

Portable Data for Imaging - PDI

IHE Educational Workshop 2007

IHE Radiology Technical Committee

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PDI – The Landscape

- **The number of Digital Radiological Studies continues to increase dramatically**
- **External Referrals, Patient Transfers require the transfer of Digital Data**
- **DICOM Portable Media**
- **But don't forget the film and paper documents**

PDI -The Problems

- In the film world, looking at prior studies was easy. In the digital world, this has been complicated
 - Can I read the CD?
 - Can I read the Digital Images?
 - Can I process the Digital Images I receive?
 - How do I handle Studies from other Institutions?



PDI – Value Proposition

- **DICOM Standard (Part 10) only goes so far. PDI adds:**
 - Standardization of CD Format
 - Security
 - Clinical Image Viewer (Optional)
- **Increases the chances that the contents of the CD can be read**
- **Provides a consistent way to create and look at CDs**
- **Requires Clinical Image Data**

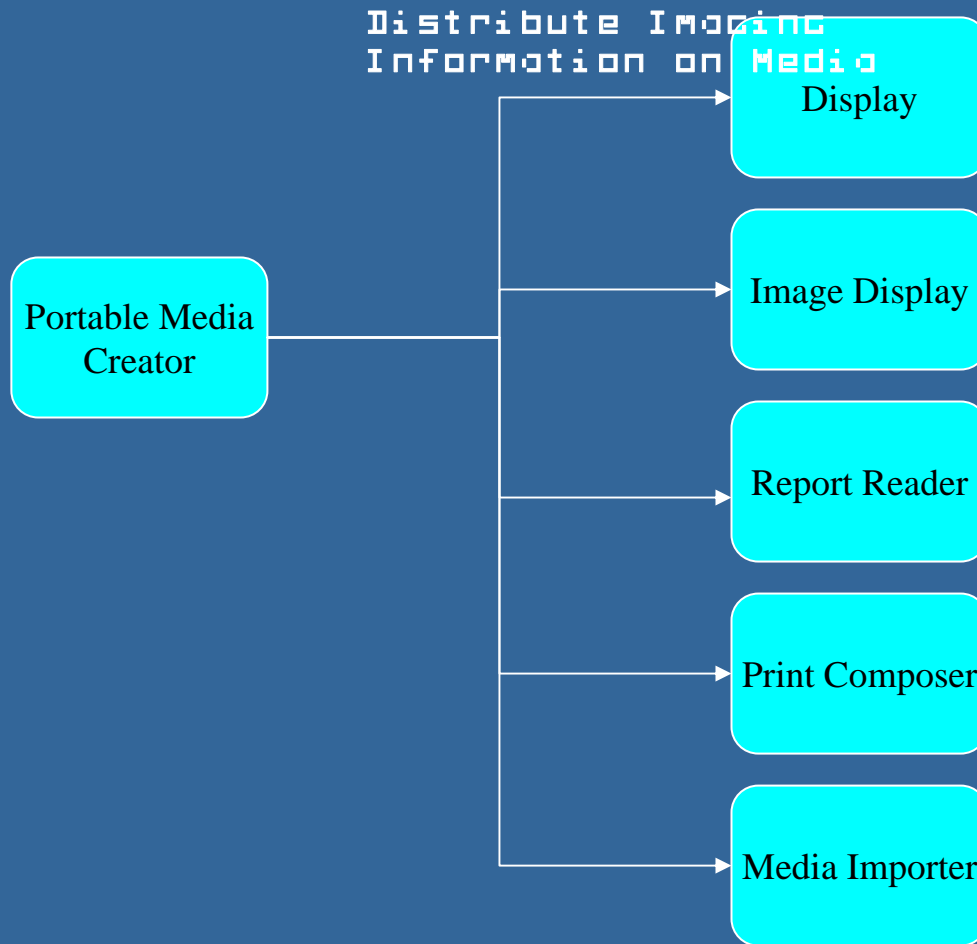
PDI – Value Proposition

- **Removable media that contains DICOM data and may contain browser viewable data.**
 - For patient personal records
 - For referral
 - For enterprise data interchange
 - For use in other departments, e.g. surgery
 - For printing
- **Media interoperability validation**
- **Browser compatibility**
- **Get CDs that you can create and read anywhere**

PDI – Value Proposition

- **Interoperability validation is especially important for media**
 - Network Interoperability Problems
 - Immediate, Unambiguous
 - Rapidly resolved
 - Media Interoperability Problems
 - Long delays in detection and recognition
 - Ambiguous or unknown source vendor/version
 - Long delays in resolution
 - Large volume of non-interoperable media created due to delays
- **IHE Connectathon for PDI solves the media validation problem**
 - Provides rapid, unambiguous detection of problems
 - Enabling rapid resolution of problems

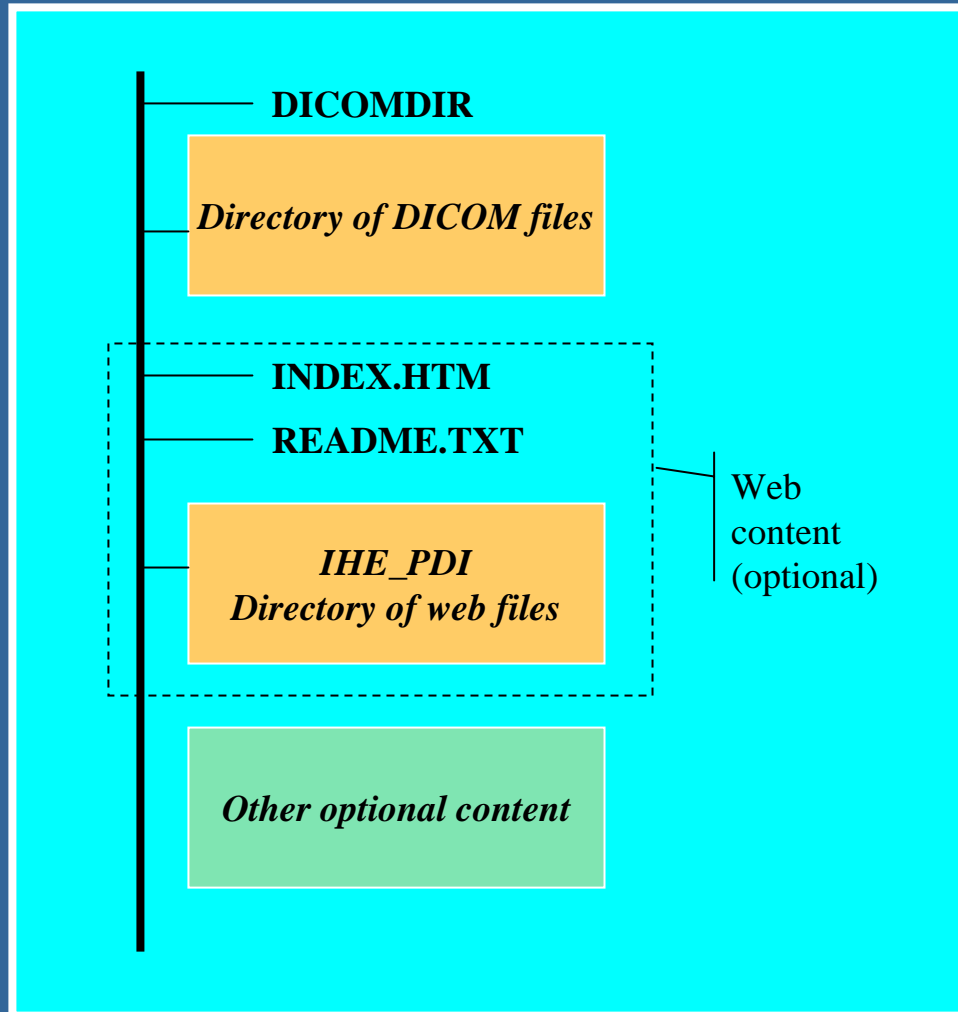
PDI – Actors and Transactions



PDI – Rules for Media Creator

- **Create DICOM Compliant CDROM media**
- **Create web content (optional)**
- **CD format must be ISO 9660 Level 1**
 - Extensions such as Rock Ridge and Joliet are permitted to support non-DICOM content
- **Names of all DICOM files are 8 characters max. (no extensions)**
- **May create other non-DICOM data sets**
 - XDM in IHE_XDM Directory

PDI – CDROM Structure



PDI – CD Rules

- **DICOM Part 10 (Media) compliance will be verified**
- **Web content must have matching DICOM content on the CD (If you can see it, your PACS can see it)**
 - Web content can be a subset of the DICOM content.
- **No other content goes in DICOM or IHE_PDI directories**
 - Other content may be placed in other directories but all bets are off
- **Include DICOM Viewers on the disk only as a fallback**
 - Any DICOM software can already read the DICOM;
Any browser can already read the Web Content
 - Most readers have their own (preferred) viewer
 - Auto-launch is a security risk so IHE recommends disabling it
 - Put a viewer launch link in the index.htm instead.
- **Use of XHTML & JPEG is constrained to ensure interoperability**

PDI – Rules for Reading Actors

- **Not required to support every kind of DICOM object**
 - Required to tell user about unsupported DICOM objects found on the CD
- **Disabling CD “autorun” is recommended**
 - It’s a security risk and a help desk headache (viruses, trojans, conflicting installs, etc)
 - Many hospital policies already require disabling it

PDI – Rules for Importer

- **Must support update of patient/study details**
 - Patient ID, accession #, study codes must not conflict with receiving enterprise
- **Must group with at least one of the following actors:
(to do something useful with the imported data)**
 - Evidence Creator
 - Acquisition Modality
 - Image Manager/Image Archive
 - Report Creator
 - Report Manager
 - Report Repository