## Libraries in Social Networks: Opportunities and Presentations

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The article is devoted to the study of the latest virtual forms of social activity of libraries in the network environment. Considered the presence of libraries in social networks. The tools are provided of social networks which are helping to communicate information to users to advertise library activity. Approach is proposed on the evaluation of the activity of libraries on the basis of. Metrics for assessing the effectiveness of doing

## Key words: libraries, social networks, performance metrics.

Modern information and communication technologies open completely new possibility of functioning of libraries. The most common among the newest technologies that use libraries are available is Web 2.0 technology, the format of which is provided by new marketing solutions that allow you to change principles of promotion of a certain library services. This becomes possible thanks to the creation of interactive links between library and users. Synergy of such communication in the library environment allows you to multiply several times the effectiveness of information that greatly stimulates strengthening of the positive image of the library, can significantly increase the role of libraries in modern society.

In order to build, display and organization of social relations, a positioning, libraries are using possibilities of Internet communities, social networks, blogs for their positioning. Number of social network users in the world is constantly growing. In such a situation for libraries obvious is a necessity use in their activities social networking opportunities.

Libraries of Ukraine are active use social networking opportunities as a channel for the promotion of informational library resources and

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services for personal branding, distribution and development of professional ties, creation own information platforms, etc. Most of them are represented in social networks like Facebook, YouTube, Instagram.

One of the new tools in Facebook was the Notes application, which is positioned by developers as a blog platform. Today, the work of libraries requires new approaches to create effective communication channels between users and the network of national information resources. Of course, such activities need to be monitored and evaluated.

The approach to assessing the activity of libraries based on the metrics of assessing the effectiveness of doing business in social media marketing is proposed. Here are the components of the metric in relation to the efficiency of libraries.

The components of the category of metrics of estimation of user dynamics include the following:

The number of registered users (or users subscribed to receive content). A significant number of users will show that the content is useful on the electronic resource and the interest of users in the materials of such a library. To estimate the dynamics of this indicator in period n, it is suggested to use the following formula:  $K_n = \frac{t \cdot x_n}{\sum_{i=n-t}^{n-1} (x_i)} \cdot 100\%,$ 

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 (1)

where  $K_n$  – is the coefficient of change in the number of users;  $x_i$  – number of users who registered in the i-th period; t - is the number of preceding periods to estimate the dynamics.

In the simplest version it is enough to compare the number of users of the settlement period n with the previous period n-1.. In this case, formula 1 will take the following form:  $K_n = \frac{x_n}{x_{n-1}} \cdot 100\%, \quad (2)$ 

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, (2)

The number of deleted (closed) accounts (or unsubscribed users). This metric can be calculated by analogy with formula 1. In this case, the value of the variable x i of formula 1 will be equal to the number of deleted accounts. Such indicator becomes an indicator of the correctness of the chosen communicative strategy.

The growth rate of the user audience is calculated by the formula 3.

$$K_n = \frac{\dot{x}_n - \ddot{x}_n}{\sum_{i=1}^n (\dot{x}_i - \ddot{x}_i)} \cdot 100\%, \quad (3)$$

where  $K_n$  – the rate of growth of the user's audience in the n-th period;  $\dot{x}_{i}$ - number of users who registered in the i-th period;  $\ddot{x}_i$  number of users who registered in the i-th period.

Such a coefficient is an indicator of the existing development of the library resource. Number of views (unique and non-unique).

Coverage. The metric shows the number of unique users who at least once interacted with the content of the library. With it, you can segment your user audience with one or more features and / or compare the interest of the content contained in the library.

The components of the next category of metrics "Feedback from users" describe the various types of user interaction with the content: positive, negative, neutral feedback, content download, commentary, referrals, recommendations, etc. Let's show how you can calculate some of them.

Level of attractiveness of the content.

$$K_i = \frac{x_i}{W} \cdot 100\%, \qquad (4)$$

 $K_i = \frac{x_i}{W} \cdot 100\%$ , (4) where  $K_i$  – coefficient of attractiveness of the ith content,  $x_i$  – the number of positive reviews on content of the i-th content; W is the number of users registered in the i-th period

An adequate level of content attractiveness is a guarantee of the growth of a user's library audience. The level of sociability is calculated by a formula that is similar to formula 4. In this case, the number of comments remaining after the publication is used as the value of x<sub>i</sub>.

Negative feedback.

Not always metrics reflect positive actions, so it's equally important to follow the negative reaction of users: concealment of posts, complaints, negative reviews. Such reactions may indicate a lack of relevance of content, technical problems with electronic resources, and even reputable losses.

To this category, metrics are usually: spread ratio, audience engagement rate, engagement rate, engagement per day, rate of engagement per view.

The next category, "Metrics for evaluating communications by library staff", contains metrics for evaluating the activities of library staff responsible for content creation, including: the frequency of posting messages. This metric can, for example, correspond to the number of events reporting information for the reporting period.

Frequency of publication of the content for the reporting period.

Average response time. The metric shows the time required by the library administration to respond to user messages. This is an important indicator of service quality and respect for its readers.

Feedback frequency. Another important indicator. It shows the share of questions the users have received. It can be calculated by a simple formula:

$$\nu = \frac{x}{y} \cdot 100\%, \qquad (5)$$

where  $\nu$  – the frequency of the response of the library administration;

x – the number of administration answers on the questions posed by users of the library;

y – total number of questions put.

The last metric category Metrics to Measure Traffic and Orders shows how you can evaluate the efforts made to implement the rights of citizens to library services. Therefore, it is proposed to use the following indicators: the number of references to the scientific resources of the library; number of authors who generated these links; number of activities conducted on the basis of the library, or with the involvement of library resources; Number of created thematic portals for self-education and vocational education; Participation in interlibrary partnership projects and grant programs.

Consequently, the proposed scientific approach to monitoring and evaluating the activity of national libraries will allow to more effectively develop interaction with users and more fully meet their needs, which will strengthen the image of the library in society as a modern information institution, will ensure the effectiveness of the implementation of state policy in the field of library business.