

SOLO

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Simplicity does not precede
complexity, but follows it...

— Alan Perlis

Landscape Maturation

Terminology Standards acceptance by numerous organizations

- SNOMED
 - Ownership changed to international consortium of countries, now acceptable license terms and availability. Part of Meaningful Use standards
- RxNorm
 - Freely available from NLM, part of meaningful use standards
- LOINC
 - By joint agreement, being made interoperable with SNOMED through use of Description Logic definitions of LOINC codes against SNOMED primitives

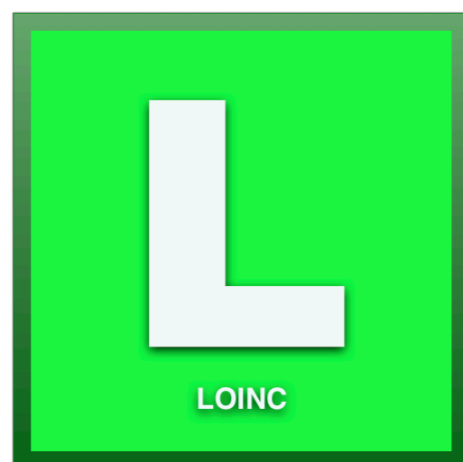
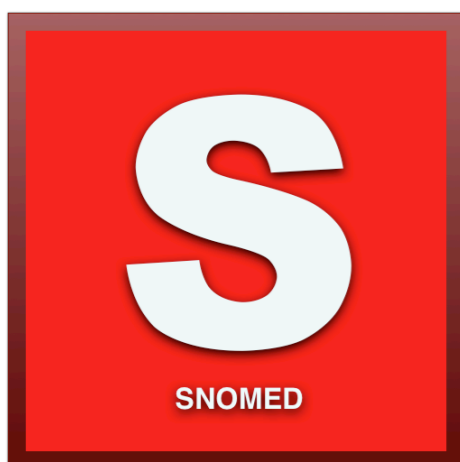
Why we can simplify now?

- Licensing models have changed so we can implement native standards
- DL classifiers are now available under Apache open source licenses
- LOINC and SNOMED are integrating content via a shared DL model
- RxNorm can be extracted into a shared DL model
- SNOMED + LOINC + RxNorm + post-coordination provides comprehensive coverage for typical clinical data representation requirements



SOLO

An Logical Foundation





S

SNOMED

L

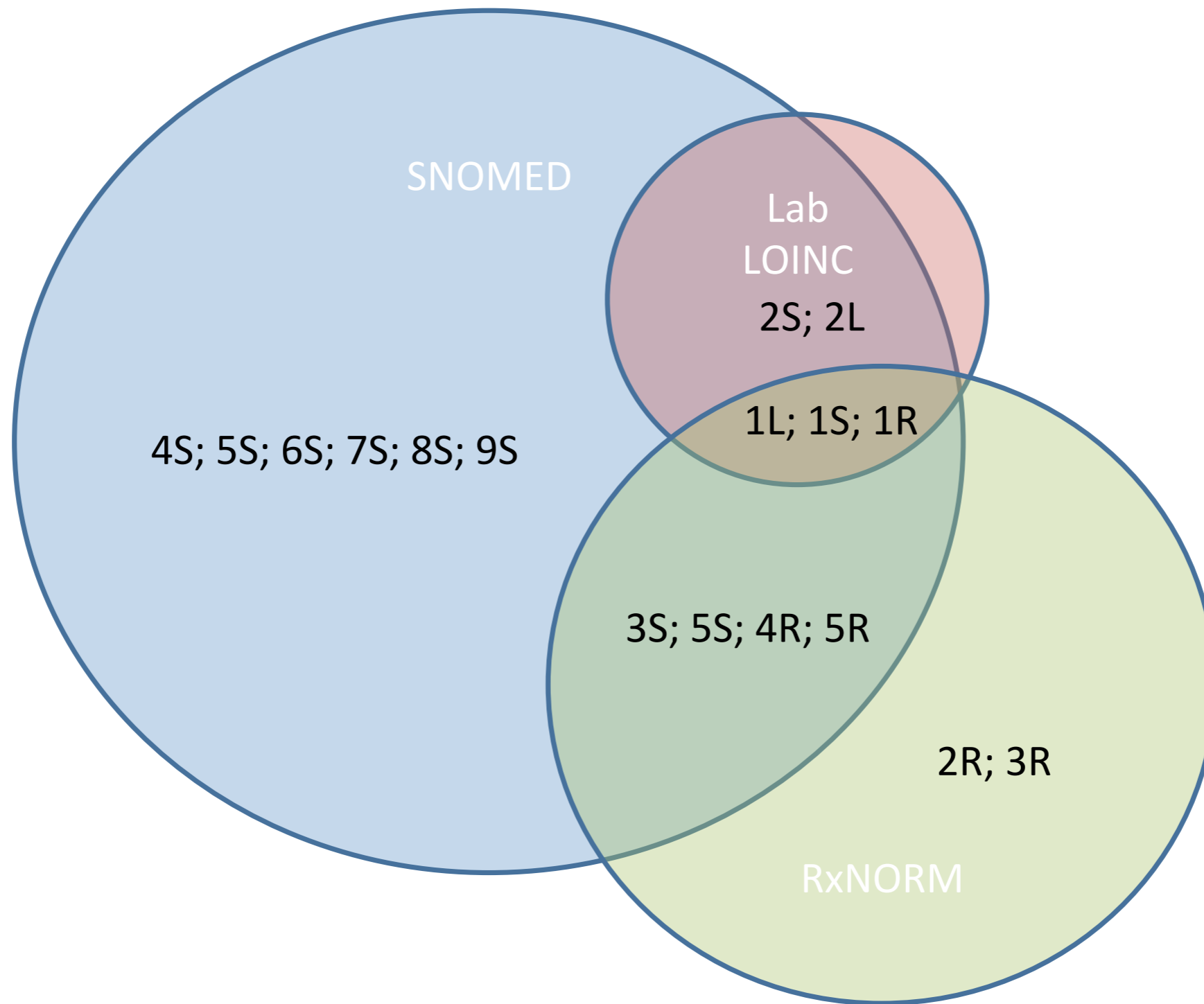
LOINC

R

RxNorm

SOLOR Benefits

- Normalize structure and form of clinical terminology
 - Improve software reuse
 - Shared tooling
 - Reduce learning curve
 - Shared post-coordination model
 - Simplified data analysis



SNOMED, LOINC, and RxNORM

Overlap Details

LOINC:

1L: Gentamicin is a component loinc (GENTAMICIN)

2L: Gentamicin is a component of a laboratory tests in loinc (Gentamicin^peak)

SNOMED:

1S: Gentamicin is a substance in SNOMED CT (a component in LOINC)

2S: Gentamicin is a component of a laboratory test in SNOMED (gentamicin peak)

3S: Gentamicin is a PRODUCT in SNOMED CT (a substance manufactured and sold)

4S: Gentamicin is an ALLERGEN in SNOMED CT

5S: Gentamicin is a presented in Prescribable/Dispensable forms in SNOMED
(Gentamicin bone cement; Gentamicin 0.3% preservative-free eye drops)

6S: Gentamicin is specified in SNOMED administration and removal procedures
(Insertion of Gentamicin beads into bone; Removal of Gentamicin beads from bone)

7S: Gentamicin is specified in poisonings/overdoses

8S: Gentamicin allergic reactions are defined clinical situations

9S: Acute drug-induced renal failure is a disorder in SNOMED

RxNorm:

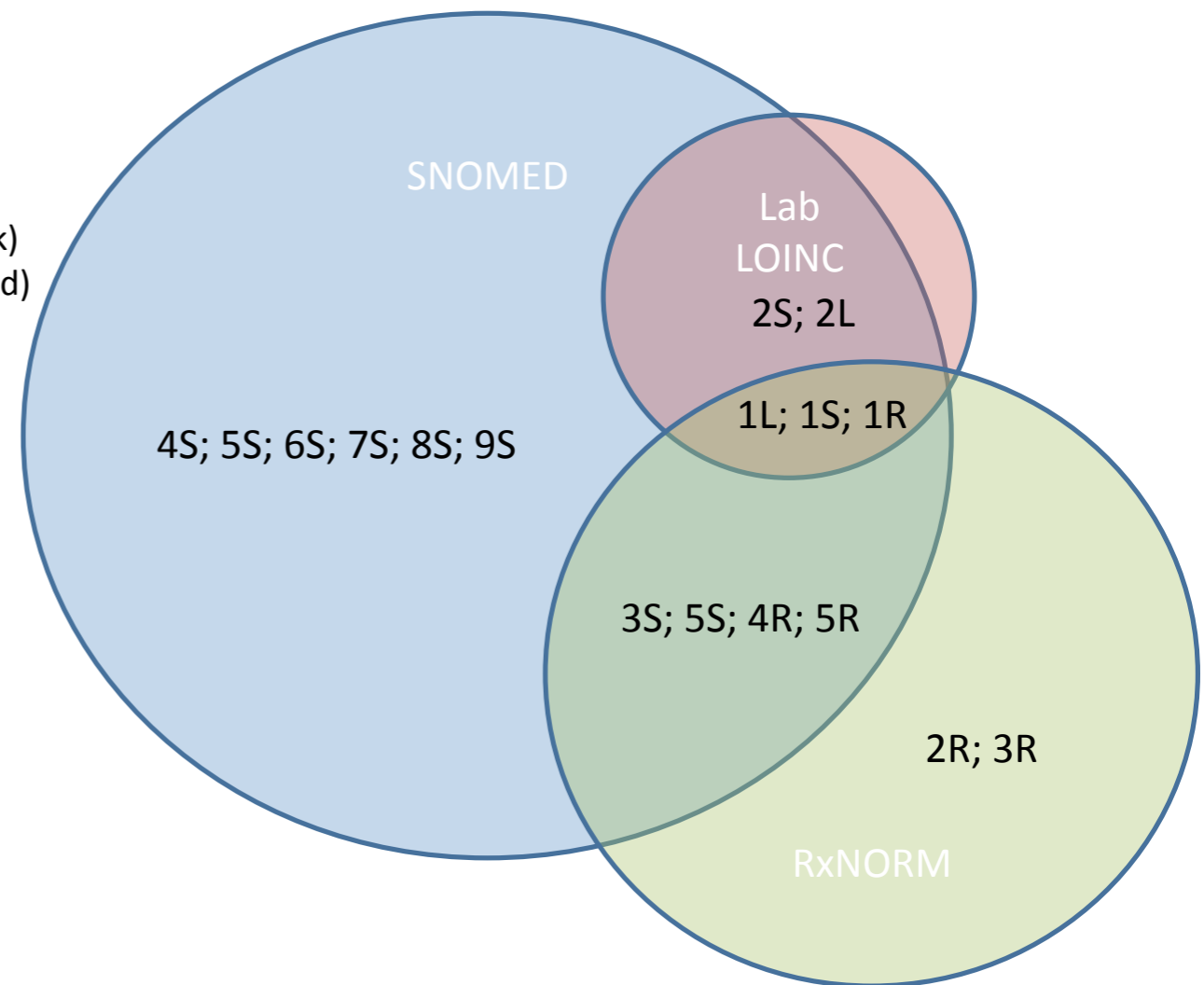
1R: Gentamicin is an ingredient in RxNorm (GENTAMICIN SULFATE)

2R: Gentamicin is a basis of strength in RxNorm (GENTAMICIN)

3R: Gentamicin is linked to Human Prescription Drug Labels

4R: Gentamicin is a presented in Prescribable/Dispensable forms in RxNorm
(gentamicin sulfate 0.3 % Ophthalmic Solution)

5R: Gentamicin is a PRODUCT in RxNorm (a substance manufactured and sold)



Standard Extension Model

- SOLOR design is based on SNOMED data structures
- SNOMED is designed to allow the International Edition to be enhanced by adding Extensions that address national or local requirements
- SNOMED design also includes the Reference Set mechanism which provides a standard way to customize and enhance content for use in a particular country, language, specialty, application or context.

Summary

- Terminology Landscape has changed
 - Integration of key systems is possible
 - Integration can simplify implementation
- Extension model enables
 - Timely means to meet local needs
 - Defined contribution process
 - Standard way to enhance content
 - Dialect creation
 - Knowledge bases