1. Introduction

*Communications of the ACM* is the leading print and online magazine for professionals working in the computing and information technology fields. The *Communications* monthly magazine is recognized as the most trusted and knowledgeable source of news, opinions, research, technology, and public-policy information for scientists and practitioners, and has developed a reputation over more than 50 years for providing the highest-quality information by and for computing professionals in industry and academia.

The format and editorial structure of the Communications magazine underwent a significant change in 2008. A new editorial model was developed to broaden its appeal to both practitioners and researchers in industry and academia in all fields of computing and information
technology, and to provide a more international and diverse forum for ideas, practical applications of technology, and scholarly research. Submissions for the monthly magazine may include content that can be presented online and is distinct from material submitted for the print publication.

There is great competition for publishing articles in the monthly magazine. Submissions must address topics of relevance and professional value to a very broad-based readership. The Author Guidelines provide information on submitting articles for the monthly magazine. It is best to remember that most readers are not experts in an author’s particular discipline, but expect to get a broad perspective on computing practice and research. It is important for authors to take into account the broad composition of the ACM membership.

Communications’ readers represent every known computing discipline. Among ACM’s 65,000 professional members, about 65% are computing practitioners and managers and 30% are academics and researchers. The majority of readers have advanced degrees; among the professional members, 35% have master’s degrees and 31% hold a Ph.D. Most members have been involved in computing for more than 12 years.

2. Editorial Structure and Submissions

2.1 Editorial Structure
The Communications magazine consists primarily of six main editorial sections: News, Viewpoints, Practice, Review Articles, Contributed Articles, and Research Highlights. In addition, the magazine publishes Letters to the Editor and a section called Last Byte.

In order to manage the flow of articles as efficiently as possible and to ensure a high degree of rigor and quality, an editorial board oversees the selection of content for the magazine. The board operates both as a single unit and in more focused teams aligned with the editorial sections.

While the selection criteria and editorial process for articles varies by section, the board is responsible for maintaining a consistently high level of quality for all sections to ensure that the magazine addresses a broad spectrum of
topics that appeal to an international readership of practitioners, researchers, and educators.

2.2 Submissions

*Communications* continues to welcome unsolicited submissions for publication in the magazine. Certain sections, including Practice and Last Byte, publish articles by invitation only.

Submissions to the magazine must address topics of relevance and professional value and be written for a broad readership. Submissions that provide a broad perspective on computing practice and research appeal to a larger segment of the ACM membership and computing community will be given priority over articles that require a significant level of knowledge of specific subject-matter expertise.

All submissions are reviewed by the *Communications* Editorial Board and Editor-in-Chief, who reserve the right to accept or reject any and all submissions at their discretion.

2.3 Section Descriptions and Guidelines

Manuscripts for the monthly magazine's editorial sections are expected to adhere to the following guidelines:

2.3.1 News

News publishes a selection of brief news updates and in-depth news articles (up to 2,000 words) on a range of U.S. and international topics in computing, information technology, and public policy issues. *Communications'* News department employs full-time professional science and technology writers and an expanding network of freelance writers to provide the most current news related to computing and related topics for publication in the print and online editions of the magazine.

If you are a professional science or technology writer or have written a current news article on a topic you believe is appropriate for the computing community, please send a brief email message with your submission to News@cacm.acm.org.
2.3.2 Viewpoints

Viewpoints is dedicated to opinions and views that pertain to issues of broad interest to the computing community, typically, but not exclusively, of a nontechnical nature. Controversial issues will not be avoided but be dealt with fairly. Authors are welcome to submit carefully reasoned “Viewpoints” in which positions are substantiated by facts or principled arguments. Moreover, this section periodically hosts editorial debates in a Point/Counterpoint format in which both sides of an issue are represented.

Viewpoints articles should consist of up to 1,800 words, include a small number of references (generally, no more than 10), and be submitted to http://cacm.acm.org/submissions.

2.3.3 Practice

Practice targets professionals in the software industry with an emphasis on software engineering. Articles published in this section frame and define technical problems and challenges ahead while helping readers sharpen their own thinking and ability to pursue innovative solutions. Practice does not focus on industry news or the latest solutions. Rather, articles explore disruptive technologies that are just on the verge of breaking through.

This section highlights problems that are likely to arise and poses questions that software engineers should be thinking about while dissecting industry issues that matter most and examines the challenges faced by software architects, project leaders, IT managers, and corporate decision makers.

Submissions to this section are by invitation only. Detailed submission guidelines will be forwarded to invited authors.

2.3.4 Contributed Articles

Contributed Articles cover the wide and abundant spectrum of the computing field—its open challenges, technical visions and perspectives, educational aspects, societal impact, significant applications and research results of high significance and broad interest. Following the roots of Communications, these submissions are peer-reviewed
to ensure the highest quality. Topics covered must reach out to a very broad technical audience. While articles appearing in an ACM Transactions journal are aimed at a specialized audience, articles in Communications should be aimed at the broad computing and information technology community.

A Contributed Article should set the background and provide introductory references, define fundamental concepts, compare alternate approaches, and explain the significance or application of a particular technology or result by means of well-reasoned text and pertinent graphical material. The use of sidebars to illustrate significant points is encouraged.

Full-length Contributed Articles should consist of up to 4,000 words, contain no more than 25 references, 3–4 tables, 3–4 figures, and be submitted to: http://cacm.acm.org/submissions.

Submissions to the Contributed Articles section should be accompanied by a cover letter indicating:
• Title and the central theme of the article;
• Statement addressing why the material is important to the computing field and of value to the Communications reader; and,
• Names and email addresses of three or more recognized experts who would be considered appropriate to review the submission.

2.3.5 Review Articles

Review Articles describe new developments of broad significance to the computing field and highlight unresolved questions and future directions. Unlike an article in ACM Computing Surveys, which provides an in-depth introduction to a technical area, a review article in Communications should offer a high-level perspective on a technical area. Authors are encouraged to begin the process by making a pre-submission inquiry, which should include a proposed title, abstract, and a few key references. Proposals will be reviewed and prospective authors will either receive a formal invitation to prepare a full manuscript (note: an invitation to write an article does not guarantee its publication) or a rejection based on the suitability of their proposal for publication in the magazine. Authors who receive a rejection, but are convinced of the importance of their work, may submit a complete manuscript for consideration by the magazine’s Editorial
All Review Articles undergo a thorough peer-review process. Submissions should consist of up to 6,000 words, include an abstract and introduction, up to 40 references, and be submitted to http://cacm.acm.org/submissions.

2.3.6 Research Highlights

Research Highlights provides readers with a collection of outstanding research articles, selected from the broad spectrum of computing research conferences. Articles are first nominated by Editorial Board Members or Approved Nominating Organizations and are then subject to final selection by the Editorial Board. Authors are then invited to submit their article, after they have rewritten and expanded their scope as appropriate for the broad readership of Communications.

It is important to note that publication in Communications, a computing technology and science magazine, does not conflict with publication in archival journals. Articles in archival journals are typically expanded versions of conference publications, while Communications aims to publish somewhat shorter and higher-level versions of these articles.

Full-length Research Highlights should consist of no more than eight pages according to the CACM Research Highlights Template and contain no more than 25 references. Authors should note this template is provided as a helpful measuring tool only; it does not reflect camera-ready copy.

Each selected Research Highlights article is preceded by a one-page (700-800 word) summary.

2.3.7 Technical Perspective

Technical Perspective summary essays provide readers with an overview of the underlying motivation, the important ideas of the featured Research Highlight, and its scientific and practical significance. Technical Perspective articles will be written by noted experts in the field addressed by the Research Highlight article and will be invited by the Editorial Board.
Papers should be submitted to http://cacm.acm.org/submissions.

2.3.8 Letters to the Editor

Letters to the Editor consists of comments on articles published in both the print and online editions of Communications, as well as selections or contributions from various blogs published by ACM as appropriate. Submitted letters should not exceed 500 words and should include the contributor’s name, email address, and postal address. Due to limited space, Communications cannot publish all submitted letters in the printed magazine. Whenever possible, high-quality letters will be posted on the Communications Web site. Preference will be given to feedback that begins new discussions, adds significant new points to previous discussions, or is highly time-sensitive. Send letters to letters@cacm.acm.org.

2.3.9 Last Byte

Last Byte consists of lighter-fare content that will appear as both regularly appearing columns, such as Q&As, futurist articles dealing with computing, and mathematical puzzles for those who like a good challenge. If you have an idea for a one-time or regularly appearing Last Byte contribution that you believe is appropriate for the computing community, please send a brief email message with your idea to LastByte@cacm.acm.org.

2.3.10 Virtual Extension

As with all magazines, page limitations often prevent the publication of articles that might otherwise be included in the print edition. To ensure timely publication, ACM created Communications' Virtual Extension (VE). VE articles undergo the same rigorous review process as those in the print edition and are accepted for publication on their merit. Decisions regarding VE articles, like all Communications articles, are made by the Editor-in-Chief. These articles are available in the ACM Digital Library.

3. Manuscript Preparation

The preferred file type for submitted manuscripts, with the exception of
Research Highlights, is Word or RTF, but PDF is also acceptable. Research Highlights papers should be submitted as LaTeX files; a Research Highlights template has been provided to help gauge length restrictions. Use of this template does not indicate camera-ready copy.

All material submitted to Communications is edited and copyedited. All files should reflect the following guidelines:

**Headlines:** Article titles should be inviting and manageable. Authors should consider using 6-7 words at most and avoid the use of colons if possible.

**References:** References (see the Contributed Articles section for citation limits) to previous work should be included at the end of the article. References must be ordered alphabetically by first author and numbered. All listed references must be referred to in text by their corresponding number.

**Artwork:** Clear sketches and accurate graphs are sufficient for initial submissions. Upon acceptance of an article, authors will be given instructions regarding the submission of final artwork. Any artwork derived from sources other than the author's own must be accompanied by an appropriate letter of permission and source citation. It is the author's responsibility to obtain such copyright permission and credit wording.

**Accepted Submissions:** Upon article acceptance, Communications editors provide authors with additional information regarding final electronic submissions. The lead author for each manuscript will be contacted once the article has been slated for publication. Once scheduled, Communications editors will edit the article for substance and presentation. All articles will also be copyedited to conform to The Chicago Manual of Style (University of Chicago Press), as well as Communications' house style. All tables and figures are redrawn for consistency by a graphic artist using the drafts supplied. Authors should provide concise titles and caption copy. Articles published in the Communications magazine will run in a two-column or three-column format. Therefore, authors must make sure any programming code or equations included in the manuscript are set for correct line breaks, indentations, and punctuation. Code that runs more than 35 characters wide will be pulled from text and reset as a figure, in which case a figure caption
must be supplied.

4. Supporting Online Material

Informational resources for the online presentation of articles in every editorial section of Communications are welcome. These materials may include but are not limited to additional tables; figures; URLs for online references; video files; audio files; a list of print references; PowerPoint presentations; and other related materials and links. Information regarding submission of this material is available upon acceptance.

5. ACM Policies

Articles that have been submitted simultaneously to other magazines or journals will be declined outright and not reconsidered. Authors are encouraged to review the ACM Policy and Procedures on Plagiarism, ACM's Copyright Transfer Form, and the Addendum to ACM Copyright Form: Supplemental Material prior to submitting material to Communications.

6. Conflicts of Interest

Communications has a responsibility to publish comprehensive, trustworthy, and unbiased material. It is therefore imperative that Communications' editors be informed of any relationships authors may hold that might possibly pose a conflict of interest.

Authors submitting manuscripts to Communications for consideration are therefore required to declare any academic, corporate, government, or professional affiliations, funding sources, financial arrangements, patent holdings, or any other relationships that may be construed as influencing positions in or raising any doubt as to the veracity or objectivity of the material presented in the submitted manuscript.

The onus is on authors to disclose any conflict of interest that might bias their work. This information should be addressed in the cover letter accompanying an article or in the article itself.

In addition, all financial support for the work and any personal and/or proprietary connections to the work must be acknowledged in the submitted manuscript.