

# e-PREP-SCI

## Electronic Pre-Prints Archive and Participative Reviewing Support System in Systemics, Cybernetics and Informatics

### What is e-PREP-SCI

The main purpose of e-PREP-SCI is to support scholarly communication in Systemics, Cybernetics and Informatics, including immediate knowledge dissemination and support for creative interaction, constructive feedback, and participative reviewing. A first step into achieving this purpose will be attained by combining and integrating essential features of self-archiving e-prints, collaboratories, and Participative Peer-to-Peer Reviewing.



e-PREP-SCI is an electronic on line archive where authors may self-archive their articles in order to share their recently acquired knowledge or conceived hypothesis, to establish credit for the ideas included in the submitted article and to pre-publish their articles, in order to get constructive feedback, through peer-to-peer reviewing, oriented to improve their paper before submitting it to a conference or to a journal to be considered for its publication.

Paul Ginsparg's arXiv is the inspiring web site for the e-PREP-SCI's archive and Alexander Hars' Cybrarium project is the inspiring model for its collaborative features.

Basic features of the arXiv and the Cybrarium will be integrated with a Participative Peer-to-Peer Reviewing (PPPR) in order to support authors in the preparation of their articles, and to generate a collaborative filtering in order to support academic and grants decision makers, as well as editors and conference organizers, regarding the quality level of the articles published in e-PREP-SCI.

Other kinds of archives and collaboratories will serve as inspirational sources for future versions of the system, as it is the case of PubMed and Principia Cybernetica..

e-PREP-SCI might be considered as a supporting service in the process of "PREPreparation for a publication in SCI" (Systemics, Cybernetics and Informatics).

### Basic Features

The basic features of the model, to be implemented in the initial prototype, or the initial version of the system, provide its different users with the following functions.

#### 1 Support authors in

- a. The immediate dissemination of their articles (research results, ideas, working articles, working hypothesis, etc.), as to eliminate the possibility of plagiarism and fraud on behalf of reviewers, as it was the case of the Yale Scandal, for example. Authors may self-archive their articles while they are working in the final version to be sent for its potential publication in a journal, or for its potential presentation in a conference, or they may self-archive the same final version they are submitting to a journal or to a conference.
- b. Getting a more *plural* feedback (comments, constructive criticism, and evaluations) from their peers, which because of its plurality will be more representative, there will be a significantly less degree of possible bias in the peer reviewing of their article. Other peer reviewing weaknesses will also be lessened – or will even disappear – with the increasing plurality in the number and kinds of reviewing that the article might receive.
- c. Getting feedback (comments and evaluations) on their articles sooner than usual (as well as more plural and more representative of their peers) so they can comment on the comments they get, interact with their commenting peers, and get into a learning process which might lead to new and improved versions of the submitted article, possible collaborative research or publishing with some of the readers of their articles who are researching in the same area, and other possible synergic relationships by means of the interaction of their readers and other authors who might have submitted articles in the same area or topic.
- d. Getting information about the number of readers and peers who downloaded the submitted and self-archived article, which would be a good measure of the interest raised by such an article.
- e. Getting emails informing them about new articles that were self-archived in the same area or topic where they archived their articles. This would provide them with information that might be important as input for a next version of their article, or before submitting it for its publication via a traditional process.
- f. Providing them, by means of a, b, c, d, and e with an adequate support in the process of *preparing* their article while avoiding, simultaneously, peer reviewing weaknesses and pitfalls. Authors would be supported in the process of PREPreparing their articles by means of self-archiving the initial version of their article via electronic PREPrint. This is why we called e-PREP the system implementing the first stage of this project: It helps to prepare the publication of a paper by means of e-preprinting it and by means of getting comments and evaluations from both, readers of the articles and other authors who submitted articles in the same topic or area. These authors would provide constructive feedback and evaluation by means of a Participative Peer-to-Peer Reviewing.



g. This support would continue after the paper has been published according to the traditional publishing process. E-prints and e-postprints may still receive comments and constructive feedback that might hint an article's author to make an improved or more completed version than the one he, or she, had printed in a paper or hardcopy journal or in a printed conference proceedings. Authors may not be able to modify articles already printed in journals or proceedings but they may still modify, or send a new version, of the respective post-printed if its was archived in e-PREP.

**2** Provide **readers** with:

- a. Comments and evaluations made to the article being read, so the reader who is not an expert in the area may have critical comments related to the article being read by him or her.
- b. The possibility of commenting, or making short evaluations, of the article that he, or she, just read.
- c. The possibility of interacting with the author of the article.

**3** Provide the potential **reviewers** of the article with more means for a better reviewing of it. Access to comments and evaluations made by readers and other authors in the same topic would meaningfully improve the reviewing to be made by a reviewer. This reviewer could be an *internal* one, i.e. another author who self-archived an article in the same topic and is in the process of a Participative Peer-to-Peer Reviewing, which will also be supported by the e-PREP system; or the reviewer might be an *external* one, i.e. a reviewer appointed by an editor of a journal, where the article was also submitted, a conference's reviewer or organizer considering the same article for its possible presentation at the conference.

**4** If the article is also submitted to a journal, the respective **editor** may get, from e-PREP-SCI, some editorial support, especially in the initial screening phase and when an acceptance, or refusal, decision should be made in the context of no agreement among the reviewers that the editor appointed for the paper review.

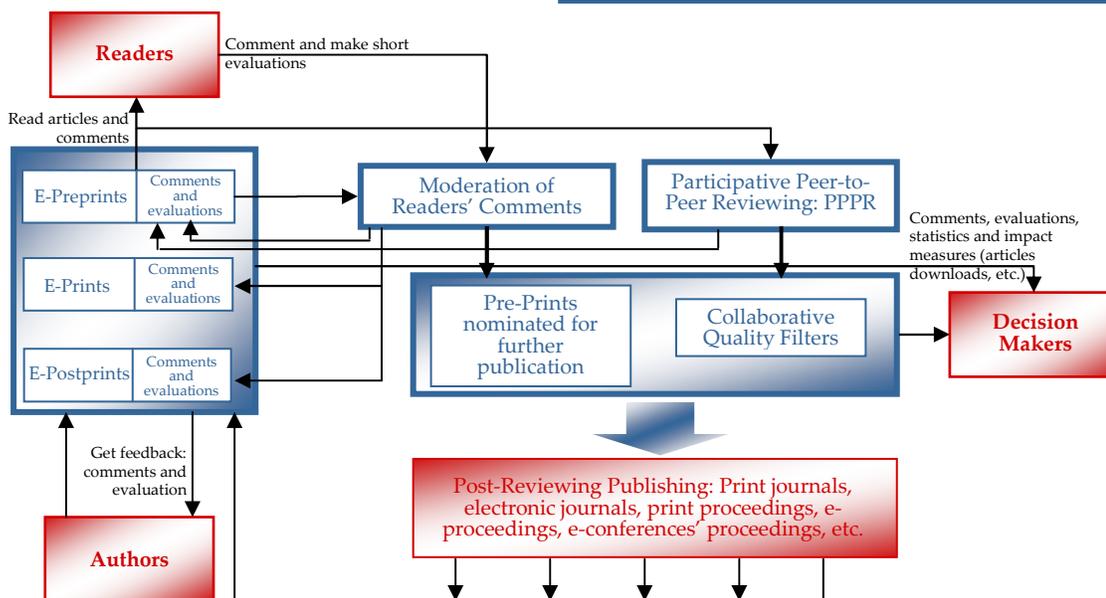
**5** Academic and grants' **decision makers** will have plural and more comprehensive information regarding articles archived in e-PREP-SCI in any of its forms (preprint, prints

and post-prints). They may have access to the output of the different collaborative quality filters. Their decisions will not be based just on few previous discrete decisions that few reviewers made with regards to an article, or a set of them. They would also have a similar kind of information from more sources that are more continuous and more plural. Academic and grants' decision makers will still have the kind of information they have right now, but they may, if they wish, complement it with a higher and hence more representative variety of opinions, perspectives, and evaluations. They would have not only access to previous decisions, but also to the opinions and evaluations that supported similar decisions regarding the same article under consideration.

The following diagram represents a schematic representation of the intended e-PREP-SCI functionality. As it is shown in the diagram, pre-prints will coexist in the same archive along with post-prints, and the whole system has been conceived as a complement of the traditional scholarly publishing model. E-PREP-SCI provides inputs to the traditional publishing system (journals, conferences, etc.) and accepts output from this traditional system as post-print articles which can be modified and updated in new versions. This post-print updating possibility is a desirable complement to articles published in paper or hard copy, where no update is possible. It is hoped that fruitful synergies may emerge between electronic systems like e-PREP-SCI and the traditional scholarly publishing system.

It is also hoped that the loops between e-PREP-SCI functionalities (in blue in the diagram) and the traditional scholarly publishing system (in red in the diagram) will be cybernetic loops (negative/regulative feedback, positive/creative/constructive feedback, and feedforward). In such a case, synergies and emergent properties might be generated benefiting the stakeholders involved.

By January 2009 a beta version of the e-PREP-SCI web information system will be ready, at [www.iiis.org/e-PREP-SCI](http://www.iiis.org/e-PREP-SCI), for use by the members of the International Institute of Informatics and Systemics: IIIS and other scholars/professionals interested in using it in its initial beta version. Since its initial use will be restricted, a login and a password will be required. Scholars and practicing professionals interested in using the system in its initial beta version may ask for a login and a password by sending an email to [eprep@iiis.org](mailto:eprep@iiis.org), and attaching the requester's CV or informing about his/her home page. Not all requests will be approved at the beginning, but the system will have an open access right after its beta test is over.



**Basic Features of the Model**

