Evaluation of libraries: Experiences from applying a method for non-market valuation developed in economics

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The context of my study “The Value of Public Libraries” is two major challenges for the libraries today: 1) the effects on libraries and library use of the digitisation in society, and 2) the continuing economic pressure on public budgets generally and library budgets specifically. These challenges are studied from different angles within library and information science, varying in both theoretical perspective and methodology.

Some studies explore the impact of various aspects of public library activities, such as the impact of reading, of information technology access and end-users services, or community projects. Other studies investigate the impact of public library services on special groups, on social excluded, low achievers, and groups such as children, youth, elderly, persons with disabilities, foreign language speakers, etc. In addition, there are studies exploring the overall or social impact of public libraries (Linley and Usherwood, 1998).

My doctoral project supplements this last subgroup of research and goes one step further, aiming at measuring of the overall value of the Norwegian public libraries (Aabo, 2005). The economic situation in the public sector continues to be restrained and the controversy of how to prioritize public funds hardens. In this situation, it seems necessary to determine the value of public libraries in monetary terms. To be able to estimate this value, it was relevant to turn to methodologies developed in economics. The starting point is the economic concept of value.

Economic value
Economic value “[...] which is not synonymous with financial or commercial value, although it is ultimately expressible in terms of either a numeraire good or (preferably) money – comprises any direct use value of the cultural good or service
in question, plus whatever non-market values it may give rise to,” states David Throsby (2003, p. 279), nestor of the cultural economics research area. It is the economic value of public libraries in this sense that my dissertation seeks to explore.

The fundamental monetary measures of value in economics are based on substitutability and can be expressed in terms of willingness to pay (WTP) or willingness to accept compensation (WTA). The economic concept of value has its foundation in the theory of modern welfare economics and is related to choice. Based on, and constrained by, his or her economic situation each individual can choose to consume private, public and other non-market goods, including library services. The trade-offs that people make as they choose less of one good and substitute more of another reveal something about the values people place upon these goods.

My project seeks to find ways to estimate the value of public libraries from the perspective of the general population. The aim of the empirical study is to measure the value of Norwegian public library benefits to the citizens in monetary terms and thus determine if their benefits outweigh the costs of providing them. This will establish whether or not the general public finds the public libraries worth their price. In addition, the study attempts to elicit motivations - why do Norwegians, both users and non-users, value public libraries? The purpose is to provide a better understanding of the total value of public libraries and demonstrate their instrumental value as well as their democratic and cultural value. We must here bear in mind that the study is based on a valuation by citizens. Expert views of the value of public libraries and political aims and visions for their activities formulated by the authorities are not considered here.

Economic analysis relies in most cases on market prices as a first approximation to relative values. Since library services are not exchanged in markets as private goods and have no market prices, that approach is inoperable here. Information on demand and benefits can instead be obtained through methods for valuing non-market goods which have been developed in economics for application to the environmental, health, education, and cultural sectors. Approaches for valuing non-market goods make it possible to achieve estimates of how the citizens value such goods. If one is able to monetize the non-market benefits of public libraries, these benefits can be balanced against the costs.

The CV method
The contingent valuation (CV) method is a direct and explicit method using surveys to value public goods. The method circumvents the absence of markets for public goods by presenting the respondents with a hypothetical market, in which they
have the opportunity to ‘buy’ or ‘bid for’ the goods in question. The CV method is based on the individual’s own assessment of the goods to be valued. The technique aims at eliciting people’s willingness to pay in money for a change in the provision of a non-market good. It has been applied in valuing various cultural goods (Noonan, 2003), such as museums and theatres and also libraries (Harless and Allen, 1999; Holt et al., 1999).

There are, however, difficulties in implementation of methods based on constructed markets owing to their reliance on expressed intent and to hypothetical and not to real behaviour. A main objective is therefore to bring respondents’ intentions as closely as possible in line with their probable actions. The description of the scenario where the valuation is going to take place is critical. Careful considerations are necessary in designing the scenario in a CV study which consists of three main components:

1) The choice setting in which the respondents are to imagine themselves, with questions eliciting their WTP or WTA for the goods to be valued.
2) Information on the paying vehicle and the decision rules for whether or not the proposed change will be carried out.
3) Questions about the respondents, e.g., socio-economic characteristics, use or non-use behaviour and attitudes concerning the goods to be valued.

The Norwegian study
The scenario design in my empirical study of the value of Norwegian public libraries is based on experiences from two pilot studies to test the scenario plausibility. The WTP scenario describes an economic situation which forces local politicians to suggest a choice between closing down the public library, or increasing the local taxes. The WTA scenario has the same framing, but here the choice for the local politicians is between closing down the local library in order to use the saved budget funds on education, health or other municipality tasks that benefit the household, or maintaining the library and also the other municipality tasks at level of activity of today.

The scenario description starts by referring to the Norwegian Public Library Act and its purpose statement, saying that ”the task of the public libraries is to promote enlightenment, education and other cultural activity by making books and other material available free of charge to all those who live in Norway” (§1). The choice situation is then described:

“It is well known that the economic situation in most of the municipalities is deteriorating. This can imply that some public services have to be reduced or closed down, unless the revenues of the municipality are increased.
Assume that the Public Library Act has been amended so that the municipalities themselves could decide whether or not they wanted a public library. Imagine that the council administration was considering closing down the library. An option would then be to use the public library in a neighbouring municipality or for you to buy all books, reference manuals, information services, etc. needed by yourself and your household. Library services to schools and adult training courses and to various groups in the local community, such as the "Reach Out"-service to elderly in institutions, kindergartens, etc. will cease to exist.

Another alternative is maintaining the library services on the understanding that the revenues of the municipality are sufficiently increased through additional local taxes.

The survey was administered by a professional opinion company as part of their bimonthly omnibus survey that collects data from a national random sample of private households. 999 persons over the age of 15 years were interviewed in their homes as representatives of their households.

The first part of the questionnaire used a top-down design, starting with a description of overall services at the municipal level, moving down to cultural goods, and then to public libraries. The intention was to put libraries in a context of more general local public goods and indirectly remind respondents of the budget constraint whereby other goods and services compete for scarce private and public resources.

The question of property rights to a non-market good is important. To illuminate the issue of perceived property rights to public library benefits we posed the following question: "Do you think you have a right to have access to a public library in the municipality where you live?" The answers were almost unanimous: 94 % saying "Yes", a much higher fraction than those who stated that they were library users, which in our study was 60 %. This unambiguous result and the importance of the property rights question in non-market valuation have implications for the value estimate of the Norwegian public libraries.

All respondents were posed two valuation questions, half of the sample were asked WTP questions, the other half were asked WTA questions. The research design yields independent valuation estimates based on different model variants. A range for the valuation of their public libraries by the general population can be ascertained from these estimates. The lower bound of the range, based on WTP estimates, is close to the average annual library costs per household in Norway, 400 Norwegian Crowns (NOK), and a conservative upper bound, based on the WTA estimates, is five times higher, 2000 NOK. Owing to the choice situation in this study the popula-
tion’s “true” value is reasonably closer to the upper bound. For public goods to which the citizens perceive they have strong property rights, the WTA estimates are extra important (MacDonald and Bowker, 1994).

The overall conclusion from the empirical study is that, on the average, Norwegian households clearly value the benefits from public libraries higher than the costs of providing the library services, demonstrating a cost-benefit ratio of approximately 1:4. In other words, for each NOK of taxes that is used on public libraries, the general population gets four times back in benefits. This does not mean that all the public libraries of the 433 Norwegian municipalities have a positive net value. The estimate is an average implying that some municipal libraries have a higher value and others a lower, giving room for improvements. At the national level, however, the Norwegian public libraries definitely have a net value.

**Motivations**
The study seeks to elicit the respondents’ motivations for valuing public libraries. Approximately 40% of the total valuation is justified by own and close family’s direct library use, 20% by their future library use (option value) and 35-40% by non-use values, motivated by appreciating other persons’ library use; the libraries’ dissemination of literature, culture and knowledge; and promotion of democracy and equality. A substantial part of the value of the public libraries is thus motivated by their social and cultural benefits. The majority of respondents are motivated by both self-interest and benefits accruing to others and the community. This blend of motivations is an important finding and may be interpreted as reflecting the standing of the public library of today as a community institution.

**Summing up**
The need to document public library value is apparent owing to continuing economic pressure on public budgets. This study is the first CV study for the valuation of public libraries at a national level, in Norway and internationally. Based on empirical data, a cost-benefit ratio of about 1:4 is established, concluding that the Norwegian public libraries are, overall, well worth their price as viewed from the perspective of the general population.

An overwhelming majority of the population perceive they have property rights to their municipal public library. Both library users and non-users find that public libraries have value and the majority are motivated by social and cultural interests as well as self-interest, demonstrating that municipal libraries have characteristics of being public goods.
References
Aabø, S. (2005). The value of public libraries: A methodological discussion and empirical study applying the contingent valuation method. Oslo: University of Oslo. (Series of dissertations submitted to the Faculty of Arts, University of Oslo; 222)

Abstract
In a situation characterized by a growing pressure on public budgets, most public institutions are under increasing pressure to document their value. Libraries are no exception in this respect and the situation is reflected in library research. From different theoretical and methodological positions researchers are striving to develop instruments, which will make it possible to make valid statements about the value of libraries. Within the social sciences, economists have developed the most sophisticated methods for determining the value of non-market goods.

In a recent Norwegian research study to valuate the public libraries in Norway, we discuss the fruitfulness of and some problems connected to making use of methods developed in economics for evaluating non-market goods when trying to determine the value of public libraries. The purpose is to provide a better understanding of the total value of a library, both its use and non-use values, as viewed by patrons as well as by non-users and potential users in the library’s environment. By surveying a representative sample of the library users and non-users and aggregate the individual preferences, an estimate of the library’s total value in the organisation can be reached.
We have conducted an empirical study of Norwegian public libraries applying one such method, the contingent valuation. In this study, the value of public libraries' benefits was compared with the costs of providing them, thus exploring whether they had a net value. Results from the study show that the benefits from the libraries are clearly higher than the costs to provide them library services. The research project explores the possibility of fruitful use of the contingent valuation method in evaluation of different types of libraries. Crucial for the success of the method is the construction of a scenario and a survey instrument that can measure the value of the actual library in a valid way. Based on theoretical discussions and empirical data we conclude that such approaches developed in economics can contribute to the theoretical and methodological arsenal of library and information science. This paper gives a brief presentation of the Norwegian study.*

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