Data quality control in research evaluation: bridging the gap between libraries researchers and research offices

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2 BIG GAPS in Research Evaluation

What are we doing about it?

Is it enough? Is it even right?
01

2 BIG GAPS IN RESEARCH EVALUATION
GAP Nr. 1 = Research evaluation in the universities is “managed” at different levels by subjects that often do not even talk to each other, but they all have one common interest ...
GOOD QUALITY DATA
librarians are usually kept out of the loop and yet data quality control is at the top of their agenda and skills, at least in the bibliographic domain
GAP Nr. 2 = research evaluation is by definition uneven and non-collaborative: someone is judged by someone else
no improvement after the massive injection of supposedly “objective” bibliometric criteria in the (Italian) research evaluation system ... many people think it’s even worse than before!
the mother of all LIES: bibliometrics supports qualitative research assessment but cannot replace it ... look at the thresholds for the ASN or the VQR 2011-2014!
Okay, quick and dirty bibliometrics is all wrong, while criticisms, declarations and super manifestos against the Impact Factor are all right but ...
... can you tell me, tell me, tell me something I don’t know! Something I don’t know! (Selena Gomez, 2009)
we live in the afterglow of the Masters of Suspicion (Paul Ricoeur): is really anyone in the position to issue ethical standards in the 21st Century? Is really anyone following them?
why don’t you provide instructions and practical case studies of open (and free), good, reproducible bibliometrics instead of moral advices? I cannot find them anywhere!
In practical situations, the Impact Factor tells an obvious (but indisputable) story: it’s not the same to publish a research article in Angewandte Chemie or in Studia Universitatis Babes-Bolyai Chemia.
please don’t tell me “peer review is the solution” because peer review is part of the problem, we need something more

source: http://tinyurl.com/kdtg6h9
don’t tell me “altmetrics is the future” either because we don’t even know how to interpret altmetric scores, we need something more ...
... we need a ticket to the neverland where bibliometrics and peer review can really support each other, is such a place even conceivable?
02
WHAT ARE WE DOING ABOUT IT?
we decided to join forces and resources: the project for a inter-university bibliometric office was part of the three-year strategic development plan 2013-2015 of the three universities ... actual work started only in 2014
the collaborative effort enabled us to access both analytic platforms from Thomson Reuters (Clarivate) and Elsevier
be careful: they are NOT THE SOLUTION to internal research evaluation!!!
useful only if you put their data into a proper analytic framework, DO NOT GIVE THEM TO AUTHORS for self-made bibliometrics!!!
for starters we do what we are asked to do, no matter how meaningless it appears to be: we work at the assembly line of individual authors’ and administrators’ quest for numerical certainty ...
... but we also take a very good care of bibliometric data quality in WoS/Scopus and we are about to start the same quality control in the local CRIS (librarians are key part of the process)
claiming lost citations in Scopus, for example, is not a trivial job, especially when you work with bibliometric thresholds.

25 lost citations: correct count = 25 + 1
this is our main workflow:

- data quality control and cleaning directly in WOS/SCOPUS/IRIS
- ORCID as the tool for collecting identifiers of cleaned-up author profiles in the source databases
ORCID is **not a mirror of the CRIS**, we don’t need such thing in this early stage it works as a HUB connecting disambiguated author profiles in the source databases.
when (and if) authors will start using ORCID systematically during the manuscript submission process it will become possible to populate ORCID profiles (and consequently the local CRIS) automatically from the publisher websites

- ORCID is the only viable solution for building a sustainable national catalogue of Italian universities’ research output
what about the humanities? Our upcoming experiment in the next slide ...
03
IS IT ENOUGH? IS IT EVEN RIGHT?
we are starting to store up good data, what’s next???
• bibliometric data and indicators are dangerous if used as one-dimensional ranking tools: we need to build meaningful stories around them
• let’s call report the container of this story and let’s see some key parts of a report for the individual and the department...
QUANTITATIVE (INDICATORS)

- activity analysis (productivity)
- authorship and collaboration
- citations 1: publications
- citations 2: journals
- alternative impact (e.g. technological, social)

QUALITATIVE (INTERVIEW)

- information searching and management
- publication and citation habits
- open access and sharing attitudes
- evaluation attitudes
- self-peer-review
looking forward to add **INPUT INFORMATION** in the report for each individual researcher: how much money he/she got from national or international projects and private funding.
QUANTITATIVE ANALYSIS: SAME AS WITH THE AUTHORS BUT AT DIFFERENT AGGREGATION LEVELS

- individual publications
- individual authors
- authors subgroups by subject area
- whole department vs. Italy/World (benchmarking through InCites/SciVal)
the report is both an **explorative** and a **ranking** tool, but in a critical sense, let’s see two examples before ending this presentation ...
this is a scatterplot showing, for each of the 26 geologists of a department, the number of publications indexed in WoS/Scopus (horizontal axis) vs. the number of publications indexed in the local CRIS (vertical axis): for the red-dots-authors the difference is too big, maybe bibliometrics is not an adequate tool for them
Correlation table between rankings based on different publication and citation-based indicators relative to 28 chemists of the same department. Correlations are almost all strong and significant: there’s a good chance that a chemist ranking high according to one indicator performs equally good also on the others.

**TABELLA 13. Correlazioni di Spearman tra i ranking dei chimici (N = 28) del DSCG sulla base delle principali misure di produttività e impatto.**

<table>
<thead>
<tr>
<th>SCENZE CHIMICHE</th>
<th>Pubblicazioni</th>
<th>Collaborazioni Internazionali</th>
<th>Citazioni</th>
<th>Citazioni (No Autocitazioni)</th>
<th>% UnCited</th>
<th>CPP</th>
<th>H Index</th>
<th>H Index (No Autocitazioni)</th>
<th>G Index</th>
<th>G Index (No Autocitazioni)</th>
<th>FWCI</th>
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</thead>
<tbody>
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<td>1</td>
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<td>0.975</td>
<td>0.946</td>
<td>-0.327</td>
<td>0.539</td>
<td>0.970</td>
<td>0.918</td>
<td>0.947</td>
<td>0.877</td>
<td>0.587</td>
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<td>Collaborazioni Internazionali</td>
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<td>0.972</td>
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<td>-0.400</td>
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<td>1</td>
<td>-0.301</td>
<td>-0.381</td>
<td>-0.244</td>
<td>-0.385</td>
<td>-0.370</td>
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Nota: Tutti i coefficienti in grassetto sono diversi da zero al livello di significatività $\alpha = .05$. 
THANK YOU!