

REUTERS/Pawel Kopczynski

DATA INTEROPERABILITY AND LINKED DATA TECHNOLOGIES

Dave Weller

Chief Enterprise Architect

Thomson Reuters

EFSA Conference, Milan, 15 October 2015



EFSA

Shaping the Future
of Food Safety, Together



THOMSON REUTERS

THOMSON REUTERS AND OUR DATA CHALLENGE

6 Million

UPDATES PER SECOND

across **50 million** instruments in

THOMSON REUTERS

ELEKTRON™

500,000

PHOTOS AND IMAGES

are captured and published by



9 Billion

DOCUMENTS in

WestlawNext®

1.2 Billion

CITATIONS in

WEB OF SCIENCE™

30,000

SOURCES

of data from feeds, filings,
firms, and funds

1 Billion

PEOPLE reached by

Thomson Reuters news and
insights every day

THE EVOLUTION OF DATA IN THE WEB

- **Massive growth of open data in the web...**

➔ *But race to keep track and create understanding is being lost*

- **Opportunity is huge...**

➔ *But bets are off. As it stands the race is being lost*

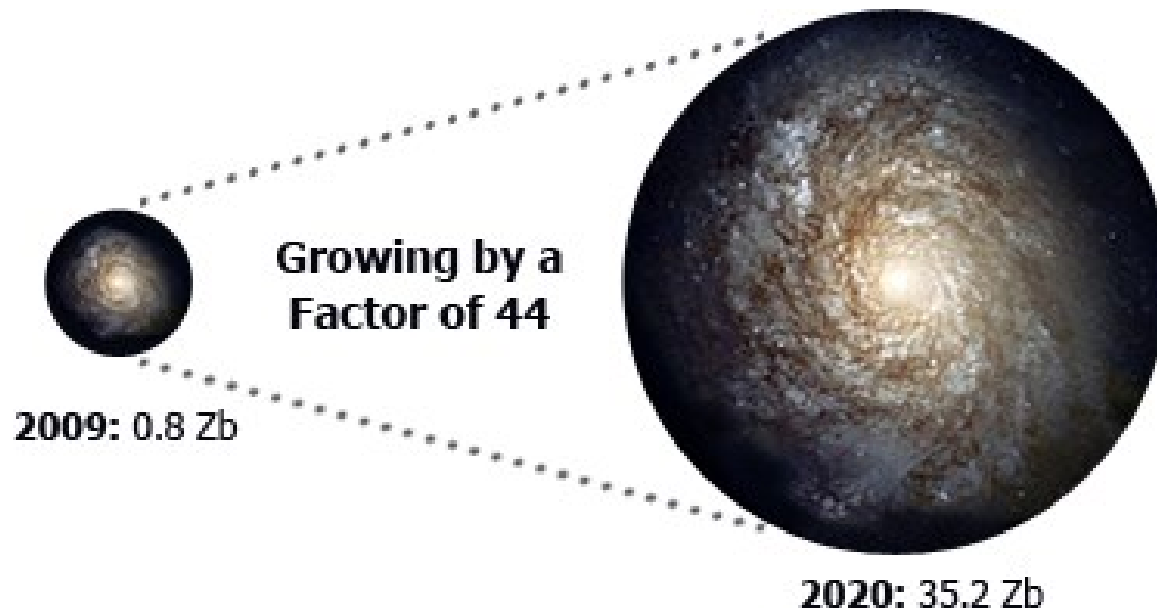
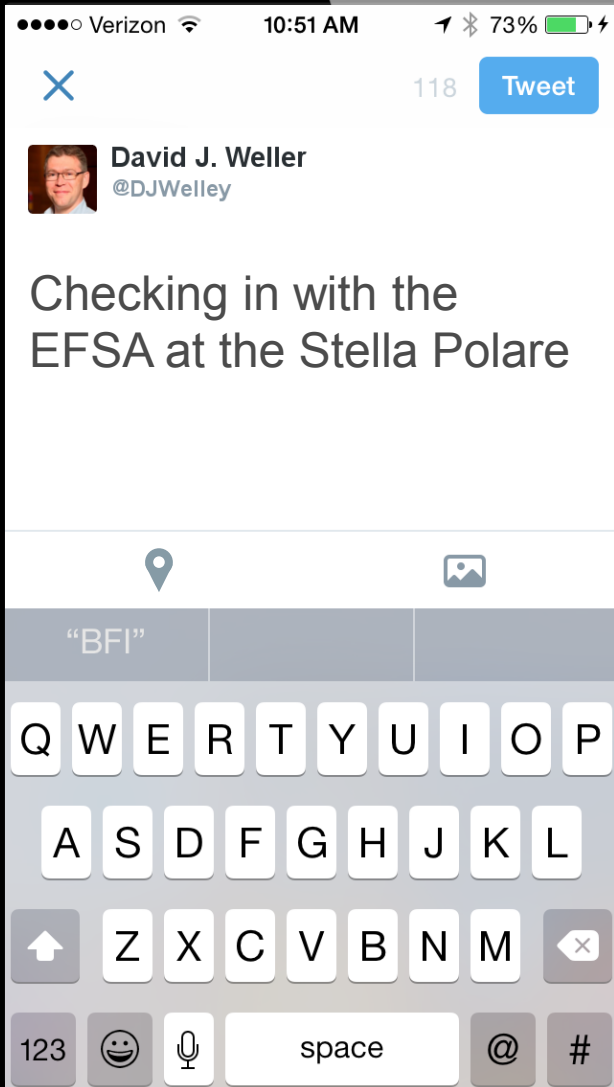


Photo credit: Debriefing Software

THE SEARCH FOR MEANING



- 📍 European Federation of Sea Anglers
- 📍 Egyptian Financial Supervisory Authority
- 📍 European Food Safety Authority
- 📍 Stella Polare:

Congress Centre

North Star

Italian Navy Yacht

IDENTIFIERS – THE KEY TO LINKING DATA

- At web scale, identifiers are critical
- Data discovery relies on open data and open identifiers
- Important roles for:
 - Data Consumers
 - Data Publishers
 - Identifier Publishers



LINKED
DATA

INFORMATION IDENTITY AS A NEW DISCIPLINE

- Information identifiers are not just primary keys
- Identifier schemes explain how unique labels are assigned to things
- Essential to fulfill the potential of open data



WHAT IS THIS?



CC image courtesy of Flickr user Scott Dexter

OPEN PERM ID

Open PermID
BETA



THOMSON REUTERS

[About](#) [Contact](#) [Terms & Conditions](#) [Privacy Policy](#)

dave.weller@thomsonreuters.com

[Home](#) [Entity Search](#) [Record Matching](#) [Tagging](#) [API](#) [Entity Download](#)

[What's new?](#) [How to use Open PermID](#)

efsa



Results for "efsa"

[Entity Search API](#)

[All Results \(3\)](#) [Organization \(3\)](#) [Instrument \(0\)](#) [Quote \(0\)](#)

Sort by: [Relevance](#)

Organization

European Food Safety Authority
Economic Alliance | <http://www.efsa.europa.eu/>

PermID URI: <https://permid.org/1-4298231481>

Egyptian Financial Supervisory Authority
Regulatory Agency | <http://www.efsa.gov.eg/>

PermID URI: <https://permid.org/1-5000950263>

Societe d'Etudes Economiques et Financieres Internationales SASU
Investment Company

PermID URI: <https://permid.org/1-5000067433>

Instrument

PermID URI: <https://permid.org/1-4298231481>

< 1 >

THOMSON REUTERS DATA FUSION

DATAEXPLORER



Search connections of a single entity between two entities

BB&T

Patriot Bank Corp

All Types

matches text

FIND PATHS

✓ Completed searching 4 steps out

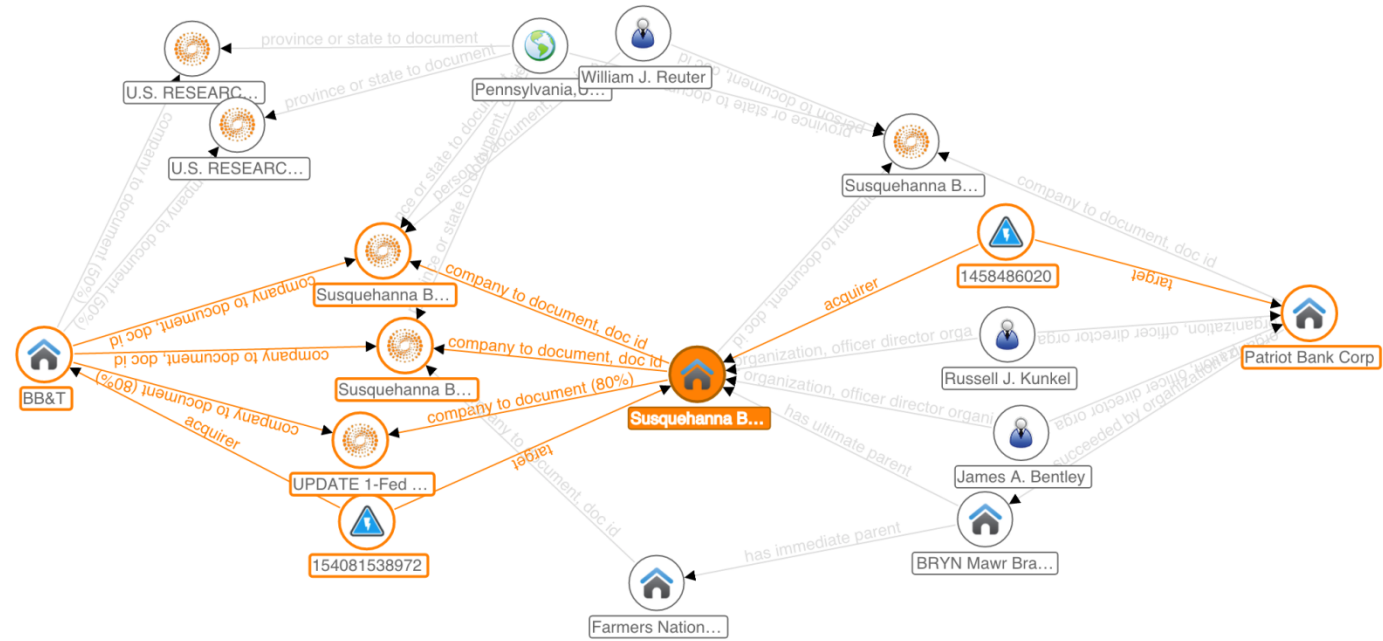
✓ Stop after each step

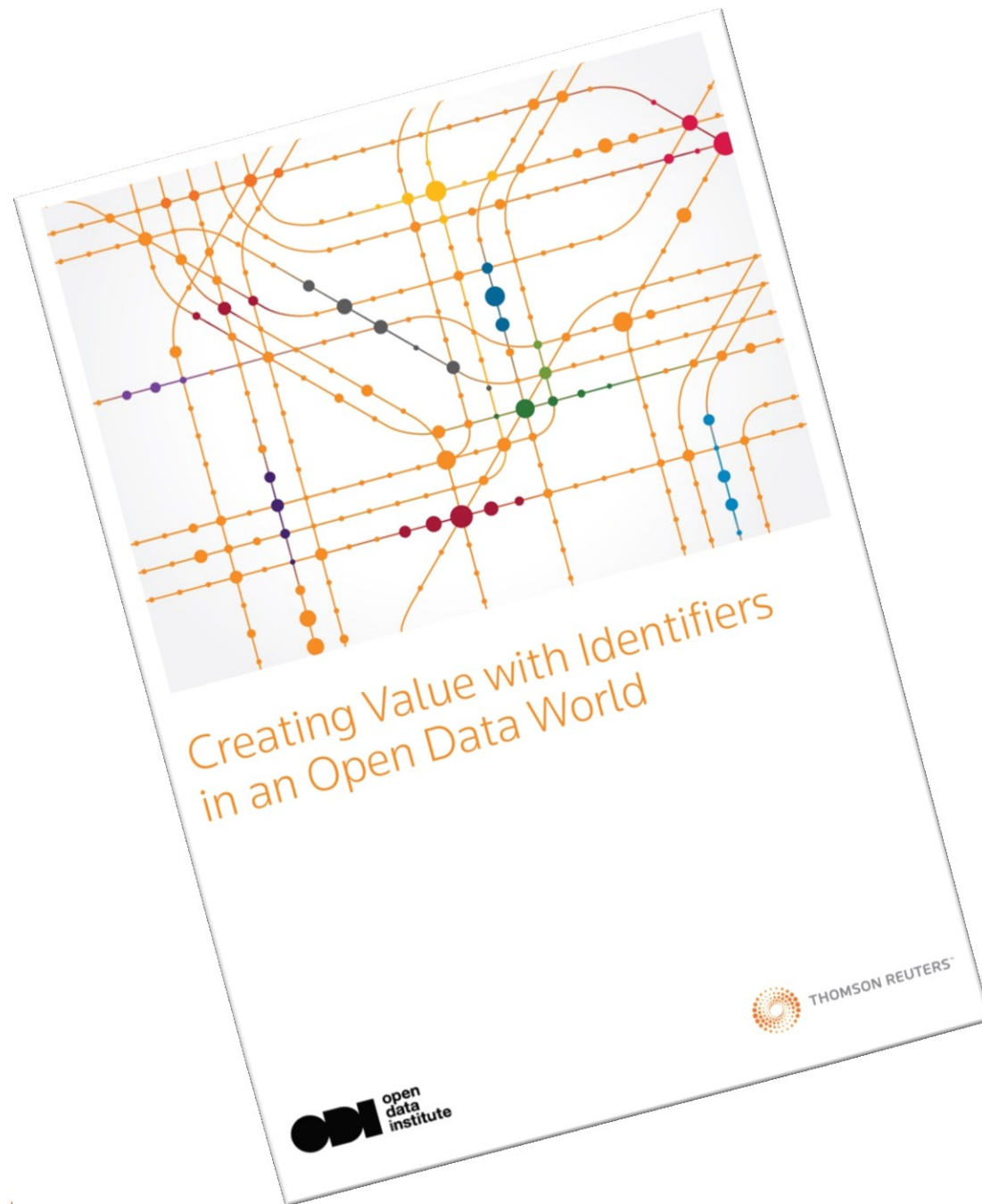
SEARCH 5 STEPS OUT

26 paths found



✓ Auto-layout





HELP TO GROW
THE OPEN DATA COMMONS

MANAGE THE COMPLEXITY
OF THE WEB

DISCOVER AND CONNECT
TO OTHER DATA SOURCES

EXPLORE OPEN PERMID
[HTTPS://PERMID.ORG/](https://permid.org/)