
2013-2014 Compilation

On Think Tanks

Data Visualisation Competition



Jeff Knezovich, Editor



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Finally, much thanks to Andrej Nosko and Goran Buldioski at the Think Tank Fund for believing in and supporting this initiative, and to Enrique Mendizabal and Eva Cardoso at On Think Tanks for getting the project off the ground.

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‘Creating pictures is integral to scientific thinking. In the visualization process, putting pencil to paper is an essential act of inward reflection and outward expression. It is a constructive activity that makes our thinking specific and explicit. Compared to other constructive approaches such as writing or verbal explanations, visual representation places distinct demands on our reasoning skills by forcing us to contextualize our understanding spatially.’

Bang Wong and Rikke Schmidt Kjærgaard

Preface

Data have a bad rap. They're boring. They're locked away in dreadful spreadsheets. They're incorrectly assumed to be singular (that's a *datum*, for the record).

Indeed Alexander Galloway (2012) reminds us of the limits of data, a term whose Latin roots 'mean literally "the things having been given"'. In other words, data — in and of themselves — are inherently meaningless. Data are only as good as the methods through which they were collected. And they only gain meaning through analysis and interpretation; it is through this process that data become information.

Of course it doesn't stop there. We know that making information available by itself doesn't mean anyone else will be able to understand and interpret it. And if others cannot understand the data (or worse, interpret it incorrectly), then it's nearly impossible to create the changes we might want to see in the world. Data must be further described, presented, and represented to have a chance at making an impact.

In a world of increased complexity, we are lucky to have made great technological strides in making information more available to publics and policy makers alike. Advances have helped increase our ability to store data, to make sense of it all, to visualise that information, and to make both datasets and visualisations more available to wider audiences. Though there is a paradox here: the more complex a visualisation is, the less comprehensible it usually is. And so the challenge is finding a balance:

to find a perfect mix of data, technology, design and politics. This is no simple task!

It is in this context that On Think Tanks — a blog and collection of associated projects that help think tanks around the world to do what they do better — launched the On Think Tanks Data Visualisation Competition (<http://ttdatavis.onthinkttanks.org>) in July 2013 with support from the Open Society Foundations' Think Tank Fund. Our goal was simple: to incentivise think tanks, especially in low- and middle-income countries, to experiment with new ways of conveying information.

We had a three-pronged approach to doing so. First, we wanted to **inspire** by collecting a number of great visualisations that have had real impact in the world. Second, we wanted to **strengthen capacity** by sharing resources, tools, and expert feedback on submitted visualisations. And last but not least, we wanted to **encourage** participation through real cash prizes. The top prize, for example, was US\$2000 in cash plus up to US\$5000 for the winning team to attend a relevant training or event about data visualisations.

Additionally, we thought that hosting a competition like this would be a good opportunity for the various think tanks to publicise (or in some cases re-publicise) the visualisations that they had invested so many resources in developing. That's why we built in a public voting element to the competition. We felt strongly that designing a great visualisation is only half the

Map of visualisation submission locations



[Click for interactive version \(Internet connection required\)](#)

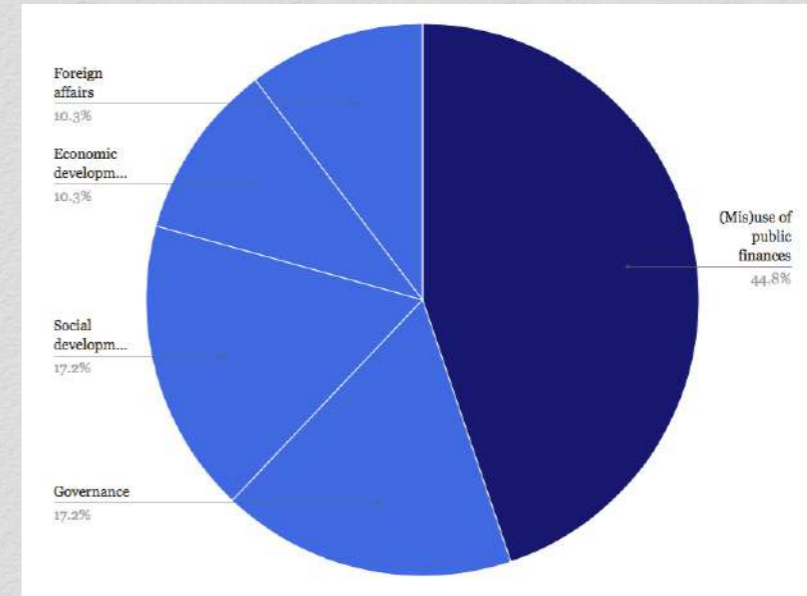
battle; having a clear audience and a way to reach them with it is just as important.

And what can we say, the competition was even more successful than we had hoped it would be!

Because Marshall McLuhan's declaration nearly half a century ago that 'the medium is the message' is just as true today as it was then, let me explain the success of the competition in the only way possible: through data visualisation.

All together, we had 29 submissions across the three qualifying rounds. As the map above shows, submissions spanned 18 countries and 23 think tanks located in low- or middle-income

Topic of visualisations

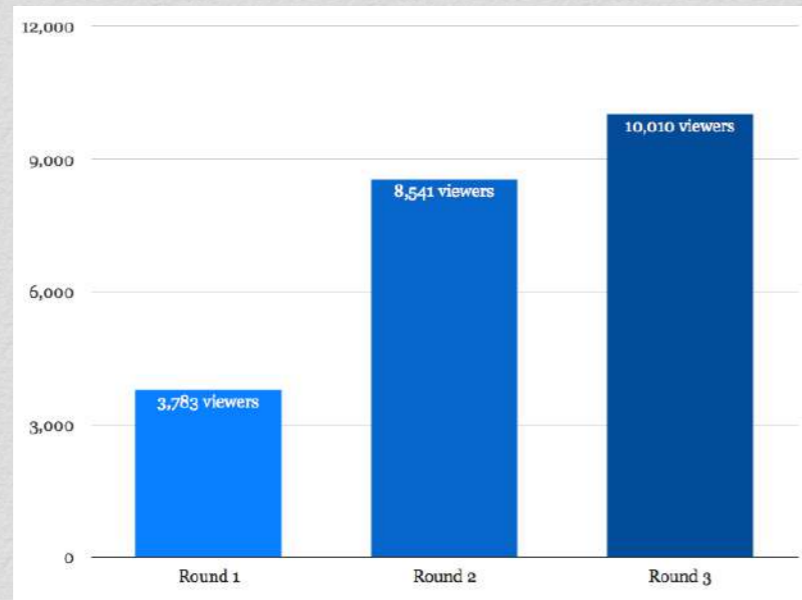


[Click for interactive version \(Internet connection required\)](#)

countries. We were pleased that several think tanks submitted to more than one round — the entries really improved in quality over time.

The visualisations themselves covered a lot of ground. Some focused on urban planning or environmental issues, while others tackled governance (see the above chart for a breakdown). The majority of visualisations, however, focused on the use of public funds in one way or another. Several looked at taxes and tried to make them more tangible by relating that to government budgets. A few others explained where the government budget was going (and one even suggested other areas where money might be better spent). But there were several that tried to make the extent of mis-use

Unique website views during the competition



[Click for interactive version \(Internet connection required\)](#)

of government funds (that's the delicate way of saying they were trying to tackle corruption) more widely known.

While we recognise that there are two main types of visualisation — static or interactive — we were expecting more of the former than the latter. Frankly, this is because things like infographics are easier to produce. We were, therefore, very impressed to see that more than half of the submissions were interactive visualisations and videos.

The judges are not techno-fundamentalists, however. We recognised that design is just as important as technology, and it wasn't just the interactive visualisations that fared well in the competition.

Once the public voting started, we also had some impressive get-out-the-vote campaigns. As the chart above shows, each qualifying round saw the number of votes increase as well as the number of views for the competition website. Between July 2013, when the competition began and the website launched, and January 2014, when the competition ended, the competition website saw more than 30,000 unique visitors. On average, that's nearly 4,500 unique visitors each month — and that doesn't even count the viewers of the various blogs on the main On Think Tanks site.

Overall, we think this has been an important first step in helping think tanks to explore the possibilities that exist in communicating their research. We look forward to consolidating the resources in this book and in continuing to build from these strong foundations to support even more think tanks in the future!

— **Jeff Knezovich**

2 April 2014, On Think Tanks

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Galloway, A. (2012) 'Are Some Things Unrepresentable?' *Theory, Culture & Society* 28(7-8): 85-102.

McLuhan, M. (1964) *Understanding Media: The Extensions of Man*. McGraw-Hill: New York, NY, USA.

Round 1

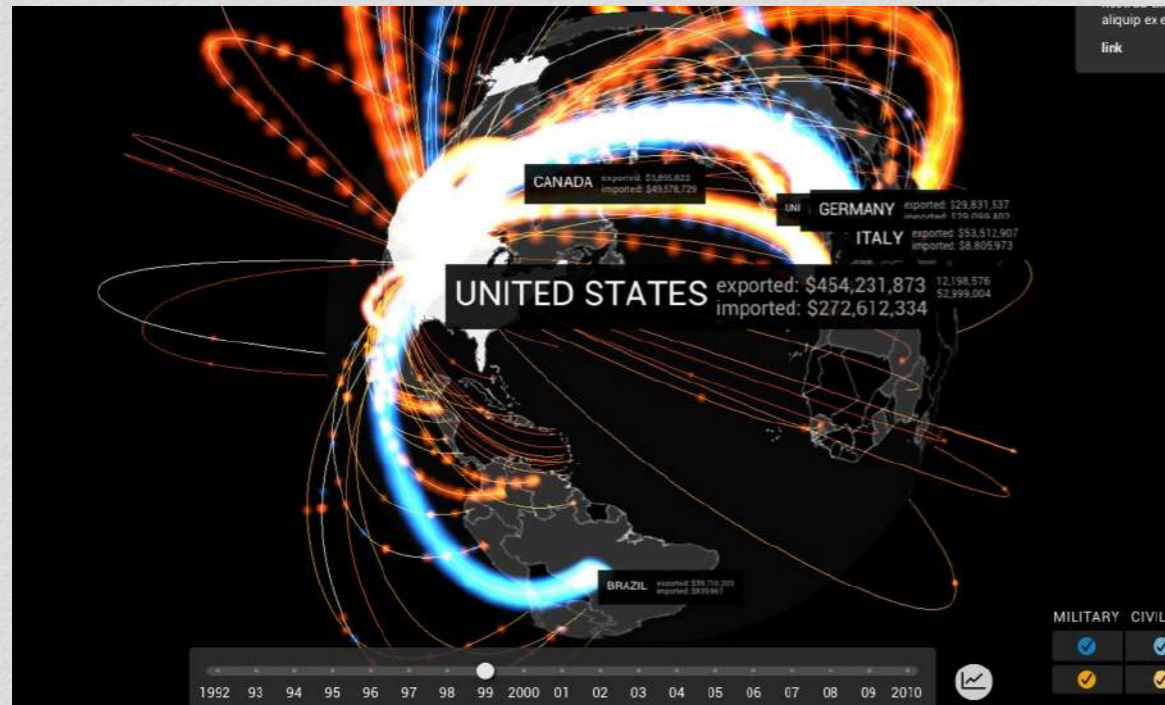
Visualisations

Round 1 took place between July and August 2013. It saw five entries, which spanned the globe as well as approach to data visualisation. We had high-tech interactive visualisations, creative uses of external data, and even a map.

Round 1 Entrants

1. Mapping arms data (MAD)
2. CIPPEC data
3. Did Kenya's health budget really go down?
4. The better life index
5. Distribution of political parties at the municipal level in Guatemala

Mapping Arms Data (MAD)



Visit live demonstration (Chrome browser required):

<http://bit.ly/ottdvMAD>

Authors

Robert Muggah and Nic Marsh

Organisation

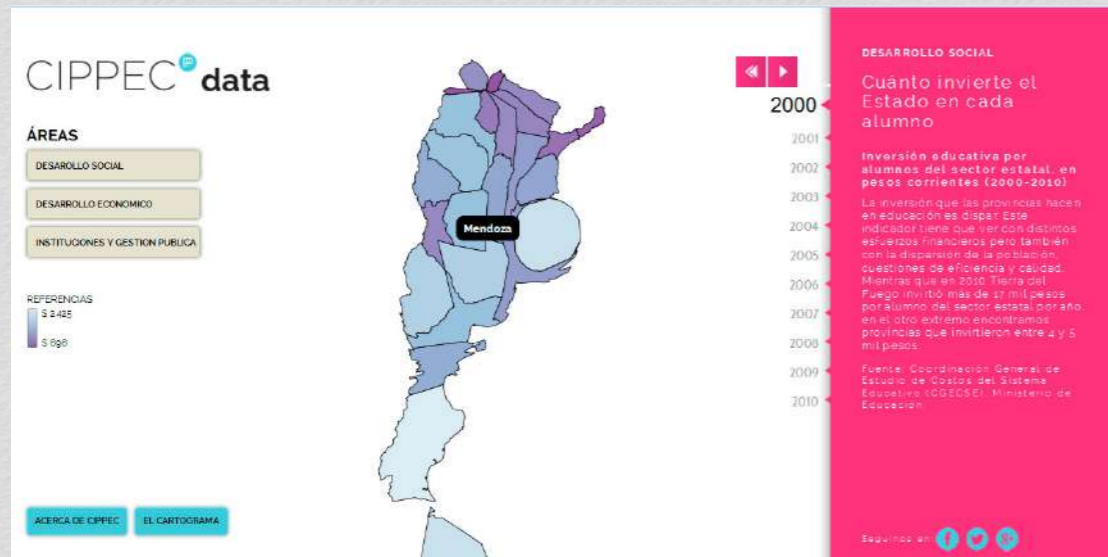
Igarapé Institute, Brazil with Google Ideas and PRIO

The MAD visualisation was prepared by the Igarapé Institute, PRIO and Google Ideas in 2012 (and re-launched in 2013). It documents millions of military and civilian small arms transfers (exports and imports) around the world since the early 1990s. The width of the line connecting states represents the scale (in dollar value) of the transfer. Its colour determines whether it is an import or an export. It is highly intuitive.

MAD was originally developed as an experiment for a major Google summit on illicit networks. It was updated with new data in 2013 and launched with the intention of impacting United Nations (UN) negotiations on a new arms trade treaty (ATT) as well as stimulating a more sophisticated global debate on the dynamics of international arms and ammunition transfers. The goal was to take a complex topic and render it more accessible for public debate and scrutiny.

The primary audience for MAD is policy makers and media outlets. Since 2012, it ended up being downloaded more than three million times in more than 120 countries. It has catalysed shifts in positions among key countries during negotiations in the UN General Assembly (since many claimed that such transfers could not be tracked). Moreover, it was featured in Wired magazine, the Atlantic, CNN, BBC online, and hundreds of media outlets, and was widely discussed in social media in over a dozen languages.

CIPPEC DATA



Click on image for interactive version (Internet connection required), or visit online at: <http://bit.ly/ottdvCD>

Authors

Dolores Arrieta, Sonia Jalfin, Damián Bonari, Andrés Tow, and Verónica García

Organisation

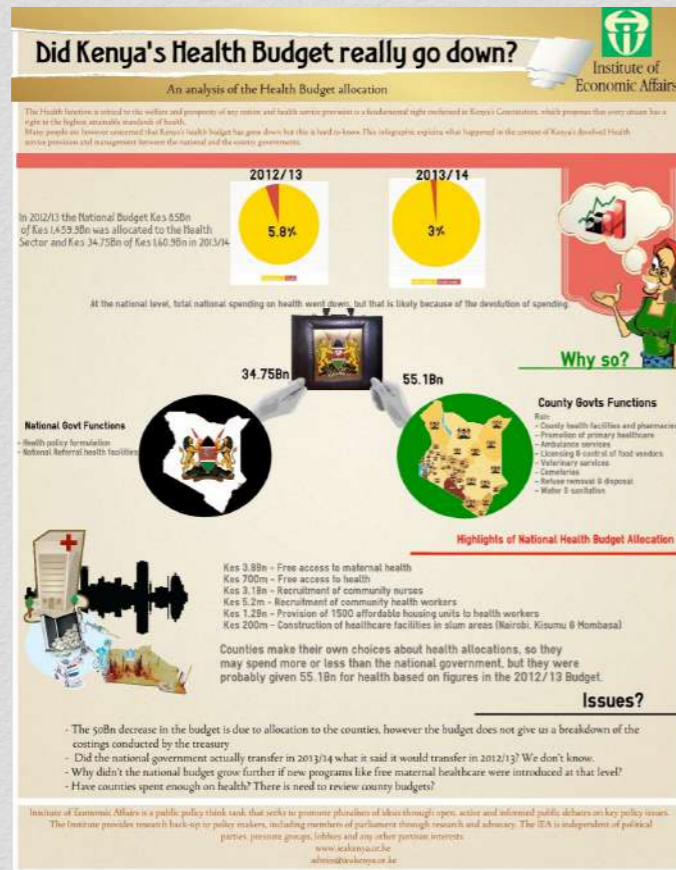
Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC), Argentina

CIPPEC data is a dynamic visualisation based on an interactive cartogram that shows how Argentina's map would be if it reflected a number of social, political and economic variables. The cartogram reflects the value of these indicators for different provinces and their relative weight in a topic of interest. The map is deformed and shows, for example, the weight of the province of Buenos Aires, which accounts for 40% of Argentina's population. A new transformation, however, shows the same province shrinking when it reflects one of the lowest incomes from the tax revenue sharing system.

The aim of the initiative is to show the differences between the provinces in a series of indicators and to explain structural problems Argentina faces in terms of inequality.

The display was developed for CIPPEC's Anniversary Dinner, the institution's annual fundraising event, which attracts more than 1,000 policy makers, private sector leaders, journalists, diplomats and policy experts. It was also disseminated among national and provincial media on Journalists Day and had a great impact on the social networks in which CIPPEC is present. It had more than 2,000 views and 100 shares in Facebook, and more than 200 mentions and retweets, including recommendations from top news sites, such as La Nación Data, a leading data visualisation site.

Did Kenya's health budget really go down?



Click to enlarge

Authors

Zilper C. Audi, Otiato Guguyu, Oscar Okoth, and Kwame Owino

Organisation

Institute of Economic Affairs (IEA), Kenya

Every year, the Institute of Economic Affairs (IEA-Kenya) analyses the national budget and produces a Citizen Budget Guide. This is because the Budget statement is a technical document that many citizens do not understand. This infographic was published to deepen public understanding of budget allocation in the health sector, as there was a gap in citizen understanding of budget allocation and informative media reporting after the country adopted the devolved system of governance, a radical departure from the past.

Health is the most important and expensive social sector that was devolved in Kenya's new government structure. This will be critical to help the government tackle disease burden at the grassroots, and is expected to boost efficiency and accountability; failure of this initiative would have a serious impact on people's lives. It is therefore important that the citizens be adequately informed on the budget allocations and functions of the different levels of government.

This document will be disseminated to civil society organisations, the media, researchers, policy makers, as well as other policy audiences through social media sites and email. The Kenya Budget Series infographics that will be published by the IEA-Kenya are expected to contribute to budget literacy, which is key in enabling public participation in budget tracking, transparency and accountability.

The Better Life Index



Click to enlarge

Authors

Ana Lucia Davila, Jose Luis Chicoma, Alejandra Brambilia, and Stella Gonzalez

Organisation

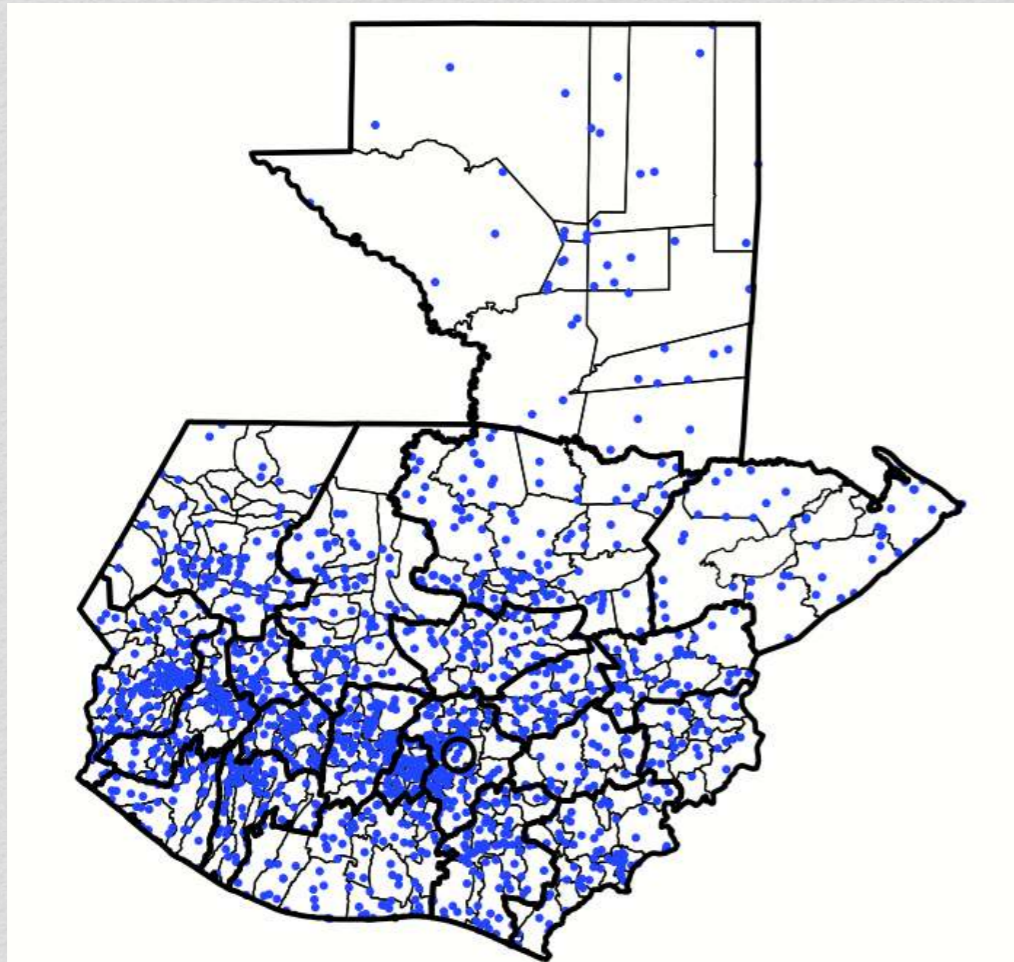
Ethos Laboratorio de Politicas Publicas (Ethos Public Policy Lab), Mexico

In Ethos Public Policy Lab we are committed to creating a more informed and engaged civil society in various policy issues.

This project of data visualisation intends to simplify the content of interesting and complex reports, in this case the OECD's Better Life Index. Focusing on Mexico's rankings, it makes this information easier to digest and learn.

The objective of the project is to display the analysed and processed information represented in the infographic in our social networks, web page and newsletter, keeping in mind the importance of increasing the reach of our product. We believe that an informed and engaged society is a powerful element to transform public policy and improve democracy.

Distribution of political parties at the municipal level in Guatemala



Fuente: elaboración propia con datos de TSE.

Figura 2: *Dispersión de la organización partidaria a nivel municipal (1 punto = 1 partido)¹*

[Click to enlarge](#)

Authors

Javier Brolo, José Carlos Sanabria Arias, Ana Lucía Blas, Jonatán Lemus, and Karin de Maldonado

Organisation

Asociación de Investigación y Estudios Sociales (ASIES) – Association for Social Studies Research, Guatemala

The document visualises the geographic distribution of political parties' municipal-level associations in Guatemala. To create it, the coded data analysis was integrated into LaTeX using Sweave; it results in a high quality printed publication that allows the public to reproduce the analysis and explore the data.

The content is aimed at decision makers and academics. It is intended to provide evidence for the need to modify district magnitude and political organisation requirements in order to increase the legitimacy of political party decisions.

It was the first time that data about political party organisation were presented in a systematic way in Guatemala. Within a month of its release, this document was featured on the front page of the country's largest newspaper, several op-ed articles, and a one-hour radio interview. Various political parties have requested individual presentations.

Winners and commentary

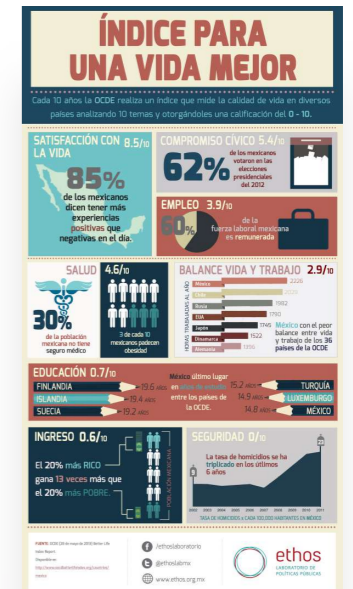
Also through to the finals - CIPPEC data



Round 1 Winner - Mapping arms data



Also through to the finals - The better life index



Commentary

The votes are in. The judging is in. And we can now officially announce the winner of the first round of the On Think Tanks Data Visualisation Competition. Drumroll please!

The first place winner of \$500 and a chance to compete in the finals is...

Mapping Arms Data from the Igarapé Institute in Brazil.

Both **CIPPEC Data**, from CIPPEC in Argentina, and the **Better Life Index** from the Ethos Public Policy Lab in Mexico will be joining the final round too.

Mapping Arms Data truly stood out for the judging team as an example of how data visualisation can make information that would otherwise be hidden available and accessible to a very wide audience.

One of the judges described the Mapping Arms Data visualisation as ‘technically very impressive’. Another judge added, ‘It’s very exciting, interesting and engaging!’.

Indeed, after viewing the visualisation, the judging team saw evidence of tweets along the lines of: ‘Did you know X sold arms to Y neighbouring country?’

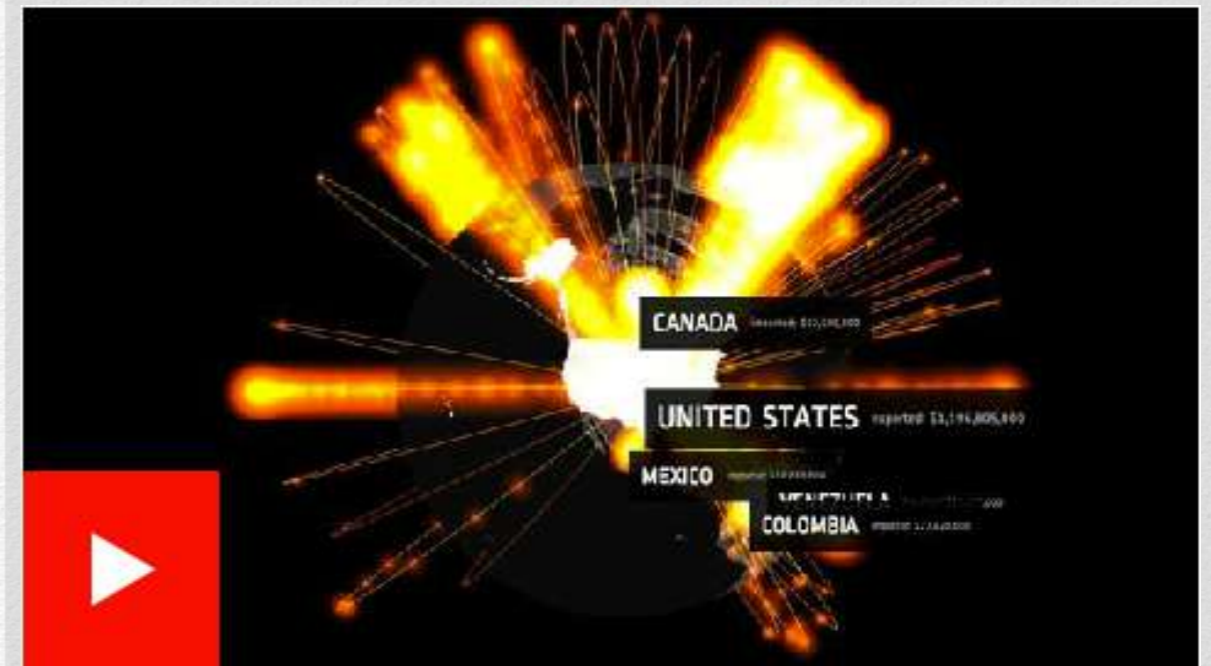
Although the judges felt that it could have been strengthened with a clearer policy implication, and we were concerned that it

used high technology and a lot of bandwidth – making it difficult to view in developing countries (not to mention on iPads) – we loved that it could start a conversation.

Apparently the BBC thought so too. During the contest, one of the visualisation’s authors was interviewed by the BBC about it (see below), and about the role of using data to hold governments to account. A great interview, well worth the watch.

While we certainly weren’t expecting coverage from the likes of the BBC, we will admit that the publicity drove up the votes for the entry. Let’s just say that it sets a high bar for future rounds!

BBC interview with Robert Muggah



Click to watch the interview on the BBC website (Internet connection required). Or view online at: <http://bbc.in/1fDVpZM>

But even without such a global media presence, we have to give a round of applause to the IEA in Kenya who led a solid get-out-the-vote campaign, nearly pipping MAD at the end post. Indeed, making a good visualisation is only half the battle – making sure it’s well promoted is just as key.

The other two entries that have been selected to go to final represent impressive aesthetics and information.

CIPPEC data presents an enormous amount of information in a technically excellent and truly beautiful format. It’s a great example of what is possible with a bit of creativity and a big technical support base.

And for the Better Life Index, in addition to its clean lines and clear formatting, we thought it was an excellent use of publicly available data (compiled by the OECD) but tailored for a relevant audience. ‘The technical skills required for some of the visualisations in this competition might be out of reach for many think tanks, but the Better Life Index is not. It’s the kind of thing our clients find very useful, but can be produced quickly as part of the day-to-day communications strategy’, suggested John Swartz of Soapbox, a digital communication company that helps UK think tanks and policy-makers to convey their ideas.

The On Think Tanks interview with Robert Muggah

The First Round of the On Think Tanks Data Visualisation Competition was won by the Mapping Arms Data visualisation produced by the Igarapé Institute of Brazil in collaboration with Google Ideas and PRIO.

We wanted to find out more about how this technically advanced, visually stunning, and information-packed data visualisation came into being, with the hopes of inspiring other think tanks to consider putting together their own (maybe not so advanced!) visualisations. As such, I sat down with Robert Muggah, one of the visualisation’s creators, for an interview.

Jeff Knezovich: Let’s start at the beginning, where did the idea for Mapping Arms Data (MAD) come from?

Robert Muggah: The MAD tool was originally conceived for a major conference organised by Google Ideas in 2012. The Igarapé Institute was approached to explore the connections between authorised and illicit small arms flows. The tool itself was created on the basis of extensive interaction between designers at Google Ideas and subject matter experts at Igarapé and the Peace Research Institute in Oslo (PRIO). In addition to launching the tool, the Igarapé Institute and PRIO also used the MAD tool to generate awareness during UN

negotiations on small arms control and an arms trade treaty throughout 2012 and 2013.

JK: Was the visualisation always integral to the idea, or did it emerge after you had a lot of data?

RM: The original visualisation was feasible because Igarapé Institute and PRIO had already assembled considerable amounts of data. Indeed, PRIO's Norwegian Initiative on Small Arms Transfers (NISAT) has been collecting, cleaning, and refining data on small arms, light weapons, and ammunition for more than a decade. NISAT's primary data source is the UN commodities database (or COMTRADE), but the research project also features information from over 40,000 articles on exports and imports. Both Igarapé and NISAT had long been interested in identifying intuitive and compelling ways of exhibiting complex data, and the partnership with Google Ideas allowed this idea to come to fruition. The process in developing MAD was comparatively straightforward since the data were available and relatively 'clean' from the get-go.

JK: The MAD visualisation is very technically advanced, what sort of technological challenges did you face in producing it?

RM: While technically advanced, the development of MAD occurred comparatively quickly. The basic platform for the original tool was WebGL software. The construction of the visualisation

itself required rapid iteration between the Igarapé team and a programmer affiliated with Google Ideas. To render the data more accessible to non-expert audiences, we collapsed the many types of arms and ammunition into three simple generic categories (in the latest version of MAD, we added in a fourth category of armaments – 'unspecified'). Additional apps were also designed to allow for geo-spatial contours to be added. Finally, a separate team of experts was recruited to add bar graphics, filtering options, a timeline scrubber and a historical graph.

JK: Sounds like it was something of a team effort! Did you go out seeking technical advice and expertise, or how did the partnerships come into being?

RM: The MAD tool was developed on the basis of a partnership between Google Ideas, the Igarapé Institute and NISAT. Google Ideas and Igarapé Institute had collaborated previously on a modest initiative exploring the relationships between popular film and illicit networks. Igarapé Institute and NISAT personnel had also collaborated extensively for more than a decade on a range of issues connected to arms transfers and armed violence. All of the technical skills thus resided 'in-house' – with Google Ideas providing engineering and product design expertise and Igarapé and NISAT offering technical and data-related support. It is worth emphasising that Igarapé and NISAT provided content while Google Ideas facilitated its visualisation.



JK: The visualisation was published about a year ago, but how long did it take to actually develop?

RM: The original small arms and ammunition visualisation took about six months to develop starting in early 2012. The project was developed on the basis of a basic agreement between the parties with the intention of launching it in 2012. It was later featured in Beijing, New York, and Rio de Janeiro at various launches in 2012 and 2013. It also received considerable media attention. An updated version integrated new data (for 2011, the latest year for which information is available), refined some earlier bugs in the program and dataset, and introduced some new ‘cleaner’ features. The upgrading took another six months and the new tool was re-launched in May 2013 in Villingen-Schwennigen, Germany.

JK: We’ve always suggested here at On Think Tanks that communication activities — like creating data visualisations — are only a means to an end, and not an end in themselves. You’ve already hinted at it, but how have you put the visualisation to use?

RM: The original small arms and ammunition visualisation was launched with Google Ideas in Los Angeles and received considerable attention. It was featured on the Google Ideas website, as well as by the Igarapé Institute and PRIO. Within months of its launch the tool was viewed by over a million people from government, business, the tech world, the multilateral and not-for-profit world, and academia. It was picked-up in the Atlantic, CNN, Forbes, Huffington Post, the AtlanticWire, Mashable, and literally hundreds of media outlets in 12 languages. In addition to winning a few awards, the video of the launch was also put up on YouTube and collected almost 20,000 views. We also distributed the tool actively through the arms control and disarmament communities in and outside of the United Nations to shape debate during negotiations on small arms as well as a larger arms trade treaty (which was agreed in May 2013). The updated MAD tool was launched in 2013 at a major conference with op-eds featured in the Atlantic and stories in hundreds of conventional and social media outlets, including the BBC. By September 2013, it had been viewed over three million times in over 150 countries.

‘The collaboration between Igarapé, PRIO, and Google Ideas is a reminder that technology is not just an add-on, but increasingly a central part of content development and messaging.’

industries, police and justice, relief and development, and beyond. Intriguingly, it was also shown in China at the Beijing Design Week in September and October, a country not typically known for its openness on arms-related issues. The collaboration between Igarapé, PRIO, and Google Ideas is a reminder that technology is not just an add-on, but increasingly a central part of content development and messaging. Researchers and practitioners will need to engage and adopt many of these visualisation and analysis tools – including on issues such as the

JK: What do you think the benefits of visualising the data in this way have been for your research?

RM: Ultimately, the purpose of MAD is to make the arms trade more accessible and legible to a wider audience. By presenting a large dataset in a visually arresting and user-friendly manner, it has inspired mainstream debate, but also people associated with technology and design

arms trade – if they are going to improve their work and trigger policy change.

JK: On the flip side, have there been any particular drawbacks for you having this represented as a visualisation? If so, what have they been, and how have you worked to overcome them?

RM: We have yet to see any major drawbacks in developing MAD. Of course, in some countries the debate on small arms and ammunition is volatile. It is often informed and fueled by ideology over evidence. We have received some critical feedback from the more extreme periphery of the pro-gun movement (owing in large part to the major exposure provided to the MAD tool among gun owners). However, what has been important is that the vast majority of those on either side of the gun debate have welcomed the tool, often reaching out to ask more questions and retrieve more information. On balance, most users recognise that MAD is a transparency device, and intended to shape more educated debate on the wider dynamics of small arms and ammunition trafficking.

JK: Many thanks for your time, Robert, and congratulations again on winning the first round. We’ll be interested to see how the visualisation fares in the final!

Round 2

Visualisations

After returning from a summer break, On Think Tanks launched straight into the second round of its data visualisation competition. The second round saw more than double the number of entries from the first round.



Round 2 Entrants

1. **CIEP tax simulator**
2. **Our money**
3. **Balance between governance and representation**
4. **Kodupilt**
5. **PMRC, sparking policy discussion and debate on Government delivery after two years in office**
6. **CenaZaMonopol**
7. **Chile: Territorial inequalities**
8. **Political clientelism, wasting our money**
9. **Kenyan national debt: Is it sustainable?**
10. **The 2013 universe of public expenditures**

CIEP tax simulator



Click for interactive version (Internet connection required), or visit online at: <http://bit.ly/1gesQ4t>

Authors

Alejandra Martínez-Álamo, Héctor Villarreal, Carlos González, Ricardo Cantú, and Sunny Villa

Organisation

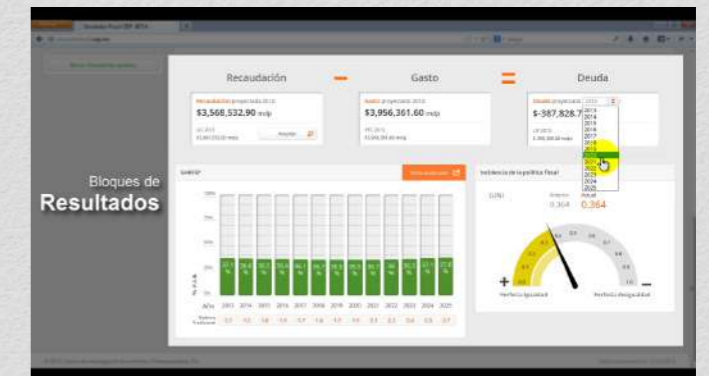
CIEP (Centre for Economic and Budgetary Research), Mexico

CIEP tax simulator is a technological tool in which tax policies and proposals can be evaluated in a clear and simple way. It allows calculating how much the main taxes can be raised in Mexico, on whom changes would fall, who would pay more and who would pay less. Likewise, how and how much would the different segments of population pay, by age and income.

This instrument promotes transparency, as users can propose different tax schemes and anticipate the impact and consequences these would have in the short- and long-term. This way, society is able to participate in the construction of a government with sound public finances.

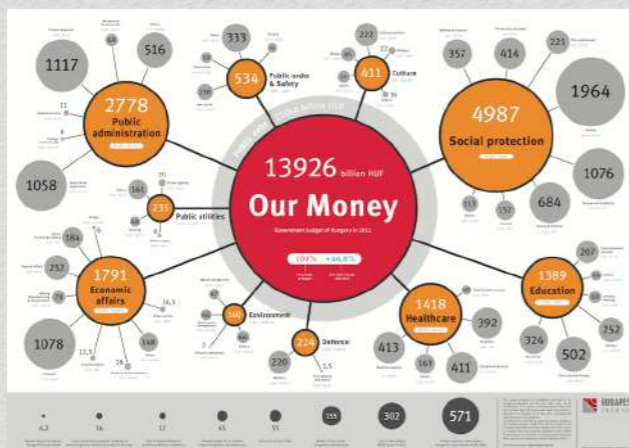
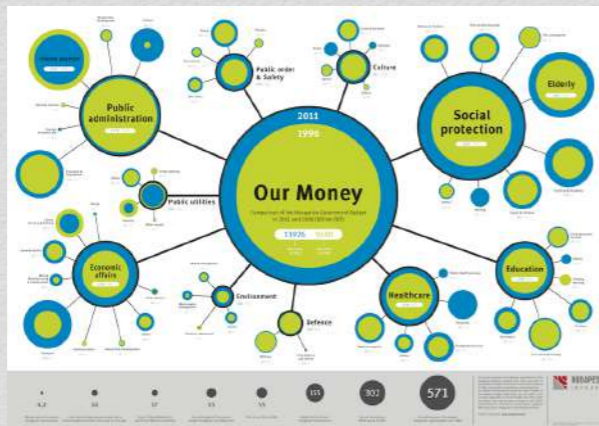
CIEP's main objective is for public finances in Mexico to be understood and discussed by everyone and no longer an issue only for specialists and some public officials. The Tax Simulator contributes to this goal and it's available for anyone who is interested.

Movie: How to use the CIEP Tax Simulator



In Spanish (Internet connection not required). Also viewable online at: <http://bit.ly/1dZxQ2o>

Our money



Click images to enlarge

Authors

Petra Reszketo and Anna Orosz

Organisation

Budapest Institute for Policy Analysis, Hungary

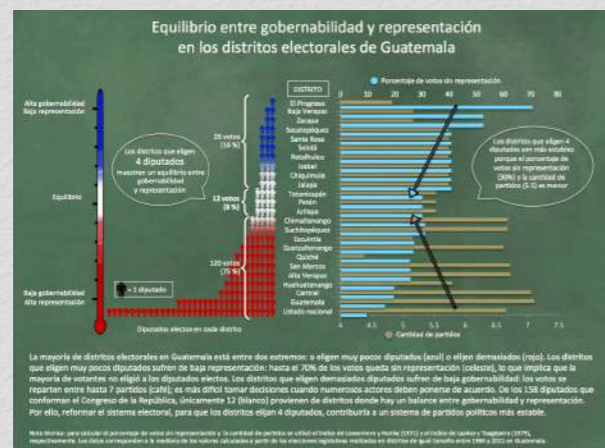
In Hungary, policy debates as well as the media frequently discuss government expenditures. Factual, politically unbiased, and easy-to-understand information about actual numbers and proportions of public expenditure is, however, in short supply. We suspect that the majority of the voters and taxpayers know very little or almost nothing about:

- How much is spent on our behalf and what is it spent on?
- How have government expenditures changed over time?
- What does our budget look like compared to other countries?

Both electioneering and run-of-the-mill political communication is, to a large extent, about how much should be spent on schools and pensions, trains, and healthcare. For the average citizen these statements are hard to interpret without points of reference, not to mention the difficulty retrieving the necessary data from public bodies. Our aim was to present the budget spending of the Hungarian state in a simple and catchy way so as to make it comprehensible to interested laypersons.

We visualised budget data by specific expenditure categories to provide information on what exactly our tax money is spent on. With the graphic presentation of the budgetary expenses, we aim to inform mostly young people who are generally interested in these questions. Furthermore, with this initiative we hope to contribute to the strengthening of national tax consciousness and of civic responsibility in general, which is of burning importance in the Central Eastern European region.

Balance between governance and representation



Click to enlarge

Authors

Javier Brolo, José Carlos Sanabria Arias, Ana Lucía Blas, Karin de Maldonado, and Lorena Escobar

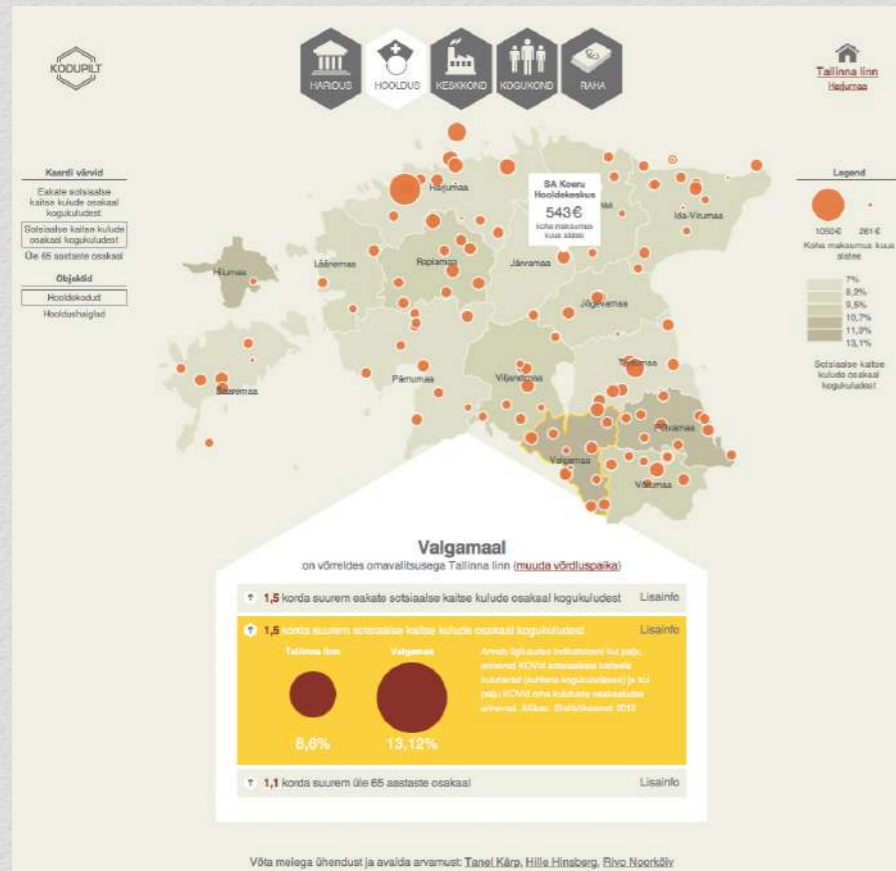
Organisation

Asociación de Investigación y Estudios Sociales (ASIES), Guatemala

The visualisation was developed to disseminate research findings about the relationship between district magnitude, governance and representation in Guatemala. Districts with a magnitude four show a balance between governance and representation because the effective number of parties and the disproportionality are both relatively low.

It is advised that legislators modify district size for a more stable party system, especially because over 75% of congressmen come from highly fragmented districts. Governance, therefore, is generally low. The data were analysed using R, and the visualisations were created in PowerPoint.

Kodupilt



Click for interactive version (in Estonian, Internet connection required), or view online at: <http://bit.ly/1mDGXbD>

Authors

Hille Hinsberg, Katrin Pihor, Priit Kruus, Risto Kaarna, Tanel Kärp (html design), and Rivo Noorkõiv (Geomeia OÜ)

Organisation

Praxis Centre for Policy Studies, Estonia

The visual combines geographical data (maps) with statistical data on selected indicators, defined by location of all 226 local municipalities in Estonia.

Users have access to indicators in four areas where services are rendered by local municipalities: water and sewage, social care facilities, basic and secondary education and community services (including community centres), and recreational facilities. The tool can be used either for browsing data or for comparison of indicators, for example: the water and sewage tariffs for home owners; the price per person of elderly care facilities; or the number of kids per teacher in the nearest kindergarten. Financial data includes tax revenue per capita and investments per capita, which show the ability to attract new residents and develop local services and infrastructure.

The user can choose a location and compare his/her home municipality to a randomly selected other municipality, or to the average of a selected county.

The tool is a precedent for Estonian open data, as none of the data were available in machine-readable formats able to be automatically streamed for re-use. The tool demonstrated the demand for providing new formats for governmental agencies, who keep the databases. Testing the tool and collecting feedback also served as a basis for advocacy activities. These were targeted at politicians and policy-makers at the national level, local government associations, and civil society organisations. Local newspapers used the site for reflecting on the services situation in their municipality.

PMRC, sparking policy discussion and debate on Government delivery after two years in office



Click to enlarge

Authors

Masuzyo Mtawali, Salim Kaunda, Michelle Morel, Agatha Siwale, Chileshe Chaunga, and Sambo Mwila

Organisation

Policy Monitoring and Research Center (PMRC), Zambia

This infographic depicts the progress of Zambian Government in delivering development after two years in office. 23 September 2013 marked exactly two years since the Patriotic Front Government took office promising to bring development to the country in accordance with their party manifesto. The objectives of the infographic are to graphically illustrate the claimed development results through the use of the Zambian map.

PMRC seeks to engage the Zambian public in debate over the extent to which they agree with the stated achievements. Information has been translated into visuals per locality and this allows the citizens to relate with advancements that they have witnessed in their own areas. The target audience for this infographic is the Zambian public and also the stakeholders that work with the government of Zambia. The anticipated impact is that people (especially at the grassroots level) will be given power to assess how their government has been delivering and also to petition and challenge the government on development that was promised but has not yet occurred. The infographic also attempts to promote service delivery, as office bearers in government are placed under greater pressure to deliver from the ensuing debate.

CenaZaMonopol

Authors

Peter Goliaš, Peter Klátik, Matej Tunega, and Eugen Jurzyca

Organisation

Institute for Economic and Social Reforms (INEKO), Slovakia

The Slovak government plans to purchase all private health insurance companies and create a single big state monopoly insurer. We believe that the funds required for this plan can be used more efficiently.

The aim of the CenaZaMonopol.sk project is simply, and in a visually attractive way, to highlight the alternative uses of public expenditure on large projects that the government plans to implement. We want to actively contribute to the public discourse on their usefulness.

So far, there has been no analysis proving that a monopoly in health insurance is better for Slovakia as opposed to a competitive environment. Despite that, the government is considering spending a large amount of money on this project. The CenaZaMonopol.sk website points out the alternative uses of such funds, and how they would benefit the affected population groups. Rather than uncertainty, the website provides information about alternatives with certain usefulness.

The website may also be used to quantify the alternative uses of public funds for other government plans, such as the intention to repurchase part of the Slovak gas industry, plc. (SPP), which deals with the supply of gas to households and firms and the intention to support private firms by investment stimuli.

Chile: Territorial inequalities



Click to enlarge

Authors

Diego Reinoso Carter, Julio Berdegué, and Ignacia Fernández

Organisation

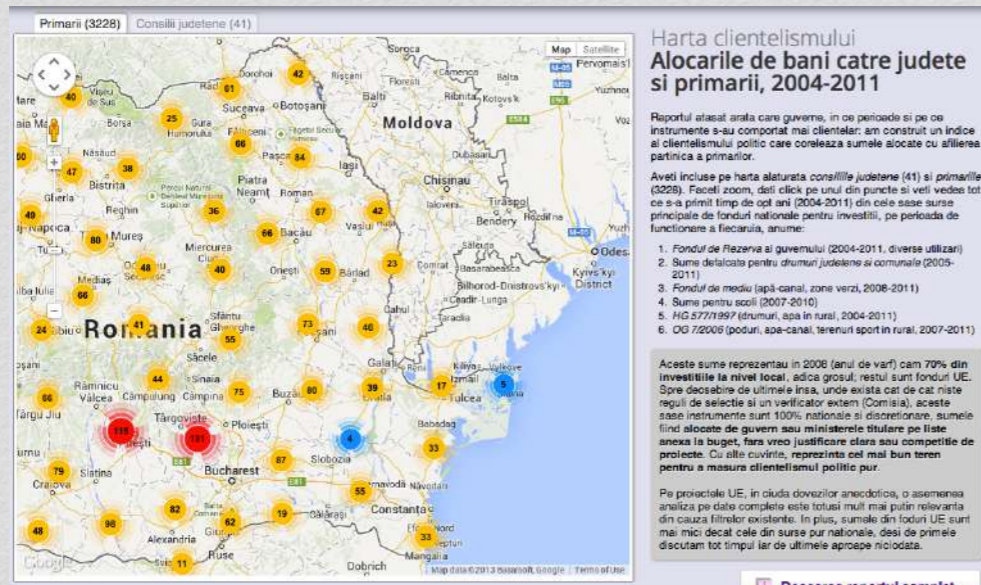
Rimisp – Latin American Center for Rural Development, Chile

This data visualisation shows the inequalities in access to health care in the Quillon district (on the island of Chiloe, Southern Chile), compared to another district located near Santiago, the capital city. It says ‘Quillon district has one doctor in the public medical system for every 3,637 people. There are 925 people per doctor in Conchalí. How can we expect not to have demonstrations with such tremendous territorial inequality? Now is the time for the presidential candidates to make a true pledge for a New Regional Agenda.’

These inequities are one of many examples of the huge territorial inequalities in Chile. In this case, Quillon people rose up, demanding more doctors in the area and better medical care.

The final call to action in this graphic – in addition to showing the tremendous gap – is a call for a new Regional Agenda, seeking better opportunities for non-metropolitan territories of Chile.

Political clientelism, wasting our money



Click for interactive map (Internet connection required), or view online at: <http://bit.ly/PbYIk1>

Authors

Sorin Ionita, Radu Comsa, Suzana Dobre, and Otilia Nutu

Organisation

Expert Forum, Romania

Movie: Animated introduction



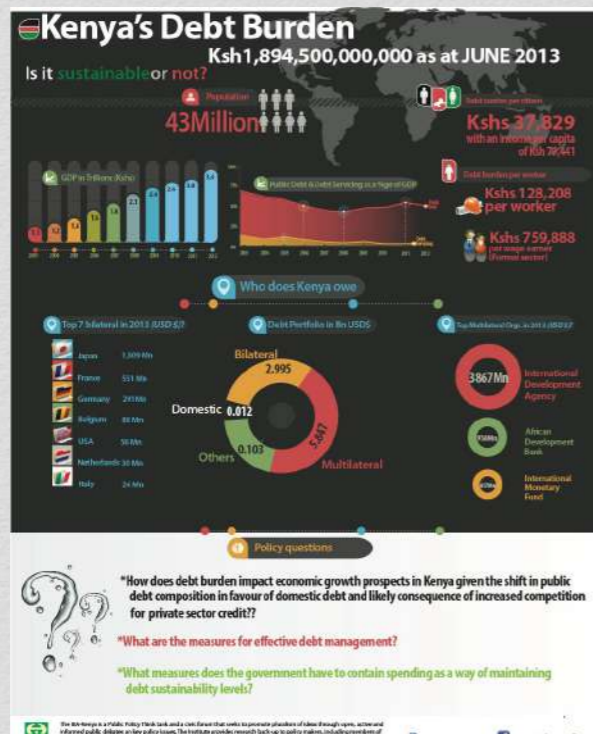
Internet connection not required, but viewable online at: <http://bit.ly/P7YBX9>

Political Clientelism, Wasting Our Money was based on research conducted by Expert Forum on discretionary use of public money. The research analysed the central and local budgets (2004-2011), extracting data about seven financial mechanisms such as programs for water and sewage, reserves, and emergency funds. These mechanisms were selected observing how precise or, in contrast, how vague the allocation criteria were as provided by the law, and thus allowing discretionary decisions.

We checked if allocations were correlated with the political affiliations of local leaders. The analysis revealed a strong bias towards mayors from the same party as the central government and independent mayors, especially in electoral years.

This indicates the use of public funding for gaining electoral support from the local level for parties in power. This happens in the context of a very weak financial power at the local level. Many administrations (especially in rural areas) are unable to cover even their staff costs from regular revenues and therefore are heavily dependent on the arbitrary allocations from the centre. The conclusion is that better monitoring of public allocations and, even more important, the administrative reforms (administrative mergers) are key ways to decrease the clientelistic use of public money. The visual aimed to explain to a public interested in good governance but with average knowledge about budgets how the entire clientelistic network functions. Since July, the film had 4,800 views on YouTube. On Facebook, more than 16,000 people saw the post (with no paid promotion) and about 90 people shared it.

Kenyan national debt: Is it sustainable?



Click to enlarge

Authors

Otiato Guguyu, Kwame Owino, Oscar Okoth, John Mutua, and Georges Poquillon

Organisation and country

Institute of Economic Affairs, Kenya

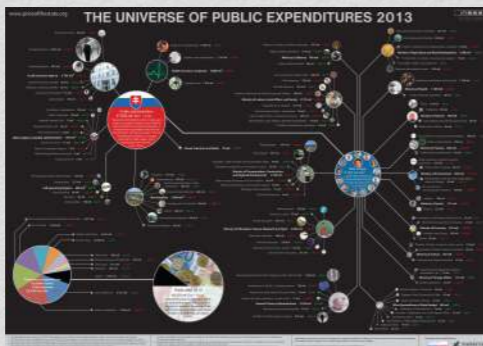
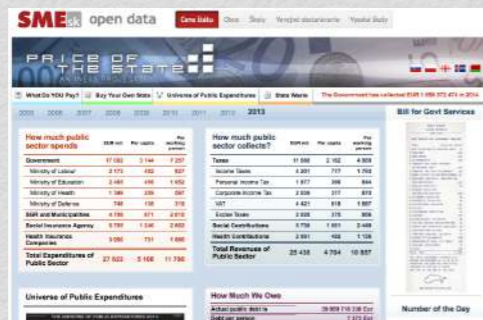
Public debt in Kenya has been growing each year as the government seeks to finance economic growth. Even as the government looks East for more funding, the need to analyse our current debt situation, its implications, and its sustainability is imperative. This calls for discourse around the current debt situation, trends that have characterised debt spending and servicing, the growing debt burden, and how it is spent.

This infographic was created by the Institute of Economic Affairs to spur conversations on the Kenyan budget situation. It posits policy questions that should shape discourse around debt issues, such as: debt impact on economic growth, measures for effective management, as well as measures to contain spending as a way of maintaining debt sustainability levels within our current economic situation.

This infographic will be disseminated to the civil society organisations, the media, researchers, policy makers, as well as other policy audiences through social media sites and email.

The public debt infographic should help build understanding of the resource and help Kenyans to develop strategic policies in order to use the debt in a way that will achieve real economic growth.

The 2013 universe of public expenditures



Click for interactive website (top - Internet connection required), or enlarge visualisation (bottom - Internet connection not required).

Also viewable online at: <http://bit.ly/1mmg88X>

Authors

Richard Durana, Radovan Durana, Juraj Karpis, Jan Dinga, Martin Vlachynsky, and Lucia Pelikantova

Organisation

INESS – Institute of Economic and Social Studies, Slovakia

In making decisions on state expenditures, politicians speak in terms of hundreds of millions of euros. Very few of us are so fortunate as to have personal experience with such sums. It is difficult for us to imagine millions; we can't even think in terms of billions. Thus we lose sight of what things cost us.

The Universe of Public Expenditures is a graphical representation of all public expenditures financed by taxes and contributions in Slovakia. It enables one to understand the relationships between the individual items of public administration. It is a useful aid in illuminating the basic financial flows between citizen and state as well as among individual state institutions. The relative level of expenditure in each field is reflected in the sizes of the circles, making it possible to easily compare the dimensions of the specific areas in which politicians have decided to use our money.

In 2006, the Ministry of Education issued permission for the use of this poster as an instructional tool for high schools and since then it was sent in a poster form every year to over 300 high schools and universities across all regions of Slovakia. INESS provides lectures on this topic at the schools, and so far we delivered more than 80 lectures for more than 4000 students and 500 teachers. Also, the poster is distributed to all economic journalists and Embassies in Slovakia.

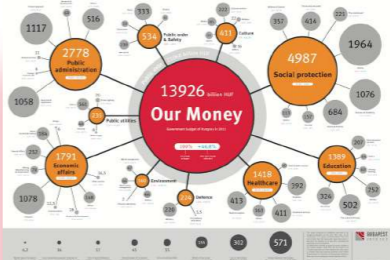
Every year the poster is modified and updated according to the approved state budget, and new features are introduced.

Winners and commentary

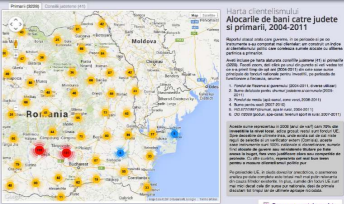
Also through to the finals -
CIEP tax simulator



Round 2 Winner -
Our money



Also through to the finals -
Political clientelism: Wasting our money



Commentary

With twice as many entries as the first round, Round 2 of the On Think Tanks Data Visualisation Competition has proved to be a highly competitive one! The public voting narrowed the field to the top five visualisations, and the week before announcing winners was spent with the judges going back and forth on who should win this round. But the decision has been made, and the winner is...

Our money: Visualisation of the Hungarian budget spending!

The team at Budapest Institute for Policy Analysis in Hungary will be receiving US\$500 and will be entered into the final.

Also joining this visualisation in the final will be the **CIEP tax simulator** and **Political clientelism, wasting our money**.

We'd also like to congratulate the other two in the top five after the public voting for a well fought competition: the **2013 universe of public expenditure** and the **Balance between governance and participation**. The competition judges have always been clear that having a strong visualisation is not enough — it must also be able to reach a wider audience — which is why we have chosen only to consider those top five entries.

Having said that, many thanks to the other five entries for submitting some very compelling visualisations. They should serve as good ideas and reference points for others looking to develop data visualisations.

We're sure the judges of every competition say it was a tough decision — but this round particularly was for us. In the blind ranking the five judges managed to diverge seriously in their opinions. One entry even managed not to have a mode (i.e., every single judge gave it a different rank). I don't think there could be any clearer indication that the judges were deeply conflicted.

However, in addition to a simple ranking, the judges also independently rated each visualisation against a number of criteria, like aesthetics, technicality, and clearness of policy implication. Our Money simply performed the best across the various categories.

One of the judges noted: 'It does exactly what a visualisation should — makes the data instantly understandable. Is the defense budget bigger than the welfare budget? You can tell immediately. Has the budget grown or shrunk since 1996? You can tell immediately.'

Probably the biggest mark against the visualisation was its lack of originality. It was seen by the judges as being very similar in style to the budget representation done by the Guardian Data

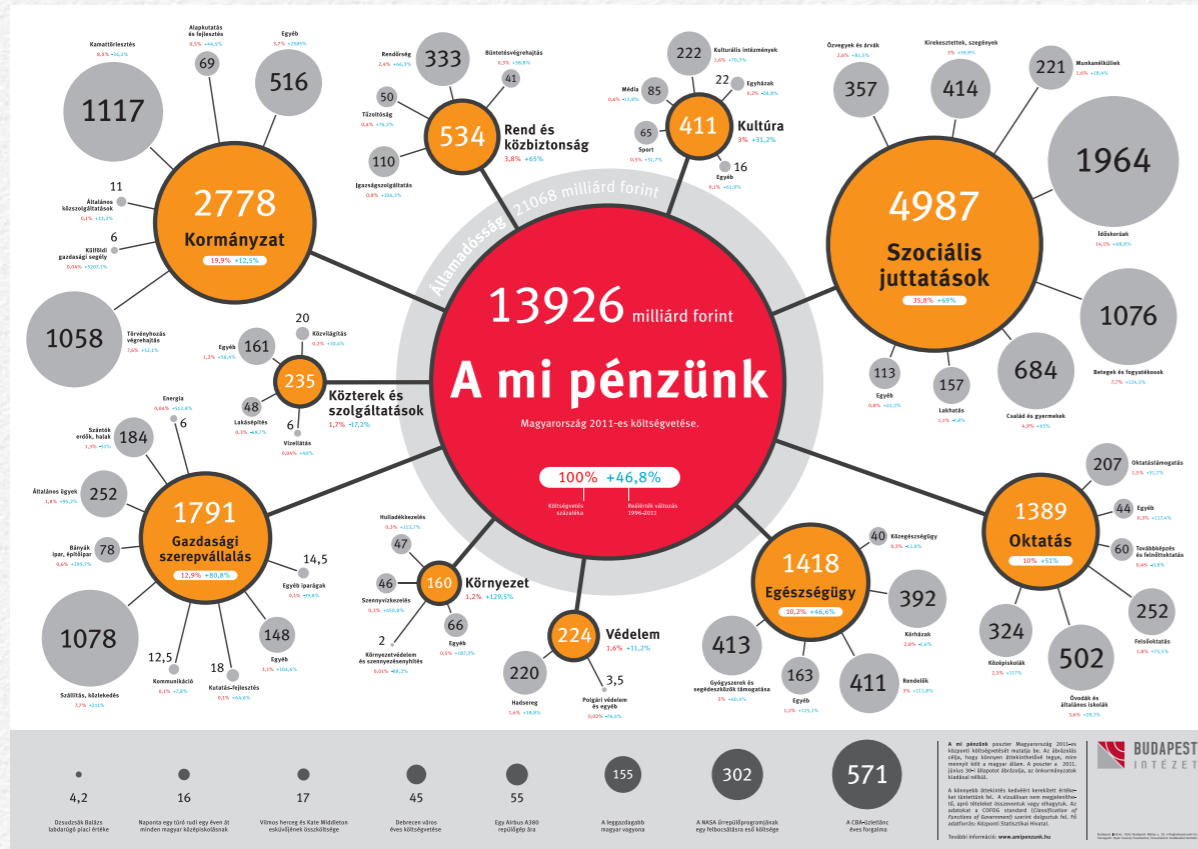
Blog. It was also highly reminiscent of the Open Knowledge Foundation's Open Spending Initiative (those of you in the UK might be particularly interested in 'Where does my money go?', which is also based on the Open Spending platform). However, the judges ultimately agreed that originality does not trump execution. And in the case of 'Our Money', the visualisation was very well executed. Everything was kept to scale, and the context provided by the comparisons at the bottom of the visualisation helped put the Hungarian budget into context. Did you know that the research and development budget for Hungary is about equal to the cost of Will and Kate's wedding? Well, now you do.

As another of the judges put it, using a familiar format actually 'makes it easier to compare across countries'. And indeed, the same could be said of the other budget-oriented visualisation, the '2013 universe of public expenditures', which is a localised version of a similar project done in the US called 'Death and taxes'.

The other two finalists were more technologically advanced, and the judges really appreciated their interactivity. At the same time, one of the reasons that they didn't end up in pole position is that it is important to strike an appropriate balance between technicality and usability. We thought, for example, that the 'CIEP tax simulator' was a fascinating and very useful tool to a very educated audience and to decision makers. However, it re-

quired an explanation for how to use it, which somewhat detracts from the visualisation's stated objective of having 'Public finances in Mexico to be understood and discussed by everyone and no longer an issue only for specialists and some public officials'.

For 'Political clientelism, wasting our money', we appreciated the unique approach and also found it to be a very data-rich visualisation. It contained a lot of information in a very compact space.



On Think Tanks interview with the Budapest Institute

We've already had two rounds of the On Think Tanks Data Visualisation Competition. And this round we had a completely different style of winner. The Budapest Institute submitted a poster called 'Our money' that broke down the Hungarian annual budget so that it was easy for any citizen to understand. It was the subject of heated debate among the judges – especially the origins of the visualisation – so I thought I'd ask its creators, **Petra Edina Reszkető**, **Balázs Váradi** and **Anna Orosz** more about the posters and the project that brought them to fruition.

Jeff Knezovich: What are the origins of this visualisation?

PER: In Hungary, policy debates as well as the media frequently discuss government expenditures. But factual, politically unbiased and easy-to-understand information about actual numbers and proportions is in short supply. Both electioneering and run-of-the-mill political communication is, to a large extent, about how much should be spent on schools and pensions, trains and healthcare. For the average citizen these statements are hard to interpret without points of reference. Are those sums too much or too little? Compared to what? How else could we spend the billions potentially saved?

The Budapest Institute is an independent think tank focusing on public policy research in various policy areas. During our work we have often had to face up to the fact that there is no convenient public database that represents the budget of the Hungarian state. True, we are informed about the general budget from the current year's budget law and, in the year after, the law on the final accounts. It is, however, quite a challenge to learn about the planned and actual costs and revenues broken down by the functions of government, not spending institutions, in a unified and transparent way. If a tax-conscious citizen wants to gather information on whether the government spends more on highway construction than on hospitals – or vice-versa – he or she can only do so upon patiently waiting for years, ac-

cessing the Central Statistical Office's or the Eurostat's websites.

JK: *I can see that there is a clear gap there. But where did the idea for this visualisation come from?*

BV: First, an initiative by the Hungarian NGO For a Rational Public Life to visualise the Hungarian budget dates back to as early as the summer of 2007. We have seen many international examples like the Death & Taxes poster or the Budget Hero in the USA as well as The Guardian's Spending Review in the UK. They served both as inspirations and incentives for us to create something similar in Hungary, adapted for the local circumstances, of course. We are convinced that in Central and Eastern Europe, where democracy is a relatively young institution, it is of particular importance to enhance civic control and provide the common citizen with easy-to-understand tools informing them on public expenditures. A comprehensible, informative, and user-friendly platform where citizens can easily access and play around with the numbers of budgetary expenditures can be one of the many ways this goal can be attained.

Second, this type of pilot project was not without precedent. During the campaign period of the last national elections in 2010 we launched a civic initiative 'What do they promise?' (Miti-gérnek). It evaluates and quantifies the campaign programmes and monetises the most important campaign promises of the

running political parties. We developed a very simple visualisation method to illustrate our results.

JK: *Was the visualisation an output of a specific project, or is budget transparency more of an institutional focus for the Budapest Institute?*

PER: The budget visualisation was a pioneer visualisation project for the Institute, though a very important one. It is part of our mission to support evidence-based policy making and to try to make the national public policy discourse based more on facts rather than beliefs. We were already convinced that data visualisations could help us to disseminate our research evidence and to argue against false beliefs in a more efficient way.

In the case of the budget visualisation project, the idea for visualisation and the data came hand-in-hand. We produced both an interactive visualisation in addition to the posters submitted to this competition. With this initiative we wanted to contribute to the national tax consciousness and to the strengthening of civic responsibility. Our partners were the Open Knowledge Foundation (which helped with the visualisation software) and the Fiscal Responsibility Institute Budapest (converting and editing the database).

JK: *OK, so it sounds like the visualisation wasn't done completely in-house.*

AO: The BI was responsible for the coordination and organisation of the whole project, data mining and analysis. Graphic design was carried out by Kolbászból Kerítést Stúdió, a youthful Budapest startup, in close cooperation with the BI. The interactive, bubble visu software was developed by our partner, the Open Knowledge Foundation and is available as open source software for anyone to use.

JK: One of the things the judges discussed a lot this round was how much we should reward ‘novelty’. This is not the first bubble budget chart any of us had ever seen — in fact there was another one in the competition this round! So, what was your actual inspiration for this particular data visualisation? And most importantly, why did you decide to take a similar approach?

BV: The Our money project idea and its implementation are not novel and this is a fact we refer to many times on the project’s website. We think that budget visualisation is a brilliant idea that should be done by as many countries as possible. Some of the projects mentioned above are exactly those that inspired us to strike out down this road with our national data.

Every country faces the same problem: the budget is difficult to understand! And if a solution is found, why not use a similar approach elsewhere. In countries where transparency is a publicly recognised problem, it is of exceptional importance to take every chance to contribute to the building of a more transparent

and accountable public administration system that is an essential part of a well-functioning democracy.

JK: What do you think are the pros and cons of adapting a data visualisation that has already been developed in one context to a different context (whether it be geographical or topical).

AO: In our world, where information exchange has become so straightforward, it is clever to look around in the world when we are searching for the solution to a particular problem. There are a lot of inspiring, smart, and simple ideas out there. It is almost sure that someone has already faced a problem similar in nature to ours and had some ideas about how to tackle it. Re-inventing the wheel is not efficient. Naturally, problems – though similar in nature – can be very different depending on context. Therefore, smart and careful adaptation and implementation of earlier ideas in a new environment should be paid particular attention.

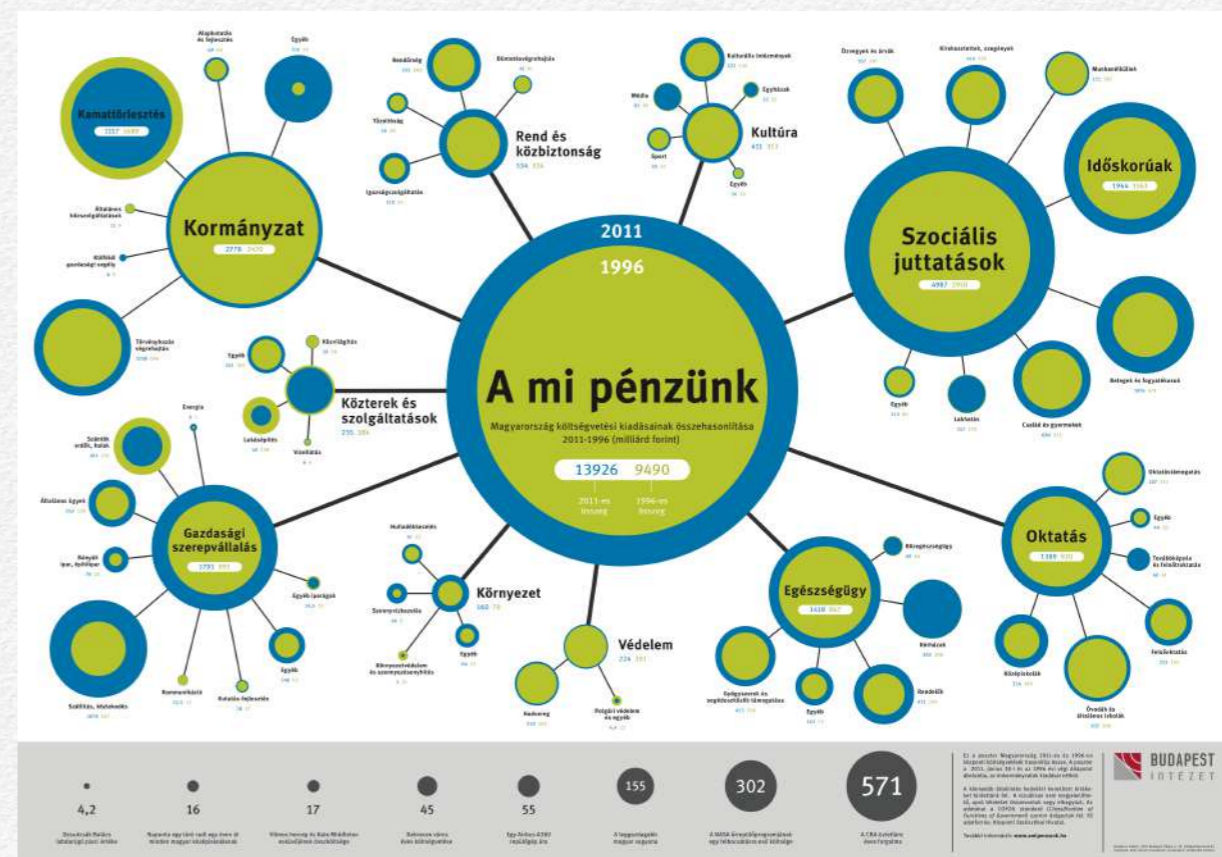
JK: How long did this visualisation actually take to develop from start to finish?

PER: We think it might be useful to you to get information on the schedule of the whole visu project. At the very start of the project we faced several challenges relating to accessing the official data. We struggled with the National Statistical Office and the Ministry of National Development for months, so as

finally to ask for support of a partner organisation, the Fiscal Responsibility Institute Budapest in July 2011. After waiting too long for the data throughout the summer of 2011, we cleaned and restructured the database according to our needs and established the Hungarian website (www.amipenzunk.hu). Meanwhile we were active in contacting international partners (Open Knowledge Foundation), and we have also joined its thematic network, the Open Spending Network.

Toward the end of October 2011, the project reached its apex. We finalised the online visualisation, and started to develop further, small applications to be installed on the webpage. We worked on updating the Hungarian budget database on the international data portal (www.ckan.org) and the accompanying, country profile Wikipage, and launched the design of the poster. The main change in the project content is that, finally, our work was based on a considerably bigger database than the one proposed in our original application. At the end of the day, it covers historical data on the Hungarian budget from 1995 through 2012, and the visualisation focuses on the spending lines both in nominal and real terms, and in historical comparison.

In November 2011 we focused our efforts on elaborating the policy narratives and the background materials to be uploaded on to the webpage (e.g., glossary of the spending lines, handout for the interpretation of the poster). We finished the first poster by the end of November, and a bit later we developed a second



version to demonstrate the historical trends of the spending. Simultaneously, we organised workshops to present and test our project content. The printing and dissemination of the posters to secondary schools were the next steps by December 2011.

JK: *What do you consider your main objectives with these two visualisations, and how have you put them to work as a think tank?*

BV: The original advocacy aim of the project was to share information and thereby to rationalise the national public debate, with attention to two special target groups: secondary school teachers and their pupils, and economic journalists. During our

‘Perhaps the greatest challenge was to refrain from trying to cram too much information onto the poster or the website. [...] It required a lot of heated exchanges with the designer as well as self-restraint to realise that, in this genre, less is more.’

tion about what exactly our tax money is spent on. With the visual presentation of the budgetary expenses and with the database that can be mined and freely downloaded from the website, we still would like to facilitate the work of journalists who regularly use this kind of information and inform young people

pilot period we held workshops with representatives of those target groups. Based on the workshop experiences, we have clearly seen that secondary school teachers are more open to and interested in the daily use of the website (and the related content) than Hungarian journalists. Our primary aim to present the budget spending of the Hungarian state simply to make it comprehensible to an interested layperson was also confirmed. We presented the data broken down to provide informa-

(high school students) who are just now growing up to become tax-paying citizens.

We have also put together a couple of short essays that are meant to contribute to the understanding of the relationship between different expense items, trends and international comparisons. For students we drew up ‘homework’ exercises, and we also created visual aids, posters, and other teaching material to help the work of interested high school teachers. Towards the end of the pilot project period, we became convinced that both our aims and our motivations are valid and highly relevant for the Hungarian public policy context, and collaboration with schools and teachers will be continued in the future.

JK: What was the most difficult aspect of developing or using the data visualisation. And what was the easiest?

AO: Perhaps the greatest challenge was to refrain from trying to cram too much information onto the poster or the website. We at the Budapest Institute are economists. Therefore, when we think about the budget, our heads are chock-full of numbers about nominal and proportional sums, longitudinal comparisons, time changes, international comparisons, and so on. It required a lot of heated exchanges with the designer as well as self-restraint to realise that, in this genre, less is more.

Consequently, the easiest part was to create narrative stories and find the main messages underlying the budget data since

we are working with such kind of data and related questions every day.

JK: Do you plan to do more visualisations, e.g. updating the budget every year, or broadening out into other topics? Why?

PER: Updating the budget with last year's budgetary expenditure data (2012) has been on our agenda for a long time. We are continuously looking for organisations that would provide institutional and financial support for this update.

Naturally we are constantly looking for opportunities to extend the scope of the 'Our money' project. The Budapest Institute has recently applied in consortium with other Central-Eastern European institutes for a tender that would allow this partnership to prepare websites that visualise the budgets of the capital cities of the partner countries. An additional goal of this project is to create a website that allows the interested people to compare budget items among the participating countries. This project is of greater scale than the 'Our money' project but it's also the reason why it is such an appealing opportunity for us to participate in such an undertaking – hoping of course that the partnership wins the possibility to carry out the project.

Last, but not least, we are really pleased to have the opportunity to participate at this great competitive initiative and thankful to receive any comments and reflection on our work!

Round 3

Visualisations

A large, bold, white number '3' is centered on the left side of the page. The background is a solid orange color. The number is stylized with rounded edges and a thick stroke.

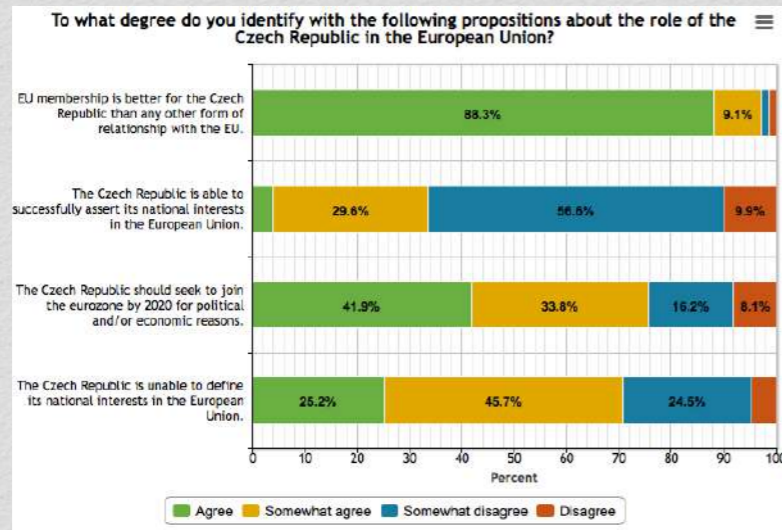
To close out 2013, we ran the last of the qualifying rounds from November to December. This round saw the first entrant from Asia and overall around three times the number of entrants from the first round.

Round 3 Entrants

1. Trends in Czech European policy
2. The visa business: The cost of visas for Kosovars
3. The 2014 Zambian national budget
4. Caution air!
5. #MéxicoEn140
6. Urban health atlas: A tool for health service planning and referral
7. Youth unemployment: Occupation, joblessness and education
8. Tax burden calculator

9. Who is whose family in Slovak courts
10. Wasting of millions – without accountability
11. Ask When public awareness campaign ‘Reality show: Building a factory’
12. Skopje raste (Skopje is growing)
13. Mapping Czech crime

Trends in Czech European Policy



Click to view interactive version (Internet connection required), or view online at: <http://bit.ly/1dGulxP>

Authors

Vít Dostál, Alena Falathová, Filip Chráska, Tomáš Karásek, Viera Knutelská, Ondřej Kováč, Petra Pejchová, and Vlad'ka Votavová

Organisation

Association for International Affairs – AMO, Czech Republic

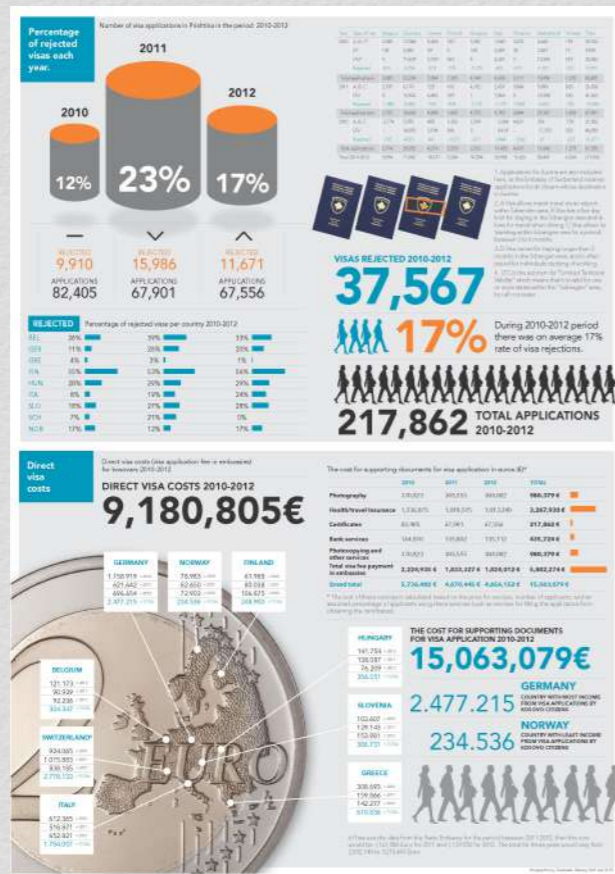
Where do the benefits of the Czech Republic's membership in the EU lie? What European issues will be most important for the Czech Republic in the coming decade? What position should the Czech Republic take in relation to the situation in the Eurozone? These and other issues are the subject of the research project, Trends of Czech European Policy: Study of European Policy Elites.

The aim of the project was to identify and discuss the views of people taking part in formulating and influencing Czech European policy. Contacted civil servants, politicians, journalists and experts were asked to answer 27 questions in areas relating to the Czech Republic's role in the EU, economic and institutional aspects of integration, partners in European policy, and current issues.

The questionnaire was sent to a total of 440 unique addresses. Answers were received from 168 of those surveyed, of which 124 questionnaires were fully completed and 44 partially completed. The overall response rate was therefore 38.2%, with 28.2% of questionnaires fully completed.

This project helps to re-start the debate on Czech European policy. It is aimed at policy makers, journalists, politicians and members of academia, as the dataset is freely reusable for further research. Results have shown huge discrepancies between opinions of the elite, official Czech EU policy, and public attitudes.

The visa business: The cost of visas for Kosovars



Click to enlarge

Authors

Dren Pozhegu, Yll Rugova, and Agon Demi

Organisation

GAP Institute, Kosovo

Kosovo has a huge problem with visa regimes. Kosovars are limited in travelling to only a few countries without visas, mainly neighbouring countries not yet part of the EU.

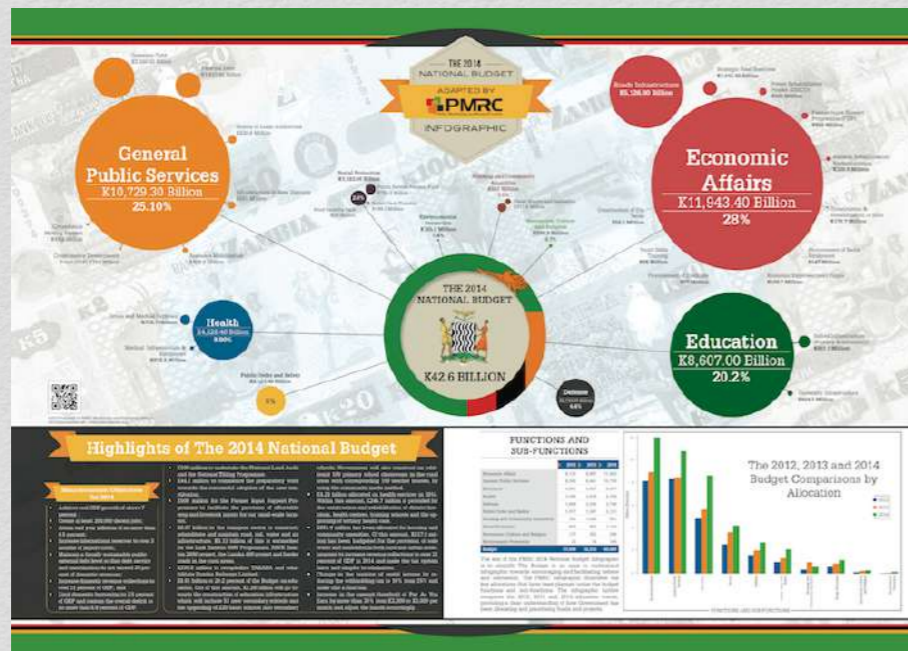
This infographic shows the number of applicants for a Schengen visa in the past three years. The numbers, taken from Eurostat, include the type of visa and the refusal rate. The data were not available to the wider public, as such information was deliberately never published by individual embassies or the Government of Kosovo.

But visas are very costly in terms of fees one has to pay and in terms of time one has to dedicate to getting the required documents. We calculated how much a visa costs and, based on the data of how many people applied for a visa, we derived the total cost of visas for Kosovars. Needless to say, the costs were very high, especially given that Kosovo is the one of the poorest countries in Europe.

The date of publication for this infographic coincided with the Europe week, a week organised by the EU office in Kosovo in honour of the founding of the EU. That week was characterised by debates and talks on the EU, its visa regime, and visa liberalisation. Therefore, this infographic contributed hugely to informing the public on the cost of Schengen visas.

This infographic proved to be a success, as it was easily understandable. It soon went viral on various social media platforms.

The 2014 Zambian National Budget



[Click to enlarge](#)

Authors

Masuzyo Mtawali, Michelle Morel, Agatha Siwale, Salim Kaunda, Sambo Mwila, Chileshe Chaunga, and Melanie Daka

Organisation

Policy Monitoring and Research Centre (PMRC), Zambia

The aim of the PMRC 2014 National Budget infographic is to simplify the national budget into an easy-to-understand infographic and to encourage and facilitate debate and discussion.

The PMRC infographic illustrates the key expenditures that have been planned under the budget functions and sub-functions. The infographic further compares the 2012, 2013, and 2014 allocation trends, providing a clear understanding of how the Zambian government has been allocating and prioritising funds and projects.

Caution air!



Click to enlarge.

Authors

Eric Barrett, Mariam Kobuladze, Irakli Chumberidze, Jason Ad-die, Nino Macharashvili, and Vazha Asatiani

Organisation

JumpStart Georgia, Georgia

17% of all illnesses and 19% of all deaths in Georgia are caused by environmental pollution. Air quality is measured in only five cities in Georgia: Tbilisi, Kutaisi, Zestaponi, Batumi, and Rustavi. On average, pollutant concentrations in these cities are 2.5 times higher than the upper limit of acceptable levels. This infographic visualises the air quality data collected by Georgia's National Environmental Agency during the last year and also shows what health problems can be caused by pollutants in the air.

#MéxicoEn140



Click to enlarge. Interactive version can be viewed online at:

<http://bit.ly/1dGwbyT>

Authors

Alejandra Brambila, José Luis Chicoma, Ana Dávila, Miguel Salazar, Gerardo Galindez, and Eduardo López

Organisation

Ethos Laboratorio de Políticas Publicas (Ethos Public Policy Lab), Mexico

#MexicoEn140 is a tool that explores alternatives for analysing and presenting public information in a creative and dynamic way. By continuously scanning over 650 Twitter accounts of decision makers, opinion leaders, politicians, and public institutions in Mexico, our tool generates a visual representation of the trending and most popular topics being discussed in the governmental and academic spheres. Our users are able to explore different categories to find out what different groups are talking about (senators, executive branch leaders, opinion leaders, etc.), and to understand at a glimpse what is taking place in the public debate among leaders in the country.

With this data visualisation we intend to take advantage of social media to keep track of and to organise public debate taking place in cyberspace, tailoring the information for our audience. Our tool allows the user to get rapidly informed about trends and public debate in an entertaining way, and awakens curiosity to keep exploring the trending issues periodically.

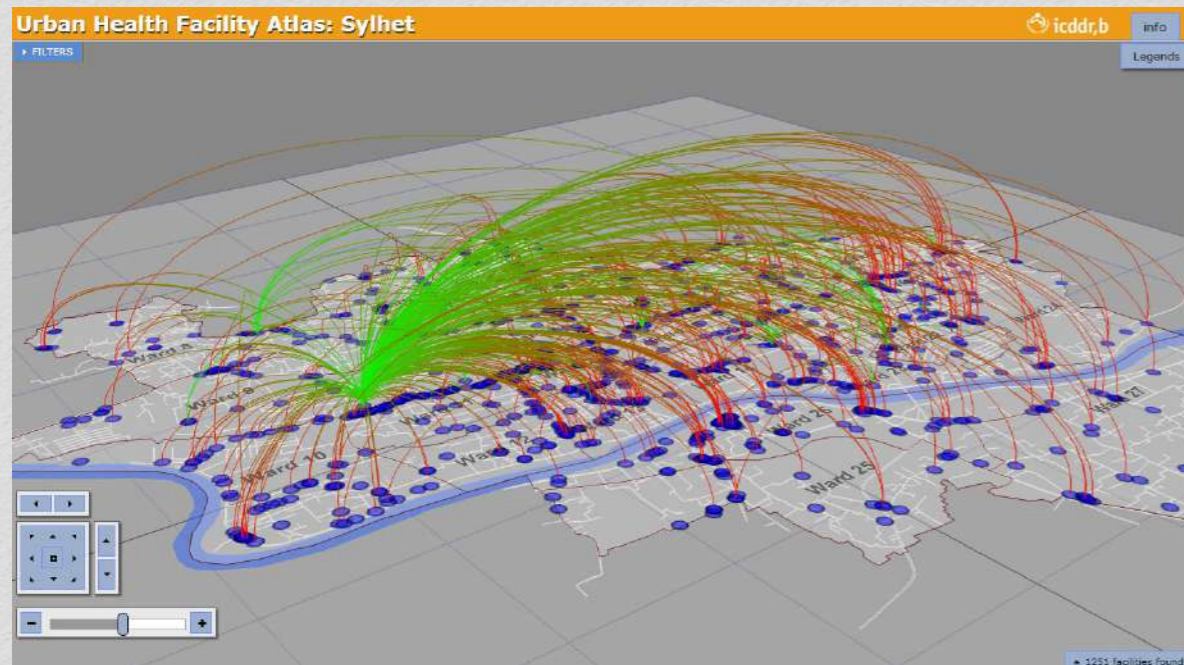
Movie: #MéxicoEn140 Tutorial



Click to watch (no Internet required) or view online at:

<http://bit.ly/1pBLVVi>

Urban health atlas: A tool for health service planning and referral



Click to explore interactive version (Internet connection required), or view online (Chrome browser preferred) at: <http://bit.ly/1dlpT1j>

Authors

Ruman M. Zakaria Salam, Rubana Islam, Syed Jafar Raza Rizvi, Tanvir Ahmed, Rushdia Ahmed, Tanzir Ahmed, and Alayne M. Adams

Organisation

International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), Bangladesh

Waking up every morning in a city with perils of rapid urbanisation is tough. The impact of this on health is huge; air fills lungs with lead, clogged roads make patients die during ambulance rides, sedentary lifestyles indulge us into diabetes and cardiovascular diseases; and commercialisation is restricting health choices. In daily life, finding a facility for surgery means affordability and quality. For providers, referring patients means availability, distance, and traffic. Resource allocation and expansion is an issue for analysis, and distribution of services is an area for decision makers. While these are policy concerns, Bangladesh lacks appropriate policies for urban health. In this chaos, we believe bridging gaps through information can strengthen decision making: 'Dr. X wants to refer someone for ultrasonography. He enters the platform, spots a facility within 2 km with appropriate support, and refers. Or Mr. Y, a ward councilor, now knows that none of the medical professionals in his ward has training on diabetes.' Urban Health Atlas: Scaling up of a practical tool for urban health planning, funded by GIZ, is a geo-spatial and service mapping of all the health facilities in Sylhet (a city in north-eastern Bangladesh). The submitted project is the beta version of an information platform that can be used by local planners to analyse gaps and relocate healthcare points. Policy makers can see instantly the referral pathways and can address the need for human resources. Patients can also use this to search for services or facilities in respect to cost and/or proximity.

Youth unemployment: Occupation, joblessness and education



Click to enlarge

Authors

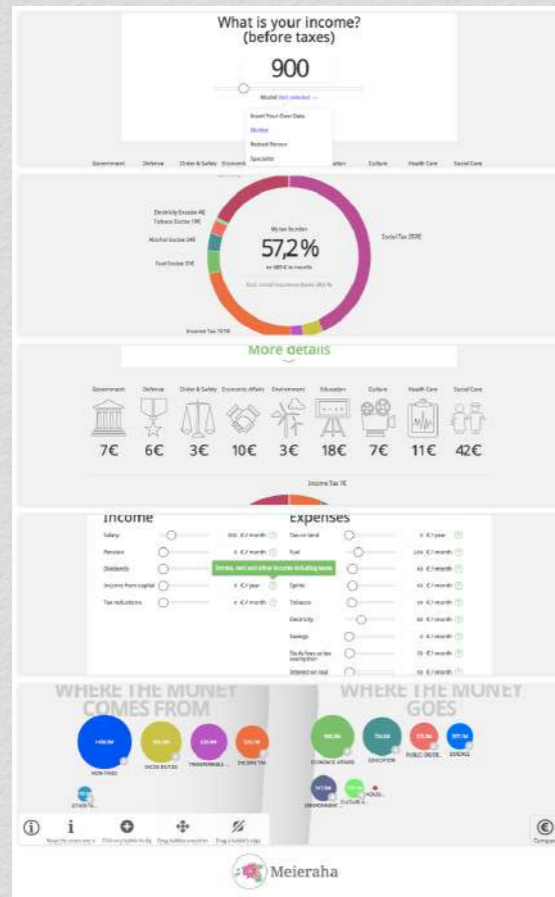
Jazmín Acuña, Lilian Meza, and Vivian Marandari

Organisation

CADEP, Paraguay

This infographic complements the work of Lilian Meza, a researcher at CADEP who specialises in statistical sciences for the National Household Survey. The communications unit developed the infographic as part of a strategy to reach out to new audiences, particularly young ones, in order to engage them with research findings. The infographic reached the highest number of 'shares' that CADEP has had on social networks and blogs. And news platforms that mainly publish entertainment news also replicated the material.

Tax burden calculator



Click for interactive version (Internet connection required), or view on-line at: <http://bit.ly/1gIPHdf>

Author

Hille Hinsberg, Paul Tammert, Tanel Kärp, Rene Lasseron, and Konstantin Tretjakov

Organisation

Praxis Centre for Policy Studies, Estonia

As one of the features of the Estonian state budget visualisation (Where does your money go?), the tax burden calculator is an interactive site for individual use by every tax payer. The user can insert her own income and expenses, or choose from the sample models provided (e.g., average pensioner, worker on average salary, or highly skilled specialist).

Based on the entered information, the calculator shows the individual total tax burden as a share of gross income and in euros per month after tax subsidies and based on appropriate tax rates (e.g., excise duty on special products, taxes on income and on consumption).

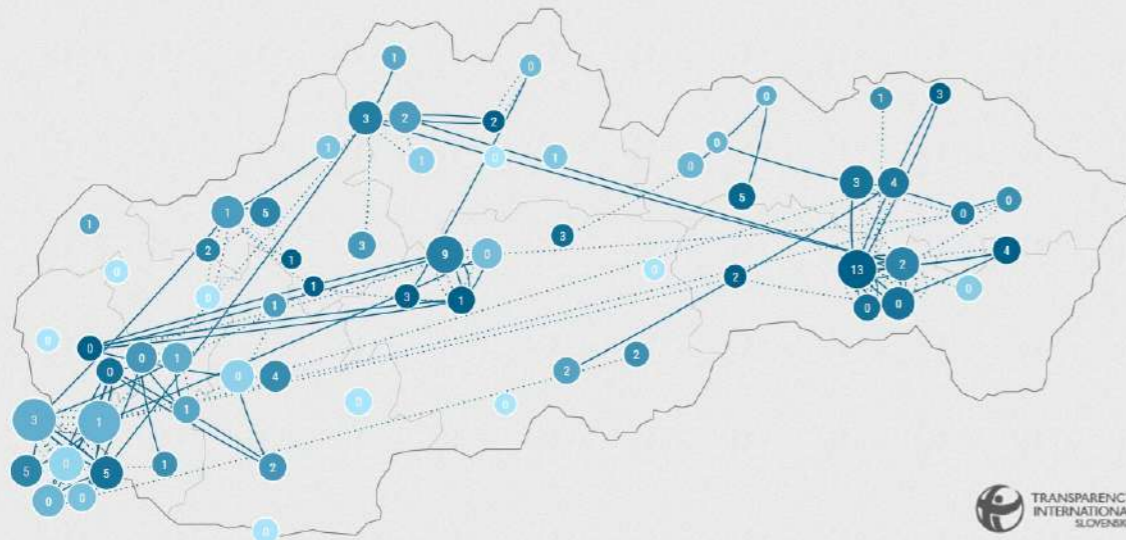
The visual also shows the 'bill of the state', that is the division of collected taxes by policy area – from public health to national security. These policy areas are standard government functions, which enables international comparison.

The calculator is available in English, by request of a local NGO which engages in advocacy on the issues of immigrant labour regulations and labour taxes.

The calculator was viewed by 40,000 users during the first month in October 2013. The launch event included a presentation on tax burden by the Ministry of Finance, who contributed in reviewing the calculations. The site was recently promoted on the Facebook page of Estonian Parliament in connection with budget discussions.

Who is whose family in Slovak courts

KTO JE S KÝM RODINA NA NAŠICH SÚDOCH (2012)



kliknite myšou na súd pre zobrazenie jeho sudcov a zamestnancov s príbuzenstvami na súdoch

LEGENDA

● počet sudcov na súde (75, 30, 10) ● hustota príbuzenstiev sudcov* (0,3; 0,2; 0,1) ● počet sudcov, ktorí majú rodinu na súde



Transparency international Slovakia

Click for interactive version (Internet connection required), or view on-line at: <http://bit.ly/1jtvvwr>

Authors

Gabriel Sipos, Samuel Spac, and Peter Klatik

Organisation

Transparency International Slovakia, Slovakia

Both the general public and experts feel a deep distrust toward the Slovak judiciary. According to the Transparency International's 2012 Global corruption barometer, as many as 69% of respondents find the Slovak judiciary corrupt. Moreover, 8% of households claim to have been asked for a bribe in courts in the past 12 months.

The judiciary is a relatively closed community. Very few people discuss the quality of judges or their rulings. Media often criticise the judiciary as a whole, saying 'the courts today decided' instead of 'the judges X and Y ruled that...'. Only five courts (out of 63) even have their own web pages. In effect, judges are far less accountable to the public than politicians or other government employees.

In the summer of 2013 we launched the Open Courts website (www.otvorenesudy.sk), pooling together any public data on judges, including their verdicts, workload, and the speed of decisions. In our first visualisation, drawn from our new portal's data, we show how much family connections matter in the Slovak judiciary. Thanks to this work it is now clear that one in five judges has a close relative in the judiciary. Eastern Slovakia is affected most, where every single court has at least one judge with another relative. Clicking on each court shows the public who the judges are connected with. This enables them to ask questions about how the judges have been selected in the first place.

Wasting of millions – without accountability



Click to enlarge and to view the entire slideshow.



Authors

Pavol Lacko, Ivan Gaža, Peter Kunder, and Zuzana Wienk

Organisation

Fair-play Alliance, Slovakia

The visualisation focuses on how civil servants are called to account for wasting the public money found by the Slovak Supreme Audit Office. After reading more than 47 control reports and sending dozens of Freedom of Information (FOI) requests, we found out that the Slovak Supreme Audit Office detected that public money was wasted in the amount of more than 28 million euro in five ministries between 2009–2011 – yet nobody was sanctioned.

The visualisation illustrates the amounts of money wasted in each ministry, representing real amounts comparatively on a smaller scale. It also points out the most absurd cases of money wasting and summarises the statements of responsible ministries.

Ask When public awareness campaign 'Reality show: Building a factory'



Click to view video (no Internet required), or view online with subtitles at: <http://bit.ly/1lySDfu>

Authors

Jelena Bojovic, Violeta Jovanovic, Marko Stanojevic, and Milica Stefanovic

Organisation

NALED, Serbia

In June 2012, NALED launched a public awareness campaign called 'Ask WHEN' in order to foster reforms of the regulatory framework for businesses by creating public pressure on the decision makers in the government. In cooperation with the Serbian Broadcasting Corporation, NALED broadcast three videos describing bureaucratic procedures and administrative obstacles to doing business in Serbia (unnecessary paperwork, waiting in lines, huge and unpredictable taxes, laws that are impossible to implement).

One of the videos is describing a problem of getting a construction permit in Serbia. The name of the video is 'Reality show: Building a factory', and it shows three contestants: investors from Serbia, Bulgaria, and Denmark competing to get the construction permit and build a factory as fast as they can. Although the video is ironic and funny, the data used in the video are all true – taken from the World Bank's Doing Business Report 2013. According to this report Serbia is ranked 179 out of 185 economies regarding the speed of issuing construction permits. In Serbia, an investor needs to go through 18 procedures and spend 269 days to obtain the permit. In Denmark this procedure takes 68 days, in Bulgaria 107. These data were presented and illustrated in the video, showing at the end that while an investor in Serbia is collecting various consents from dozens of public companies, an investor in Denmark has already opened the factory and started employing people.

Skopje Raste (Skopje is Growing)



Click for interactive version (Internet required), or view online at: <http://bit.ly/1mGhDBX>

Authors

Neda Korunovska, Risto Avramovski, Dejan Ivanovski, Ana Boranieva, Jana Korunovska Srbijanko, Tanja Maleska, Vlado Velkov, Ana Risteska, Iva Dimovska, Dimitris Rosikopoulos, and Kliment Patcev

Organisation

Reaktor – Research to Action, Macedonia

Skopje Raste is an interactive map that traces the growth of the urban landscape in the central area of Skopje. It was created by Reaktor in partnership with a local architecture firm, Arhitektri. It visualises four sets of urban elements (buildings, greenery, parking spaces, and illegal buildings) over three time periods, providing users with a simple visualisation of how changes to the detailed urban plans (DUPs) are affecting their neighbourhoods.

The goal of our map is to provide a user-friendly visualisation of the effects of past and future unregulated urban growth, but also to give a comprehensible alternative to presenting the overly technical DUPs. We aim to convince municipal governments to adopt this approach, or similar, to allow for more meaningful citizen participation in the urban development process.

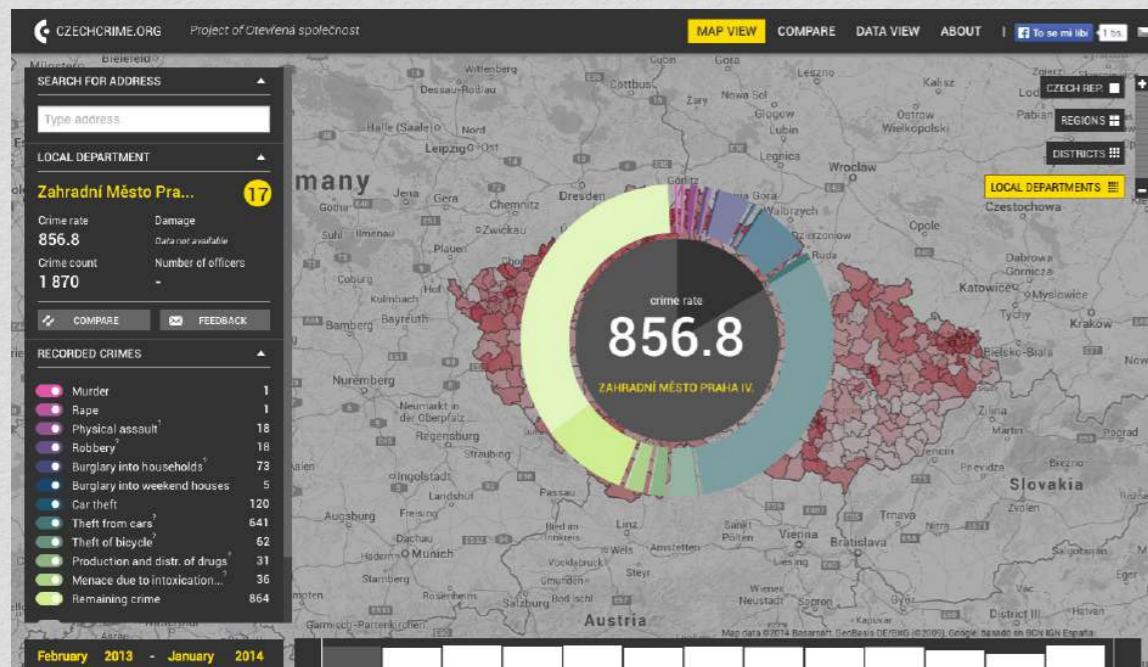
The platform was launched in early 2013 and was well received by the citizens of Skopje and local decision makers. We have been presenting the platform at various events, advocating for its adoption by the municipal administration, as well as increasing the area covered in the platform to include more cities.

Movie: How to use Skopje Raste



Click to view (no Internet connection required), or view online at: <http://bit.ly/1htMXQE>

Mapping Czech Crime



Click to enlarge, or view live version online at: <http://bit.ly/QAxzsi>

Authors

Michal Tosovsky, Ondrej Skalnik, Zdenek Hynek, and Martin Pularic

Organisation

Otevrena společnost, Czech Republic

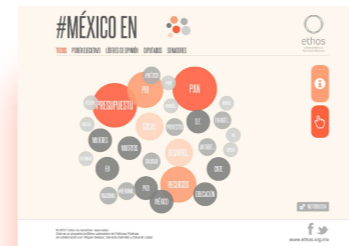
In the Czech Republic, there has been a long discussion about the accessibility of crime data to the general public. Despite this debate, the Czech police dragged their feet and only published very complex and user-unfriendly Excel tables. As Otevrena společnost sees access to data as a crucial condition for debate between the public and the police about efficiency of crime control and focus of crime prevention, we decided to enhance this debate by its online visualisation.

In the first stage, only data published by the police have been visualised. After an enthusiastic reception of the website last year we agreed with Czech police on the provision of more detailed data that haven't been provided to the public in any way before. Recently these data are being published through our website in both a Czech and an English version.

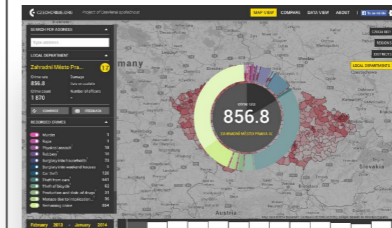
The relaunch of the English version took place during the On Think Tanks Data Visualisation Competition. The visualisation has been used repeatedly by interested citizens, by the media, by college students, as well as by municipalities and the police itself. We expect the impact and the scope of use of the visualisation to grow, as the new version contains data that have been demanded repeatedly by users of the website. Thanks to a much deeper detail of the new data it may start to serve as a source of valid information to NGOs and businesses that deal with some of the sectors of social pathology.

Winners and commentary

Also through to the finals -
#MexicoEn140



Round 3 Winner -
Mapping Czech Crime



Also through to the finals -
Skopje Raste



Commentary

This is it — the third and final open round of the On Think Tanks Data Visualisation Competition. And what a great round it was! We had 14 entries, which is the most of any of the rounds.

We also had some of the highest voting visualisations in this round, which has been very exciting to see. In fact, the website received so much traffic that the voting facility occasionally broke down. The good news is that the glitch was the same for all of the visualisations, and so they were all similarly disadvantaged.

This week the judges sat down with the top five visualisations with the most votes from this round* and considered who they thought should take home the top spot for this round. The results are now in, and the winner for this round is...

Mapping crime in the Czech Republic

The folks at Otevrena spolecnost will receive US\$500 and their visualisation will continue on to the final.

Also joining this visualisation in the final will be **Skopje ras-te** from Reaktor in Macedonia and **Who is whose family in Slovak courts** from Transparency International Slovakia.

The judges would also like to acknowledge the other two entries that were among the most voted — **#MexicoEn140** and

the **Urban health atlas**. Honestly, the judges would have been happy to have seen any of these five in the final — and it really came down to hair splitting.

So what made ‘Mapping crime in the Czech Republic stand out? One of the factors was probably the universality of it. One of the judges noted: ‘Actually, I’d love one of those for the UK!’ And I’m sure it’s not just the UK that would benefit from making such information public.

Apparently, the judges aren’t the only ones who think so: the updated English version of the visualisation was launched only halfway through the voting round, yet it still managed to get voted into the top five. And, as noted in the comments on the page, the visualisation had received over 100,000 unique visitors within just days of the relaunch!

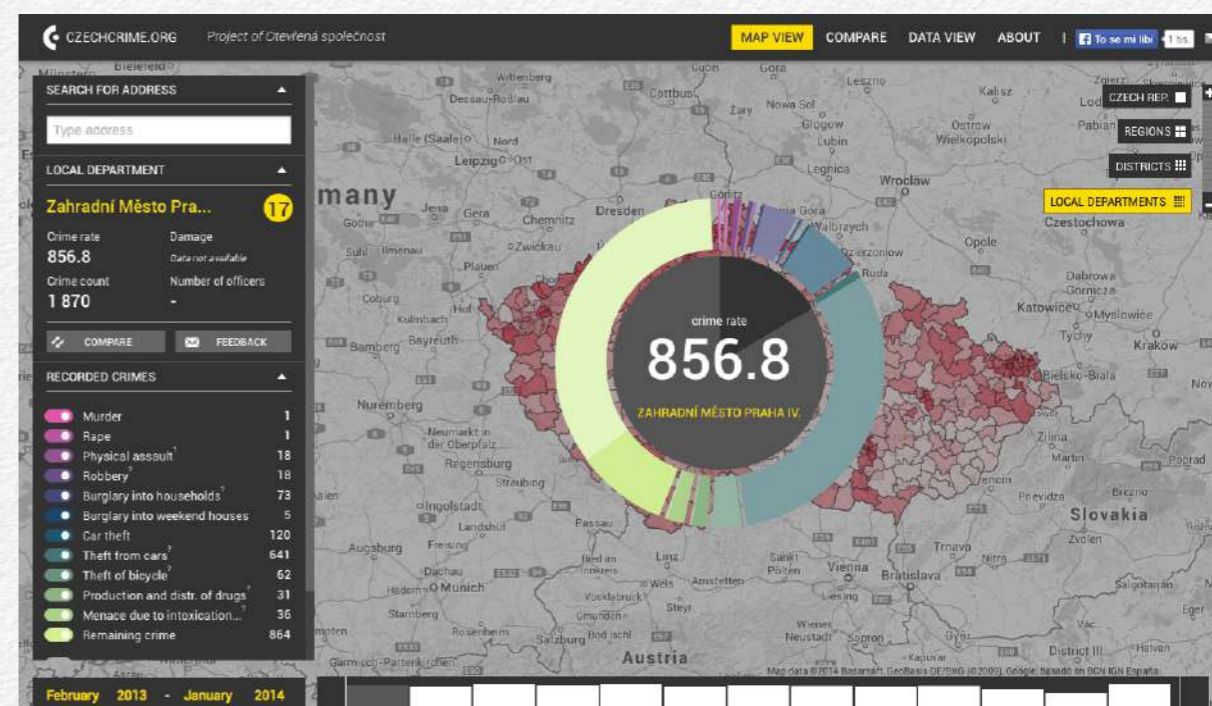
The amount of information obtained in this visualisation is impressive, especially considering how difficult obtaining such information might be in the first place. As another judge put it: ‘It takes the public to the front seat of urban security. I like that it makes public information that is often kept secret. This means that discussions on security can be had on the basis of informed arguments.’

Another judge thought the design was impressive and incredibly professional. The design itself allows for quick comparisons across geographies. And the easy-to-use switches that control

the dashboard can really help narrow and focus the charts as per a user's interest.

Of course, no visualisation is perfect, and the judges thought the percentage of 'remaining crimes' slightly let down the visualisation — though we recognised that this was probably more of a problem with the data provided by the government than anything inherently wrong with the visualisation. And although it made this information very open to the public, the policy messages were not necessarily clearly articulated in this visualisation. However, we could imagine a citizen or a decision maker, or indeed even the police, turning to the visualisation as a resource to help change security practices in particular locations.

* Note that Political clientelism, still wasting our money technically was in the top five voting in this round. As a very similar visualisation already made it through to the Final in Round 2 (partly because of confusion on the organiser's part), the judges have decided not to consider it in this round. However, Expert Forum in Romania will have the opportunity to decide which of the two visualisations it would like to showcase in the final. Similarly, Ethos Public Policy Lab will be given the choice to showcase either their top-five visualisation from this round (#MexicoEn140) or their visualisation from Round 1, Better Life Index, that has already made it to the final.



On Think Tanks Interview with Michal Tošovský

After the end of the On Think Tanks Data Visualisation competition, we were able to catch up with the winner of Round 3, Michal Tošovský. Michal led the team at Otevrena společnost — a Czech think tank focusing on police and public security — that is behind Mapping Czech Crime, a visualisation that we think does what it says on the tin and does it well!

I wanted to dig behind the scenes to understand a bit more the technical nature of how the visualisation was put together, and the challenges they encountered in working with such a potentially sensitive topic.

JK: What was your inspiration for creating this visualisation? Had you seen similar products elsewhere? Was there a particular need in the Czech Republic?

MT: Several years back we were discussing the idea of improving public access to information about police efficiency in controlling crime with the Czech police and Ministry of Interior. We all knew about similar initiatives, among others, in the UK, US, and in Latvia. But while it seemed that police and the Mol were ready to take something forward in this field, nothing happened for quite a long time. So we decided to take the initiative.

With regard to the particular need – I think that such a need is embedded in the development of recent society. The spread of the Internet brought enormous access to various people’s and institutions’ interpretations of any issue – including criminality – and to be qualified to scrutinise these interpretations one needs to have access to source information. Without knowing the data, it’s nearly impossible to challenge the status-quo, especially one that might be acceptable for the institutions but far from ideal from the perspective of a particular citizen. So I don’t think that it is some specificity of the Czech Republic that made us work on this project. We may have wished to create a similar application if we lived in any other European country too.

JK: This visualisation seems to have required both a lot of data and also close collaboration with police departments

in the Czech Republic. How did you go about obtaining the data?

MT: From the very beginning we knew that our application had to cover the whole country. We weren’t interested in making a nice product for the capital city only to find that the problems faced by people in some regions outside Prague are very different and even hard to believe for somebody who doesn’t leave the comfort of a big city. So at the beginning of the project, the ‘lowest common denominator’ was equivalent access to crime data all around the country.

With the first version of the website we decided to use only data that were published by the police at that time. We had two reasons for it. First, we knew that if we start negotiating with police about providing us deeper data, we would end up mainly with restrictions and fears about its use. And second, we also wanted to show that providing better information is not only a question of its quality but also a question of real will to use it. In the end, this strategy paid off – after the launch of the first version, the Mol contacted us and supported us in negotiation with the police to get deeper data. Apparently the website didn’t bring any threat to them!

JK: Working across a number of police departments and the Mol sounds like it must have been a nightmare in terms of reading across data sets. What was the data cleaning and processing like?

We know that college students are using the data for their schoolwork, journalists are exploring it when reporting about crime, and municipalities are getting used to working with the information when forming their crime prevention strategies. We can say, therefore, that the application delivered the goods we were expecting.

shapefile took several hundred hours of work, with proper borderlines linked to source data about the population of the areas (which we had to buy from the Czech Statistical Office).

MT: Yes, the police provided us data at the lowest organisational level (527 police divisions across the country), but they surprised us by refusing to provide the shapefile (a map of sorts) of its jurisdiction. Cleaning the data was a simple thing compared to re-creating the shapefile. The data were provided in hundreds of Excel tables and getting it right was ‘only’ about initial analysis and preparing a script to read it. On the contrary, creation of the

JK: One of the things that strikes me about this visualisation is just how much information it contains. How did you come to this specific way of organising the information?

MT: It is probably not necessary to explain the informative power of map-based data. From the beginning we knew that the visualisation must communicate both to somebody who is not familiar with data at all and to skilled data users such as scholars, journalists and policy makers. To make the data interesting and self-explanatory for the first group of users we simply didn’t see any alternative than a map. We used crime rate (number of crimes per 10,000 inhabitants) as the key indicator for comparison of diverse areas because it is the simplest way to express the distribution of any phenomenon in a given population. It is a statistic that is even recognised internationally.

We knew that most of the information needed to be accessible straight from the map view so that users didn’t lose visual contact with the context of the area they were looking at. Also, we tried to empathise with users – we knew that mostly they would be interested in various comparisons of the data – in time, in relation to another area, etc. And we hoped that more analytical users would be able to wade through the visual part of the application to detailed data. I must not forget that at the very beginning we had a very useful consultation on data display with web designer Karel Minařík, who helped put us on the right track right from the beginning.

JK: This is already the second version of a visualisation you did earlier. What sort of upgrades did you make and why?

MT: The biggest upgrade is in much finer granularity of the data. Instead of 80 police divisions we have divided the country in 527 areas. Instead of nine administrative and non-intuitive categories of crimes, the new version distinguishes 201 crime types as they are recognised by the police. Moreover there are other data related to each of the crime types (e.g., damage or some perpetrators' characteristics) that can be accessed through the new version's API. Also, I have to mention one outstanding fact: with the new visualisation we actually provide more statistical information about recorded crime in the Czech Republic than the police themselves.

JK: And what sort of things might Mapping Czech crime 3.0 contain and why?

MT: The next version is a big question now. The data we have in the application is, to some extent, the most detail that can be extracted from the aggregated crime data kept by police. Unfortunately, the quality of particular crime records doesn't allow its unified treatment. On the other hand, the police have recognised the benefits of computerised crime data analysis and, in recent years, they have invested some resources into improving the architecture of recording crime data. However, it will definitely take them some years until they will be ready (both techni-

cally and morally) to provide detailed-yet-anonymous data to an external entity.

Before creating version 3.0 of the application, we have to deal with the quality of the data that can be provided. We are facing the fact that crime data are only part of the security situation in the Czech Republic. To have a better picture of it we need to add data about offenses against public order – there is no central database for that. We plan to make an agreement with several towns on provision of such data and we may be able to add several local case studies into the application in a year or two. Also we plan to convene the crime data community in the Czech Republic to define some request to the authorities about changes in crime and offense data recording for its future use.

JK: Overall, how long did this visualisation take to develop and what sized team were working on it? Was it all done in-house or were you working with outside contractors?

MT: Otevřená společnost is mainly a police watchdog and think tank. We are not programmers or web designers so we had to hire an external contractor. We were very lucky to choose a great cartography/ programming/ design studio Geographics.cz. Without the enthusiasm of the team – namely Zdenek Hynek and Martin Pulicar – we would never have got so much from the application in any of its aspects. The simplicity of its control, the intuitiveness of data display and the overall design is much to their credit. In the end, the team stabilised at four people –

apart from the guys named above and myself, one more colleague was helping us with additional data gathering and analysis.

We started in December 2011 with financial support of the Open Society Foundations and we were able to deliver the first version after a year. The recent version of the application was launched at the end of November 2013. So, it took two years for the application to get where it is now. Of course things could go faster, but this wasn't the only task for any of us on the team.

JK: What has been the public response to this visualisation? Who is using it and for what purposes? Do you think it's helping hold the police to account for their job? What about policy makers?

MT: Generally we are quite satisfied with the response. The main online and print newspaper, MF Dnes, promoted the new version of the application and thanks to that we had nearly 100,000 unique visits to the website on the first two days after its relaunch. On average we have about 350 unique visitors daily, which is not bad considering that it is a static application updated monthly. So we can see that people are using it and that there is public demand for the data.

We know that college students are using the data for their schoolwork, journalists are exploring it when reporting about crime, and municipalities are getting used to working with the

information when forming their crime prevention strategies. We can say, therefore, that the application delivered the goods we were expecting.

JK: Has this project helped in any ways to raise the profile of Otevřená společnost? Does the organisation see it as an important investment? Will it continue to support and update this visualisation? Or is it still too early to say?

MT: Definitely it helped a lot. The application helped us to become recognised all over the country, especially among municipal officials, which helps them to identify Otevřená společnost when we communicate to them. It improved our fundraising opportunities as well.

The application is an important incentive for other areas of our interest and gives us new resources for our advocacy activities. However, the strongest benefit it can bring is a mass of informed citizens. Therefore we need to continue teaching them to use it and to raise their awareness of police efficiency.

Final Round Visualisations

4

The competition wrapped up in January 2014 with a Final comprising the nine winners from the previous rounds in addition to one wildcard selected by the competition funders. Voting changed to allow the winner to be selected by combining the public vote 50:50 with that of the judges.

Finalists

The ten On Think Tanks Data Visualisation Competition Finalists

MÉXICO EN

PODER EJECUTIVO LÍDERES DE OPINIÓN DIPUTADOS SENADORES

ethos LABORATORIO POLÍTICAS PÚBLICAS

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Un proyecto de Ethos Laboratorio de Políticas Públicas
Colaboración con: Miguel Salazar, Gerardo Galindez y Eduardo López

www.ethos.c

Click to enlarge and view the gallery of ten finalists.

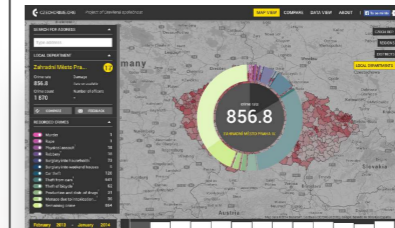


Winners

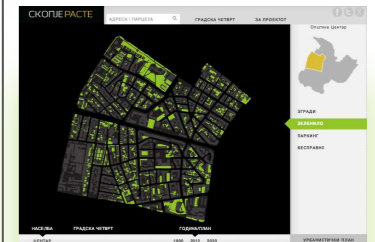
Overall runner up -
Mapping arms
data



Overall Winner -
Mapping Czech
crime



Overall second
runner up -
Skopje raster



Commentary and resources



In addition to the competition itself, On Think Tanks also invited a number of guest authors to comment on the importance of data visualisation for think tanks and to provide additional resources. This chapter is a collection of these articles.

Commentary

1. **‘Data visualisation competition: A pen and paper may be good enough’ by Enrique Mendizabal, On Think Tanks**
2. **‘Data visualisation: A pen and cantaloupe may be good enough’ by Jeff Knezovich, On Think Tanks**
3. **‘Data are not boring’ by John Schwartz, Managing Director of Soapbox, UK**
4. **‘Think tanks and data visualisation: Opening new spaces for communication and research’ by Oriol Farrés, Project Manager at CIDOB, Spain**

Data visualisation competition: pen and paper may be good enough

Enrique Mendizabal, On Think Tanks (originally published 5 August 2013)



A couple of weeks ago we and the Think Tank Fund launched a data visualisation competition for think tanks in developing countries. Our intention is to use the process to share interesting and useful resources

for think tanks that want to try new ways of communicating – and not just reward those who already know how to do this well.

This will be the first of a series of posts on data visualisation resources. Therefore, let's begin with the basics.

Nature.com has organised all their data visualisation articles and resources into a single compilation – Data visualization: A view of every Points of View column (<http://bit.ly/19wVf7H>).

The post is full of excellent advice and examples, but none better than this one (I think): Pencil and paper – November 2012: Quick sketches and doodles of data or models aids thinking and the scientific process.

In this article, Bang Wong and Rikke Schmidt Kjærgaard argue that:

‘Creating pictures is integral to scientific thinking. In the visualization process, putting pencil to paper is an essential act of inward reflection and outward expression. It is a constructive activity that makes our thinking specific and explicit. Compared to other constructive approaches such as writing or verbal explanations, visual representation places distinct demands on our reasoning skills by forcing us to contextualize our understanding spatially.’

And they conclude with very useful advice for the budding data visualisation producer: ‘Pencil and paper provide an immediacy that is unmatched.’

The main collection in Nature organises its posts according to the following categories:

- Composition and layout
- Using color
- Elements of a figure
- Improving figure clarity
- Multidimensional data
- Data exploration

Data visualisation: A pen and cantaloupe may be good enough

By Jeff Knezovich, On Think Tanks (originally published 30 November 2013)



The other week I had the good fortune of participating in an excellent meeting in Prague hosted by the Open Society Foundations: Policy Research, Technology and Advocacy Event @ the Hub (<http://bit.ly/1e7fK97>). The event was designed to bring experts together from across Central and Eastern European think tanks to share ideas and learn from each other on innovative approaches to evidence-based advocacy and communications.

The event itself spanned a number of topics — with the Deputy Director of Google Ideas kicking us off with some inspiring examples (I particularly liked the ‘Digital Attacks Map’) of what can be achieved with a little imagination, a lot of data, and the ability to visualise and interpret it. My favourite anecdote from the keynote was on mapping schools in Kenya. Although the government had a list of elementary schools and where they thought

they were, they didn't necessarily know their exact locations let alone what condition they were in. Instead of sending a team of geographers out to investigate — a time and resource intensive process to say the least — they had the clever idea of holding a national 'photograph your school' competition. Using the GPS data encoded in those digital photos submitted to the competition they were able to track down around 98% of the schools on the government record. It meant they were able to focus investigations on the two per cent whose status was unknown rather than having to visit each and every school in Kenya. An excellent story to remind us of the power of the crowds.

While the event wasn't focused entirely on visualising and communicating data, it was certainly a strong theme throughout. It was fascinating to hear from investigative journalists who not only were tracking down cases of corruption, but trying to figure out ways of showing the relationships and geographies between the various actors. They even created their own online visualisation software to help — Visual Investigative Scenarios — which is well worth checking out.

Kristie Evenson and Mareike van Dijk presented an overview of an evaluation they did of a Think Tank Fund project that worked with some 15 Central and Eastern European think tanks to develop elaborate data visualisations. They helpfully summarised the lessons from these six-month projects into tweet-length

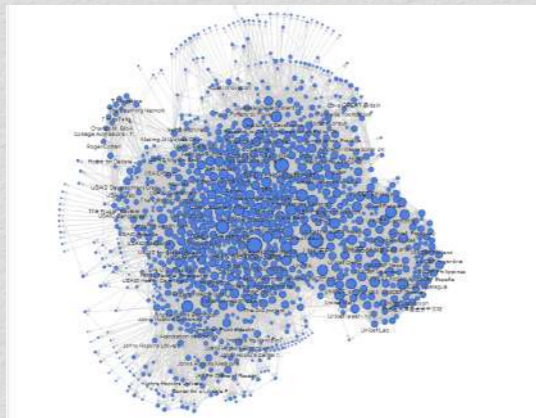
soundbites, and they're relevant to many tech-heavy projects. A few of my favourites:

- **'Getting to the tip of the iceberg is a climb!'** So much work goes into obtaining data, cleaning data, and structuring data that is often not as considered as the end product. But the visualisation — the user interface — is just the tip of the iceberg. Don't forget to plan for all the other bits too!
- **'Envisioning the product and usage'** Many of the visualisations had a decent understanding of what they wanted to convey, but not a clear enough understanding of who might use the visualisations in practice or how. Always keep the end user in mind!
- **'More is sometimes too much'** After the visualisations were developed, there weren't clear plans in place for maintaining them. A lot of the smaller think tanks felt swamped just doing that — let alone updating them or creating new visualisations. Ensure that sustainability is considered when developing these projects.

There were also a number of hands-on how-to sessions. Lucy Chambers of the Open Knowledge Foundation's School of Data gave a great overview of some of the online tools available for people interested in working with data. She's summarised her session in a School of Data blog, in case you want to know, for example, how to pull data from pesky PDF files.

I also attended a session by Josef Slerka on social network mapping. We focused on creating a netmap by scraping information from Facebook using Netvizz. They allow for mapping of up to two hops from any Facebook page (the one pictured here starts from a page I manage focused on health and international development).

Two hops from the Future Health Systems Facebook page



Click to explore interactive version (Internet connection required), or view online at: <http://bit.ly/1okVBX5>

You can also create a map of your own personal network (I did that too, interesting to see the relationships!). Netvizz produces a GDF file designed to be integrated with the network mapping programme Gephi (open source and free to download – but if you’ve upgraded to Mavericks on your Mac be sure to re-install Java first). But it effectively creates a CSV file (comma delimited), which I imported into Excel, tidied with the vlookup func-

tion, and then imported into Google Fusion Tables (which are massively powerful!!!) to make this interactive version that can be embedded anywhere on the web.

But for all those interesting and complex visualisations, when it came my turn for the dinner speech, my point was clear: a pen and a cantaloupe may be enough. Some of you may remember that at the beginning of the Data Visualisation Competition, Enrique authored a post on ‘a pen and paper may be good enough’. Well, I didn’t have that luxury at the dinner. I was asked to present about data visualisation without the use of visuals, like PowerPoint or Prezi. But I didn’t think I could do this without some sort of visual aid so I thought I’d improvise and use some everyday items to help get my ideas across.

Between apples and oranges, pint glasses as bar charts, Christmas tinsel, a few plastic plates, an apple



corer and a cantaloupe-cum-globe, I'm pretty sure I showed that data visualisation doesn't have to be high-tech to be highly effective. A few of my key points included:

- **Don't re-invent the wheel:** As this competition has shown, there are SO MANY free-to-use resources out there to help make visualisations. Don't start designing something from scratch unless you're quite sure that it hasn't been done at all before.
- **Tell a story:** Telling a story starts with data, of course, but a good story has one eye on the data and one eye on the bigger picture – that's your analysis. And don't forget that a title can help tell the story.
- **Make it accurate:** Do choose the right type of visual to tell your story. And once you do that, make sure you're not committing schoolgirl mistakes. See an excellent presentation by Gregor Aisch for top tips in that regard (<http://slidesha.re/1jTg5Eq>)!

All in all, a couple of days well spent!

Data are not boring

John Schwartz, Managing Director at Soapbox, UK (originally published 12 August 2013)

'The doctrine of boring data serves political ends', Edward Tufte, *The Visual display of quantitative information*

Data are not boring. Data can explain social and economic trends and start new conversations. Data can inspire new ideas, and they can test how they work. Data can challenge those in power. Data can change the world.

Those who work in think tanks understand the power of statistics, but they need to challenge the doctrine of boring data. When think tanks present their ideas and research in original and compelling visual ways, then they can show how public policy and the choices of those in power affect us all. They can show that change is possible – and, often, why it is necessary.

The power of presentation

After working as a nurse in the Crimean war in the 1850s, Florence Nightingale returned to Britain to become a passionate campaigner for healthcare reforms in the British army.

and simple shapes.

Movement and sound, whether in film, animation or even in a presentation, bring in an extra layer of meaning which you can use for narrative and explanation

Hans Rosling's bubble chart presentation on changes in wealth and longevity across the world over the past two centuries (<http://bit.ly/1mH4nNj>) makes a huge amount of statistical information immediately comprehensible and allows a clear historical narrative to emerge (for example, the dips in Europe that occur in the late 1910s and early 1940s). It's a great example of how data visualisation can work in a presentation and within a narrative. Prezi is a simple (and free) way to bring movement and narrative to your data.

It is not all about presentation

What's less visible but at least as important is the work that must have gone into collating and processing the statistics in Rosling's presentation. Getting good data, analysing and contextualising it is by far the biggest job when creating data visualisations. Before you try to create a mind-blowing graphic, it's nearly always worth creating more straightforward graphs from your data in Excel. These will help to get a much better idea of what the numbers are actually saying.

Narrative and context – using the data to support your policy position – needs to be balanced with transparency – opening up data so that users can examine and even challenge your findings.

It will often be impractical to present large data sets in print, and making them available to download as spreadsheets might not be very helpful to users. But online applications can unlock big data sets and allow users to really delve into them and generate their own comparisons and draw their own conclusions.

Open source resources such as Google Charts and Datawrapper can help you do this inexpensively and within your own website. Check out the Centre for Cities for an example from Soapbox.

Good data empowers individuals, communities and campaigns. It adds force to ideas and the weight of evidence to policy proposals. When we make data more intelligible, compelling, and transparent through visualisation we multiply its power to create change.

The On Think Tanks Data Visualisation Competition is a great chance for developing country think tanks to challenge the doctrine of boring data. I'm excited to see the submissions.

Think tanks and data visualisation: Opening new spaces for communication and research

By Oriol Farrés, Project Manager at CIDOB, Barcelona Centre for International Affairs, Spain (originally published 30 September 2013)

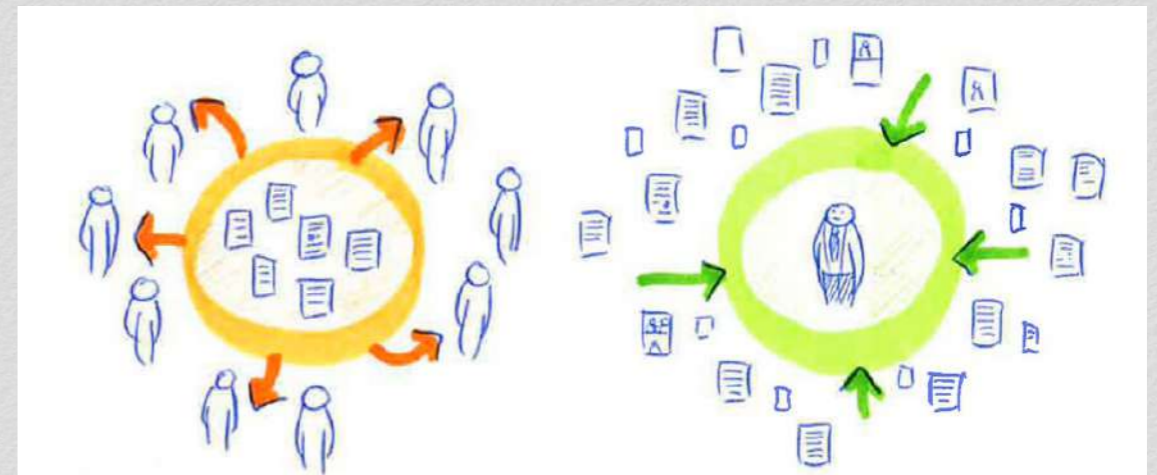
A solid academic and research approach has always been – and remains – at the heart of any think tank initiative. But there is a growing interest in making sure that any project includes an effective communication plan that ensures that the research also will have an impact on society, and that it goes beyond the academic community to reach non-traditional audiences.

A few years ago, the communication challenge seemed to be how to reach a wider audience and send a message. However, living in an information-saturated environment where the public is ‘influxicated’ – i.e., drowned on news feeds, social networks updates, daily bulletins and email newsletters – the communication challenge for think tanks is actually how to have their voices heard in a noisy environment, and how to become relevant.

These challenges have led to a change in how think tanks – and academia in general – communicate their research. Traditional efforts for defining the best format for a final document

(terminology, rules, conventions), or outputs relating to a project, need to be left aside. Rather, we need to put more effort into understanding the real nature of our network – i.e., an active audience – to make sure that we produce appropriate packages of information. In this context, the think tank’s role as information gatekeeper (in the figure below, defined as the ‘container model’) is being progressively replaced by the role of information provider (the ‘filter model’), that simplifies the complex informational environment by ‘subtracting the obvious and adding the meaningful’.

The ‘container’ versus the ‘filter’ models



A possible strategy for keeping their audience active and engaged is to favour an alliance between communicators and researchers – a coalition of brains that can guarantee that the top quality research will be efficiently transformed into information packages. Data visualisations have a clear role to play here.

Why should a think tank produce data visualisations?

For a long time, statistical graphs have been used in social sciences, the most well known of them being the bar, line, and bubble charts, which were developed at the beginning of the 19th century by Scottish statistician Willam Playfair. In cartography, the use of maps – abstract images that represent territories – has been an effective way to visualise data (both geographically and thematically) since they are particularly good tools for communicating quantitative information.

Text alone is a great tool for communicating abstract concepts, proceedings, and instructions or even presenting a set of alternatives within their conceptual context. This has been profusely exploited by think tanks through the production of documents, such as: policy briefs, policy recommendations, and research papers.

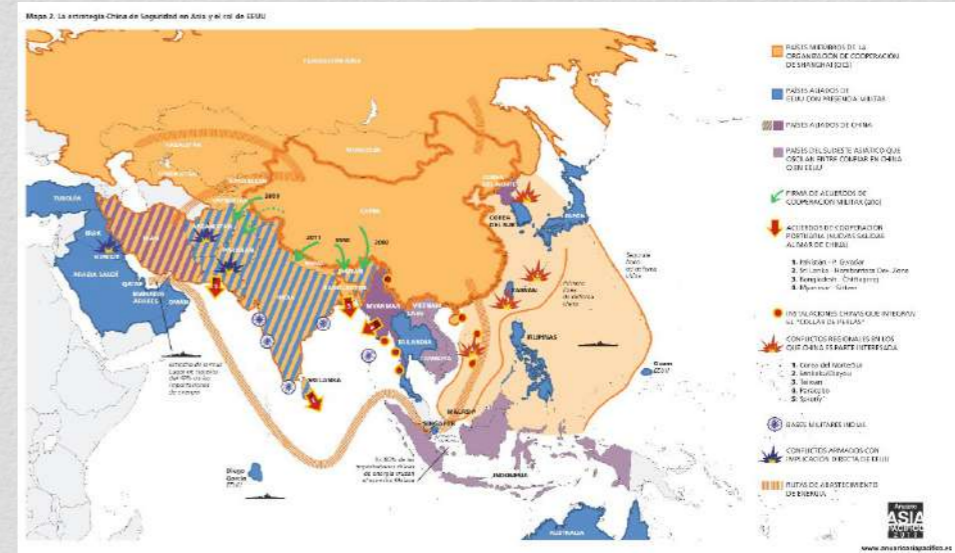
However, images are far better at showing structural relations (connections), indicating localisation or defining details and appearance. That is particularly useful to deal with some pressing issues of international politics, such as the need for mapping complexity, understanding networks, or presenting geolocated information. The infographic from the New York Times explaining Romney's potential pathways to winning the presidency in 2012 (<http://nyti.ms/1iUWOPn>) is a good example of one story that can be explained effectively in interactive images but that would be dense and incomprehensible in text.

There is a powerful trend of convergence making research and communication come to a fertile common ground for think tanks. By definition, data visualisation is a discipline that can positively affect both areas: on one hand fuelling the capacity of the research and data analysis by improving the ability to extract conclusions and project scenarios; on the other, making the approach to results more attractive, visual, and intuitive.

Data visualisation applied to research

According to Stuart Card, visualisation is a cognition amplifier since it can concentrate huge amounts of information in a

Mapping the Chinese Security Strategy in East Asia



Source: Asia Pacific Yearbook (2011), CIDOB, Casa Asia and Royal Elcano Institute (in Spanish): <http://bit.ly/1pHhmvu>

The skills and profiles needed for producing data visualisations in think tanks are not yet very common. [...] But if these skills seem so uncommon now, remember that those of a community manager, a press officer, or a graphic designer – that were once uncommon – are today considered integral to success.

Chinese Security Issues were synthesised and pictured together in this conceptual map.

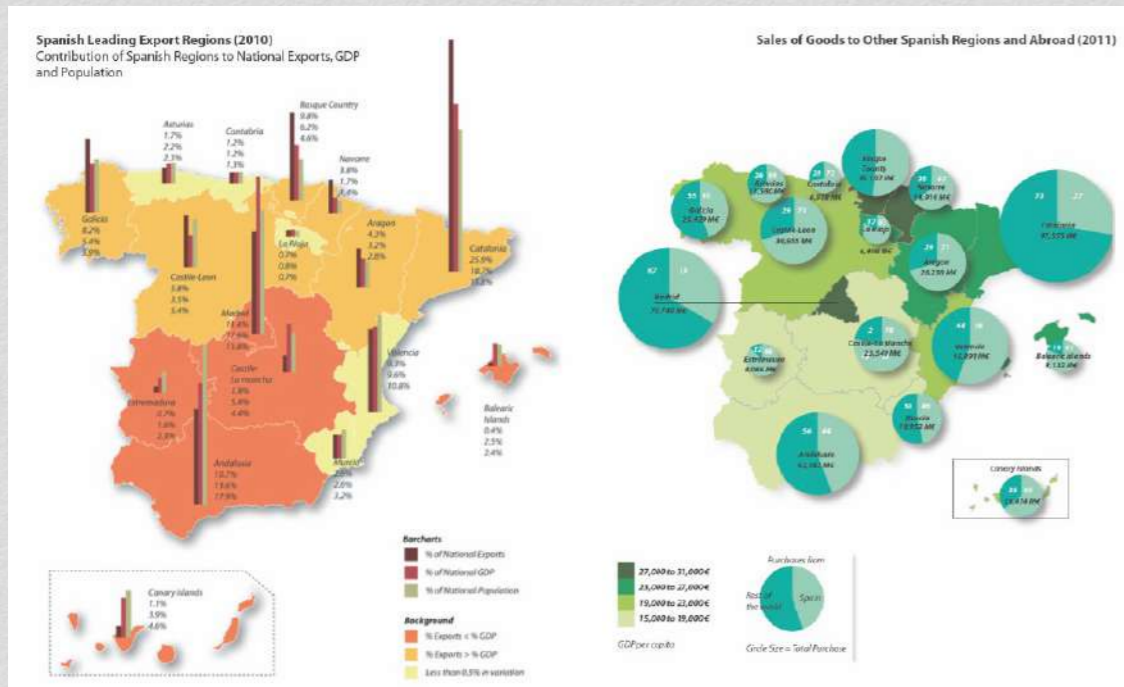
reduced space (one frame) that can be retrieved easily and quickly (imagine all the information contained in a topographic map, and the same amount of information described with text!).

In this example, CIDOB presented an overview of the Chinese strategic backyard. All the contents of a 20-page paper on

Applied to data analysis, data visualisation allows us to extract conclusions from massive samples that probably could not be identified through other approaches. Visualisation is a particularly good tool for supporting perceptive inference (extrapolating), underlining patterns (recurrent behaviours), and finding outliers (exceptional behaviours). Another advantage of visualisation is that, unlike text, it is not sequential. It allows concurrent understanding of information (favours parallelisms). This is particularly useful when managing and interpreting huge amounts of data, something that is increasingly possible with computers. In the field of social sciences, computers' capacity to process data and to create complex graphics have fuelled the need – and the ability – to produce, process, analyse, store, transform statistically, and share very complex visualisations based on massive amounts of data.

Open data initiatives that, in light of the paradigm change (from the 'container' to the 'filter' model), are transforming the role of government agencies and international institutions from 'data gatekeepers' to 'data providers'. International organisations, such as the World Bank, the IMF and the OECD have already created their own visualisation teams and organise visualisation contests based on their publicly available data. As a result, today we can access an unprecedented amount of official databases, and manage the huge amount of information that is available, downloadable, and freely re-usable – something that is making the work with visualisations increasingly popular and

Exploring raw data to produce graphs



Source: Infographics produced by CIDOB for Spain in Focus:

<http://bit.ly/Oao5C2>

creative. At the same time, this interaction between the active audience and public institutions has clear benefits in terms of government transparency, favouring at the same time the engagement of the civil society to the public affairs.

The second factor that is stimulating the emergence of visualisation is the rapid development of quality, open software for data visualisations. There is already a lively and creative community of users who contribute to its constant evolution, thanks to a strong collaborative culture and huge amounts of creativity.

Data visualisation for better communication

One of the strengths of data visualisation is that it amplifies our cognition, increasing the amount and the complexity of information that we can consider simultaneously. But when we think of its benefits for communicating with this active audience, probably its major feature is the possibility of creating interactive visualisations that might otherwise be unthinkable using traditional tools. By creating interactive visualisations, we invite users to explore the information and sometimes play with the data, which clearly enhances the experience. This is also very efficient in terms of time since the user can search and select only the information required, which makes the process highly effective and more relevant to end-user needs.

Indirectly, and by using the tools of web analytics, this interaction provides information on the user's community interests and expectations, assessing the process of communication and allowing direct feedback between the institution and the public.

Visualisations have also proved to be excellent content to be shared in social networks due to their mix of visual attractiveness and relevant information, and can work as a shortcut for readers to access a more in-depth analysis, once they have visualised the essence of the research.

There is also evidence that visualising information is a more persuasive way to communicate than a plain verbal or written text.

This is important for a think tank if we consider that its function is not limited to the dissemination of research but also to influence the audience towards its vision of a particular policy or action. Visualisation performs particularly well in the field of advocacy, but it must be wielded wisely: although visualisations can allow complex issues to be visually processed, complex issues nevertheless remain complex ‘behind the scenes’ in a visualisation, and demand rigorous and solid background work. Luckily think tanks are well positioned to provide such deep analysis.

Last, but not least, visualisation is a very attractive way of presenting information. This is a double-edged sword. A visualisation’s attractiveness may be a major strength, but it may also be its biggest weakness since it is relatively easy to be seduced by the ‘eye-candy’ effect. In other words, it’s too easy to allow form to trump content, even – or perhaps especially – when that content is not as clear-cut as the graphic can lead a viewer to believe. This is a real temptation that fortunately can be avoided if, in producing data visualisations, we focus on good design, which in John Maeda’s words: ‘provides meaning in an uncertain world, by marrying form with content, and content with context’.

The skills and profiles needed for producing solid visualisations of information in think tanks are not yet very commonly found in these organisations. One could say that the discipline is still on the fringes of think tanks’ traditional ‘comfort zone’. But if these

skills seem so uncommon now, remember that those of a community manager, the press officer, or the graphic designer – that were once uncommon – are today considered integral to the success of a project.

The use of visualisations is still an emerging process in social sciences, and for think tanks. But their utility is a clear opportunity to gain a louder voice in the ever more competitive arena of international affairs research.

Resources

1. **‘The On Think Tanks interview: Noah Blumenthal, CEO of SwayWhat’ by Jeff Knezovich, On Think Tanks**
2. **‘Vine in 60 seconds: An introduction of Twitter’s video app for think tanks’ by Jeff Knezovich, On Think Tanks**
3. **On #datavis judging: Leonora Merry’s advice**
4. **On #datavis judging: Andrej Nosko’s advice**
5. **On #datavis judging: Jeff Knezovich’s advice**
6. **On #datavis judging: John Schwartz’s advice**
7. **On #datavis judging: Enrique Mendizabal’s advice**

The On Think Tanks interview: Noah Blumenthal, CEO of SwayWhat

By Jeff Knezovich, On Think Tanks (originally published 6 November 2013)

We’ve been continuing to scour the web for resources to help think tanks develop data visualisations and to get their ideas across to new audiences. A lot of the resources we found were designed to help with the technicalities of developing visualisations themselves. But we were intrigued when we came across SwayWhat [now renamed Savvyroo), a tool that not only helps create charts, but also serves as a platform to share ideas. If I had to describe it in a sentence, it’s SlideShare for data visualisations – but it’s more ambitious than that. It hopes to bring evidence to the most political of discussions.

I had to find out more, so I got in touch with SwayWhat CEO, Noah Blumenthal, to understand better how think tanks might take advantage of their services.

JK: Let’s start from the beginning: what was your inspiration for creating this platform?

NB: SwayWhat was founded as a social impact startup to make it easy for people and organisations to create, find, and share fact-based charts and graphs on today’s most important topics.

The idea came in the weeks after the Sandy Hook school shooting tragedy. I was a regular at our local school board meetings, which typically had just a few attendees. After the shootings, however, the turnout was enormous, and parents wanted action to protect their children. Proposed ideas included panic buttons, bulletproof glass, and armed principals. There were no facts behind their heartfelt arguments – just passion and emotion.

However, while I felt differently about how or whether the school board should react, I had no facts to support my position either. And even though I had time before it was my turn to speak, I was unable to quickly find the data I needed to make a convincing argument. I did speak, but I don't know that I was any more convincing than anyone else.

After the meeting I dove into research on school shootings and student safety, and eventually found compelling data on the issue – data that was buried deep in the Centers for Disease Control website. I used the data to create a two-column chart that backed my position. The chart, which showed a 100:1 ratio of student suicides to school shooting deaths, swayed the other parents and the school board to the position that if we truly wanted to protect our students from harm, we'd be much better served by investing in our kids' psychological wellbeing.

This effectively ended the more sensationalised arguments and the discussion moved back to how we could better educate our children.

JK: There are a number of different tools out there to help people create data visualisations. What makes SwayWhat different from, say, Infogram or Visually or Tableau?

NB: SwayWhat doesn't want to compete with those sites – in fact, we encourage people to post their Infogram or Visually infographics on SwayWhat, as well. Our primary focus is being a social space where any kind of chart, graph, map, or infographic can be posted no matter how or where it was created. We are creating a single space where all sides of the most important issues facing the world today can be presented and examined together.

JK: A few years ago, the notion of the 'filter bubble' became really prominent through Eli Pariser. He gave an interesting TED Talk, and has a blog and books about the idea – that as Google and Facebook increasingly tailor results, you get more and more insulated from external ideas. And, of course, this is a modern extension of 'confirmation bias', where we go to information sources we trust to tell us what we wanted to hear anyway. So how are you working to break through the bubble?

NB: The fact is that we too often turn to sources that support our predispositions and beliefs. Rather than dive deep into issues like foreign affairs to decide whether foreign aid makes sense, for example, we simply align what we feel is right with an outlet or source that enforces that opinion. We want to break

that pattern with SwayWhat by making it fast, easy, and fun to find both the information you agree with and also the information that might challenge your assumptions and beliefs.

And for think tanks this is a particularly important issue. Think tanks are quite good at reaching the like-minded – but they need to be more missionary in their approach, and to reach people who would otherwise not come across their important research. SwayWhat can be a missionary outpost where they can connect with the undecided and the opposition.

Our idea is that SwayWhat is a sort of neutral ground of verifiable facts – so if you are looking for data on, say, the recession, you know that SwayWhat is the place where you can find the hard data you need in order to take an informed position.

JK: One of the things I find interesting is that people often assume evidence speaks for itself, as if evidence gathering and evidence collection is somehow a neutral, apolitical act. But it's not at all – research may be responding to funders or researchers' ideologies and interests, and anyway data might be displayed in a particular way to emphasise a particular point. How does SwayWhat tackle the notion of rigour and bias in the visualisations it shares?

NB: This is an important point, and we hope to improve everyone's ability to recognise and find quality data. Right now when data are presented on any organisation's own website there is

too little consideration given to who collected the data or ran the study. By creating uniform standards for sourcing we hope to build greater awareness about this exact issue.

Often data integrity – or the lack thereof – is as much about the data you leave out as what you put in. We make it harder for users to present misleading data or half-truths because it is so easy for another user to present the full story or contradictory data. Our tags and lists of related charts make it easy to surf through connected content and see which data are presented in the fairest manner.

Further, we have a crowdsourcing validation process in which users can trust and rate each other based on content quality. That resulting percentage will generate a 'SwayStrength' score, which will tell you how trustworthy and factual a user's data are.

We are only seven months old, but as we grow, we will also bring on subject matter experts to serve as editors and fact-checkers, making sure that our highest profile and most-read charts are accurate.

JK: On Think Tanks is a blog targeted at those working in think tanks around the world and across the political spectrum. Why should those working in think tanks use Sway-What as a platform to share their ideas?

NB: There are a couple of important reasons: First and most important, it increases your exposure. SwayWhat is extremely easy to use and has a great payoff. Our early adopters tell us that the SwayWhat charts they post to Facebook and Twitter get two-to-four times more engagement than their normal posts. That is a phenomenal return for an activity that typically takes three-to-five minutes to create.

Second, we offer think tanks a way to reach new audiences. This is important in shaping public opinion, building influence and even raising funds. Third, as SwayWhat grows to be a highly trafficked public forum for data, groups will have to sign on to be a part of the discussion – if only to be sure that their sides of arguments are heard.

JK: A lot of the charts I've seen on SwayWhat are targeted at an American audience. Do you see it as mainly an American platform, or would you like it to be more global in nature?

NB: Many of the most important issues we face as humans are global in nature, from the environment to the economy, so our vision is to be a global resource – just as YouTube and Wikipedia are. And I'm pleased to say that we are now starting to see some traction, as The Equality Trust, a UK-based organisation, recently began posting charts to SwayWhat.

The early US focus is really more a function of practicality. We started with people we knew in US think tanks, and have continually added think tanks as a result of their referrals and word of mouth.

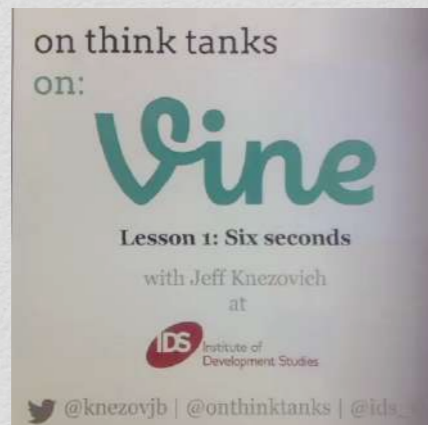
JK: Thanks so much for taking time during the busy autumn season for a chat. On Think Tanks is committed to stimulating more evidence-informed debate around the world so we'll definitely be following SwayWhat as you continue to grow!

Vine in 60 seconds: An introduction of Twitter's video app for think tanks

By Jeff Knezovich, On Think Tanks (originally published 28 January 2014)

Today I'm giving a short presentation on Vine — a short video sharing service for Twitter. And while I hope it's useful to those who see the presentation in the room, I thought it might also be of interest to others working in other think tanks too. I figured that the only way to present on Vine was to actually create some vines (the platform is called Vine, the videos are vines). So below is my presentation: Vine in 60 seconds.

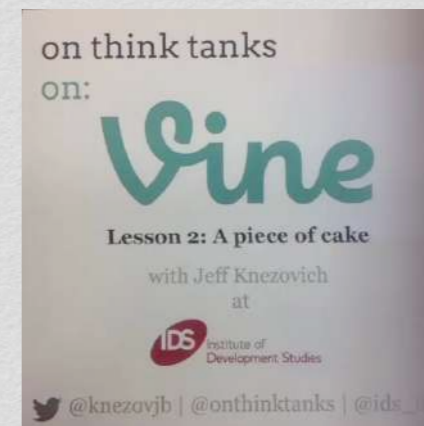
Lesson 1: Six seconds



Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/MunJZBnqvai>

The first thing most people will notice when it comes to Vine is that, just like Twitter, it's designed for short videos only! Although they can be a bit shorter, the maximum length for vines is only six seconds. It's not a lot of time — but you'd be surprised how much you can convey in such a short time.

Lesson 2: A piece of cake



Watch the Vine (no Internet connection required), or view online at: <http://vine.co/v/MunwHZD0tQ1>

Given how short they are, it's important to keep to one or maybe two points, *maximum*. Just like Twitter wasn't designed as a place to produce long reports, neither was Vine. That means if a think tank wants to use vines, they must focus on a single point that gives the flavour of something much larger. We know that videos and images help posts travel farther through social media networks. So think of Vine as another tool in the arsenal to help communicate a piece of research. It's a pre-packaged piece of cake — it's not the cake itself. Nor the frost-

ing on top for that matter! Nor, I should add, are they particularly easy to do (as the title of this lesson might imply), or at least to do well.

Lesson 3: Back to the video future

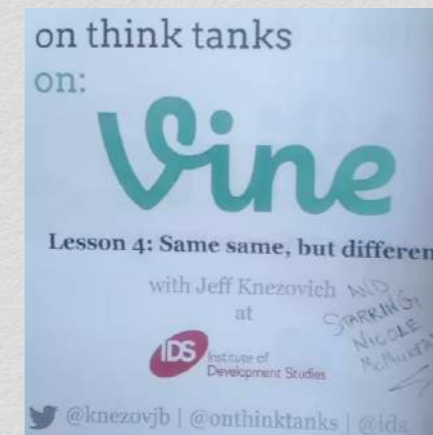


Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/MunTuvjqWqB>

One other somewhat unique thing about Vine is that it's designed for smartphones and tablets. While most other videos on YouTube and Vimeo (for example) have moved to a widescreen format in a 16:9 ratio, Vine has nearly gone back to the future (remember those ancient TVs with a 4:3 aspect ratio??) with perfectly square videos. This was probably to get around the problem of mobiles being able to record both in profile and landscape — but most TVs and computer screens are still optimised for landscape views. This is worth keeping in mind when

planning videos. Vine isn't great for a singular panoramic shot, but pans can have a similar effect.

Lesson 4: Same same, but different



Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/MunPOF0iDLz>

So far I've been pointing out what makes vines unique. And while they might not be the same as a video on YouTube or a film in the cinema, a lot of the same principles still apply. For example, just because they're short doesn't mean that you can skip out on having a story. From a cinematographic perspective, this is often done with a mix of establishing shots (wide views, pans, etc.) that help to set the scene, close ups, and action shots. All that is still possible with Vine, and is worth keeping in mind as you create your videos. It also means that your vine will also have some sort of beginning, middle, and end.

Lesson 5: Keys to SUCCES(s)



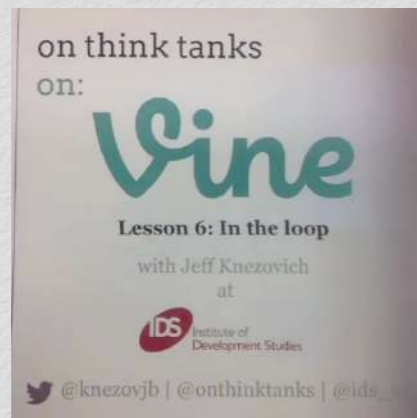
Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/MunEO0nqFv6>

I probably talk too much about Chip and Dan Heath's book, *Made to Stick*. But the rules that they've outlined to support more effective communication are just so universal. Unsurprisingly, they even hold true to Vine. I mentioned creating stories before, but the other keys to SUCCES are just as relevant, if not made even more so by their forced brevity.

- **Simple**, in the context of Vine, is about focusing on one main idea and having that lead the whole six seconds.
- Keeping things **Unexpected** rarely fails to draw an audience's attention. Indeed, it's the mainstay of much humour. And any teacher worth his salt will tell you to get students to pay attention, don't shout (as might be expected) but rather talk more softly to gain control of the class.

- Making things **Concrete** is about making them relatable and tangible. Often this is done through a comparison to something else (e.g., that's the equivalent of 10 trips to the moon and back), and Vine, which is a more visual format, lends itself well to making abstract numbers more concrete (see below on datavines).
- **Credibility** is important, and yet it's difficult to establish on the Web. This may be done through leaning on existing brands or by targeting influential (respected) people within social networks to re-share the vine.
- **Emotion** — from empathy to humour — is where a lot of research communication falls down. The research process is designed to remove as much bias from the findings as possible. But to get other people re-engage with those findings, it's often important to make them feel something about it. This isn't about manipulating people, it's about showing them that you're human too.
- **Stories** I touched on in more detail in the previous lesson.

Lesson 6: In the loop



Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/MunYeFrXt7X>

Having said all of that, one of the unique things about vines is that they loop. In other words, they start again from the beginning automatically after the six seconds is up. Keep this in mind when planning videos, as, on one hand it can be jolting if the jump cut back to the beginning is particularly dramatic, and on the other there are many creative ways to use the loop!

Lesson 7: How to record a Vine



Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/MuvKKiKlxjl>

Vine was designed specifically for use on smartphones and tablets — and it makes use of the opportunities that those types of devices provide. Unlike most other video equipment and software, Vine ONLY records when the screen is being touched. This is to make sure you only capture the best bits within the six-second timeframe. It's completely the opposite of a video camera that keeps recording once a button is pressed and only stops once another button is pressed. It therefore takes some getting used to!

Lesson 8: Buttons, buttons, buttons



Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/Muvqqp2eMqO>

In addition to touching the screen to record, there are some other buttons that may look confusing but that are really helpful when making vines. The first may look familiar — it flips from the back to the front camera on the device, and vice versa. One note here is that many of the earlier smartphones and tablets had better cameras mounted on the back of the device (for higher quality photographs) than on the front (which was seen as mainly being used for video chatting where the resolution was less important as it depended on Internet bandwidth). This gap has narrowed significantly in newer devices, but it's still worth using the back camera as much as possible for higher quality videos. The next button will overlay a grid on top of the images on the screen. This can serve a number of purposes, but it's mainly to assist with the Rule of Thirds when composing

images. But it can also help make sure that main objects in the images are perfectly horizontal or vertical.

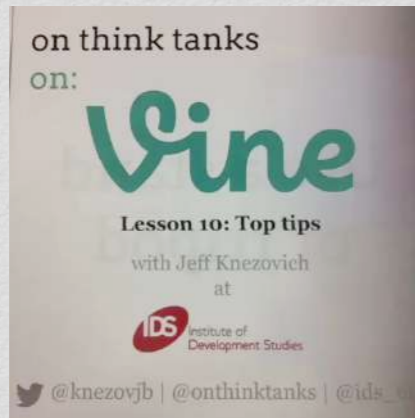
Lesson 9: More buttons!



Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/MuvhV0XmY5D>

The next button helps with the problem of focus. It allows you to refocus between shots (which normally happens by tapping that object on the screen) without accidentally adding to the recording. And the last button is designed specifically to help with stop motion videos — it's a ghost! What that means is that it shows the last frame of the previous segment almost transparently on top of the current image being filmed. This helps to keep everything in line from the previous shot in case things have to be moved around at all.

Lesson 10: Top tips



Watch the Vine (no Internet connection required), or view online at: <https://vine.co/v/Muv571QJw60>

Based on some of my experience working with Vine, here are a few things that you can do to make your Vines that much better:

- Make sure that you have a stand or tripod for your smartphone or tablet. I had a stand for these videos, but there was still a lot of precarious balancing of my iPad on top of stacks of DVDs to get things aligned properly. I HIGHLY recommend getting a much more flexible tripod if you're going to be doing any serious Vine making. Also, don't forget that your props might also need a stand of some sort. I resorted to bull clips to keep some of the papers upright.
- One of the neatest tricks I discovered with reading up on Vine was the use of Assisted Touch on iPhones and iPads (sorry Googlers, I don't believe this is available on Android – or for

that matter Windows – operating systems). Pre-programming a one-second touch, for example can help give consistency to the various elements of a Vine video.

- Use the microphone on your headphones to capture higher quality audio. It doesn't work in all cases, but it can help reduce or eliminate a lot of background noise.
- I didn't mention lighting in this video, but that's something I'd work to do better in my next videos, which may go to show you that it's another important thing to try to get right!

But what about Vines for think tanks?!

Above was my introduction to Vine in 60 seconds. But how might think tanks actually use the technology? Probably the most promising use that I've seen is in the form of datavines. These end up being short video-based data visualisations that are eminently sharable. A good example comes from Bill Gates, who released the below on 1 December 2013 for World AIDS Day (<https://vine.co/v/hPFYEDBJlvB>).

But there are many more possibilities for the creative ones among you – the King's Fund have helpfully described on Wonkcomms how they put together a Vine Advent calendar in the run up to Christmas.

On #datavis judging:

Leonora Merry's advice

(originally published 30 October 2013)



In your opinion, what makes a good data visualisation?

A good data visualisation needs to be beautiful, fun, and interesting. It should use the aesthetics to grab attention, and the content to tempt you in further. There should be a clear story or idea that it is trying to convey and it

should do no more than tell a story in an intuitive way.

What are your data visualisation pet peeves?

Trying to present too much information, getting carried away with the concept and cramming too much in there, not explaining concepts and ideas properly, or over-engineering it!

What one piece of advice would you give to someone starting down a spreadsheet full of data and who is interested in making it more accessible?

Decide on your audience, and ask yourself – if they could understand one thing about this data, what would it be?

Do you have a favourite data visualisation from outside the competition? What is it and why?

Hard question – I love the static visuals in Information is Beautiful, especially the left/right political spectrum one. Maybe it's the wonk in me! I also like interactive ones like the British Social Attitudes Survey data sets done by Soapbox.

On #datavis judging:

Andrej Nosko's advice

(originally published 1 November 2013)



In your opinion, what makes a good data visualisation?

A good visualisation does well if it achieves what it intends to. If it is a teaser then it teases; if it's intended as an attention grabber then it grabs attention; if it's intended as an illustration of a long report then it allows

readers to switch from narrative learning mode to visual learn-

ing mode; if it intends to show-off a designer's taste and skills it does that. But rarely can a visualisation do it all. For me, a visualisation is a tool and if that tool performs its function well then it's a good tool. Functions, however, may vary.

What are your data visualisation pet peeves?

In the context of policy research, the thing that can really drive me crazy when it comes to data visualisation is: if after I look at it, I want to ask 'so what?' If I feel the urge to do something, but there is no context, no 'ask', and all the energy that the visualisation generated in me is not captured by the ask, I'm really let down.

I also don't like if the visualisation does not tell a story. If it's pretty — but pretty in a post-modern way without conveying a narrative, without communicating a position, problem, or trying to reshape the agenda, my position or behaviour — I just wonder, what is the point?

What one piece of advice would you give to someone staring down a spreadsheet full of data and who is interested in making it more accessible?

Start with the big questions: with is the purpose, why are you staring at a spreadsheet? What is the problem you are trying to solve? Who is your audience that you try to reach? What story do you want to tell? What report do you want your audience to read? What link do you want them to click? What campaign do you want them to contribute to?

Once you have these sorted out, then you can start asking technical questions: what media and form will communicate your substance and best help you to achieve your objectives? Do you want something snappy or do you want something comprehensive? Do you want evidence or do you want emotion? Do you want interactive or do you want static?

And last but not least, give it a kiss: keep it simple and smart!

Do you have a favourite data visualisation from outside the competition? What is it and why?

I prefer not to answer this at this point. If I would want to respond I would not be able to narrow it down to one anyways.

On #datavis judging: Jeff Knezovich's advice



(originally published 29 October 2013)

In your opinion, what makes a good data visualisation?

At the end of the day, data visualisations are a communication tool. It's important, therefore, that they follow common

communication practices in order to make them as effective as possible. That might mean making them ‘sticky’ (i.e., memorable). Chip and Dan Heath suggest that is done SUCCEsfully — by keeping it Simple, making it Unexpected, ensuring it is Credible, relating it to something Concrete and tangible, appealing to Emotion, and telling a clear Story.

Obviously, data visualisation is a visual medium (it’s in the name!) and that also has a few important implications. A data visualisation should be instantly understandable; they can contain more information on closer inspection, but if it doesn’t have an immediate impact and increase my understanding of a topic, I won’t give it a second glance. In that sense, I think aesthetics are incredibly important, and that is almost always a case of less is more! Recent research by MIT and Harvard also gives us a hint at what to include in data visualisations to make them memorable.

What are your data visualisation pet peeves?

At my previous work I was known as the ‘pedant’ (a badge I wore proudly). I’m a stickler for accuracy — in facts, in wording, in grammar and punctuation. It means I have a lot of ‘pet peeves’, but it also means I don’t give data visualisations a free pass (and I’m inspired by WTF Visualizations here, which is a GREAT catalog of what NOT to do when it comes to data visualisation).

Here are a few of the things that really rub me the wrong way when I’m looking at data visualisations:

- **Inaccurate representations:** Pie charts that say, for example, x% but clearly show a completely different percentage drive me up the wall. Using shapes to indicate size and then having them off scale is just as egregious.
- **Shifting scales:** In a data visualisation it’s very important to keep to scale. Shifting scales in different parts of a visualisation is bad practice (but can be workable); doing so without clearly indicating that shift is unforgivable.
- **Relying on text:** It’s a VISUALISATION, for Pete’s sake! Some text may be necessary to tell a story, but don’t make text the bulk of the visualisation — that’s what an accompanying report or brief is for. And whatever you do, don’t put text in an illegible 8pt font!
- **Ambiguity:** This can be the other extreme from having too much text — not having enough. If I don’t have enough context to know what is going on in the visualisation, it drives me crazy. If there is an implicit comparison in the visualisation and it doesn’t tell me against what it is comparing, I won’t be pleased. Abbreviations and acronyms that aren’t explained in full somewhere in the text also annoy me, especially if there is more than one possible explanation for what they might mean.

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- **Unnecessary complication:** It's easy to get carried away with visualisations, but remember, just because you *can* visualise it doesn't mean that you *should*.
 - **Not harnessing the power of visualisation:** This one can sometimes express itself as too much text. But even worse, sometimes people go through the trouble of creating some sort of visualisation that is really just a glorified list, and that doesn't take advantage of the visualisation to represent relationships.
 - **Missing the point:** My biggest pet peeve is probably this, where a visualisation has all the data to lead its viewer to a particular conclusion, but then it doesn't actually take the final step of making the conclusion. Sometimes it means leaving out a key piece of data or some information, and sometimes that's just buried in the information. Just like any good publication, a data visualisation needs to finish strong!

What one piece of advice would you give to someone starting down a spreadsheet full of data and who is interested in making it more accessible?

Focus on the message and keep it simple! Data visualisations don't have to be massively technical or massively complicated to be effective. In fact, it's usually exactly the opposite. Narrowing things down is always difficult, and it's worth trying a few different angles and approaches before settling on one. But don't forget to do a final 'cull' to make sure only the information you

need to make a point is presented — nothing more, nothing less.

Also, I'd suggest always being on the lookout for new ideas, tips, and techniques. I love watching the #datavis and #dataviz hashtags on Twitter for inspiration. And if you want to see what I'm reading about data visualisation, you can always subscribe to my Flipboard Magazine.

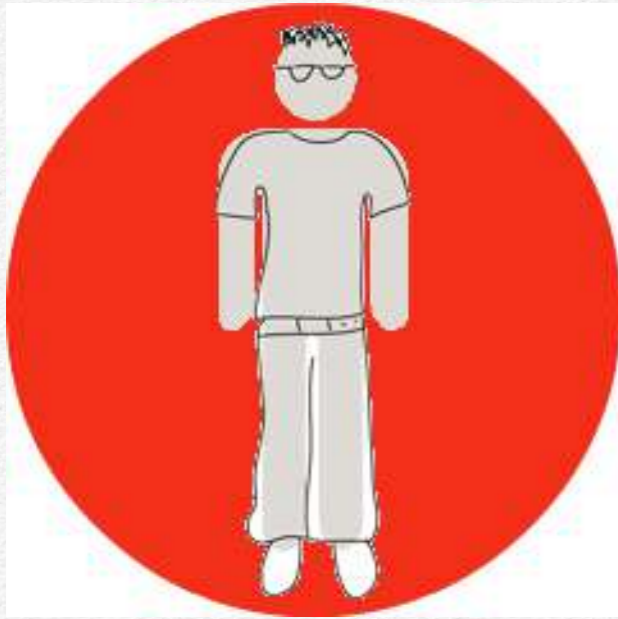
Do you have a favourite data visualisation from outside the competition (can you narrow it down to one)? What is it and why?

Well, outside of communicating research, my other favourite pastime is probably cooking. That's why a recent interactive data visualisation from Scientific American that shows how the flavours of the most common foods are related is right there at the top of my all-time favourite visualisations. Mmmmm, parmesan cheese and white wine!

But seriously, it manages to convey a lot of information in a very succinct way. It also ticks the box of being 'unexpected' — some of the things that one would never consider to be related actually share flavour profiles. It allows for some interesting experimentation in the kitchen!

On #datavis judging: John Schwartz's advice

(originally published 4 November 2013)



In your opinion, what makes a good data visualisation?

Data visualisation is much more about narrative and explanation than about graphical flourishes. It is about arranging information so your audience can clearly see the patterns and trends. In a good visualisation the data

stops being just numbers and starts telling stories, explaining facts, and advancing arguments.

What are your data visualisation pet peeves?

At Soapbox we sometimes get asked to do 'data visualisations' for ideas that are really more matters of opinion or conjecture. In other words, the client wants to use the visual paraphernalia and positive associations of infographics to make something look more fact-based than it really is.

Design is visual language, so if you make something look like a data visualisation you are implicitly saying that your argument is backed up by evidence. If it is not backed by evidence, then you are more or less being dishonest. It's depressing how often researchers in think tanks can't grasp this point.

What one piece of advice would you give to someone starting down a spreadsheet full of data and who is interested in making it more accessible?

I spend a lot of time looking at spreadsheet data using the conventional graphing tools that come with Excel. I would start by just selecting a bunch of data and clicking on different graphs to see what patterns emerge. Once you have an idea what your graphs are showing you, write it down in a couple of paragraphs or bullet points. Then write a headline for your paragraphs as if it were a newspaper story. Those things will give you a foundation to start looking at the data in an original way and tie it into the story you want to tell.

Do you have a favourite data visualisation from outside the competition? What is it and why?

The periodic table of the elements is the greatest ever data visualisation. By arranging the elements by atomic weight, Dmitri Mendeleev was able to identify recurring trends in physical properties and even predict the properties of some then undiscovered elements. The periodic table opened up chemistry to a

much wider audience – which is why you can see it in poster form in pretty much every science classroom in the world.

On #datavis judging: Enrique Mendizabal's advice

(originally published 5 November 2013)



In your opinion, what makes a good data visualisation?

I think a good visualisation is one that presents an argument – or better yet, allows its audience to arrive at the argument the visualisation is trying to make. A good visualisation is also visually engaging. It need not be ‘beautiful’ but should convey, in its de-

sign, a mood or feeling: should we be outraged by the ‘inequality’, curious about the ‘new trends’, shocked at the ‘unexpected levels of corruption’?

What are your data visualisation pet peeves?

When the focus is the design and not the story. Sometimes their designs have been driven by an effort to make them look

original and innovative and the information and arguments they are supposed to make have been clearly relegated in importance. A simple design can be far more powerful.

Another pet peeve is related to their use. Sometimes they appear to be stand-alone efforts. The best visualisations always encourage you to search for more information on a subject. They have to be connected to a wider communication effort.

What one piece of advice would you give to someone starting down a spreadsheet full of data and who is interested in making it more accessible?

Have a look at what others have done before. Don’t be afraid of using designs that work, and tools that already exist, and that people already know how to ‘read’.

Do you have a favourite data visualisation from outside the competition (can you narrow it down to one)? What is it and why?

In the 1990s the Peruvian government started using a map of Peru that showed the country’s mountain ranges and valleys in detail – in relief. The map is now widely used and it changed the way we think of the country: from political divisions to the more appropriate geographic similarities and differences that often divide communities a few hundred meters from each other. It’s a great example because, although a map is one of the most basic and longest-existing forms of data visualisation, this one really changed how people understood something.

On Think Tanks is a blog and a collection of projects bringing independent ideas and advice to think tanks around the world to help them to do their jobs better. We work in low-, middle-, and high-income countries alike with the hope that stronger think tanks contribute to stronger societies. Founded by Enrique Mendizabal, we have a growing team of experts – all of whom have cut their teeth working in think tanks in various parts of the world. They work on and support think tanks on a range of topics including: think tank communication, management, finance, strategic direction, and research.

Jeff Knezovich is an experienced research communicator, having spent much of the last decade working in several think tanks and universities around the world. He has strong experience developing, implementing, and monitoring & evaluating strategies for policy influence and for knowledge management and exchange – and in building the capacity of others to do so. He has also helped to develop a wide range of programme outputs, from large-scale websites and online communities, to policy briefs, video shorts, podcasts – and now ebooks!

Enrique Mendizabal is the founder of On Think Tanks and an independent researcher and advisor to think tanks and policy research networks with over a decade's experience. Recently he has been working with researchers, policy entrepreneurs, and philanthropists to set up new think tanks.