

# Transparent and Scalable OpenURL Quality Metrics

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Cornell University Library

er&I, Austin, Texas, February 2, 2010

# OpenURL model

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**Journal:** [Library Hi Tech](#)  
**Year:** 2009 **Volume:** [27](#) **Issue:** [1](#) **Page:** 151 - 162  
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# OpenURL model

## incoming OpenURL

[http://linkresolver.library.cornell.edu:4550/resserv?&url\\_ver=z39.88-2004&url\\_ctx\\_fmt=info:ofi/fmt:kev:mtx:ctx&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:journal&rft.atitle=item-level+usage+statistics+a+review+of+current+practices+and+recommendations+for+normalization+and+exchange&rft.auinit=c&rft.aulast=merk&rft.date=2009&rft.epage=162&rft.genre=article&rft.issn=0737-8831&rft.issue=1&rft.place=bingley&rft.pub=emerald+group+publishing+limited&rft.spage=151&rft.stitle=lib+hi+tech&rft.title=library+hi+tech&rft.volume=27&rfr\\_id=info:sid/www.isinet.com:wok:wos&rft.au=scholze,+f&rft.au=windisch,+n&rft\\_id=info:doi/10.1108%2f07378830910942991/](http://linkresolver.library.cornell.edu:4550/resserv?&url_ver=z39.88-2004&url_ctx_fmt=info:ofi/fmt:kev:mtx:ctx&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&rft.atitle=item-level+usage+statistics+a+review+of+current+practices+and+recommendations+for+normalization+and+exchange&rft.auinit=c&rft.aulast=merk&rft.date=2009&rft.epage=162&rft.genre=article&rft.issn=0737-8831&rft.issue=1&rft.place=bingley&rft.pub=emerald+group+publishing+limited&rft.spage=151&rft.stitle=lib+hi+tech&rft.title=library+hi+tech&rft.volume=27&rfr_id=info:sid/www.isinet.com:wok:wos&rft.au=scholze,+f&rft.au=windisch,+n&rft_id=info:doi/10.1108%2f07378830910942991/)

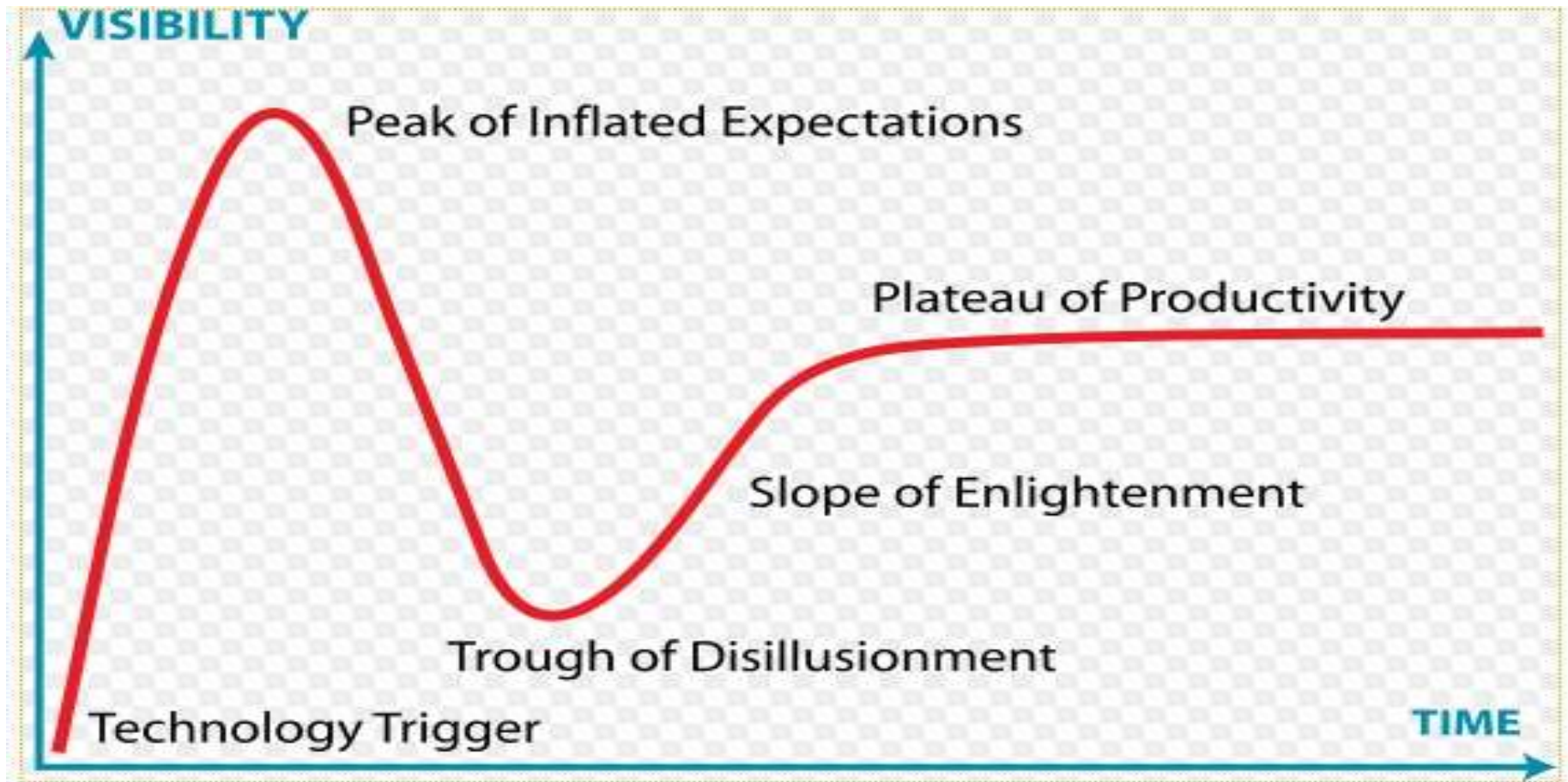
## in our knowledge base?

title: Library hi tech    issn: 0737-8831    start date: 19970101    end date:

## link-to syntax for Emerald

[http://www.emeraldinsight.com/rpsv/cgi-bin/cgi?body=linker&reqidx=#@ISSN-HYPHEN#\(#@DATE#\)#@VOLUME#:#@ISSUE#L.#@SPAGE#](http://www.emeraldinsight.com/rpsv/cgi-bin/cgi?body=linker&reqidx=#@ISSN-HYPHEN#(#@DATE#)#@VOLUME#:#@ISSUE#L.#@SPAGE#)

# OpenURL timeline



1999      2004

# NISO OpenURL Quality Initiative

**Adam Chandler** (chair). Cornell University  
Library

**Susan Marcin**. Columbia University

**Oliver Pesch**. EBSCO Information Services

**Ellen Rotenberg**. Thomson Reuters

**Elizabeth Winter**. Georgia Tech Library

# NISO OpenURL Quality Initiative

- Two year project
- Focus on incremental improvements, based around quarter (three month) time units
- Report at the end of the two years will make a recommendation about continuation

**“Transparent and Scalable  
OpenURL Quality Metrics”**

# Mellon funded planning grant for L'Année philologique

Is it possible to build an expert system that will evaluate the quality of OpenURLs from a content provider?

# Constant: Core elements used by content providers in their link-to targets

title - 64%

spage - 64%

volume - 61%

issue - 60%

date - 48%

aulast - 47%

issn - 35%

atitle - 35%


DOI - 14%

ISBN – 5%

Based on an analysis of link-tos in the Cornell instance of the III WebBridge link resolver product.

# OpenURL Quality

log file source:

Serials Solutions 

- element or string pattern variations for a vendor or service id
- core element frequency across vendors or service ids
- string pattern frequency across vendors or service ids

Submit

log file source	# of openurls analyzed
Cornell University	502047
EBSCO Information Services	378088
Georgia Institute of Technology	404810
Serials Solutions	2933553
	4218498

[About the NISO OpenURL Quality Metrics Initiative](#)

# OpenURL Quality

[home](#) / route report - logsource: ss

## Vendor and Sid centric reports

### 1a. Choose an OpenURL vendor for analysis:

libx 

### 1b. Choose an OpenURL sid for analysis:



### 2. Select a date range and log file:

elements  Q4  2009 

# origin report for libx

origin: libx

logsource: ss

totalopenurls: 1431778

totalopenurls analyzed from libx: 791

	% link-tos that recommend or require element	% of libx openurls that contain element	% of all other openurls that contain element
<b>title</b>	64	1	81
<b>btitle</b>	?	0	2
<b>jtitle</b>	?	0	8
<b>spage</b>	64	0	75
<b>volume</b>	61	0	73
<b>issue</b>	60	0	69
<b>date</b>	48	0	79
<b>aulast</b>	47	0	61
<b>issn</b>	35	0	75
<b>atitle</b>	35	0	81
<b>doi</b>	14	45	9
<b>isbn</b>	5	0	2
<b>pmid</b>	?	16	8
<b>eissn</b>	?	0	1

# origin report for Summon

origin: [summon.serialssolutions.com](http://summon.serialssolutions.com)

logsource: ss

totalopenurls: 1431778

totalopenurls analyzed from [summon.serialssolutions.com](http://summon.serialssolutions.com): 25746

	% link-tos that recommend or require element	% of <a href="http://summon.serialssolutions.com">summon.serialssolutions.com</a> openurls that contain element	% of all other openurls that contain element
<b>title</b>	64	3	81
<b>btitle</b>	?	0	2
<b>jtitle</b>	?	97	8
<b>spage</b>	64	95	75
<b>volume</b>	61	75	73
<b>issue</b>	60	75	69
<b>date</b>	48	100	79
<b>aulast</b>	47	0	61
<b>issn</b>	35	88	75
<b>atitle</b>	35	97	81
<b>doi</b>	14	0	9
<b>isbn</b>	5	1	2
<b>pmid</b>	?	0	8

[home](#) / [define parameters](#) / report by origin | report type: patterns

logsource: [git](#)

source: [.firstsearch.oclc.org](#)

totalopenurls analyzed: [136512](#) ; total openurls from origin = [firstsearch.oclc.org](#): [778](#)

category	metric	regex	% from firstsearch.oclc.org	% from all origins
artnum	artnum		0	4
atitle	atitle		5	88
atitle	atitle_colon	<code>/^.\+:\.+\$/</code>	1	16
atitle	atitle_other		4	42
atitle	atitle_simple	<code>/^[A-Za-z +]+\$/</code>	1	29
aulast	aulast		77	88
aulast	aulast_comma	<code>/^[A-Za-z]+\.\.+\$/</code>	0	1
aulast	aulast_hyphenname	<code>/^[A-Za-z].+[A-Za-z].+\$/</code>	1	2
aulast	aulast_other		2	2
aulast	aulast_simple	<code>/^[A-Za-z]+\$/</code>	73	85
date	date		99	91
date	date_dateother		0	2

# OpenURL Quality

[home](#) / route report - logsource: ss

## Core Element Frequency Report

issn ▼ Q2 ▼ 2009 ▼

by origins  by service ids

Submit

# core element report for ISSN

[home](#) / [choose core element](#)

## metric: issn

reporttype: bycore

logsource: ss

totalopenurls: 1431778

origin	# of total source openurls	# of source openurls containing issn	% source openurls containing issn
ieee.org	88	19	22
ifis	226	208	92
ijm.sagepub.com	4	0	0
impulse.worldcat.org	2	2	100
infoasidfsersolarefinerquery	2	0	0
infoex	53	53	100
infopoems	5	0	0
informa	249	83	33
informit	6100	4233	69
ingentaconnect.com	25	25	100
internal_articles	133	130	98
intqhc.oxfordjournals.org	8	8	100
iopp	83	65	78
ipfw.worldcat.org	91	88	97
isi	300	245	82

# OpenURL Quality

[home](#) / route report - logsource: ss

## String Pattern Element Frequency Report

aulast\_simple  Q4  2009

by origins  by service ids

[home](#) / [choose string pattern](#)

# metric: aulast\_simple

reporttype: **stringpattern**

logsource: **ss**

totalopenurls: **1431778**

origin	# of total source openurls	# of source openurls containing aulast_simple	% source openurls containing aulast_simple
<b>ecam.oxfordjournals.org</b>	1	1	100
<b>econgeol.geoscienceworld.org</b>	1	1	100
<b>edbook.ascopubs.org</b>	1	0	0
<b>edr.sagepub.com</b>	1	1	100
<b>ei</b>	9232	8584	93
<b>eid.sagepub.com</b>	1	1	100
<b>ejc.sagepub.com</b>	1	0	0
<b>ejw.sagepub.com</b>	2	2	100
<b>elsevier</b>	29249	21954	75
<b>elsevier%=ascopus</b>	1	1	100
<b>elsevier.com</b>	9	4	44
<b>eltj.oxfordjournals.org</b>	3	3	100
<b>embase</b>	570	516	91

# Global use of OpenURL elements

# Frequency within 4,218,498 OpenURLs

<b>element</b>	<b>percent</b>	<b>number</b>
<u>atitle</u>	80	3,401,428
date	80	3,365,039
title	78	3,299,071
<u>spage</u>	76	3,189,524
<u>issn</u>	75	3,166,129
volume	74	3,105,778
<u>aulast</u>	65	2,739,703

# Frequency within 4,218,498 OpenURLs

<b>element</b>	<b>percent</b>	<b>number</b>
<u>jtitle</u>	9	393,534
<u>pmid</u>	9	396,171
<u>doi</u>	7	312,864
<u>btitle</u>	3	140,924
<u>isbn</u>	2	83,026
<u>artnum</u>	2	63,547
<u>eissn</u>	1	32,183

# Frequency within 4,218,498 OpenURLs

<b>element</b>	<b>percent</b>	<b>number</b>
<u>aulast_other</u>	10	279332
date_other	3	98419
<u>spage_other</u>	2	52354
<u>issn_other</u>	< 1	20878
volume_other	< 1	14040

# Inherent problems with the OpenURL linking model

# Next steps

- migrate system to NISO domain/server
- create screencasts and other documentation
- engage OQ Working Group members and others in analysis of data
- refine and enhance reports
- start talking to content providers about their link-to services
- more data

# <http://openurlquality.blogspot.com>

## OPENURL QUALITY

THURSDAY, JULY 8, 2009

### Experimental OpenURL Quality Web Reporting System

Here is a link to the experimental metrics reporting system I am working on right now: <<http://scholarment.org/log/>>

POSTED BY ADAM CHANDLER AT 1:46 PM 0 COMMENTS  

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FRIDAY, JUNE 28, 2009

### Results of Mellon funded L'Année philologique OpenURL Quality Investigation

The research I am doing now is a continuation of a Mellon funded planning grant; here is a link to the OpenURL quality report section. It describes the approach I am taking.

POSTED BY ADAM CHANDLER AT 7:28 AM 0 COMMENTS  

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FRIDAY, JUNE 18, 2009

### Towards OpenURL Quality Metrics: Initial Findings Presentations at the 2009 American Library Association Annual Conference

ABSTRACT: The OpenURL standard is a widely deployed technology for linking to resources across the library supply chain. The OpenURL formatted URL carries the data about an item to the link resolver of the library. The resolver conveys the metadata embedded within the OpenURL with what is held in the library's collection and presents the available options in a results page. For a book, there is usually a link to the library's catalog card; for an article, ideally this is a link directly to the full-text of the article. At a typical academic library thousands of OpenURL requests are initiated by patrons each week. The problem is, too often these links do not work as expected, leaving patrons frustrated by a lower than desired quality of service. I am investigating the feasibility of creating industry wide metrics for evaluating and comparing the quality of OpenURL implementations across vendors.



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