Scientific Publishing and Open Access From The Perspective of Young Researchers – An Invitation For Discussion

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The systems currently in use to disseminate scientific information have been conceived, maintained, improved and criticised by taking into consideration the perspectives of many of the groups involved, yet rarely those of scientists at the very beginning of their career, EU-wise referred to as Early Stage Researchers (or ESR for short), even though they account for a large portion of first authors of scientific journal articles around the globe and across disciplines. Here, we would like to present some of the major themes of the **Early Stage Researchers' perspective on scientific publishing**, along with our recommendations (R1-R4) for further action, which we invite you to comment upon in light of the topics discussed at this conference, namely web-based publishing models and Open Access approaches.

- The publication process invokes a range of costs that have to be covered but as long as young scientists generally do not dispose of their own funds, **author publication fees** will **impose limits** on their **scientific independence**. With respect to traditional publishing models, electronic publishing offers considerable cost reduction potentials, exploitation of which could reduce the ESR's dependence on a senior researcher's resources.
  - ➔ **R1**: Provide either publication fee waivers for articles first-authored by ESR in author-pay models, or ESR-inclusive funding schemes covering publication expenses.

- A similar argumentation applies for access to the published literature, particularly on topics extending beyond the traditional scope of their departmental libraries. In addition, **freely accessible literature** can be expected to **foster innovation by helping to bridge knowledge gaps** between traditionally separated disciplines. Such knowledge bridges also provide for a solid basis to conduct the original research that forms the core of each PhD thesis. The research results contained therein can thus be assumed to be of interest to the scientific community but a limited number of printed versions will naturally reach less readers than electronic versions freely accessible via the internet.
  - ➔ **R2**: Provide Open Access to all scientific papers (within appropriate maximum delays, cf. **Recommendation A1, Study on Publication System**).
  - ➔ **R3**: Create, by linking and expanding existing structures, an open **European database** providing metadata and an electronic version of all **PhD theses** defended in Europe.

- As a side-effect of the niche formation inherent to scientific investigations, the landscape of publication venues steadily experiences thematic changes, each of which provides an opportunity to adapt the publication process to technological and other developments. Accordingly, the percentage of Open Access journals is generally higher in areas that develop quicker than those covered by traditional journals. Consequently, ESR would have particularly strong scientific reasons to publish in Open Access journals but these are counteracted by the wide-spread habit of **evaluating candidates** for postdoctoral or faculty positions **on the basis of problematic descriptors like journal impact factors** which can be manipulated, do not inform about the quality of individual articles, and are not available for new journals (many of which use Open Access models). Furthermore, **decisions on where to submit a given manuscript** are often made on the basis of the long-term experience of senior researchers, rather than the current situation.
  - ➔ **R4**: Abandon journal impact factor systems for career decisions. Develop and use individual article metrics instead (taking advantage of the enriched features provided by electronic publishing), and inform scientists about these developments.

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