

OPEN DATA THROUGH THE ARCHIVE: A NEW ROLE FOR ARCHIVISTS

Karen Anderson
Mid Sweden University
Tove Engvall
Mid Sweden University
Elisabeth Klett
Stockholm City Archives

Introduction and background

Expectations of a more proactive release of public records and technical developments that support new ways of publishing and reusing digital information, for example as open data on the internet, create new challenges and change the way public records are managed and made accessible to citizens. This will involve other professions in the management of records. Fundamentally this raises questions of how, in this new management environment, the trustworthiness of the records can be maintained and how archivists contributions relate to that of the other professionals involved in these processes.

This paper reports on the results of part of a research-based case study exploring archival strategies and the role of the archivist in managing open data and ensuring a trusted proactive release of public records in the City of Stockholm. Selected stakeholders were interviewed to elicit their views on authenticity in open data and their perceptions of archivists' expertise, role and responsibilities in managing quality and accessibility of open data. The City of Stockholm was selected for the case study because it has demonstrated a notable political and professional vision for the City Archives, promoting its central strategic role in digital information provision and transparency in governance.

Promoting cooperation and new perspectives on digital records and information management – digital information provision and an archival strategy for Stockholm City

The City of Stockholm is the capital of Sweden. It has about 900 000 citizens and a city administration with 45 000 employees. It has a Cultural Committee which is the political steering committee for the City Archives. In August this year the Committee decided to adopt a Digital Archival Strategy for the City of Stockholm, and to propose to the City Council to adopt it as a strategy for all administrations in the municipality. This strategy is the result of political appreciation of demonstrated archival competencies and a wish to push the City Archive forward to take a leading role in developing digital records and information provision in the city.

An holistic vision of easy access to any records for anyone

Sweden has a long history of rights to access public information. The first Freedom of Information Act promulgated in 1766 included citizens' rights to access public records and archives.

The Stockholm City administration is continuously developing e-services based on an overall e-strategy adopted in 2008. The e-strategy takes a holistic view, with a focus on developments made possible by IT-competencies. Stockholm City Archives took the opportunity to use statements on easy access to information to put forward a project for a single long-term preservation e-archive for the whole administration, focusing on access to

both current and archival digital records. That was the starting point for changing the role and perspectives of the archivist within Stockholm City administration.

In 2010, the Cultural Committee commissioned the Director to take a role in the Open Data initiatives that were beginning to emerge in the City, especially from the IT department and various administrations with local IT units. In 2012 there was a first Open Data Challenge, the Open Stockholm Award This was an event for developers and others to present apps or ideas using data from the recently launched Open Data Portal at stockholm.se. The City Archives took part in the event and hosted one of the so-called meet ups. This year in May, there was a second open data challenge and the City Archives once again took part and hosted one of the meet ups.

Between 2010 and 2014 there have been a lot of activities in the City on the theme of open data and the PSI directive. The City Archives has worked on realizing the City's vision of digital information provision. This work can be described as taking three steps towards openness and digital access for anyone with the right to access:

- The implementation of the Stockholm e-archive in 2010
- The development of the project for common records and case management processes, decided on in 2013 and now proceeding, and
- The *Digital Archival Strategy*, which has now been accepted at the first political level, and proposed to advance to the second and final level.

Developing an archival strategy

In June 2013, the political committee gave a new commission to the Director – to develop a *Digital Archival Strategy* for Stockholm that included Open Data initiative. The strategy should focus especially on aspects strengthening the democratic aspects of the PSI directive and the right to access public records. The City Archives was commanded to play an active role in developing digital information provision. The importance of archivists' and records managers' competencies and their relationship to other competencies was to be stressed and their role as a leading partner in the area of digital information management, providing rules and tools for the City's administrations was to be clarified.

The combination of open data as strengthening both democracy and the economy of the region inspired the notion of records as both public insight and raw material for new products. This was presented by the Director of the City Archives to be noted when taking decisions on for example formats and structure of records.

The idea of the strategy was first presented at the ITrust symposium in Stockholm in May 2014. Since then, it has been further developed and the political Committee made the following statement with the approval of the strategy:

“The operations of Stockholm City shall have the most transparent records and information management in Sweden. A transparency that favors citizens insight, industry and commerce and the economic development and that secure openness and democracy today and in the future”.

So these are the political visions for archives and records management in Stockholm. They also stated that “We want the City Archives to be world leading in the development of

openness and access to public information". These are strong political statements and guiding stars for us archivists in Stockholm.

The overall goals in the digital archives strategy are three:

- Increased transparency by openness to records and processes
- Increased use and reuse of public information
- Increased administrative efficiency by providing easy access to accurate records information

The strategy points out six areas of priority for the Archives and City administrations to develop:

- Consensus on the concept of effective digital information provision
- Structured cooperation between responsible administrations, that is the City archives, the executive office and information owners
- Quality and authenticity of records information can be verified
- Standards to support easy access to qualitative records information
- Increased use and usability of records information
- Appraisal to be a systematic and repeated process.

The Strategy does not specifically point to open data. In fact, the word is not mentioned. This is because of the broader scope taken, to include all public information independent of format. As the Swedish tradition of public access and reuse of information for other purposes than the original stretches back long before the digital era, it seems natural to take this broader grip when meeting the PSI directive and expectations on open data initiatives. What the City of Stockholm does that is really worth mentioning here, is stating the intent to be advanced in provision of access to records and archives in digital formats. What is to be open data is a political decision. Efforts are being made for digital records to be prepared and ready for presentation as Open Data at the moment it is decided to publish.

Elisabeth Klett's role has been the archivist in charge of developing these strategic steps into projects and lately to develop the strategy. Now the challenge is to realize the intent of these six areas of priority, starting by trying to get consensus on the concept of digital information provision.

Methodology

The study sought definitions of open data and open government used in Sweden and statements of intent presented in political decisions and strategic documents within the City of Stockholm concerning the role of the City Archives and archivists in digital information provision and management of open data. Eight interviews were then conducted with key stakeholders: six from within the City of Stockholm and two with representatives of external stakeholder organizations.

The interviewees from within the City included:

- Three professional archivists (*Archivists A, B and C*)
- One IT professional from the IT Department
- One Information Security professional

- One manager of an administrative unit (*The Manager*)

Findings

Definitions of open data and open government

In Sweden there is an ongoing cooperation on open data at national level. The three main actors are the Swedish E-delegation, the Swedish Association of Local Authorities (SALAR) and VINNOVA - the Swedish Governmental Agency for Innovation Systems. They all refer to the so-called *open definition* to explain open data.:

“A piece of data or content is open if anyone is free to use, reuse, and redistribute it — subject only, at most, to the requirement to attribute and/or share-alike.” (Open Knowledge, 2014)

VINNOVA also uses the open definition developed by Open Government Working Group, which says that the data should be *complete* (all public data is made available), *primary* (data is collected at the source), *timely* (data is made available as quickly as possible), *accessible* (data is available to the widest range of users for the widest range of purposes), *machine processable* (data is structured to allow automated processing), *non-discriminatory* (data is available to anyone with no requirement of registration), *non-proprietary* (data is available in a format over which no entity has exclusive control) and *license-free* (data is not subject to copyright, patent or trademark) (The Annotated 8 Principles of Open Government Data, 2014). In Stockholm, the Open Definition is also referred to, as well as that of the Open Government Working group (<http://open.stockholm.se/fragor-och-svar/>).

Sweden participates in the *Open Government Partnership* (Regeringskansliet, 2014, p. 3), in which the vision for open government is that

“more governments become sustainably more transparent, more accountable, and more responsive to their own citizens, with the ultimate goal of improving the quality of governance, as well as the quality of services that citizens receive. This will require a shift in norms and culture to ensure genuine dialogue and collaboration between governments and civil society.” (Open Government Partnership, p. 3).

The Swedish e-government strategy is also a means of including these goals in official strategy. The City of Stockholm does not explicitly use the term ‘open government’. Instead, the *Digital Archival Strategy* states that the City of Stockholm should have the most transparent information management in Sweden. According to *Archivist A*, all open data at the City of Stockholm are public records. The opinion among those interviewed seems to be that the PSI-Directive and work with open data has not changed the meaning of the Freedom of the Press Act, but rather stresses the importance of accessibility. The interviewee also stressed that the City Archives uses a broad concept of information supply, in which open data is just one part, but where the focus lies on the use and accessibility to the information.

Interviews

Eight people were interviewed for this case study: three archivists (one in management, one archival strategist and one working more practically with open data); one person from the IT department; one from the information security domain; one from the management of the City and two external stakeholders, both of whom have been involved as members of reference

groups a few times. All of those interviewed have been involved in the City's work on open data in one way or another.

Authenticity, quality and open data

Whenever archivists have discussed securing the authenticity of digital information, a common view has been the need for controlled management processes of the information. Open data contradicts this view of control, where the idea is that the information should be free. Therefore the interviews sought to learn how authenticity is discussed in relation to open data.

All the interviewees thought it was important to take authenticity into account when dealing with open data. It seems as if open data is viewed as being a characteristic of the information, it is not fundamentally different from the other records in the City. *Archivist A* said that open data is no different from other information, the quality has to be secured at creation and then maintained no matter how the information is made accessible. It is also stated in the *Digital Archival Strategy* that (freely translated)

“All information in the City is created and structured so that quality and authenticity can be confirmed” (Stockholms stadsarkiv 2014b, p. 2).

According to *Archivist A*, authenticity of the information is also a component in building the trademark of the Stockholm City Archives and the City of Stockholm. *Archivist B* stated that the question of authenticity is fundamental to the credibility of the archival profession, so that the information of the administration can be trusted. *Archivist B* also stressed that being open is a quality of the information itself: it should be created as open and not be restructured at the point of publication, but also noted that that the greatest challenge is to establish this perspective of openness at creation.

The interviews addressed the extent of responsibility for the authenticity and “effect” of the information being used, aiming to gather a range of perspectives on this issue. According to the interviewee from City management, the City is responsible for what is published, but not for its further use. On the other hand, both *Archivist C* and the interviewee from *Information Security* stressed the need for some kind of risk assessment for publishing information as open data, particularly concerning the possibilities of connecting information with other data and the risk of “aggregated” secrecy. The information security interviewee also raised the risk that the information can be misinterpreted or incomplete, so it will generate misleading information in the last stage. The organization could take measures to secure accuracy, but that would contradict the idea of openness. According to one of the *External Stakeholders*, information quality and accuracy will be judged by the market. For example, if an app is created that provides unreliable information, the service will not be used. However, this interviewee also said that it is important that information provided by the public administration is correct. The other external stakeholder stressed the need to go further and publish the data as linked open data, which requires conforming to a metadata standard. This interviewee raised the importance of good description of the information so that users will be able to examine the sources.

Information security classification was stressed as a very critical factor. In the security classification model four different areas are addressed, each having three levels: confidentiality, traceability, availability and accuracy. Some aspects of these security concepts appear to coincide with, or at least overlap with some archival concepts. For

example, 'accuracy' in the information security domain could be perceived as including aspects of authenticity and could be related to the archival concepts of authenticity, reliability and integrity. The concept of availability appears in both the security and the archival perspective. Thus it may be worth a more thorough study of archivists' and information security professionals' coinciding goals, aiming for a more holistic view, as well as raising shared or common responsibilities. Overall it appeared that many of the actors with an interest in open data relate authenticity and information quality to the concept of accuracy, but archivists have a more specific definition and perspective for each concept.

The archivist's role in working with open data

The issue of the City's approach to open data is largely a political question, decided by the City Council. The City's Cultural Committee also plays an important role at this level of decision-making. Administrative responsibility has been given to the IT Department, but the Cultural Committee tasked the City Archives with developing the Digital Archival Strategy. As a result, the IT Department and the City Archives have been working cooperatively and will continue to do so.

The City Archives is responsible for guidelines and policies, the IT Department for the IT-systems and the administration for the business processes and practical implementation. This can be illustrated as in Table 1.

Area of responsibility	Function
Information management	Stockholm City Archives
IT-systems	IT
Processes	Administration
Practical implementation	Administration

Table 1: How responsibilities are shared among different functions

According to *Archivist A*, responsibility for the quality of the information should be shared among several actors since there are many involved in the management of the information. The IT Department focuses on the technical perspective, while the administration wants solutions to be easy and cheap, which is why the quality information perspective that the archivists bring is so important to open data as well as for other forms of information. Although open data at first glance seems to be quite different from regular records management, *Archivist B* noted that the City Archive has long been facilitating open accessibility of records that are not restricted by secrecy or personal information, freely and without intervention from the Archives in their further use. Therefore the concept of open data is not foreign to them. In taking this work further, it will be particularly important to ensure that information in the e-archive is seen to be available as open data. The Director of the Stockholm City Archives has also launched the idea of "information as raw material", highlighting the use and usefulness of information. This market-oriented strategy aims to raise the status of information as a resource, in line with the PSI-Directive.

The Manager noted that when the City moved to digital processes some years ago the City Archives was involved from the very beginning of that transformation because they had the necessary knowledge to ensure digital preservation of the information. Therefore, this interviewee saw their involvement in the current work on open data as a logical progression and the *Digital Archival Strategy* is the instrument that expresses the archival view on open

data. The City Archives has taken a leading role in increasing the transparency in the administration, making the Archives more visible within the City, which the Manager considers to be a very positive development. Nevertheless, the IT Department has the lead role in open data development and this interviewee endorsed that, on the grounds that it is a strategic ordering function that should take the whole of the City and its overarching goals into account.

The *IT Department interviewee* did not express any opinion on their perceptions of the role and responsibilities of archivists. When asked who is responsible for the authenticity of open data, they asserted that it is the information owners' responsibility to guarantee the information accuracy and that it is updated from the right source. They noted that the City works in accordance with a model of system management in which roles and responsibilities must be identified explicitly. The interviews show that different perspectives may currently co-exist between the narrower IT-perspective and the more holistic archival perspective of information quality, so it appears that further work on defining roles and responsibilities is still to be done. The interviewee from the *Information Security domain* also asserted that the City Archives should be represented in the work on open data. This interviewee stressed the importance of information security classification and saw that archivists could assist in evaluating the information for the purposes of security classification.

One *External Stakeholder* was actually positively surprised by the active role of the Archives and the way in which they approached the issue, their ambitions for making the information accessible and their vision for its possible use. The interviewee suggested that this is a new role for archivists and noted that some professionals are uncertain about whether archivists should be so proactively oriented towards ensuring accessibility. The interviewee means that the digitalization brings new expectations for accessibility, which will also increase. The other *External Stakeholder* expressed the opinion that archivists do not have the necessary competence in data archiving and that other professions are better qualified in this area.

According to *Archivist A*, the Archives and archivists should be at the forefront, taking the initiative in working with open data. If not, this part of the archivists' professional arena will be lost to other professions (as noted by Kallberg, 2013), with a risk that other professional perspectives will be imposed and archivists' voices will not be heard. The Stockholm City Archives' *Digital Archival Strategy* is a good example of working proactively in this manner. The City Archives must now address and further develop standards and procedures for implementing the *Strategy*, as well as continuing to work to make the Archives more visible within the City. It is very important to explicitly define the responsibilities of the various role-holders. Several independent political committees are concerned, and there is a risk that tasks may be doubly assigned, resulting in people working with the same thing in different administrative departments. Consequently the IT Department is commencing a project to define roles and responsibilities and to develop routines and cooperation around open data. The outcome of this project will be a management model assigning roles and responsibilities, together with a management plan. *Archivist B* thinks cooperation within the City works well and archivists are appropriately represented in a range of different areas. In the opinion of *Archivist A*, the IT Department's function is managing storage and technology, and the archivist's role is to support how the information is created and managed to meet all requirements. The archivists also assist in working with processing and evaluation of information, contributing methods and tools for documentation, collection and preservation. The City Archives has developed guidelines on evaluation of information, which also deal

with publishing and dissemination of the information. This interviewee believes that archivists also have a broad perspective, ensuring access in the future and wider access beyond Sweden's borders.

When questioned about the competence that archivists require for working with open data, *Archivist A* said that operational knowledge of the organization's work processes is essential, as well as knowledge of legal and regulatory requirements. Classification skills are also essential. *Archivist C* said that archivists contribute skills in structuring information and assessing what can be designated as open. This interviewee further asserted that ethical issues must be addressed, noting that discussions are currently very technocratically focused, yet there are human concerns that cannot always be dealt with or replaced by automation.

Conclusions and suggestions for further investigation

A range of different roles and expertise are involved in the management of open data. Some coinciding interests can be identified. For example both the IT Department and the City Archives were assigned tasks concerning open data that made it necessary for them to work together. Archivists have the essential knowledge and expertise to play an important role, but they have to be proactive and take the initiative to be included, otherwise other organizational functions and other professionals will drive the agenda without them. However, this study shows that most actors, both internal and external, thought that the proactive work of the City Archives and their leadership for greater transparency were positive. It is remarkable that the IT Department was the exception, given that they have worked with the City Archives on open data issues. It was unclear whether there was uncertainty about what the archivists' role entails, or whether there was just an unwillingness to say something that might be interpreted as "wrong". Thus the outcomes of the planned work on defining roles and responsibilities will be a constructive step forward. It is also important to clarify how responsibility for information quality should be assigned and managed. Although the City's official responsibility for the information formally ends when it is published, a risk assessment is needed, or guidelines for addressing the risks in further use of open data should be developed.

Undertaking a discussion to define concepts and decide common usage of terminology, engaging all of the internal stakeholders in the City's information quality and open data initiatives would also be useful. There is evidence that some terms are understood to have different meanings when used by different actors. For example, all interviewees stated that authenticity of the information is important, but those who were not professional archivists seemed to understand 'authenticity' to mean 'reliability' or 'accuracy'. Similarly, information security classification shares some common concepts with information evaluation undertaken in the archival sector. Identifying shared concepts and defining their varying nuances in different domains may be a positive strategy for eliminating some existing uncertainties about archivists' roles and professional expertise.

Bibliography

The Annotated 8 Principles of Open Government Data, <http://opengovdata.org/> Accessed 28 August 2014

Kallberg, Maria (2014) 'The Emperor's New Clothes' Recordkeeping in a New Context. Sundsvall: Mid Sweden University. ISBN: 978-91-87557-21-7, ISSN: 1652-893X, Doctoral thesis nr: 175

Open government partnership, Mission and Goals,
<http://www.opengovpartnership.org/about/mission-and-goals#sthash.U4BXdn2A.dpuf>
Accessed 21 July 2014

Open Knowledge, opendefinition, <http://opendefinition.org/> Accessed 21 July 2014

Regeringskansliet (2014) Sweden's Open Government Partnership Action Plan 2014-2016,
<http://www.opengovpartnership.org/country/sweden> Accessed 21 Juli 2014

Stockholms stad (2014a), Open Stockholm <http://open.stockholm.se/fragor-och-svar/>
Accessed 29 September 2014

Stockholms stadsarkiv (2014b), Dig In - digital arkivstrategi för Stockholms stad [Dig In – Digital Archival Strategy for the City of Stockholm], <http://insynsverige.se/stockholm-kultur/dagordning?date=2014-08-26#agenda-8> Accessed 29 September, 2014