Workshop

Writing manuscripts for Official Statistics journals: Guidelines for practitioners and researchers:
8, 10 and 15 February 2022

ISI/ISR, IAOS/SJIAOS IASS/SS, StatisticsSweden/JOS, Statistics Canada/SMJ, Wiley, IOSPress

SESSION 2: FEBRUARY 10, 2022

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Some initial steps… clarify what you are going to say – and why? – the 'so what?'

(1) Pick a working title

(2) Map out story outline – chapter headings
- introduction   - introduction
- literature review   - problem
- methodology   - literature review
- results   - proposed solution
- discussion   - relative pros and cons of your solution
- conclusion   - conclusion

(3) Write short abstract

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Some additional planning

(1) Selecting a journal
- *Free / Pay*
- *Open / closed access*
- *Journal ranking / impact*
- *Content*
- *Turn around time*

(2) Schedule

(3) One paper or several?

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Writing alone or coauthoring?

(1) Selection of co-authors

(2) Allocate work, agree timelines, method (write simultaneously – cloud, word/latex…)

(3) Decide who is corresponding author

(3) Agree on style – will you use 'we' or keep it impersonal

(4) Final editor?

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Literature review (what – who – when)

(1) Provide context – history of progress or development

(2) Part narrative, part critique

(3) Balance 'grey' and 'white' literature

(4) Record as you go along (software tools available e.g. Zotero)

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Example

It was described by Hulme (2009, 4) as 'the world's biggest promise.'

Hulme, D. 2009. The Millennium Development Goals (MDGs): A short history of the world's biggest promise. BWPI Working Paper 100, Brooks World Poverty Institute, University of Manchester. Available at: https://www.unidev.info/Portals/0/pdf/bwpi-wp10009.pdf (accessed June 2018).
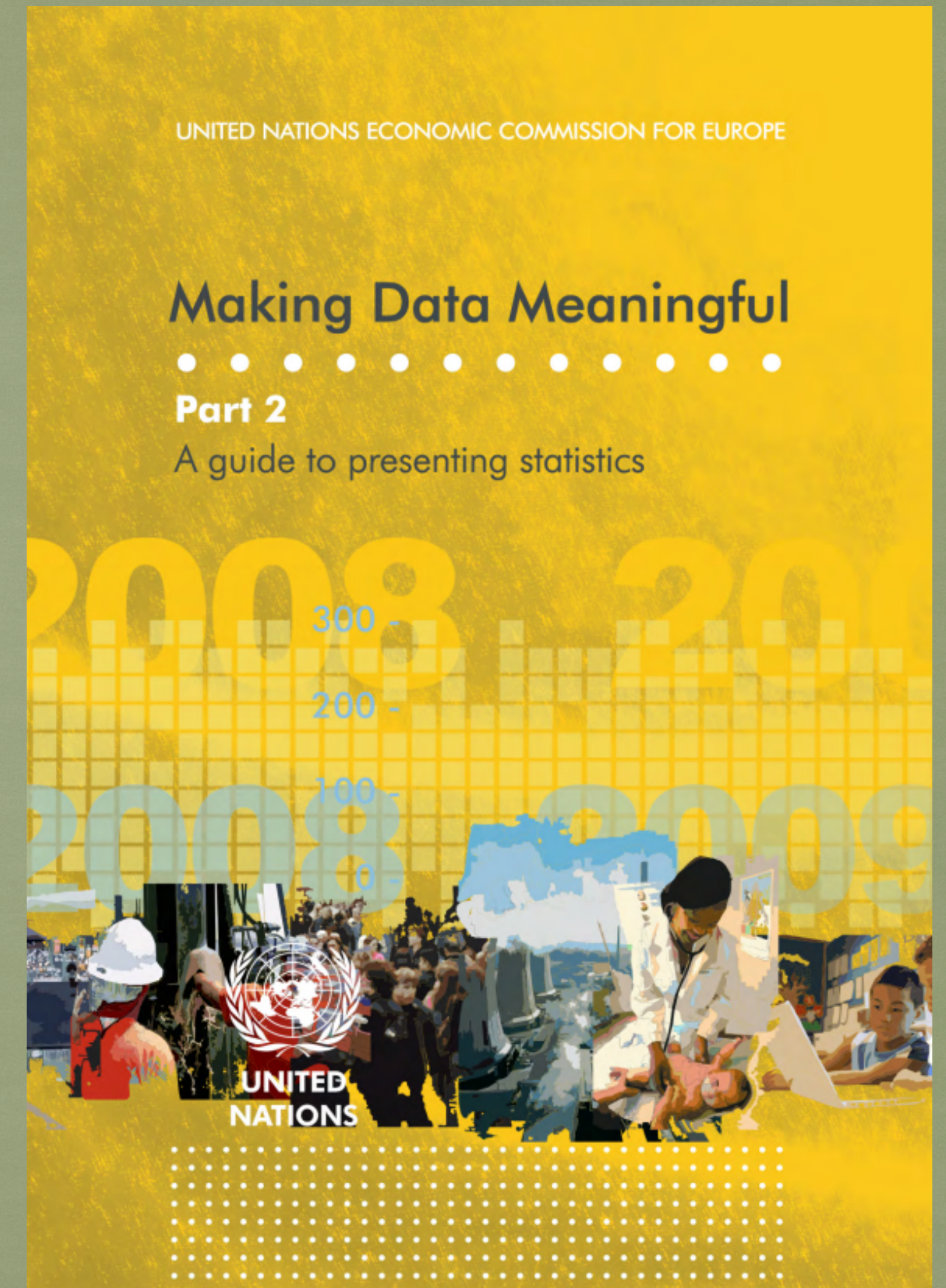

Taylor, L. (2006). The ethics of big data as a public good: which public? Whose good? The Royal Society. Philosophical transactions. Series A, Mathematical, physical, and engineering sciences. 2016 Dec 28; No. 374. Available at: http://doi.org/10.1098/rsta.2016.0126 [last accessed: 09.03.2020].

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Figures, Tables and Maps

(1) File and label figures/tables/maps properly – as you write –
    don't wait until the end

(2) Adhere to best statistical standards

(3) Make sure you have permission to use them (if reproductions)

(4) Record source, URL (if reproductions)

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

Making Data Meaningful

Part 2
A guide to presenting statistics

UNITED NATIONS

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Examples

Figure 1. The 6Vs of big data for official statistics.
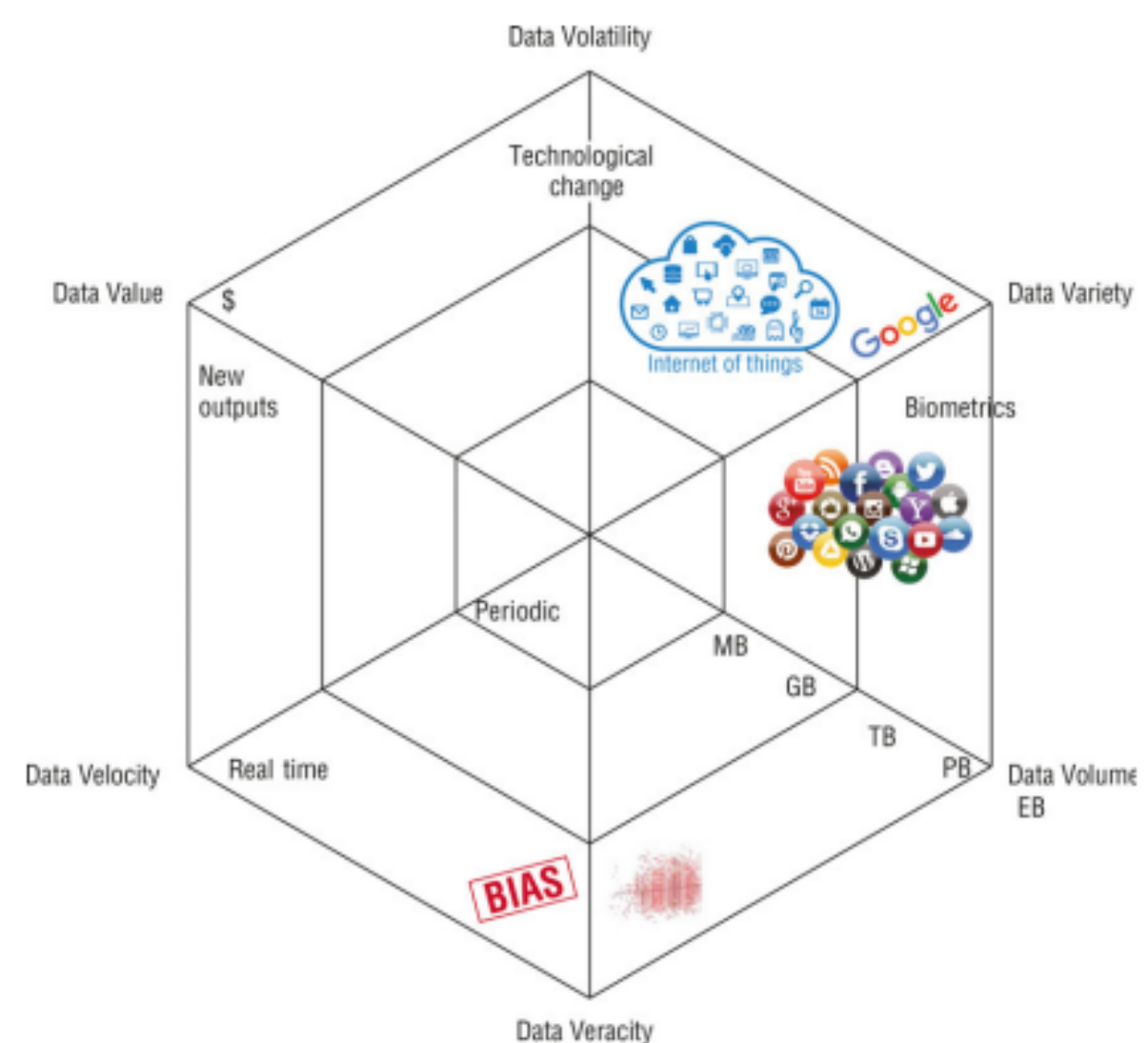Derived from Hammer et al. (2017).

Table 1. Big data sources and project topics registered by National and International Organisations on the UN big data project inventory

Data Source	National	International	Project topic	National	International
Web scraping	22	4	Prices	22	4
Scanner	20	1	Population/migration	10	4
Mobile phone/CDR	14	18	Transport/mobility	9	11
Social media	8	23	Geographical/spatial	8	7
Satellite imagery	6	7	Labour market	7	2
Smart meter	5	1	Agriculture/Land use	6	4
Credit card	3	1	Tourism	5	1
Road sensor	5	–	Health/disease	4	7
Health records	5	2	Energy/Enviroment	4	6
Ship identification	2	–	Crime/Corruption	2	4
Criminal records	1	2	Poverty/inequality	1	9
			Disaster risk reduction	–	8
Other	20	31	Other	31	24
Total	111	90	Total	109	91

Source: Authors own calculations derived from UN Big Data Project Inventory https://unstats.un.org/bigdata/inventory/ [examined on 27 April, 2018][13] .

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Informal review

(1) Save time – ask colleagues / friends to review paper

(2) Check for consistency – data are plural / singular or UK / US English (e.g s v z)

(3) Clean up grammar / spelling

(4) Use informal review to try and anticipate formal review process

(5) Especially important if you are writing in a foreign language

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Dealing with Reviewers Comments (and edits)

   (1) Read carefully – don't get defensive

   (2) You should try and address all of the points raised by the reviewers

   (3) Record changes carefully so that you can explain to editor

   (4) Detail changes on the paper (and in a separate note to editor) so that changes are clear

   (5) You can challenge a reviewer comment, but I wouldn't make a habit of it

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Submitting edits

Galley Proof   23/07/2021; 13:23   File: sji–1-sji210851.tex; BOKCTP/xhs p. 7

S. Damouras et al. / Training official statisticians for adaptive statistical practice   7

the decisions and choices they make have an impact. The selection of variables in a composite index; whether to weight or not; or the treatment of outliers, all affect not only the basic result but perhaps also the alignment to a political or economic ideology. This realisation becomes especially important when thinking about what 'evidence informed decision making' really means or the concerns expressed as 'Governance by numbers' [40]. This is a growing worry for many as algorithms (or what Tufekci has called 'semi-savant mini-Frankensteins' [41]) are playing an increasingly greater role in our lives, from deciding whether we get a loan to whether we are shortlisted for an interview [42,43].

Many other interesting debates are underway, not least, the 'End of Theory' argument posited by Anderson [44] that with the emergence of big data, correlation has superseded causation. In other words, hypothesis driven science is redundant. Whether one agrees or not,

specific requirements for training of official statisticians, both traditional and with an eye on the future. Nevertheless, as Zheng [47] points out, "for the everexpanding skill set and application of Data Science, we can never be able to teach our students enough 'coping skills' to handle each situation". In a world that is always changing, the objectives and function of Official Statistics need constant readjustment [48]. Of course, curriculum renewal is also a continuous process, but it is typically slow and trails developments in the field. So instead of trying to anticipate change, it is better to prepare students for future learning, that is to cultivate their "capacity to learn new information, to use resources effectively and innovatively, and to invent new strategies for learning and problem solving in practice" [49]. This should be an obvious requirement as statisticians, like any other professional, will need to continually update their practice over the lifetime of their career [15]. Nevertheless, this becomes critically important in a fast-changing discipline. In this section

3. Defining the 'Data Revolution'

Following the publication of *'A New Global Partnership'* the then Secretary-General of the United Nations, Ban-Ki Moon, established an Independent Expert Advisory Group on a Data Revolution for Sustainable Development, asking them to translate the broad-brush concept of a data revolution into something more concrete. In their subsequent 2014 report *'A World that Counts'* the expert group (or data revolutionaries) concluded that a data revolution is 'an inspiring vision of a world of fast-flowing data deployed for the public good, and of citizens and governments excited and empowered by the possibilities this creates' [10, p. 20]. They saw the data revolution as a dazzling vision of how data could support human development.[1]

in production, access to and use of data; Ultimately, more empowered people, better policies, better decisions and greater participation and accountability, leading to better outcomes for people and the planet' [10, p. 6].

The first definition aligns quite well with the concept of a revolution in 'data' as it focuses on the explosion of new data and new data sources arising from the digital

(Art.17 – Right to Erasure). Clearly the intention of this report is well intentioned and altruistic – their focus is on measurement to assist development. The idea that 'No one should be invisible' pre-empted the SDG call that 'No one is left behind' and which was translated for statisticians by Mogens Lykketoft, President of the seventieth session of the UN General Assembly, as 'leaving no one uncounted' [23]. But such an inspiring vision borders on totalitarianism – imagine Stalin, Hitler or several more contemporary leaders (or Silicon Valley CEOs for that matter) uttering 'No one should be invisible' or 'Leaving no one uncounted' and the aspiration takes a somewhat more sinister

Line 31 - please remove ' ' so that sentence reads ...report A World that Counts [10] could...

Line 151 - Please remove '_' so that sentence reads ...Persons A New Global Partnership [1] is... [*Please note new should be New*]

Line 602 - Please put Libre Culture Manifesto in italics

Line 640 - Please replace two sentences 'In economics literature, a public good is one that is both non-rival and non-excludable [45]. Stiglitz [46] has argued that data are public goods, meaning data are both non-rival and non-excludable.' With... Stiglitz [46] has argued that data are public goods, which in economics literature, means they are both non-rival and non-excludable [45].

Line 708 – please add 'every year' so that sentence reads '...held in early March every year.

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Poacher turned gamekeeper – acting as a reviewer

(1) Am I qualified?
(2) Do I have time to meet deadlines?
(3) Read paper – does it 'do what it says on the tin'?
(4) Any content missing?
(5) Is sequence logical?
(6) Is methodology appropriate?
(7) If a problem was identified – is a solution proposed?
(8) Is language / charts / tables / maps appropriate?
(9) Is discussion and inference reasonable?
(10) Conclusions sensible?