Indicators as tool for managing a library

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Abstract: In a situation where libraries, as well as other organizations, are under close scrutiny from patrons and funding agencies, the library manager needs some tools for assessing the performance of the library, both as itself and bench–marked with others. Also, library leaders have to find some ways of gaining systematic information about the activities in their libraries. In this session we are looking at the practical use on performance indicators. We will be looking at the use of Norwegian national performance indicators for academic libraries through the four largest University libraries, through the libraries serving the humanities and social science faculties.
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1. Introduction

In recent years there has been a shift in most European countries towards the use of different sets of indicators as tools for managing libraries. Indicators can be used comparatively as benchmarking, especially with other similar libraries, or to show historic development and try to predict future trends.

Some reflections on the use of indicators:

"Quality or performance measures have been used for a long time in libraries and have been described in handbooks and ISO standards. From being applied in individual libraries, the development has gone to sets of such indicators being used by groups of libraries on a regional or even national scale, often for benchmarking purposes." (Poll 2007:41)

"The suitability of an indicator (…) depends primarily on its importance to strategy, that is, to what extent the measurement can be used in reflecting the strategic organisation of the library to provide information for research, teaching and study, (…)." (Cheynova 2000:159)

"The theories and research about use of indicators point to some general requirements for indicators. They must be valid; that is: Measure what is sets out to measure, by answering to a very precise question and nothing else. Also, it must be accurate. It must be useful for decision-making and it must be reasonable easy to get the data". (Pors 2007:18)

With this as a background, I will look at a couple of the indicators that the Norwegian National Library Authority has recommended for academic libraries, to see what practical use these indicators can have for the library manager.

My starting point is the two university library branches that cater to the Arts and humanities faculty, and the Social Science faculty. These are two different

libraries in two different buildings. Both have been rebuilt in the recent past. In this paper I will sometimes use the sums from one library and sometimes from both, and sometimes compare with other similar Norwegian libraries or with the past.

My chosen indicators are from the area of "access" and "use of the library building". I want to see how many visitors we have in the library and how many of the possible users are in the library. Only the last one is a suggested and recommended indicator from the Norwegian National Library Authority, but the first is so closely liked to the second that it is necessary to treat it as an indicator also.

2. Visits in the two branches of the University of Bergen Library

This is a figure of the visits into the Arts and Humanities Library and the Social Science Library in 2010:

Figure 1: Visits by month 2010, Arts & Humanities and Social Science Libraries, University of Bergen
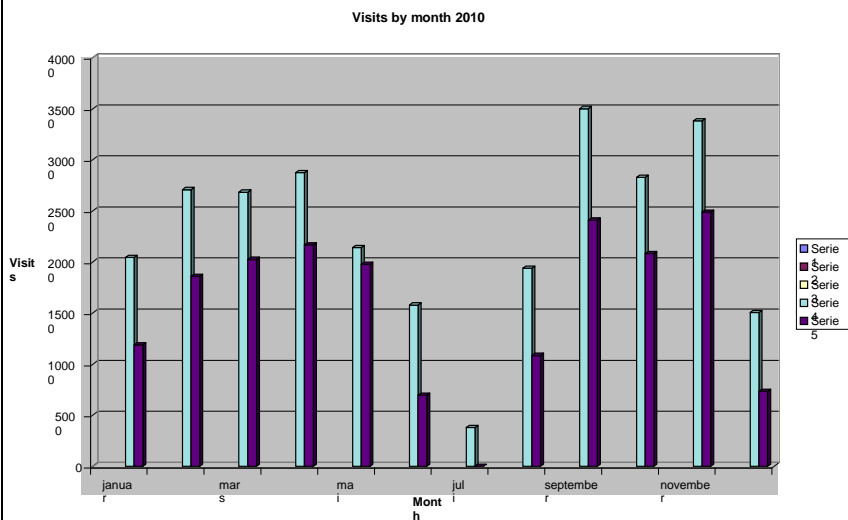
(From our own records)

The turquoise is Arts and Humanities, the violet is Social Sciences. Of the two faculties, the Social Science is the smaller. And the Social Sciences Library was closed during July.

This looks "normal", not only for these two libraries, but for many other North European University libraries. A lot of visits during term time, less in the summer (June, July) and in December. In 2010 Easter, when the students leave the campus was in the last week of March, spilling into the first week of April. Other years, we will be seeing much more clearly a dip in either March or April, depending on when Easter is.

The total number of visits in 2010 was 275.647 for Arts and Humanities, and 187.106 for Social Sciences. Quite impressive numbers, especially if we look at the number of students and staff of the two faculties.

A&H has 3.562 students and 458 staff in 2010, and Soc Sci has 2.859 students and 301 staff. These numbers come from the Database of Higher Education from NSD (Norwegian Social Science Data Services – nsd.uib.no). They register all staff, also administrative staff that probably does not use the library as much. But let us use these numbers for the time being. Approximately 4.000 potential users from A&H, and 3.200 from Soc Sci, generating all these visits! This equals approximately 70 visits in 2010 by staff and students of A&H, and 65 visits at Soc Sci.

How have we found the "visits" data?

Quite simply, we count the numbers of visits mechanically through a counter placed in the entrance of the library. This counter is routinely read by the circulation counter staff at two set times of the working day – in the morning and at the start of the afternoon shift. It is then written into a program on the circulation counter computer. The counter will register one passing for both entering and leaving the library, so in the Excel-program that adds the numbers there is a calculation for dividing the numbers in two, and also for subtracting a certain number that represents the librarians in the actual library. It is not more sophisticated that this.

3. Strengths and weaknesses of this indicator
So what sources of mistakes can we find in this data, and what are the strengths and weaknesses as an indicator?

The first source of mistakes is mechanical failure in the equipment. If we place the reader at the wrong angle to the gate, we can "lose" visits. If the battery runs out or the cleaner unplugs the electricity - the same can happen.

The second source of mistakes is the human factor. If the librarian forgets to read the data or to enter the data in the correct field in the spreadsheet we will have lost data. When this happens we normally try to estimate what the data "should have been" in order to have some flow in the data. But this can also be a problem. If you estimate and try to make the data look like "normal" you will not be able to detect if something has happened that is truly "abnormal" in the period when you are estimating.

The third source of mistakes is the fact that people may enter and leave the library several times during a day, and each visit will be counted as a new one. Example: A student wants to spend some time in the library studying. She enters at 08:30, when the library opens, finds a seat and a table and leaves her books while she goes to the coffee shop for a coffee and some breakfast. She then enters again at 09:15, and works for some time. At 11:00 her father calls. The student leaves her seat and goes to the library lobby to return his call. She re-enters, and works some more. At 12:30 she leaves her seat again to go to the coffee shop for lunch with some other students, and at 13:45 she goes back to the library to pick up her coat. She is at a lecture from 14:15 to 16:00, and comes back to the library for some more work before leaving at 17:30. So we have one user, doing much the same in the library during the day, counted as 6 visits.

We can also have one student doing clearly different things in the library during

a day, like attending a course, reading, using the computers for social networking and borrowing a book. Maybe it would have been useful to see this as several "visits", but if they are done in sequence during one trip into the library, they will be counted as one.

Other interesting questions about this are whether the toilet is on the "inside" or the "outside" of the counting machine. In the A&H library the customers for the coffee shop (which is on the outside) uses the library toilets (which are on the outside), generating more "visits".

Also, as long as we are using a counting "machine" we will not be able to say anything about who is using the library and how. We don't know from these numbers if it is a small group of students going in and out all day, or if we are having a larger group of individual visitors. We don't know if they are "our own" students or staff, or students from other faculties or other Institutions of higher education. These are data that must be gathered through other channels.

One would assume that a nice, modern, open library centrally located would get more visits from students from other universities than a library that is further away from the city centre and this will have some implications for the comparing.

So obviously there are some serious flaws in the use of the number of visits, which probably is why this is not among the indicators chosen by the Library Authority as a single indicator. Still, it is used in indicator B5, where the numbers of visits are compared to the number of students and staff – "primary users" that use the library.

4. Indicator B5: Use by "primary users"
For the indicator B5 we are supposed to use the number of visits, which can be anyone, really, and divide it by the number of students and staff of the faculty or university, depending on what level we are using the indicator.

We have also another problem here. The database for higher education, where one would normally go to find the "official" numbers of staff lists "all staff", and if you want to find only the academic staff you have to add the different groups manually. Under the assumption that administrative staff by nature of their work uses the library less that the academics, one would prefer to have a cleaner set of data by deleting the administrative staff from the numbers.

Of course administrative staff are also potential users of the library, both to find relevant research for their administrative tasks, as borrowers of fiction for leisure, and as users of the library computers and study facilities when they are under further education; maybe also for reading newspapers. I would, however claim that this would be at the same level as other citizens, and not as staff at the University.

In contrast, academic staff would use books, journals and facilities at the library for their main and primary job related tasks – research and teaching.

We may of course use the library system categories to find the number of registered users from the different groups. For staff, to be registered in the library system requires active action, while students are automatically

registered as they register at the University. If we could be sure that the data here were up to date, this would be a alternative way. At the same time, it would require a new definition of "potential user in the primary customer group", since the academic staff have registered with an active intention to use the library; more active than just being a member of staff.

Another pitfall in using the library system would be the status of academics that are not registered as users or borrowers, but are using the library only as a working space, whether to read journals or to use primary sources that may not be loaned.

One of the trends that we will not be able to pick up by using this indicator as it is defined today, is the growing use of electronic journals, from the researcher's own office computer. This is a kind of use of the library too.

It should be mentioned that the Library authorities have not specified that we have to use the Database of higher education to find the number of students and staff. The number can also be gathered from other sources. If we are to compare between libraries, however, we will have to agree on what numbers to use, and from what sources.

The University personnel database may be another source for correct numbers of academic staff.

5. Comparing some Norwegian academic libraries
 I would like to use indicator B5 to compare the use of the "physical library" – the library building I assume – between the oldest four Norwegian University Library branches serving the Arts and humanities and Social Science faculties. In order to have comparable numbers I will use the statistics over staff from The Database of higher education, and not take into account that there may be differences in the relative composition of the staffs when it comes to the ratio between "administrative" and "academic" between the faculties we are comparing.

The first "problem" is that the counter system at the University of Tromsø A&H/Soc Sci library has not been running properly, so that means that we will continue with Oslo, Tech and Science U and Bergen.

Another thing to be aware of is that the three faculties are a bit different. In Oslo the library will also cover the students at the Faculty of Education, and at NTNU the name of the Social Science Faculty is actually "Social Sciences and Technology Leadership".

In table 1 we find the results:
Table 1: Visits per primary user in Oslo, NTNU and Bergen Libraries 2010

		Oslo	NTNU	Bergen
Number of visits 2010		1 033 745	354 350	462 753
Staff A&H		774	392	458
Staff Soc Sci		442	545	301
Staff Edu		293		
Students A&H		6 578	3 373	3 562

| Students Soc Sci	5 237	6 228	2 859	
Students Edu	3 357			
Visits/primary user	**62**	**33**	**64**	

(From NSD/DBH)

The libraries in Bergen are in two different buildings, one for each faculty, and we have already commented on the fact that the numbers of visits are a bit different. In Oslo there are also two buildings; one with the library itself, which also includes the Librarian and her administrative staff, and one with student reading rooms/study halls and text books.

Another difference is that the libraries in Oslo and Bergen are more centrally located, Oslo on the large campus, and Bergen very close to the centre of the town. The library in NTNU then probably have the most "correct" number of visits from "primary users groups" - staff and students from the two faculties. Oslo and Bergen can be said to have inflated visitor numbers. This can either be due to proximity to the town centre/main campus and students from all other schools/faculties; due to visits to the University Librarian (Oslo) or due to what we can call "the coffee shop effect". Both Oslo and Bergen have a coffee shop just outside the counting machines, and the reading room students will go back and forth between the coffee shops and the library being counted several times.

If we look at the visits in the Arts and humanities library from 2006 when we opened the refurbished library until 2010, we see this:

Figure 2: Visits to the Arts and Humanities library 2006-2010
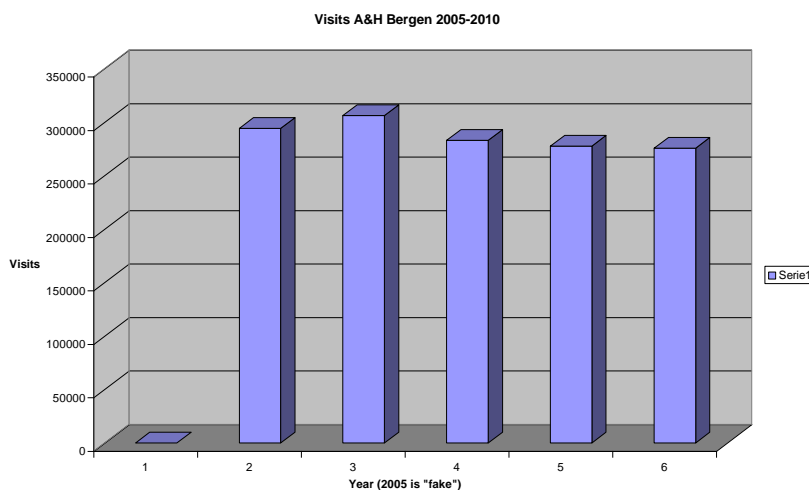
I had some problems with the representing of this in excel, so I "faked" the visitor numbers for 2005 in order to get a representative scale. Also, the year numbers came out as 1, 2, 3, 4, 5, where they should have been 2005, 2006, 2007, 2008, 2009 and 2010 respectively.

The tendency is clear: The number of visitors to the library is slowly declining. The year 2007 is an exception, and there are a couple of reasons for this: One is that this year we were a station for the pre-voting for students to the

Parliamentary elections, and we had the voting places on the "inside" of the counting machine. But if we subtract the number of visits generated by the Parliamentary elections in 2007 we will still have more visits in 2007 than in 2006.

In 2007 the annual Norwegian Library Meeting was held in Bergen, and we had a couple of events in the library. We also have the effect of the pre-exams longer opening hours, included Saturdays that stopped after 2008. Maybe the largest impact to the number of visits comes from the fact that the Social Science Library and one of the large Social Science reading rooms for students were closed for refurbishing from July 2006 to August 2008, resulting in the students looking elsewhere for places to work.

This is just shown as an example. I can go back to the data sheets to look at the details from each day, week or month to see what I can find, and how the trends compare with for example the number of staff and students of the closest faculties, and other similar effects.

I could also go to the data sheets for the Social Science Library, for the two full years that it has been open, and see what tendencies I can see there.

6. What do the indicators not say?
None of these indicators can say anything about what visitors are doing in the library and how satisfied they are. If we want to find information about what they are doing we must either observe what they are doing, or ask them. If we want to find out if they are satisfied we must also ask them; unless of course we experience a massive reduction in numbers of visitors; then we can guess that dissatisfaction is the reason if all other possibilities have been excluded. But just asking staff and students if they are satisfied will give us no information to work with. The ones that are there are probably satisfied enough, and the ones that have experienced dissatisfaction will probably have left. The best way of gathering data about satisfaction will be by asking the total population – both users and non-users/former users about their satisfaction level compared to what they expect within some important areas. The LibQual+ survey is an example of a comprehensive survey that could give some answers about this.

7. Conclusions
The overall conclusion to the testing we have done of this indicator is that it has to be used with a lot of care. It can only show tendencies, and only if we are very careful and certain that there are no problem areas, and that all conditions are well fulfilled.

On the other hand, this is an indicator that is useful for reflection on our main purpose as an academic library, and it can start us thinking about other and better ways of finding the information we need for making good decisions, in close collaboration with our main stakeholders in the university itself.

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