

# 30. Art, Science, Engineering and Imaging

Friday, December 6, 2024 1:34 PM

Zoom Monday and Wednesday for Clouds Second critiques  
Final Show Saturday, here in the classroom, 4:30 - 7

Exit survey, Clouds 2nd report and Ungrading statement Due at 4:30 before the final show.

In class you'll be put in groups/breakout rooms of 4-5 people for 20 minutes. Think about these questions. Skip to the question you find most interesting first.

Choose a scribe to keep track of your discussion, and post notes on Slack. Note what you agree on and where you disagree.

The last 30 minutes of class we will harvest these ideas.

1. What is art? How do you know if an image is artistic?
2. What is science? How do you know if an image is scientific?
3. How are art and science similar?
4. How are they different?
5. What is engineering? How does it fit in compared to art and science?
6. What is filmmaking or photography? How does it fit in compared to art, science and engineering)?

From <<https://app.slack.com/client/T07JZE15T96/C07J7PRAMDK>>

1: Art is expression, creativity and emotions. An image is artistic if you can see creativity in the image and it provokes thoughts and emotions.

Art involves intention, creativity, beauty, powerful, inspires emotion, interaction between artifact and audience, up to individual to decide whether it is art. Beyond utility.

Art can be anything if it has meaning to artist or audience. Not only about result but about process.

Something created with the intent of eliciting emotion. An image is artistic if its focus was the method and the response from the viewer rather than to demonstrate a phenomenon or concept.

2: What is science? Pursuit of knowledge. Science tries to explain physical phenomena. Observing, empiricism, understanding. Can be quantitative or qualitative. Study of science in search of solutions, data driven. Structure supporting facts, factual evidence. Science is the study of phenomenon, or the search for a solution. If an image is data driven, then it is scientific. Science is a structure of supporting evidence that creates facts. This can be seen if there is some type of phenomenon in an image that is backed by factual evidence.

3: Art and science similar? Both involve experimentation, communication. Science has to be correct and art cannot be wrong. Both are aiming for a goal - data or beauty. Not exclusive, can be both. Art communicates emotion, science communicates facts. Both have exploration and experimentation with art and science. It is also a way to communicate to people in a community. Both above answers can be mutually compatible. A scientific image can elicit emotion, and an artistic image can be explained through science.

4: Differences? Science can be true but not beautiful. Science is empirical, to represent reality, documenting. Art is more human interaction oriented. Art is internal focused, Science is more external oriented, may or may not be also artistic. Art is an expression of phenomenon, science is understanding of phenomena. Art is subject to interpretation, science is subject to debate. Art can be an expression of something in the world while science has to be more accurate to represent the facts. Art is up for interpretation where science is up for debate. Generally as a scientist you look for the

underlying physics and as an artist you look for the artistic qualities in an image.

5: How does engineering fit in? We've been doing science. Engineering is to solve a physical problem. Science can be blue-sky, no immediate application. Engineers build solutions, Art is more human facing, is it attractive, not just utilitarian. Engineering is the application of science, Engineering is a subset of science. Engineering is a thought process leading to solution. Science is the understanding. Art is the aesthetics of what engineers make. Science doesn't dictate uses, no politics involved. Engineering has to take politics and economics into account. Engineering is much more science than art. In this case it could be used in producing unique ways to create art forms. But generally engineering revolves around science based ideas. Engineering is focused on finding solutions to problems using known laws and facts discovered by scientists. The specific application of scientific principles. Engineering can blend with art through creative design and intent (i.e. Architects & Structural engineers).

How does Imaging fit in?: A tool to create either engineering or art, not binary. Can capture, but is not designing or solving or generating understanding. Filmmaking and photography are the techniques used to capture images into repayable or printable media. It can be art or used as a tool in science or engineering. Filmmaking and photography is the ability to communicate a story. It is similar to these concepts because it can display a phenomenon, setup or artistic creativity that was explored in an experiment.

Is art mandatory? Many solutions do not consider art.