X3D Medical Working Group of Web3D Consortium

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Medical Working Group Related Activities

- Mirror4All*
- NIH 3D Print Exchange
- Visualization of data through FHIR
- CPET visualization
- Zebrafish Brain Browser*

*Leverages work on Volume Rendering Component of X3D
Mirror4All

• Volume rendering of any CT or MRI scans
• No app required, works in the browser
• Files processed locally to preserve privacy

http://sayra.kshell.com/mirror/index.html
NIH 3D Print Exchange

- 3D printable models depository
- Scientifically accurate
- Medically applicable
- Special COVID 19 Section for PPE

https://3dprint.nih.gov/
Visualization of Healthcare Data Through FHIR

- **Fast Healthcare Interoperability Resources**
- HTTP-based, resource-oriented RESTful API
- Uses XML and JSON

X: Age Group vs. Y: Race vs. Z: Average Length of Stay (minutes)

CPET Visualization

- **CardioPulmonary Exercise Testing**
- Normally in numerous tables and graphs
- Can be combined into 3D graphs for easier comprehension and insights

Case Source: *Principles of Exercise Testing and Interpretation, 5th Ed.*
Case 20: Myocardial Ischemia: Coronary Artery Disease in a Previously Athletic Man

http://www.kshell.com/pages/PETvisualization/index.html
Thank you!!