Images have been part of the digital data world since the beginning, yet they have never been easy to store, search, retrieve or share. Over time, many formats for image files have been developed, and most are still in use, creating a wide array of image data and metadata structures and format. Each format requires specialized tools that rely mainly on the extension in the filename to determine the format for a specific image. Further, new compression techniques arise that break current tools, forcing users to continually research and update their tools.

Mission and Scope

The mission of the Imaging TF is to facilitate the creation, deployment, and use of standard semantics related to storage, search, retrieval, transfer and use of images of all formats. Part of these semantics include the ability to detect it, when, how, and by whom, an image has been modified from its original content.

The scope of the Imaging TF is all currently standard non-specialized imaging formats (e.g. PNG, TIFF, GIFF, JPEG, BMP), and any new non-specialized imaging formats that come out in the future. Specialized imaging formats, such as those used in medical imaging, are reserved for separate TFs that will build upon the work of the Imaging TF.

Intellectual Property Rights (Copyright, Patent, Source Code)

This TF uses the same IPR licensing selections as the ToIP Decentralized Semantics WG:

- **Copyright mode**: Creative Commons Attribution 4.0.
- **Source code**: Apache 2.0.

Conveners

- Scott Whitmire (Mayo Clinic)
- Moira Schieke (Cubismi)

Interested Members (add your name and organization if you may be interested in joining this TF)

- Paul Knowles
- Robert Mitwicki
- Kevin Wittek
- Rohan Pinto
- Victoria Lemieux
- Burak Serdar
- Chris Raczkowski

Objectives

The objectives of the Imaging TF are to:

- Design and create a schema base suitable for use for all types of images as well as the overlays necessary for use with the currently common image formats.
- Create templates and processes to develop and deploy overlays to extend the schema base to other image types, such as the rich metadata associated with medical imaging. The overlays created by the TF and others will include pointers to image interpretation algorithms appropriate for the image format and compression scheme.

Technical components

The Imaging TF architecture will build upon the core components of Decentralized Semantics.

Other candidate technologies include

- Blockchains and Smart Contracts – with strong auditing properties
- Ontologies and knowledge representation languages which enable conversion of medical terminology and processes into machine-readable formats
• Flexible and expressive data modelling provided by *Overlays Capture Architecture* (OCA)
• Advances in digital identity and verification – such as *Decentralized Identifiers* (DIDs) and *Verifiable Credentials* (VCs)

Example use case

Deliverables

Proposed schedule

Shared documents and links

• *Kevin Wittek* would like to discuss the potential of ISCC - Content Identifiers integration