

# TECHNOLOGY, INSTRUCTION, COGNITION AND LEARNING

AN INTERNATIONAL, INTERDISCIPLINARY JOURNAL OF STRUCTURAL LEARNING

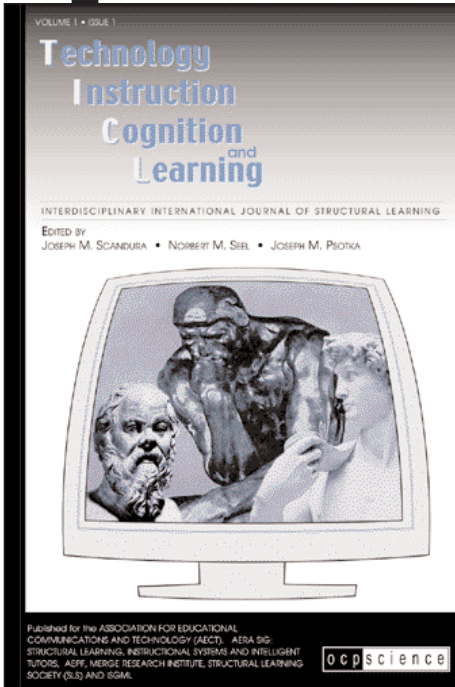
**Editor-in-Chief** **Joseph M. Scandura**, Chairman, Scandura.com & MERGE Research Institute  
Emeritus and Adjunct Professor, University of Pennsylvania, USA  
e-mail: scandura@scandura.com

**Co-Editor Emeritus:** **Norbert M. Seel**, Professor, Freiburg University, Freiburg, Germany  
e-mail: seel@ezw.uni-freiburg.de

**Managing-Editor:** **Sarah McNeil** University of Houston, USA  
e-mail: smcneil@uh.edu

## Editorial Board:

**Carole Beal**, University of Arizona (Cognitive Science) **Benedict du Boulay** Sussex University (Artificial Intelligence in Education) **Tom Boyle**, Learning Technology Research Institute (LTRI), and Centre for Excellence in Teaching and Learning (CETL) (Reusable Learning Objects), **Scotty Craig** Arizona State University (Intelligent Tutoring Systems) **Ingo Dahn**, Koblenz University (Automatic Theorem Proving), **Sanne Dijkstra**, University of Twente (Instructional Theory and Technology), **John P. Durnin**, Villanova University (Structural Learning, Higher Order Knowledge, Knowledge Assessment), **Jan Elen**, K.U. Leuven (Instructional Design), **Rob Foshay**, Texas Instruments, Inc. (Instructional Design & Technology), **Andrew Gibbons**, Utah State University (Instructional Simulations, Knowledge Modeling for Learning Purposes), **Art Graesser**, University of Memphis (Discourse Processing), **Friedrich W. Hesse**, University of Tuebingen (Applied Cognitive Psychology and Media Psychology), **Ron Hoz**, Ben-Gurion University of the Negev (Knowledge Acquisition in Education) **Dirk Ifenthaler** Open Universities (Cognitive Psychology) **Feng Feng Ke**, Florida State University (Instructional Design) **M. David Merrill**, Utah State University (Instructional Design), **Antonija (Tanja) Mitrovic**, University of Canterbury (Intelligent Tutoring Systems), **Allen Munro**, University of Southern California (Cognitive Science & Instructional Technology), **Harry O'Neil**, University of Southern California (Cognitive Science & Instructional Technology), **Gilbert Paquette**, Télé-université du Québec (Instructional Technology), **Richard F. Schmid**, Concordia University (Educational Psychology/Technology) **Valerie Shute**, Educational Testing Service (Intelligent Tutoring Systems), **Mike Spector**, Florida State University (Information Technology), **Jeroen van Merriënboer**, The Open University of the Netherlands (Complex Cognitive Tasks & Instructional Design), **William Winn**, University of Washington (Information Technology), **Wallace Wulfecck III**, Naval Training Research (Complex Simulations)



## CALL FOR PAPERS

The editors of TICL invite your contributions. Detailed notes for contributors can be found on the reverse side of this flier.

*Technology, Instruction, Cognition and Learning* (TICL) is an international, interdisciplinary journal of structural learning – promoting and disseminating interdisciplinary advances in theory and research at the intersection of four focus disciplines: Technology, Instruction, Cognition and Learning. Important developments in both theory and software technologies open a plethora of new opportunities for scientific and technological advance barely foreseen even a few years ago. These opportunities will be realized to the extent that advances can be synthesized to provide more inclusive solutions. To assure that articles build on the state of the art, each will be peer-reviewed by experts in at least two areas.

TICL's vision is to improve interdisciplinary communication and to promote scientific dialogue on fundamental issues and technological developments having important implications for future advances. TICL seeks articles that address such basic questions as what it means to know something, how best to determine what an individual knows, how humans learn, and how knowledge is influenced through interaction with the outside world. Theory, research and technological innovations leading to automation are especially encouraged.

TICL scope includes: artificial intelligence, cognitive and development psychology, software engineering, cognitive science, structural and task analysis, knowledge engineering, distributed cognition, instructional systems and design, intelligent tutors, structural learning, problem solving and system dynamics. Particular importance is given to scientific and technical contributions that add to current understanding and have practical significance for cognitive, learning and instructional technologies. The goal is to promote work that is cumulative in nature, progressively increasing depth of understanding and the potential (or realization) of automation. Model applications of basic work are also encouraged. Instructional applications of research in other areas (e.g., computational linguistics, discourse theory, logic programming and knowledge modeling) are also relevant.

In addition, TICL publishes articles describing new and/or advanced systems that raise new questions and/or build on, demonstrate or evaluate existing theories. Field of application and age group are not relevant. TICL is equally open to specialized training and school based education; to adult learning and learning in children, even intelligent agents acting individually or collectively in groups.

## SUBSCRIPTIONS

*Technology, Instruction, Cognition and Learning* publishes four issue per volume. Subscriptions are renewed on an annual basis.

**Institutional:** US \$705 • EURO €549 • ¥65,206

**Individual\*:** US\$43 • EURO €76 • ¥11,100

**Society:** US \$43 • EURO €62 • ¥10,600

\*Members of supporting organizations and those whose institutions subscribe are eligible for special rates.

For more information, a sample copy of the first issue, or to subscribe, contact:

Old City Publishing, 628 North 2nd Street, Philadelphia, PA 19123, USA

tel: +1 215 925 4390 • fax: +1 215 925 4371

Enquiries can also be sent by e-mail via a link on the publishers website: <http://www.oldcitypublishing.com>

ocpscience

A MEMBER OF THE OLD CITY PUBLISHING GROUP

# Notes for Contributors

## Technology, Instruction, Cognition and Learning

In order to ensure timely handling of manuscripts, contributors are encouraged to read these instructions carefully before preparing a manuscript for submission, and to check the manuscript for compliance with these notes before submitting it for publication.

### Submission

#### Manuscripts

TICL strongly encourages the electronic submission of manuscripts, with copies to each of the editors. Each manuscript should be sent as a single complete attachment with a cover email indicating that the article is being submitted for publication in TICL. The attachment should be in Microsoft Word format (preferably Word 97 or later). Editors' e-mail addresses are [scandura@scandura.com](mailto:scandura@scandura.com) and [seel@ezw.uni-freiburg.de](mailto:seel@ezw.uni-freiburg.de).

One of the co-editors will inform the author by return email, normally within 10 days, as to whether the manuscript appears to be appropriate for formal review. The author may appeal if he or she believes that a mistake may have been made. Manuscripts will normally be sent for review electronically. Nonetheless, once informed of its acceptability for review, the author must submit two printed copies of the manuscript to the co-editor handling the manuscript. To minimize processing time, the author may submit printed copies simultaneously with the electronic submission. If electronic submission is impossible for any reason, the author may submit two printed copies along with a diskette containing the manuscript as a Word file.

Submission of a paper to TICL, whether in printed format or otherwise (e.g., electronic format) implies that it has not been published or submitted elsewhere except as a meeting abstract not exceeding 600 words. Such an abstract should be quoted in the paper. Upon acceptance, the publisher acquires the copyright for unlimited world-wide distribution including an electronic format.

Authors may suggest up to four reviewers in the cover letter together with their e-mail addresses. The authors may also indicate, within reason, the names of potential referees who should not be consulted. Every attempt will be made to ensure that editorial decisions will be made within three months of receipt of the manuscript and to publish articles within six months of acceptance.

#### Commentary (via TICL On-line)

TICL strongly encourages cross-disciplinary communication. Manuscripts will be published in TICL On-Line (at [www.scandura.com](http://www.scandura.com)) as soon as they have been accepted for publication. They will remain there for six months after they have been printed in TICL.

Readers are encouraged to submit formal commentary on such manuscripts for publication. Commentary on published articles having broad interdisciplinary implications is particularly encouraged.

Authors should follow the same process as above for all manuscripts. The primary difference is that commentary will be published in TICL On-Line as soon as practicable after receipt, before formal review pending only informal editorial review to ensure suitability.

#### Guidelines for the Submission of Text

All submissions should be made as Microsoft Word 97 or later documents. The manuscript and references should be double-spaced, presented in an easily readable, standard font and size (such as 10 or 12 pt. Times New Roman or Arial). All pages should be numbered. All manuscripts must be submitted in English; American or British spelling may be used.

**Title:** The title of the paper should clearly indicate the scope and findings of the paper and should provide an accurate indication of the contents when searched by computerized methods. An abbreviated title of a maximum of 35 characters should be provided as well.

**Authors:** The names of authors should be given in full (first name, initial(s), last name) followed by his or her department, institution and address including postal code and country. The author to whom correspondence should be directed should be indicated in the cover letter. For the corresponding author, telephone and fax numbers and e-mail address must be provided.

**Abstract:** Manuscripts should include an abstract of 100-150 words summarizing the significant findings.

**Keywords:** Six to twelve keywords or phrases should be supplied to aid in indexing the article.

**Electronic link:** Authors must commit to installing the submitted manuscript on his or her website immediately after it has been accepted for publication. Authors must also submit to the editors an electronic link directly to the accepted manuscript. It is recommended that this link is transmitted with the original manuscript.

Example: <http://www.authoruniversity.edu/authorname/title.doc>.

**Text headings:** Headings should be set flush left and the text should begin on the next line. For example:

- first-level **HEADING** (bold, all caps.)
- second-level **Heading** (bold, Title case characters)
- third level Heading: (underscore:, Title case characters)

**Tables:** Tables should be numbered consecutively and include a clear descriptive caption at the top. Avoid the use of vertical rules and structural formulas in the body of tables. Table footnotes should be given a footnote symbol as explained in the Footnotes section, proceeding by row rather than by column order.

**References:** References should conform to the specifications set forth in the *Publication Manual of the American Psychological Association*. References should be cited in the text by author's last name and publication year. The full list of references should be collected and typed at the end of the paper in alphabetical order.

Examples:

JOURNAL ARTICLE:

Last name one, first initial., Last name two, first initial. (year). Title of article. *Journal Title*, volume(number), pages.

BOOK:

Last name, first initial. (year). *Book Title* (edition). City: Publisher.

STAND-ALONE WEB DOCUMENT

Last name, first initial. (year). *List of authoring systems*. Retrieved date, from <http://www.website.com/>.

**Mention of figures and tables within text:** When referring to figures, tables and other elements within the text, always call the element by its full name (for example: "See Table 1", "Figure 1 illustrates...", "Refer to Scheme 1"). Do not use ambiguous phraseologies (for example: "1 illustrates...") that do not clearly denote the element being referred to.

**Footnotes:** Authors are encouraged to number footnotes consecutively using Microsoft Word's automatic footnoting.

#### Specifications for the Submission of Figures and Artwork

The entire manuscript—text, tables and figures—should be combined and submitted as one Microsoft Word document. All figures, graphics and tables should be embedded in the Microsoft Word document. It is very important, however, that all embedded graphics are taken from high quality graphics of print quality. Photographic images should be embedded from graphic files that are at a resolution of 300 dpi. Line art should be embedded at 600-1200 dpi.

Full captions and photo credits (if necessary) should be provided for each photo and figure. All images should be clearly labeled as to figure number.

#### Proofs

The corresponding author will receive proofs of the typeset article via e-mail as a PDF file. Please ensure that an e-mail address at which PDF attachment files may be received is provided.

#### Reprints

The corresponding author will receive a PDF file of the finalized article for free use. Additional reprints may be ordered by completing the appropriate form supplied with the proofs.

#### Page Charges

There are no page charges to individuals or institutions for contributions to *Technology, Instruction, Cognition and Learning*.