Fostering Interoperability in Support of Trade Facilitation: an Academic Vision

Health Warning

- This presentation represents the opinion of an individual academic
- Statements in this talk are not scientifically justified
- Not agreeing to this statements may cause a headache
Syntax vs Semantics

Syntax is also used to refer directly to the rules and principles that govern the sentence structure of any individual language.

Semantics is the study of meaning. It focuses on the relation between signifiers, like words, phrases, signs, and symbols, and what they stand for, their denotation.
Requirements vs. Technology

Source: Klaus-Dieter Naujok, 2003
Open-edi

Conceptual Model

- A model is anything used in any way to represent anything else.
- Some models are physical objects (e.g. miniature model).
- A conceptual model is a model that exists only in the mind.
- Conceptual models help us know and understand the subject matter they represent.
- Conceptual models represent human intentions or semantics
Trade Facilitation: The simplification, standardization and harmonization of procedures and associated information flows required to move goods from seller to buyer and to make

Don’t argue about the modeling language
We share our experience

Semantic Reference Points

Context Specific Requirements Specifications

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Context Specific Requirements Specifications

Context Specific Requirements Specifications

Union

The “Union” Approach

Industry A

Industry B

union

Standardization Body

One-fits-all Standard
Union Approach

Standard:

Message Implementation Guides

Standard
MIG Industry Level
MIG Company/Organisation Level
MIG Partner Level

Standards and their usage

Union Standardization Approach

Standards Usage

Intersection Standardization Approach
<table>
<thead>
<tr>
<th>National Application</th>
<th>International Application</th>
<th>Company Masters and Forms</th>
</tr>
</thead>
</table>

**United Nations System of Aligned Documents**

- **International Applications:**
  - International Sectoral Layout Key
  - International Standard Form

- **National Applications:**
  - National Layout Key
  - National Masters
  - National Standard Form

**United Nations Layout Key**

**Free disposal**
Union vs. Intersection

The “Union” Approach

Industry A  Industry B  \[
\Rightarrow \quad \text{Standardization Body} \quad \Rightarrow \quad \text{One-fits-all Standard}
\]

The “Intersection” Approach

Industry A  Industry B  \[
\Rightarrow \quad \text{Standardization Body} \quad \Rightarrow \quad \text{Core Standard}
\]

OPPORTUNITY