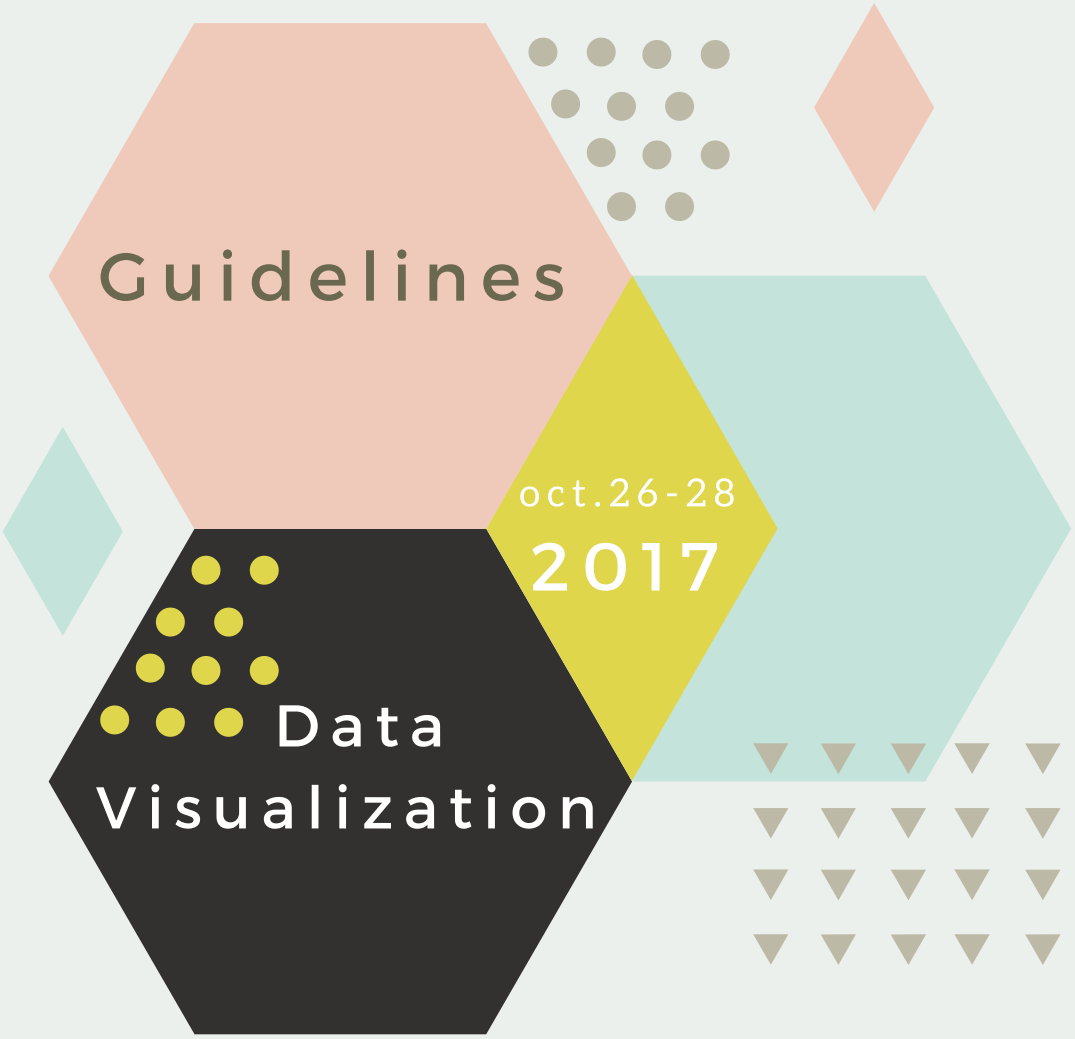
Visegrad Fund

Government of the Netherlands

Civic Participation, Data Visualization, and Local Government



International conference

COMPASS

Real Path to Changes

“The main objective of the project is to increase citizen participation and transparency of local government through effective community governance applying Information and Innovative applicable technologies.”

By visualizing information, we turn it into a landscape that you can explore with your eyes, a sort of information map. And when you’re lost in information, an information map is kind of useful.
David McCandless

This document presents the results of the international conference Civic Participation, Data Visualization, and Local Government which took place on October 26-28, 2017 in Gyumri, Armenia.
Linking the input of experts in the field from the Czech Republic, Slovakia,Hungary and Armenia, the guidelines are meant to inform civil society organizations, local and national governments on how to effectively cooperate with each other on data visualization to enhance civic participation.
The international conference is financed by the International Visegrad Fund and by the Ministry of Foreign Affairs of the Kingdom of the Netherlands.

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Data Visualization as a Tool

Armenian organizations have just recently become active in the field of local budget spending visualization and project leaders are currently gathering knowledge from experts already in the field. Projects on data visualization, especially on local budget spending, Have recently been undertaken by the think tank “Compass” NGO in Gyumri, Armenia. Subsequently, Compass took the initiative to begin an exchange of experiences and ideas on data visualization with an international conference involving experts from the Czech Republic, Slovakia, and Hungary. As a result of that conference, these guidelines have been developed. Also, in Georgia, similar initiatives are being established. The first international data event in the South Caucasus, DataFest Tbilisi took place November 15-17, 2017. The event in Tbilisi is being held and organized by the initiative “Ministry of Data - Black Sea Edition” for the purpose of using technology to visualize state budgets. This specific initiative invites non-governmental organizations to compete with each other, realizing data visualization projects. Initiatives on data visualization in Armenia, Georgia, and other countries all aim at improving institutional accountability and increasing civic participation. To reach this goal, data visualization is the tool, this conference believes, that can be wisely and widely used to affect civic participation and policy-making.

The power of data visualization has not yet been proven. However, great potential to improve communication between authorities of the public sector and citizens is expected as a result of this power of data visualization.
Samuel Bohman described in his paper, "Civic Participation and Empowerment through Visualization" success stories of data visualization. He elaborated on what possibly made these projects use data visualization effectively to promote civic engagement and hence influence public policy making. He starts off with the statement that "[...] empirical studies suggest most initiatives to date have failed to live up to expectations despite large investments in research (Bohman, 2015: 20)". Data visualization represents a yet untapped potential in promoting a more informed and engaged participation in civic and democratic life. The themes and examples discussed is suggestive (but by no means conclusive) evidence that the time is ripe for scholars to consider the use of data visualization in political participation and civic engagement research. However, the versatility and potential applications of data visualization in the service of democracy remain to be explored. It would be useful to explore and reflect on the following research questions:
• Techniques of storytelling focus on people, motives and contexts rather than numbers. How can stories help bring data to life?
• Aesthetics reaches on a different level than words and numbers alone. How can data be combined with art and design to evoke emotional engagement?
• In today's networked society, harnessing the power of human connections is key. How can we make data conversational and sharable?
• Beyond the desktop visualizations may be effective in engaging hard to reach groups. How can we unlock the hidden potential of tangible data?
• Smartphones and other connected devices bring visualization closer to people than ever before. How can we leverage the ubiquity of data in people's lives? (Bohman, 2015: 23)"

These questions build hypotheses which have not yet been proven impactful, scientifically speaking. Rather they suggest data visualization is a tool that might become effective using diverse approaches such as storytelling, design, and target group related infographics as well as new channels for public interaction.
Discussing real life cases and the current projects of international experts, the conference realized similar suggestions in using data visualization as a tool for the purpose of increasing civic engagement in local governance. In the following, based on these practical experiences, methods of visualizing data and also possibilities of interaction with stakeholders will be formulated in guidelines.

Assessing Data

Data on local government spending can either be collected from municipalities or can be gathered from central government data sources. In the following, both practices, as well as their pros and cons will be outlined.

Local government data sources allow a person or entity to collect data individually. This means the information that is gained can be determined more specifically. However, this also means that the data that is given is not aligned with any other data sources of other local entities. For that reason, data on one subject of one municipality cannot be compared to performances of other municipalities. A ranking between municipalities is not possible. The disadvantage is that locally collected data is hard to compare with other regions, if there is no standardized methodology and also probably more expensive when gathering data of many municipalities. To process data easily, a standard format is required. In order to compare data and maintain the database, data should be of the same characteristics, for example, all the data is gathered monthly and in the same format.

Central government sources make comparisons and large scale research easier, because the format of data of many municipalities is standardized by regular reports. Large data collection projects can be coordinated more easily. Of course, the data must be very detailed to also keep up with local trends.

However, in reality data sources are usually a combination of both local and central government sources. For example, in the Czech Republic the local tax authorities report in a standardized format to the central tax authority. The central authority then completes the report and publishes it. For the sake of transparency, the local authorities could also publish the data they collect on their websites, making the data more accessible to the general public. This method of sourcing data, as one might expect, presents its own challenges and benefits for the process and the overall quality of the data.

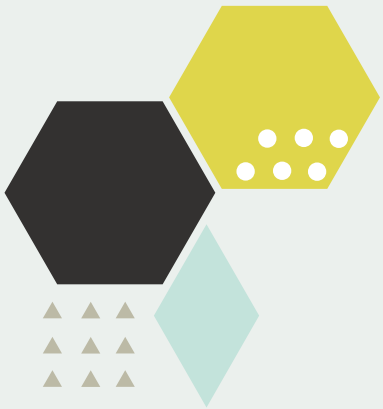
Cooperation with Local Governments and CSO's

How to approach stakeholders to contribute to the database? What incentives do local or state governments have to cooperate? What arguments can convince Civil Society Organizations (CSOs) to unite for effectively communicating their aims through data visualization?
First of all, in Armenia, governments are legally obliged to give information on budget spending within 30 days after being requested. But is there an intrinsic motivation for officials to make transactions transparent? During the conference in Gyumri, the following arguments were developed:
In this case, the basis for cooperation between NGOs and the Community may be the fact that many units have difficulties in sharing data because they do not collect this information and reason is their low qualification, and in this case, NGO experts can work directly with public officials and help in the classification and publication of information.
The willingness of citizens to pay taxes might be increased by making the impact of tax money transparent. This way, citizens learn about “where the money comes from and where it goes.” Data can show the performance of how local government works, for better or for worse. Consequently, good government results in the increased likelihood that current officials will get re-elected. Most especially, the publishing of officials’ salaries can raise their transparency and trustworthiness within the standing of the local populace.
What if local governors are not being elected directly by the people but chosen by the central government? The described incentive becomes redundant.
In this situation, arguing from a central government’s perspective, transparent employment and procurement contracts as well as other spendings of municipalities can increase the efficiency of bureaucratic work.
Taking the local governor’s perspective, gaining the trust of the central government might cause central officials to subsidize new or more local projects in the future. In addition, data visualization might also enhance competition between municipalities and because of that, further increase the efficient use and spending of taxpayer monies.

Cooperation with Local Governments and CSO's

In conclusion, all of these arguments only come into effect if there is no automatic transfer of the data in the reports from the local entities (NGOs, CSOs, Local Governments, etc...) to the central government databases. Because only then, good arguments for data transparency must be found. In any case, the media plays a crucial role by either producing public pressure on the government or by informing the public about reports by using data visualization techniques.

What motivates CSOs to cooperate with each other?
CSOs can share the role of monitoring local government performance, activating citizens for participation, and transporting data knowledge to other interest groups. CSOs play a crucial role for involving citizens as described in the section on Motivating Citizen Participation. But what makes CSOs work together?
The most common reasons that this conference found that CSOs work together are because of their shared common interests, they have a lack or insufficient capacity of resources (money, local experts, know how, different specialization of each CSO makes cooperation on “big and broad” topics necessary), as well as a shared motivation to work on joint projects, be they cross-country or regional projects.

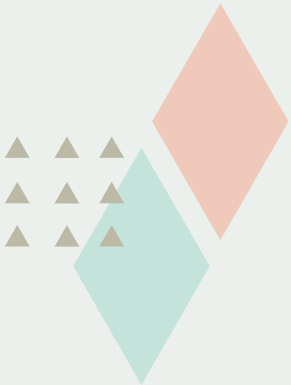


Rules for Data Visualization

1 Less is more! Keep the design simple and make the user-experience easy.

2 Tell a story! Before you start to visualize, be aware of the story and the relevance of the message. It might be interesting to simulate scenarios to not only reflect the past but also show possible future scenarios.

3 Be Credible! People must trust you. Data must be worth trusting. What methods might raise credibility of data? Show what sources have been used to gather data. Mention what methodology has been applied as a short link. No manipulation of data.



Motivating Citizen Participation

Mistrust in governments can facilitate the promotion of propaganda of populist parties and vice versa, as recently has been observed in European countries. For example, in Germany with the right-wing populist party AfD (Alternative für Deutschland). In general, it is even harder to credibly inform people about facts, once people mistrust their government. When there is no belief in the power of the people to bring change, citizens cannot be activated; they give up and do not participate. This is why data visualization can work as a preventive method to transparently and clearly communicate facts, maintain and build trust as well as participation.

In the beginning, interest in relevant issues must be demonstrated by the local government and by CSOs. To learn about what is relevant for the people, their voices must be heard. For that reason, in order to address messages to the public and to get people involved in civic participation activities, it is important to understand their needs. Asking questions and building focus groups can clarify common interests of a group. What is the interest group of a public good e.g. high school education? And what issues are perceived most urgent among the target group?

Public institutions serve as opportunities to engage with locals and find out about their needs. A good example for data visualization is given by INEKO, a Slovakian NGO. By including survey results of evaluations of local institutions such as hospitals, the interaction becomes both-sided. The information flow goes from citizens to public institutions and vice versa. By that, the information visualized connects to daily life issues.

Motivating Citizen Participation

Concluding from the conference discussion, a demand for data visualization does not exist from the beginning. We have to create the demand for data visualization first by addressing the right people and their needs. For instance, during a public event or with infographics, not only data about information on budget spending be given, but the connection to daily issues and possible solutions must be pointed out as well. On relevant data information, action and change must follow. Otherwise, citizens will be left behind and left feeling frustrated. So, engage people by taking a participatory approach.

Overall Recommendations

Make local stakeholders cooperate!

By thinking of incentives.

→ Transparency on local budget spending increases citizens willingness to pay taxes.
→ Transparency on local budget spending and officials' salaries increases the popularity of local politicians.
→ Transparency on local budget spending enhances competition between municipalities.
→ Transparency on local budget spending promotes the efficient use of public financial resources.
→ Transparency on local budget spending increases the public's trust in the local government and increases the chances for public subsidies from State and International sources .
→ Transparency on local budget spending is legally required to be given 30 days after being requested.

Facilitate public understanding!

By a simple design.

→ Use infographics and storytelling to point out relevant information.
→ Link to current events and local public issues.
→ Include other, local well known persons in the presenting of the information to create trust and increase public interest.

Motivate civic participation!

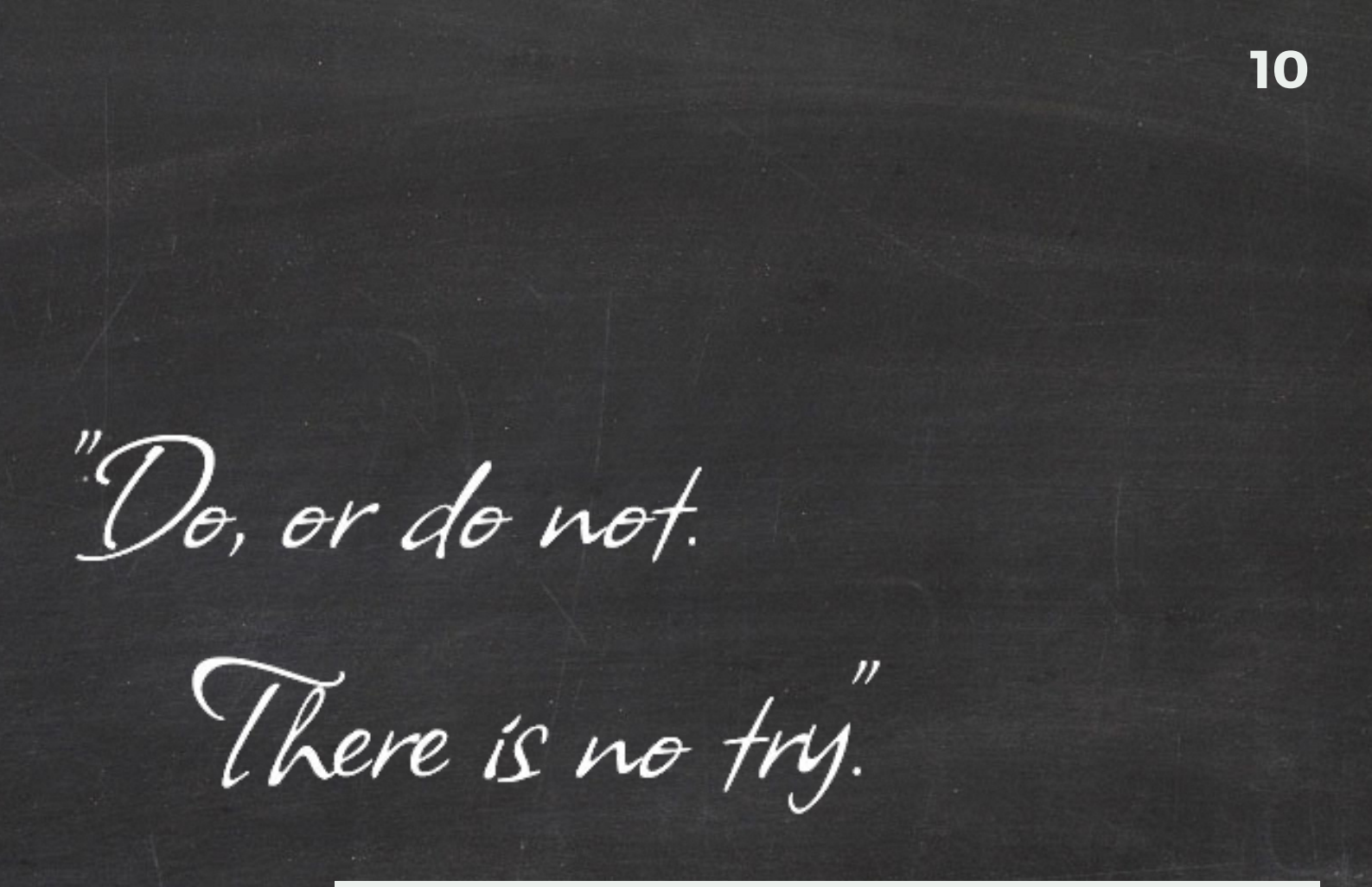
By giving ownership of data.

→ Build focus groups and invite people to give feedback on local public issues.
→ Make change happen.
→ Show results as real life effects to locals.
→ Make data sources and methods transparent.

Choose appropriate data sources!

By thinking of efficiency and quality.

→ If possible, get data from central government sources.
→ Do not collect data yourself, but gather existing data.
→ Standardize the format of data sources by gathering either monthly or quarterly reports only.



Handout - Dos and Don'ts

Dos

→ Before starting: Analyze what resources are already given locally, such as CSOs in the field, data sources, past and current projects on the chosen topic and its publicity.

→ Partner up: Collaborate with local stakeholders. This increases the reach-out to citizens and also to potential donors.

→ Involve local citizens: Give people ownership in your activities on site to create an open attitude for new information and change.

Don'ts

→ Do not ignore feedback from local entities.

→ Do not work with datasets of different formats.

→ Do not collect data yourself if you can get it from governments.

Useful links

Using Open Data for Public Good in Armenia, Belarus, Georgia, Moldova and Ukraine

https://www.ministryofdata.info/

Outlines and example projects to use for preparing your own project.

https://tacticaltech.org/projects/toolkits-guides/

Visualization tools and open source software to create your own project.

https://visualisingadvocacy.org/resources/visualisationtools

Articles, courses, and tools to better help you understand visualization, current events, and to help you create better project yourself.

http://flowingdata.com/

Different types of information all presented in a visual article format, could inspire you to create new projects in a fun and unique way.

http://www.informationisbeautiful.net/

Articles by Robert Kosara about visualization and visual communication to help readers better understand emerging developments in the field and explore what people do and do not know about the topic.

https://eagereyes.org/

Visualization podcast.

http://datastori.es/

Visual budget website of Gyumri community

www.gyumribudget.am

Visual bidget website of Akhuryan community

www.akhuryanbudget.am

Data-driven news website in Armenia in the genre of explanatory journalism and data visualization.

www.ampop.am

Infographics on data of different fields of Armenia and other countires

www.infographics.am

Armenia state budget interactive website

http://minfin.am/hy/page/interaktiv_byuje

This website brings together the electronic governance tools and databases of the Armenian state agencies as well as provides comfortable environment for their use

https://www.e-gov.am/#block6

EKENG CJSC is the coordinator of e-government projects in the Republic of Armenia.

https://www.ekeng.am/hy/

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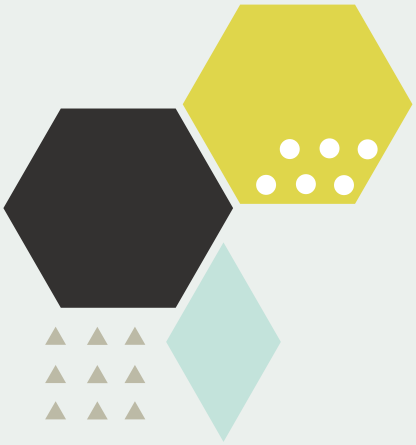
BUDAPEST INTÉZET

INEKO
Institute for Economic and Social Reforms



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