

Social media and library metrics and indicators: how can we measure impact on performance?

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Introduction

Libraries and other cultural heritage institutions initially started to use social media as a cost-effective means to reach users and let them know about their services, activities and resources. More recently, they have realized that disseminating promotional messages should account for only a small part of their social media activity if they intend for these tools to work fully to their benefit in an environment of global competition for attention. They are also realizing the actual cost of planning, managing, deploying and evaluating a community-oriented and participatory social media presence may be proportional to the potential benefits to be achieved. In an era of accountability and quality management, libraries are wondering: what is the impact of our social media investments on our libraries' performance? The goal of this paper is to spark discussion on the measurement of conversion of social media efforts into library performance that will, ultimately, lead to the identification of a set of metrics and indicators that may guide libraries' use of social media and improve library performance and quality.

Social media metrics

No international consensus has yet been reached on the set of metrics that would best measure the efficiency of social media in any given context. Among the most influential social media metrics are Kaushik's (*TrueSocialMetrics*), who recommends using four simple metrics: Conversation rate (comments, replies), Amplification rate (retweets, shares), Applause rate (favourites, likes), and Economic value (revenue+cost savings) (2011). The Conclave (2013) suggests six metrics: Content & sourcing (data sources and research methods), Reach & impressions, Engagement & conversation (interaction, discussion), Opinion & advocacy (sentiment, action), Influence, Impact & value (outcome: effect, importance, ROI). Measuring social media ROI (a type of return or impact metrics) has been found to be particularly challenging for most professional marketers (Sprout Social, 2018).

Agostino and Sidorova (2016) propose a social media performance measurement system framework based on a review of the literature that identified a selection of financial and non-financial indicators: social media ROI, network structure, interactions (likes, comments, shares), content/conversation, and users' sentiment/opinion. Although their framework provides a rationale for future research, its practical utility has not yet been tested.

Library use of social media metrics

Most of the social media metrics currently used by libraries are adapted from metrics favoured in corporate settings, and usually envisaged in the respective analytical tools. In a 2013 global survey, Liew, King and Oliver (2015) observed that most of the cultural heritage institutions responding had engaged in or were in the process of evaluating their social media activities. The obstacles to such assessment cited by respondents included "lack of resources", "shortage of skills", and "difficulties experienced with identifying metrics or measuring success". The challenge in social media evaluation is, indeed, as Showers suggests, to know "what we want to measure and why" (2015, p. 115). Matthews contends that any social media metrics selected by a library "should be able to measure four perspectives: exposure, engagement, influence, and results" (2018). In this vein, a significant contribution is that of González-Fernández-Villavicencio (2016), who compiled a set of social media metrics for library settings organised into six categories: Reach (popularity, size, visibility), Activity frequency (number of posts, uploads, etc.), Loyalty (website traffic from social media), Influence (users' brand perception: mentions, sentiment, reputation index), Engagement (comments, shares, views, downloads, etc.), and Conversion (return on investment: number of downloads of digital collections, downloads of tutorials, number of loans, etc.). Based on a selection of these metrics and indicators, the National Library of Spain found a strong link between their social media campaigns and a significant increase in digital collection usage and visits to their website (Carrillo Pozas, 2017).

Table 1. Selected social media and library metrics and indicators.

Social media metrics	ISO 2789:2013	ISO 11620:2014
<ul style="list-style-type: none"> ▪ Audience: followers, subscribers. ▪ Activity: publications. ▪ Reach and impressions. ▪ User engagement: participation/interactions: likes, shares, comments, replies views, downloads. ▪ Loyalty. ▪ Influence and reputation: mentions, sentiment, advocacy. 	<ul style="list-style-type: none"> ▪ Services and use: General, Users, Loans, Renewals, Reservations, Interlibrary lending requests, Reference and informational questions received, Document delivery, Attendances at events and training, Physical visits, Number of searches, Number of accesses, Number of downloads, Use of the digitized collection, Number of virtual visits, Use of mobile services, Social network services, Content units on social networks, Usage of library-hosted interactive services, Usage of library social network services. ▪ Staff: Time spent on interactive services, Time spent on services for mobile devices, Time spent on library evaluation, Time spent on preparation of training lessons. 	<ul style="list-style-type: none"> ▪ Speed of reference transactions. ▪ Use of collection: Collection turnover, Loans per capita, Number of content units downloaded per capita, number of downloads per document digitized. ▪ Access: Library visits per capita, Percentage of external users, Percentage of the total library lending to external users, User attendances at library events and training lessons per capita. ▪ Collection cost: Cost per use, Acquisition cost per collection use, Cost per download. ▪ Staff: Percentage of user services staff, Percentage of library staff providing electronic services.

Library metrics and performance indicators

Two international standards assist libraries in the collection and interpretation of statistical data for describing library resources and their use, as much as institutional performance: ISO 2789:2013 (2013) and ISO 11620:2014 (2014). It is interesting to note that the former considers the number and usage of the library's social networks, while the latter addresses the issue less straightforwardly.

Linking social media metrics with library performance indicators

By way of background for the present discussion, Table 1 presents a selection of metrics and indicators from the three main sources considered in this paper: social media metrics, and ISO standards 2789 and 11620. The selection has been made according to their potential inter-relationships and impact on library performance.

On those grounds, a number of questions may be put forward to guide discussion and future research:

- What types of logical relationships might be established among social media and library metrics and indicators?
- How can metrics and indicators from different social media tools and analytics providers be reconciled and applied?
- Which social media metrics and indicators may be expected to impact library performance most prominently and might therefore be apt for inclusion in library assessment tools, and eventually even ISO 11620?

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