

Interpretation Guide for the Senate Habilitation Directive (pursuant to Annex 6 of the WU By-Laws) issued by the Department of Information Systems and Operations Management (ISOM)

October 2025

This regulation is intended to further specify the general Senate Habilitation Directive with regard to cumulative habilitation theses.

1. A series

For a cumulative habilitation, candidates are expected to publish *a series* of at least five excellent academic articles on thematically related scientific topics with each article offering distinctive contributions. The articles must have been published in very good periodicals (see below). The number of articles indicated above serves as a reference point and may be reduced if the habilitation candidate has produced and published groundbreaking scientific achievements. Typically, the academic articles are published in journals. However, contributions to excellent conference proceedings may also be included. The candidate is also expected to have authored additional publications or presentations at conferences in the addressed field.

2. Excellent academic articles

Only those publications can be considered excellent that have been subjected to the usual rigorous academic peer-review process, meet appropriate scientific standards, and are recognized by the scientific community (preferably at the international level) as significantly advancing scientific progress in their respective fields. They may be interdisciplinary in nature and should be expected to be of medium- or long-term benefit to society and the economy, directly or indirectly.

3. Periodicals regarded as very good

There is no fully comprehensive and continuously updated list of periodicals consistently considered to be very good by the scientific community. The candidate should therefore provide a rationale for the high level of quality of the submitted publications. Ultimately, the committee's assessment is decisive.

The list of academic journals compiled by the Department of Information Systems and Operations Management (ISOM) only provides a basis for periodicals deemed to be very good (whitelist). This list can be expanded by adding further journals relevant to the subject or restricted, depending on the focus of the habilitation and the nature of the *venia docendi* to be awarded. In addition, the short list of top journals (WU STAR list) compiled by WU denotes periodicals deemed the most internationally recognized (prime) journals for all relevant fields of research at WU.

Due to the highly competitive nature and the substantial efforts required to publish in any of the periodicals listed in the WU STAR list, one such publication should count as two out of the five excellent academic contributions required.

In terms of conferences, a contribution published as a full paper at the most prestigious international conferences in the field of computer science may be regarded as equal to a very good journal publication. The externally validated CORE A* rating can serve as evidence for such conferences. Generally, up to two excellent academic articles can be substituted by three very good conference contributions per article. Very good conferences typically meet the following criteria:

- The respective countable contributions are (accepted or published as) full papers (rather than extended abstracts, short papers, or other minor conference contributions),
- The contributions are selected based on a rigorous academic review process that typically includes three or more peer reviews. The rejection rate is typically higher than 70%.
- The conferences are organized by major discipline-specific associations (e.g. ACM, IEEE, IFIP, Usenix, AIS)

The habilitation committee and reviewers are expected to be sufficiently familiar with the leading conferences in the field to independently assess and interpret the quality criteria mentioned above.

4. Demonstration of scientific independence

The postdoctoral academic publications by the habilitation candidate must demonstrate the candidate's capability to conduct independent scientific research. The candidate's individual contribution to each submitted contribution must be clearly specified.

Scientific independence can be demonstrated by one or more of the following:

- At least one single-author publication fulfilling the quality criteria outlined in sections 1-3.
- At least three first-author publications, demonstrating the candidate's lead role in conducting the research fulfilling the quality criteria outlined in sections 1-3..
- Successful acquisition of competitive research funding as a principal investigator (PI) in a single-applicant or ad personal program (e.g., FWF, ERC, WWTF), whose funding is sufficient to support at least a postdoc or PhD position. The full proposal must be submitted together with the habilitation application.

All the articles should not have more than the usual number of authors for publications in the respective field (approx. two to three authors). In the case of publications with four or more authors, the candidate should state detailed grounds to illustrate the individual contribution.

If the candidate has more than one single-author publication, the candidate may submit one less academic contribution (4 instead of 5).

5. Time frame

The five academic articles required should have been accepted for publication no more than ten years ago. Older papers are weighted lower, based on a ratio of one to three.

6. Transitional provisions

The legitimate expectations of habilitation candidates who can prove that they have relied on the validity of previous regulations shall be protected, as long as the candidate's work is compatible with the meaning of previous regulations.

7. Guidelines for non-cumulative habilitation theses (monographs)

Candidates who have agreed with their supervisor to produce a monograph thesis should also have a record of academic papers published in high-quality periodicals and suitable conference papers.

In contrast to a cumulative habilitation, a lower number of publications in high-quality periodicals and/or conference proceedings regarded as very good by the international scientific community is sufficient for authors of a monograph habilitation thesis. The specifications given above apply analogously.

These guidelines were resolved at the ISOM Department Conference on October 22, 2025.