Journal on Educational Resources in Computing (JERIC)

This page provides access to essential elements of the ACM Journal on Educational Resources in Computing (JERIC).

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For further information about JERIC, contact Boots Cassel cassel@acm.org or Ed Fox fox@vt.edu

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Journal on Educational Resources In Computing (JERIC)

JERIC Editorial Charter

The ACM Journal on Educational Resources in Computing is an electronic publication providing access to high quality, archival resources suitable for use in support of computing education. Resources include scholarly articles with wide applicability and potential impact as well as multimedia and visualization resouces, laboratory materials and other materials of practical use in support of learning in the computing sciences.

JERIC resources support every aspect of computing education whether the program emphasis is on information, computation, hardware, software, theory, application or newly emerging aspects of the computing discipline. All materials selected for publication in JERIC will have demonstrated their significance in support of computing education and will have been judged of high value by qualified referees. JERIC works in conjunction with the Computing Science Teaching Center (CSTC) where works in progress or other less formally reviewed materials are accessible.

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Journal on Educational Resources in Computing (JERIC)

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Journal on Educational Resources in Computing (JERIC)

Information for Authors

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1. Scope

JERIC is an electronic publication and fully exploits the potential of this publication medium to provide access to electronic resources for immediate use. A small number of articles of broad potential impact on the computing education community will be included in the materials provided through JERIC. Other resources include laboratory materials, curricular resources in interactive multimedia, visualizations, and other materials of direct use in course presentation or informal learning, either locally or through distance education activities.

JERIC defines computing broadly to include all aspects of the computing disciplines. The areas of interest include, but are not limited to, computer science, computer engineering, information systems, information science, and software engineering. While the primary focus of JERIC is materials for use in undergraduate learning, other levels of instruction are welcomed.

2. Submissions

Electronic submissions are required. In case of extreme hardship implied by that requirement, contact one of the co-Editors-in-Chief to discuss alternatives. Research articles must be submitted in PDF form with a cover letter to jeric@christie.netlab.csc.villanova.edu. The PDF submission must include no identifying information. The cover letter must provide contact information for the

principal author, names and affiliations of co-authors, an abstract of the paper, a list of keywords, the educational level addressed in the paper, and the topic area in computing which it addresses. The paper will be assigned to one of the Associate Editors with expertise in the topic area and educational level addressed by the paper. The Associate Editor will obtain at least three qualified reviews of the paper and make a recommendation to the Editors-in-Chief. Based on the recommendation, the Editors-in-Chief will decide whether or not to publish the paper. The Associate Editor will communicate the comments of the referees to the author of the paper.

Educational materials other than research papers will be submitted through the CSTC interface. It is the responsibility of the author to specify that the submission is intended for JERIC and is to be subjected to the JERIC reviewing process.

3. Style Guidelines

For research articles, the entire manuscript, including the abstract, text, footnotes, references, and figure captions, should be double-spaced. Numbered section headings should be used to facilitate readability. Language which reflects prejudice (e.g., sexism, racism) should be avoided. The introduction should clearly describe previous research on related topics. Care should be taken to specify clearly all procedures essential to the research. When a paper concerns a new piece of software, comparisons to similar programs, benchmarks, and a discussion of limitations should be included.

Generic names are preferred to specific product names. However, when they imply essential aspects of a procedure, as when a specific product has unique features, the product names may be included for clarity. Authors are responsible for obtaining permission to quote long passages (60 words or more) from any material that appeared in a non-ACM publication.

3.1 Title and Abstract

Use a specific and informative title. Typically, a title might contain 6 to 12 words. Avoid special symbols and formulas in titles unless essential to indicate content. Authors' names should be given without titles or degrees, along with the name of the sponsoring organization. Current mailing addresses, including email addresses, should be given in a footnote.

The abstract should be 150 to 200 words long and should consist of short, direct, and complete sentences. The abstract should state the objectives of the work, summarize the results, and give the principal conclusions. It should also indicate whether the focus is on theoretical developments or on practical questions and whether subject matter or method is emphasized. Avoid starting with the words: This paper. Work planned but not done should not be described in the abstract. Because abstracts are often extracted from a paper and used separately, avoid the use of the first person, display mathematics, and citations.

3.2 Aids for Classification

Categories and Subject Descriptors should be selected from the classification system used by Computing Reviews (CR). The latest version of the ACM Computing Classification System may be found online at http://www.acm.org/class/, or in the January 1994 issue of the Communications of the ACM, or may be obtained by addressing a request to Computing Reviews at ACM headquarters or from acm.org. Use as many descriptors as applicable. General Terms are those common to more than one area of computing and are chosen from the fixed list that accompanies the CR classification system.

Additional Keywords and Phrases consist of English language words that may also be useful for indexing. These may be synonymous with terms in the classification system, may be more specific than the subject descriptors, or may not be covered by the existing system at all. In this last case, use specific terms whose meaning is generally accepted in the computing community. Do not use broad, catchall terms (such as computer, system, or automatic) and do not use private terms or acronyms.

3.3 Mathematical and Symbolic Expressions

Short mathematical equations and other expressions in the text should be run in: (instead of each being displayed on a separate line). Avoid exponents having multiple levels of superscription: e sup {x sup 2 + y sup 2}, use exp (x sup 2 + y sup 2). Likewise, avoid the use of built-up fractions in the text. For example, instead of {1} over {italic {n}}, use either 1 / italic {n} or the negative exponent form italic {n} sup -1. In display matter, however, built-up fractions are preferred for clarity. Likewise, avoid small-type mathematical expressions centered above or below arrows.

Equations that are referred to later in the text should be numbered sequentially and referred to, for instance, as Eq. 1. Do not number equations that are not referred to in the text.

3.4 Statistics

For empirical studies, the procedure should be presented in sufficient detail to be replicated by other researchers. Statistical tests should be included to support empirical claims. When reporting statistics, the name of the statistic, the degrees of freedom, the value obtained, and the p-value should be reported, e.g., $F(3,65) = 4.83$, $p < 0.01$.

3.5 Figures

Figures include graphs of results, schematic drawings, samples of output, screen, and photographs of special equipment or displays. Each figure should be numbered and have a caption. Upon publication, figures will be reduced to approximately 12.7 cm (5 inches) in width. Care should be taken to ensure that the legends and labels within the figure are large enough to be readable after they are reduced. For electronic submissions, Postscript copies of the figures should be included. For final submissions on paper, high quality (at least 600 dpi) figures should be included. Color prints can be reproduced, although this adds to production costs and must be approved by an Editor-in-Chief.

3.6 Citations and the Reference List

Relevant publications accessible to the public (i.e., articles in standard journals and open conference proceedings) should be cited. References cited in the text should include the last name of the author(s) and the year of publication, for example [Bush 1945] or [Salton and McGill 1983]. When the citation(s) includes three or more authors, only the first author should be mentioned by name (e.g., [Foley et al. 1990]). A trailing lower case letter should distinguish multiple papers by the same author(s) published during a single year, for example [Winograd and Flores 1987a]. Multiple citations in the same sentence should be enclosed within brackets and separated by semicolons, for example, [Halasz 1988; VanRijsbergen 1975].

The reference list should be arranged alphabetically by the author's last name, followed by the date. In the case of multiple listings by a single author, the earliest publication appears first. When an author is listed both as a single author and as a senior author with coauthor(s), all of the single-author listings precede the multiple-author listings, with the latter arranged alphabetically by last name of successive authors. Again, chronological order is used for multiple papers by the same set of authors. The lowercase letter used in the citation to distinguish multiple papers by the same author(s) in the same year should be displayed in the reference list.

References to items in periodicals: These should take the form: author, title, journal, volume number, date, and pages. Author(s) should be given last name first; likewise for editors, with the name followed by (Ed.). The author's name always ends with a period, either the period that follows the initial or a period specifically for that purpose. This is followed by the year. In the title, only the first word and proper names (or their derivatives) should be capitalized, and the title should end with a period. For example:

SCHWARTZ, J.T. 1980 Ultracomputers, ACM Trans. Program Lang. Syst. 2, 4 , 484-521.

References to reports or proceedings:

Author(s) and title - same as for periodicals. This is followed by the report number, source, date, and pages.

References to books: Author(s) - same as above. Title - all principal words start with a capital letter. The title is followed by the publisher, city, year, and any specific chapters or pages.

4. Copyright

4.1 Copyright and Use Agreement

Please see ACM copyright policy information online at http://www.acm.org/pubs/copyrights.html. If the paper is acceptable after refereeing, each author will be asked to sign an ACM copyright form, either transferring copyright to ACM or declaring that the paper is part of government work. Copyright transfer forms may be obtained online at http://www.acm.org/pubs/copyright_form.html or from copyrightforms@acm.org. The return of the signed form completes the acceptance

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4.2 Proofs

The first author will receive either galley or page proofs; these should be checked and returned promptly. Although the ACM staff copyedits manuscripts, the author is solely responsible for marking errors. Substantive changes should be approved by an Editor.

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Guidelines for Referees

Submissions to JERIC include traditional research papers and other types of materials. Research papers are reviewed with criteria traditional to the process of selecting significant, archival articles. Other types of materials require other types of evaluation. Under sponsorship first of SIGCSE and then the National Science Foundation, the developers of the Computer Science Teaching Center have explored methods of evaluation of these resources. JERIC builds on that base and incorporates the reviewing standards developed over some years of experience.

- [Guidelines for Referees of Papers](#)
- [Guidelines for Referees of Electronic Resources](#)

See also "The Peer Review Process of Teaching Materials: Report of the ITiCSE'99 Working Group on Validation of the Quality of Teaching Materials" by D. Knox et al. in [PDF](#) and [Word](#) versions.

Refereeing Papers submitted to JERIC

Papers must be of high quality and fall within the scope of the journal. There are four main ingredients to an acceptable paper:

- high technical quality;
- high relevance to significant computations;
- high interest and novelty;
- effective presentation.

Few papers excel in all of these, but a substandard level in any of the four ingredients is sufficient ground for rejection. Many papers require substantial revisions before acceptance, and reviewers should not hesitate to recommend that a paper be rejected pending changes that are required for completeness, correctness, or to substantially improve clarity. For the reviewers, all items in the Review Form should be carefully considered. The most important elements of the review are the

Recommendation and the Detailed Evaluation.

Rarely do all reviewers agree on a submission, so the detailed evaluation of the merits and deficiencies of a paper is needed. If you like the paper immensely, do not assume other reviewers will too. Describe in detail what you think is important about it, how it will contribute to theory or practice. If you are sure the paper should be
rejected, you should explain why, politely but in detail, because other reviewers may recommend acceptance. Often, first submissions receive a Revise and
Resubmit recommendation; for the authors of these papers, your detailed points will be of tremendous use in guiding the revision of their work.

The tone of your review is very important to our effort to create a community of scholars and practitioners. When you write an anonymous review, you are acting as
a representative of the information processing professional field. It is always possible to be constructive and firm without being hostile. Keep in mind that often the
problem could be primarily in communication. Even in the worst case, where the work cannot be salvaged, one can explain how better to design related research.

Refereeing Electronic Resources

Adapted From the CSTC Guidelines for Refereeing
1. If you have not already done so, create a CSTC account and volunteer as a reviewer. A CSTC editor will send you an e-mail message inviting you to review a resource.
2. Login to the CSTC and click on your 'assigned reviews' link in the upper right corner. You will see a one line summary of the resource you have been asked to review. One link will take you to the resource, another link will take you to the online review form.
   Go to the resource page and become familiar with it. Download any required pieces. Spend sufficient time with the resource to evaluate its overall quality and usefulness. The amount of time necessary will depend on the resource.
   Assume you intend to use the resource in your course. Materials should be tested, as appropriate. Authors have been advised to provide testing materials and potential solutions when needed to facilitate the review process. (Solutions used for the purpose of testing are not to be disclosed. They are the property of the author. In general, solutions will not be published on-line as part of the CSTC.)
3. After completing your review, return to your 'assigned reviews' page. Click on the 'evaluate resource'. Complete the online reviewer form, and submit your review. You may find it convenient to compose your comments in a word processor and then paste them into the form. Please note: you may return to modify your review until it is complete. See a sample review form.

Review Criteria

The review form contains an area for private (confidential) comments to the Editors. All private

information and questions are clearly marked. These remarks (as well as referee information) are strictly confidential and are not sent to the author. The remainder of the form is sent to the author.

 Spend sufficient time with the resource to discuss the following criteria. Use these questions as a guide during your review. Please make comments that are as constructive as possible. Authors spend significant time to create and submit their resources. Your comments should be meaningful and respectful.

- ❍ **Effectiveness:** Will the resource enhance or facilitate student learning? Is the resource effective at accomplishing its stated goals? Is it appropriate for its intended audience? Is is worthwhile? Significant? Likely to be used?
- **Accuracy:** Is the resource technically sound? Are the concepts correct and accurate? Does the resource operate correctly? Is the resource complete?
- **Reusability**: Is the resource easy to adapt or reuse in a different environment? Are instructions and presentation suitably generic?
- **Clarity**: Is the resource presented clearly? Is it well written? Is the user interface attractive and intuitive to use? Is any supporting documentation provided? Is it clear?
- **Originality**: Is the resource significantly different or better than previously 'published' material?

Additional Questions

What was your initial impression of the resource page. Were the objectives clear? Were the instructions for obtaining and using the resource clear?

How long did it take you to install the resource (if applicable)? Briefly explain how you reviewed the resource. How much time did you spend? Did you actually use it in class or simply look it over? Did any students have an opportunity to use it? What specific suggestions do you have for the author to improve the resource?

Overall, should the resource be accepted for publication in JERIC? (private comments to the Editor only)

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