Context

Mògāo Caves:
- Comprise a network of 492 Buddhist temples
- Contain thousands of sculptures, murals, and cultural artifacts
- Accessed by over 1.1 million people every year

Digital Dūnhuáng Project (DDP):
- Digitize the contents of the Mògāo Caves to:
  - Preserves the cultural artifacts for the future
  - Allows people to visit virtually
- Have already photographed 120 of the caves
- Created 941,421 images (and will eventually grow to ~4 million)

Supporting Scholarship

Why are scholars interested in DDP?
- Access to high-resolution, high-quality images
- Cultural artifacts are significant
  - Cover ~1000 years of history (~400-1400 CE)
  - Preserved due to the dry climate
- Cheaper, easier, and more efficient than traveling to the site

How could scholars be supported?
- Through the creation of digital architecture that supports:
  - Finding, identifying, and retrieving artifact images
  - Creating a rich corpus of annotations
- Facilitating electronic scholarly discourse
- Through an inventory of the images that notes both:
  - Provenance
  - Contents

Digital Architecture Components

What kinds of digital architecture components?
- Persistent identifiers
- Provenance metadata
- Entity typing
- Digital annotations

Why these kinds of components?
- **Persistent identifiers** provide a strong means to find, identify, and differentiate different kinds of digital and intellectual objects from one another.
- Rich **provenance metadata** help scholars assess the utility of each object with regards to their research.
- **Entity typing** provides machine-level access to the data.
- Robust **digital annotations** allow scholarly work to take place across a wide, distributed area.

Existing Ontologies & Standards

CIDOC Conceptual Reference Model

W3C Web Annotation Standard

References