Business Intelligence Tool Implementation

Copyright Office Modernization
Webinar Series
February 26, 2020

The webinar will begin promptly at 12:00 pm EST
SUBMITTING QUESTIONS

To submit a question, use the Q&A dialog box in the lower right corner. You may submit a question during any portion of this webinar, however, questions will be answered at the end of the presentation.

Please note: we may not be able to answer all questions received in the allotted time. Thank you.
INTRODUCTION

Maria Strong
Acting Register of Copyrights
and Director of the U.S. Copyright Office
MODERNIZATION UPDATE

Ricardo Farraj-Feijoo
Director of the Copyright Modernization Office
Our vision is to enable Office staff to discover real-time quantitative analysis through the upcoming business intelligence. This will promote:

- Evidence based decision making;
- Data availability, data transparency, data searchability;
- Identification of data gaps, issues, holdups, and resource crunches;
- Identification of areas for improvement, modification, and streamlining;
- Identification of key metrics and a greater understanding of Office processes and correspondence with the public.

Jason Hosford
Data Manager
WHAT IS BUSINESS INTELLIGENCE?

Business Intelligence is a technology driven process to collect, curate, and disseminate business information for data driven decision making. BI provides access to information and improves data literacy that helps in performance management and streamlining operations.

Suman Shukla
Data Management, Section Head
COMMON MANAGEMENT QUESTIONS

• Just show me what is important.
• Why are two people presenting same metrics with different numbers?
• We have tons of data, what can we do with it?
• How can we make fact based decisions?
WHAT BUSINESS INTELLIGENCE DOES

• What questions do you want answered? – reports/visualization/analytics

• Why is it happening the way it is happening? – drilling down the information, looking at road blocks, holds ups.

• How to address the problem? – identifying the problem areas. For example; improving performance by reducing cycle time, workload distribution for complex tasks, communication/correspondence issues, technology restrictions, and more.
BUSINESS INTELLIGENCE AT THE OFFICE

The Office has a need for a copyright enterprise-scale Business Intelligence (BI) and analytics capability to enable data-driven and fact-based decisions to support the ongoing modernization activities as well as delivering reporting services of the events, occurrences, and activities that can help improve copyright business process and customer satisfaction.

- Implement Business Intelligence Tool in the Copyright Office
- Create BI capabilities for analytics, visualizations, ad hoc reporting and dashboards.
- Train the trainers.
Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

Registration

Number of Copyrights Registered

1.63k

Registrations by Work Type

We see that serials and renewals are the office's most popular registration types.

Registrations Over Time

The number of registrations throughout the year stay constant, indicating no cyclical business patterns. There is a steep decrease in December that should be explored.

<table>
<thead>
<tr>
<th>Date.autoCalendar.Month</th>
<th>Count([Fact.Registration Number])</th>
<th>Linear Trend Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
<td>1633</td>
<td>-</td>
</tr>
<tr>
<td>Jan</td>
<td>147</td>
<td>-</td>
</tr>
<tr>
<td>Feb</td>
<td>70</td>
<td>-</td>
</tr>
</tbody>
</table>
Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.
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**Registration**

**Number of Copyrights Registered**

- **Total**: 1633
- **Registered**: 59
- **Not Registered**: 1574

<table>
<thead>
<tr>
<th>Has the fee been received?</th>
<th>Has the deposit been received?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>59</td>
</tr>
<tr>
<td>Yes</td>
<td>1574</td>
</tr>
</tbody>
</table>

**Registrations By Work Type**

- Visual Arts: 16
- Sound Rec.: 8
- Literary: 12
- Serial: 8
- Performance: 4
- Renewal: 2
- Mask Work: 1
- Correction: 0

**Registrations Over Time**

The number of registrations throughout the year stay constant, indicating no cyclical business patterns. There is a steep decrease in December that should be explored.
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**Fees**

**Total Fees Received**

$XX,XXX

**Fees by Category of Work**

- Literary Work: $XX,XXX
- Sound Recording: $XX,XXX
- Performing Arts: $XX,XXX
- Visual Arts: $XX,XXX
- Serial: $XX,XXX
- Renewal: $X,XXX

*The data set contains negative or zero values that cannot be shown in this chart.*

**Where Our Customers Are**

Hover over points below to get more details about the fees and customers in that city.

**Fees Received in 2018**

There are clear peaks in revenue from fees over the year, which could indicate seasonal or cyclical trends. Historical data should be further explored to confirm.
Disclaimer: numbers and data are manufactured for visualization purposes only and do not reflect actual data.

**Fees**

**Total Fees Received**

$XX,XXX

**Fees by Category of Work**

- Literary Work: $XX,XXX
- Sound Recording: $XX,XXX
- Performing Arts: $XX,XXX
- Visual Arts: $XX,XXX
- Special: $XX,XXX
- Retention: $XX,XXX

*The data set contains negative or zero values that cannot be shown in this chart.*

**Where Our Customers Are**

Hover over points below to get more details about the fees and customers in that city.

- Select one country to see the cities
- Select the USA to see Congressional Districts

**Fees Received in 2018**

There are clear peaks in revenue from fees over the year, which could indicate seasonal or cyclical trends. Historical data should be further explored to confirm.
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Fees

Pick a Date Range
Select date range

Fees by Category of Work
Renewals bring in the largest amount of fees, significantly more than the next highest category of work, sound recordings.

- Literary Work $XX,XXX
- Visual Arts $XX,XXX
- Performing Arts $XX,XXX
- Sound Recording $XX,XXX
- Serial $XX,XXX
- Renewal $XX,XXX

Where Our Customers Are
Hover over points below to get more details about the fees and customers in that city.

Select one country to see the cities
Select the USA to see Congressional Districts

Total Fees Received
$XX,XXX

Fees Received in 2018
There are clear peaks in revenue from fees over the year, which could indicate seasonal or cyclical trends. Historical data should be further explored to confirm.

Total Fees Received
$0 to $18,000

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
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Registrations Handled
The number below represents how many registrations a selected employee or team processed in 2018-2019. Over this time period, 1,633 registrations were processed.

**Registrations Handled**
1,633

**Correspondence Pending**
70

**Purpose of Correspondence**
Analyzing the purpose of correspondence may shed light on areas of the application process that could be improved to prevent future correspondence.

<table>
<thead>
<tr>
<th>Purpose of Correspondence</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invalid Address</td>
<td>91</td>
</tr>
<tr>
<td>Incorrect Information</td>
<td>84</td>
</tr>
<tr>
<td>Missing Fee</td>
<td>43</td>
</tr>
<tr>
<td>Missing Deposit</td>
<td>39</td>
</tr>
<tr>
<td>Missing Multiple Parts</td>
<td>9</td>
</tr>
<tr>
<td>Missing Application</td>
<td>5</td>
</tr>
</tbody>
</table>

* The data set contains negative or zero values that cannot be shown in this chart.
Registrations Handled
The number below represents how many registrations a selected employee or team processed in 2018-2019. Over this time period, 1,833 registrations were processed.

Correspondence Pending

Purpose of Correspondence
Analyzing the purpose of correspondence may shed light on areas of the application process that could be improved to prevent future correspondence.

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Registrations Handled
The number below represents how many registrations a selected employee or team processed in 2018-2019. Over this time period, 1,633 registrations were processed.

Registrations Handled
277
36
Incomplete Registrations

Purpose of Correspondence
Analyzing the purpose of correspondence may shed light on areas of the application process that could be improved to prevent future correspondence.

Invalid Address
43
Incorrect Information
42
Missing Fee
25
Missing Deposit
23
Missing Multiple Parts
4

Correspondence Method
Tracking phone and mail correspondence is a manual process.
Average Days to Resolve

50.79

Correspondence Purpose *

It is obvious that invalid addresses is what causes the most correspondence. This could mean that more data validation is needed prior to submitting registration applications. Select a category below to see more information.

Correspondence Method
- Email
- Mail
- Responding Employee

Invalid Address
- 91

Incorrect Information
- 84

Missing Fee
- 43

Distribution of Days Open

The histogram below displays the average days that a correspondence is open and the distribution of days open.

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Average Days to Resolve

52.8

Awaiting Action
This chart shows what proportion of open correspondence are awaiting library action and what proportion is awaiting customer response.

Correspondence Purpose *
It is obvious that invalid addresses is what causes the most correspondence. This could mean that more data validation is needed prior to submitting registration applications. Select a category below to see more information.

Distribution of Days Open
The histogram below displays the average days that a correspondence is open and the distribution of days open.

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Average Days to Resolve

44.73

Correspondence Purpose
It is obvious that invalid addresses is what causes the most correspondence. This could mean that more data validation is needed prior to submitting registration applications. Select a category below to see more information.

- Missing Deposit
- Missing Fee
- Missing Multiple Parts
- Awaiting Action

Awaiting Action
This chart shows what proportion of open correspondence are awaiting library action and what proportion is awaiting customer response.

- Library: 68.6%
- Customer: 31.4%

Distribution of Days Open
The histogram below displays the average days that a correspondence is open and the distribution of days open.

Frequency

Days open

0
10
20
30
40
50
60
70
80
90
100
110
120
130
140

Concept 2/2020
BENEFITS OF USING BUSINESS INTELLIGENCE

• **Valuable business insights** – highlights what is working and what needs improvement.

• **Fast and accurate reporting** – business can act quickly based on real time, relevant information presented in an easy to read format.

• **Increased revenue** – important goal for decision making, BI helps ask better questions about why things happened by comparing information.

• **Customers are valued partners** – listening to the customer helps understand customer behavior and inform recentness, frequency, and correspondence methods to better serve their needs.
Questions?

To submit a question, use the Q&A dialog box in the lower right corner.

Please note: we may not be able to answer all questions received in the allotted time. Thank you.
Learn More

For More Information:
copyright.gov/copyright-modernization

Send Questions To:
askcmo@copyright.gov