



Role of statistics in the world of alternative facts

– lessons to learn and main future
steps – case Statistics Finland

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Key points

- How do official statistics challenge alternative truths?
- Are statistics losing their relevance?
- How do we compete in the post-truth world - relevant, visible and influential?
- How to spot fake news and information
- The role of communication – how to communicate and build new capacities?
- Lessons to learn and main future steps –
Conclusions



Defining the concept

- *Fake news*
 - Disinformation that "includes all forms of false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for profit". [The EU High Level Expert Group](#) (2018)
- *Alternative facts*
 - Falsehoods, untruths, delusions
 - A *fact* is something that actually exists—what we would call “reality” or “truth.” An *alternative* is one of the choices in a set of given options; typically the options are opposites of each other. So to talk about *alternative facts* is to talk about the opposite of reality (which is delusion), or the opposite of truth (which is untruth). <http://www.dictionary.com/>



Are statistics losing their relevance?



The long read

How statistics lost their power – and why we should fear what comes next

The ability of statistics to accurately represent the world is declining. In its wake, a new age of big data controlled by private companies is taking over – and putting democracy in peril
by [William Davies](#)

https://www.theguardian.com/politics/2017/jan/19/crisis-of-statistics-big-data-democracy?CMP=share_btn_tw



How do we compete in the post-truth world - relevant, visible and influential?

Statistical relevance (CoP principle 11)



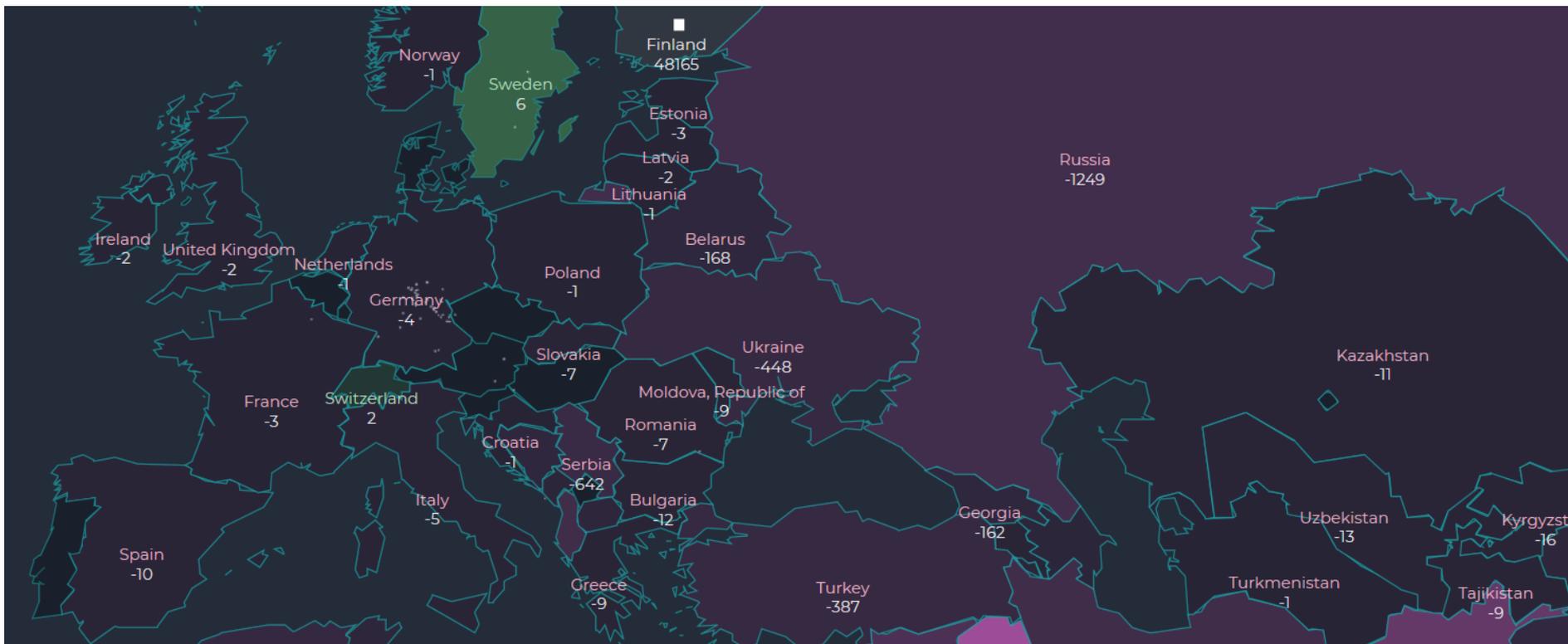
- Relevance concerns the object and phenomena that statistics describe
- It is particularly hard to conceptualise and operationalise complex or new phenomena
- Overshadowed areas in statistics production leave extra room for other data production

1. Less fake news and information by ensuring relevant data – four cases



Statistics and the truth – what we describe with our statistics

– population statistics as an example (1/2)

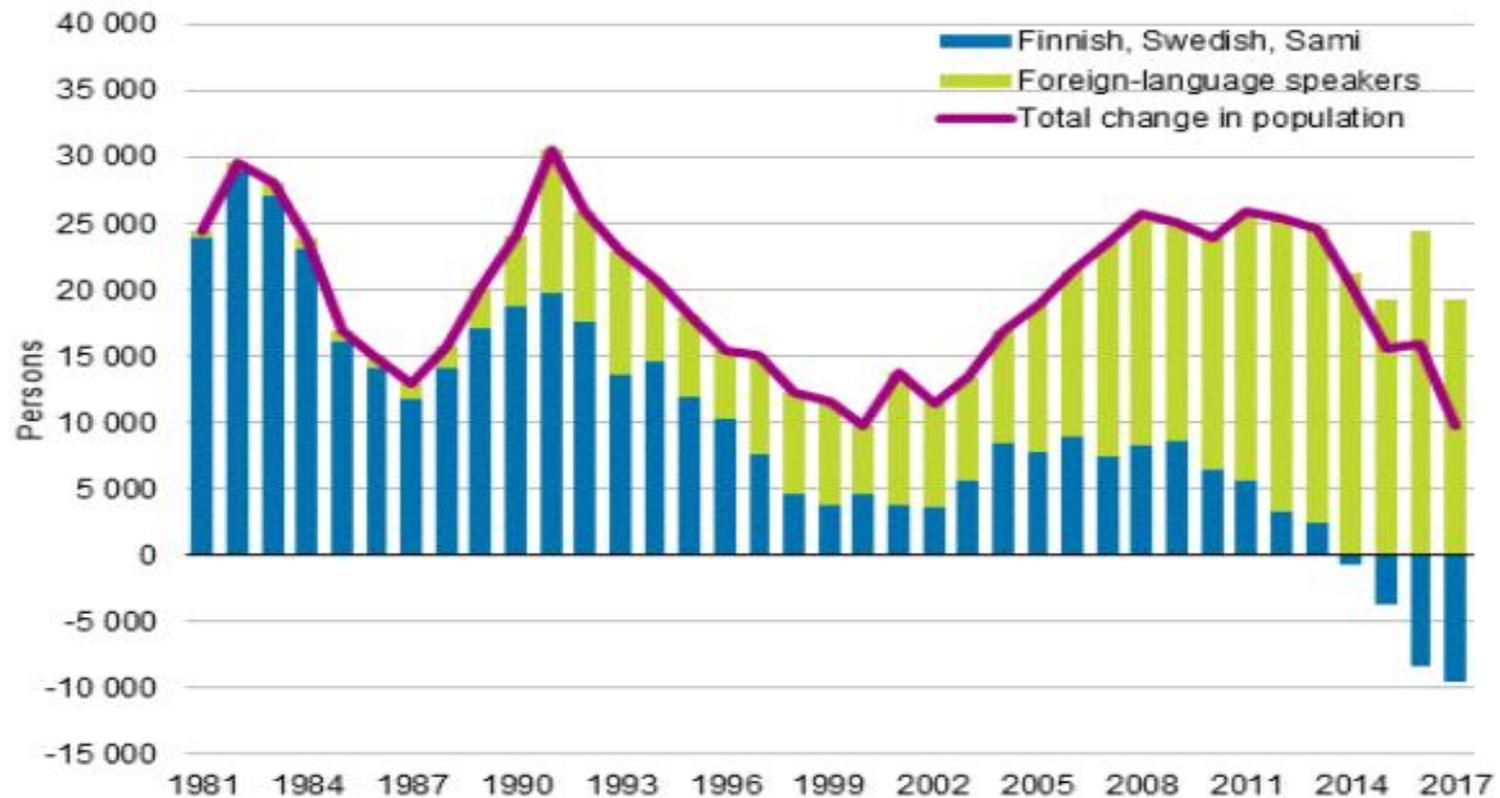


<https://www.lucify.com/the-flow-towards-europe/>

Statistics and the truth – what we describe with our statistics

– population statistics as an example (2/2)

Change in the population by native language in 1981 to 2017



Phenomena in a jungle of imperfect concepts – business statistics as an example

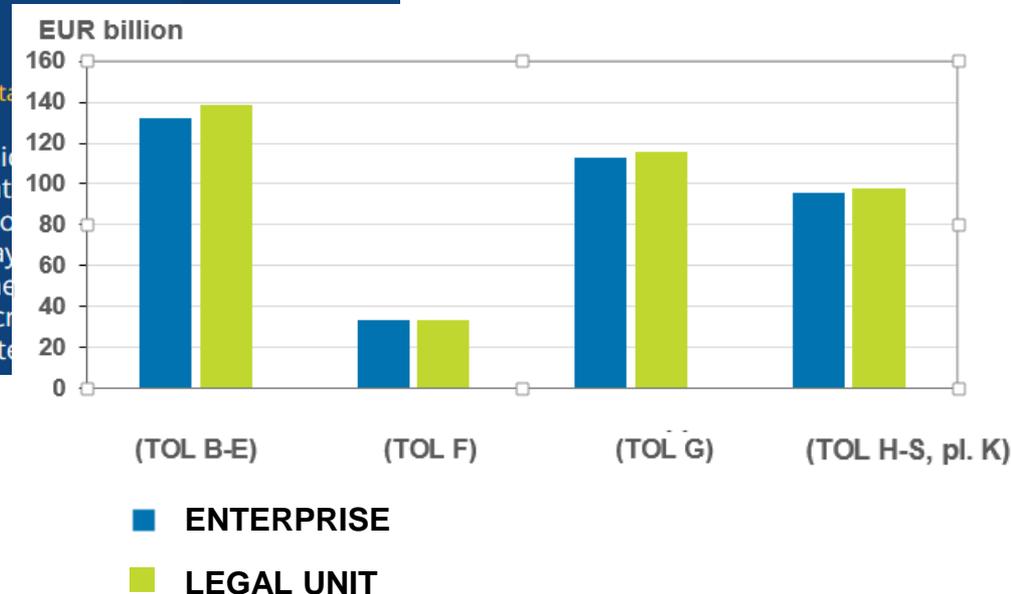
France's economic fabric more concentrated than it seemed

New definition and new categories of enterprises

Jean-Marc Béguin, Vincent Hecquet, and Julien Lemasson, *Business Statistics*

The new definition of French enterprises, based on economic description of the country's economic fabric. The profile that concentrated than was previously thought. In 2009, in the non-market sectors, 200 "large enterprises" employed 30% of pay one-third of market value added. That is more than twice the units with 5,000+ employees. The category whose share decreased of small and medium-sized enterprises (excluding micro-enterprises).

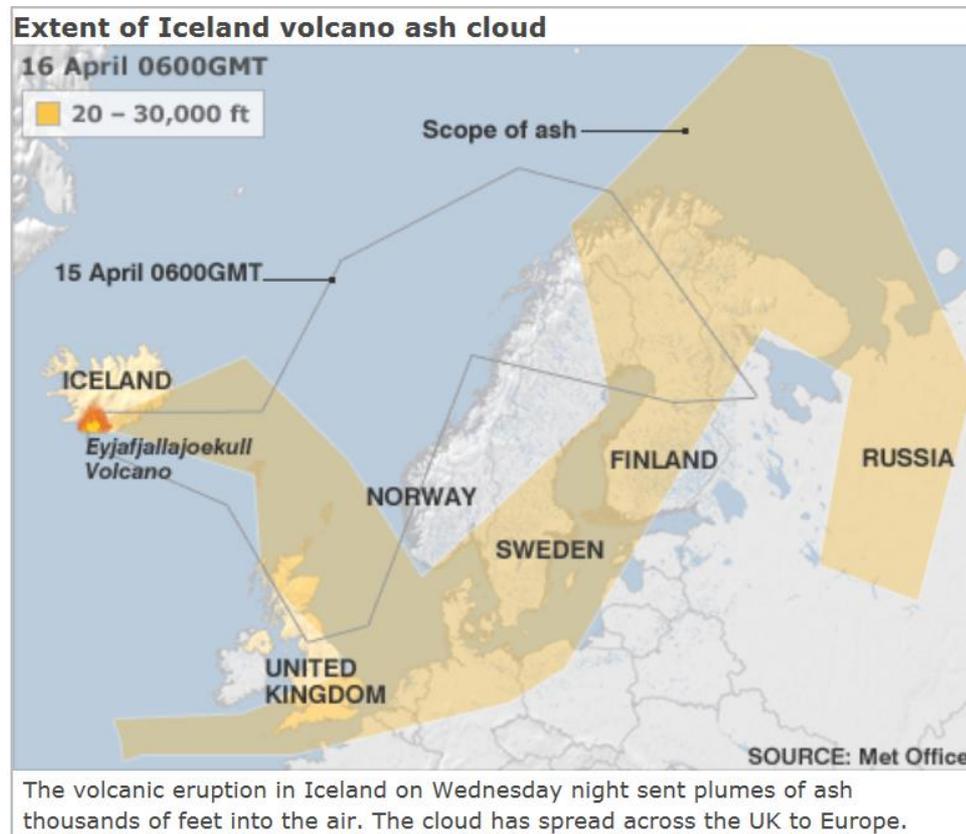
<https://www.insee.fr/en/statistiques/1281374>
(27.3.2012)



Turnover by industry in Finland

Source: Tieto&Trendit, Nurmela and Winberg 22.5.2018

Statistics on rapid social changes – ad hoc questions as an example (1/2)



<http://news.bbc.co.uk/2/hi/europe/8623534.stm> (assessed 5.5.2018)

Statistics on rapid social changes – ad hoc questions (LFS) as an example (2/2)



(21.9.2018)

KIKY-SOPIMUS

Puolet yksityissektorin työntekijöistä välttynyt työajan kiky-pidennykseltä - "Parannus voi jäädä saavuttamatta näillä toteutusmäärillä"

21.9.2017 09:40 JURIDIIKKAFOKUS TALOUS JA POLITIIKKA JOHTAMINEN JA TYÖELÄMÄ



Kikyn tuoma työajan lisäys jakautuu epätasaisesti, kirjoittaa Tilastokeskuksen ytiaktuvaari Henri Lukkarinen Tieto&Trendit -julkaisussa.

Mikael Pentikäinen @jmpentikainen shared a link
Minulla ei ole tiedossa syitä epäillä @Tilastokeskus laskelmia. Ne vastaavat aika lailla #yrittäjät kiky-näkemyksiä. hs.fi/politiikka/art...
published one hour ago | Twitter | Finland | twitter.com



Politiikka

EK tyrmää Tilastokeskuksen kiky-kyselyn: "Kaikki eivät ole välttämättä tajunneet, että työaika on pidentynyt"



Uusinta

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Tilastokeskuksen tutkijan mukaan kilpailukyky sopimukset puolet palkansaajista ilmoittaa, ettei kiky ole vaikuttanut



Kiky lisäsi naisten työaika enemmän kuin miesten



2. Less fake news and information by offering guidance, easy-to-use information and improving statistical literacy

3. Less fake news and information by agile releasing and recognition of change signals – for example experimental statistics



All of the factors that affect the relevance of social statistical description enable a vacuum that leaves room for assessment, estimates and, in the worst case, also for alternative facts.



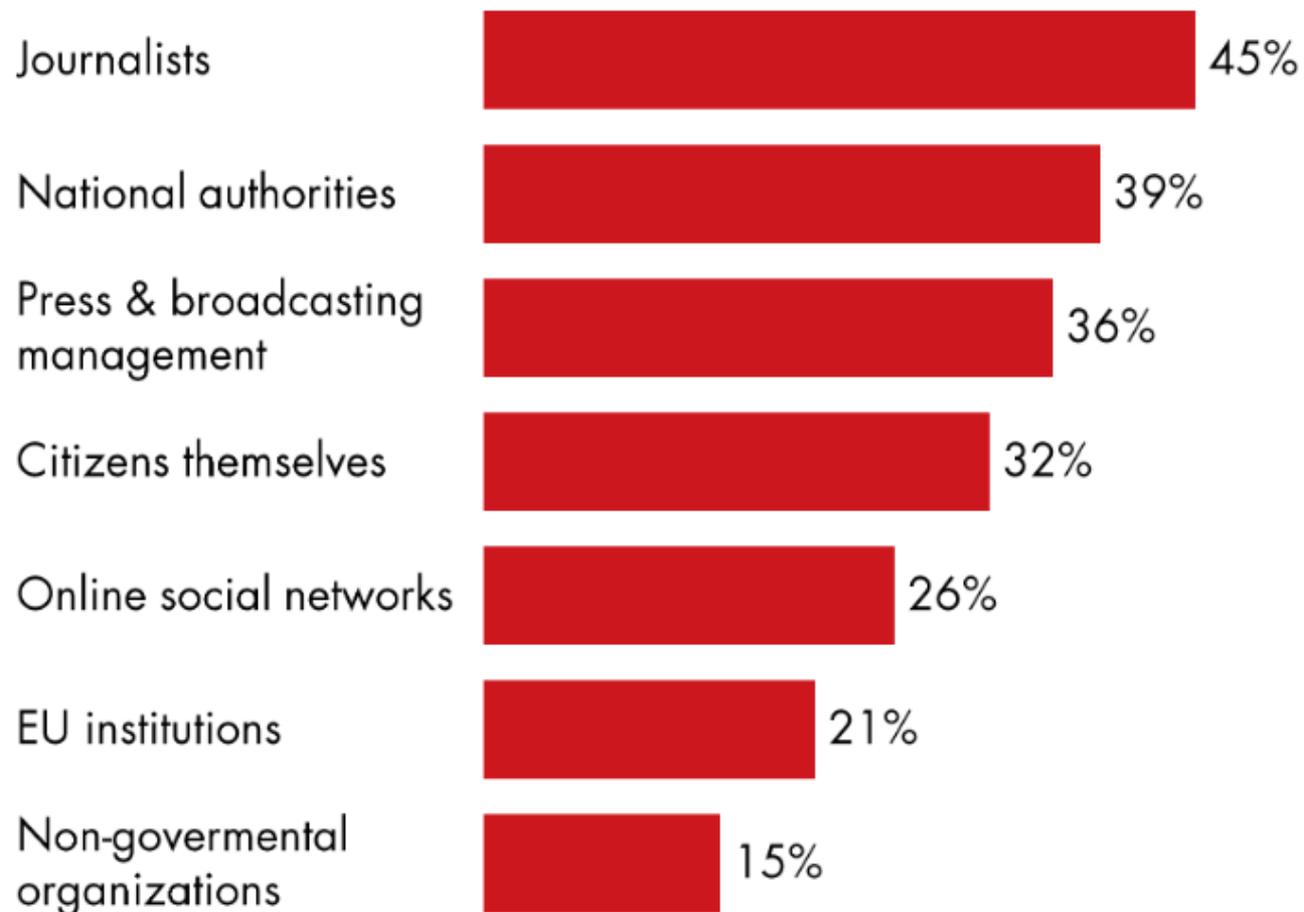
How to spot fake news and information?

Fake news and disinformation online: Eurobarometer

- 83% of respondents said that fake news and information represent a danger to democracy
- 68% of Europeans said they encounter fake news and information at least once a week



Who should act to stop the spread of fake news



Tackling disinformation

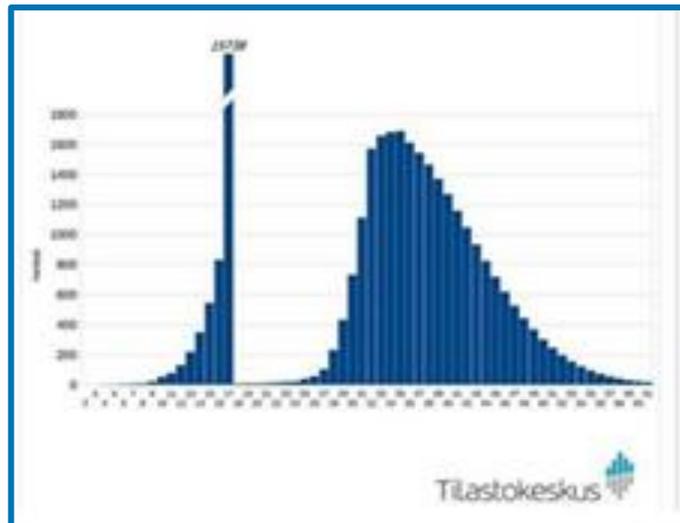
- Tackling fake news and disinformation has become a common challenge
- Neutral analyses and articles by experts are needed to counterbalance misconceptions
- Reliability can be weakened by other things than one's own actions: social media has a tendency to do this
- Trust in statistics is high, 85% of the adult population considers the data to be trustworthy

4. Less fake news and information through communication and active participation in discussions



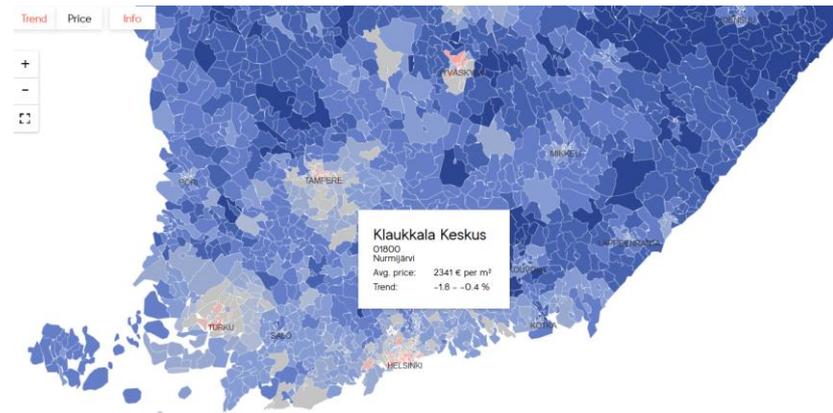
Tackling disinformation?

- Case fake news



Social media, 08/2017

- Case open data (CC 4.0, postal code data)



Thinking to buy or sell an apartment?



This visualization shows the price development of Finnish apartments predicted for 2018.

Please note that the service does not constitute investment advice, and past performance is not a guarantee of future results. Use the service at your own risk.

<http://kannattaakokauppa.fi/#/en/>

Participating in fact checking

- The European Commission is proposing measures to tackle disinformation online
 - EU-wide Code of Practice on Disinformation, for example:
 - Providing greater clarity about the functioning of algorithms
 - Enabling fact-checkers, researchers and public authorities to continuously monitor online disinformation
 - Support for an independent network on fact-checkers
 - <https://www.poynter.org/international-fact-checking-network-fact-checkers-code-principles>
 - Support for quality and diversified information
 - Enhancing media literacy



The role of communication – how to communicate and build new capacities?

NSI's have a responsibility to ensure that smart decisions are based on facts

FACTS

**THE WORLD
BECOMES DATAIZED**

**INFORMATION NEEDS
AN INTERPRETER**

**SMART
DECISIONS**



STAT

**Platform jobs are here to stay –
how to measure them? |
Tieto&Trendit**

The platform economy, also known as the sharing economy, is a new kind of economic activity. There an enterprise



Conclusion

- The statistical community has to ensure statistical relevance
- In the disruption of statistical data production, the processes of data production are changing rapidly
- Data are produced and analysed interactively in online and web media and we have to participate
- Good communication leaves less room for alternative truths and fake news



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