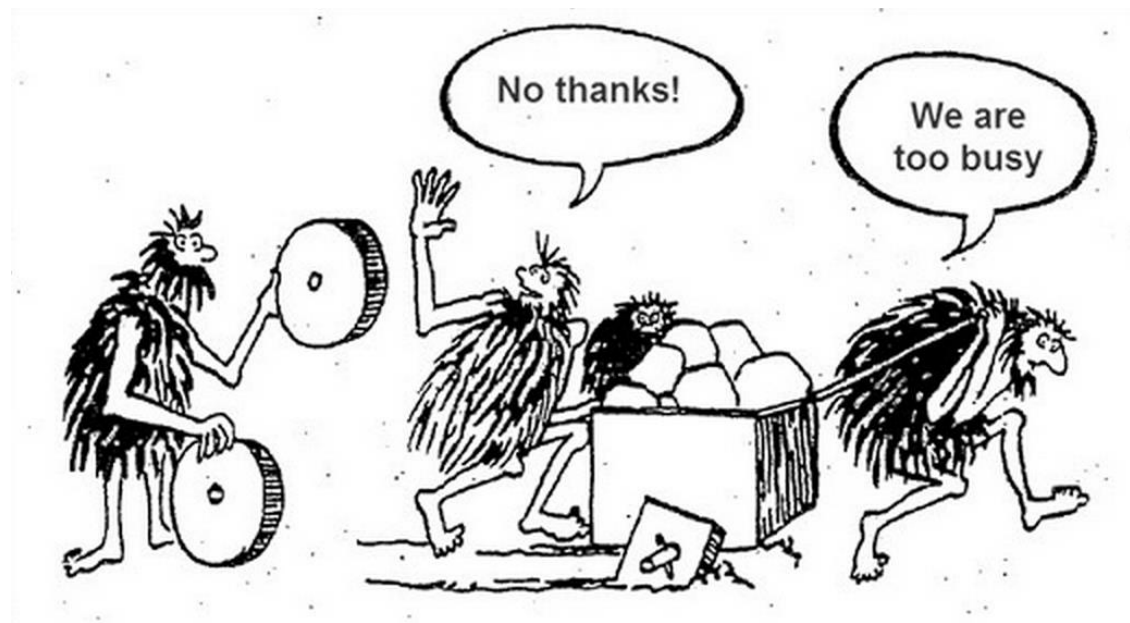


# Metadata committee

- Produce a specification for use by software and equipment manufacturers
- Dermatology images will be acquired and stored with **standard** metadata
- DICOM



# Aim of the metadata committee

- Develop a DICOM Information Object Definition/s (IOD) for dermatology imaging

# IOD Definition

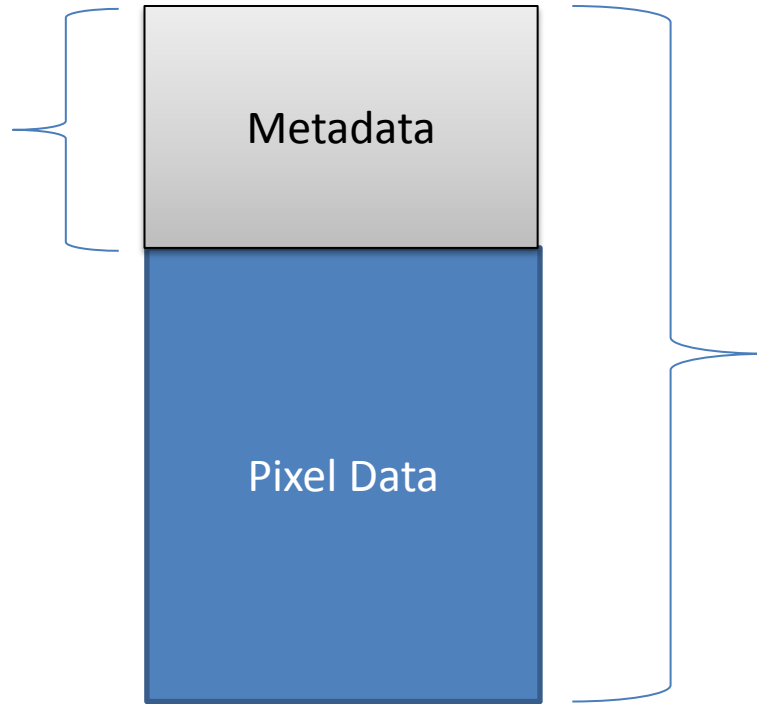
- Information Object Definition (IOD) is the DICOM specification for **metadata** items that are needed to describe a dermatology image



# DICOM file

Text-based information  
e.g. Patient name,  
medical record number,  
imaging date

Pixel data can be in  
most standard image  
encodings e.g. JPEG



DICOM file AKA  
DICOM object

# How many dermatology IODs?

- Generic dermatology image IOD ?
- Multiple dermatology IODs e.g. dermatology photographic image IOD, dermatoscopic image IOD ?



# DICOM

- DICOM has defined an information hierarchy we must follow to develop an IOD
- **IOD**
  - **Entities** e.g. Patient, Study, Series, Equipment Image
  - **Modules** e.g. General Image, Dermatological Image
  - **Attributes** e.g. Patient name, Patient DOB, Patient\_ID

<u>Image IOD</u>	SOP Class UID SOP Instance UID	SOP Common
<b>Patient</b>	Patients' Name Patient ID Patients' Birth Date Patient Sex	Patient
<b>Study</b>	Study UID Study Date Study Time Study ID Referring Physician Accession Number	General Study
<b>Series</b>	Series UID Series Number Modality Type	General Series
<b>Equipment</b>	Manufacturer Institution Name	General Equipment
<b>Image</b>	<i>Acquisition Attributes ... Position Attributes ...</i>	<i>System Depended</i>
	Image Number Image Type	General Image
	Bits Allocated, Bits Stored High Bit Rows, Columns Samples per Pixel Planar Configuration Pixel Representation Photometric Interpretation Pixel Data	Image Pixel
	Window Width Window Center	VOI LUT

Information Entity

Attribute

Module

# Attributes

- DICOM attribute
  - Unique number in format of (Group, Element)
  - Name
  - Description
  - Value Representation or data type e.g. date, string, number
  - Already over 2000 DICOM attributes

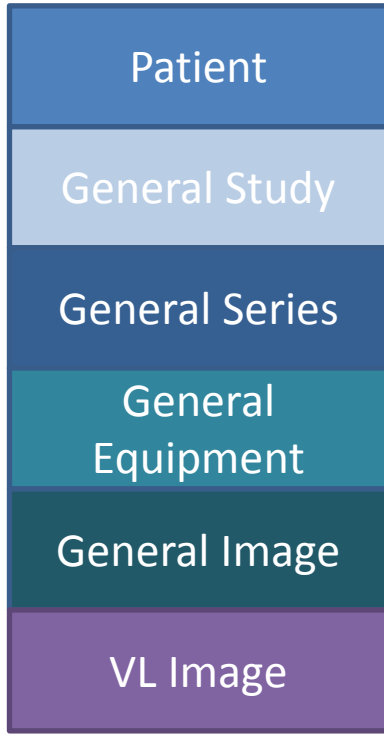


<b>Group,Element</b>	<b>Name</b>	<b>VR</b>
(0010,0010)	Patient's Name	PN
(0010,0020)	Patient ID	LO
(0010,0021)	Issuer of Patient ID	LO
(0010,0022)	Type of Patient ID	CS
(0010,0030)	Patient's Birth Date	DA
(0010,0032)	Patient's Birth Time	TM
(0010,0040)	Patient's Sex	CS
(0010,0050)	Patient's Insurance Plan Code Sequence	SQ

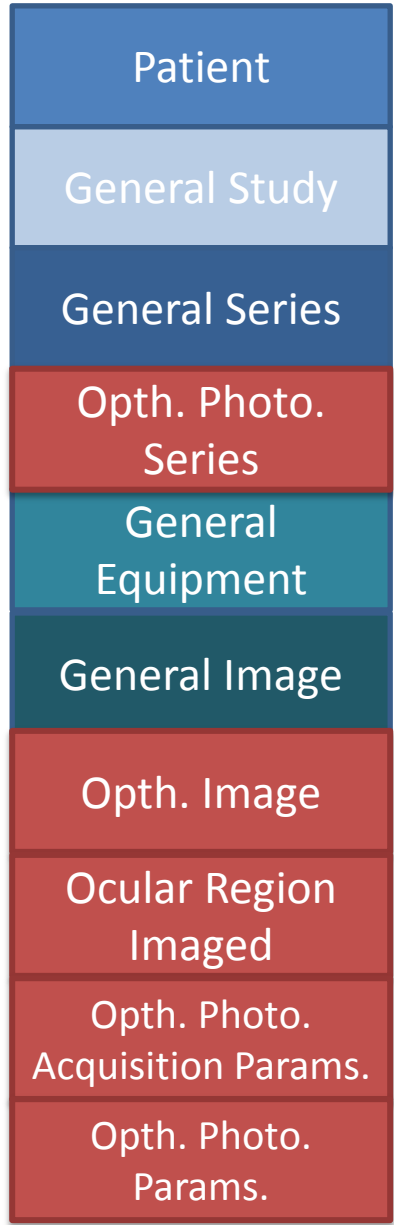
module {



**Secondary  
Capture Image  
IOD**



**Visible Light  
Image IOD**



**Ophthalmic  
Photography  
Image IOD**

# Scope Metadata Committee

- Identify existing modules we can reuse e.g. Patient, General Study, General Equipment
- Collaborate with Dermatology Technical Group to identify metadata attributes
- Logically group these attributes into dermatology specific modules
- Specify new DICOM attributes
- Specify dermatology IOD/s
- Promote

Dr Liam Caffery PhD

Senior Research Fellow / Telehealth Technology  
Director

Centre for Online Health

The University of Queensland

Email [l.caffery@uq.edu.au](mailto:l.caffery@uq.edu.au)

Web [www.uq.edu.au/coh](http://www.uq.edu.au/coh)