Smart Shelf

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ABSTRACT

UPDATED—November 16, 2017. This sample paper describes the formatting requirements for SIGCHI conference proceedings, and offers recommendations on writing for the worldwide SIGCHI readership. Please review this document even if you have submitted to SIGCHI conferences before, as some format details have changed relative to previous years. Abstracts should be about 150 words and are required.

ACM Classification Keywords

H.5.m. Information Interfaces and Presentation (e.g. HCI): Miscellaneous; See http://acm.org/about/class/1998/ for the full list of ACM classifiers. This section is required.

Author Keywords

Smart Fabrication, Smart, Shelf, HCI

INTRODUCTION

This format is to be used for submissions that are published in the conference proceedings. We wish to give this volume a consistent, high-quality appearance. We therefore ask that authors follow some simple guidelines. You should format your paper exactly like this document. The easiest way to do this is to replace the content with your own material. This document describes how to prepare your submissions using LATEX.

PAGE SIZE AND COLUMNS

On each page your material should fit within a rectangle of 7×9.15 inches (18×23.2 cm), centered on a US Letter page (8.5×11 inches), beginning 0.85 inches (1.9 cm) from the top of the page, with a 0.3 inches (0.85 cm) space between two 3.35 inches (8.4 cm) columns. Right margins should be justified, not ragged. Please be sure your document and PDF are US letter and not A4.

TYPESET TEXT

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For example, content paragraphs like this one are formatted using the Normal style.

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Every submission should begin with an abstract of about 150 words, followed by a set of Author Keywords and ACM Classification Keywords. The abstract and keywords should be placed in the left column of the first page under the left half of the title. The abstract should be a concise statement of the problem, approach, and conclusions of the work described. It should clearly state the paper's contribution to the field of HCI.

Normal or Body Text

Please use a 10-point Times New Roman or Times Roman font or, if this is unavailable, another proportional font with serifs, as close as possible in appearance to Times Roman 10-point. Other than Helvetica or Arial headings, please use sans-serif or non-proportional fonts only for special purposes, such as source code text.

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Figure 1. Insert a caption below each figure. Do not alter the Caption style. One-line captions should be centered; multi-line should be justified.

		Test Conditions	
Name	First	Second	Final
Marsden	223.0	44	432,321
Nass	22.2	16	234,333
Borriello	22.9	11	93,123
Karat	34.9	2200	103,322

Table 1. Table captions should be placed below the table. We recommend table lines be 1 point, 25% black. Minimize use of table grid lines.

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On pages beyond the first, start at the top of the page and continue in double-column format. The two columns on the last page should be of equal length.

References and Citations

Use a numbered list of references at the end of the article, ordered alphabetically by last name of first author, and referenced by numbers in brackets [1, 2, 7]. Your references should be published materials accessible to the public. Internal technical reports may be cited only if they are easily accessible (i.e., you provide the address for obtaining the report within your citation) and may be obtained by any reader for a nominal fee. Proprietary information may not be cited. Private communications should be acknowledged in the main text, not referenced (e.g., "[Borriello, personal communication]").

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SECTIONS

The heading of a section should be in Helvetica or Arial 9-point bold, all in capitals. Sections should *not* be numbered.

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Headings of subsections should be in Helvetica or Arial 9-point bold with initial letters capitalized. For sub-sections and sub-subsections, a word like *the* or *of* is not capitalized unless it is the first word of the heading.

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Place figures and tables at the top or bottom of the appropriate column or columns, on the same page as the relevant text (see Figure 1). A figure or table may extend across both columns to a maximum width of 17.78 cm (7 in.).

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The paper may be accompanied by a short video figure up to five minutes in length. However, the paper should stand on its own without the video figure, as the video may not be available to everyone who reads the paper.

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When possible, include a vector formatted graphic (i.e. PDF or EPS). When including bitmaps, use an image editing tool to resize the image at the appropriate printing resolution (usually 300 dpi).

QUOTATIONS

Quotations may be italicized when "placed inline" (Anab, 23F).

Longer quotes, when placed in their own paragraph, need not be italicized or in quotation marks when indented (Ramon, 39M).

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The written and spoken language of SIGCHI is English. Spelling and punctuation may use any dialect of English (e.g., British, Canadian, US, etc.) provided this is done consistently. Hyphenation is optional. To ensure suitability for an international audience, please pay attention to the following:

- Write in a straightforward style.
- Try to avoid long or complex sentence structures.
- Briefly define or explain all technical terms that may be unfamiliar to readers.
- Explain all acronyms the first time they are used in your text—e.g., "Digital Signal Processing (DSP)".
- Explain local references (e.g., not everyone knows all city names in a particular country).
- Explain "insider" comments. Ensure that your whole audience understands any reference whose meaning you do not describe (e.g., do not assume that everyone has used a Macintosh or a particular application).

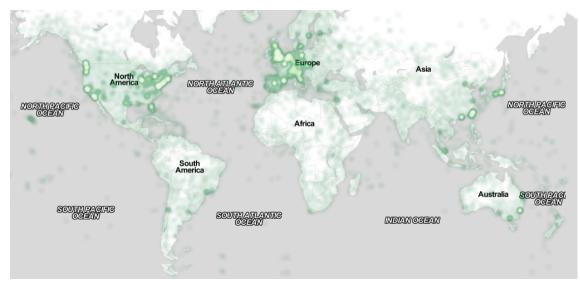


Figure 2. In this image, the map maximizes use of space. You can make figures as wide as you need, up to a maximum of the full width of both columns. Note that LATEX tends to render large figures on a dedicated page. Image: (a) ayman on Flickr.

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- If possible, use the full (extended) alphabetic character set for names of persons, institutions, and places (e.g., Grønbæk, Lafreniére, Sánchez, Nguyễn, Universität, Weißenbach, Züllighoven, Århus, etc.). These characters are already included in most versions and variants of Times, Helvetica, and Arial fonts.

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The Executive Council of SIGCHI has committed to making SIGCHI conferences more inclusive for researchers, practitioners, and educators with disabilities. As a part of this goal, the all authors are asked to work on improving the accessibility of their submissions. Specifically, we encourage authors to carry out the following five steps:

- 1. Add alternative text to all figures
- 2. Mark table headings

- 3. Add tags to the PDF
- 4. Verify the default language
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For more information and links to instructions and resources, please see: http://chi2016.acm.org/accessibility. The \hyperref package allows you to create well tagged PDF files, please see the preamble of this template for an example.

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CONCLUSION

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ACKNOWLEDGMENTS

Sample text: We thank all the volunteers, and all publications support and staff, who wrote and provided helpful comments on previous versions of this document. Authors 1, 2, and 3 gratefully acknowledge the grant from NSF (#1234–2012–ABC). *This whole paragraph is just an example.*

REFERENCES FORMAT

Your references should be published materials accessible to the public. Internal technical reports may be cited only if they are easily accessible and may be obtained by any reader for a nominal fee. Proprietary information may not be cited. Private communications should be acknowledged in the main text, not referenced (e.g., [Golovchinsky, personal communication]). References must be the same font size as other body text. References should be in alphabetical order by last name of first author. Use a numbered list of references at the end of the article, ordered alphabetically by last name of first author, and referenced by numbers in brackets. For papers from conference proceedings, include the title of the paper and the name of the conference. Do not include the location of the conference or the exact date; do include the page numbers if available.

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REFERENCES

- ACM. 1998. How to Classify Works Using ACM's Computing Classification System. (1998). http://www.acm.org/class/how_to_use.html.
- R. E. Anderson. 1992. Social Impacts of Computing: Codes of Professional Ethics. Social Science Computer Review December 10, 4 (1992), 453–469. DOI: http://dx.doi.org/10.1177/089443939201000402
- Anna Cavender, Shari Trewin, and Vicki Hanson. 2014. Accessible Writing Guide. (2014). http://www.sigaccess.org/welcome-to-sigaccess/resources/accessible-writing-guide/.
- @_CHINOSAUR. 2014. "VENUE IS TOO COLD" #BINGO #CHI2014. Tweet. (1 May 2014). Retrieved Febuary 2, 2015 from https: //twitter.com/_CHINOSAUR/status/461864317415989248.
- Morton L. Heilig. 1962. Sensorama Simulator. U.S. Patent 3,050,870. (28 August 1962). Filed Februrary 22, 1962.
- 6. Jofish Kaye and Paul Dourish. 2014. Special issue on science fiction and ubiquitous computing. *Personal and Ubiquitous Computing* 18, 4 (2014), 765–766. DOI: http://dx.doi.org/10.1007/s00779-014-0773-4
- 7. Scott R. Klemmer, Michael Thomsen, Ethan Phelps-Goodman, Robert Lee, and James A. Landay. 2002. Where Do Web Sites Come from?: Capturing and Interacting with Design History. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '02)*. ACM, New York, NY, USA, 1–8. DOI:http://dx.doi.org/10.1145/503376.503378
- Nintendo R&D1 and Intelligent Systems. 1994. Super Metroid. Game [SNES]. (18 April 1994). Nintendo, Kyoto, Japan. Played August 2011.
- Psy. 2012. Gangnam Style. Video. (15 July 2012). Retrieved August 22, 2014 from https://www.youtube.com/watch?v=9bZkp7q19f0.
- 10. Marilyn Schwartz. 1995. *Guidelines for Bias-Free Writing*. ERIC, Bloomington, IN, USA.
- 11. Ivan E. Sutherland. 1963. *Sketchpad, a Man-Machine Graphical Communication System*. Ph.D. Dissertation. Massachusetts Institute of Technology, Cambridge, MA.
- 12. Langdon Winner. 1999. *The Social Shaping of Technology* (2nd ed.). Open University Press, UK, Chapter Do artifacts have politics?, 28–40.