New usage reports, new insights! How to use your COUNTER data in decision making processes

Athena Hoeppepner
University of Central Florida

Sonja Lendi
Elsevier, S.Lendi@elsevier.com

Kornelia Junge
Wiley, kjunge@wiley.com

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New Usage Reports, New Insights! How to Use your COUNTER Data in Decision-Making Processes

Athena Hoeppner, Discovery Services Librarian, University of Central Florida

Sonja Lendi, Usage Research Manager, Elsevier

Kornelia Junge, Senior Research Manager, Wiley

Abstract

Librarians have been receiving COUNTER Release 5 reports since February 2019 and are becoming familiar with the new robust usage data. In this session, three analytics experts explain how the new usage reports provide greater clarity and how they give insight into users' actions. The presenters show how to make the best use of the new reports, how to read them, how to interpret the data, and how to use the data effectively in the decision-making process. They explain the new terminology such as 'Unique_Item_Requests' and 'Unique_Title_Requests,' how these metrics provide comparability across journal and e-book platforms, and how to analyze the new reports using Microsoft Excel.

Part 1: Doing Things with Book Data / Athena Hoeppner

The COUNTER Code of Practice (CoP) Release 5 is a set of technical specifications for platform vendors. By applying these specifications users' interactions with interfaces and content are translated into consistently reported usage statistics. The CoP does not interpret user intent.

Usage Reports

In Release 4 of the COUNTER Code of Practice, there were 24 types of usage reports. Some were a mandatory requirement for compliance and others were optional. Some dealt with concepts that are now rather outdated, such as mobile usage. Release 5 of the COUNTER Code of Practice simplifies this by introducing four Master Reports.

- Platform Master Report (PR)
- Database Master Report (DR)
- Item Master Report (IR)
- Title Master Report (TR)

These reports are all mandatory for vendors who make available the relevant type of content. For example, it is mandatory for database publishers to provide libraries with the Database Master Report. It is mandatory for publishers of journal titles or book titles to provide libraries with the Title Master Report (TR). The Master Reports provide a lot of

data. In some cases, this is more data than librarians will need for common use cases. Therefore, there are 12 Standard Views (pre-canned), subsets of the Master Reports.

In this paper we are focusing on the Title Master Report (Figure 1) and its seven Standard Views. These are:

TR Standard View Reports: Books

- TR_B1 Book Requests (Excluding OA_Gold)
- TR_B2 Book Access Denied
- TR_B3 Book Usage by Access Type

TR Standard Views Reports: Journals

- TR_J1 Journal Requests (Excluding OA_Gold)
- TR_J2 Journal Access Denied
- TR_J3 Journal Usage by Access Type
- TR_J4 Request by YOP (Excluding OA_Gold)

Release 5 Attributes

Release 5 has added a series of elements and attributes to the longer standing metrics. These provide granular information about the content used. Not all of the attributes are used in all the COUNTER reports, and in this paper, we will focus on the attributes Data_Type and Section_Type.

Title	Publisher	Platform	DOI	Proprietary ID	ISBN	Print ISSN	Online ISSN	URL	Metric Type	Reporting Period Total
\$30 Film School	Course Tec	EBSCOhost		EBSCOhost:B978-1-59200-067					Total_Item_Requests	2
\$30 Film School	Course Tec	EBSCOhost		EBSCOhost:B978-1-59200-067					Unique_Title_Requests	1
10 Secrets to Successful Home B Pearson Pr		EBSCOhost		EBSCOhost:B978-0-13-145500					Total_Item_Requests	2
10 Secrets to Successful Home B Pearson Pr		EBSCOhost		EBSCOhost:B978-0-13-145500					Unique_Title_Requests	1
101 Best Web Sites for Teacher 1Internatio		EBSCOhost		978-1-56484-227					Total_Item_Requests	4
101 Best Web Sites for Teacher 1Internatio		EBSCOhost		978-1-56484-227					Unique_Title_Requests	1
101 Sample Write-Ups for Docur Amacom		EBSCOhost		EBSCOhost:B978-0-8144-1546					Total_Item_Requests	2
101 Sample Write-Ups for Docur Amacom		EBSCOhost		EBSCOhost:B978-0-8144-1546					Unique_Title_Requests	1
101 Strategies for Recruiting Suc Amacom		EBSCOhost		EBSCOhost:B978-0-8144-7407					Total_Item_Requests	4
101 Strategies for Recruiting Suc Amacom		EBSCOhost		EBSCOhost:B978-0-8144-7407					Unique_Title_Requests	4
101 UX Principles: A Definitive Di Packt Publi		EBSCOhost		EBSCOhost:B978-1-78883-736					Total_Item_Requests	6
101 UX Principles: A Definitive Di Packt Publi		EBSCOhost		EBSCOhost:B978-1-78883-736					Unique_Title_Requests	4
The 108 Skills of Natural Born Le Amacom		EBSCOhost		EBSCOhost:B978-0-8144-0646					Total_Item_Requests	2
The 108 Skills of Natural Born Le Amacom		EBSCOhost		EBSCOhost:B978-0-8144-0646					Unique_Title_Requests	2
10-Minute Toughness: The Ment The McGra		EBSCOhost		EBSCOhost:B978-0-07-160063					Total_Item_Requests	1
10-Minute Toughness: The Ment The McGra		EBSCOhost		EBSCOhost:B978-0-07-160063					Unique_Title_Requests	1
The 2002 Official Patient's Sourc Icon Health		EBSCOhost		EBSCOhost:B978-0-597-82990					Total_Item_Requests	1
The 2002 Official Patient's Sourc Icon Health		EBSCOhost		EBSCOhost:B978-0-597-82990					Unique_Title_Requests	1
2004 Report on the Global AIDS UNAIDS		EBSCOhost		EBSCOhost:B978-92-9173-355					Total_Item_Requests	1

Figure 1. Sample Title Master Report.

Data_Type is an attribute used in all four Master Reports and it identifies the type of content accessed by the user.

- Article
- Book
- Book Segment
- Database
- Dataset
- Journal
- Multimedia
- Newspaper_Or_Newsletter
- Other
- Platform
- Report
- Repository Item
- Thesis_Or_Dissertation

Section_Type is an attribute that identifies the type of section of content that was accessed by the user:

- Article
- Book

- Chapter
- Other
- Section

Metric_Types

Release 5 of the CoP introduces several new usage metrics, which break down into *Investigations* and *Requests*.

- Total_Item_Requests
- Total_Item_Investigations
- Unique_Item_Investigations
- Unique_Item_Requests
- Unique_Title_Investigations
- Unique_Title_Requests

All user interactions, including Requests, are Investigations. Requests report access of the full-content item. Full content can be HTML, PDF, epub, multimedia, or any other format.

Comparing Release 4 and Release 5

It is possible to compare usage across the COUNTER releases. Table 1 provides a mapping of the key metrics Release 4 reports to their Release 5 counterparts.

Table 1. Comparing Release 4 and Release 5.

R4 Report & Metric	R5 Best Match and Title Report Filter Parameters
BR1 Successful full-text requests at the book level	TR_BR1 (excludes gold open access content) TR filters: Metric: Unique_Title_Requests AND Data_Type=Book AND Access_Method=Regular
BR 2 Successful full-text requests (at the chapter/section level)	Metric: Total_Item_Requests AND Data_Type=Book AND Access_Method=Regular
JR1 Successful full-text article requests	TR_JR1 (excludes GOA) TR filters Metric: Total_Item_Requests AND Data_Type=Journal Access_Method=Regular

Unique_Titles Versus Unique_Items

Unique_Title metrics only apply to books, and this is the key metric for calculating cost per use at the book title level. Book chapters, multimedia, reports, and encyclopedia entries are all Unique_Items. It should be noted that a book delivered as a single PDF is counted as both a Unique_Title and a Unique_Item.

Total Items Versus Unique

In one user session, a user may click several times on one unique item or unique title. For example, a user investigates a book by clicking on:

1. The table of contents (ToC)
2. The abstract
3. An image
4. A chapter

The Unique_Title_Investigation count would be 1, because all the user's actions relate to the same book title. The Total_Investigations count would be 4, one for each click made by the user.

It is perhaps easier to see the metrics in action. In Figure 2 a busy user is exploring a book. She clicks on "About these proceedings," then on the HTML of the full text of the first chapter. She then clicks to download the PDF of the first chapter and the PDF of the second chapter. Finally, she clicks to download the PDF of the whole book. All these clicks are counted as shown in Table 2.

Book Report Use Cases

The Title Master Report contains an array of data. Librarians can use these reports to compare:

- Title vs. chapter use between platforms
- Use between institutions
- Use patterns per call number of print vs. electronic

These reports also reveal use patterns per DRM, by purchase type, and publication year. When librarians merge COUNTER with other data, they can undertake deeper analysis of the content they subscribe to. This involves a four-step process described in Table 3.

Counting all the clicks

Figure 2. Counting the clicks made by a user on a book platform.

Table 2.

Metric	Count	Notes
Total_Item_Investigations	5	Five clicks
Unique_Item_Investigations	3	Each chapter is a unique item and the whole book is a unique item
Total_Item_Requests	4	1st chapter HTML and PDF, 2nd chapter PDF and whole book PDF
Unique_Item_Requests	3	1st chapter, 2nd chapter and book
Unique_Title_Investigations	1	All the investigations relate to the same book title
Unique_Title_Requests	1	All the requests relate to the same book title

Once merged, the data sets can be analyzed for insights. For example, Figure 3 shows how Fund Code data has been merged with COUNTER usage data for books and chapters and the cost per book request calculated. Figure 4 shows the use of books and book chapters per subject in one institution.

Part 2: Journal Title Reports—Summary of Changes / Sonja Lendi

Release 5 of the COUNTER Code of Practice brought some smaller and bigger changes. There are new metrics and new reports. COUNTER also allows the inclusion of usage collected through Distributed Usage Logging (DUL). This protocol enables publishers to capture traditional usage activity related to

their content that happens on sites other than their own so they can provide reports of “total usage” regardless of where that usage happens.

The reports have different content. While the JR1 and JR5 reports in Release 4 included the gold open access (OA_GOA) content, the standard views TR_J1 and TR_J4 in Release 5 don’t. These reports make it easier to evaluate the usage excluding the OA_GOA usage. If you want to evaluate the total content available on the platform, you would need to use the TR_J3 report.

Another big change is that R5 reports don’t include “zero usage” titles. If you want to see which titles are not being used, you will need to combine the

Table 3. The four steps for merging and comparing COUNTER data with other data sets.

Step One	Get Data	<ul style="list-style-type: none"> • COUNTER Reports • Institutional KBART • Integrated Library System • Subscription and Purchase Agents • Vendor Dashboards and Admin
Step Two	Find a Match Point	Potential Match Points <ul style="list-style-type: none"> • Proprietary IDs • ISBN (print maybe best) • Titles • Other IDs
Step Three	*Mash the Data Together	<p>Counter Master Reports allow you to prefilter to create custom reports</p> <p>Select the Data_Type, Section_Type, Metric_Type, and other options to get just the data you need, OR</p> <p>Download the full set of data then filter in Excel</p> <p><i>Pull the needed elements into one table.</i></p> <ul style="list-style-type: none"> • VLOOKUP • SUMIFS • COUNTIFS • Name Ranges • INDEX MATCH?
Step Four	**Filter, Pivot, Sum, and Play!	<ul style="list-style-type: none"> • Filters • Pivot Table Slicers • Create Charts • Look for Values: <ul style="list-style-type: none"> ◦ Familiar to People ◦ Outliers ◦ Relevant

*Table 1 shows how to compare Release 4 and Release 5 data.

**Part 3 of this paper provides information that will help you with this step.

COUNTER usage reports with a KBART holdings report.

The Total Item Requests metric is very similar to the requests for full-text articles metric from the previous release. The new Unique Item Request metric, which counts how many different items were used within a session, gives a platform-agnostic measure

of usage. Whether the user uses both the HTML and the PDF format of the article or goes back to the article later in the visit, this metric will only count one unique item request.

New in the metrics suite is “investigation.” This metric measures any interaction with the article. This will include full-text usage (requests), abstract usage,

Fund Code	Number Purchased	Spend	Chapter Requests	Book Requests	Cost per Book Request
AC14A	11	\$ 707	22	8	\$1.38
BS11A	50	\$ 1,289	8	9	\$6.25
BS11M	1	\$ 159	-	-	
CARIB	27	\$ 785	29	113	\$0.93
CE15A	20	\$ 1,416	1	2	\$20.00
CH11A	24	\$ 722	-	-	
CH11M	2	\$ -	2,242	4,200	\$0.00
CI15A	9	\$ 253	-	2	
CJ16A	149	\$ 4,183	6	63	\$24.83
CM13A	49	\$ 1,912	5	6	\$9.80
EG12A	239	\$ 7,989	37	51	\$6.46
EL15A	24	\$ 818	-	2	
ER17A	13	\$ 260	3	4	\$4.33
FI14A	11	\$ 593	8	28	\$1.38
FL12A	60	\$ 1,642	10	17	\$6.00
FM12A	55	\$ 1,543	10	29	\$5.50
Grand Total	6,903	\$ 356,997	8,427	20,384	\$0.82

Figure 3. Fund Code data merged with COUNTER usage data.

Figure 4. Use of books vs. chapters per subject.

downloads of individual tables and figures, and interactions with multimedia content linked to the article. The type of interactions included may differ from platform to platform.

R5 Reports in Collection Management

The standard view TR_J1 will show you which titles are used most outside the OA_GOA model, and TR_J4 will give you the age distribution. These reports contain two metrics: Total Item Requests and Unique Item Requests. The Total Item Requests from TR_J1 can be used together with totals of the R4 JR1 minus JR1GOA numbers to look at trends over time. The Unique Item Requests is the new metric that can be used to compare usage over platforms.

The turnaway numbers can be found in TR_J2, which will show you which titles users are interested in but had no access to. You can also use the Title Master to combine this metric with the year of publication, to get a more granular view on the usage of nonsubscribed content.

Engagement With the Platform and the Content

Using the investigation metric, you can get an impression of how engaged the users are with a publisher platform. Do the users just download the PDF, or do they interact with the article by downloading the items that are linked to the articles? Higher levels of engagement are indicated by higher ratios for Total Item Investigations vs. Unique Item Investigations.

The text and data mining (TDM) activity has been integrated in the regular set of COUNTER reports. It is defined as an Access Method in R5 and can be reported in the Title Master.

Lastly, usage of content on third-party platforms, collected through the DUL protocol, gives a new way of measuring engagement. If a user adds an article to their Mendeley library and subsequently uses this article, this interaction with the article after the initial download can be included in the COUNTER Master Reports. It is a new way of measuring the value of the content to the user.

Part 3: Working With COUNTER 5 Reports in Microsoft Excel / Kornelia Junge

Many librarians use Microsoft Excel to analyse usage. The new COUNTER 5 report formats can present

some initial hurdles. This presentation focused on the most frequently asked questions sent to COUNTER since the launch of Release 5:

- How do I add totals to a report?
- How do I compare 2019 data to 2018?

Totals

The simplest way to add totals is to use the SUMIF function (Figure 5). It consists of three components:

- The range of cells that hold the categories that you are looking for, for example, the column with the Metric Types
- The address of the cell with the value that you want to look up, for example, "Unique_Item_Requests"
- The range of cells that contain the numbers that you want to add up

Adding \$ signs to the components that need to remain stable will allow you to copy the formula into other cells. Since all COUNTER reports have the same structure, you can copy the formula from one report to the next with only slight modifications.

Comparing 2019 to 2018

The metric types have changed from COUNTER 4 to COUNTER 5, but the Total Full-Text Requests from COUNTER 4 are similar enough to the Total_Item_Requests in COUNTER 5 to allow direct comparisons. The only difference between them is the extended timeframe for double-clicks identification.

The standard Excel method to import data from one sheet into another is the VLOOKUP function (Figure 6). It has four components:

- The cell address of the value that you want to look up (in the main sheet).
- The cell range in the "other" sheet where you expect to find your lookup value.
- The relative column number of the values you want to import. This is identified by counting how many columns to the right of your lookup column the column with the values is located; for example, if you look up a journal title that is in column A, and the usage of that journal is in column E, you put

Figure 5. SUMIF.

Figure 6. VLOOKUP

“5” into your formula, since column E is 5 columns to the right of A (including A).

- Detail about the value that you want returned if no match is found, usually “false.”

Unfortunately, VLOOKUP will return good results only if each element, for example each title, is present in *both* reports, and *only once per report*. Any other condition will lead to usage being omitted or overcounted. Therefore it is recommended instead to:

- Copy the columns with the identifiers, for example publication titles or IDs, from report 2018 into report 2019, directly underneath the corresponding identifiers.
- Copy the usage from sheet 2018 into sheet 2019 directly under the corresponding usage (Figure 7).
- Add a column that indicates which usage is from 2018 and which from 2019, and name that column “Year.”

- Create a pivot table (Figure 8):
 - Highlight the cell range that covers your identifiers up to the columns where the usage is located.
 - Click “insert Pivot Table.”
 - Drag the titles into the “Rows” area, the year into the “Columns” area, and the usage into the “data” area.

Et voilà!

More Excel functions and advice can be found in the COUNTER foundation class 10, which is available on YouTube (https://www.youtube.com/watch?v=AU_DBLi4hSo). It covers:

- Data Import
- Adding Totals
- Tables and Pivot Tables
- Comparing Reports
- Excel and JSON

Figure 7 shows an Excel spreadsheet with the following data:

	Title	ISBN	Metric_Type	Reporting_Period_Total	Year
22430	International Textbook of Diabetes Mellitus	978-0-470-86209-4	Total_Item_Requests	4	2019
22431	Encyclopedia of Cognitive Science	978-0-470-01886-6	Total_Item_Requests	368	2019
22432	The Cancer Handbook	978-0-470-02507-9	Total_Item_Requests	51	2019
22433	Encyclopedia of Statistics in Behavior	978-0-470-01319-9	Total_Item_Requests	422	2019
22434	Encyclopedia of Computational Mechanics	978-0-470-09135-7	Total_Item_Requests	425	2019
22435	Encyclopedia of Ethical, Legal and Political Issues	978-0-471-25059-3	Total_Item_Requests	6	2019
22436	The Internet Encyclopedia	978-0-471-48296-3	Total_Item_Requests	26	2019
22437	Organic Syntheses	978-0-471-26422-4	Total_Item_Requests	232	2019
22438	Encyclopedia of Environmental Microbiology	978-0-471-26339-5	Total_Item_Requests	69	2019
22439	Encyclopedia of Inorganic Chemistry	978-0-470-86210-0	Total_Item_Requests	479	2019
22440	eLS	978-0-470-01590-2	Total_Item_Requests	21838	2019
22441	Handbook of Vibrational Spectroscopy	978-0-470-02732-5	Total_Item_Requests	103	2019
22442	Handbook of Metalloproteins	978-0-470-02863-6	Total_Item_Requests	15	2019
22443	1 & 2 Thessalonians: Through the Centuries	978-1-444-39012-4		609	2018
22444	10 Good Questions About Life and Death	978-0-470-77503-5		551	2018
22445	10 Moral Paradoxes	978-0-470-69660-6		373	2018
22446	10 Steps to a Digital Practice in the Cloud	978-1-119-44931-7		350	2018
22447	10 Virtues of Outstanding Leaders: Leadership	978-1-118-55165-3		582	2018
22448	100 Years of Spanish Cinema	978-1-444-30479-4		210	2018
22449	100 Years Werner Heisenberg: Works and Writings	978-3-527-61085-3		686	2018
22450	101 More Ways to Make Training Active	978-1-119-15475-4		499	2018
22451	101 Ready-to-Use Excel® Macros	978-1-118-98392-8		607	2018
22452	101 Ways to Make Learning Active Beyond the Classroom	978-1-119-15476-1		867	2018

Figure 7. Preparing data from two reports for a pivot table.

Figure 8. Populating the pivot table.