



*The Handbook of Brain Theory and Neural Networks*  
*The Second Edition*

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**Guidelines for Final Versions of  
Contributions to HBTNN 2e**

This document contains

- (a) 3 pages of instructions on formatting and submitting the final version; and
- (b) A checklist that should be completed and submitted with the hard copy of the final version.

In almost all cases, the invitation is to write a review article. This means that, in general, **the author's own work should occupy at most 30%** of the text and of the list of references.

Readers will come from a variety of disciplines, such as AI, applied mathematics, biology, computer science, electrical engineering, linguistics, neuroscience, philosophy, physics, and psychology. Please try to make all of your article accessible to this wide audience, assuming the level of a first-year graduate student. If this is not possible, please **make at least the "Introduction" and closing "Discussion" readable without special background**. Then in following sections precede specialized material (e.g., mathematical equations, neurochemistry) by brief informal motivations.

Note: PDF files for drafts of HBTNN 2e articles are being placed on a Website at the MIT Press: <ftp://mitpress2.mit.edu/pub/incoming/books/private/arbib/PDF>. You can check there to evaluate cross-references to other articles. We encourage authors to correspond with each other directly to better coordinate their coverage of topics.

**Editorial Details and the Mechanics of Paper Preparation**

**Delivery of Final Printed and Electronic Manuscript:** On or before the deadline, please send

- two hard copies of your article including the figures to Prue Arbib at the above address
- a Word or Tex file to Michael Arbib, [arbib@pollux.usc.edu](mailto:arbib@pollux.usc.edu), as an email attachment. This file will be used by the typesetters in assembling, as quickly and cheaply as possible, the master file for the entire book.
- a PDF file to Margy Avery, [mavery@MIT.EDU](mailto:mavery@MIT.EDU), as an email attachment.

The following Style Sheet is to be used in formatting your paper for the *Handbook*. Completed copies of all necessary permissions to reprint material, and **camera ready** copies (hard copy or electronic) of all figures, must accompany the final draft.

**Ensure that the text matches Handbook format:** In particular, if you use abbreviations like [Smi 99] instead of (Smith, 1999) in preparing your original file, please ensure that the (Author, Year) format is followed in the efile that you submit. Similarly, if you use mnemonic figure names, please ensure that the efile uses proper references to Figure 1, etc., rather than your mnemonics.

PAPER: white bond, 8.5x11 inches

MARGINS: 1 inch on all 4 sides.

SPACING: Double-space everything (including quotes, notes, tables, and references).

PAGINATION: Number pages consecutively starting with the title page; place author & title in the upper left-hand corner and page numbers in the upper right-hand corner of each page.

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**Figures:** Design your figures so that they will reduce **legibly** to one column (3.25") wide or - though only in rare cases - one page (6.8125") wide. In sizing your figures, bear in mind that 1 column inch equals about 70 words. Thus, if you use a modestly-sized figure such that **figure + caption** is one column wide and 3" deep, then you must subtract 200 words from the word count that has been allowed for your article. You should thus design your figures (if any) so that they are few in number, offer a very clear message that enriches the text, and have a full and helpful caption.

**Form of Manuscript:** Each manuscript should consist of the following items, in the given order:

**TITLE PAGE:** This page should include the full chapter title, authors' names, addresses **and email addresses** (as they wish them to appear in the book), a short title (50 characters maximum, including spaces) for the running head, and the author to be contacted for correspondence, with phone and fax numbers as well as email address supplied.

**TEXT:** The text should start on a new page, numbered as page 2. The first section should be called **INTRODUCTION** and provide a non-technical overview of the material covered in the whole article. (Note: There will *not be an abstract* in Handbook articles.) Use no more than two levels of subheadings in dividing the text into sections. Do *not* number the sections. Use large font, with boldface upper-case underlined for **HEADING 1** and boldface alone for **Heading 2**. The final section of the article should be labeled **DISCUSSION**, and should summarize key points, and discuss open questions, and linkages with other areas of Brain Theory and Neural Networks.

Mention each table and figure by number in the text, but group tables and figures separately outside the main body of the text (see below).

NO FOOTNOTES.

NO ACKNOWLEDGMENTS

**EQUATIONS:** Equations which are numbered should have the equation number set in parentheses (x) and tabbed to the right margin. The text following an equation should have no indent, unless it begins a new paragraph

**REFERENCES:** The references should start a new page immediately following the main text. *See the separate section below for further details.*

**CROSS-REFERENCES** should be in caps, and of the form ARTICLE TITLE (q.v.) or (see ARTICLE TITLE), depending on whether or not the title of the referred to article occurs in the flow of text.

**TABLES:** Type each table on a separate page and number them in order of appearance in the text. Try to keep tables as simple and as direct as possible. A table with too much information crammed into it is often as valueless as one with insufficient information.

**FIGURE CAPTIONS:** Collect all figure captions into a single, continuous, double-spaced list, starting on a new page. If the figure has already been published, give a bibliographic reference and **obtain the necessary permissions**. Make the legend informative so that the essential message of the figure can, in general, be gleaned without reference to the text.

**FIGURES:** Provide high-quality computer files or camera-ready hard copies of figures. In any case, provide labeled with the article's title and the figure number, and an arrow indicating which direction is up.

**References:** In the text, refer parenthetically to authors cited, including year of publication, e.g., Smith (1999) or (Smith, 1999; Smith and Jones, 1966). For more than three authors, use "et al." (Smith et al., 2000).

Double-space all references, leaving one extra line space between them. The bibliography for your article should contain **at most 15 references** in all, and should contain textbook treatments of the topic and related background material, relevant review articles, and original research cited in your article.

Many authors of the first round of papers received for the *Handbook* have treated the references as they would in an ordinary article - emphasizing the coverage of research papers. But the list of references is not to assuage fellow experts! It is there primarily to help readers who look to you for an *introduction* to your topic. Please make an extra effort to look at current textbooks, as well as other sources for excellent reviews, and provide a generous selection of such articles, perhaps with brief annotations where appropriate. When referring to a text, please specify which sections or chapters are relevant. Also, bear in mind the wide varieties of expertise of our readers. Good references on background topics, as well as on the core topic of the article itself, can be most helpful to such readers.

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**Compile references according to the format outlined below and double-check them for accuracy:** Preparing reference lists can be troublesome for authors, but editing them can be overwhelming unless they are in the proper format. A complete reference should include: author(s), year of publication, full title of article or book, journal title abbreviation or publisher and location, volume number, and inclusion pages. Underline the titles of books and journals. Here are sample references:

**Journal Article:** Pitts, W.H., and McCulloch, W.S., 1947, How we know universals, the perception of auditory and visual forms, Bull. Math. Biophys., 9:127-147.

**Book:** Eccles, J.C., Ito, M., and Szentágothai, J., 1967, The Cerebellum as a Neuronal Machine, New York: Springer-Verlag.

**Article in Book:** von Neumann, J., 1956, Probabilistic logics and the synthesis of reliable organisms from unreliable components, in Automata Studies, (C.E. Shannon and J. McCarthy, Eds.), Princeton: Princeton University Press, pp.43-98.

**Electronic references:** There does not seem to be a standard for this, so I suggest the following: Rather than simply entering the URL in the body of the article, determine the author and title of the cited Webpage, and the year it was written, then use an (Author, Year) citation in the body of the text, and format the entry in the bibliography exactly as for a journal article, save that the URL replaces the journal title, volume and page numbers. Please **only cite URLs if you have reason to believe that they are stable** (i.e., likely to still be in use in 2005, say).

Alphabetize the References by author. If there is more than one reference by a given author, order these by date of publication. Articles with one or more co-authors should be grouped separately and alphabetized according to the second author. For example:

Smith, C.A., 1972.

Smith, C.A., Gordon, X.Y., and Smith, C.R., 1967.

Smith, C.A., and Smith, C.R., 1964.

Once again, many thanks for your contribution to this exciting, and challenging, project.

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## Checklist for Final Draft

Authors: \_\_\_\_\_

Title: \_\_\_\_\_

- Two hard copies of the final manuscript have been sent to Prue Arbib, 8734 Dunaway Drive, La Jolla, CA 92037 and follow the format specified in the Style Sheet
- Electronic copies of the final draft have been sent **both**
  - As a PDF file to Margy Avery, mavery@MIT.EDU, as an email attachment
  - As a Word *or* LaTeX file to Michael Arbib, arbib@pollux.usc.edu, as an email attachment. This file will be used by the typesetters in assembling, as quickly and cheaply as possible, the master file for the entire book.
- Camera-ready copies are supplied of the figures, preferably as electronic files but also with hard copies each labeled with article title and the figure number, and an arrow indicating which direction is up
- a) Number of Words (Text, References, Figure Captions): \_\_\_\_\_
  - b) Word Equivalent of Figures (70 words/column inch): \_\_\_\_\_
  - Total Word Count (a+b): \_\_\_\_\_
  - Agreed Upon Word Count: \_\_\_\_\_
- Citations and Reference List conform to Contributor Guidelines
- Number of References (should not exceed 15) \_\_\_\_\_
- "Introduction" is written to be accessible to general *Handbook* readers
- "Discussion" summarizes key points and discusses open questions and linkages with other areas of Brain Theory and Neural Networks.
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