

Libraries and Linked Data

Confessions of a Graph Addict

Ed Summers
June 24, 2010

<http://bit.ly/ehs-ala2010>

**The URL is the currency of the web.
For something to be referenced, to
be talked about, to be shared in the
web environment, it needs to have a
URL.**

Lorcan Dempsey, An addressable knowledgebase.
March 30, 2006.
<http://orweblog.oclc.org/archives/000984.html>

MARC Must Die.

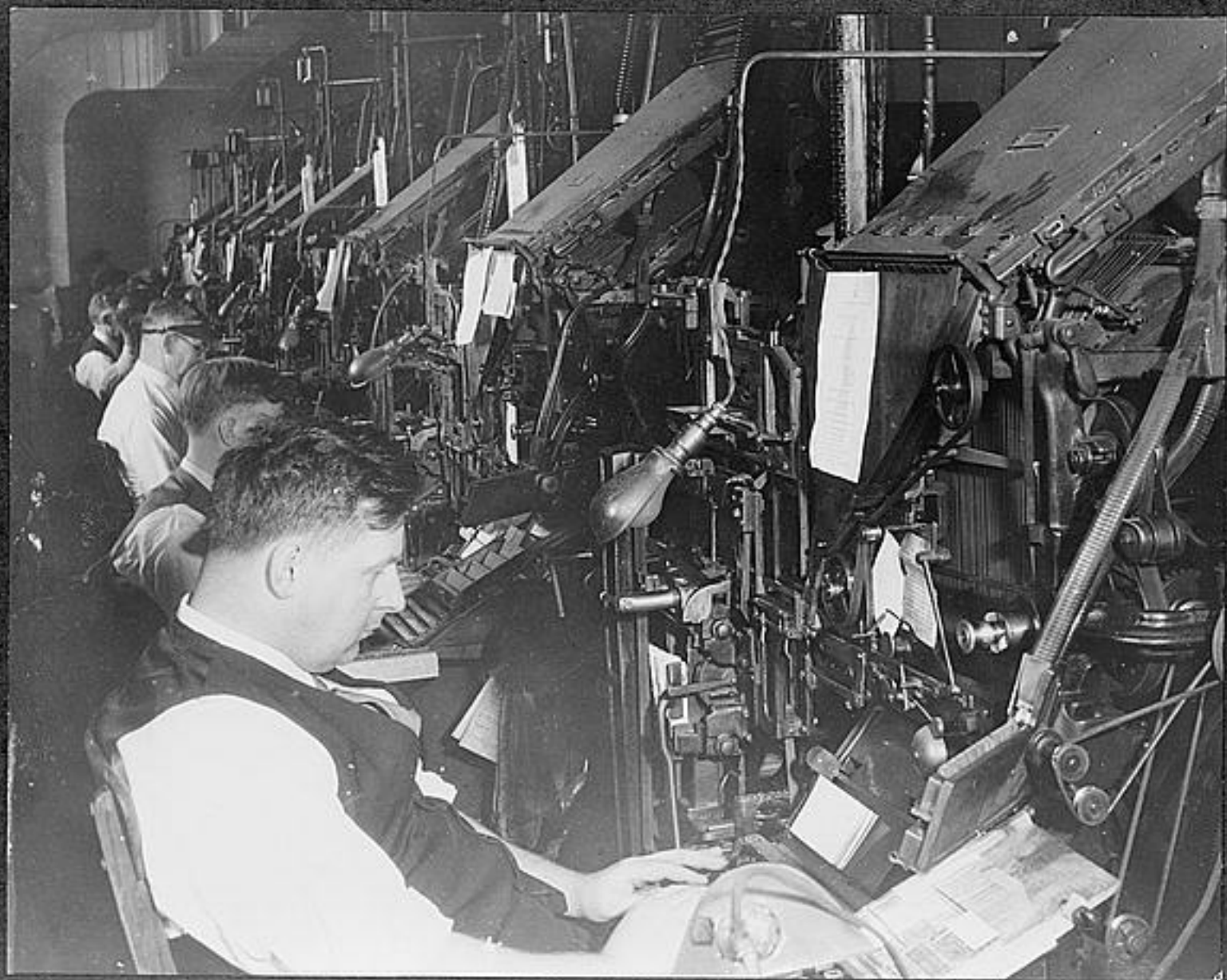
Roy Tennant, MARC Must Die. October 15, 2002.

<http://www.libraryjournal.com/article/CA250046.html>



**To die is different from what any
one supposed, and luckier.**

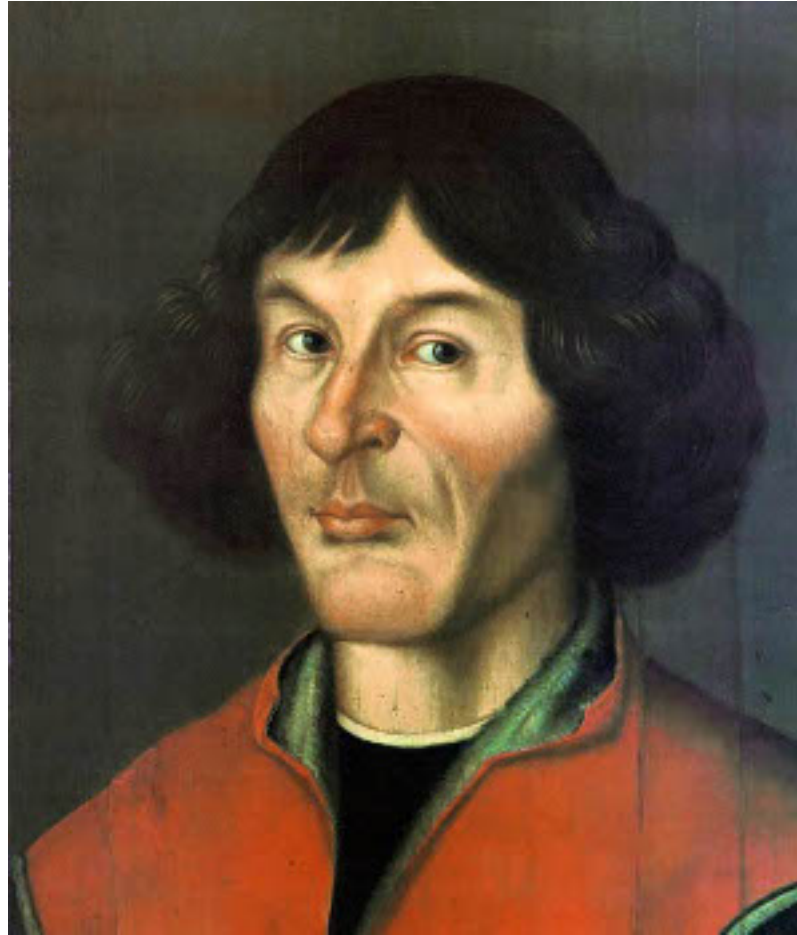
Walt Whitman, Leaves of Grass, 1855.



118629



1921



100 1# \$a Copernicus, Nicolaus, |d 1473-1543.

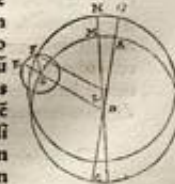
esse in a , inaequalitatem uero apparentiae in r epicyclo. Quoniam si a moueatur ad partes s , hoc est in consequentia: centrum uero terrae ex r apogeo in praecedentia,



magis apparebit moueri in perigeo, quod est r , eo quod huius motus ipsorum a & r fuerint in eisdem partibus: in apogeo uero quod est r , uidebitur esse tardius ipsam a , utpote quod a uincite motu solummodo e duobus contrariis mouetur, atque in o constituta terra praecedet motu aequali, in k uero sequetur, & utrobique secundum a & k circumferentiam, quibus ideo etiam Sol diuersimode moueri uidebitur. Quaecumque uero per epicyclum sunt, possunt eodem modo per eccentricum accidere, quae transius sideris in epicyclo describit aequali homocentro, ac in eodem plano, cuius eccentrici centrum distat ab homocentri centro magnitudine semidimetit epicycli. Quod etiam tribus modis contingit. Quoniam si epicycli in homocentro, & sidus in epicyclo pares faciant revolutiones, sed motibus inuicem obuiantibus, fixum designabit eccentricum motus sideris, utpote cuius apogeu & perigeu immutabiles sedes obtineant. Quemadmodum si fuerit a & c homocentrus, centrum mundi o , dimetiens a & c , ponamusque quod cum epicyclum esset in a , sidus fuerit in apogeo epicycli, quod sit in o , & dimidia diametri ipsius in rectam lineam o & c capiatur autem a & c circumferentia homocentri ex centro o , distantia uero aequali a & c epicyclum describatur u & v , & extendantur o & a , & o & c in rectam lineam: sumaturque circumferentia u & v in contrarias partes, atque similis ipsi a & c , sitque in r sidus uel terra, & coniungatur u & v , capiatur etiam in a & c linea segmentum o & k aequale ipsi u & v . Quoniam igitur anguli qui sub u & v , & o & a sunt aequales, & propterea u & v & o & k paralleli atque aequales: aequalibus autem & parallelis rectis lineis, si rectae lineae coniungantur, sunt etiam paralleli & aequales, per xxxiii. primi Euclid. Et quoniam o & k , a & c ponuntur



nuntur aequales, communis apponatur a & k , erit o & k aequalis ipsi a & c : aequalis igitur etiam ipsi k & r . Centro igitur k , distantia autem k & o descriptus circulus transibit per r , quae quidem ipsum r motu composito ipsorum a & r describit eccentricum homocentro aequalem, & ideo etiam fixum. Cum enim epicyclum pares cum homocentro fecerint revolutiones, necesse est absides eccentrici sic descripti eodem loco manere. Quod si dispares centrum epicycli & circumferentia fecerint revolutiones, iam non fixum designabit eccentricum motus sideris, sed cum cuius centrum & absides in praecedentia uel consequentia serantur, prout sideris motus celerior tardiorue fuerit centro epicycli sui. Quemadmodum si u & v maior fuerit angulo o & a , aequalis autem illi constitutur qui sub o & m , demonstrabitur itidem, quod si in o & m linea, capiatur o & l aequalis ipsi u & v , atque l centro: distantia autem l & m aequali a & c , descriptus circulus transibit per r sidus, quo sit manifestum u & v circumferentia, motu sideris composito describi, eccentrici circuli, cuius apogeu a signo o migravit interim in praecedentia per o & c circumferentiam. Contra uero, si lentior fuerit sideris in epicyclo motus, tunc eccentrici centrum in consequentia succedet, atque eo quo epicycli centrum feretur, ut puta si u & v angulus minor fuerit ipso o & a , aequalis autem ei qui sub o & m , manifestum est euenire quae diximus. Ex quibus omnibus patet eandem semper apparentiae inaequalitatem produci, siue per epicyclum in homocentro, siue per eccentricum circulum aequalem homocentro, nihilque inuicem differre, dummodo distantia centrorum aequalis fuerit ei, quae ex centro epicycli. Vtrum igitur eorum existat in caelo, non est facile discernere. Ptolemaeus quidem ubi simplicem intellexit inaequalitatem, ac certas immutabilesque sedes absidum (ut in Sole putabat) eccentricotetis rationem arbitrabatur sufficere. Lunae uero caeterisque quinq; planetis duplici siue pluribus differentiis,



y ij ugan.

«- TBNR is about De Revolutionibus

Source: Gingerich, Owen. 2004. *The Book Nobody Read: Chasing the Revolutions of Nicolaus Copernicus*. New York: Walker and Company, 2004.



«- TBNR is about De Revolutionibus

Source: Gingerich, Owen. 2004. *The Book Nobody Read: Chasing the Revolutions of Nicolaus Copernicus*. New York: Walker and Company, 2004.

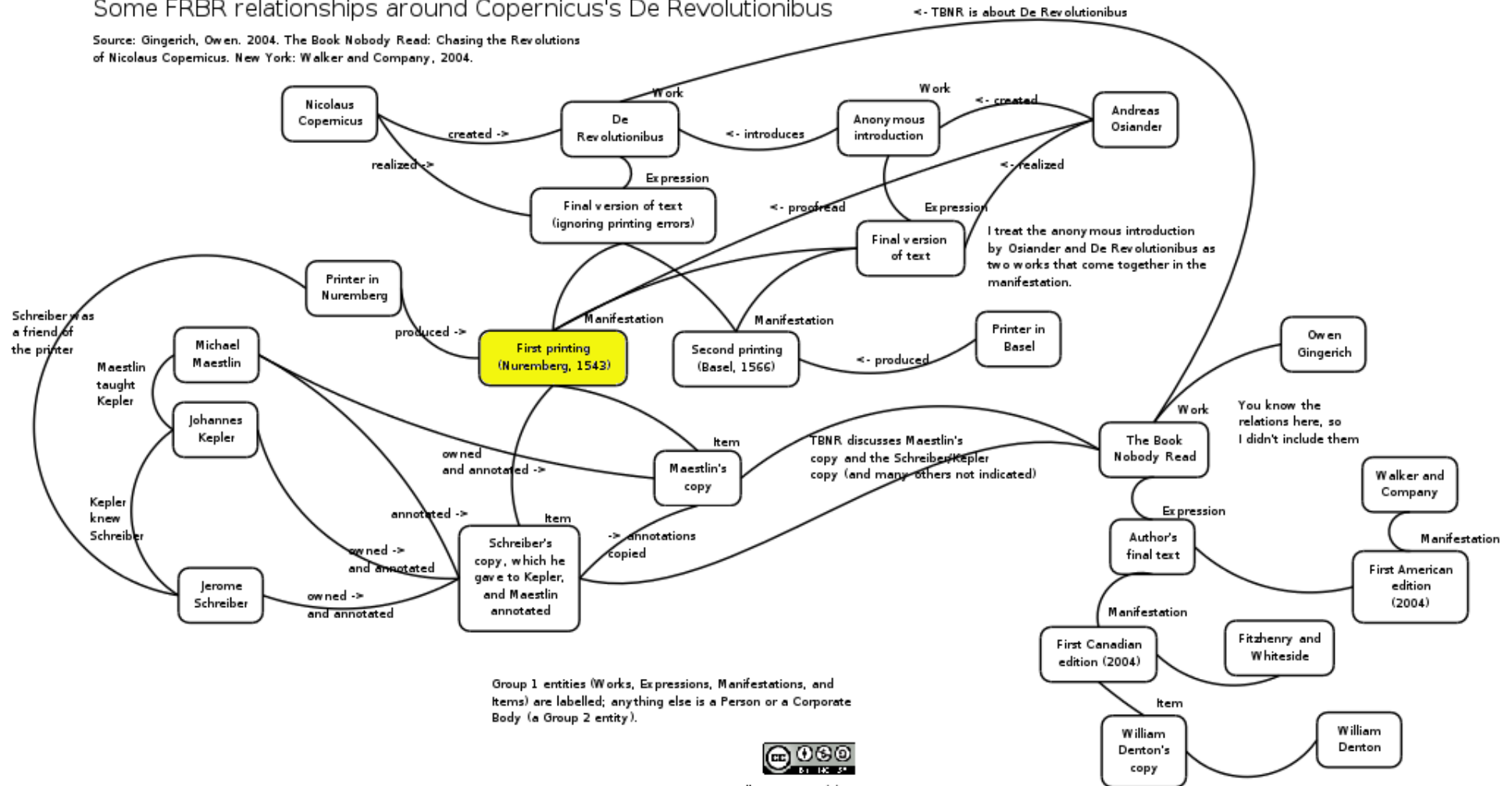


Source: Gingerich, Owen. 2004. *The Book Nobody Read: Chasing the Revolutions of Nicolaus Copernicus*. New York: Walker and Company, 2004.



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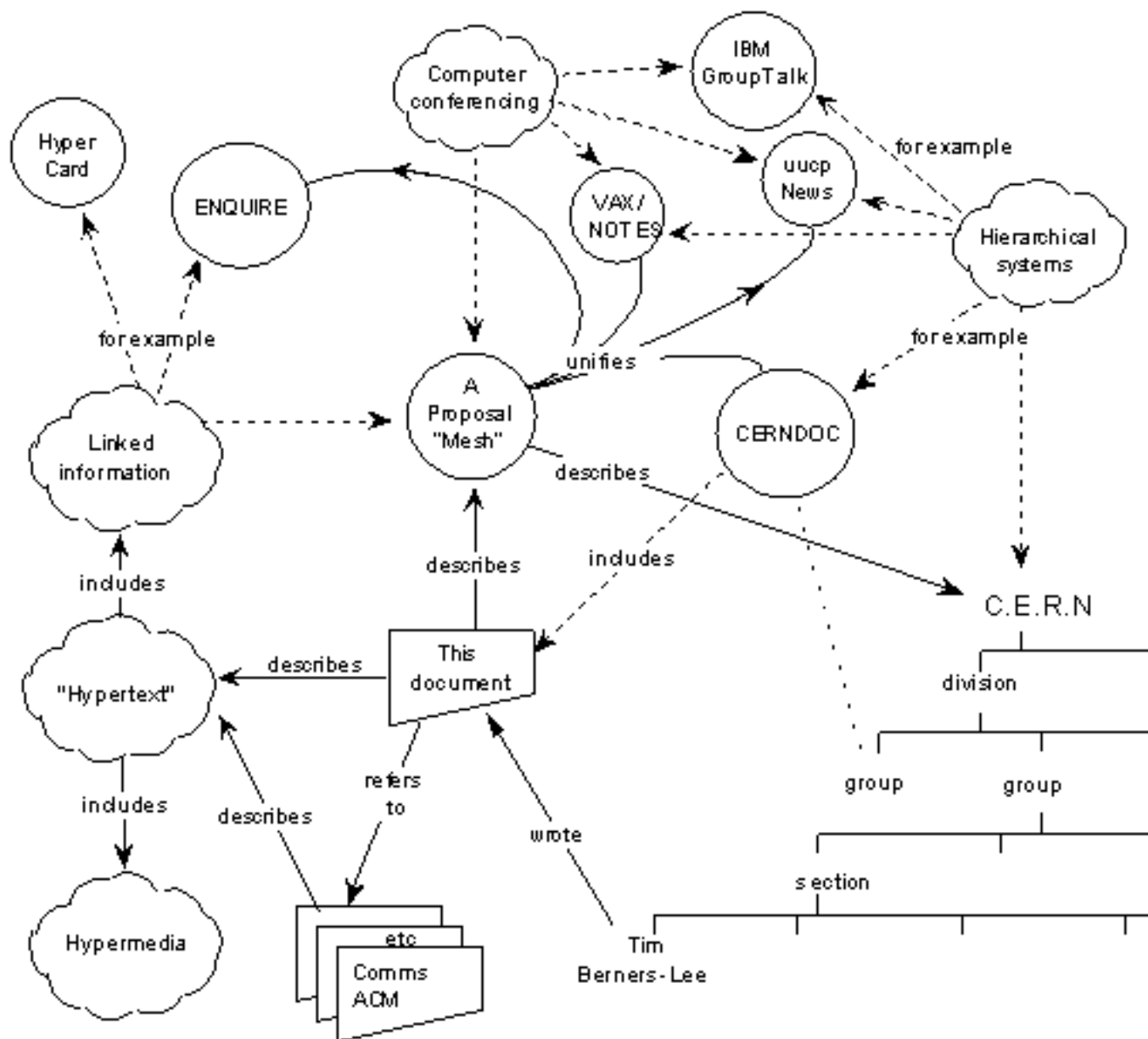


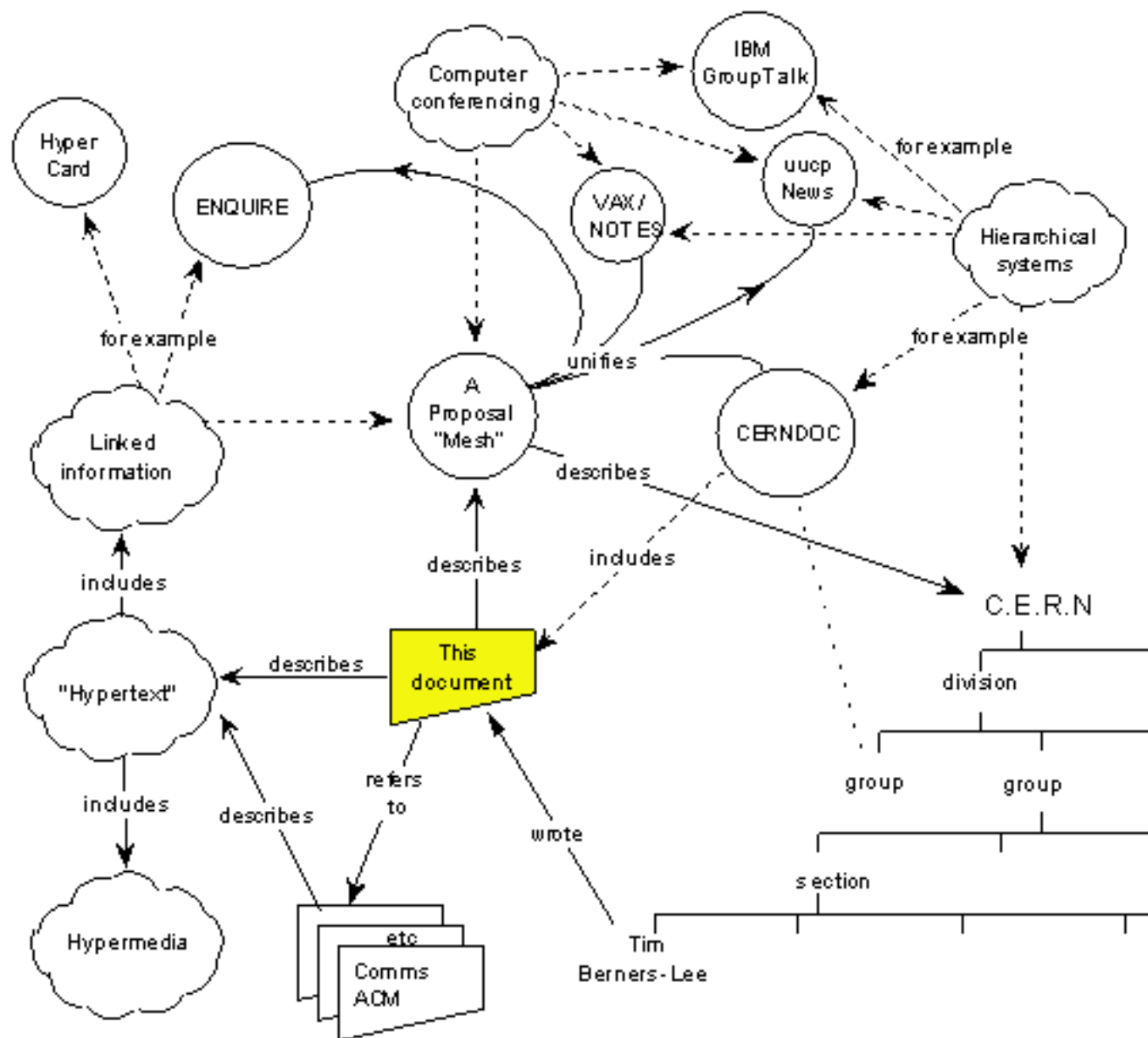
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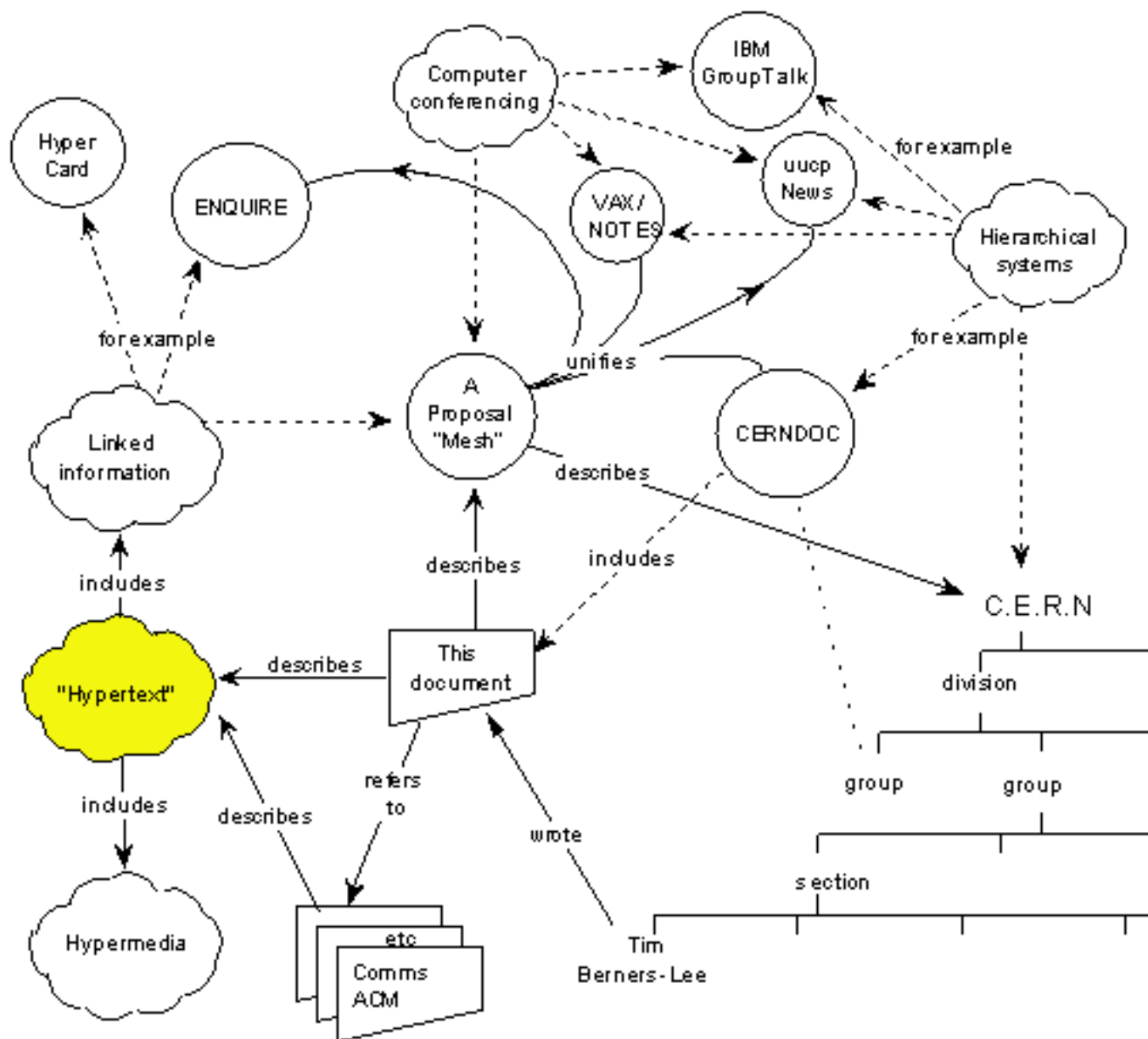
**Ron Murray and Barbara Tillett
June 28, 8:00AM-12:00PM
Hyatt Regency
Yorktown/Valley Forge**

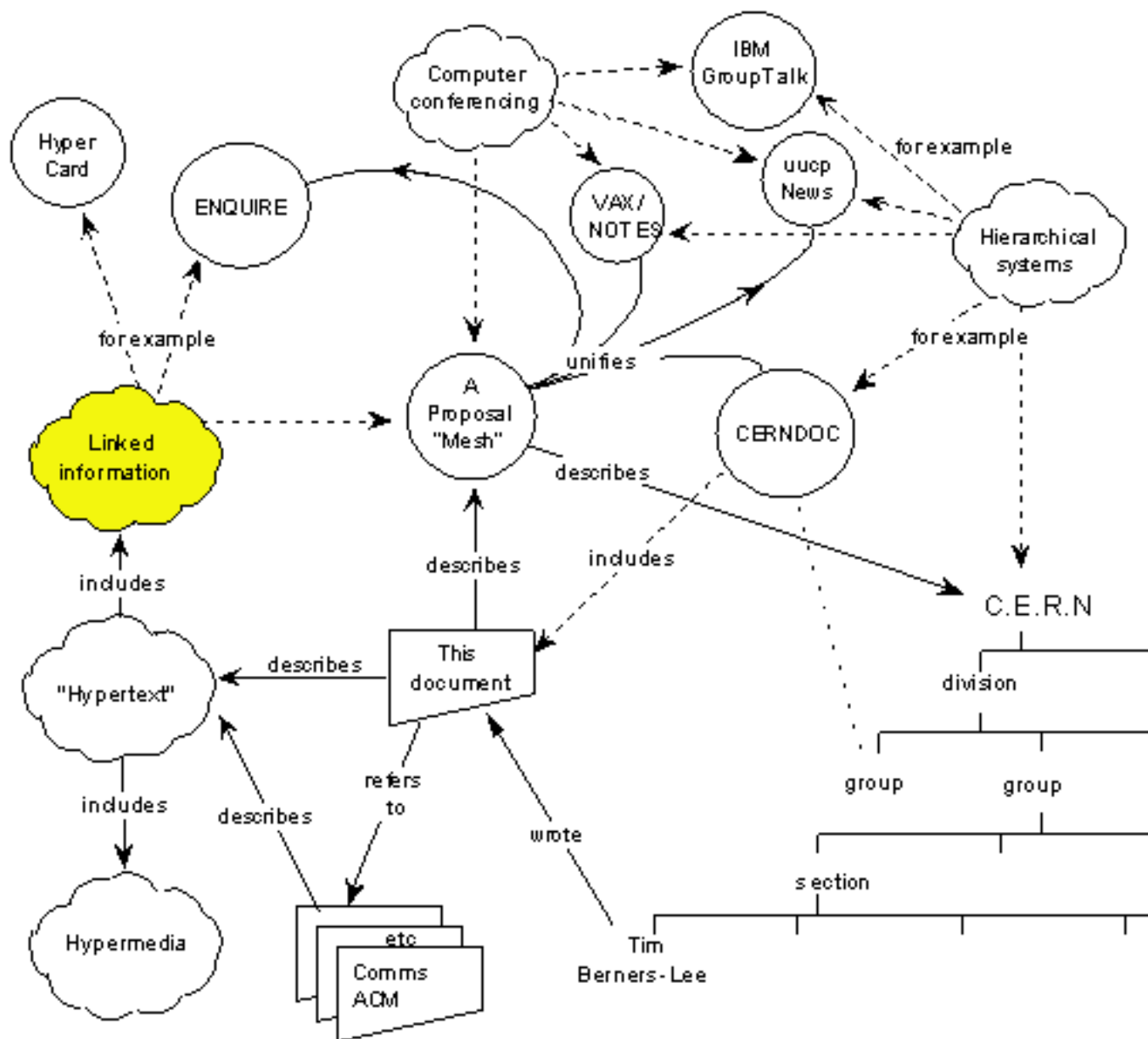


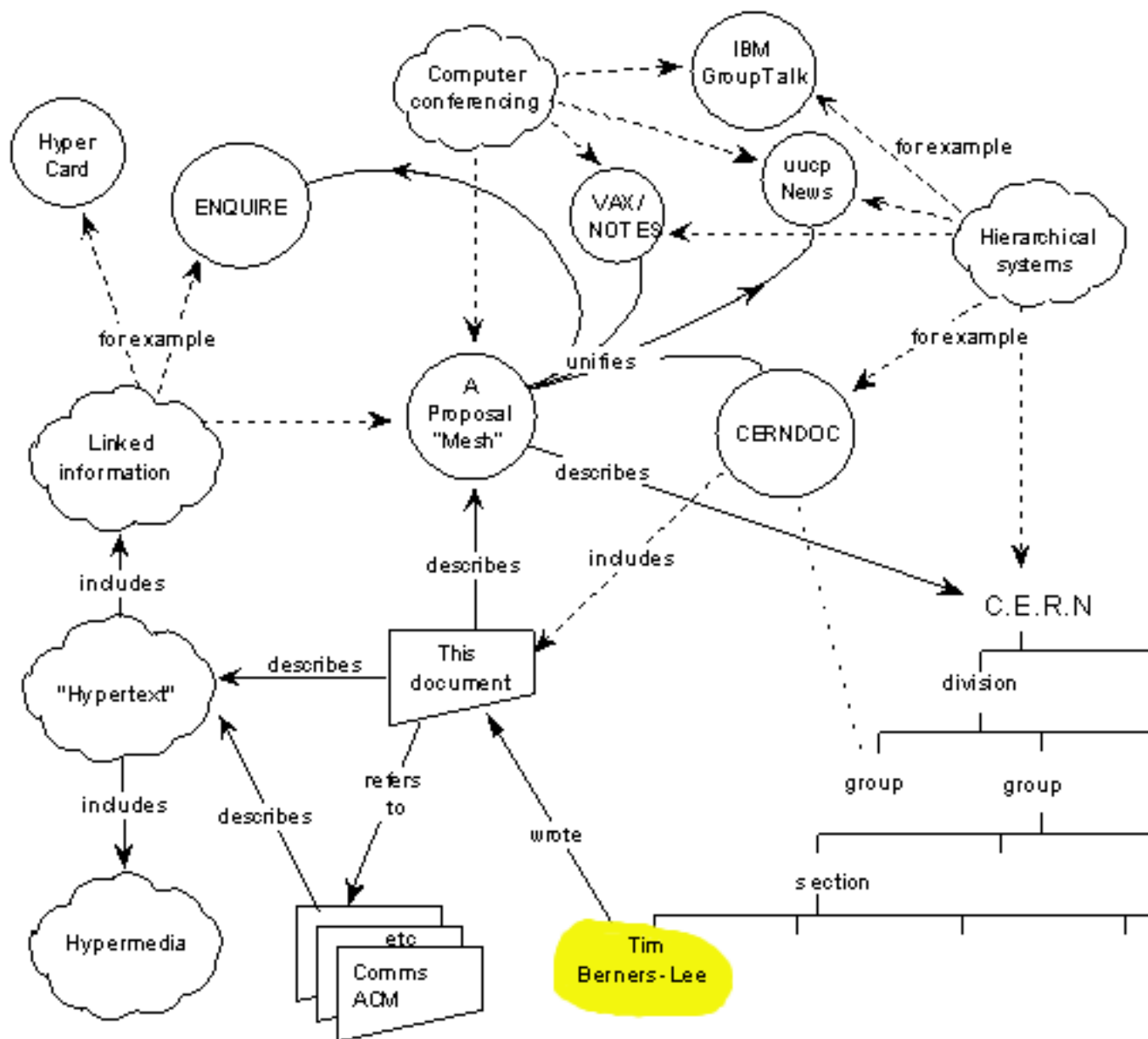
<http://www.w3.org/History/1989/proposal.html>

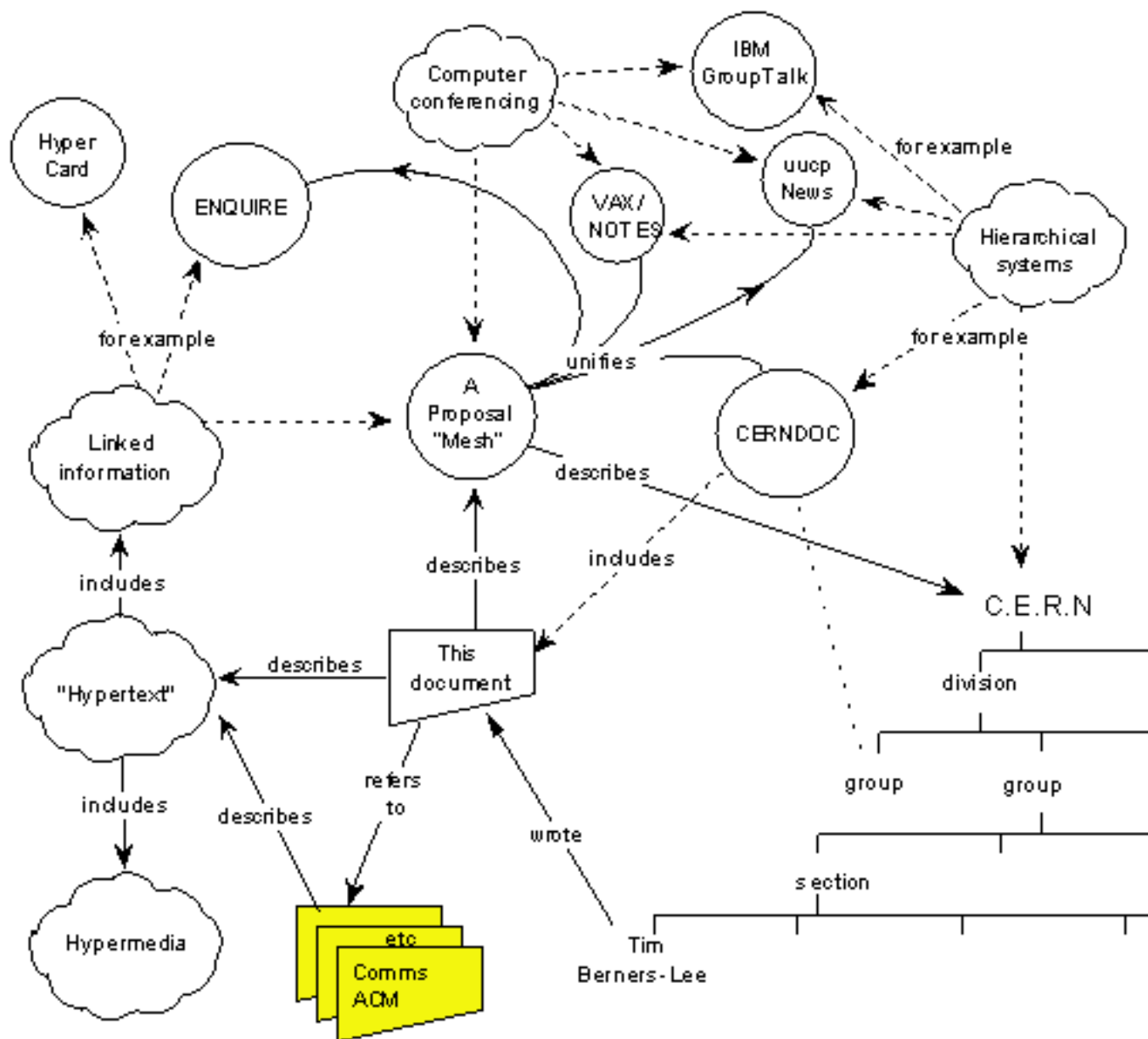


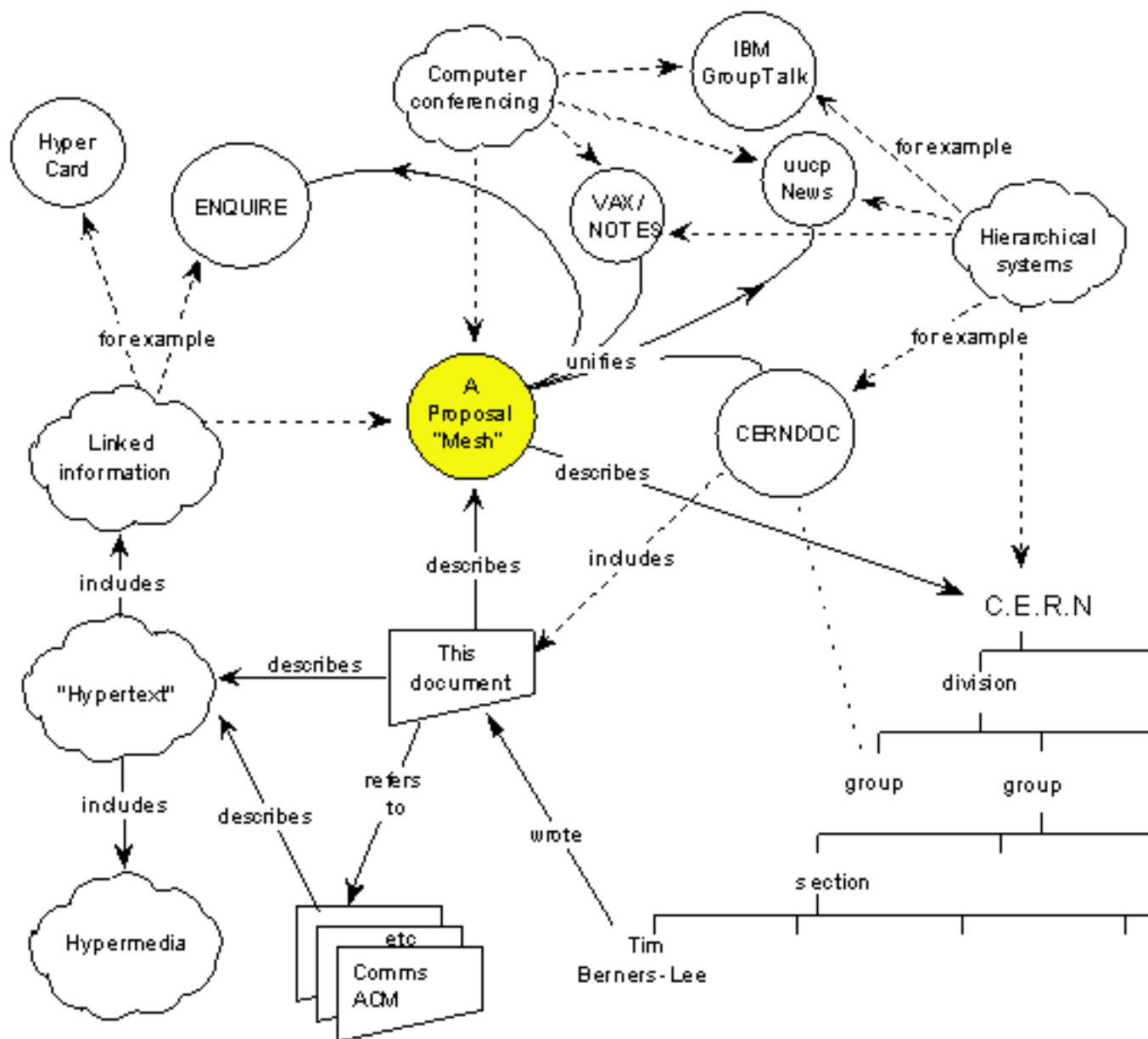


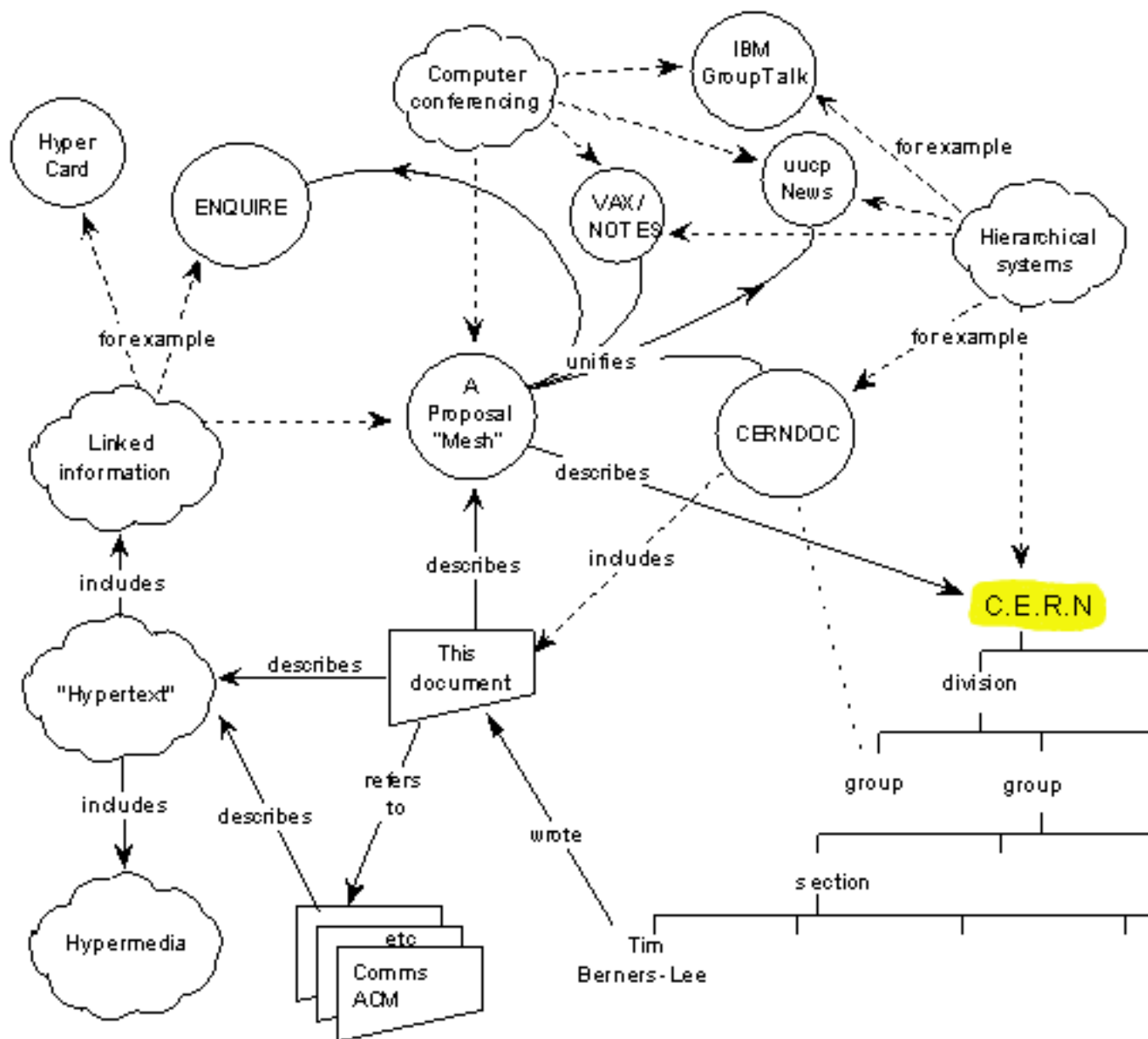












Linked Data Design Issues

1. Use URIs as names for things.
2. Use HTTP URIs so people can look up those things.
3. When someone looks up a URI, provide useful information.
4. Include links to other URIs, so they can discover more things.

<http://www.w3.org/DesignIssues/LinkedData.html>

Linked Data Design Issues

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

<http://www.w3.org/DesignIssues/LinkedData.html>

Browser window showing a search for **#semtech** on Twitter.

Address bar: <http://search.twitter.com/search?q=%23semtech>

Twitter logo and search bar: **#semtech** Search [Advanced Search](#)

Results for **#semtech** 0.03 seconds

agiledna: Added semantics to The New Republic site: 300% increase in pages/visit, 150% increase into unique visits. **#semtech**
about 14 hours ago via *TweetDeck* · [Reply](#) · [View Tweet](#)
10+ recent retweets

Scotland: Shout out to [@joshdilworth](#) and [@dhruvbansal](#) of [@InfoChimps](#) on their speaking session at **#SemTech** today, check it out - <http://bit.ly/99lTxG> (expand)
4 minutes ago via *web* · [Reply](#) · [View Tweet](#)

semanticconf: Session Added at **#SemTech** - Consuming Linked Data by Juan Sequeda - 7:30 am
6 minutes ago via *web* · [Reply](#) · [View Tweet](#)

PaulMiller: [@PullNews](#) hoping to get into the personal data locker session this afternoon at **#semtech** - we may FINALLY meet f2f... ;-) [Show Conversation](#)
10 minutes ago via *Twitter for iPhone* · [Reply](#) · [View Tweet](#)

mtanzi: Italy vs Slovakia at **#semtech** - 7 am in Imperial B (via [@semanticconf](#)) - [@flatters](#) that's the room you need to go in!!!
19 minutes ago via *Twitter for iPhone* · [Reply](#) · [View Tweet](#)

PaulMiller: Another foggy morning in SE. Coat required for trip to **#structureconf**

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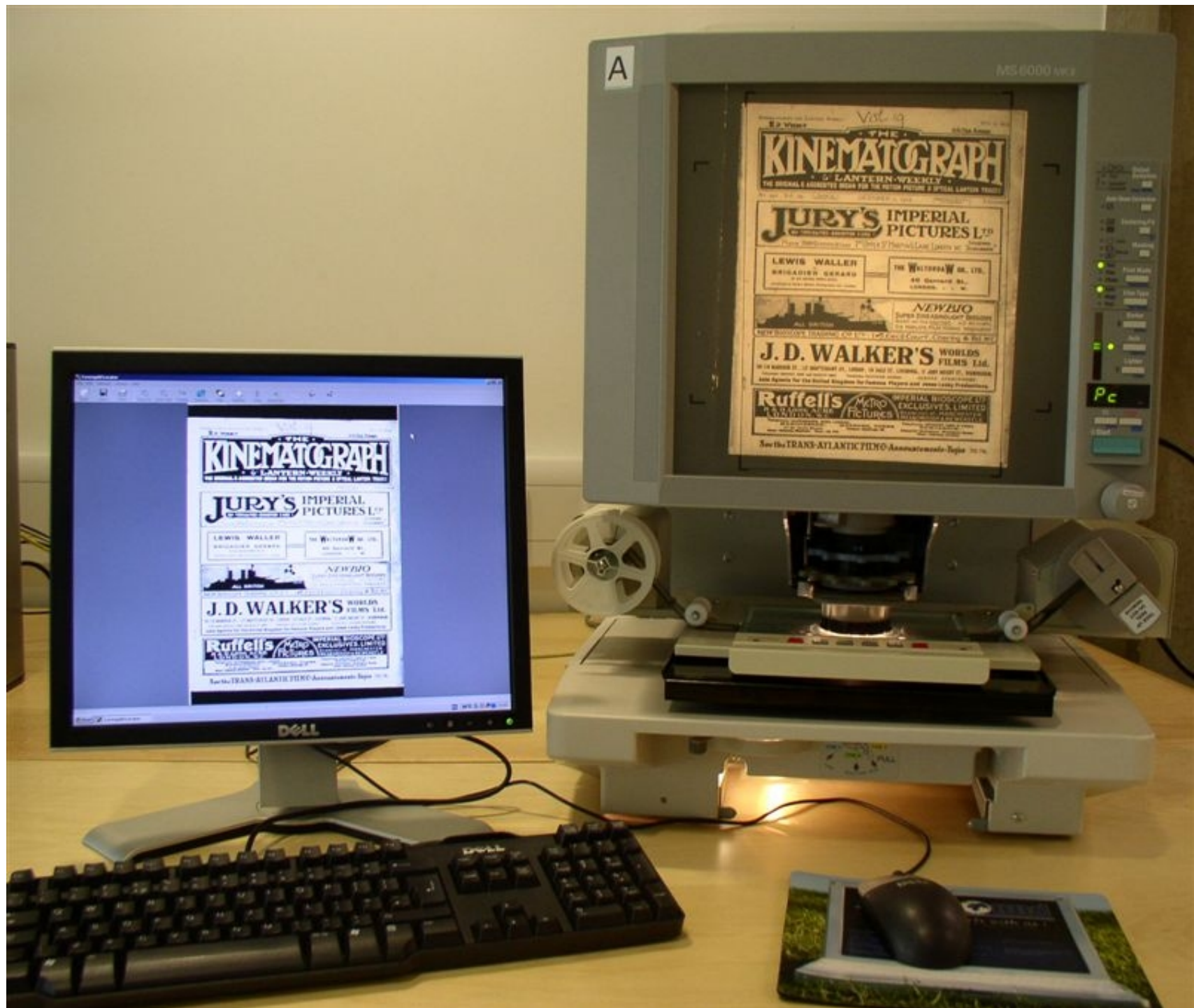
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- [#iphone4](#)
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- [Paraguay](#)
- [Isner](#)

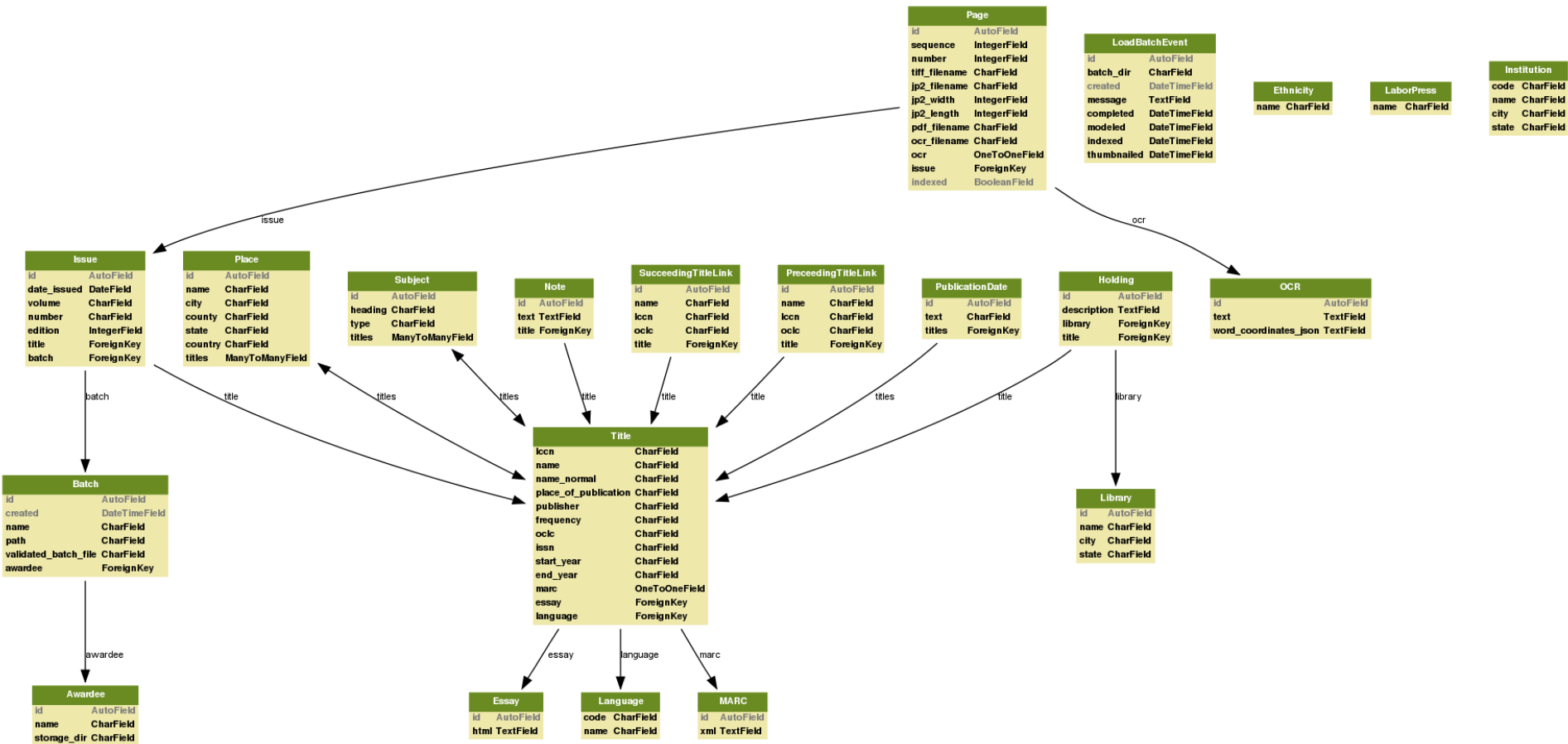
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Alternative Titles:

Combined New York morning newspapers Sept. 19-26, 1923

Combined New York Sunday newspapers

New York daily tribune

New York tribune

New-York daily tribune 1866-Mar. 31, 1912

Place of publication:

New York [N.Y.]

Geographic coverage:

New York, New York, New York

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Publisher:

New York Tribune

Dates of publication:

1866-1924

Description:

Vol. 26, no. 7,802 (Apr. 10, 1866)-v. 83, no. 28,247 (Mar. 18, 1924).

Frequency:

Daily Dec. 7, 1879-1924

Language:

English

The Library of Congress > [Chronicling America](#) > All pages for this Issue: New-York tribune. (New York [N.Y.]) 1866-1924 - 1880-01-10 - edition 1



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[Title: New-York tribune. \(New York \[N.Y.\]\) 1866-1924, January 10, 1880, Image 1](#)




[Title: New-York tribune. \(New York \[N.Y.\]\) 1866-1924, January 10, 1880, Page 2, Image 2](#)



New-York tribune. (New York [N.Y.]) 1866-1924

January 10, 1880, Image 1

IMAGE:  of 8. Image provided by: Library of Congress, Washington, DC.

 **Persistent Link** <http://chroniclingamerica.loc.gov/lccn/sn83030214/1880-01-10/ed-1/seq-1/>

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2009-12-09 14:07:21	batch kyu fargo ver01	University of Kentucky, Lexington, KY	11451
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2009-12-03 22:21:15	batch vi defleppard ver01	2252

Cool URIs

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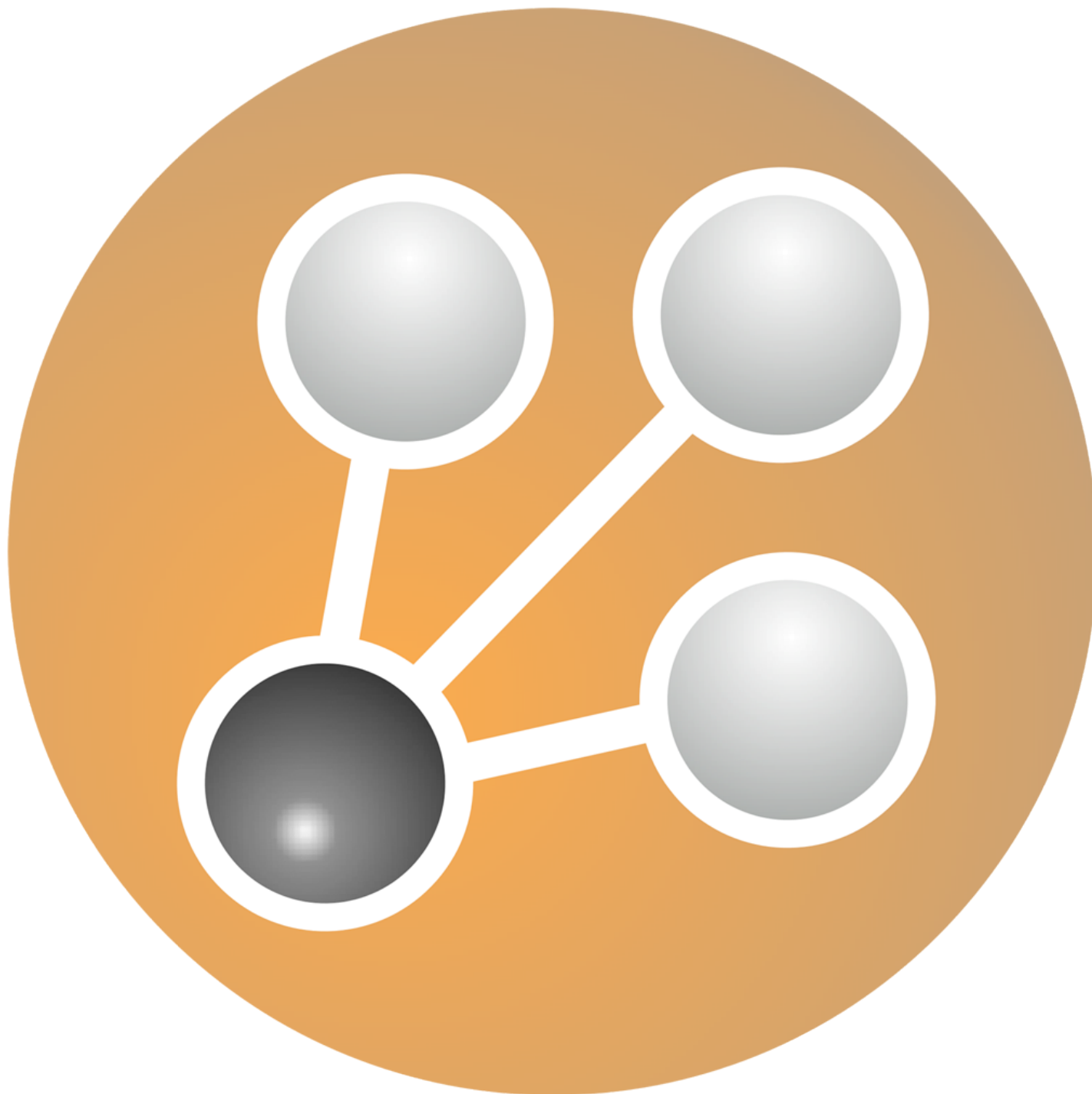
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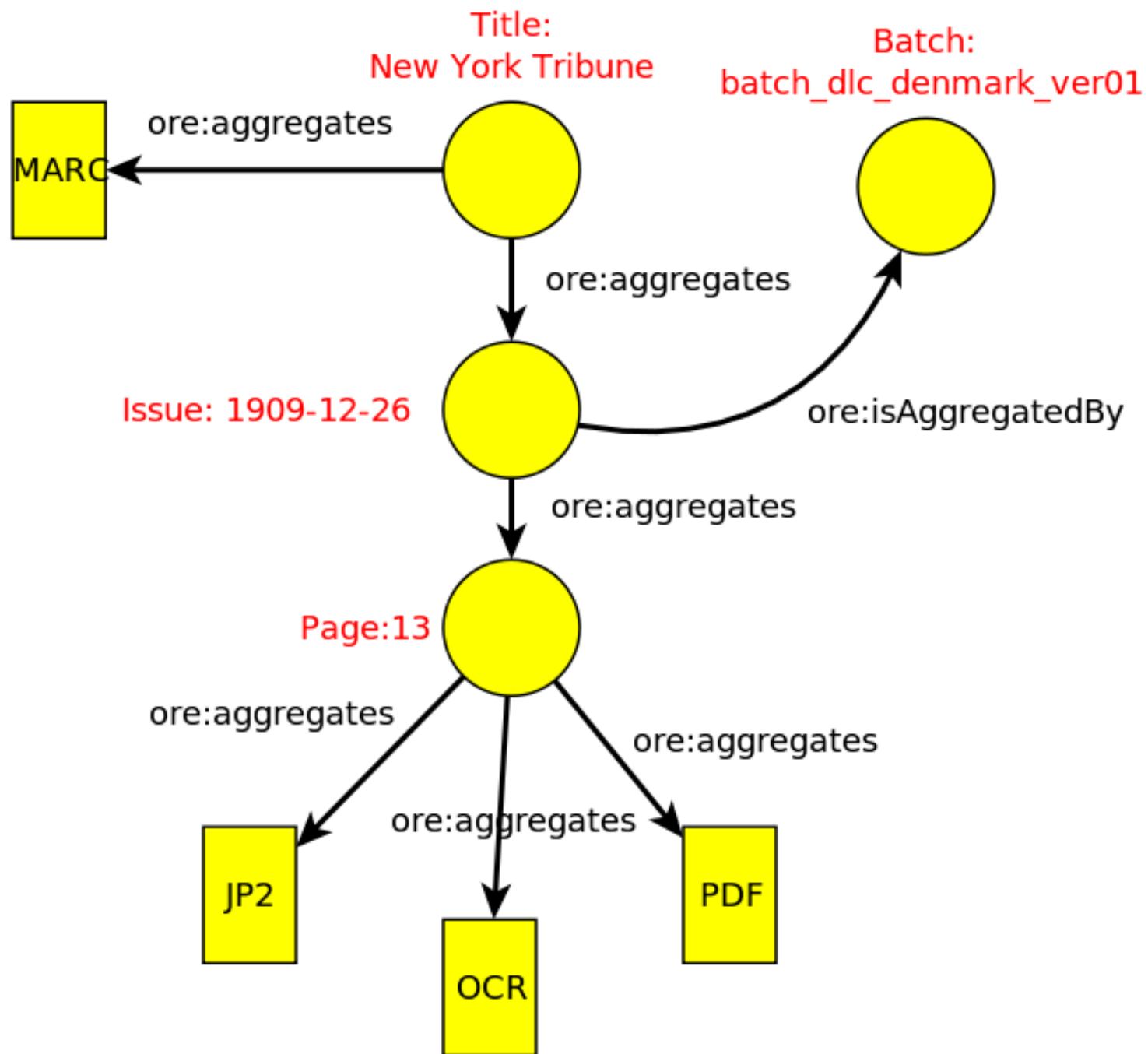
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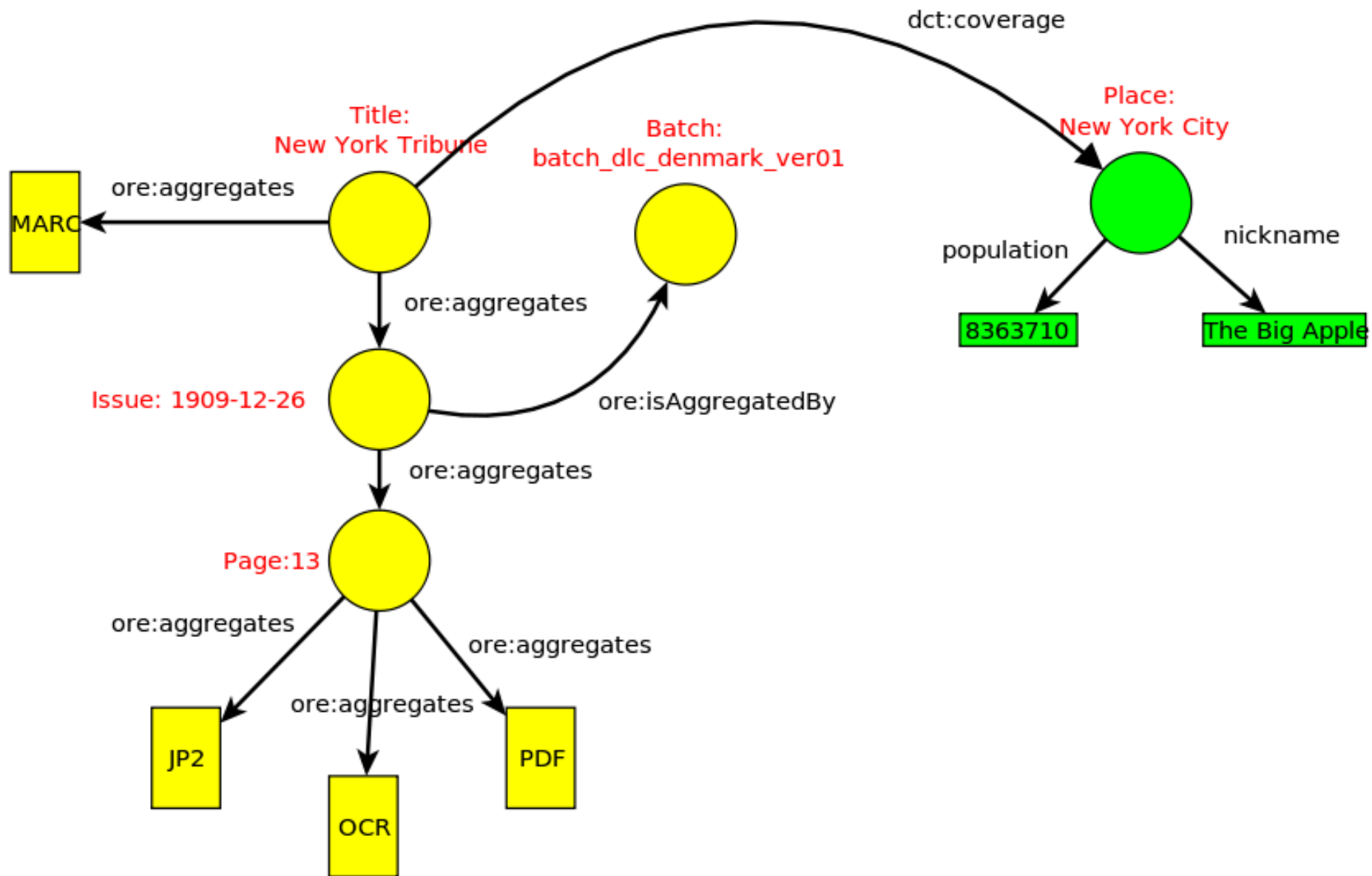
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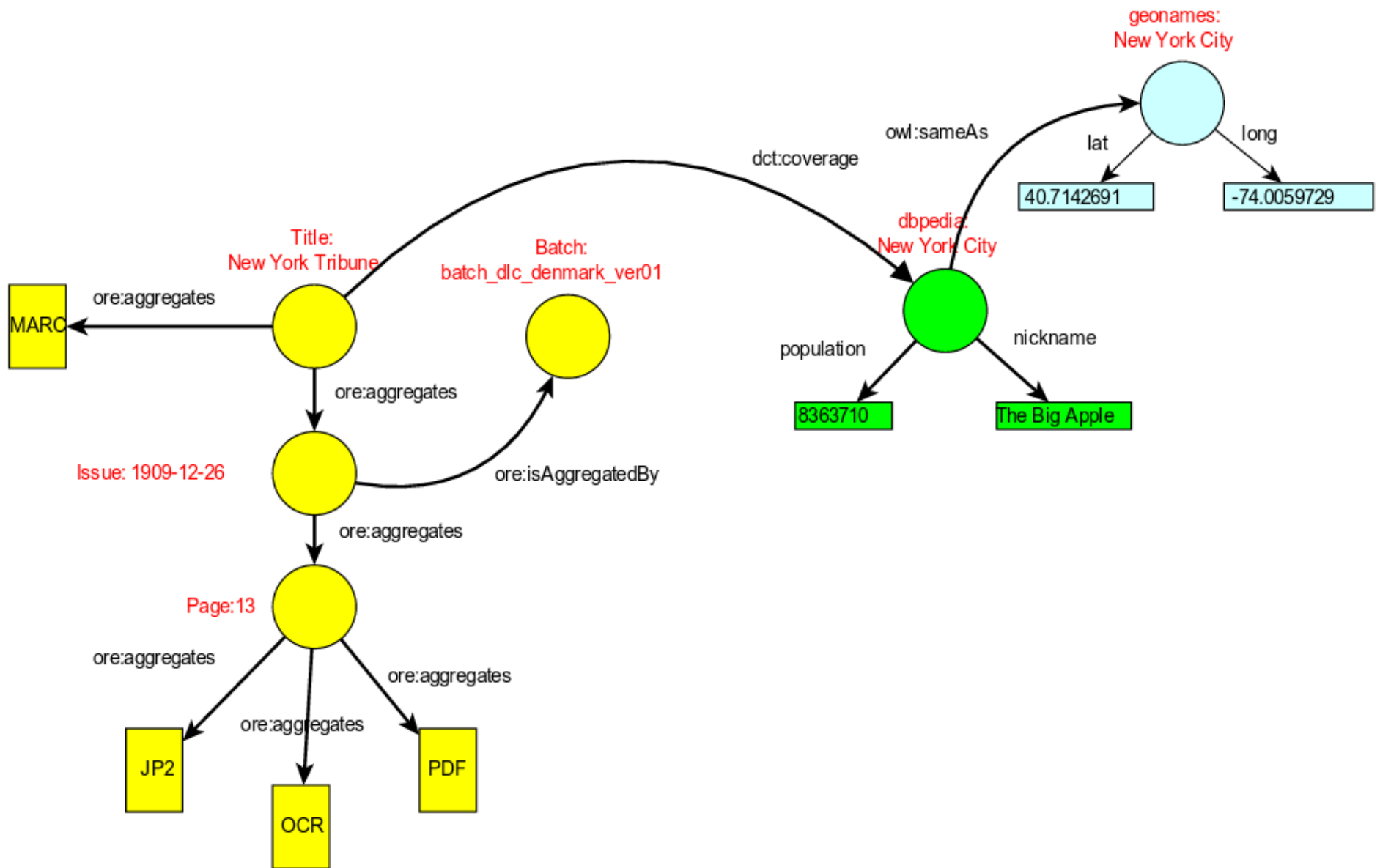
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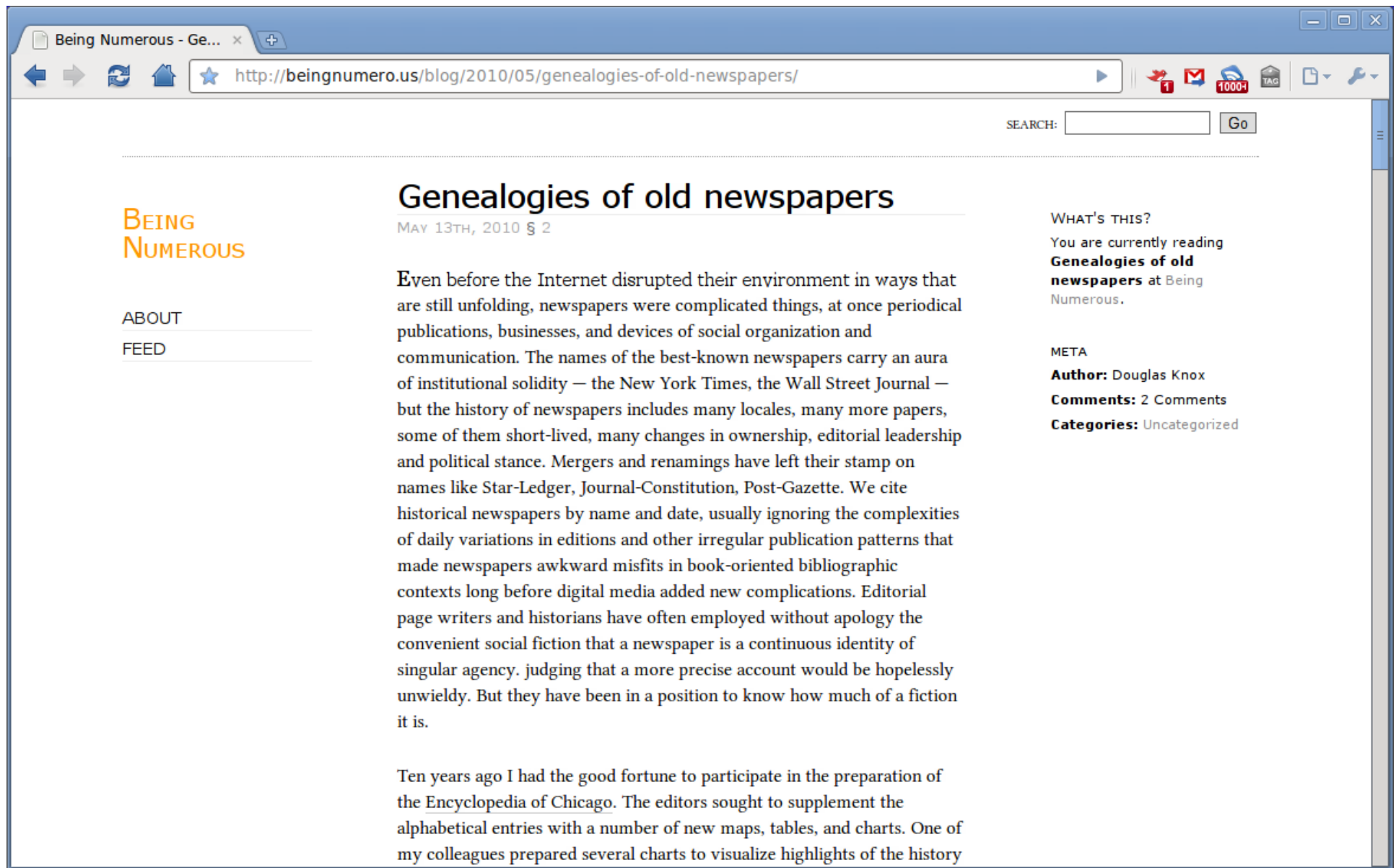
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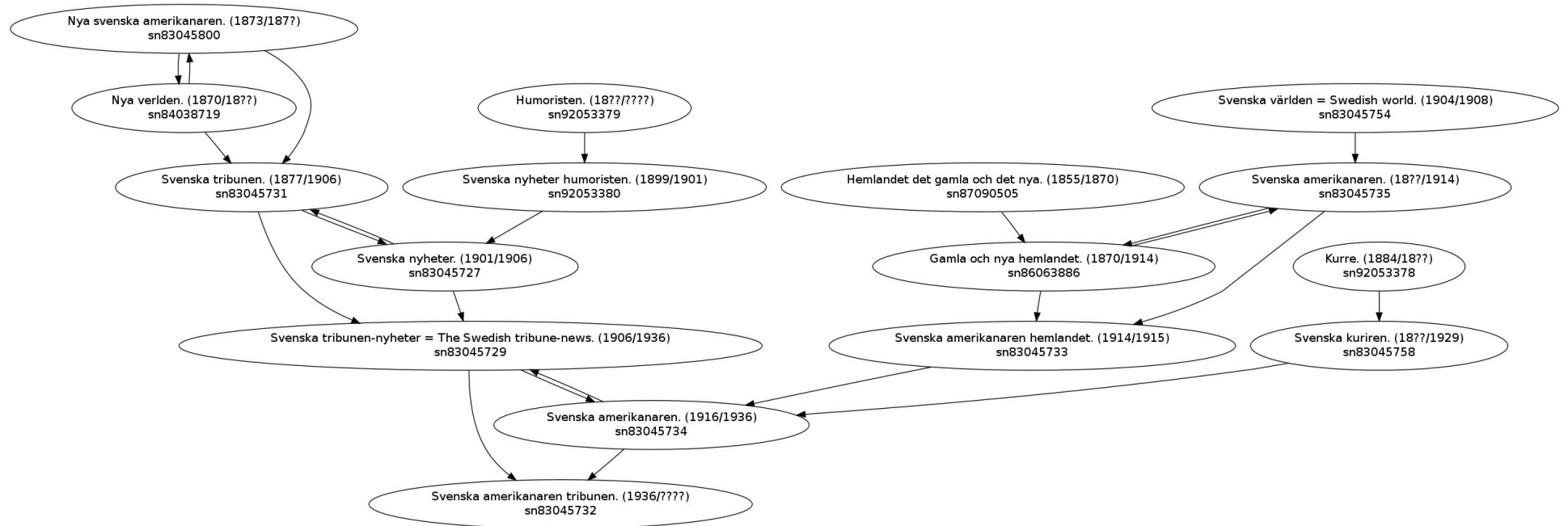
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sn82015543

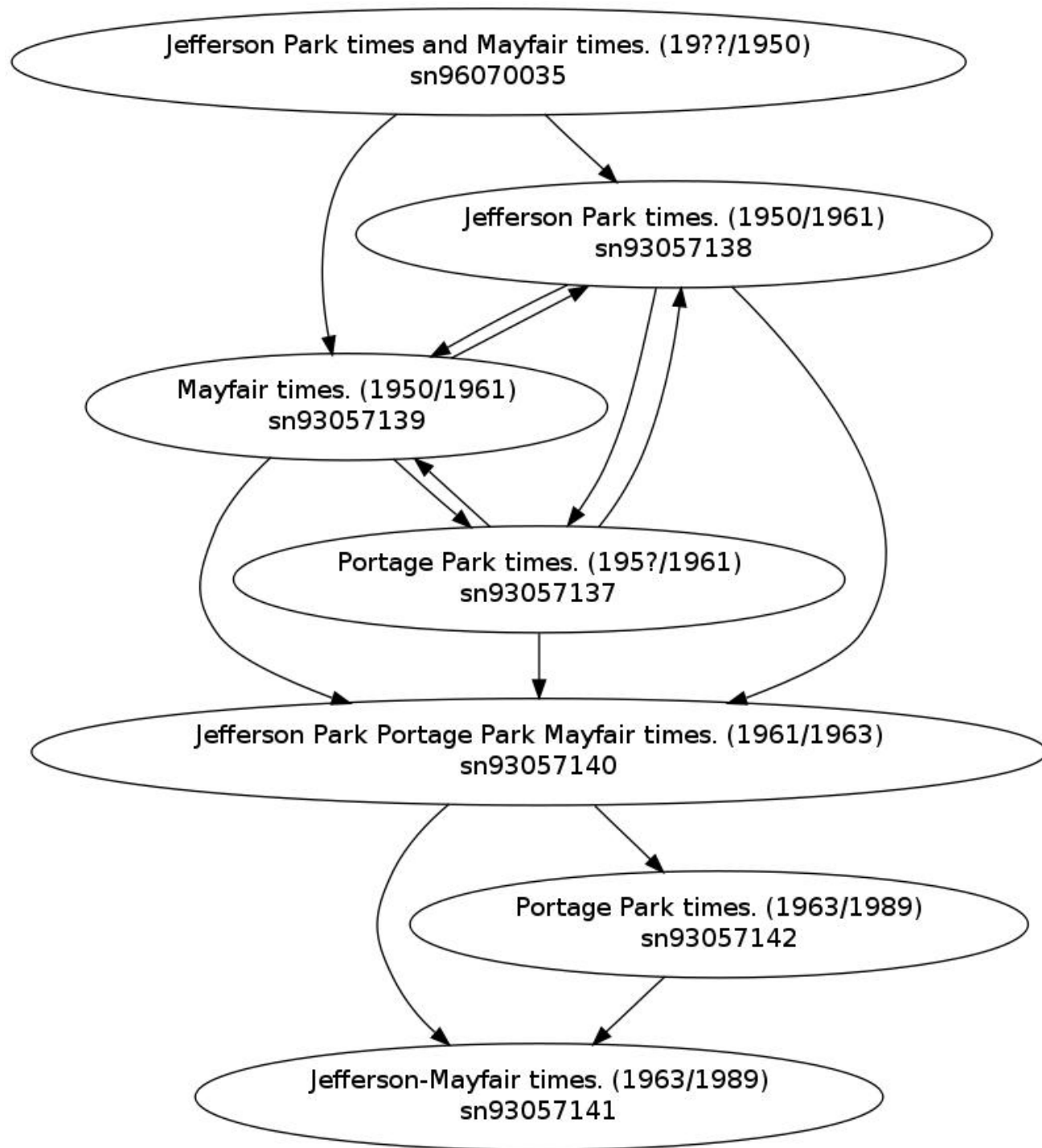


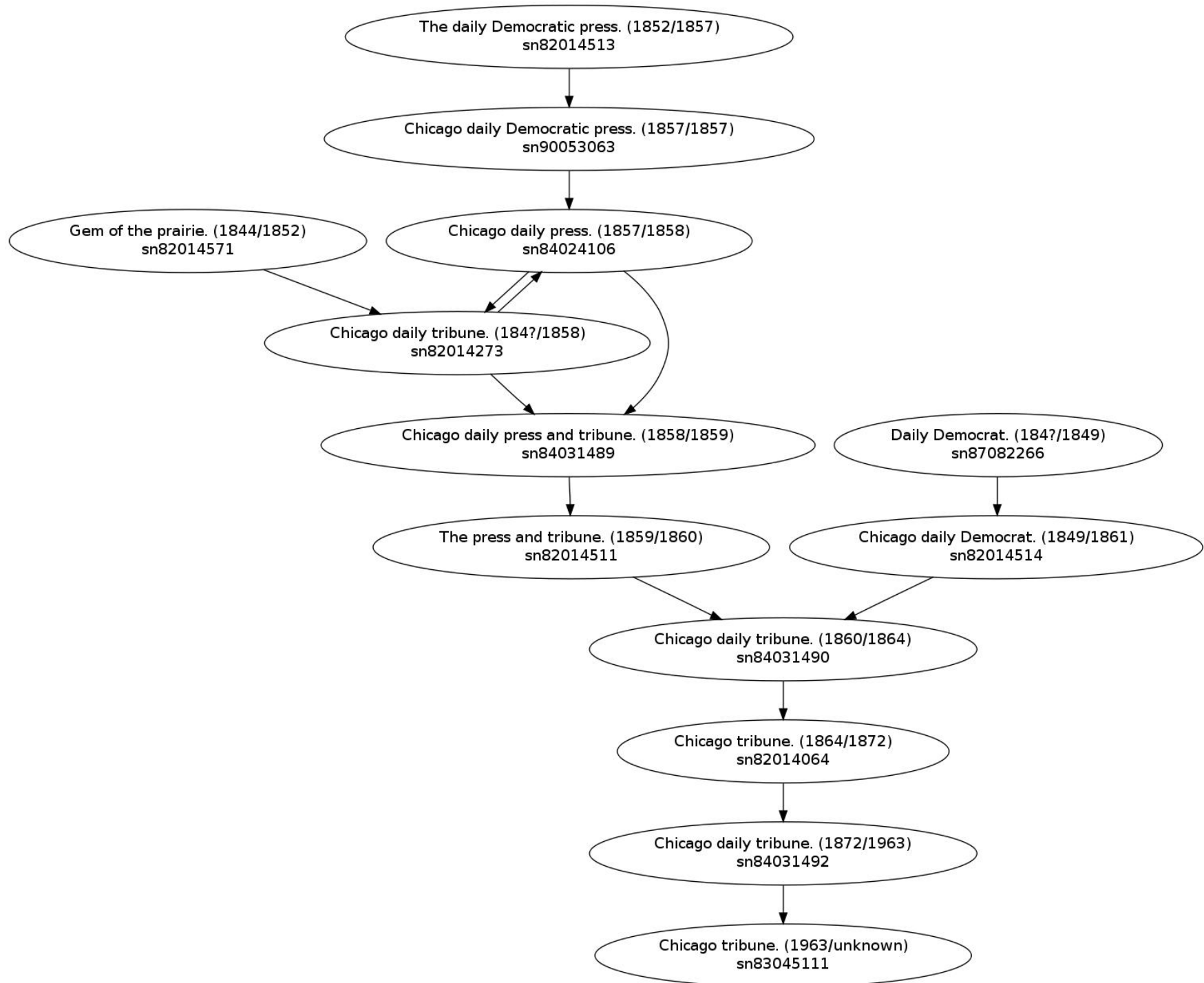
Herald of the prairies. (1847/1849)
sn87082262



Prairie herald. (18??/1853)
sn87082866







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Natural Language Processing with Python

Analyzing Text with the Natural Language Toolkit

By Steven Bird, Ewan Klein, Edward Loper

Publisher: O'Reilly Media

Released: June 2009

Pages: 512

Press Release

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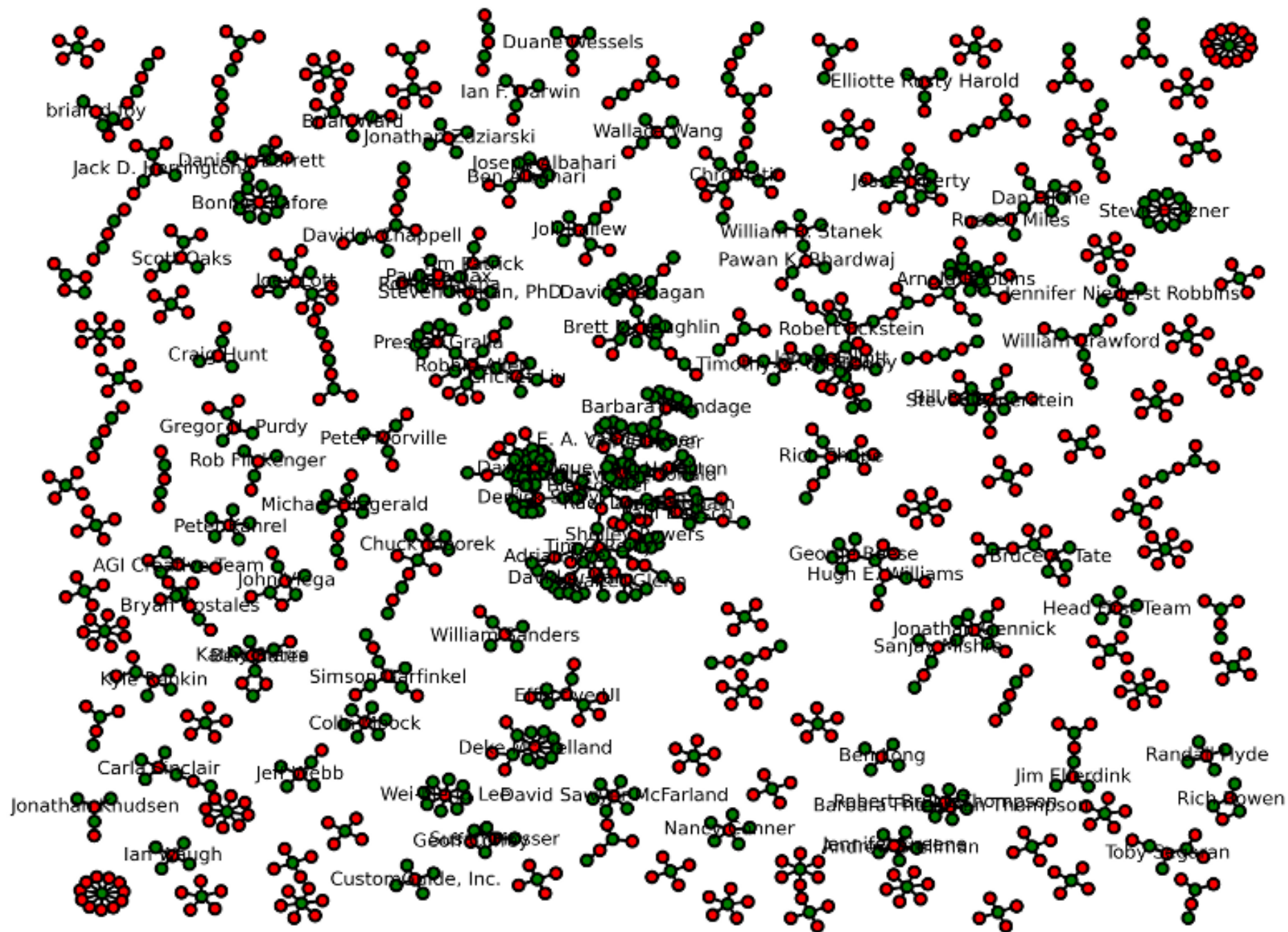
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Description

This book offers a highly accessible introduction to Natural Language Processing, the field that underpins a variety of language technologies ranging from predictive text and email filtering to automatic summarization and translation. You'll learn how to write Python programs to analyze the structure and meaning of texts, drawing on techniques from the fields of linguistics and artificial intelligence.

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A List Apart: Articles: ... x

http://www.alistapart.com/articles/introduction-to-rdfa/

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No. 286

A
LIST
apart
FOR PEOPLE WHO
MAKE WEBSITES

JUNE 23, 2009

Introduction to RDFa
by **MARK BIRBECK**

Published in: [Browsers, HTML and XHTML, Usability](#) | [Discuss this article »](#)



RDFa ("Resource Description Framework in attributes") is having its five minutes of fame: Google is beginning to process RDFa and Microformats as it indexes websites, using the parsed data to enhance the display of search results with "rich snippets." Yahoo!, meanwhile, has been processing RDFa for about a year. With these two giants of search on the same trajectory, a new kind of web is closer than ever before.

The web is designed to be consumed by humans, and much of the rich, useful information our websites contain, is inaccessible to machines. People can cope with all sorts of variations in layout, spelling, capitalization, color, position, and so on, and still absorb the intended meaning from the page. Machines, on the other hand, need some help.

Search ALA

☐ include discussions

Topics

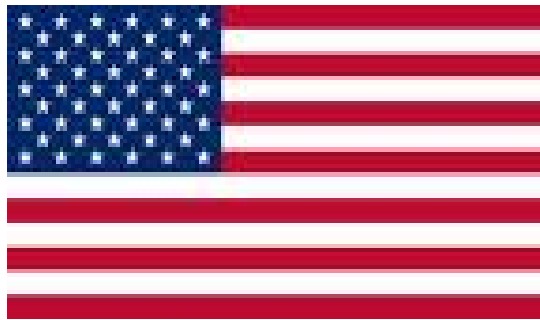
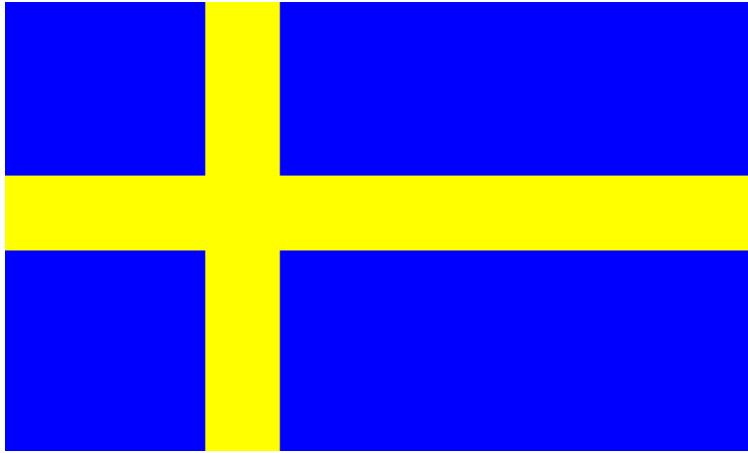
- ♦ [Code](#)
- ♦ [Content](#)
- ♦ [Culture](#)
- ♦ [Design](#)
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Snapshot

In part one of a two-part primer on RDFa, learn how semantic features normally confined to the head of an HTML document can be used to add semantic richness to the elements of the body. Mark Birbeck shows us how.

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<http://www.alistapart.com/articles/introduction-to-rdfa/>



Our new social contract cannot be forged in an exclusive club. New models will be hammered out in many forums, tested in OPACs and search engines, shaped and reshaped by many hands. They will differ from the one we are used to--they must, to satisfy the need for change.

Robert Wolven. In Search of a new model. netConnect, 01/15/2008.

Managers

- What unique materials do you have in your library that others might like to link to?
- Where has the web been? Where is it likely to go?
- Take some chances with your developers, and experimental ideas.

Developers

- Think about your resources and their identifiers.
- Link to machine readable representations in your HTML.
- RDFa / HTML5
- Enrich your data with links
- Build useful apps!

Researchers

- What algorithms can we use for linking our data?
- How can publishers find out when their data is being linked to?
- What vocabularies are being used?
- What resources are being described?

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A story about the Semantic Web

Transcript, interview bios, and other info on kateray.net
Downloadable version on drop.io/web3point0

Interviews with:
Tim Berners-Lee

<http://vimeo.com/11529540>

Let's Share What We Know



World Wide Web

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- Denton, William. De Revolutionibus. FRBR Blog. <http://www.frbr.org/2007/02/22/de-revolutionibus>
- Berners-Lee, Tim. Information Management: A Proposal. May 1990. <http://www.w3.org/History/1989/proposal.html>