

The Library as Promoter of Democracy: Analysis of Demographic Study by Composite Index Method

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Abstract: In our study, we investigated the results of a demographic survey conducted by Finnish Regional State Administrative Agency in 2021. We inspected how democracy works from the perspective of Finnish population. The key topic of the study was how the library has contributed to social inclusion, cohesion and community, and equal access to information. We put the focus on seven attributes and the weights of the attributes were evaluated in cooperation with library directors and developers from five countries. By combining the population survey results and attribute weightings provided by library experts, we calculated a composite index to assess how the library succeeded in contributing to the promotion of democracy.

Keywords: Library Democracy Index (I_{LD}), Composite Index, Libraries, Democracy, Social Inclusion, Social Impact

1. Introduction

1.1 Background and Literature Review

Libraries play an essential role in society by providing access to information and knowledge resources that can improve quality of people's lives. Libraries play an important role in promoting democracy because they are open and accessible spaces where people can freely explore and use information (Gutsche 2012). Public libraries' unique role in promoting democratic values and creating communality is also highlighted by Blewitt (2014).

Libraries also have a strong traditional commitment to intellectual freedom and access to information, which are important in supporting democracy. Libraries



have the opportunity to act as important actors as community information centres and information sources, providing a wide range of information and resources to everyone, regardless of educational background, financial situation or other factors.

According to Audunson (et al. 2019), the topics related to the freedom of information dominated the public sphere of libraries before the turn of century. Since that, the topics related to social inclusion and libraries as places with a potential for promoting democratic participation came in as dominating topics, albeit freedom of expression still is an important topic. Along the same lines is also Johnston (et al. 2022) who compares the perceptions of public librarians across seven countries regarding their professional roles and the library's role in supporting the public sphere. Johnston (et al. 2022) also emphasises the importance of librarians in facilitating community engagement and building partnerships with other organizations. An earlier study around the topic how do the library directors and developers weight the aspects related to the library's role in society was done by Swedish Library Association (Svensk Biblioteksörening 2011). In this publication, impact of several aspects or attributes on the library's role in society was recognized.

When dealing with complex data sets including multiple attributes related to the same phenomenon, the composite index approach can help simplify our view of the data and provide more comprehensive understanding of the phenomenon at hand. By combining multiple variables into a single index, it is easier to compare the relative performance of different entities and identify trends and patterns in the data. So, the composite index approach can provide a more realistic reflection of the reality, improve decision-making, and help communicate facts and results more effectively. One example of the application of this approach to performance evaluation in libraries can be found in Laitinen et al. (2022).

A recent study by Koizumi and Larsen (2023), conducted in Norway, Sweden and Finland, provides a fresh perspective on how the library can provide an arena for social and political dialogue. They argue that the Nordic model of public librarianship is uniquely suited to promoting democratic values and explores the ways in which Nordic libraries are adapting to new challenges in the digital age.

1.2 The Research Questions

In this paper, we analyse the population survey commissioned in 2021 by the Finnish Regional State Administration Agency. The study investigated the opinions of the Finnish population on how Finnish public libraries have managed a certain part of their statutory duties and how important the population perceives these services. In particular, the population survey aimed to find out the success and awareness of library services related to active

citizenship, democracy and freedom of speech, i.e. the social mission of libraries.

The population survey examined, among other things, how the library has managed to enable community participation and influence, as well as the development and strengthening of communities. In addition, the survey examined how the individual can participate in social debate and decision-making through the library services.

Because this material is highly versatile, it also allows for more in-depth analysis. So, the following research questions (RQ) were posed:

1. How does the population see the library's role as a promoter of democracy?
2. How do library directors and developers see the library's role as a promoter of democracy and how do they emphasize aspects related to the topic?

We derived answers to RQ 1 from the results of the population survey.

To find out how the directors and developers of public libraries emphasize different aspects of library's role as a promoter of democracy (RQ 2), we organized a series of workshops compiling the views of library professionals from five countries.

2. Method

2.1 Composite Index

Composite indices are widely used by, e.g., political decision makers, scientists, media and in national economy. Several reviews on multi-criterion decision methods and points of view on weighting the attributes used in multiple criteria decision analysis (MCDA) and computing composite indices have been published (Guitouni and Martel 1998, Jia et al. 1998, Kao 2010, Greco et al. 2019).

In line with the above, the main benefit of the composite index approach for libraries is that it can be used to aggregate the impact of multiple factors on library performance. This can be achieved, for instance, by computing the weighted sum of selected attributes extracted from user satisfaction surveys and expert analysis (with several popular options for assigning the attribute weights). Composite index-based analysis enables libraries to set and adjust strategic long-term plans for developing individual service components by tracking only one number – the index that aggregates the overall impact.

Let the Weighted Score for a specific criterion be $S_w = W_R * \text{Normalized Score}$, where W_R is the Normalized Weight of the criterion. Finally, the Composite Index (with i ranging over the set of the criteria), is computed as follows:

$$I_C = \sum_{i=1}^k (S_{w_i}), \text{ where } k \text{ is the number of the criteria}$$

A more comprehensive presentation on the issue was published by Laitinen et al. (2022).

2.2 Collecting the Research Data

2.1.1 The Population Study

The target group of the study was persons living in Finland aged 18 and over. The research data was collected as a population survey carried out by a commercial company in September 2021 on behalf of the Regional State Administrative Agency of Finland.

The data collection was carried out partly as a web panel survey and partly as telephone interviews. The total sample was 1000 respondents. The collection process started with the nationwide web panel survey using quotidian random sampling by region of residence, gender, age range, and native language. To ensure a representative sample, the collected sample was supplemented by a telephone interview sampling from Profinder's consumer database. The required population groups were targeted randomly so that the final number of respondents and a respondent structure representative of the population were achieved.

2.2.2 Utilization of the Data from the Population Study

The raw data from the population study was given to our research group for analysis. We used the raw data to answer the research question 1. To answer the research question 2, we organized a series of workshops targeted to directors and developers of public libraries. The workshops were run in Finland in January-February and in connection with the QQML conference (Qualitative and Quantitative Measuring in Libraries) in May 2023. So, we compiled the views of library professionals altogether from five countries: Finland, Greece, Australia, Germany and USA.

2.3 Selecting the attributes to be used in the study

Seven key attributes of the democracy theme were selected by the Finnish Regional State Administration Agency for the analysis. The selection based on the study into the benefits of libraries in the everyday life of the residents of

municipalities conducted by Serola and Vakkari (2011). Serola and Vakkari (2011, p. 57) introduced ten variables, of which seven were selected.

The Library Democracy Index (I_{LD}) is an application of the Library Performance Index (I_{LP}) introduced by us (Laitinen et al. 2022) and the attributes of the I_{LD} were derived from the assignment of the State Regional Office of Finland measures the extent to which libraries promote democracy through their:

- provision of equal access to information;
- support for civic engagement and democratic processes;
- fostering of social cohesion and community building;
- support of cultural diversity;
- promotion of continuous development of knowledge and skills;
- contribution to individual and collective welfare;
- cultivation of a hobby of literature and art.

The I_{LD} is a weighted average of the attributes selected for the index, with weights assigned by experts in the field. Higher values on the I_{LD} indicate greater support for democracy by libraries, and may be interpreted as an indicator of the overall health and strength of democratic processes within a given community or society.

By measuring the multiple dimensions of library contributions to democracy, the I_{LD} provides a comprehensive and nuanced understanding of the ways in which libraries can serve as vital institutions of democratic culture and civic life.

3. Results

3.1 Research Question 1: How does the population see the library's role as a promoter of democracy?

The respondents of the population survey were asked to give their estimates for the attributes of the I_{LD} on a scale 1 to 4. The mean values of the attributes and numbers of respondents on each attribute are shown in Table 1.

Table 1 How well has the library succeeded in promoting the following?

How well has the library succeeded in promoting the following? Give your estimate on a scale of 1-4, where 4 = very good, 3 = fairly good, 2 = fairly bad and 1 = very bad.	Mean	Respondents *
Equal access to information	3.31	915
Democracy	3.09	810
Hobby of literature and art	3.27	901
Cohesion and community	2.89	816
Welfare	3.14	834
Cultural diversity	3.11	812
Continuous development of knowledge and skills	3.08	863
* Sample size was 1000		

3.2 Research Question 2: How do library directors and developers see the library's role as a promoter of democracy and how do they emphasize aspects related to the topic?

The participants of the workshops were asked to give their estimates for weight values for the attributes of the I_{LD} on a scale 1 to 100. The mean values of the weights on each attribute are shown in Table 2.

Table 2 Weight values of the attributes given by expert workshops.

Indicator	Weight
Equal access to information	95.6
Democracy	83.4
Cohesion and community	74.2
Cultural diversity	73.1
Continuous development of knowledge and skills	67.3
Hobby of literature and art	57.0
Welfare	57.0

3.3 The Library Democracy Index (I_{LD})

The weights of the seven attributes or indicators of the Library Democracy Index (I_{LD}) and the measured scores (S) derived from the population survey and

their Normalized (S_{norm}) and Weighted (S_w) Scores are shown in Table 3. The graphic description of I_{LD} weighted scores is shown in Figure 1.

Table 3 The attributes of the Library Democracy Index (I_{LD}). The weights produced at the library professionals' workshops were normalized and scaled by the Normalized Scores (derived from the population survey results) to compute the Weighted Scores (S_w) of each attribute. The sum of the Weighted Scores is the value of I_{LD} .

Indicator	Weight	Normalized Weight (W_R)	Measured Score (S)	Scale			Normalized Score (S_{norm})	Weighted Score (S_w)
				S_{min}	S_{max}	Range (L)		
Equal access to information	95.6	0.188	3.31	1	4	3	0.770	0.145
Democracy	83.4	0.164	3.09	1	4	3	0.697	0.115
Cultural diversity	73.1	0.144	3.11	1	4	3	0.703	0.101
Cohesion and community	74.2	0.146	2.89	1	4	3	0.630	0.092
Continuous development of knowledge and skills	67.3	0.133	3.08	1	4	3	0.693	0.092
Hobby of literature and art	57.0	0.112	3.27	1	4	3	0.757	0.085
Welfare	57.0	0.112	3.14	1	4	3	0.713	0.080
Weight Sum	507.6	1.000					I_{LD}	0.710

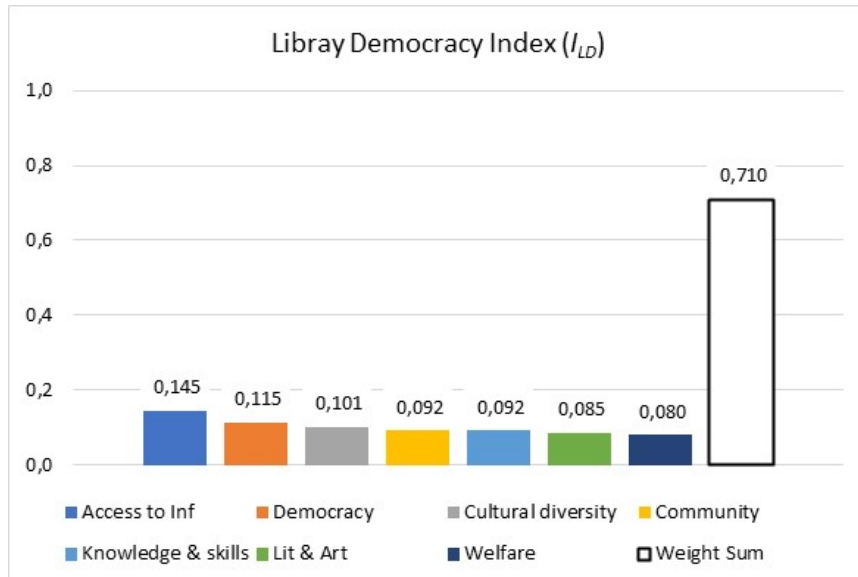


Figure 1 Library Democracy Index. The indicators are listed from left to right in the order of the weights given by the experts. "Access to Information" and "Democracy" are of highest weight.

4. Discussion

Inspection of the population survey results (RQ1) shows that the respondents of the population survey generally felt the library has done a fairly good job in promoting the attributes related to democracy. The respondents considered that the library was the best way to secure equal access to information, which was given mean score of 3.31 on scale 1 to 4 (915 respondents). Interestingly, but perhaps also as expected, also the library professionals gave this attribute the highest weight, 95.6 on scale 1 to 100.

The results from the RQ2 give information how the library professionals weighted the attributes related to the library's role in promoting democracy (the attributes of I_{LD}). Basing on the weights for the attributes of I_{LD} assigned by the directors and developers of libraries, it seems that they prioritized providing access to information (weight 95.6) and promoting democracy (weight 83.4), as well as fostering community and cultural diversity. Interestingly, hobby of literature and art was given low priority (weight 57.0) by the library professionals, whereas the respondents of the population survey thought that the library was successful in the issue (score 3.27).

Additionally, a high emphasis on promoting democracy itself, with a weight of 82.7, indicates that the library professionals think the library should actively work towards creating a democratic society. Also, the attributes of cohesion and community (weight 78.8), cultural diversity (weight 68.4), welfare (weight 64.3) and continuous development of knowledge and skills (weight 64.8) were clearly seen important, because even the attribute with the lowest weight gained the weight 64.8.

Yet, it is possible that the weights were influenced by personal beliefs and values, prior experiences with libraries or by the workshop participants were influenced by their perceptions of how the library could influence each of the attributes; It seems logical that, in considering the weights, the participants in the workshops may have considered not only the importance of each attribute in the promotion of democracy but also the potential role of the library in the promotion of each attribute.

When examining the population survey respondents' estimates of how the library managed to promote the things requested, quite high estimates were found. On a scale between 1 and 4, variation of estimates was from 2.89 (Cohesion and community) to 3.31 (Equal access to information), so only the top of the scale was used by the respondents.

The advantage of I_{LD} is that it is based on a set of indicators agreed by the library specialists and directors. Using the same set of indicators makes it possible to monitor the issue being observed as a time series. In addition, using an agreed set of indicators also saves the library's limited resources in the sense that there is no need to repeatedly make choices. Asif and Seary (2014) also think along the same lines. However, the indicator set should be checked from time to time. This idea is also supported by many other researchers, such as e.g., Asif & Searcy (2014).

The role of libraries as a social influence is widely recognized, and an International Standard ISO 16439 (2014(E);4.4.1), "Information and documentation – Methods and procedures for assessing the impact of libraries" has been established to analyse it and present it. The standard encourages libraries to develop and test methods for identifying and providing benefits to their users and the society at large, as part of their overall impact. Concerning impact, the changes in individuals, groups of people, institutions or society, promoting democracy is a key ingredient that requires high attention of the library staff and management.

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