How to Write a UTSA CS Division Technical Report

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December 7, 1995; last revised January 17, 1996
Technical Report CS-95-1

Abstract

Technical reports in on-line and printed form are an essential component of the network by which technology and ideas are distributed. This report is for UTSA students who are asked by their research advisors to produce a technical report that describes their work.

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Introduction

This technical report serves as a template and guide to how to produce a technical report as of December
1995. This particular report is formatted in HTML and printed using Netscape, but you may use any formatting system, font families and sizes and so forth, that you choose. The only nominal requirement is that your cover page follow the general format that this report observes, so that its title, author(s), date, and technical report # appear in the window on the report cover. An abstract and the division address should appear lower on the title page.

**Who Writes Technical Reports**

Faculty members, thesis and dissertation students, research assistants, and independent study students write technical reports when they have a substantial piece of work of relevance to the CS community. Many reports serve as a mechanism to make research results available quickly, before they see publication in a conference or journal. Other reports present smaller results or material that may not warrant external publication, such as reference materials that accompany software systems developed during the course of research. Basically, any document that a CS faculty member feels should be a technical report can be made into one.

**The TR Production Process**

Once you have written the essential technical content of your report, follow the steps below to introduce it electronically to the CS Division files, from which hard copies will eventually make their way to the library and to other requesting sites. A sponsoring faculty member should either be a coauthor or should approve the content of the report before you start this process.

1. **TR Number Assignment.**
   
   Request a TR number only after you have a finished copy ready to go. In your request for a number, send csweb@www.utsa.edu an electronic copy of the title and authors, e.g.

   Curious George Flies a Kite, by H. Gilbert and O. Sullivan

   Information to be included for advertising purposes, such as "a revised version to appear in such-and-such conference" is welcome at this point.

   If you are retroactively publishing a TR, that's OK; include a date.

2. You receive a number when the TR czar updates the CS TR list.
3. You give the TR czar 5 hard copies (remember, it is cheaper to print than to use the photocopier), and if you want your techreport placed on our Web site, point him at a postscript file. If you provide a postscript file, you can skip one of the hard copies.
4. The TR czar sends two hard copies to the library (care of Jackie Crinion), gives one hard copy w/report cover to the author, and places the one bound copy along with an unbound "copy master" in CS division files (currently, in jeffery's office; to be moved).

**Revisions**

Frequently, as research software develops it goes through many updates and revisions. The accompanying technical reports get revised, also. The steps to follow for a revision are similar to the steps for a new report, except that the previous TR number should be in the messages sent to the TR czar. If the changes are relatively minor and the size and scope of the report have not been altered, inform the TR czar that the update does not require a new TR number; in that case your revised TR's date should include the original date followed by the most recent revision date. Larger changes to a technical report may warrant issuance of a new TR number.

Advice to Junior Authors

The quality of technical writing is important. If you haven't written technical documentation before, allow yourself time for numerous draft revisions with your faculty sponsor, and your committee members if you are writing a thesis. You will also need time to master the desktop publishing software or formatting language. Most document preparation systems are full of quirks and obscure bugs. The best thing to do is find someone who is already an expert and seek advice; your faculty sponsor is such a person. Use browsers or previewers extensively, and only print paper copies occasionally; this saves lots of time and money. The abstract is extremely important -- many people will read it who may never read the rest of your document (especially if the abstract is poor). The abstract should be concise, to the point, and it must convey the central contributions of your thesis.

Conclusions

Writing technical reports is a lot of work but it is an essential form of participation in the local and global computer science community; if research is not understood and used by others its value is limited. In 1995, the UTSA CS Division produced fourteen technical reports including this one. The number will grow as the Division expands. The list of recent reports is located at http://www.cs.utsa.edu/pubs/techrep.html.