

Open Government Data Austria - Organisation, Procedures and Uptake

Johann Höchtl, Peter Parycek, Center for E-Governance, Danube University Krems, Dr. Karl-Dorrek-Straße 30, 3500 Krems, Austria. {johann.hoechtl|peter.parycek}@donau-uni.ac.at

Brigitte Lutz, Office of the CIO City of Vienna, Rathausstraße 8, 1010 Vienna, Austria.
brigitte.lutz@wien.gv.at

Stefan Pawel, City of Linz, project manager of OPEN COMMONS_LINZ, Gruberstraße 42, 4020 Linz, Austria. stefan.pawel@ikt.linz.at

Abstract. *Open Government Data in Austria is characterized by a collaboration of the willing and capable, as well as direct community involvement which happens at various levels along the data publication line. Early and direct community involvement is regarded as one substantial key success factor of OGD in Austria. This paper describes some of the noteworthy measures to spark open data usage as well as first visible effects of changed administrative and external processes and procedures since the inception of OGD.*

Organisation of Open Government Data in Austria

Unlike the administrations of the UK, the USA or France, there is no pro-active freedom of information law which would govern the release of Open Government Data (OGD) in Austria. At the time when the EU directive on the re-use of public sector information of 2003 got implemented into national law, no single portal provided access to information of the public administration. In short, when the OGD movement was brought from bottom-up to the administration, no good practice was in place how legally or organisational-wise should be dealt with requests for data. While there is a long-lasting tradition in Austria of legally framed eGovernment, concerns were raised that for OGD to be effective, a much faster pace of development and less formalisation than currently would be necessary. In 2011 the Cooperation OGD Austria (<http://www.data.gv.at/hintergrund-infos/cooperation-ogd-austria/>) was initiated by the Cities of Vienna and Linz (both were eager to release OGD within a short time frame) and founded with the Cities of Salzburg and Graz. The Austrian Chancellery agreed to steer the Cooperation. Founding members agreed on a tiny core of guiding principles which included the well known Open Data principles [1], the licensing model Creative Commons Attribution, the necessity to provide access to data on a central portal according to an URL naming scheme and to provide metadata describing the data sets. Other important topics like data marketing, monitoring, community management and security issues were discussed, but because of the federal structure of Austria, every administrative entity willing to provide data was considered to be self-responsible to carry out further assistive measures for data release. The founding members (“core team”) devised authority to establish a first sub-working group to deal with a meta data scheme to the City of Vienna. While decision making was the responsibility of the core team, the metadata sub working group called for participation and attracted more members from other administrations, academia and business to work out a national OG metadata description.

Metadata description phase started in fall 2011 and reached version 2.2 in fall 2013. The cities of Vienna and Linz both went live with their data portals in 2011, the pre-version 1.0 of the metadata description was

already available. Only minor changes were made to the metadata description from version 1.x to 2.x in late 2012.

Community Engagement

Community engagement in the OGD Austria movement can be identified on two levels and related to two goals. First, external engagement outside the government has the primary goal of increasing data usage by marketing measures. Second, government-internal engagement was important to adhere to publication processes and to enable the release of more data sets.

Internal Engagement

Depending on the organisational structure of the administrative entity and the legal backing, internal engagement plays a role of varying importance. In the case of Austria, without a legal obligation for the administration to release data as “open data” (i.e. according to the open data principles), engagement of the heads of departments is crucial. A follow-up workshop to the survey of 2012 among the City of Vienna with internal and external OGD stakeholders carried out in fall 2013 showed four leagues of open data support among heads of departments: 1. Those claiming to actively promote it and actually releasing data (“Enthusiasts”); 2. Those claiming to support it, but not releasing data for various reasons (“Preventer”); 3. Those actively opposing it („Opponents“); and 4. those opposing it quietly (“Dark matter”). Members of group 1 to 3 are relatively easy to reach and inform by targeted measures as they are *visible*.

One measurement that proved to be effective was to give both opponents and proponents a common auditorium and the possibility to have their say. During the fall 2013 workshop, opponents explained their reasons why they are principally pro OGD, yet unable to release data for reasons like data protection issues, fear of losing income, costs or data volume. To discuss those arguments, an adopted and extended version of „Reasons (Not) to Release Data“ (Sunlight foundation, 2013, <http://sunlightfoundation.com/blog/2013/09/05/reasons-not-to-release-data/>) was used. This helped to put some opinions into perspective.

Another internal engagement measure to lower the entry barrier towards OGD is to establish clear responsibility for OGD within the administrative departments and to institute a virtual OGD competence center helping with questions concerning licenses, data formats and data structures or metadata descriptions.

Last but not least, the topic of OGD as a concept is still very new to those officials who actually have to prepare the OG data sets. Initially OGD is likely to be perceived as an additional effort without any merit. Short and well dosed information campaigns, containing success stories and the voices (and faces) of external users who describe what they have accomplished with the provided data sets can increase the motivation of the responsible officials and can give the efforts of users or the community additional meaning.

External Engagement

The internal will to release data is the base for initiating the OGD transparency circle (<http://sunlightfoundation.com/blog/2010/03/10/introducing-the-cycle-of-transparency/>). However, once data is set free, it's up to the external stakeholders to demonstrate its potential. The approach “we build and they will come“ has been proven wrong several times. Ironically, even though valuable data sets are released, additional effort is required to engage the external stakeholders to actually create something with the data. An early international approach is the one of an Open Data challenge as was also held in Austria. There have been competitions on the national level and competitions by cities (Vienna, Linz, to name a few). However, competitions are not enough - they have the tendency to spark a straw fire yet to lead to little sustainability. Instead, direct involvement of community key players as multipliers (like university

lecturers) or the integration of external developers in the details of the publication process provides more long lasting effects.

While the execution of open data competitions in Austria was carried out much in vein of international precursors, it was due to the timing and direct information of key people why a respectable number of submissions were received devoid substantial financial incentives. For instance, university lectures of information design and informatics were informed about the competition weeks before the competition was made publicly available and before the regular university semester terms started. This gave lectures enough time to prepare their courses and plan their participation in the challenge as an integral part of the curriculum. As a consequence, the closing of competitions was timed to coincide with the closing of terms, so submissions could be some form of final examination. While professors where the primary target of the information champaign, it was also necessary to reach the non-professorial teaching staff. This was achieved by direct contacts or by reaching out to the professors and asking them to disseminate the call to colleagues.

City of Linz representatives even targeted pupils during a one day workshop to convey the basics of OGD, a workshop which was very well received. Awareness was also raised among teachers who were open to the inclusion of OGD analysis capabilities in subjects like ICT, Geography and Mathematics.

The cities of Linz, Graz and Vienna stick to an OGD publication process where external stakeholders are invited to give feedback on recently released data sets and get early information concerning new data sets that are soon to be released. The publication of those sets normally follows a specific topic, like transport, education or health. However, the intensity of the information exchange is varying. In Vienna, for example, there are two different formats - the "OGD-platform" is designed to be primarily an informational event. Officials inform the interested public about their upcoming plans, so developers know in advance what data sets they can expect and can start thinking what to do with those sets. After the launch of data there is set up a "developer-meeting" to discuss the feedback about the data and technical questions. This situation is in contrast to the situation in Graz, where the discussion is mainly conducted interactively. As a consequence, city representatives of Vienna call their community events "calm", whereas the situation in Graz is received more ambivalently. Community events in Graz allow more direct involvement and the boundaries between external users and internal providers start to blur. For example, users demanded insight into department IT-systems and proposed to lay their hands on to improve the usability of exported data sets.

Based on the evaluation of the submission to the Apps4Austria challenge (www.apps4austria.gv.at) direct marketing was probably the most successful channel to draw attention to the challenge and engage people to participate. The Austrian Chancellery charged Danube University Krems / Center for E-Governance to work out the terms of participation and evaluation criterias and to support the marketing of the challenge. This resulted in the following actions: Flyers and posters were distributed in schools, on OGD related conferences, projects and meetings; the challenge was present on the website of Danube University Krems and the Austrian Chancellery and their respective newsletters. The Ministry of Education sent an email to every school in Austria. Furthermore, all members of the "wider project team" distributed the call for participation in their own social networks. Finally, people charged with marketing also contacted other potentially interested people directly by phone. Direct and continuous contact with people proved to be the most effective method.

Procedures and Services

For a long period of time, the acknowledgement of the overall benefits of the release of OGD relied on persuasive arguments and trust of the releasing party. Solid figures are sparse as the effect of detour rentability involving many parties would require a very complex model, an effort achieved with a broad error

range [2]. However, tangible examples highlighting changed processes (be it for good or bad) do exist, which are presented from the Austrian perspective.

Administrative Procedures

From the administrative perspective, the biggest changes are related to the realm of information management. New processes were required to ascertain increased levels of data quality - to big has been the fear of the public running rings around defective data sets. With external stakeholders questioning why e.g. addresses within an OGD data set of different public institutions are presented in different formats. This increased awareness of interoperability in the case of Vienna led to the creation of the position of a “data inspector”. The data inspector is a member of the statistics department who is charged with the task to control and harmonize data representations. These efforts already fostered the common understanding about data entities and, according to departments voices, will lead to increased levels of understanding in interdepartmental projects. The benefits of harmonizing data structures also led to the insight, that in the long run more shared IT-infrastructure would be beneficial. Thus, besides changed processes, structure will follow suit and result in new information infrastructure. This new, department spanning infrastructure would also support to leverage touted benefits of “big data” and “information mining”.

Another effect of OGD within the administration is the usage of data portals as a data sharing platform within the administration. In the absence of an integrated information management platform this role gets increasingly taken over by OGD portals, which is confirmed by a survey carried out in 2012 and commissioned by the City of Vienna [3]. The informal possibility to obtain information, the ability to browse instead of knowing which information is required in advance, the high data quality level and the timelines at which information becomes available have been mentioned as beneficial. Previously, getting to information was a formal process which required officials to apply and wait for approval. These requests required justification and if the received data did not contain the expected information, a new application had to be filed.

Business Services

As mentioned previously, a total of 232 implementations and visualisations have been created. Many of these implementations were created unsolicited: People realised technical interests (“How do make an Android App”) largely without further immediate economic interests. For many OGD competition participants it was already beneficial to get mentioned around the media hype, resulting in higher downloads and increased reputation. In 2013, the City of Vienna asked known OGD implementers to provide usage data (information unpublished, available to the authors) and some reported back that they either already created revenue out of OGD or that they were on the threshold to be profitable. Until early 2014 this situation has considerably changed, with five presenters at the Vienna Semantic Web Meetup giving insights into Best Practices in Data Business and presenting their business ideas. Those ideas are focused around making use of government data and mashing these data sets up with other, partly closed data sources from business partners to create much improved services in real estate or leisure planing (Presentations at <http://www.meetup.com/Vienna-Semantic-Web-Meetup/files/>, upload date April 2, 2014)

However, besides those direct revenue models because of OGD as a cheap (free) resource to start a business, the indirect revenue circles are even more interesting. For Austria no ascertained numbers exist, however some visualisations of Austrian OGD data sets have been created from people living outside of Austria (direct value created abroad) or applications have been created, which make getting around in Austrian cities easier for people coming from abroad (indirect value created). For the latter it is hard to receive definite figures. Personal conversation with Patrick Wolowicz, the creator of “Wann”, an application which provides scheduling information on iOS devices for public transport in Vienna, Linz and Geneva (<http://subzero.eu/wann/?lang=en>) , revealed that almost 16% of downloads happen on devices registered

outside Austria. Most likely those people come as tourists or expats to Austria and use this application to get around in Vienna or Linz more conveniently, make their business more frictionless and visit places they would have not planned to see otherwise.

This usage pattern also serves as an example of both changed administrative and business processes: The administration retracts to its core business (ie. providing public transport), leaving the creation of mobile apps to business professionals. Those do not create direct revenue by selling a product but through cross-financing (eg. the ability to display locality-aware advertisements) and creating an increased public value through tourists who can find more easily undiscovered places in cities. "Wann" is just one example of many more goods and services expected to emerge as administrative publication procedures settle, data and interface formats standardize, licenses become established, discoverability of data sets improves, and the necessary capabilities to make use of the data are built up.

Summary

Three years of OGD good practice in Austria in the area of community engagement and the related changes of business and administrative processes lead among others to the following insights:

User engagement

- Be authentic: Communicate through a competent spokesperson rather as an institution
- Clearly communicate the rules of interaction: Topics which are open for discussion and topics which are already pre-defined .
- Perform direct marketing: Either through social media or through traditional channels
- Include key stakeholders: Integrate external stakeholders into marketing efforts by informing them early about upcoming events

Changed processes

- OGD promotes to standardisation efforts: Without standardized publication processes and data formats, OGD becomes costly and unsustainable.
- OGD informalizes information flow: OGD provides a mean for cross-department, cross-sectoral and cross-federal information management.
- OGD increases administration common understanding: By defining common data representations, officials have to agree on the meaning of the data they provide.
- The administration is likely to retract to its core business and give way to business implementers which provide services according to market needs.

Acknowledgment. The research presented in this paper is partly financed by the European Union ICT PSP Share-PSI, pr.no. 621012.

References

1. Sunlight Foundation, "Ten Principles for Opening Up Government Information - Policy Center." [Online]. Available: <http://sunlightfoundation.com/policy/documents/ten-open-data-principles/>. [Accessed: 19-Nov-2011].
2. J. Manyika, M. Chui, P. Groves, D. Farrell, S. van Kuiken, and E. Almasi Doshi, "Open data: Unlocking innovation and performance with liquid information ," McKinsey Global Institute, New York, Oct. 2013.
3. J. Höchtl, P. Parycek, J. Schossböck, and C. Landler, "Evaluation der Open Data Umsetzung der Stadt Wien," Donau-Universität Krems, Krems, 2012.