. An image (or image component) can be readily identifiable with some particular instantaneous event (e.g., the start or end of a race, the loss of power to some device, an accident).

If information about an event is readily identifiable regarding an image (or image component), then it is important to be included within the primary or secondary alternative text of an image (or image component) according to its importance level.

I.3.4 Elaborating on states

Individual image components can change within an image to provide various types of state related information.

EXAMPLE 1 – Connectivity and power icons are used to demonstrate the signal strength and amount of charge of a system.

EXAMPLE 2 – Images used for links are provided a distinctive border to indicate that the link has already been visited.

EXAMPLE 3 – Images are displayed lighter or greyed in order to indicate that the control associated with the image is not available.

The following questions can be considered in creating text alternatives for images (or image components) involving changes in individual image components:

a) What different states (values) can occur for the image component?

b) How are different states (values) visually represented?

Appendix II

Further considerations for particular types of images

(This appendix does not form an integral part of this Recommendation.)

II.1 Further considerations for particular types of drawings and photographs

II.1.1 Portraits

Portraits are images that can identify one or more individuals. Portraits are often used to make a name more real and more human. They can provide character and context to help understand the person.

Text alternatives for a portrait can include information on:

a) the age or age range (child, youth, young adult, adult, senior, etc.) of the person;

b) the look on the person's face (serious, relaxed, startled, etc);

c) the type/period of clothing worn by the person;

d) the background setting (if any);

e) any actions the person is involved with;

f) any obvious relationships to others in the image.

It is important that text alternatives to a portrait only describe those characteristics of a person that can be visually determined by someone looking at the image and avoid adding other information that is not visually represented in the image.

II.1.2 Symbolic images

Some images are presented to symbolize concepts rather than the actual components that they are constructed from.

EXAMPLE – An image of a handshake is often used to symbolize trustworthiness, integrity, etc.

When an image is used to symbolize some concept, it is more important that the text alternative focus on the intended concept rather than provide a literal description of the image.

NOTE – In creating text alternatives for symbolic images, one can consider "If I could not use this image, what would I put in its place?" in order to determine appropriate alternative text.

Symbolism can also be used for individual components of an image. Where the symbolism is obvious, it can be important to identify or explain the symbolism. Where symbolism is purely visual (i.e., in the use of symbolic colours) it is more important that the text alternative focus on the intended symbolism rather than provide a visual description of the component.

II.1.3 Images of text

While images containing only text are generally not appropriate, there can be some circumstances where they are used (an image of a particular document, an image of an actual signature, etc.).

If the text in the image is readable and relevant to the document, it is important to provide a complete transcript of the text in the image.

If the text is not expected to be readable (e.g., blurred, too small, or in a foreign language), it is important to acknowledge that the image contains text and to explain why a complete transcript is not being provided (e.g., blurred, too small, or in a foreign language). It can also be important to elaborate on this acknowledgement (e.g., by identifying the foreign language, if that is not identified in the main text).

II.1.4 Images used to label other information

Various simple images (symbols, emoji's, etc.) can be used as graphic labels for individual pieces of information. In these cases, they typically represent a single word or a simple concept (telephone, happy, etc.).

Where an image represents a single word or a short phrase, it is appropriate that the alternative text be limited to presenting this word or sort phrase.

II.1.5 Groups of images conveying a single piece of information

In some cases, a group of simple images (e.g., stars) are used to convey a single piece of information (e.g., a rating). In this case, it is important to provide information on the group rather than on the individual images (see clause 8.8.2).

II.1.6 Icons and other control images

Icons are user interface symbols representing an object and/or function of the computer system (clause 2.1, [b-ISO/IEC 11581-1]. The main purpose of icons and images used as controls (buttons, links, etc.) is to initiate an action rather than to convey information.

Where an image is used for control purposes, it is appropriate for the alternative text to be limited to identifying the purpose of the control (e.g., print this Recommendation).

II.1.7 Images used with a fully descriptive caption

Some images provide little information beyond what is already contained in their caption. It is not suitable to repeat information in the caption, unless it is being elaborated on with important additional information in the text alternative.

Where the caption provides all the information necessary to fully describe the image, the text alternative can be a simple reference, such as "see caption for text alternative".

II.1.8 Images that are fully described in the main text

While it is important to reduce redundancy, it is also important for readers to be assured that they have not missed something important by not seeing an image. Where the image is used to elicit an emotional response (including by providing "eye candy") there can be important subjective content that the main text is missing (see clause 11.2).

Where an image is fully described in the main text, it is important to identify in the main text that this description also serves as the text alternative for the image (see clause 12.4.6).

II.2 Further considerations for diagrams and maps

II.2.1 Assembly, component and similar diagrams

Images are often used to illustrate a set of physical components and how they physically interconnect. These images can be used for various purposes, including: to understand the workings of a system, to assist in the assembly/disassembly of a system, and to assist in diagnosing problems within the system. In some situations, multiple images can be used provide different views on the same set of components.

The main text that accompanies these types of illustrations often names the components and explains which component connects to which other components. In some instances, a listing of components precedes a step by step listing of assembly/disassembly instructions. This text is often written very compactly with the expectation that the image will provide significant supplemental information, often intended to be used in parallel with this text. Often the main text will refer to set of images that illustrate progressive steps in the assembly/disassembly/operation of the system.

Each image typically goes beyond this text to illustrate physical characteristics of each component and often how these physical characteristics interact to facilitate the connection or operation of different components. The image also typically provides information on the relative positioning of individual components, which can aid in their assembly.

These types of images generally label each component, either with its name or some reference identifier that corresponds to information contained in the main text. In this case it is important not to treat these labels as separate components. However, text or relationship information (beyond the set of physical components) that is inserted in the image for other purposes (e.g., instructions on how to position or connect components or indications of the direction of motion of a component) can still be treated separately from the physical components in the image.

Considerations for the text alternatives for these types of images include:

a) How the text alternative works with the main text (regardless of where the text alternative is located);

NOTE 1 – It is important to remember that the role of the image is often to elaborate the main text, rather than to fully replace it and that the two are presented separately to the user. It is important to focus text alternatives on information not contained in the main text that supports that text, while minimizing duplication.

NOTE 2 – It is easier to achieve this working together when the alternative text is created at the same time as the main text and the image.

b) How the text alternative will assist the reader in achieving the goals intended for the image (e.g., assisting with assembling a system);

NOTE 3 – While this type of image often contains a large amount of information, it is important to evaluate the importance of this information with regards to the intended uses of the image.

c) How the text alternative assists in the identification of different components and their important characteristics.

NOTE 4 – While physical components can be highly complex, the most important information about an individual component will usually focus on identifying how it is distinct from other components and how it connects to other components.

II.2.2 Flow and relationship diagrams

The relationships found in flow and relationship diagrams are much more important than the actual layout and shape(s) of the objects that they contain.

Most flow and relationship diagrams are configured to easily fit the available space in an image. The actual location of individual components only matters where there are connections between components. This can mean unusual configurations that were chosen to avoid or minimize the flow and relationship lines crossing one another. The location of components is only important if they are presented based on their physical layout in some particular location.

Flow and relationship diagrams often use different shapes to represent different types of components. Rather than describing the shapes of these objects, what is important is to combine the information presented by the shape with the name of the component.

EXAMPLE – Data flow diagrams use different shapes for processes and data stores. Rather than saying that billing takes place in a rectangular block, it is appropriate to refer to this component as the "billing process", since a rectangular block is used to represent a process.

II.2.3 Graphs and other representations of numerical data

In general, the best format for presenting data that is visualized via graphs and other representations of numerical data is a table of values. Tables are especially useful for graphs and other representations of discrete values.

NOTE – While a mathematical formula can be a more accurate representation of some continuous data, it is often more information than would be provided to a person looking at that data when it is visually presented in a graph.

II.2.4 Maps and other images with active areas

Some maps and other images (such as organization charts) contain multiple active components that are often used to provide links to further content. It is important to treat these as composite images with text alternatives both for the overall image and for each active image component (see clause 8.7).

II.3 Background images

It is often not possible to provide alternative text to the background of a webpage or other types of electronic documents.

Where information on a background is needed, it can often only be presented in the main body of text.

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