

NERC Vocabulary Server: V2

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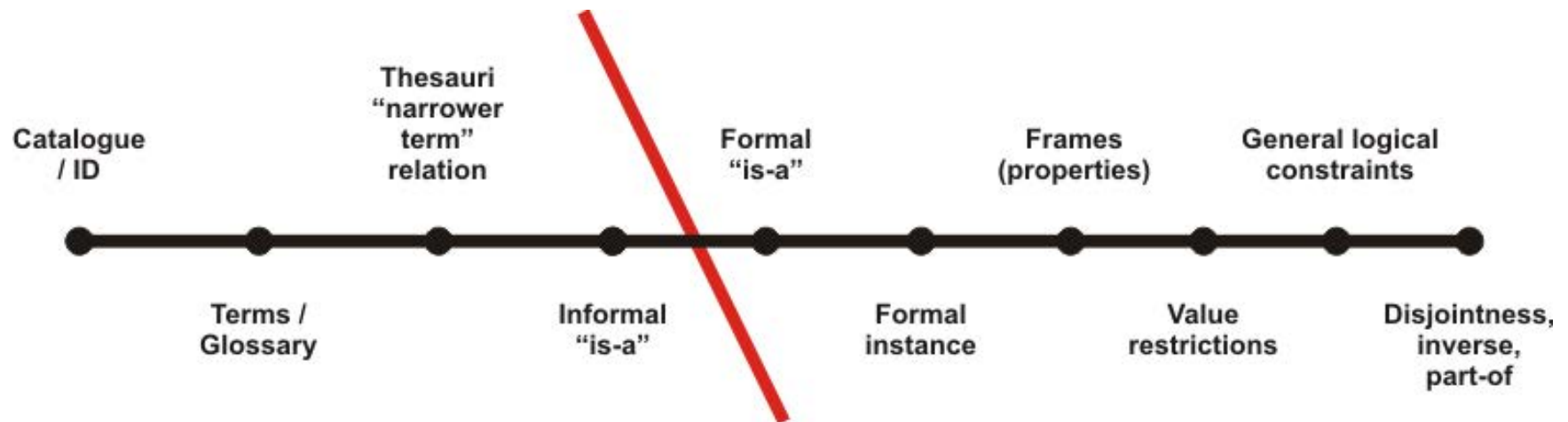
Overview

- Motivation
- Design
- Delivery of the ICAN Coastal Erosion “ontology”



Why?

- Controlled Vocabulary / Thesaurus / Ontology
 - Define “concepts”
 - And, with increasing detail / complexity, relations



Why?

- Why have a vocabulary server?
 - Central point of access to semantic store
 - Common referencing of concepts
 - Version control



Why?

- NERC Vocabulary Server live since 2005
 - As version 0, version 1.X since 2007
 - Used successfully as semantic backbone for
 - NERC Data Grid
 - SeaDataNet
- But
 - Web technology moves on
 - Reaching limit of what version 1.X could deliver
 - Design errors in V1 need to be fixed without disruption to a large user base

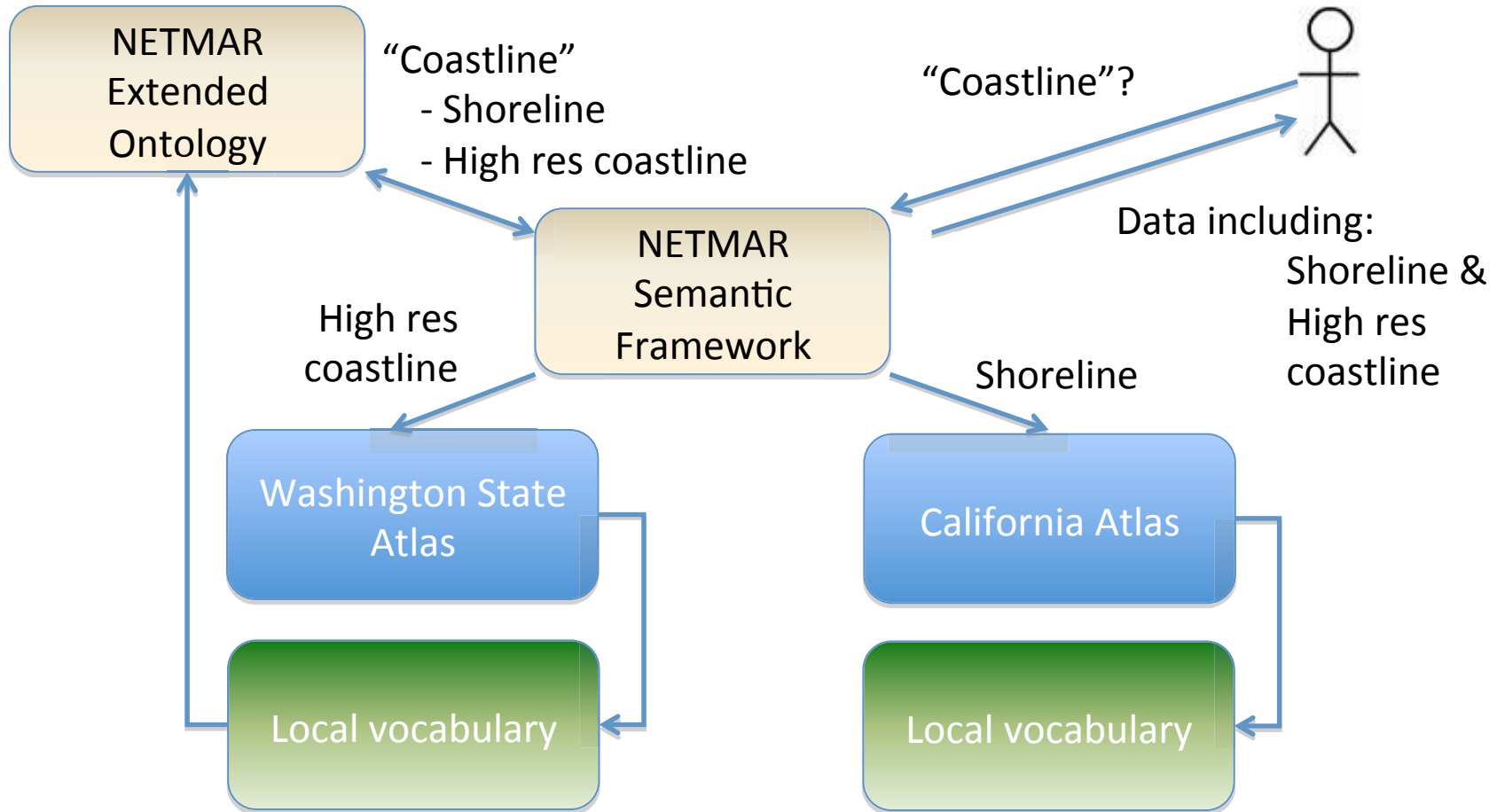


Why?

- NETMAR/ICAN
 - Easy discovery of and access to
 - multilingual and multidomain metadata and data products
 - including real-time, historical, reference, and dynamically generated datasets
 - fit for transparent integration into both NETMAR EIS and coastal web atlases



Why?



How?

- Based on latest (semantic) web standards
 - As set by W3C
 - Payload
 - RDF/XML
 - SKOS (2009)
 - Access
 - ReST
 - SOAP



How?

- Design driven by requirements of NETMAR
 - ICAN is a pilot study under NETMAR
- Design principles
 - Concepts
 - Concept collections
 - Concept schemes



How?

- Design features
 - Governance information
 - Who is responsible for creating the information?
 - Who is responsible for publishing the information?
 - Mappings to concepts outside the NVS
 - “Ontology extension”
 - Hook into, e.g. GEMET, GCMD
 - Support for multiple human languages



How?

- Client tools
 - SKOS Browser
 - Rendering XML in a human readable way
 - Google-like search interface
 - Vocabulary editor
 - The latter two tools are built on the NVS API



What?

- XML
 - <http://vocab.nerc.ac.uk> – coming soon...
 - Navigable as HTML
 - An XSLT over the top of the RDF/XML resource
- SOAP
 - WSDL allows applications to interface the NVS



