



Instituto Politécnico Nacional Escuela Superior de Cómputo

Image Analysis I. Introduction

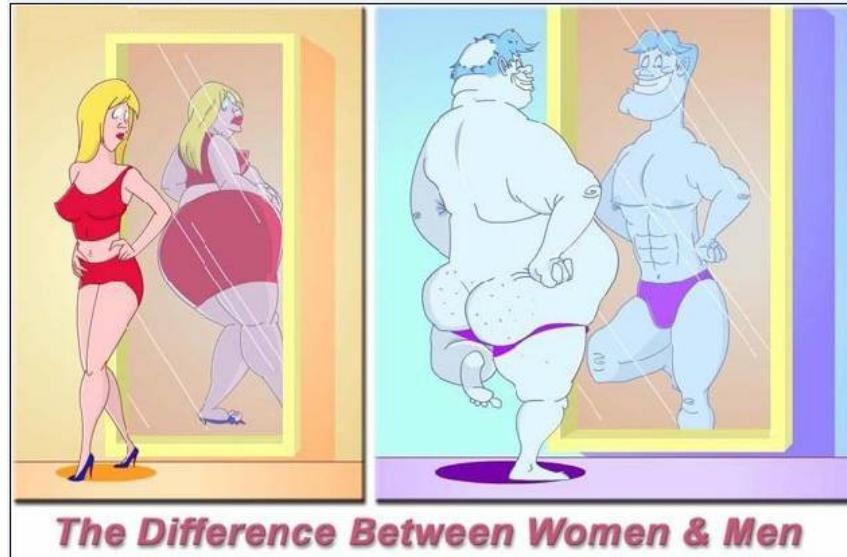
Dr. Flavio Arturo Sánchez Garfias

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The image analysis in computer science.

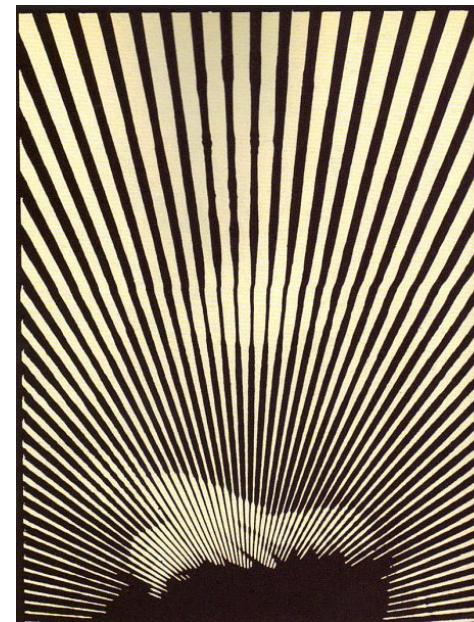
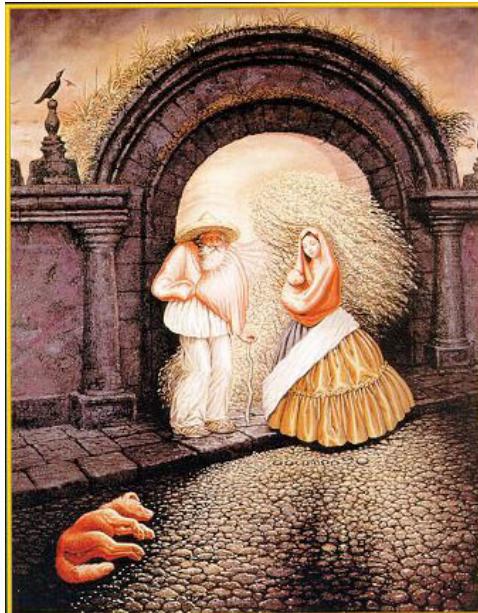
What is an image?



- A visual representation of reality in someone's brain

The image analysis in computer science.

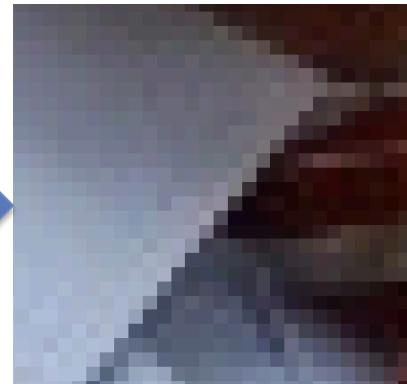
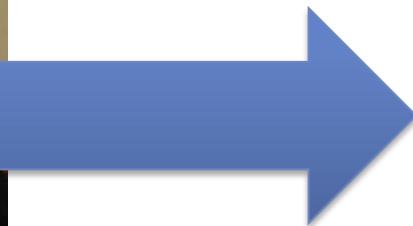
What kind of information are we able to see in an image?



- Each one sees what he has learned to see.
- Each one sees what he wants to see.

The image analysis in computer science.

What is a digital image?



- A bi-dimensional and numerical representation of an image.
- Each number is associated to a color

The image analysis in computer science.

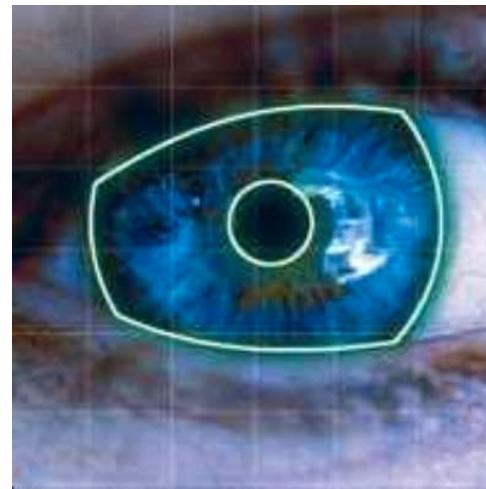
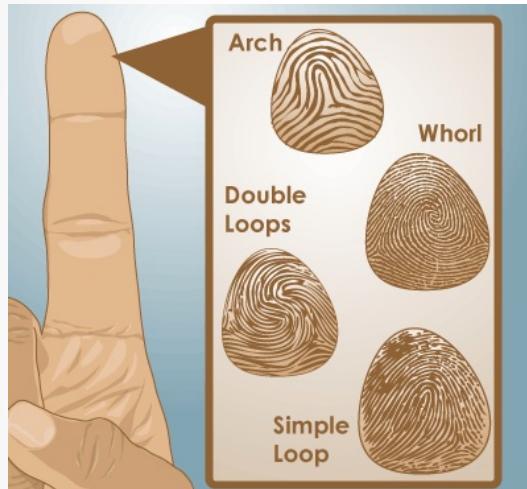
How a digital image is created?

- An scene.
- A light source.
- A capture device.
- A storage device.



The image analysis in computer science.

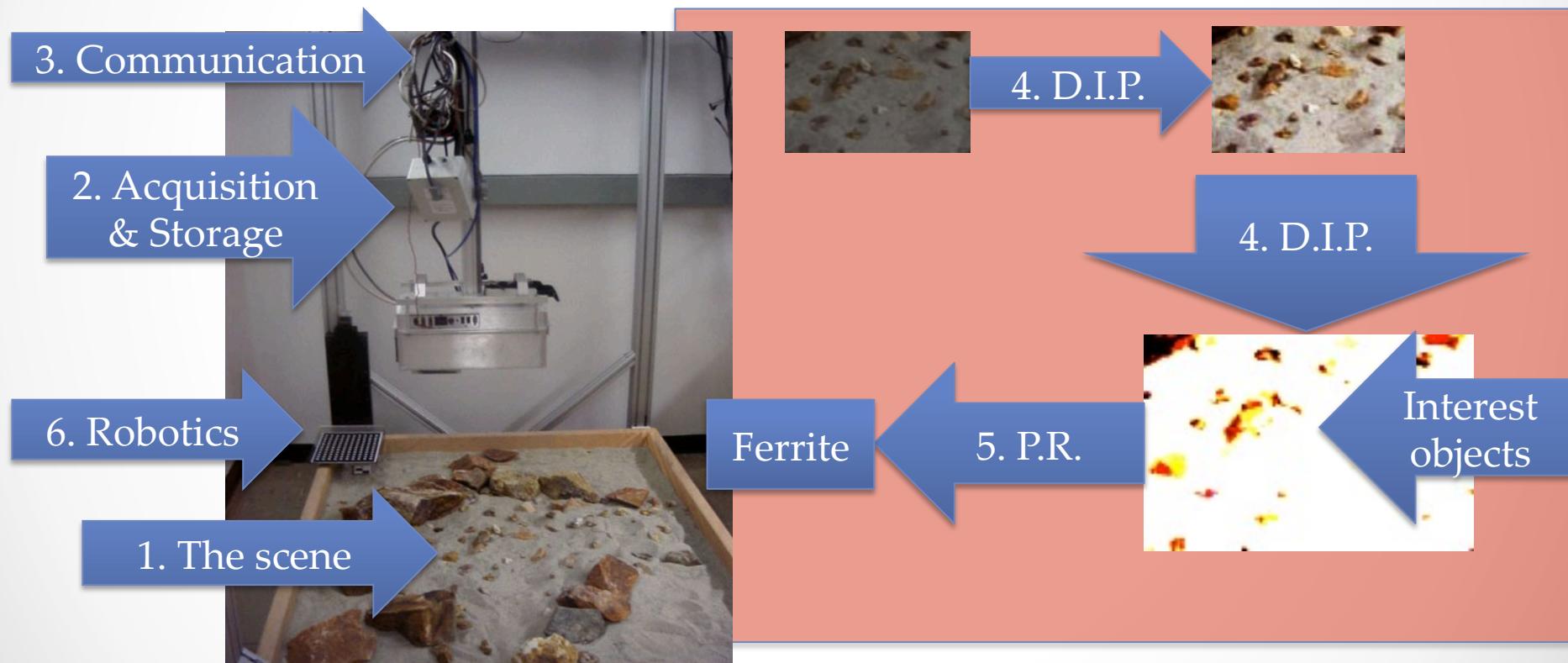
What is image analysis for?



It is used to extract meaningful information from a (digital) image.

The image analysis in computer science.

Image analysis in a computer vision system.





The image analysis in computer science.

Image analysis in a computer vision system.

<http://www.youtube.com/watch?v=FVF5f2acCCo&feature=related>

<http://www.youtube.com/watch?v=5NYZ5ytYzpY>

http://www.youtube.com/watch?v=gCNJ_NcuXf0&feature=related