

ANSI Committee on Education

Standardization Case Studies

ACCOMPANYING QUESTION AND ANSWER WORKSHEET

As appropriate, please suggest recommended study, test or quiz questions / answers to accompany the case study proposed above.

Proposed Question	The DICOM standard establishes consistency in images regardless of the media that displays
	them. What type of problems does this consistency avoid for healthcare professionals?
Proposed Answer	The answer should discuss diagnostic problems that could occur, confusion that could arise if
	the images differ even slightly, and possible resulting delays or mistakes—at minimum.

Proposed Question	How do the multiple types of medical imagery complicate the DICOM standard?
Proposed Answer	The standard must address the differences in all the types of images including the method of
	capturing the image, the media storing the image, and the media presenting the image.
	Compounding these differences are those involved in communicating the media—Ethernet
	within a single site, networks between specific sites, dial-up or remote access connections
	through modem or DSL, satellite communication, etc.—including the different protocols used.
	Research may provide additional complications.

Proposed Question	Why is the DICOM Grayscale Display Function Standard so important for physicians consulting from remote locations?
Proposed Answer	This part of the DICOM standard ensures that the images will look alike on different
	equipment and different media. It ensures that everyone looking at an image sees the same
	color and density, aspects of the image that can greatly influence diagnostics.

Proposed Question	Research and discuss developing/evolving imaging techniques that will further challenge the
	DICOM committee and likely result in additions to the standard.
Proposed Answer	Discussion can include 3-D Imaging, PET and SPECT imaging, Molecular Imagery,
	Nanotechnology Imagery and other evolving technologies and what their new components
	may require of the standard.

