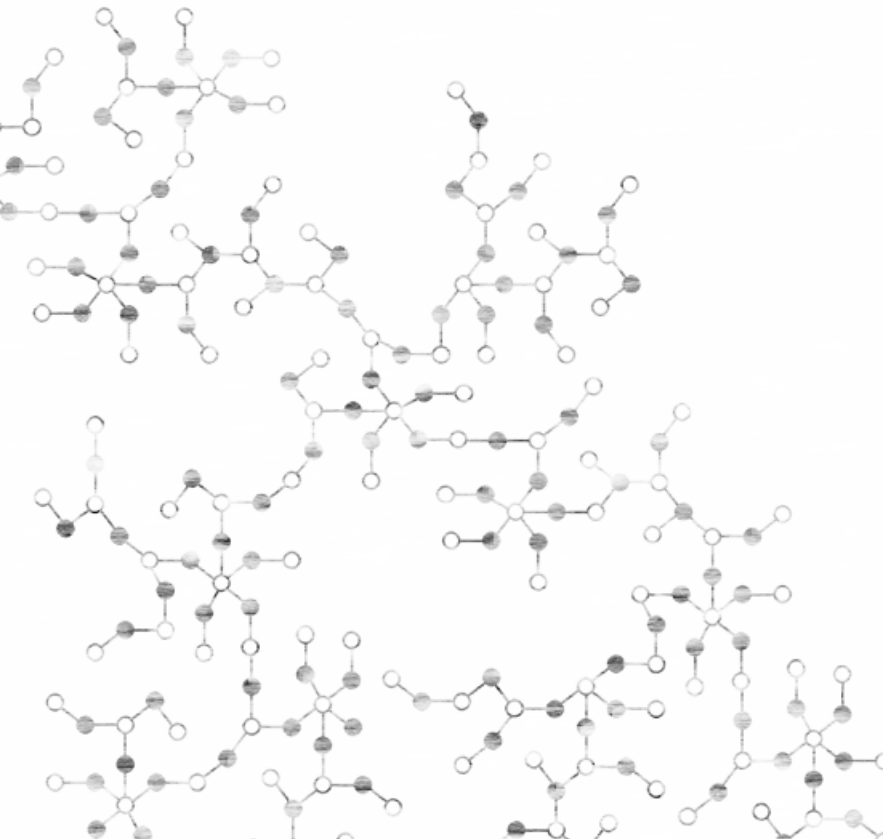


Linked Data and Canadian Legal Resources

F. Tim Knight
Osgoode Hall Law School Library
York University

CanLII Law, Government and Open Data
Conference and Hackathon
September 13th-14th, 2013 in Ottawa, Ontario



Outline:

Review of linked data theory and principles

Growth of the linked data cloud

Linked data and legal resources

Role for organizations like CANLII

Linked data?

○ Subject

○ Subject

○ Object

○ Subject

○ Object

● Predicate



Subject



Object



Relationship

Triple



Triple



Case *has a* Citation

Triple



Case *has a* Citation

Court *has a* Name

Triple



Case *has a* Citation

Court *has a* Name

Resource *has a* Format

COURT OF APPEAL FOR ONTARIO

CITATION: Royal Bank of Canada v. King, 2013 ONCA 524
DATE: 20130822
DOCKET: C57108

Blair, Watt and Pepall JJ.A.

BETWEEN

Royal Bank of Canada

Plaintiff (Respondent)

and

Leslie King

Defendant (Appellant)

Leslie King in person

Amanda Jackson for the respondent

Heard: August 19, 2013

On appeal from the judgment of Justice J.A. Ramsay of the Superior Court of Justice, dated May 23, 2013.

APPEAL BOOK ENDORSEMENT

[1] Mr. King owed the Royal Bank approximately \$275,000 on a mortgage loan, a line of credit and various credit card accounts. He does not dispute this. He defaulted. The Bank took steps to collect and obtained summary judgment.

[2] Mr. King appeals, arguing there are genuine issues for trial. We do not agree. His principal argument is that he paid the Bank. He did not. What he did was present an instrument to the Bank purporting to be payable to Royal Bank of Canada in the amount of \$275,000 and drawn on an account with Bank of Montreal in which he admits he had no funds. The fact that Royal Bank mistakenly credited his loan accounts with the monies – including the account containing the \$777.56 credit upon which Mr. King relies – before it learned that the instrument had been dishonoured is not material. Nor do the various provisions of the Canadian Payments Association Rule, which apply as between banks, assist him.

[3] He has not paid. There is no genuine issue for trial and the motion judge properly granted summary judgment, in our view.

[4] The appeal is therefore dismissed. The respondent is entitled to its costs of the appeal and of the stay motion fixed in the total amount of \$10,000 including disbursements and GST.

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Case A *has defendant* Leslie King

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Case A *has docket number* C57108

Case A *has plaintiff* Royal Bank of Canada

Case A *has defendant* Leslie King

Case A *was heard in* Court of Appeal for Ontario

Case A *has docket number* C57108

Case A *has plaintiff* Royal Bank of Canada

Case A *has defendant* Leslie King

Case A *was heard in* Court of Appeal for Ontario

Primary Key	Property	Value
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Case A	Plaintiff	Royal Bank of Canada
Case A	Defendant	Leslie King
Case A	Heard in	Court of Appeal for Ontario

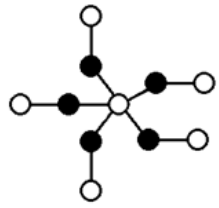
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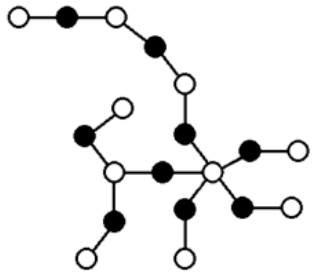
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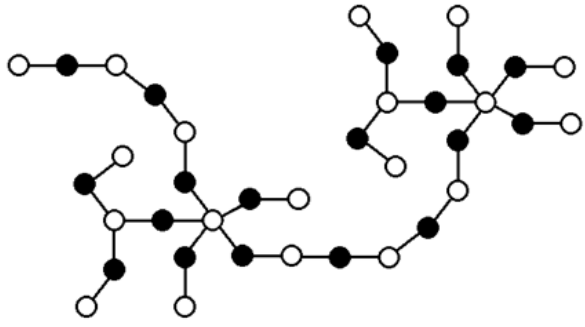
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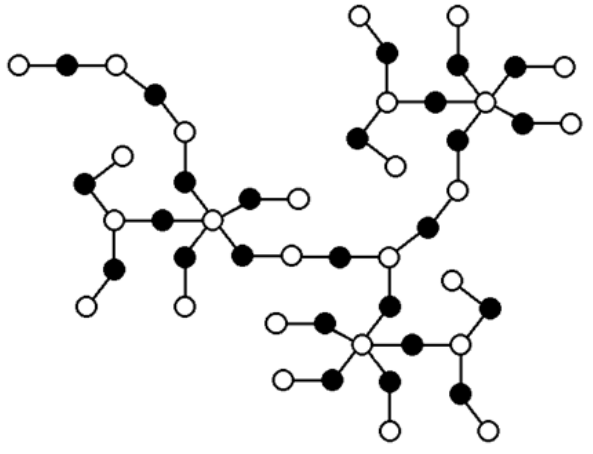
Case A	Heard in	Court of Appeal for Ontario
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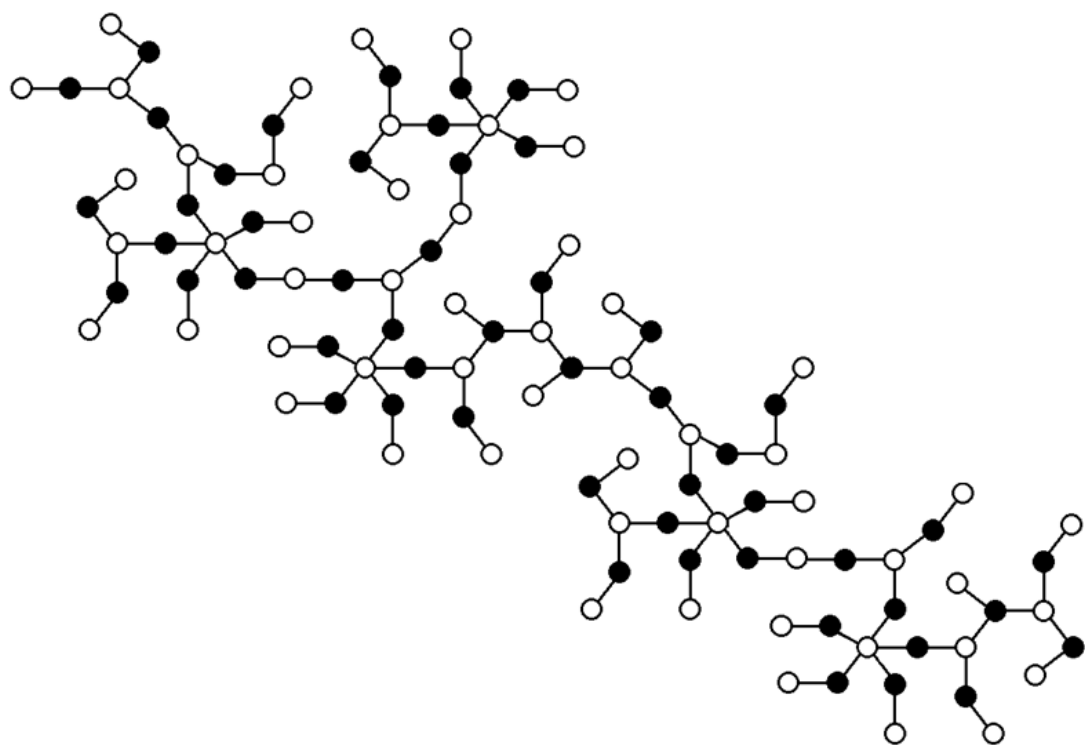


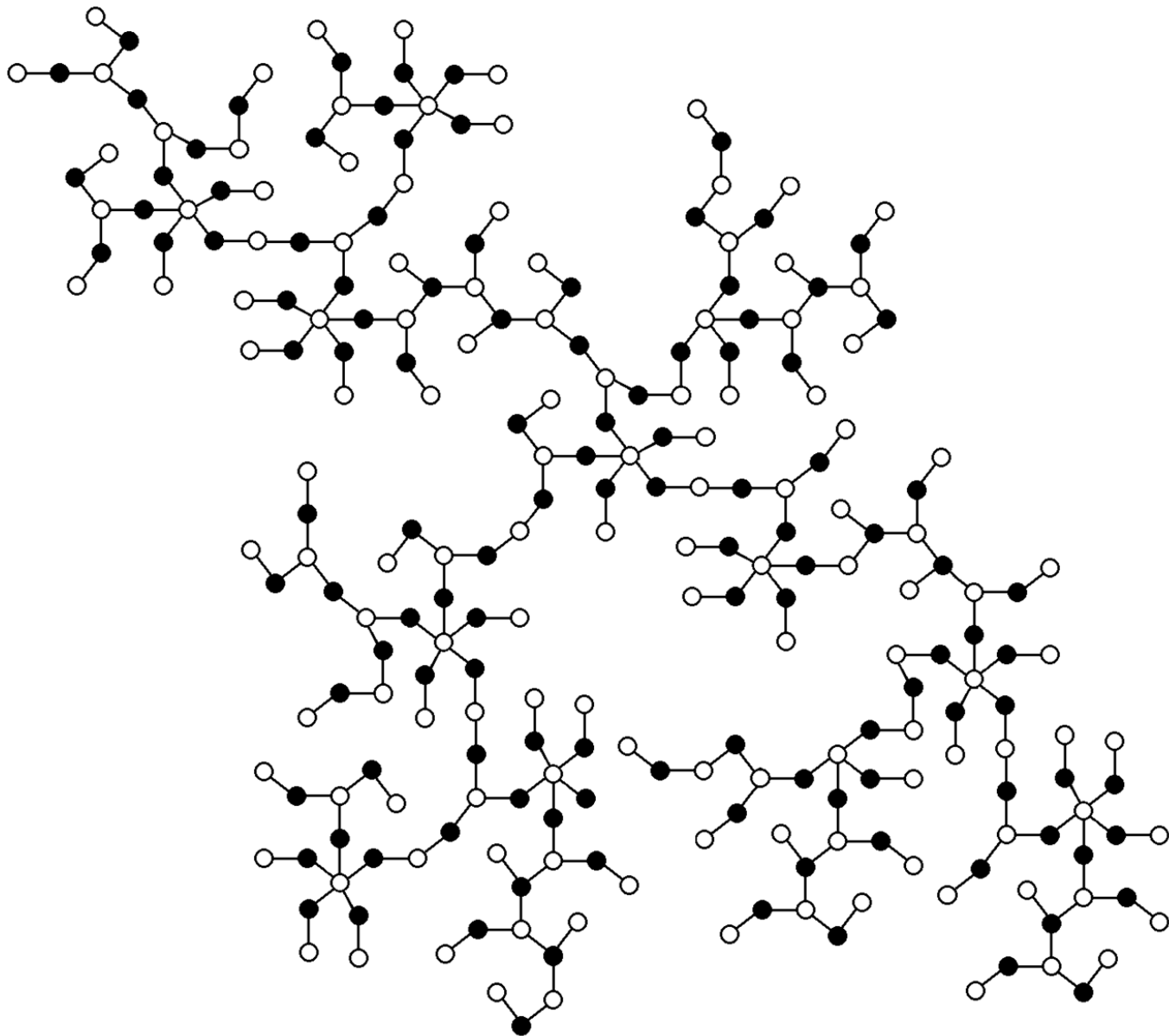












“... associative indexing, the basic idea of which is a provision whereby any item may be caused at will to select immediately and automatically another. This is the essential feature of the memex. The process of tying two items together is the important thing.” — Vannevar Bush

*“... associative indexing, the basic idea of which is a provision whereby any **resource** may be caused at will to select immediately and automatically another. This is the essential feature of **linked data**. The process of tying two items together is the important thing.”*

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Case A *has docket number* C57108

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Case A *was heard in* Court of Appeal for Ontario

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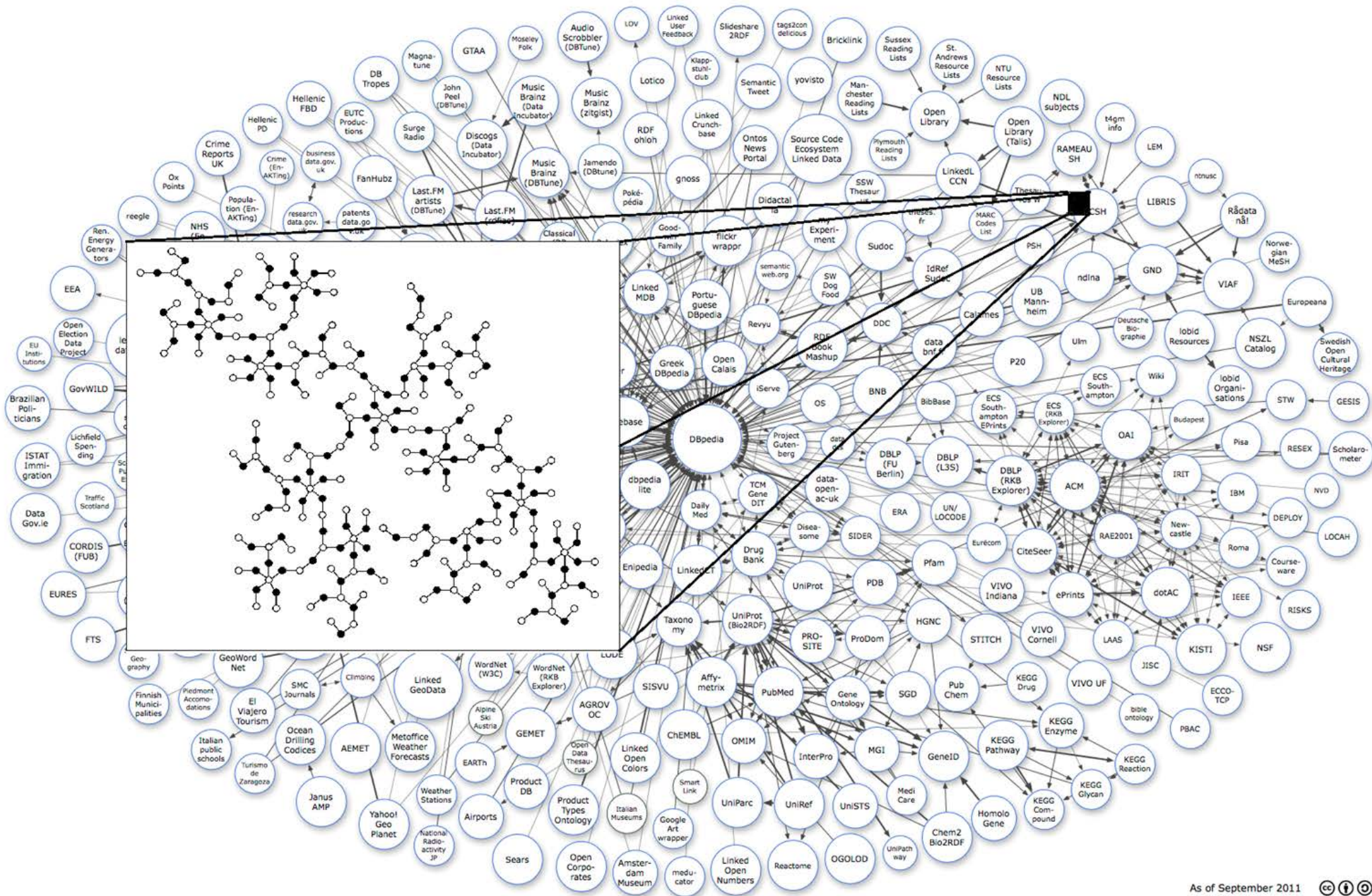
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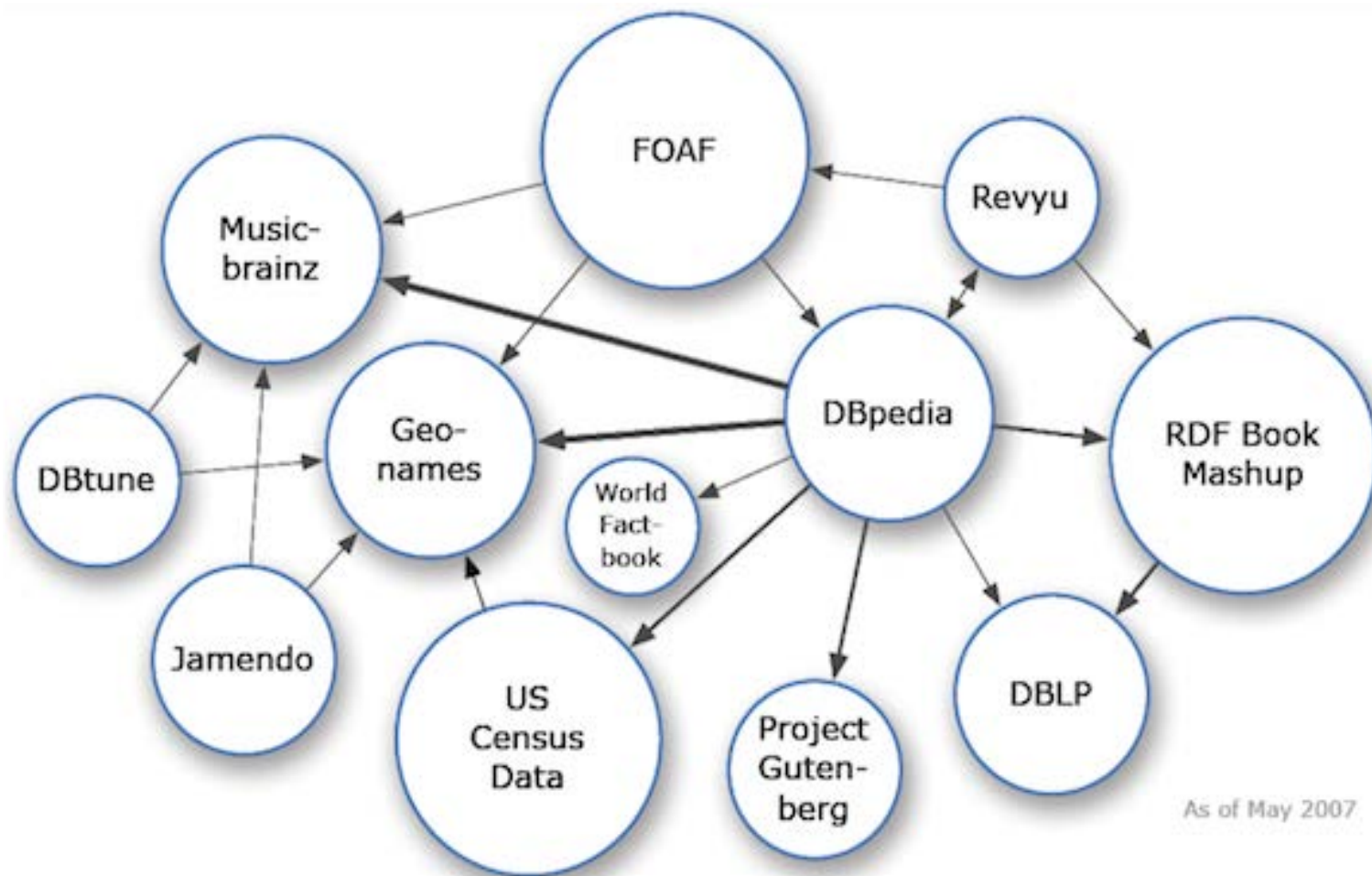
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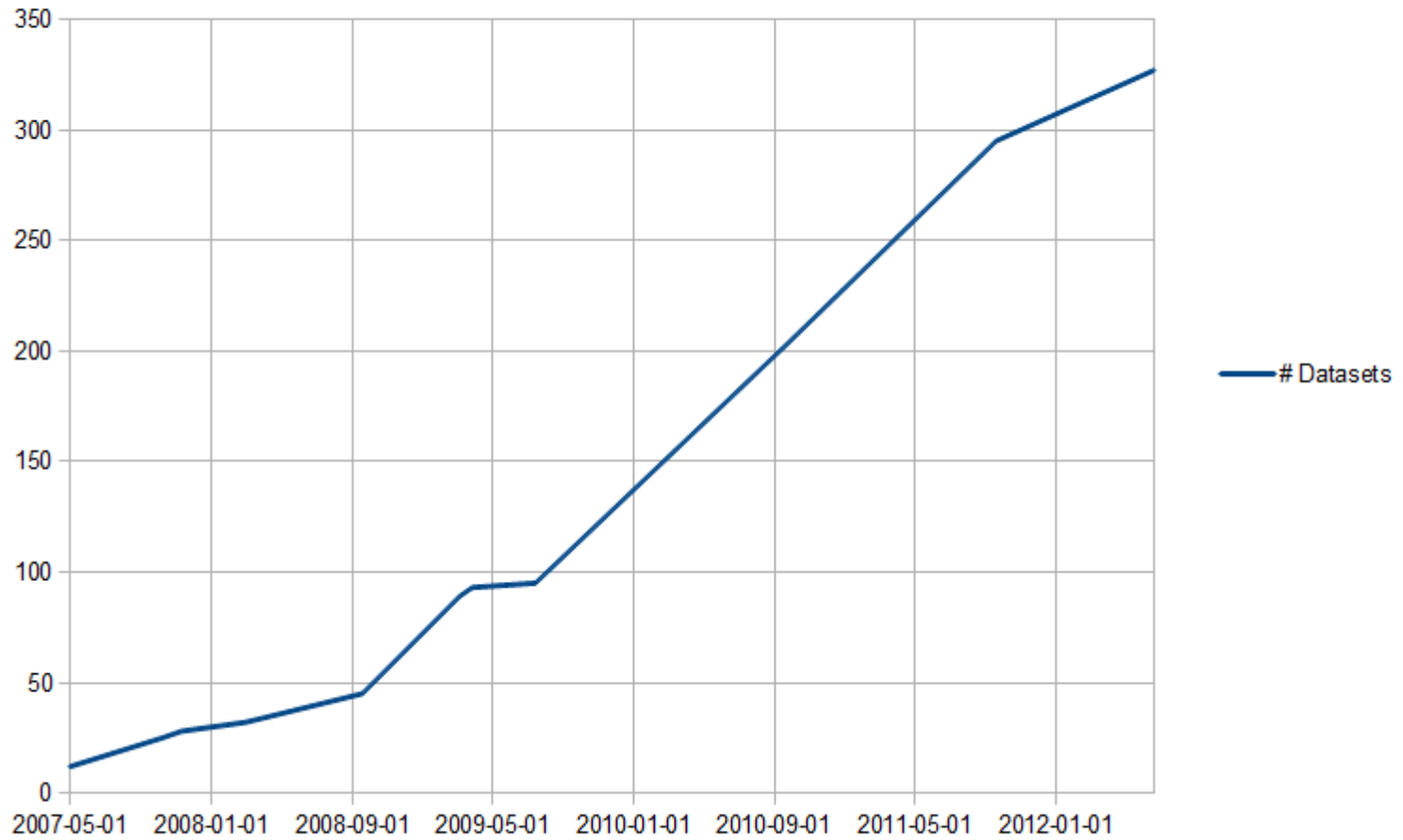
Principles of Linked Data

1. Use URIs as names for things
2. Use HTTP URIs so that people can look up those names
3. When someone looks up a URI, provide useful information, using the standards (RDF*, SPARQL)
4. Include links to other URIs, so that they can discover more things





LOD Cloud Growth (2007-2012)



Based on data provided for the LOD Cloud diagram at <http://richard.cyganiak.de/2007/10/lod/>

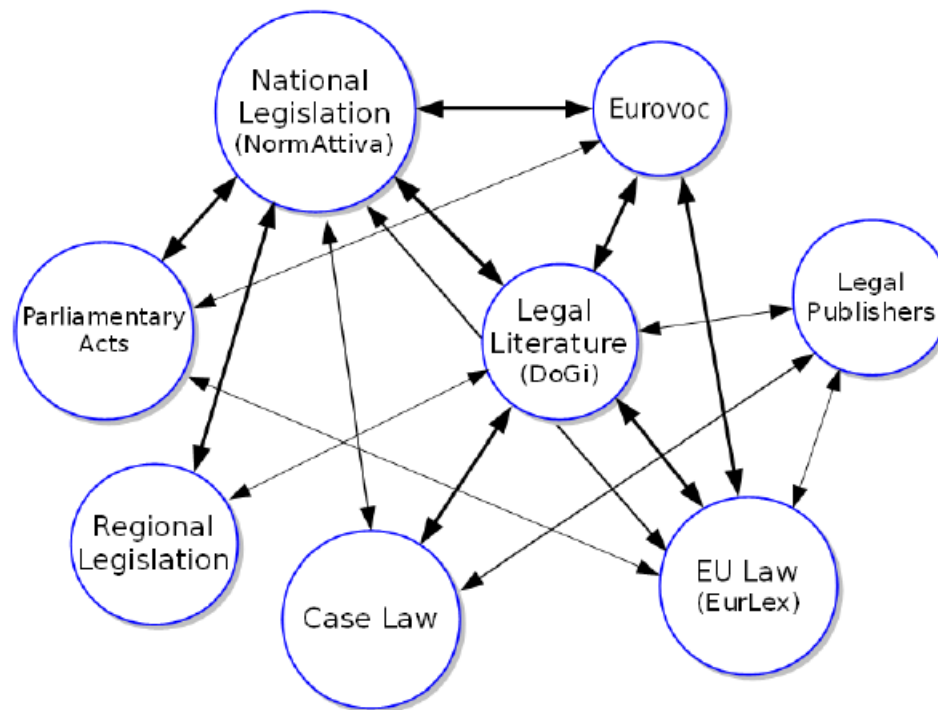


Fig. 1. A possible interconnection of relevant Legal Datasets in a “Legal Data Cloud”.

“Law is chaos with an index.”

“Publishing and using juridical information is challenging in many ways. It is produced by different parties, such as governmental bureaus, ministries, different levels of courts, research organizations, and media. The content is heterogeneous and produced using differing tools, data formats, and practices. The links between documents are often informal and/or not made explicit. The law in general is a dynamic, changing entity: for example, it is important to be able to refer to different versions of a law at different points of time. These challenges can be addressed through the use of linked data techniques.”

“The traditional fields and practices of law are changing fast. Legal drafting, private contracting, judicial sentencing and administrative management have been enlarged with online dispute resolution initiatives and new forms of self-regulation and access to justice. Citizens, customers and consumers require a greater participation and faster and more effective ways of facing their legal activities.”

MPL

information
points
dynamic
bureaus
changing
entity
content
juridical
practices
courts
important
governmental
levels
different
versions
media
documents
parties
research
tools
data
challenging
organizations
formats
ministries
heterogeneous
heterogeneous

URN:Lex

A Uniform Resource Name (URN) Namespace for Sources of Law (LEX)

“The purpose of the "lex" namespace is to assign an unequivocal identifier, in standard format, to documents that are sources of law. The identifier is conceived so that its construction depends only on the characteristics of the document itself and is, therefore, independent from the document's on-line availability, its physical location, and access mode.”

Metadata for Legal Resources

CEN MetaLex: Open XML Interchange Format for Legal and Legislative Resources

<<http://www.metalex.eu/>>

CitationStylist: For the Laws and Languages of the World

<<http://citationstylist.org/>>

Legal XML

<<http://www.legalxml.org/>>

LII Modeling Legislative Information

<<http://blog.law.cornell.edu/metasausage/downloads-and-related-information/>>

OAI4Courts

<<http://oai4courts.wikispaces.com/>>

Metadata Resources: Legal (Selected)

<<http://www.personal.psu.edu/rcr5122/Metadata.html>>

Types and Roles of Legal Ontologies

- Organize and structure information
- Reasoning and problem solving
- Semantic indexing and search
- Semantics integration and interoperation
- Understanding the domain

Ontologies for Legal Resources

LEX Ontology

<<https://code.google.com/p/lex-ontology/>>

LKIF Core Ontology

<http://www.estrellaproject.org/?page_id=3>

Valente, Andre. Types and Roles of Legal Ontologies

<<http://www.legalxml.org/>>

Role for CanLII?



Some disadvantages with a web API:

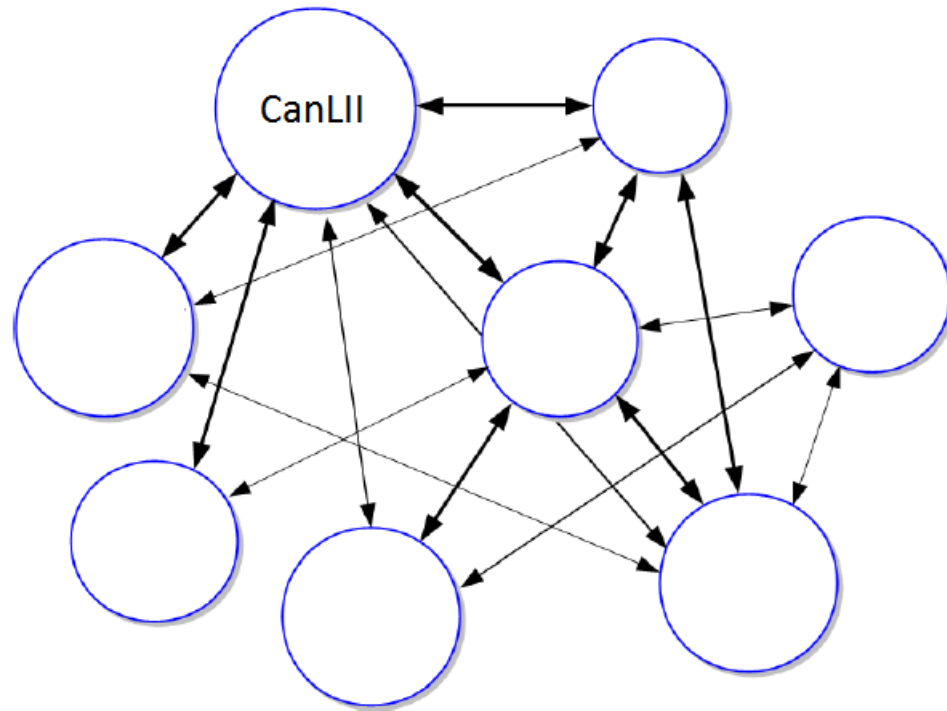
- Data is enclosed in a proprietary database perpetuating data silos
- Developers must know you exist and decide what to access based on available API parameters
- Links between different data sources must be explicitly created
- Data is not included in the global database i.e. “*on the web*” but not “*of the web*”

“The important thing about data is the more things you have to connect together the more powerful it is.”—Tim Berners-Lee

Raw
Data
Now!

TED





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<http://link.springer.com/chapter/10.1007/978-3-540-32253-5_5>

Thank you for your attention!

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Twitter: @freemoth

