

# Revising Alt Text (and video description) Best Practices for a Better Learning Experience

Session ID: 32270

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Laura Ciporen (she)

## Welcome!

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Related article from me on LinkedIn:

[For Accessible Educational & Training Videos, Avoid "Laser Pointer Language" & Save Time and Effort](#)



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## Attendance

RAISE YOUR HAND  
if you're here (and can)



# Agenda

1. Background concepts
2. Most of our time will be spent talking about images
  - How educational content differs from informational content
  - How to think about descriptions of images differently for education
3. Then we'll move on to video descriptions
4. Questions will be answered

# Two Parts to a Description

Alt text / short description:

Like glancing at the image. It should be the most obvious, general information in the image. You can't help but get this information.

Extended / Enhanced / Long description:

Like studying the image. You have to decide to do it. This is where the details lie.

# What is Cognitive Load?

Oversimplification: There's only so much we can hold in our minds at once. The more new information is required to understand something, the less likely it is that we'll be able to process and understand it.

Most instructional design principles are about breaking information into manageable pieces and only including what is really relevant to the learning goals.

TL;DR: We want to avoid “Help! My brain hurts!”

# Informational vs. Educational Content



# Informational Image Descriptions

Answer: What is the image showing?

- Description can interpret the image for the user or narrowly describe it

# Standard Guidelines: Two Types of Images



# Comparison: Informational vs. Educational Content

Informational Content	Educational Content
Individual experience	Group; everyone needs the same info
Telling the user things / provide information	Helping learner understand, think for themselves, and use the information later
Voluntary, interest is guiding factor	Defined goals and consequences for learning or not

# Educational Descriptions—Special Considerations



# Group Experience Requires Equality

Information must be evenly distributed

- Don't answer "what did we mean by putting this image here." What information can we reasonably expect a sighted classmate to get out of the image?  
Quantity of information but also information as novices will notice it NOT what the expert who chose the image noticed.
- All the interesting little details that classmates can look at must be available.
- Participate in discussions

# Understand, Use Later, Draw Conclusions

- Make discoveries
- Pursue sidenotes if interested; engagement -> motivation -> understanding
- Assessments: need to be able to be wrong if don't fully understand.  
Descriptions for images used in assessments need to include parts of image that might confuse sighted students who don't fully understand the material. In asking what style of building something is, we can't just describe the aspects of the building that make it Art Deco. We also need to describe the aspects of the image that might lead a sighted classmate who didn't fully understand the topic to think it's a different architecture style.

**Have you ever seen  
the answer to an  
assessment  
question given away  
in the alt text?**

**RAISE YOUR HAND**



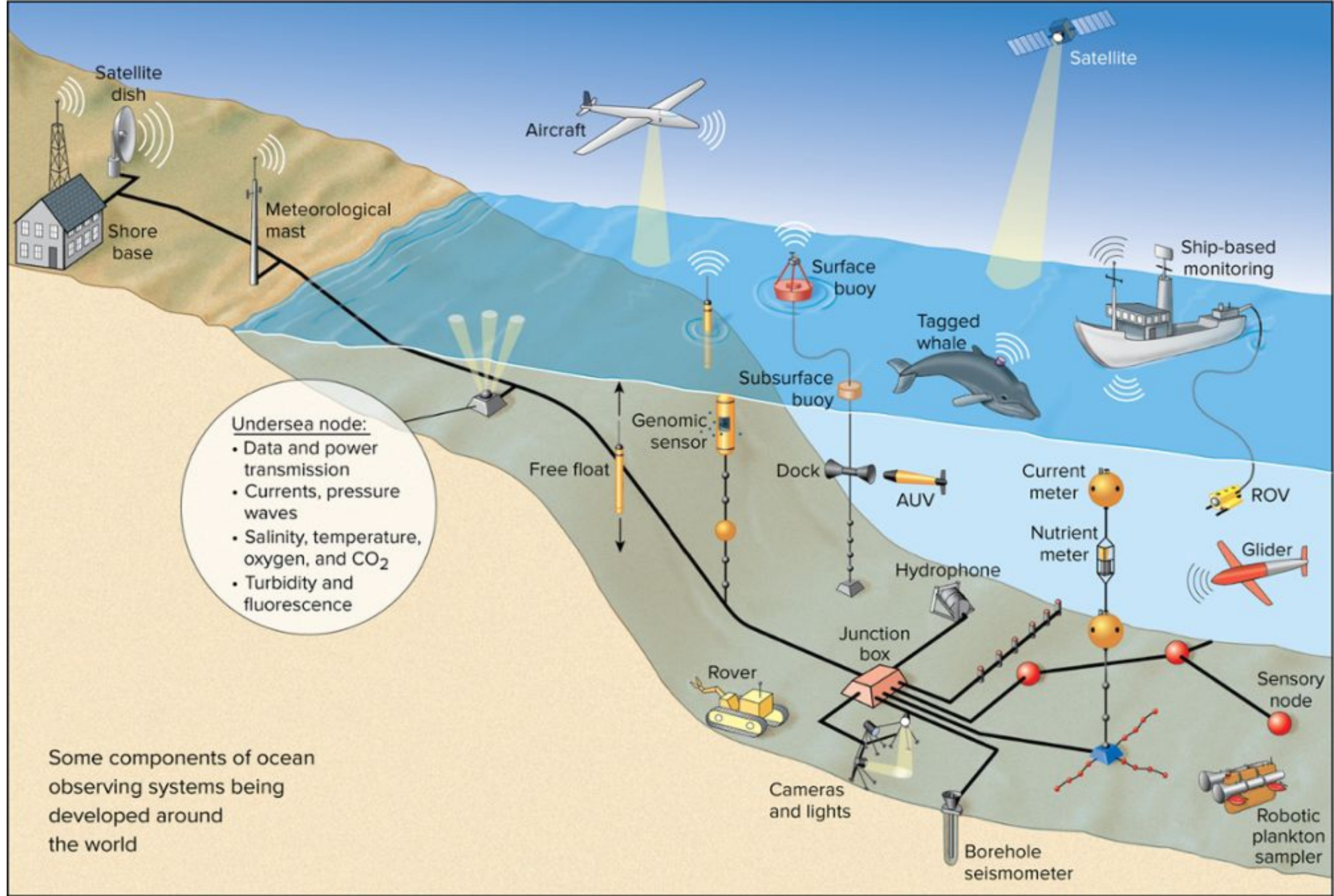
# Goals and Consequences

- *Also* must focus attention toward learning goals
- Cognitive load and instructional design principles especially important

# Image Needing Long Description

Some components of ocean observing systems being developed around the world.

Source: Bill Ober  
Taken from *Marine Biology, Eleventh Edition*. Copyright (c)2019 by McGraw-Hill Education. All rights reserved.



# Long Description Example Sample

“Some components of ocean observing systems being developed around the world.”

- 25 components depicted in 5 zones.
- Zones are headings with a list of components in that zone below the heading. (Skimmable, chunked.)
- Each list item starts with component name (skimmable) followed by brief description of key elements, EG: location, relationship to other components, description of component
- Description is over a page long and over 300 words

## EXCERPT:

Some components of ocean observing systems being developed around the world.

### Above the water <heading>

- Aircraft: transmits information and shines down on the ocean surface.
- Satellite: shines down on the ocean surface.

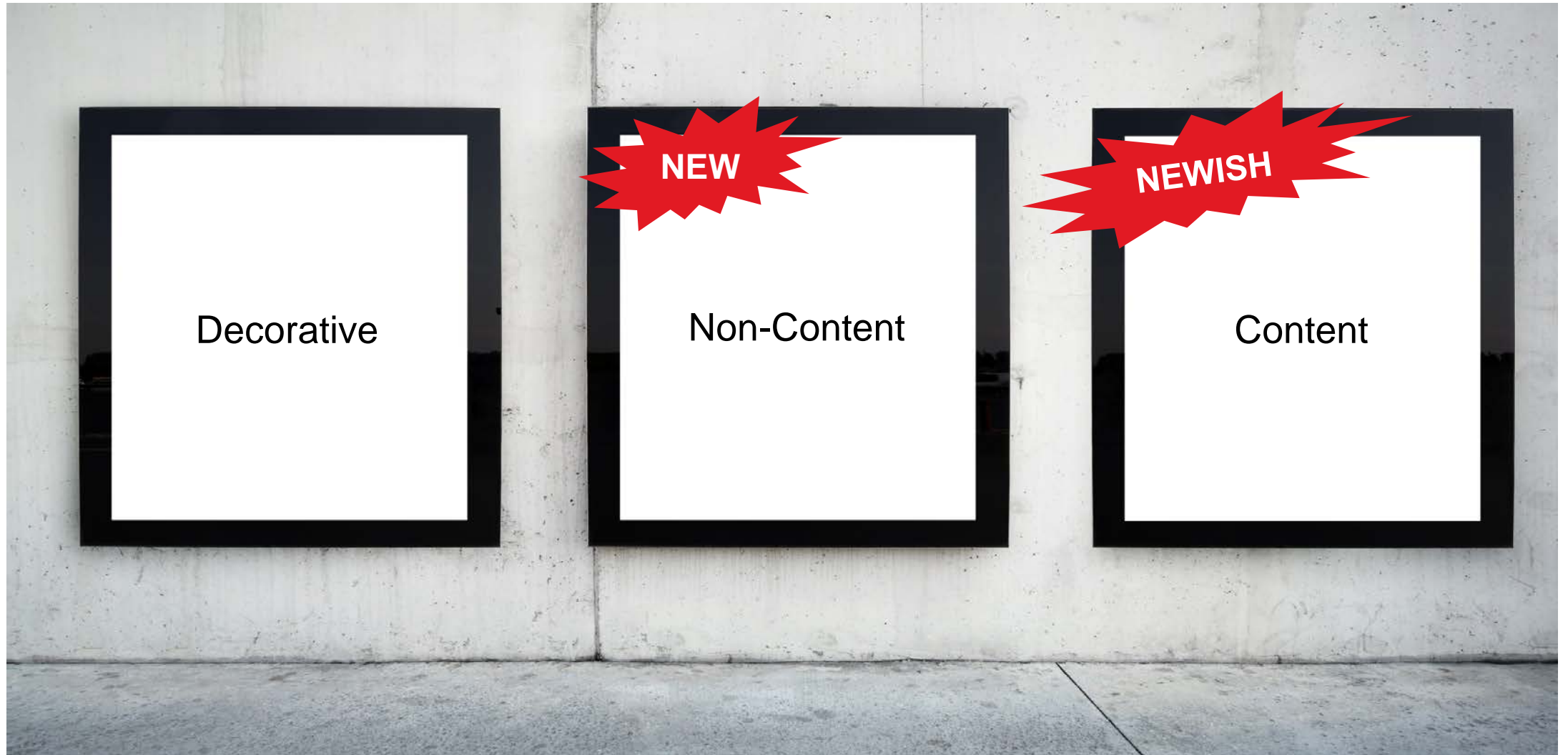
### Floating on the surface <heading>

- Surface buoy: Connected to the subsurface buoy and AUV dock. Anchored to seabed. Transmits information.
- Ship-based monitoring: Connected to ROV. Ship transmits information both above and below the surface.

## Reminder: Standard Guidelines: Two Types of Images



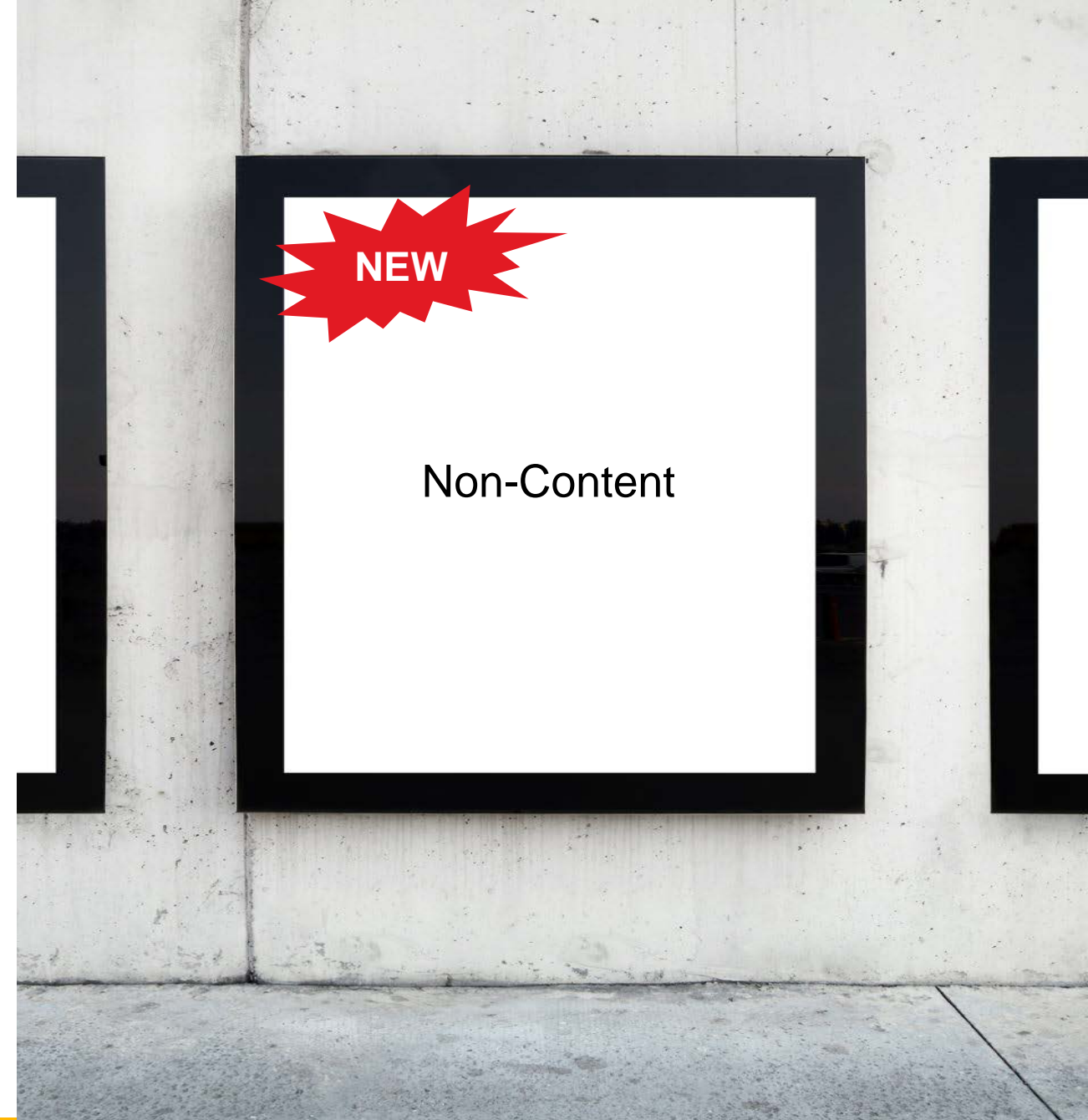
# Educational Types of Images—A Proposal



# Non-Content Images

Definition:

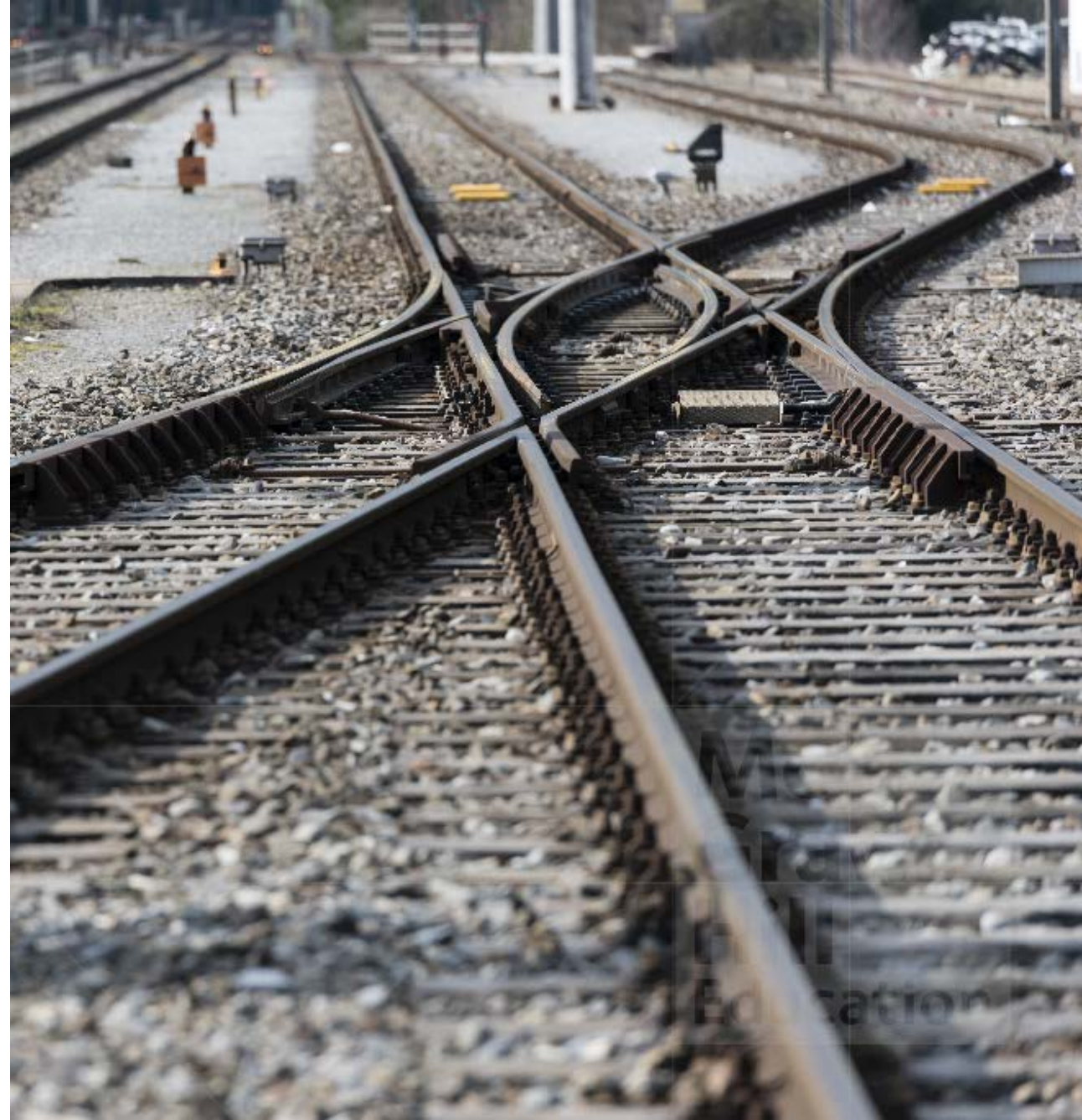
- Images that enhance the experience but whose removal would not impede learning the material.



## Minor Detour: Do Pictures Make a Difference in College Textbooks?

- "Including pictures, such as those of people, buildings, artifacts and landscapes in college history text material does not seem to increase a college student's comprehension of the material, even when the pictures have been selected because they support the main ideas of the text."
- Students strongly preferred pictures. Engages them more.

Smith, B. D., & Elifson, J. M. (1986). Do Pictures Make a Difference in College Textbooks?. *Reading Horizons: A Journal of Literacy and Language Arts*, 26 (4).



# (Not Scientifically Rigorous) Study Summary

8 SR users read 3 versions of 3 readings: Which level of descriptions did you prefer, and why?

1. As few image descriptions as possible. Anything not totally essential to the learning goals got empty alt text. Extended descriptions very rare and minimal.
2. More reasonable amount of descriptions. Priority was to keep cognitive load down and keep focus on the essentials.
3. Everything with at least alt text. Lots of very detailed extended descriptions.

Discipline	(Intrinsic) Cognitive Load	Images
Marine Bio	High	Many “content” images containing information not found in the text
History	Medium	Many images add interest, but not essential to the learning goals
Health	Low	Almost all images were things like a smiling woman eating granola.

# Results

The screen reader users wanted the highest level of description...and more.

- “This was my favorite version by far. I finally got the descriptions of the pictures I just had a feeling I was missing. This is great, because for an E-Book on nutrition you want those images in the mind as you read along.”
- “Finally! I've gained some extra context that I didn't even know was missing. The descriptions of the image content itself really added to my understanding of what the captions were referring to.”

On the other hand:

- 3 sighted students who I had read the same content didn't spend much time on the images.
- But they all wanted them there, just like the 1986 study.

# The Care and Handling of Non-Content Images

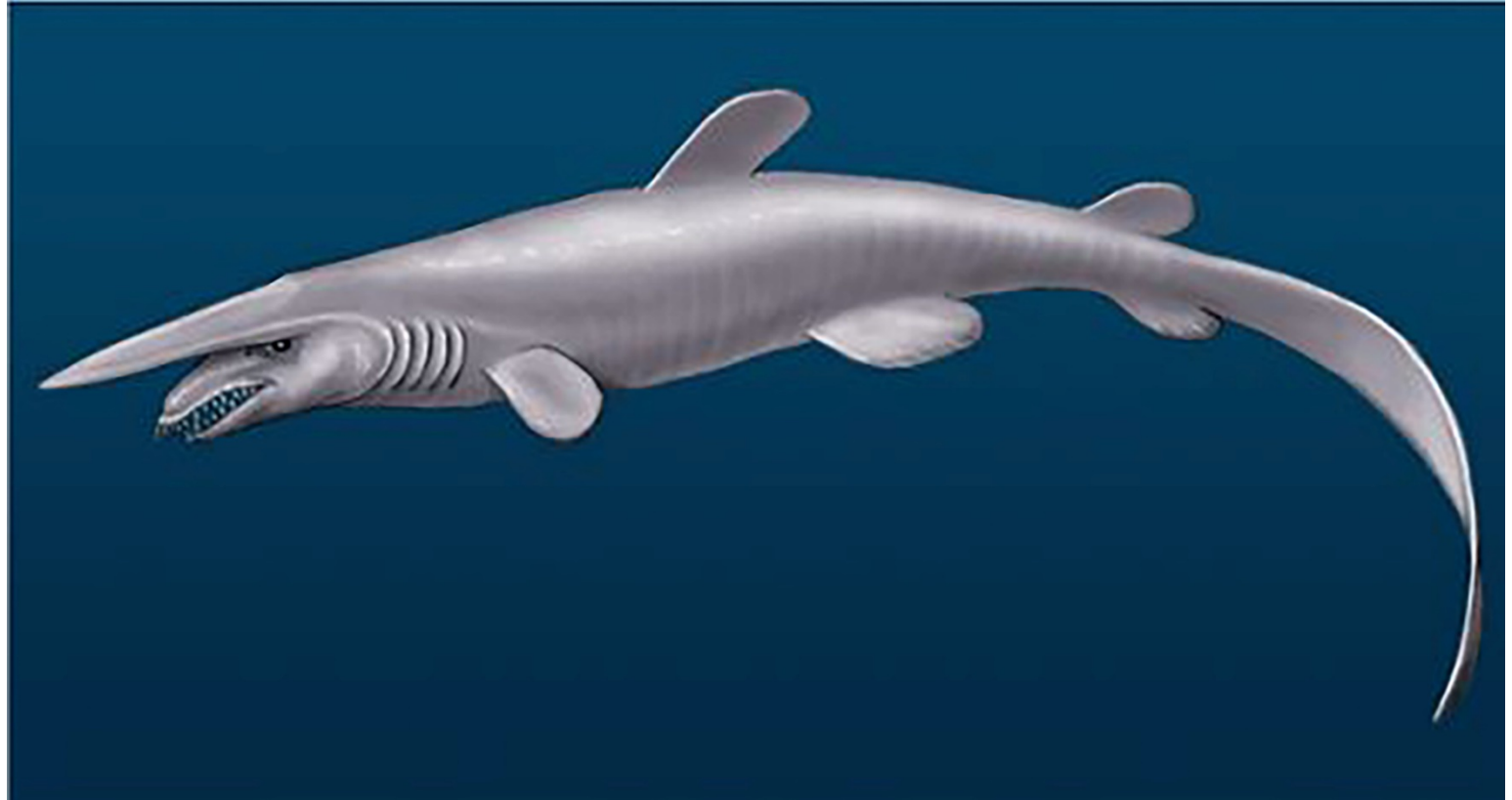
- Be very careful to separate out decorative (meaningless) images from non-content (interesting) images.
- Non-content need just as detailed descriptions as content images do.
- Since these are optional, ask yourself: Is what you were trying to convey worth what the image needs by way of description?

# Non-Content Images...Do You Want to Describe This?

The bizarre goblin shark (*Mitsukurina owstoni*) is typically found in water deeper than 100 m (330 ft) in many coastal regions worldwide.

*Source: Bill Ober  
Taken from Marine Biology, Eleventh Edition. Copyright (c)2019 by  
McGraw Hill Education. All rights reserved.*

[View extended description; warning, it was written by someone with no subject matter expertise.](#)



# Key Points—Educational Image Descriptions

- Educational information must be evenly distributed.
- To write descriptions, ask: What information can we reasonably expect a sighted classmate to get out of the image?
- Assessment descriptions must allow learners who don't fully understand the material to answer incorrectly.
- Organize text of image descriptions to reduce cognitive load.
- Content images: Convey information relevant to learning goals, if removed could hinder understanding, need complete description. (Often extended.)
- Non-content images: Interesting but not essential, need complete description. (Often including extended descriptions.)
- Since non-content images are optional, ask yourself: Is what I want learners to get out of this image worth the cost and effort of its description?
- Decorative images: Convey nothing and need no description.

# Video Descriptions

Let's switch things up a bit (this section is much shorter)

# Video Descriptions: What Matters?

Entertainment (Standard Guidelines)	Educational
Blind and low vision users can appreciate and follow the video.	Blind, low vision, visual processing disorder, etc. users need the <i>information</i> .
Visual design, cinematography...It is ART.	Feel / ambiance lower priority.
Integrity of presentation: timing / synchronousness matters.	Ease of understanding: Keeping whole ideas together matters.

# Educational Videos—Special Characteristics

- Quantity of information vs. aesthetics
- Continual narration
- Visuals include decorative, non-content, content
- Details that don't matter in one discipline might be the most important thing in another
- Visuals can be alternate representations of narration (the reverse of alt text—an alternate representation of an image)

# Standard Practice for Video Descriptions = Audio Descriptions

Audio description is additional audio of someone describing the visuals when no essential audio is happening in the main track.

- Secondary audio track that can be turned on
- Separate video with description as part of main audio track
- Version of video where visuals pause occasionally so a spoken description can be added



Have you HEARD OF  
audio descriptions?

RAISE YOUR HAND

Have you  
**EXPERIENCED**  
audio descriptions?

RAISE YOUR HAND





**Have you heard of  
TEXT ALTERNATIVES  
to video or  
DESCRIBED  
TRANSCRIPTS?**

**RAISE YOUR HAND**

# WCAG\* on Video Descriptions

“At Level A...authors do have the choice of providing either an audio description or a full text alternative [similar to a screen play].

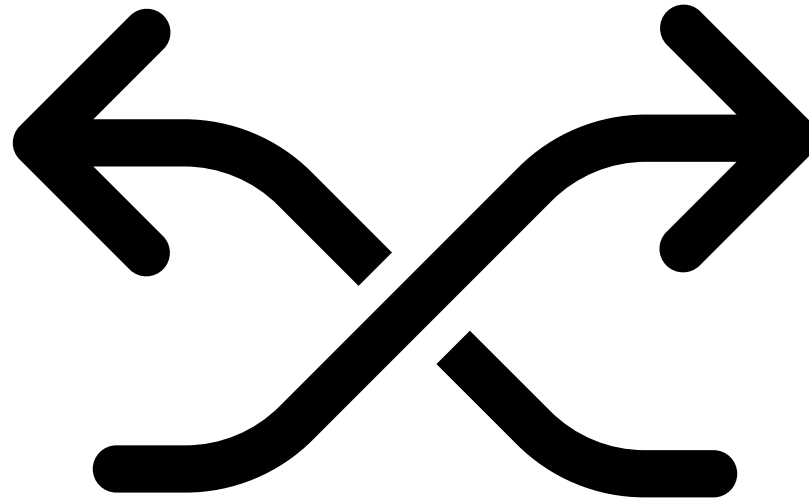
If they wish to conform at Level AA...authors must provide an audio description.”

- Audio Description (Prerecorded): Understanding Success Criterion 1.2.5

(Level AAA is to have both, which you might already have depending on your choices for level A.)

\* Web Content Accessibility Guidelines

# For Educational Videos, WCAG is Backward—A Proposal



# Entertainment Example

[The Lion King \(YouTube link\)](#) excerpt with audio description

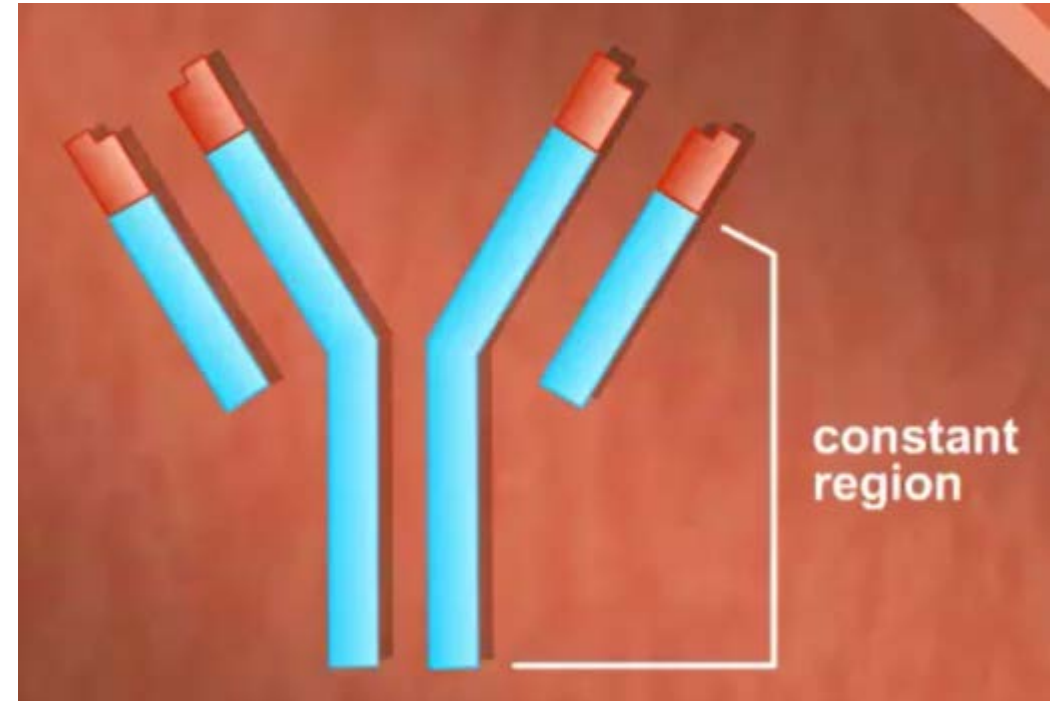
# Educational Example (Screenshot and Described Transcript Excerpt)

## Audio 2

Narrator: "Each antibody of the Immunoglobulin G class, IgG, consists of two light chains and two heavy chains. The sequence of amino acids in the constant regions of all IgG antibodies is identical, whereas the sequence of amino acids in the variable regions differs depending on the structure of the epitope."

## Description 2

A close-up of an antibody shows two short sticks on the outside and two longer, bent sticks on the inside. The two inner pieces make a Y shape. The light chains are the short sticks, and the heavy chains are the bent, longer sticks. The main bodies of the sticks representing the antibodies are called the constant regions, and these flash when identified in the narration. The colored tips of each piece of the antibody are called the variable region, and these also flash when identified.



Described transcript ©2020 McGraw Hill. All rights reserved. No reproduction or further distribution permitted without the prior written consent of McGraw Hill.

# Descriptive Transcripts—Advantages for Educational Videos

- Fits as much description as needed
- Information can be placed in the order that is easiest to understand as it alternates between the audio transcript and the text description of the visuals
- Description segments can be organized with lists, tables, etc.
- Can be read at a user's own pace and parts can easily be re-read or skipped if desired
- Spelling of important terms is clear

# Key Points for Good Described Transcripts

- Keep ideas intact; don't worry so much about synchronizing visuals with audio
- Avoid describing how something is represented, say what is being represented
- Do not interpret for the reader; state what can be seen and let them decide what it means
- Pay close attention to what details or examples are ONLY presented visually
- Make sure the described transcript makes sense as a standalone document for people who have not (and never will) watch or listen to the video

## Over to you, by proxy.

Please make sure any questions you have are in the Q&A section so the moderator can ask them for you.



## Thank You!

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Please evaluate this session so I know how I can improve!

<https://accessinghigherground.org/evaluate/>

Search for my last name: Ciporen



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[linkedin.com/in/lauraciporen](https://www.linkedin.com/in/lauraciporen) (read my article on creating videos that are easier to describe)



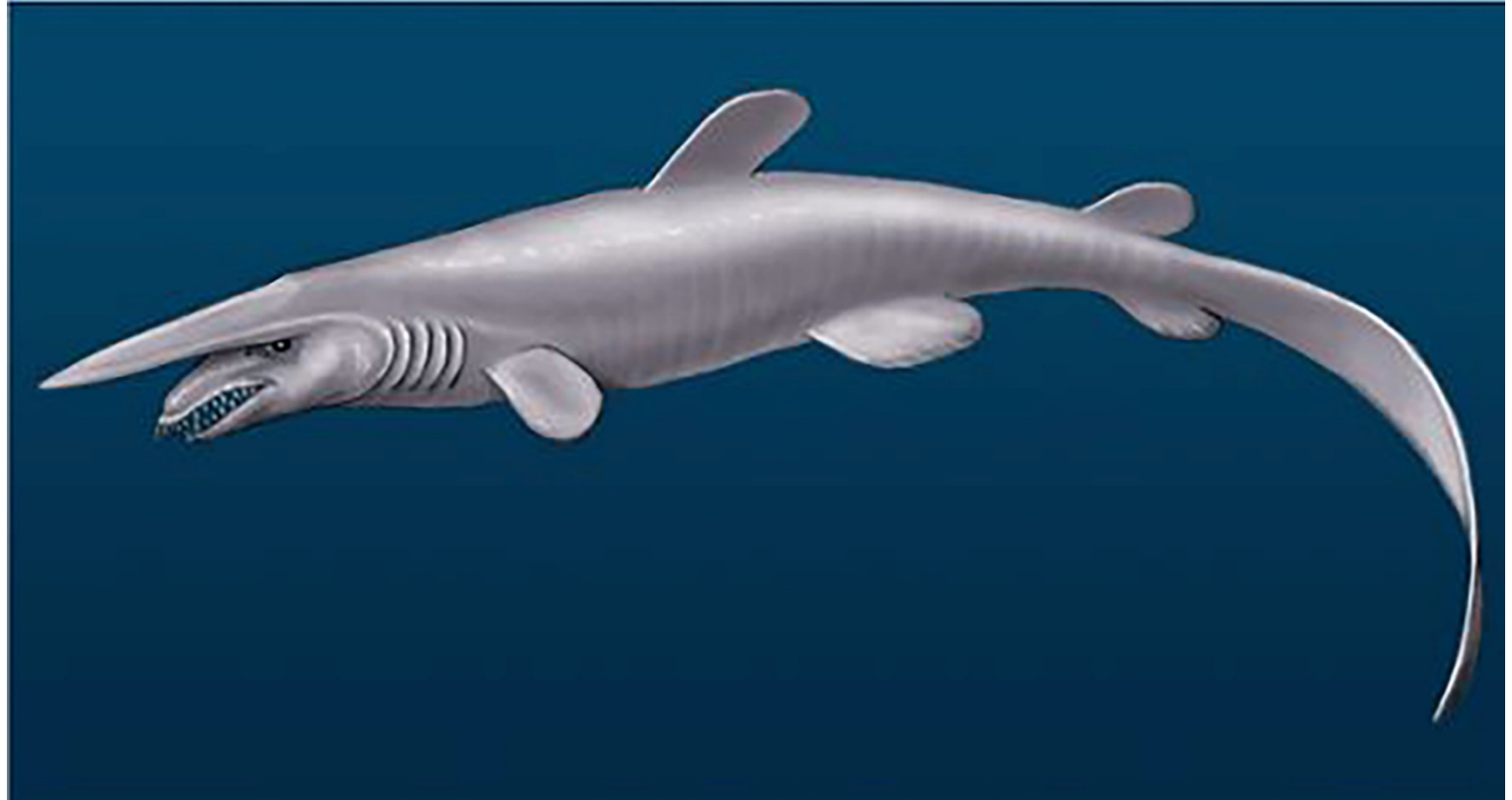
[www.mheducation.com](http://www.mheducation.com)

# Goblin Shark, Extended Description (Written With NO Subject Matter Expertise)

[Return to slide containing image.](#)

The goblin shark has 2 dorsal fins, one in the middle and one by the tail, and 6 fins along its midline. All the fins are rounded rather than pointed. Its tail is almost as long as the rest of its body minus its head. The tail is flat and oriented perpendicular to the shark's belly. The head is relatively small for a shark and is partially hidden below a pointed protuberance that comes over its head like a long, pointy brim of a baseball cap.

Image source: Bill Ober  
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# References

- [Do Pictures Make a Difference in College Textbooks?](#)  
citeseerx.ist.psu.edu › viewdoc › downloadPDF
- Audio Description (Prerecorded): Understanding Success Criterion 1.2.5  
<https://www.w3.org/TR/UNDERSTANDING-WCAG20/media-equiv-audio-desc-only.html>