

Statistical Education and Public Statistics for Citizenship

Denise Britz do N. Silva

National School of Statistical Sciences

ENCE/IBGE



ENCE

Instituto Brasileiro de Geografia e Estatística IBGE



The contours – what is going on ?

Data deluge and information explosion

The AI Race

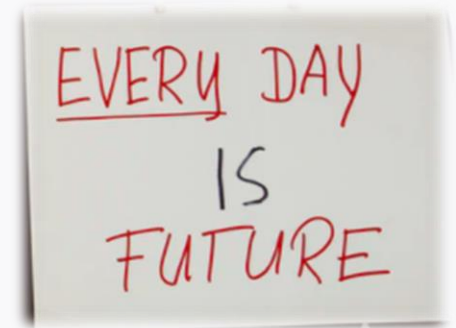
Social media and the transformation of society

Social media is changing how we govern and are governed

The complex relationship between social media and democracy

A pandemic-mode world

And...the pandemic is not the only thing that trembled the world in 2020



Public statistics and democracy

“In a democracy, decision making is ultimately made by the people, therefore statistics cannot only be the book-keeping of the state. It must be understood and used by many.”

(Hans Rosling)

“Democracy relies on the quality of data in the public domain, and the public’s trust in it..... The data is not enough.

A core skill of citizenship is an understanding of basic statistical concepts and the confidence to challenge the numbers that are thrown at us every day.”

(Hetan Shah, Executive Director of the RSS, 2011-2019)

Statistical and Data Literacy

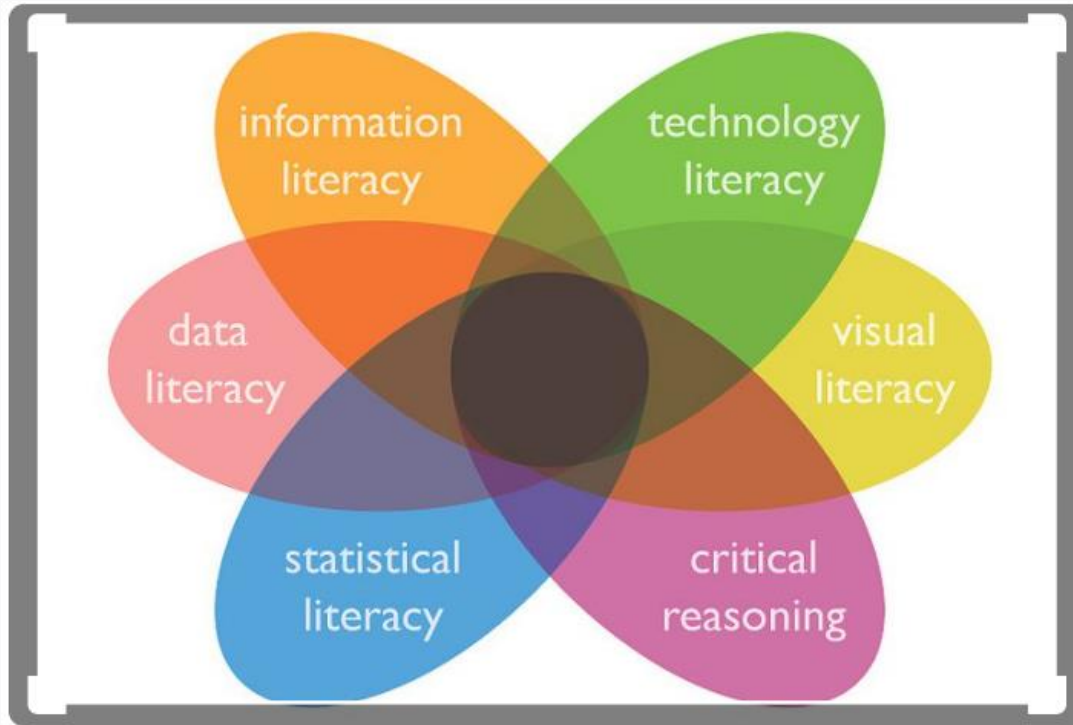
The need to understand our quantitative world

The role of data in a world of fact and fiction

How can we improve the quality of public debate using statistics?

How can we challenge those who cynically misuse statistics?

Capacity building for a data-driven society and attention to skills required to understand statistics about society



<https://teenliteracynow.wordpress.com/>

Data literacy: the ability to understand what data mean, including how to read charts and graphs, draw correct conclusions from data and recognize when data are being used in misleading or inappropriate ways.

Source: School of Data. <http://schoolofdata.org/handbook/courses/what-is-data/>

Data literacy = data information literacy
 statistical literacy
 numerical literacy
 numeracy
 research data literacy...

Public statistics and statistical education

Loads of the statistical information in media reporting

Abundant quantitative information about the state of society

On the other hand... post-factual/post-truth world that ignores or misrepresents empirical evidence

Statistical education to promote understanding of statistics about society



Educating youngsters for informed citizenship

Empowering the youngsters to:

understand society based on trusted data

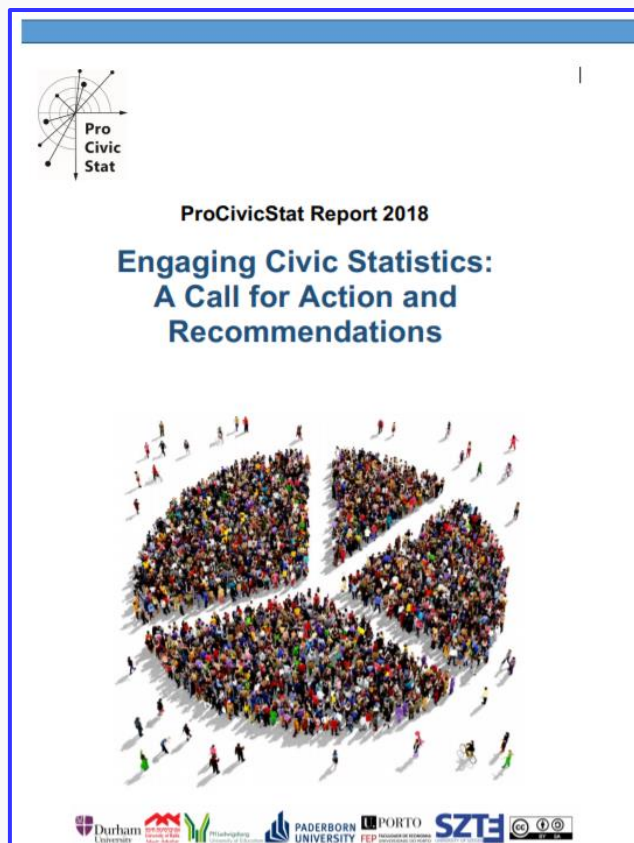
recognize how information can be used to make better decisions and improve our communities

Several dimensions but focus here is

engagement with civic statistics

Civic Statistics

Civic statistics: “statistics and quantitative evidence about key social phenomena that permeate civic life, such as migration, demographic change, crime, employment and poverty”




https://iase-web.org/islp/pcs/documents/ProCivicStat_Report.pdf?1545118071

Civic Statistics and Civic Numeracy to social justice advocacy

Numeracy, adult education, and vulnerable adults: a critical view of a neglected field

[Iddo Gal](#), [Anke Grotlüschen](#) , [Dave Tout](#) & [Gabriele Kaiser](#)

[ZDM](#) 52, 377–394(2020) | [Cite this article](#)

2398 Accesses | 7 Citations | 8 Altmetric | [Metrics](#)

“The upshot is that citizens who lack both functional and critical aspects of civic numeracy may be vulnerable or open to inequality or lack of social power in various spheres of life.”

Statistical education for understanding statistics about society

Statistics about society: multivariate phenomena, aggregated data, dynamic data (collected and presented over time), presented in texts, available from computer-mediated tools

Engagement with civic statistics for youngers, schoolteachers, undergraduates, and university lectures

Successful initiatives:

IBGE Educa (<https://educa.ibge.gov.br/>)

BSc in Statistics with a **core course/discipline on Public Statistics** at the National School of Statistical Sciences (ENGE/IBGE)

concepts of data, statistics, information, knowledge and information systems

meaning, limits and the use of statistical information as instrument of knowledge and action

IBGE EDUCA

Kids

Youngers

Information about the country and population to learn and participate

teachers

The screenshot shows the IBGE Educa website interface. At the top, there is a navigation bar with the Brazilian flag, 'BRASIL', and 'Serviços'. Below this are links for 'Participe', 'Acesso à informação', 'Legislação', and 'Canais'. The main header features the 'IBGE educa' logo and the text: 'O IBGEduca é o portal do IBGE voltado para a educação: com conteúdos atualizados e lúdicos sobre o Brasil.' Below the header, there are three main content areas, each with a red box around its title and a red arrow pointing to it from above:

- crianças** (Kids): Accompanied by an illustration of books, pencils, and a magnifying glass. Below the title is a red box containing the text: 'Quer descobrir o Brasil? Informações, brincadeiras, mapas e material para pesquisa. Para você aprender brincando!'.
- jovens** (Youngers): Accompanied by a photo of a young woman and a young man. Below the title is an orange box containing the text: 'Informações sobre o País e a população, numa linguagem simples e direta. Para estudar, conhecer e participar!'.
- professores** (Teachers): Accompanied by a photo of a man and a woman in a classroom setting. Below the title is a blue box containing the text: 'Atividades e recursos para suas aulas, com informações sobre o Brasil e suas várias realidades.'

<https://educa.ibge.gov.br/>

Racial inequalities in Brazil



DESIGUALDADES SOCIAIS POR COR OU RAÇA NO BRASIL

Falar sobre desigualdade social no Brasil é, também, falar sobre desigualdade racial¹. Esta afirmação é fruto das pesquisas realizadas pelo Instituto Brasileiro de Geografia e Estatística, o IBGE, que apontam que as pessoas pretas ou pardas são as que...

ICT Statistics



USO DE INTERNET, TELEVISÃO E CELULAR NO BRASIL

Confira os dados sobre o uso da “Tecnologia da Informação e Comunicação – TIC” no Brasil, em 2018. Ou seja, as questões relativas ao acesso à internet e à televisão e posse de telefone móvel celular para uso pessoal.

What does a statistician do?



O QUE FAZ UM ESTATÍSTICO?

Em dúvida sobre qual carreira profissional escolher? Já pensou na profissão de Estatístico? Conheça algumas áreas de atuação desse profissional.

INDICADORES SOCIAIS DAS MULHERES NO BRASIL



Confira dados do estudo *Estatísticas de Gênero: Indicadores Sociais das Mulheres no Brasil*, sobre temas como direitos humanos, saúde, educação, economia e representação política.

SAIBA MAIS

Check data for Gender Statistics

Social Indicators for Women in Brazil

Capacity Building Roles of the National School of Statistical Sciences (ENCE/IBGE)

Capacity building initiatives for the Public Service

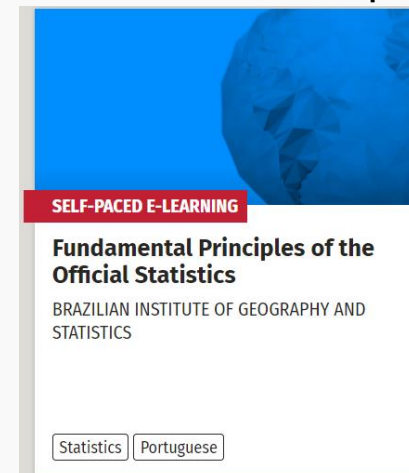
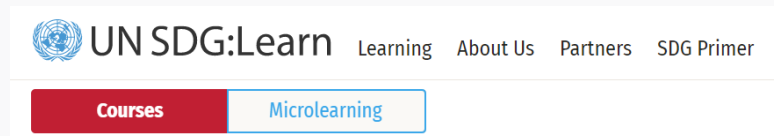
IBGE Virtual School

<https://escolavirtual.ibge.gov.br/>



Member of UN GIST

Global Network of Institutions for Statistical Training (GIST) is a network of international and regional training institutions, working together build sustainable statistical capacities through efficient, effective, and harmonized delivery of training.



Final Remarks

The need to include civic statistics in statistical education

The understanding of statistics about society is vital to an informed citizen

WE CAN DO THIS.





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