

*Image and Representation 2e is a clear and straight-talking introduction to two of the most important concepts in film and media studies. Exploring media language and representation throughout a variety of visual texts, the book offers a balanced, in-depth guide to the essential theories and key issues.*

A different name for scaling is resampling, when resampling algorithms try to reconstruct the original continuous image and create a new sample grid. Scaling image down The process of reducing the raster dimensions is called decimation, this can be done by averaging the values of source pixels contributing to each output pixel. Scaling image up When we increase the image size we actually want to create sample points between the original sample points in the original raster, this is done by interpolation the values in the sample grid, effectively guessing the values of the unknown pixels[ 3 ]. Sample depth The values of the pixels need to be stored in the computers memory, this means that in the end the data ultimately need to end up in a binary representation, the spatial continuity of the image is approximated by the spacing of the samples in the sample grid. The values we can represent for each pixel is determined by the sample format chosen. Sample depth The same image width varying sample depths, note that high frequency areas detailed areas have an OK look earlier than low frequency areas. Floating point Some image formats used in research and by the movie industry store floating point values. Floating point is useful as a working format because quantization and computational errors are kept to a minimum until the final render. High Dynamic Range images are images that include sampling values that are whiter than white higher values than for a normal 8bit image. Each pixel is represented by three values, the amount of red, green and blue. Thus an RGB color image will use three times as much memory as a gray-scale image of the same pixel dimensions. RGB bands Color image built up of bands of red, green and blue color This is image illustrates how a laptop display is constructed, note that this image is preferred to be viewed on a computer screen, and not in print. One of the most common pixel formats used is 8bit rgb where the red, green and blue values are stored interleaved in memory. This memory layout is often referred to as chunky, storing the components in separate buffers is called planar, and is not as common. We store just the number of the palette entry used for each pixel. And for each palette entry we store the amount of red, green and blue light. Indexed image On the left, image using just 16 colors, on the right the palette used for this image. Image compression Bitmap images take up a lot of memory, image compression reduces the amount of memory needed to store an image. For instance a 2. Compression ratio is the ratio between the compressed image and the uncompressed image, if the example image mentioned above was stored as a kb jpeg file the compression ratio would be 0. Lossless Image Compression When an image is losslessly compressed, repetition and predictability is used to represent all the information using less memory. The original image can be restored. One of the simplest lossless image compression methods is run-length encoding. Run-length encoding encodes consecutive similar values as one token in a data stream. Run length encoding algorithms used in file formats would probably use additional means to compress the RLE stream achieved here. Lossy Image Compression Lossy image compression takes advantage of the human eyes ability to hide imperfection and the fact that some types of information are more important than others. Changes in luminance are for instance seen as more significant by a human observer than change in hue. Loss through Generations Lossy compression algorithms should not be used as a working format, only final copies should be saved as jpeg since loss accumulates over generations. JPEG generation loss An image specially constructed to show the deficiencies in the JPEG compression algorithm, saved, reopened and saved again 9 times. JPEG is most suited for photographics content where the adverse effect of the compression algorithm is not so evident. File formats and applications Many applications have their own internal file format, while other formats are more suited for interchange of data. Table ref lists some common image formats.

**Chapter 2 : Journal of Visual Communication and Image Representation - Elsevier**

*Image and Representation has 19 ratings and 0 reviews. This book offers readers a lively, clear and practical introduction to two of the most central con.*

For example, a qualisign is always an icon, and is never an index or a symbol. He held that there were only ten classes of signs logically definable through those three universal trichotomies. Also, some signs need other signs in order to be embodied. For example, a legisign also called a type, such as the word "the," needs to be embodied in a sinsign also called a token, for example an individual instance of the word "the", in order to be expressed. Another form of combination is attachment or incorporation: Peirce called an icon apart from a label, legend, or other index attached to it, a "hypoicon", and divided the hypoicon into three classes: Logical critic or Logic Proper. That is how Peirce refers to logic in the everyday sense. Its main objective, for Peirce, is to classify arguments and determine the validity and force of each kind. A work of art may embody an inference process and be an argument without being an explicit argumentation. That is the difference, for example, between most of War and Peace and its final section. Speculative rhetoric or methodeutic. For Peirce this is the theory of effective use of signs in investigations, expositions, and applications of truth. He also called it "methodeutic", in that it is the analysis of the methods used in inquiry. They underlie his most widely known trichotomy of signs: Icon Symbol [25] Icon This term refers to signs that represent by resemblance, such as portraits and some paintings though they can also be natural or mathematical. Iconicity is independent of actual connection, even if it occurs because of actual connection. An icon is or embodies a possibility, insofar as its object need not actually exist. A photograph is regarded as an icon because of its resemblance to its object, but is regarded as an index with icon attached because of its actual connection to its object. Likewise, with a portrait painted from life. An icon need not be sensory; anything can serve as an icon, for example a streamlined argument itself a complex symbol is often used as an icon for an argument another symbol bristling with particulars. Index Peirce explains that an index is a sign that compels attention through a connection of fact, often through cause and effect. For example, if we see smoke we conclude that it is the effect of a cause "fire". It is an index if the connection is factual regardless of resemblance or interpretation. Peirce usually considered personal names and demonstratives such as the word "this" to be indices, for although as words they depend on interpretation, they are indices in depending on the requisite factual relation to their individual objects. A personal name has an actual historical connection, often recorded on a birth certificate, to its named object; the word "this" is like the pointing of a finger. Symbol Peirce treats symbols as habits or norms of reference and meaning. Symbols can be natural, cultural, or abstract and logical. Symbols are instantiated by specialized indexical sinsigns. A proposition, considered apart from its expression in a particular language, is already a symbol, but many symbols draw from what is socially accepted and culturally agreed upon. Conventional symbols such as "horse" and caballo, which prescribe qualities of sound or appearance for their instances for example, individual instances of the word "horse" on the page are based on what amounts to arbitrary stipulation. This can be both in spoken and written language. For example, we can call a large metal object with four wheels, four doors, an engine and seats a "car" because such a term is agreed upon within our culture and it allows us to communicate. In much the same way, as a society with a common set of understandings regarding language and signs, we can also write the word "car" and in the context of Australia and other English speaking nations, know what it symbolises and is trying to represent. The process of representation is characterised by using signs that we recall mentally or phonetically to comprehend the world. Two things are fundamental to the study of signs: The signifier is the word or sound; the signified is the representation. Saussure points out that signs: There is no link between the signifier and the signified Are relational: We understand we take on meaning in relation to other words. Such as we understand "up" in relation to "down" or a dog in relation to other animals, such as a cat. We exist inside a system of signs". For example, when referring to the term "sister" signifier a person from an English speaking country such as Australia, may associate that term as representing someone in their family who is female and born to the same parents signified. An Aboriginal Australian may associate the term "sister" to represent a close friend

that they have a bond with. Saussure argues that if words or sounds were simply labels for existing things in the world, translation from one language or culture to another would be easy, it is the fact that this can be extremely difficult that suggests that words trigger a representation of an object or thought depending on the person that is representing the signifier. A person may refer to a particular place as their "work" whereas someone else represents the same signifier as their "favorite restaurant". This can also be subject to historical changes in both the signifier and the way objects are signified. Saussure claims that an imperative function of all written languages and alphabetic systems is to "represent" spoken language. For example, in English the written letter "a" represents different phonetic sounds depending on which word it is written in. The letter "a" has a different sound in the word in each of the following words, "apple", "gate", "margarine" and "beat", therefore, how is a person unaware of the phonemic sounds, able to pronounce the word properly by simply looking at alphabetic spelling. The way the word is represented on paper is not always the way the word would be represented phonetically. This leads to common misrepresentations of the phonemic sounds of speech and suggests that the writing system does not properly represent the true nature of the pronunciation of words. The very idea of probability and of reasoning rests on the assumption that this number is indefinitely great. Logic is rooted in the social principle. An Integrated Reconstruction", Joseph Ransdell, ed.

### Chapter 3 : Representation (arts) - Wikipedia

*The present work is a critical review of the book Image and Representation: Key Concepts in Media Studies by Nick Lacey published by New York, Palgrave publications. The book is a part of a series of three.*

### Chapter 4 : Image and Representation - Nick Lacey - Macmillan International Higher Education

*Image And Representation by Nick Lacey This book offers readers a lively, clear and practical introduction to two of the most central concepts in the study of media, culture and communication: media language and representation.*

### Chapter 5 : Image and Representation: Key Concepts in Media Studies - Nick Lacey - Google Books

*This book offers readers a lively, clear and practical introduction to two of the most central concepts in the study of media, culture and communication: media language and representation.*

### Chapter 6 : Image and Representation by Nick Lacey

*representation or intuition (repraesentatio singularis, Anschauung) and the general representation or concept (repraesentatio generalis, Begriff) (see Dokic , p. ). First, each representation is inherently directed.*

### Chapter 7 : Image and Representation : Nick Lacey :

*We need a coordinate system to describe an image, the coordinate system used to place elements in relation to each other is called user space, since this is the coordinates the user uses to define elements and position them in relation to each other.*

### Chapter 8 : Chapter Digital image representation

*Images are everywhere on computers. Some are obvious, like photos on web pages and icons on buttons, but others are more subtle: a font is really a collection of images of characters, and a fax machines is really a computer that is good at scanning and printing.*