AAAI AI Fall 2020 AI For Social Good Formatting Instructions for Authors Using LATEX — A Guide

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Abstract

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Congratulations on having a paper selected for inclusion in an AAAI Press proceedings or technical report! This document details the requirements necessary to get your accepted paper published using PDFLATEX. If you are using Microsoft Word, instructions are provided in a different document. AAAI Press does not support any other formatting software.

The instructions herein are provided as a general guide for experienced LATEX users. If you do not know how to use LATEX, please obtain assistance locally. AAAI cannot provide you with support and the accompanying style files are **not** guaranteed to work. If the results you obtain are not in accordance with the specifications you received, you must correct your source file to achieve the correct result.

These instructions are generic. Consequently, they do not include specific dates, page charges, and so forth. Please consult your specific written conference instructions for details regarding your submission. Please review the entire document for specific instructions that might apply to your particular situation. All authors must comply with the following:

- You must use the 2020 AAAI Press LaTeX style file and the aaai20.bst bibliography style files, which are located in the 2020 AAAI Author Kit (aaai20.sty, aaai20.bst).
- You must complete, sign, and return by the deadline the copyright form.
- You must read and format your paper source and PDF according to the formatting instructions for authors.
- You must submit your electronic files and abstract using our electronic submission form on time.

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- You must pay any required page or formatting charges to AAAI so that they are received by the deadline.
- You must check your paper before submitting it, ensuring that it compiles without error, and complies with the guidelines found in the AAAI Author Kit.

Copyright

All papers submitted for publication must be accompanied by a valid signed copyright form. If you fail to provide us with a signed copyright form or disable the copyright notice, we will be unable to publish your paper. There are **no exceptions** to this policy. You will find a PDF version of the copyright form in the AuthorKit.

Formatting Requirements in Brief

We need source and PDF files that can be used in a variety of ways and can be output on a variety of devices. The design and appearance of the paper is strictly governed by the aaai style file (aaai20.sty). You must not make any changes to the aaai style file, nor use any commands, packages, style files, or macros within your own paper that alter that design, including, but not limited to spacing, floats, margins, fonts, font size, and appearance. AAAI imposes requirements on your source and PDF files that must be followed. Most of these requirements are based on our efforts to standardize conference manuscript properties and layout. All papers submitted to AAAI for publication will be recompiled for standardization purposes. Consequently, every paper submission must comply with the following requirements:

- Your .tex file must compile in PDFLATEX (you may not include .ps or .eps figure files.)
- All fonts must be embedded in the PDF file including includes your figures.
- Modifications to the style file, whether directly or via commands in your document may not ever be made, most especially when made in an effort to avoid extra page charges or make your paper fit in a specific number of pages.
- No type 3 fonts may be used (even in illustrations).

- You may not alter the spacing above and below captions, figures, headings, and subheadings.
- You may not alter the font sizes of text elements, footnotes, heading elements, captions, or title information (for references and mathematics, please see the limited exceptions provided herein).
- You may not alter the line spacing of text.
- Your title must follow Title Case capitalization rules (not sentence case).
- Your .tex file must include completed metadata to pass-through to the PDF (see PDFINFO below).
- LATEX documents must use the Times or Nimbus font package (you may not use Computer Modern for the text of your paper).
- No LATEX 209 documents may be used or submitted.
- Your source must not require use of fonts for non-Roman alphabets within the text itself. If your paper includes symbols in other languages (such as, but not limited to, Arabic, Chinese, Hebrew, Japanese, Thai, Russian and other Cyrillic languages), you must restrict their use to bit-mapped figures. Fonts that require non-English language support (CID and Identity-H) must be converted to outlines or 300 dpi bitmap or removed from the document (even if they are in a graphics file embedded in the document).
- Two-column format in AAAI style is required for all papers.
- The paper size for final submission must be US letter without exception.
- The source file must exactly match the PDF.
- The document margins may not be exceeded (no overfull boxes).
- The number of pages and the file size must be as specified for your event.
- No document may be password protected.
- Neither the PDFs nor the source may contain any embedded links or bookmarks (no hyperref or navigator packages).
- Your source and PDF must not have any page numbers, footers, or headers (no pagestyle commands).
- Your PDF must be compatible with Acrobat 5 or higher.
- Your LATEX source file (excluding references) must consist of a single file (use of the "input" command is not allowed.
- Your graphics must be sized appropriately outside of LaTeX (do not use the "clip" or "trim" command).

If you do not follow these requirements, your paper will be returned to you to correct the deficiencies.

What Files to Submit

You must submit the following items to ensure that your paper is published:

• A fully-compliant PDF file that includes PDF metadata.

- Your LaTeX source file submitted as a **single** .tex file (do not use the "input" command to include sections of your paper every section must be in the single source file). (The only allowable exception is .bib file, which should be included separately).
- The bibliography (.bib) file(s).
- Your source must compile on our system, which includes only standard LATEX 2020 TeXLive support files.
- Only the graphics files used in compiling paper.
- The LATEX-generated files (e.g. .aux, .bbl file, PDF, etc.).

Your LaTeX source will be reviewed and recompiled on our system (if it does not compile, your paper will be returned to you. **Do not submit your source in multiple text files.** Your single LaTeX source file must include all your text, your bibliography (formatted using aaai20.bst), and any custom macros.

Your files should work without any supporting files (other than the program itself) on any computer with a standard LATEX distribution.

Do not send files that are not actually used in the paper. We don't want you to send us any files not needed for compiling your paper, including, for example, this instructions file, unused graphics files, style files, additional material sent for the purpose of the paper review, and so forth.

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Obsolete style files. The commands for some common packages (such as some used for algorithms), may have changed. Please be certain that you are not compiling your paper using old or obsolete style files.

Final Archive. Place your PDF and source files in a single archive which should be compressed using .zip. The final file size may not exceed 10 MB. Name your source file with the last (family) name of the first author, even if that is not you.

Using LATEX to Format Your Paper

The latest version of the AAAI style file is available on AAAI's website. Download this file and place it in the TEX search path. Placing it in the same directory as the paper should also work. You must download the latest version of the complete AAAI Author Kit so that you will have the latest instruction set and style file.

Document Preamble

In the LATEX source for your paper, you **must** place the following lines as shown in the example in this subsection. This command set-up is for three authors. Add or subtract author and address lines as necessary, and uncomment the portions that apply to you. In most instances, this is all you need to do to format your paper in the Times font. The helvet package will cause Helvetica to be used for sans serif. These files are part of the PSNFSS2e package, which is freely available

from many Internet sites (and is often part of a standard installation).

Leave the setcounter for section number depth commented out and set at 0 unless you want to add section numbers to your paper. If you do add section numbers, you must uncomment this line and change the number to 1 (for section numbers), or 2 (for section and subsection numbers). The style file will not work properly with numbering of subsubsections, so do not use a number higher than 2.

The Following Must Appear in Your Preamble

```
\def\year{2020}\relax
% File: formatting-instruction.tex
\documentclass[letterpaper]{article}
% DO NOT CHANGE THIS
\usepackage{aaai20} % DO NOT CHANGE THIS
\usepackage{times} % DO NOT CHANGE THIS
\usepackage{helvet} % DO NOT CHANGE THIS
\usepackage{courier} % DO NOT CHANGE THIS
\usepackage[hyphens]{url} % DO NOT CHANGE THIS
\usepackage{graphicx} % DO NOT CHANGE THIS
\urlstyle{rm} % DO NOT CHANGE THIS
\def\UrlFont{\rm} % DO NOT CHANGE THIS
\usepackage{graphicx} % DO NOT CHANGE THIS
\usepackage{natbib}
% DO NOT CHANGE THIS OR ADD OPTIONS
\usepackage{caption}
% DO NOT CHANGE THIS OR ADD OPTIONS
\frenchspacing % DO NOT CHANGE THIS
\setlength{\pdfpagewidth}{8.5in} % DO NOT CHANGE THIS
\setlength{\pdfpageheight}{11in} % DO NOT CHANGE THIS
% PDF Info Is REQUIRED.
% For /Author, add all authors within the parentheses,
% separated by commas. No accents or commands.
% For /Title, add Title in Mixed Case.
\mbox{\%} No accents or commands. Retain the parentheses.
\pdfinfo{
/Title (AAAI Press Formatting Instructions for Authors
Using LaTeX -- A Guide)
/Author (AAAI Press Staff, Pater Patel Schneider,
Sunil Issar, J. Scott Penberthy, George Ferguson,
Hans Guesgen, Francisco Cruz, Marc Pujol-Gonzalez)
/TemplateVersion (2020.1)
```

Preparing Your Paper

After the preamble above, you should prepare your paper as follows:

```
%
\begin{document}
\maketitle
\begin{abstract}
%...
\end{abstract}
```

You should then continue with the body of your paper. Your paper must conclude with the references, which should be inserted as follows:

```
% References and End of Paper
% These lines must be placed at the end of your paper
\bibliography{Bibliography-File}
\end{document}
```

Inserting Document Metadata with LATEX

PDF files contain document summary information that enables us to create an Acrobat index (pdx) file, and also allows search engines to locate and present your paper more accurately. *Document metadata for author and title are RE-QUIRED*. You may not apply any script or macro to implementation of the title, author, and metadata information in your paper.

Important: Do not include any LaTeX code or nonascii characters (including accented characters) in the metadata. The data in the metadata must be completely plain ascii. It may not include slashes, accents, linebreaks, unicode, or any LaTeX commands. Type the title exactly as it appears on the paper (minus all formatting). Input the author names in the order in which they appear on the paper (minus all accents), separating each author by a comma. You may also include keywords in the optional Keywords field.

```
\begin{document}\\
\maketitle\\
...\\
\bibliography{Bibliography-File}\\
\end{document}\\
```

Commands and Packages That May Not Be Used

There are a number of packages, commands, scripts, and macros that are incompatable with aaai20.sty. The common ones are listed in tables 1 and 2. Generally, if a command, package, script, or macro alters floats, margins, fonts, sizing, linespacing, or the presentation of the references and citations, it is unacceptable. Note that negative vskip and vspace may not be used except in certain rare occurances, and may never be used around tables, figures, captions, sections, subsections, subsections, or references.

Page Breaks

For your final camera ready copy, you must not use any page break commands. References must flow directly after the text without breaks. Note that some conferences require references to be on a separate page during the review process. AAAI Press, however, does not require this condition for the final paper.

Paper Size, Margins, and Column Width

Papers must be formatted to print in two-column format on 8.5×11 inch US letter-sized paper. The margins must be exactly as follows:

Top margin: .75 inches
Left margin: .75 inches
Right margin: .75 inches
Bottom margin: 1.25 inches

The default paper size in most installations of LATEX is A4. However, because we require that your electronic paper be formatted in US letter size, the preamble we have provided includes commands that alter the default to US letter size. Please note that using any other package to alter page size (such as, but not limited to the Geometry package) will result in your final paper being returned to you for correction.

\abovecaption	\abovedisplay	\addevensidemargin	\addsidemargin
\addtolength	\baselinestretch	belowcaption	belowdisplay
break	\clearpage	\clip	\columnsep
\float	\input	\input	\linespread
\newpage	\pagebreak	renewcommand	setlength
\text height	\tiny	\top margin	\trim
-	-		'

Table 1: Commands that must not be used

authblk	babel	cjk	dvips
epsf	epsfig	euler	float
fullpage	geometry	graphics	hyperref
layout	linespread	lmodern	maltepaper
navigator	pdfcomment	pgfplots	psfig
pstricks	t1enc	titlesec	tocbind
ulem		•	

Table 2: LaTeX style packages that must not be used.

Column Width and Margins. To ensure maximum readability, your paper must include two columns. Each column should be 3.3 inches wide (slightly more than 3.25 inches), with a .375 inch (.952 cm) gutter of white space between the two columns. The aaai20.sty file will automatically create these columns for you.

Overlength Papers

If your paper is too long and you resort to formatting tricks to make it fit, it is quite likely that it will be returned to you. The best way to retain readability if the paper is overlength is to cut text, figures, or tables. There are, a few acceptable ways to reduce paper size that don't affect readability. First, turn on \frenchspacing, which will reduce the space after periods. Next, move all your figures and tables to the top of the page. Consider removing less important portions of a figure. If you use \centering instead of \begin{center} in your figure environment, you can also buy some space. For mathematical environments, you may reduce fontsize but not below 6.5 point.

Commands that alter page layout are forbidden. These include \columnsep, \float, \topmargin, \topskip, \textheight, \textwidth, \oddsidemargin, and \evensizemargin (this list is not exhaustive). If you alter page layout, you will be required to pay the page fee. Other commands that are questionable and may cause your paper to be rejected include \parindent, and \parskip. Commands that alter the space between sections are forbidden. The title sec package is not allowed. Regardless of the above, if your paper is obviously "squeezed" it is not going to to be accepted. Options for reducing the length of a paper include reducing the size of your graphics, cutting text, or paying the extra page charge (if it is offered).

Type Font and Size

Your paper must be formatted in Times Roman or Nimbus. We will not accept papers formatted using Computer Modern or Palatino or some other font as the text or heading typeface. Sans serif, when used, should be Courier. Use Symbol or Lucida or Computer Modern for *mathematics only*.

Do not use type 3 fonts for any portion of your paper, including graphics. Type 3 bitmapped fonts are designed for fixed resolution printers. Most print at 300 dpi even if the printer resolution is 1200 dpi or higher. They also often cause high resolution imagesetter devices to crash. Consequently, AAAI will not accept electronic files containing obsolete type 3 fonts. Files containing those fonts (even in graphics) will be rejected. (Authors using blackboard symbols must be avoid those packages that use type 3 fonts.)

Fortunately, there are effective workarounds that will prevent your file from embedding type 3 bitmapped fonts. The easiest workaround is to use the required times, helvet, and courier packages with LATEX2e. (Note that papers formatted in this way will still use Computer Modern for the mathematics. To make the math look good, you'll either have to use Symbol or Lucida, or you will need to install type 1 Computer Modern fonts — for more on these fonts, see the section "Obtaining Type 1 Computer Modern.")

If you are unsure if your paper contains type 3 fonts, view the PDF in Acrobat Reader. The Properties/Fonts window will display the font name, font type, and encoding properties of all the fonts in the document. If you are unsure if your graphics contain type 3 fonts (and they are PostScript or encapsulated PostScript documents), create PDF versions of them, and consult the properties window in Acrobat Reader.

The default size for your type must be ten-point with twelve-point leading (line spacing). Start all pages (except the first) directly under the top margin. (See the next section for instructions on formatting the title page.) Indent ten points when beginning a new paragraph, unless the paragraph begins directly below a heading or subheading.

Obtaining Type 1 Computer Modern for LATEX. If you use Computer Modern for the mathematics in your paper (you cannot use it for the text) you may need to download type 1 Computer fonts. They are available without charge from the American Mathematical Society: http://www.ams.org/tex/type1-fonts.html.

Nonroman Fonts. If your paper includes symbols in other languages (such as, but not limited to, Arabic, Chinese, Hebrew, Japanese, Thai, Russian and other Cyrillic languages), you must restrict their use to bit-mapped figures.

Title and Authors

Your title must appear in mixed case (nouns, pronouns, and verbs are capitalized) near the top of the first page, centered over both columns in sixteen-point bold type (twentyfour point leading). This style is called "mixed case," which means that means all verbs (including short verbs like be, is, using, and go), nouns, adverbs, adjectives, and pronouns should be capitalized, (including both words in hyphenated terms), while articles, conjunctions, and prepositions are lower case unless they directly follow a colon or long dash. Author's names should appear below the title of the paper, centered in twelve-point type (with fifteen point leading), along with affiliation(s) and complete address(es) (including electronic mail address if available) in nine-point roman type (the twelve point leading). (If the title is long, or you have many authors, you may reduce the specified point sizes by up to two points.) You should begin the two-column format when you come to the abstract.

Formatting Author Information. Author information has to be set according the following specification depending if you have one or more than one affiliation. You may not use a table nor may you employ the \authorblk.sty package. For one or several authors from the same institution, please just separate with commas and write the affiliation directly below using the macros \author and \affiliations:

```
\author{
    Author 1, ..., Author n \\
}
\affiliations {
    Address line \\
    ... \\
    Address line
}
```

For authors from different institutions, use \textsuperscript $\{\mbox{\sc hom}\ x\ \}$ to match authors and affiliations.

```
\author{
   AuthorOne, \textsuperscript {\rm 1}
   AuthorTwo, \textsuperscript {\rm 2}
   AuthorThree, \textsuperscript {\rm 3}
   AuthorFour, \textsuperscript { \rm 4 }
   AuthorFive \textsuperscript{\rm 5}}\\
\affiliations {
    \textsuperscript{\rm 1}AffiliationOne, \\
   \textsuperscript{\rm 2}AffiliationTwo, \\
    \textsuperscript{\rm 3}AffiliationThree, \\
    \textsuperscript{\rm 4}AffiliationFour, \\
    \textsuperscript{\rm 5}AffiliationFive \\
    \{email, email\}@affiliation.com,
   email@affiliation.com,
   email@affiliation.com.
   email@affiliation.com
```

Note that you may want to break the author list for better visualization. You can achieve this using a simple line break (\setminus) .

LATEX Copyright Notice

The copyright notice automatically appears if you use aaai20.sty. It has been hardcoded and may not be disabled.

Credits

Any credits to a sponsoring agency should appear in the acknowledgments section, unless the agency requires different placement. If it is necessary to include this information on the front page, use \thanks in either the \author or \title commands. For example:

\title{Very Important Results in AI\thanks{This work is supported by everybody.}}

Multiple \thanks commands can be given. Each will result in a separate footnote indication in the author or title with the corresponding text at the botton of the first column of the document. Note that the \thanks command is fragile. You will need to use \protect.

Please do not include \setminus pubnote commands in your document.

Abstract

Follow the example commands in this document for creation of your abstract. The command \begin{abstract} will automatically indent the text block. Please do not indent it further. Do not include references in your abstract!

Page Numbers

Do not **ever** print any page numbers on your paper. The use of \pagestyle is forbidden.

Text

The main body of the paper must be formatted in black, tenpoint Times Roman with twelve-point leading (line spacing). You may not reduce font size or the linespacing. Commands that alter font size or line spacing (including, but not limited to baselinestretch, baselineshift, linespread, and others) are expressly forbidden. In addition, you may not use color in the text.

Citations

Citations within the text should include the author's last name and year, for example (Newell 1980). Append lowercase letters to the year in cases of ambiguity. Multiple authors should be treated as follows: (Feigenbaum and Engelmore 1988) or (Ford, Hayes, and Glymour 1992). In the case of four or more authors, list only the first author, followed by et al. (Ford et al. 1997).

Extracts

Long quotations and extracts should be indented ten points from the left and right margins.

This is an example of an extract or quotation. Note the indent on both sides. Quotation marks are not necessary if you offset the text in a block like this, and properly identify and cite the quotation in the text.