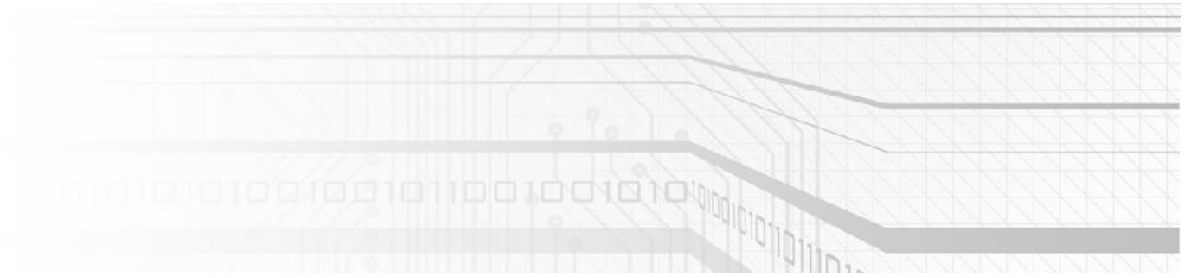


Interoperability: Where are we now and where are we going?



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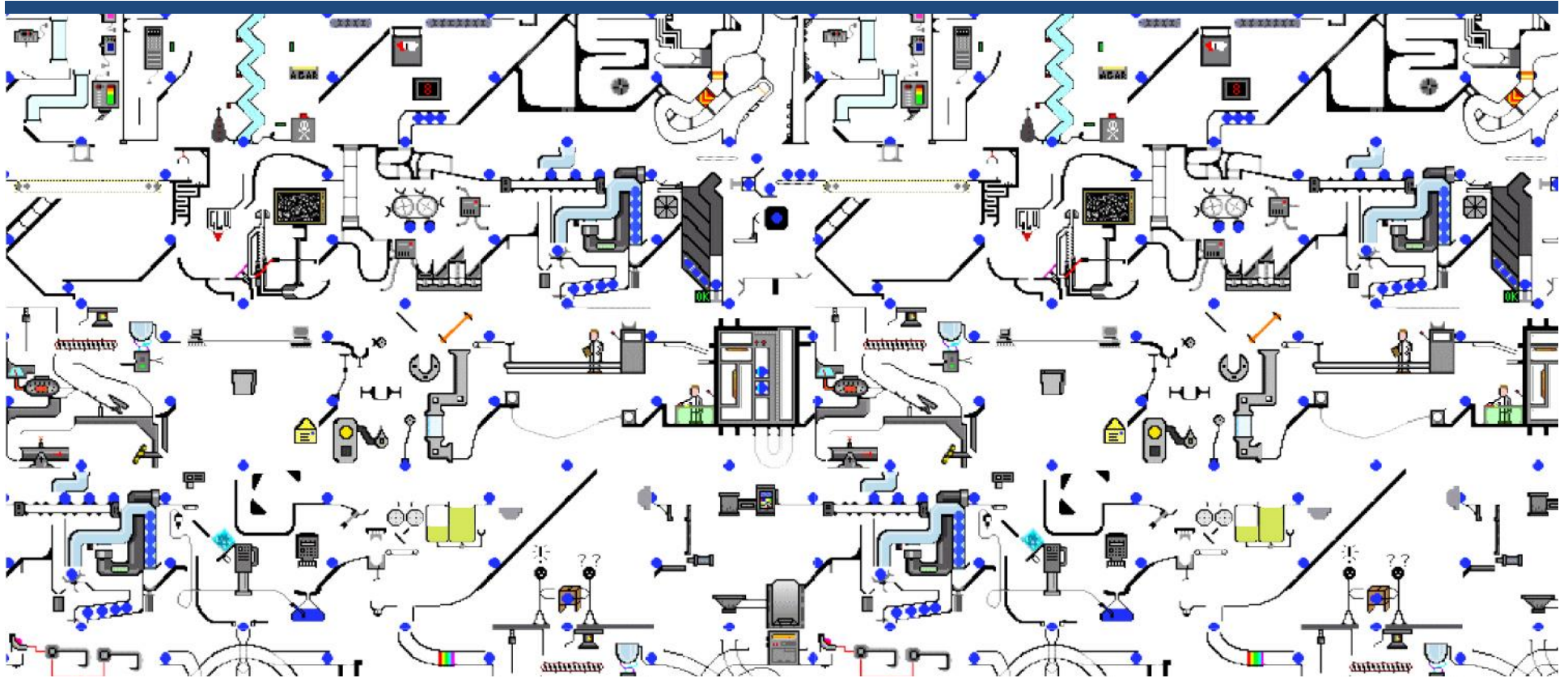


STANDARDS AND INTEROPERABILITY: HARD IN THE CONCRETE, IMPOSSIBLE IN THE ABSTRACT



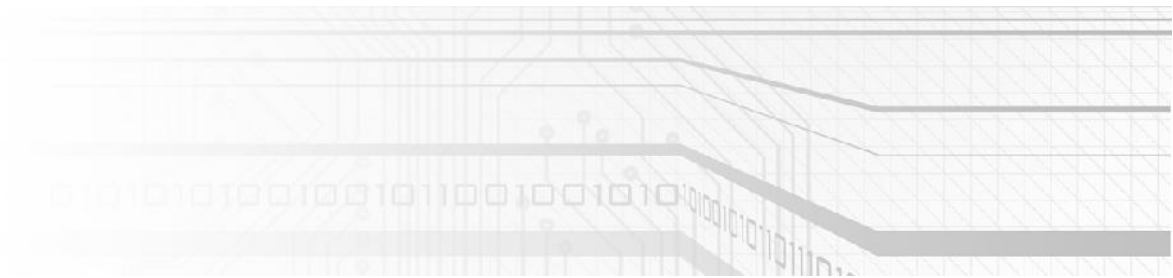
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Interoperability only makes sense in the context of what you want to DO



Interoperability (IEEE)

- Ability of two or more systems to **exchange** information
- Ability of those systems to **use** the information that has been exchanged

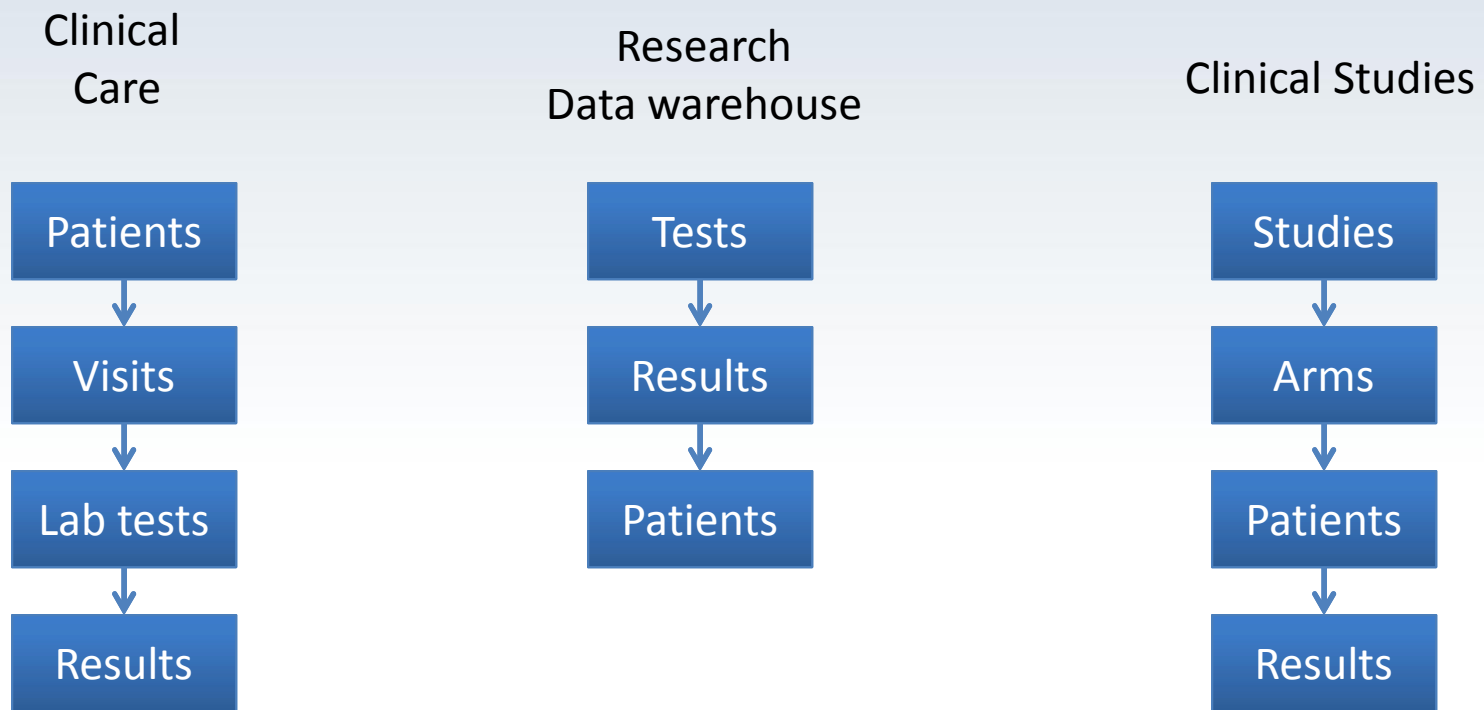


**THERE WILL NEVER BE ONE MODEL
TO RULE THEM ALL**

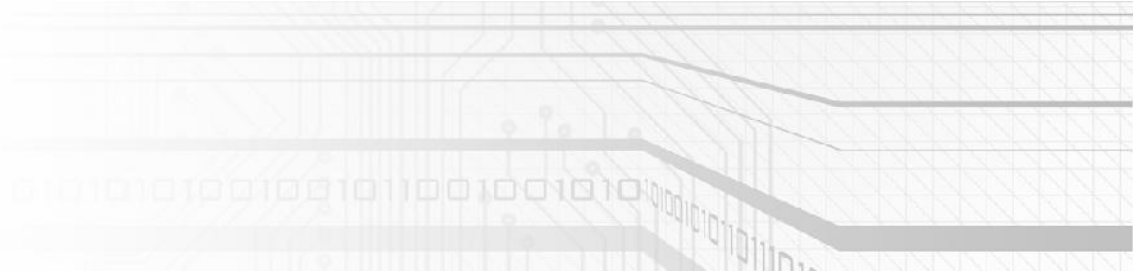


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Different information models of the same information



Technical stack



Meaning

How should well-defined values be coded so that they are universally understood?

Content Structure

How should the message be formatted so that it is computable?

Transport

How does the message move from A to B?

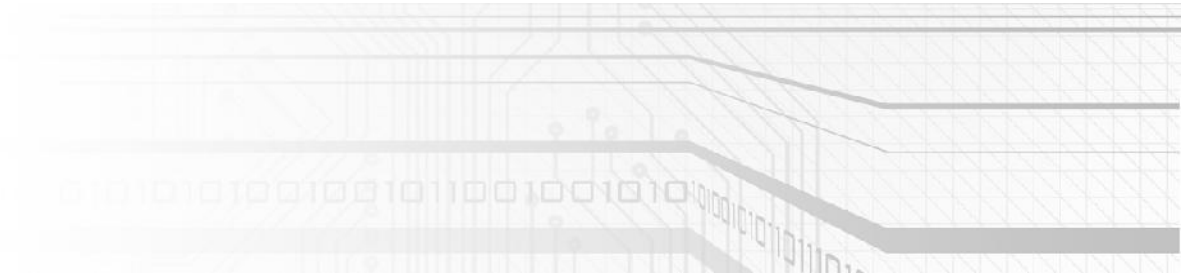
Security

How do we ensure that messages are secure and private?

Services

Purpose-specific APIs and services that leverage the 4 other building blocks



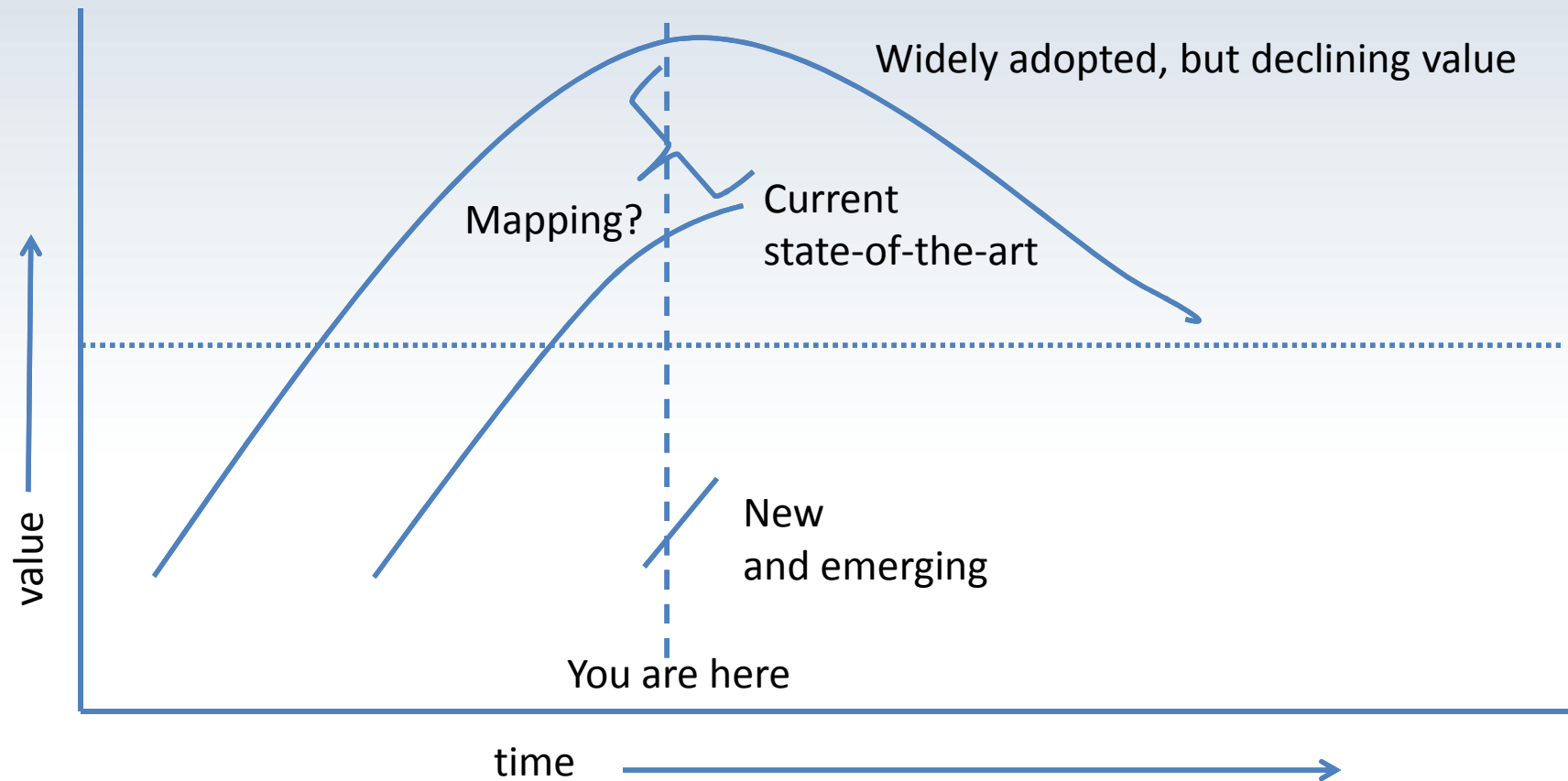


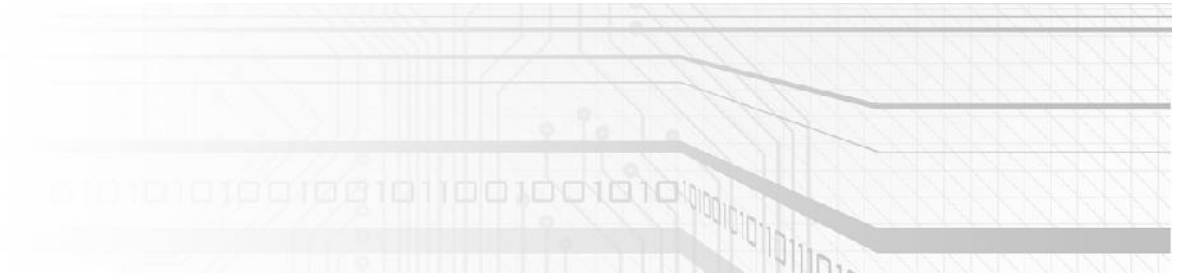
**THE ONLY STANDARD YOU NEVER
CHANGE, IS A STANDARD YOU NEVER
USE**



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Standards life cycle

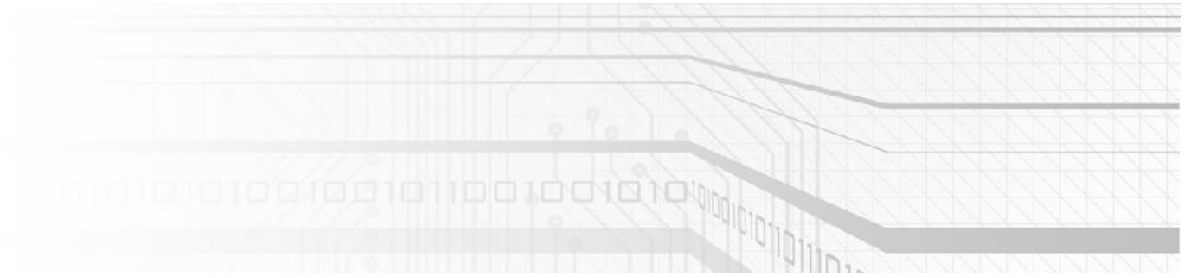




A PATH OF LEAST REGRET: THREE THINGS WE NEED



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**BUILD DOCUMENTS FROM DATA,
NOT THE OTHER WAY AROUND**

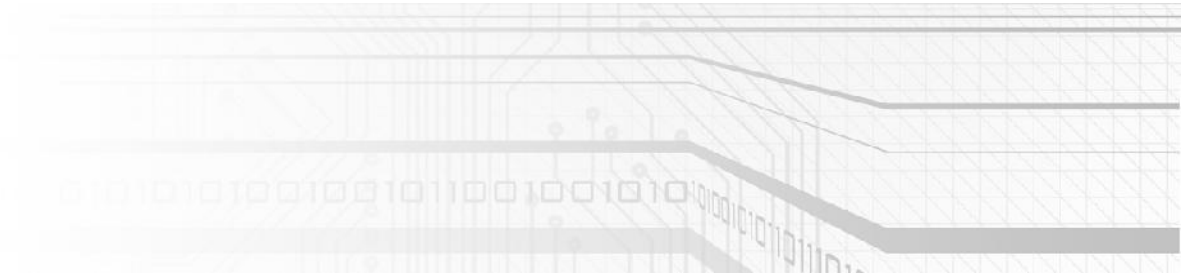


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What is needed: A common format for granular data

- Quality Measures
- Clinical Decision Support
- Registries
- Common data formats for
 - Text data
 - Categorical data
 - Numerical data
 - More...





FULL EXPORT OF THE PATIENT RECORD (AND NARRATIVE)



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Restore the importance of the narrative and unstructured text

- Move patient between vendor “ecosystems”
- Precision medicine
- Restore the balance of power for access to data
- Maintain the importance of the narrative in the medical record





TEST BOTH SIDES OF EXCHANGE



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Postel's principle

- When you send, conform to the standard
 - Pick a set of options and make sure it conforms to a valid instance of the standard
- When you receive, accept ANY version that conforms to the standard
 - Any variation that is valid
- Create the conditions of interoperability when you create the standard, rather than when you implement it

