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UNIVERSITÄTS
BIBLIOTHEK

**„Wir schaffen das!“
Universitätsbibliotheken als
bibliometrische Servicedienstleister im
Spagat zwischen Wissenschaft und
Administration**

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***Bibliometrics &
Publication Strategies***

Vienna University Library



Background: Why bibliometrics?

- Scientific publication output has been increasing constantly and incessantly within the last decades
→ almost one publication per second!
- the “publish or perish” dilemma (especially for juniors)
- more competition



Background: Why bibliometrics?



"I don't mind your thinking slowly. I mind your publishing faster than you can think."
(The Nobel Laureates physicist Wolfgang Pauli)



HOW WAS YOUR SPRING BREAK?

GOOD. I GOT A GRANT APPLICATION FINISHED, A BOOK REVIEW DONE, THREE PAPERS SUBMITTED AND AN EXAM PUT TOGETHER. HOW ABOUT YOU?



Un-tenured Professor

GOOD. I WENT SKIING IN COLORADO.



Tenured Professor

JORGE CHAM © 2013



Background: Why bibliometrics?

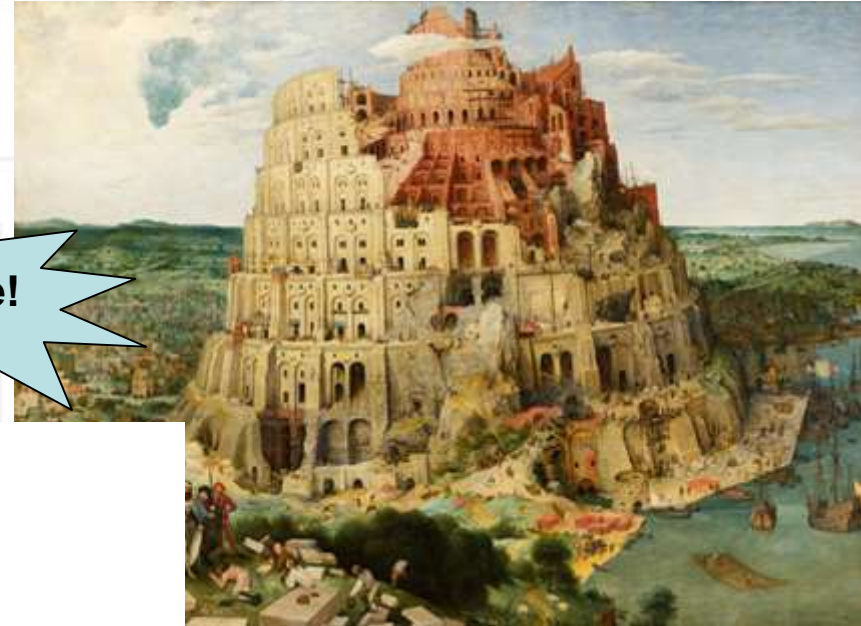
- Scientific publication output has been increasing constantly and incessantly within the last decades
→ almost one publication per second!
- the “publish or perish” dilemma (especially for juniors)
- more competition
- the crisis of peer review → informed peer review
- multidimensional research
- excessive exchange of information through the web 2.0
- advancement of the new metrics



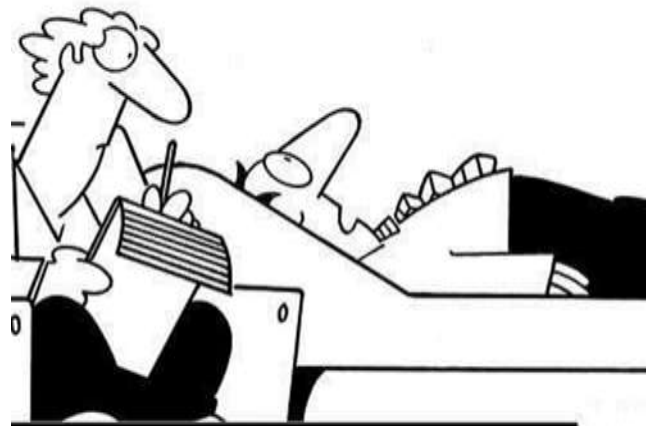
Background: Why bibliometrics?



Excessive!



Change of the habits



Ever since I signed up for Twitter, I get the feeling that people are following me!"

Privacy!



Bibliometrics – a perfect fit for scientific libraries

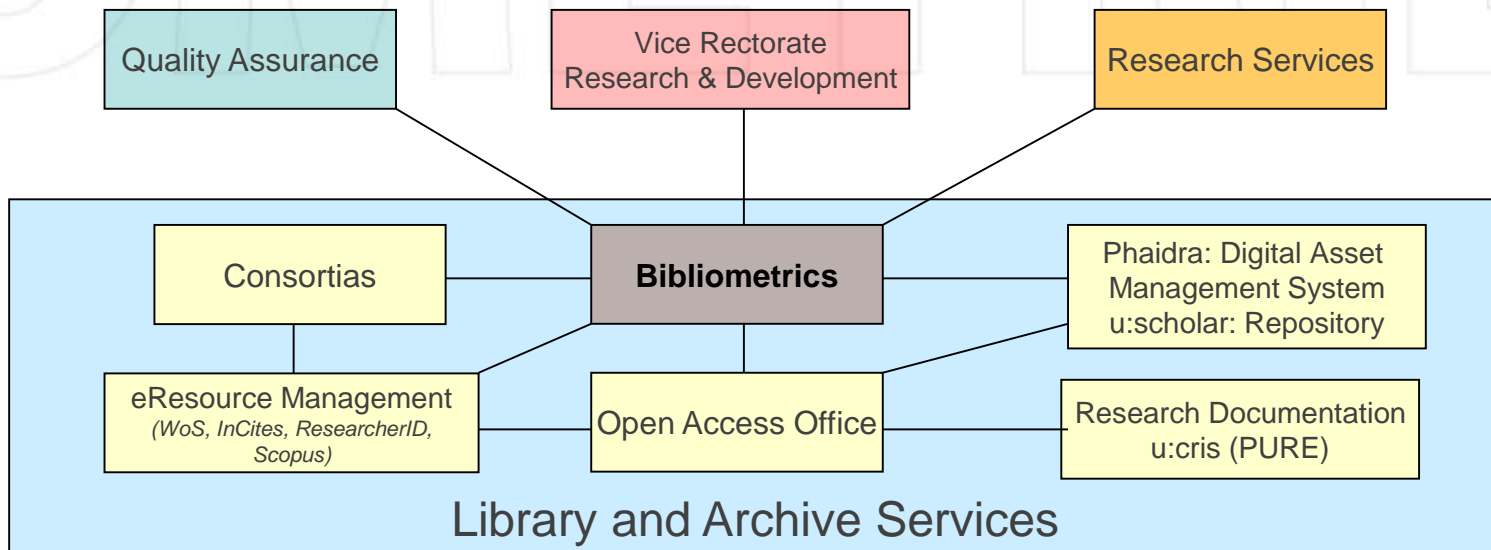
- Librarians are information specialists
- Librarians are used to work with metadata, search engines and databases
- Libraries do already collect necessary content (publications) and license required tools (databases)
- Libraries are independent and interdisciplinary institutions
- Libraries can provide up-to-date usage statistics for the construction of current usage metrics



From a bibliometrics working group towards a dedicated department

2006 → formation of working group „Scientometrics“

since 2008 → Bibliometrics Department implemented as part of Library and Archive Services





Our departmental philosophy

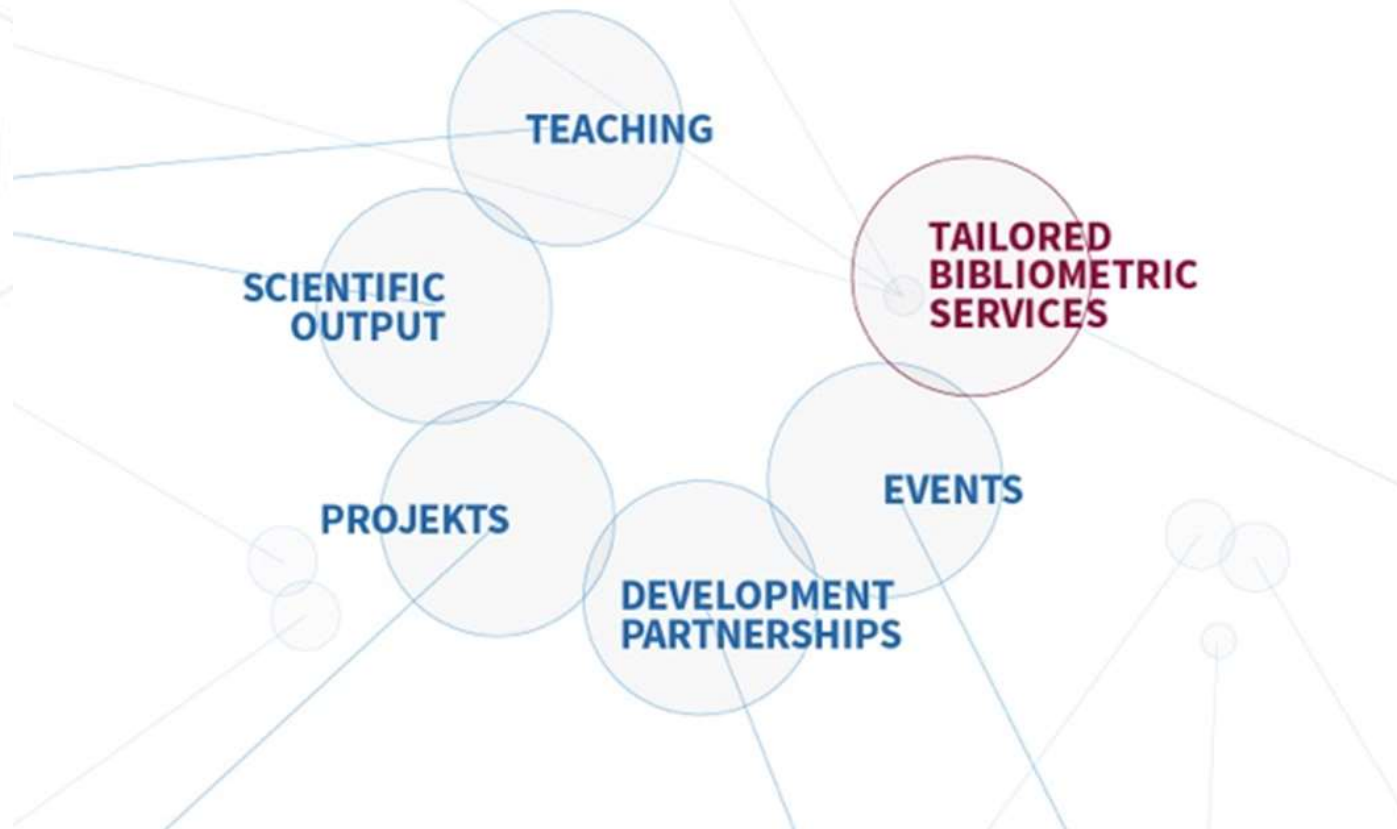
- to stimulate a positive attitude towards bibliometrics
- to support scientists in 'publish or perish' dilemma: (especially for young scientists)
- to enhance the visibility: the institutional one (Rankings & Web presence) as well as the individual one (adoption of permanent identifiers, help and assistance in the promotion game)
- To prevent administration from bad use of bibliometric practices and incorrect interpretations (stimulating informed peer review)



"My philosophy is to think up a new philosophy whenever I need one."



Departmental activities





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BIBLIOMETRIE

METRI

**TAILORED
BIBLIOMETRIC
SERVICES**

BIBLIOMETRIE



TAILORED BIBLIOMETRIC SERVICES

FOR RESEARCHERS

- basic trainings
- Individual consultations
- Personal bibliometric profiles
- Publication strategy workshops
- Consultation for journal editors



Benefits of Bibliometrics for Scientists

- Which are the key players (authors, institutions, countries, etc.) in my research field?
- What are the "hot topics," and „hot papers“ in my research field (emergence)?
- What are the citation classics in my research field (knowledge basis)?
- How current are my references (state of the art)?
- How visible are my publications? How can I increase their visibility (publication strategies)?
- How big is the impact of my publications (alert services)?
- How many citations do I need to belong to the „best“ (excellence)?
- Who are my potential competitors/collaborators?
- How does my research output fare in comparison to my competitors/collaborators?
- Who are my potential funders (funding agencies)?



Bibliometric reports for individual scientists

- **Interview with researcher**
- Bibliometric analysis of a defined time period (last ten years)
- Discussion of the results with researcher
- Optional: delineation of hot topic (guided by researcher)
& benchmark with other leading scientists in the same research field



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FOR RESEARCH MANAGEMENT

- reports for individual evaluations
- reports for faculty evaluations
- reports for professorial appointment procedures
- monitoring of adopted institutional policies
- monitoring of the institutional web impact



Framework requirements for bibliometric analyses and some recommendations

Framework requirements

- Selection of appropriate data sources
- Coverage in data bases
- Differentiation of publication types
- Defined publication & citation windows

Recommendations

- Use several databases (at least 3, “librarian rule”)
- Use also subject-specific databases
- Citation data sources (WoS, Scopus, etc.) allow better insight
- Google Scholar as an additional source
- Consideration of the new metrics (usage metrics & altmetrics) in an explorative way
- Use many simple and basic indicators → keep it simple and easy to understand!

Bibliometric profile: multidimensional approach





Bibliometric reports for individual professors

- some professors are being evaluated 5 years after their appointment under the terms of their contract
- depending on the discipline the rectorate asks the Bibliometrics Department for a bibliometric report
- *Such reports are only complimentary to the professor's self-assessments and are always generated and finalised in mutual agreement between the Bibliometrics and Publication Strategies Department and the professors to be evaluated*
- *Once finalised these reports are checked by the Quality Assurance Department and then forwarded to the rectorate and the peers*



Bibliometric reports for faculties

- Periodic and cyclic evaluation of publication output of the 15 faculties and 3 centres (approx. 4 year cycle)
- „Performance Agreements“ between rectorate and faculty prepared by Quality Assurance Department
- Discussion if and to what degree a bibliometric analysis makes sense
- Analyses based on enhanced data provided by InCites, which has been implemented to reflect the actual organisational structure of the Vienna University (from faculty to research group)
- *Reports are NOT results of evaluation, but a discussion paper presented to the dean in advance, to the selected peer in revised form, and to the rectorate in revised and annotated form*
- Optional: benchmarking via InCites (only possible in certain subject areas or categories, however, not on organisational/structural level)



Professorial appointment procedures

- offered service for faculty administration to analyse applications for vacant chairs (in collaboration with Quality Assurance department)
- critical discussion about standards and criteria deemed as important by faculty
- agreed standards and criteria then applied to analyses of either all publications retrieved from database searches and/or provided publication lists

Main characteristics:

- Preference of basic instead of composite indicators
- Top counts approach allows for the multi-dimensionality of the analyses → taking into account different publication cultures as well as different strategic considerations in a flexible way



Example: Tops Counts

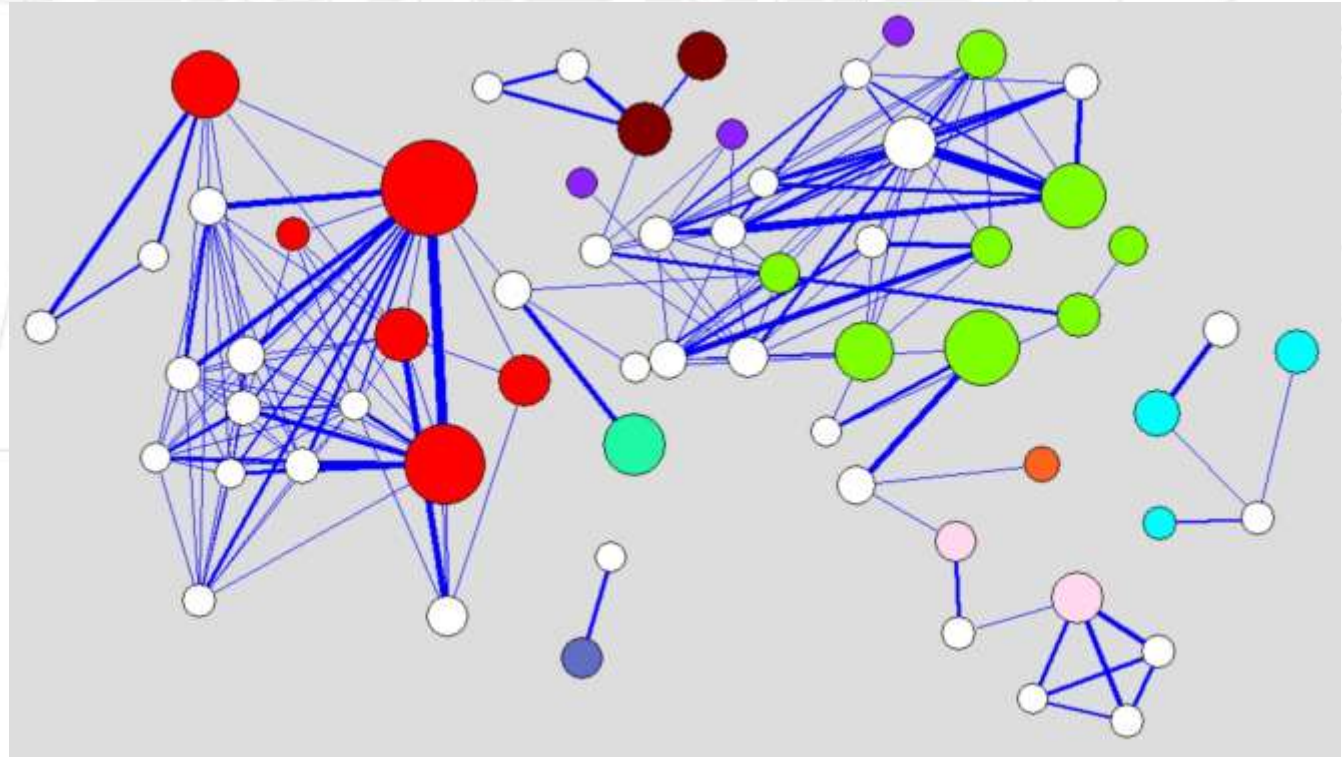
Candidate	Activity										# Authors per Paper 2003-2012	% First OR Last OR Corresp AU	Visibility										Impact					% Self-citations 2003-2012	Top 5 - Counts		
	Year 1. Publ. WoS	Count 2003-2012											A/R/PP per Year	Quartiles					Impact												
		Document Type (DT)												only A/R/PP					All DT					A/R/PP (2003-2012)							
		Total	A	R	P	E	M	A	O	R/PP				Sum	per P	Max	Q1	Q2	Q3	Q4	% Q1	Sum	per P	Max	All DT (2003-2012)	ARPP (2003-2012)	ARPP (2003-2012)			ARPP (2003-2012)	ARPP (2003-2012)
1	2006	13	12	1	0	0	0	0	13	1.86	4.61	53.85%	53.53	4.12	12.17	8	2	3	0	61.54%	100	7.69	28	6	4	30.77%	1	7.69%	11.00%		
2	1994	29	19	7	1	2	0	0	27	2.70	5.89	44.44%	74.97	2.88	6.53	19	3	3	3	67.86%	964	35.70	275	16	13	48.15%	4	14.81%	11.07%	2	
3	1994	28	28	0	0	0	0	0	28	2.80	7.96	50.00%	59.84	2.30	3.66	13	7	1	5	50.00%	418	14.93	50	13	9	32.14%	0	0.00%	14.11%		
4	2001	50	43	3	0	0	2	2	46	4.60	4.80	65.22%	150.97	3.28	10.35	23	16	9	2	46.00%	633	13.19	55	14	13	28.26%	2	4.35%	15.86%		
5	1995	15	14	1	0	0	0	0	15	1.50	4.33	60.00%	34.34	2.45	9.49	1	11	2	0	7.14%	200	13.33	51	7	4	26.67%	0	0.00%	7.50%		
6	2002	18	15	0	0	0	3	0	15	1.50	2.94	86.67%	36.69	2.45	4.14	3	11	3	1	16.67%	427	28.47	121	9	6	40.00%	2	13.33%	5.39%		
7	1993	31	22	5	0	4	0	0	27	2.70	2.84	96.30%	86.06	3.31	6.74	23	6	1	0	76.67%	528	19.56	68	16	19	70.37%	0	0.00%	26.85%	2	
8	2000	16	11	4	0	1	0	0	15	1.50	3.69	60.00%	37.40	2.49	6.28	8	6	1	1	50.00%	216	14.40	33	9	3	20.00%	0	0.00%	11.01%		
9	1998	16	12	3	0	0	1	0	15	1.50	3.37	100.00%	34.97	2.33	5.68	8	5	2	1	50.00%	308	20.53	122	8	7	46.67%	0	0.00%	11.65%		
10	2001	17	14	1	0	0	2	0	15	1.50	7.23	33.33%	124.70	8.31	38.60	14	2	1	0	82.35%	348	23.20	69	11	8	53.33%	2	13.33%	3.45%	3	
11	1994	67	57	6	2	1	0	1	65	8.13	14.04	13.64%	492.01	7.81	38.60	51	7	6	1	78.46%	4358	67.05	1288	29	41	63.08%	16	24.62%	4.63%	18	
12	1997	66	56	6	0	3	0	1	62	6.20	5.42	53.23%	350.44	5.74	38.60	57	3	4	1	87.69%	2210	35.65	438	26	35	56.45%	5	8.06%	8.91%	12	
13	1991	110	102	7	0	0	0	1	109	10.90	8.49	55.96%	242.42	2.33	38.60	24	17	53	11	22.86%	2757	25.29	596	20	25	22.94%	11	10.09%	14.18%	8	
14	1985	157	138	8	0	8	1	2	146	14.60	9.91	30.14%	354.08	2.51	38.60	42	33	66	11	27.63%	3994	27.36	596	31	54	36.99%	14	9.59%	16.68%	13	
15	1991	26	17	7	1	1	0	0	25	2.50	3.42	80.00%	172.99	7.21	38.60	17	5	3	0	68.00%	777	31.08	118	16	15	60.00%	5	20.00%	4.63%	4	



BIBLIOMETRIE

METRIE

**Example:
Candidates
network**





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FOR THE LIBRARY

- support of strategic decisions
- enrichment of research documentation
- development of new library specific indicators

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- reports for individual evaluations
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TAILORED BIBLIOMETRIC SERVICES

EXPERT ANALYSES FOR EXTERNAL CUSTOMERS

- institutional research output assessment
- collaboration analysis
- evaluation of research funding programmes

FOR RESEARCHERS

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FOR THE LIBRARY

- support of strategic decisions
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Lessons learned and conclusions: “from a nuisance to a valuable asset“

- All researchers and faculties could finally embrace the advantages of a thorough bibliometric report.
- On the other hand we bibliometricians gained insight into many interesting aspects of a researcher’s daily routine and learned much about discipline-specific publication habits.
- Bibliometric assessment is certainly complex and time-consuming... Each researcher and faculty is unique and has a particular history and different skills. Just as each discipline has a particular publication culture.
- However, it can provoke positive changes on individual or faculty level, which in the long run are also beneficial for the institution itself. The outcome can even be enhanced by policies (affiliation, publication strategy, open access and other policies), which – to come full circle - take effect at individual and faculty level.



Lessons learned: Retrospective PAP analyses

- to refrain from self-reported bibliometric information
- instead, application guidelines should require the strict assignment of the candidate's publication output to given document types
- application guidelines should encourage and recommend the use of a correctly updated personal identifier such as ORCID (or ResearcherID)
- Routine bibliometric analyses provided by experts should become a standard in application procedures in order to avoid quick and dirty bibliometric practices by peers as well as final decisions based on solely subjective criteria and processes

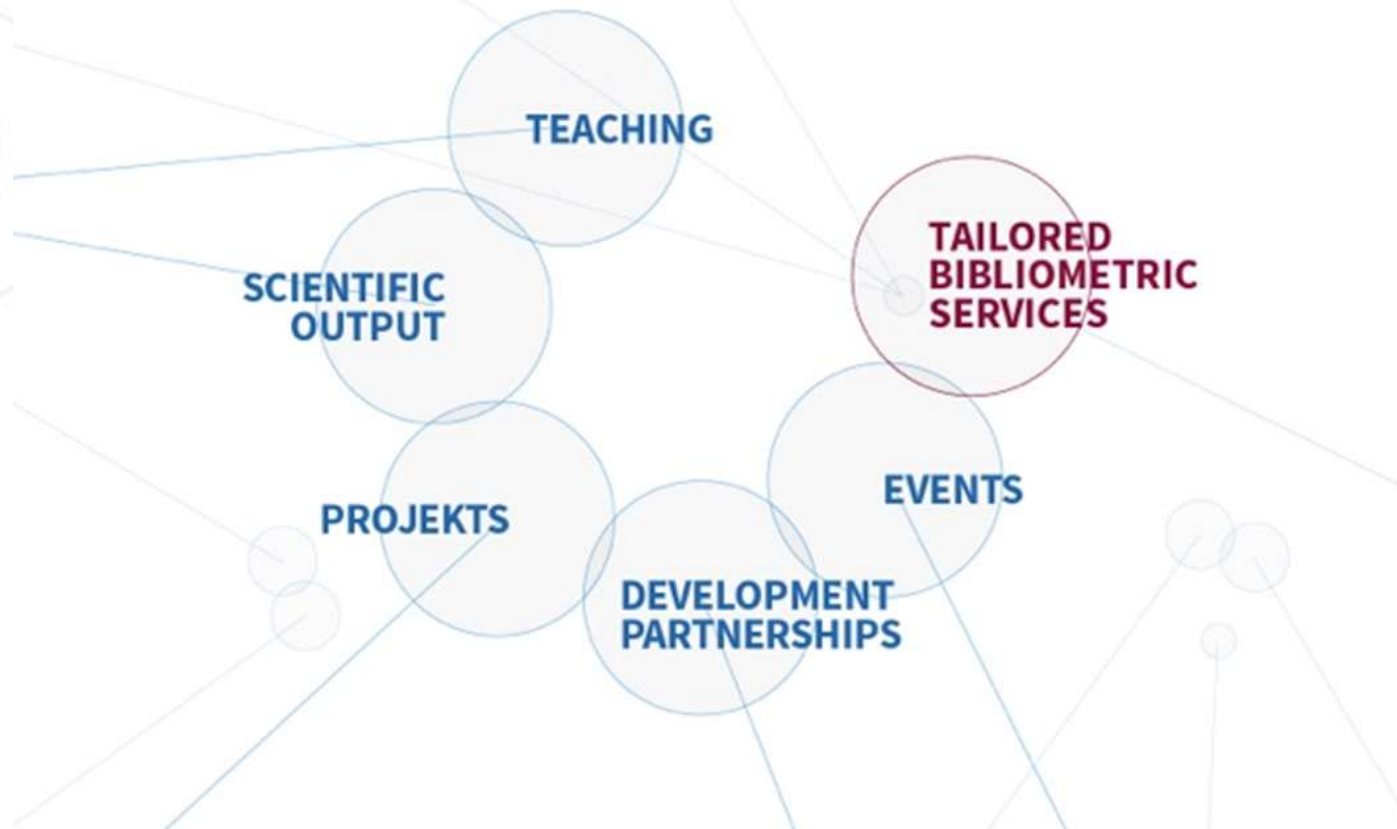


Conclusions & outlook

- Positive feedback from researchers, research managers and peers
- Growing reputation and expertise
- Increasing demand in all services
- Expanding the portfolio of services
- Consolidation of bibliometric services as a permanent task of modern scientific libraries
- Towards a standardisation (cataloguing rules for research documentations in order to enable a compound and sharing structure, standards for bibliometric approaches & methods, etc.)
- Modern scientific libraries facing the challenge of the new digital era and the upcoming new metrics → to provide adequate new innovative services



Departmental activities





Projects

- Bibliometrics survey in Austria (2010-2011)
- e-infrastructures Austria (2014-2015) - Cluster B: Planning and implementation of a „National Survey“ for research data (<https://www.e-infrastructures.at/>)
- OANA – Open Access Network Austria (<http://www.oana.at/>) Checklist OA-journals: http://www.oana.at/fileadmin/user_upload/p_oana/oana/OANA-Checklist-OA-Journals_en.pdf
- Increasing the visibility in the Arts & Humanities (2016-2018) <https://doi.org/10.5281/zenodo.400965>
- European Summer School of Scientometrics (esss) <http://www.scientometrics-school.eu/>
- BIPCAL - journal and platform (University of Regensburg, University of Vienna), <http://www.bipcal.org>




Professional Journal in **bibliometrics, scientometrics, alternative metrics** and related topics

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- Open Access
- Supplementary materials

BIPCAL - Editors
Dr. Juan Gorraiz (UB Wien)
Dr. Gernot Deinzer

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Thank you for your attention!



Looking forward to seeing you in Berlin 2017!