Roundtable: TEX consulting

http://tug.org/consultants

There was a roundtable on TEX consulting on the second day of the conference, moderated by David Walden (DW). He requested background information from the panelists, and circulated it to all the conference participants earlier in the day. Thus, the panel discussion itself could focus on questions more about consulting rather than just who they were and their basic businesses.

Most of the panelists are listed on the TUG consultants page, http://tug.org/consultants; most also have web sites that are easily found.

Peter Flynn (Silmaril Consultants) I was introduced to TEX around 1980 and have been using it daily since about 1985. I started consulting in 1990, although I had done a few odd TEX-related jobs for organisations as diverse as the Church of England and the Local Government Computer Services Board before that. Most of the work is writing document classes and modifying packages (rather than writing whole new packages), but we also proofread and typeset books, and advise on the adoption of TEX systems. Clients include individual authors, one-person training companies, learned societies, auction houses, printers and typesetters, government offices, manufacturers, and publishers.

Amy Hendrickson (TEXnology, Inc.) I've been doing LATEX consulting for nearly 30 years, since 1983. My steady client is John Wiley & Sons publishing. I provide book class files for Wiley and then assist their authors with their particular needs or questions. Other than Wiley, I have many and varied other clients coming to me, finding me through my website.

In the last few years I've worked for quite a few overseas companies, including an Italian climate change organization, a Swiss software company, a German university, where I did the design as well as the LATEX implementation on an ejournal for their Institute of Advanced Study, and a Brazilian economics journal. I'm working now for a Swedish scientific organization, to produce a scientific journal package and documentation, and have been asked to come teach in Stockholm in December. The other parts of my consulting include teaching LATEX two or three times a year, and occasionally doing book production, for Wiley authors, or for others that come to me. An example is a client last year who asked me to design a book style and implement it for an 800-page book on oil drilling that he is self-publishing.

But the usual kind of work I do is LATEX macro writing, commonly for book or journal class file development, with tabbed documentation in PDF; but I also do macro writing in response to specific requests. A recent example is a macro set for an online financial report generator that uses LATEX in the background.

David Latchman (TEXnical Designs) I first started using LATEX about ten years ago, mainly to do assignments. As I did physics, using LATEX made the typing of equations easy (if only I had known about this as a physics undergrad). I slowly came to appreciate writing in TEX and started using it more and more until I started using it almost exclusively.

Soon others came to me with their problems in LATEX. That grew when I noticed that people were posting their problems online. I started with typesetting articles and dissertations but the projects eventually grew in scope. Most of the subject matter I deal with is still technical in nature; I focus on the sciences, engineering and mathematics. Soon I was typesetting books; I have typeset some books for companies for their internal use, as well as creating of reports. I also modified existing style and class files, leading to the eventual creation of style and class files for clients.

My clients to date have included students (mostly graduate), writers and businesses. About a year ago, I decided to start my company, TEXnical Designs, in the hopes of expanding my services. My most recent project uses Sweave to pull and analyze data into a report, a project I am looking forward to.

Steve Peter (Beech Stave Press) I've been using TEX and friends since 1997 and have been consulting since the turn of the century. There have been three distinct areas of the consulting work: first, I write document classes and packages (or in many cases, customize existing ones); second, I support authors using these and other packages to write for publishers for whom I consult; and, third, I provide editorial and typesetting services outright for students writing theses, authors publishing in online journals (which now often require the authors to hire copyeditors and compositors), NGOs, and various publishers.

Christina Thiele (Carleton Production Ctr.) I started using TEX in 1983, on a mainframe, with no previewer. The bulk of my involvement with TEX has been hands-on, just-me, typesetting work. I've worked on at least a dozen journals, ranging from a few years to well over two decades of their issues. Almost all have been in the humanities, but not all in English; there were journals in French, Spanish, German, Italian, with small stretches of more exotic fare, such as Arabic, Korean, and Hebrew.

But I don't think I did anything that was really and truly "consulting work in TEX" until 1998, to help the National Research Council's Research Press start using TEX for the Canadian Journal of Physics, a small-format single-column monthly. The macros were originally done by Robin Fairbairns — I was the local contact, doing training, first-response troubleshooting, and answering questions of all sorts. I was a consultant at last!

Boris Veytsman I have used TEX since 1994 and consulted since 2005. I mostly do customized LATEX packages, troubleshooting, and teaching. Among my customers have been No Starch Press, Israel Journal of Mathematics, Annals of Mathematics, Philosophers' Imprint, American Chemical Society, Association for Computing Machinery, US Army Corps of Engineers, US Census Bureau, UN Food and Agriculture Organization, and many individual authors, publishers, etc.

Panel discussion

DW: We've already met the panelists, so we won't go through the bio stage. And you've already heard from five of them, giving presentations; one more will happen tomorrow. Another thing I'd like to say is that we're having this panel discussion on consulting because we're curious, and possibly we'll learn something that will be useful in our amateur work. I'm sure we're not here to somehow create competitors for the consultants.

I've collected some questions in advance, and I'll start by asking a few of those. The panelists should feel free to quiz each other, or to answer each other's questions, or to follow on to each other's questions. And of course in a few minutes we'll begin to take some questions from the group. The first question is a little bit of a self-serving TUG question: Raise your hands — How many of you get business from your advertising in *TUGboat*? [Four hands go up.] And, where else do you get your business?

DL: I've gotten some from Facebook. And there have been a few on-line free-lancing sites that I've tried.

BV: Mostly word of mouth, besides *TUGboat*. Somebody, a former customer, recommends some friends.

CT: Word of mouth from editor to editor, which usually means the humanities; professor to professor, same department. I'm a member of the Society for Scholarly Publishing, SSP; many years ago I did a poster session on the use of TEX for linguistic journals, well, not just linguistics, and eventually someone from OUP got in touch with me — it took them about 14 months to track me down; they obviously don't know about TUG — they found me and I got two books out of that.

I had a query that came through the TUG office which had some through a publisher in Sicily; they had a book that had some in in very old LATEX, and they needed it redone. I haven't gotten work through any ads in *TUGboat* because I don't have an ad there; it's not that nobody looks at my ad.

I've had work come through poster sessions; membership in the SSP, where you're allowed one little advertising blurb for free, so your name is out there; and a number of clients came as a result of something I'd done when I was still at Carleton University. Another editor and I went around and polled profs to see who edited journals; and we found over 40, most in the humanities, but not all. So I would say that a university is a really good source of clientele. You put out an ad in their publications or their newsletter — academics have a newsletter, students have a newsletter — and that probably works just as well.

AH: I think the place where I get most work is through my website. I just sit with my website out there, and somebody will come to me. I've had people from all over the world ask me to do various things; that's been pretty useful. *TUGboat* has been useful as well, and also word of mouth. I started out working at MIT, so I have some MIT/Lincoln Lab connections. That's my general stomping ground. More than that, it's just people who come to my website.

PF: Like Christina, I don't have an ad in *TUGboat*, but I do have a website. I get a lot of traffic through the website. Also, going to conferences is a major source. In my case, not just TEX but XML as well. Being there and meeting the people is probably about 65% of the battle.

BV: I have a story about word of mouth. You know, I have several jobs — an evening job at a university, a daytime job at some company. And once I was recruited for a permanent position about TEX; somebody read about me in *TUGboat*, they wanted to recruit me; I said I like my positions and don't want to move, and this was a very wise decision, because, after some talk, I understood that I was being recruited by another department of my own company. So my answer that I was pretty happy where I am was probably a good thing.

DW: A follow-up question was, how do you communicate with your customers? I assume phone and e-mail. All of you? [all nod] In person, some of you? ["occasionally"]

BV: If you do teaching, seminars or classes, obviously you meet your students in person. For everything else, e-mail is good.

PF: If you are using a website, then having a client subdomain is basically an extranet with user name and password access for clients. You can use it to download, to place copies of things, to keep in contact with the client.

DW: To what extent does anybody's consulting go beyond LaTeX, or is it primarily LaTeX?

PF: XML...

SP: Copyediting, editing ...

DW: Proofreading ...

AH: Design ...

DW: Well, that's my follow-on question. How much of the time does your TeX work take you into design, either of the book or of fonts?

AH: Not as often as I'd like. The last few years I've had the opportunity to do some design work, and actually it's been a lot of fun, although also time consuming, and perhaps not very profitable. For an e-journal, I did the design as well as the implementation of it. I've also done design work for small companies who wanted to use their logo in a particular way. I find that's kind of fun, but it *is* really time consuming. I don't know that I recommend it.

BV: For me, it's the opposite story, because some clients want me to do design more often than I wanted — I never tried — but now I know to whom to recommend it.

DW: There's a followup question over here — the same topic?

Pavneet Arora: In what form does the design reach you?

BV: My favorite form is specs. You have so much baseline, so much space in the margins, and so on. Unfortunately, many designers don't do this; they just send me a sample, and I have my trusty ruler with the different scales, where I measure. Unfortunately, sometimes they just do this.

CT: I usually just have journals, so once you set the design, all you do is plug the data in each issue. But when I'm asked to start up a new journal, which has happened three or four times, I prefer *not* to be given the specs, because most of the editors are completely unaware of what those mean, and I would much rather have them go cruising the shelves or go cruising through Muse[1] and, although you have to be a subscriber to get the current issue, you go in there, you can go by category, mainly humanities as I said, and then if you go into any specific journal, go all the way down to the bottom of the list of their collection — the oldest issue is very often free. So you open it up, and you take it — that's what I've done — you look at the title page, the general pages, the bibliography, and after about five or seven of them, you realize that a lot of them don't have a lot of the information that you think could go in there. A lot of journal design is very static; it hasn't been reviewed in a long time. So they don't have things like e-mail address, contact info, the main author to connect with, ... That's very common in science journals, but not in the humanities; they don't seem to want to talk to anybody, just talk *to* you in the article, but please, don't come back to me. It's very different in the sciences. So Muse is a really great source for inspiration, and motivation to do better. As I said, after five or six journal title pages, you can see where you can do better. Of course, techniques are so simple, it's great.

AH: My specs for that job I was talking about, the e-journal, the specs were the color scheme and some graphics, and that was it. So you can imagine, there can be a lot of choices, so what do you want to do — do you want to have the colors graded through the page, how do you want to link this page to the other page. And also, I found my own graphics, by going to the web and finding things that didn't have copyrights on them, and then using those graphics. Similarly, for doing book design, I was able to do a few book designs recently, either because the authors didn't know what they wanted exactly, or they just let me loose with it. One was a book that dealt with "the theory of everything", so I was able to find a graphic that matched that, and used it for the chapter headings. Another one — it was kind of a weird job — a guy came to me who was from the oil fields of Texas; he had done work with oil wells, and he wanted to write a book on oil wells to share the information he had gained over the years. So I found some graphics that had to do with oil wells and put them in the book, and he was happy, and I was able to use whatever colors I wanted to use, and so forth, and produce the book for him.

So I think, if you're given a set of specs, that's trivial; you just implement them. I've done that plenty of times; it's not terribly interesting, but I can do it. But it *is* kind of fun when you have a little

[1] Muse is an electronic warehouse, with electronic subscriptions, mainly to humanities journals. It's run out of Johns Hopkins. *Ed.*

bit of leeway so that you can do something more interesting.

PF: My initial reaction is that the design, everything should be black, shiny, shiny black. [SP: and lucrative] And lucrative. And corrupt. I have not decided. I have ten designs that I need to design. To answer the question, most clients will provide a PDF of the sample, oversize, big borders, and with what they fondly believe to be measurements. Unfortunately, the way they do these is frequently very ambiguous. They get the dimensions wrong, they get the scale wrong, you try to print it and it's nowhere even vaguely near what they request, because they've test printed it with Acrobat with the scaling turned off. They haven't got it right to start with. And, like Boris, I'd much rather they'd give me the spec, a positive spec. But if they do, and even if they try to do it in the design, they leave out stuff. They don't specify chapter starts, and they don't specify heading 1 and heading 2, and then no heading 3 layout, even though the book contains heading 3s. The book will contain, for example, bulleted lists, but they won't specify how much they're indented. Many, many of these specifications are grotesquely defective. So there's a constant stream of going back to the client, and saying "What do you want this to look like?" And they go back to the designer, and the designer says, "Oh, well."

DW: Steve, you also work on the design of the parts, yes?

SP: Yes, but not anything I've gotten through this. What I get is a surprising number of organizations that have things like occasional papers, and they've already got a Word template that they give out to authors, and then they want to support TEX users. I'll get a copy of the Word template, which in some cases is surprisingly tough. I had one recently where the display math was supposed to be left justified if it was fewer than three lines, but centered if it was more than three lines. And my reaction then was "Why??" And they said, "Well, that's the way we do it. We just press the button and you either center it or left justify it." I could probably do it for you, but do you really want that? I think I've talked them out of it; they've reserved the right to come back to me and demand it to be implemented that way. I'm hoping they avoid that.

BV: Speaking about specs, once I had beautiful specs! Absolutely beautiful; it was a journal, and the author was a professor of typographic design. It was absolutely beautiful, exactly stated, it was very difficult to implement because it was grid based of course, and you know how to do grid-based typesetting in TEX, it's ... but it was beautifully done.

DW: This brings to mind another question: you've talked about how the customers will come back to you, you go back to them. While I'm sure that sometimes happens in the slightly longer run, therefore my question is, How often do you get change requests when you maybe think the project is done? How do you *know* it's done? What do you do with those?

BV: Nobody wants this? Okay. I made a mistake in the beginning of my work as a consultant. and it's too late to correct it. The mistake is I said that you have free lifetime support. [laughter] And you wouldn't believe how many times I have requests for this support. What I do is I say, "If you want me to correct my bugs, it's free. But if you want me to redesign new features, I'd rather be paid for this." But still, if there are some bugs, some situations that are not bugs, but I didn't realize what they wanted, if you start doing it, you are going to do it for a long time. Sometimes it's reasonable to ask money for this; many times you just do it for free because ... just because.

PF: I did very nearly the same that Boris said. I offer support for fixing bugs, but not enhancements. I did get, I think, one argument from a learned American society for whom I'd done an SGML-to-XML-to-LATEX conversion program, which was running in batch on their web server, running happily for years without any problem. And they rang me in a panic on a Sunday night at 8 p.m. to say that it was broken, my program. I suspected the bug was in their data, not the program, but by the time I'd gone and checked it out, I discovered they had a new sysadmin, who had *removed* some key features from their operating system, like `rm` [laughter] because he thought they were unsafe. But the script I'd written on several occasions removed its temporary files, and was falling flat on its face. Trying to explain that to the customer, that their own staff member has accidentally fouled things up, taught me a valuable lesson: you can't trust a customer to provide you with a platform on which your stuff will execute. So you have to write your scripts so that before they start, they test for the presence of everything that you need, even system facilities, and they will issue an error message if something is not there. You *do* have to be incredibly careful, if you're going to undertake this, to make sure that stuff that's supposed to be there is actually there.

AH: I deal with a whole lot of clients. I will make a macro package with documentation and template files and so there's a solid piece of work there. And then lots of different authors will use that work, and as the authors use it, they will say, this needs to be changed, or I would like this additional feature, and so on. So it's just ongoing support of authors I think of, rather than redoing the macro file. I find as a consultant that this can sometimes be tedious, but on the other hand, it's kind of nice because it's kind of steady at the same time, so it's kind of nice to even out your funds with this kind of work. That does tend to be useful, I think, to support authors as they're using your macro package.

CT: I only have one client like that, a very long term with the National Research Council in Ottawa, the Research Press, which about a year or so ago got sort of spun off into a non-profit, so they pay bills faster, they get back to me faster, and they don't go off on very peculiar adventures because of principle or personal hobby-horses. We did it for quite some time, until about 2005 — and then they went away from TeX to XML direct with Word and 3B2. So one of the journals is coming back to TeX, which has meant that we had to ... we said, yes, we can give you support again, starting with a new version of TeX, because they were using Y&Y, which was great, but now defunct. So we are in the process of taking macros that work perfectly, even now, under Y&Y, amd we have to upgrade and haul them forward to use PC TeX and that structure is different, so now they're saying, "Well, can you make it more like..." Well, no! It's a different product, different company, different GUI, ... Well, they're not keen on the editor. "Oh, well, that's not the upgrade, that's going to be the support and maintenance", so we're having to make a distinction between the get-us-going again phase, and separating those tasks from "and could we do", which is what we say is the future support for their maintenance, and that's a different contract. So we're trying to distinguish those two. That, of course, is different pay.

SP: One thing that I've noticed, most of my ongoing work is author support, things of that sort, which is charged by the hour. But I have noticed a definite correlation between the amount that they're originally willing to pay, and how much they want to come back to you for free changes. So if they're going to nickel-and-dime you at the beginning, they're going to come back and ask for an amazing amount of free work.

DW: Well, a question that I think has come up here, that is the second part of the previous question, is: First, how do you deal with people who, they have different distributions and tools than you do, and for these instances where you go back and forth with them, perhaps after a long time, how do you archive the setup that you were using when you worked with them before, so that you can come back to them? Or do you?

SP: Personally, I've got five different computers set up in my office, and a number of virtual machines. I try to match a large number of setups. Obviously, I don't have VMS or anything like that running. Rarely do I have a request to do that. But either I can match directly, or ... Really, TeX has very few problems that I have hit with flat version dependence. ... Knock on wood.

CT: I have some very, very old files that every so often have to be revisited. I've been doing the *Canadian Journal of Linguistics* for many years. It started as plain TeX, then eventually it went to 2.09, now it's 2_ε. But now, for Muse, we're going to try to put all of the back issues up in electronic form, and PDF. So I'm going to be revisiting files from volumes 34 to 48, which go through all those three. And so on my machine, much to my husband's dismay, I have something called "oldTeX", and I have something called "RnewTeX" — that's "really" new TeX — and I'm hoping that I can still use oldTeX with plain and .09, and ε with RnewTeX, which is actually 2003. (I know; we'll talk about that tomorrow.) So I have some very old installations. I have Y&Y running under Win98. (You see, when you're a one-person operation, you're a very old archival type, historical.) The fellow I work with for the NRRC, Paul Mailhot (he's in Halifax; he's also a consultant like this), he has four or five machines with various TeXs — PC TeX, old and new, Y&Y, I think he has a couple of the public domains as well — so one just collects, Mostly they stay on the old machine that they lived on first, and when you advance, you advance your TeX, and if you have to, you cross borders, but otherwise, they're dedicated to certain clients and certain jobs, until you run out of room.

AH: I find that fonts are the thing that's most problematic, in terms of not being transportable. So I'm so grateful to Will Robertson for the `fontspec`. That's just great, and it also gives us access to all those nice Adobe fonts. That's a terrific improvement in *my* life. Other than that, I haven't had much problem with version dependence, really.

PF: I don't have a problem with version dependence, because most of my customers are keeping up to date. What I've got is a few who are no longer customers who may well want to update stuff, and if they come back to me still running LaTeX 2.09, then I strongly suggest that they upgrade. I *do* make a rigid rule that they use an SVN repository.

DW: I have a couple more from the audience, and then I have a couple more that we made up just in case there weren't any. Suppose I want to write a LaTeX package, but have no experience. This person knows how to do LaTeX, but doesn't know how to do a package. Where would this person start — are there tutorials, textbook chapters, other suggestions? We may have someone here who would like some consulting, but free consulting, I'm pretty sure.

BV: There is a guide, `clsguide`, in "old TeX" how to do it. For other people, it will probably be different, but for me, I started by reading source code by other people. This is probably the best way to learn to look at packages, to look at `.dtx`, just look how people did things. Some people prefer textbooks, but for me, reading source code is the most educational thing.

PF: Yes, I'd agree with that — reading the source code, but reading it very *critically*, because some of it is a bit fake. The `clsguide` document is definitely a good place to start. Also the three chapters at the end of the latest *Companion*, which describe how to write packages. Those are very good. There are some serious problems with the documentation for `.ltx doc` because it doesn't explain terribly clearly how you embed multiple output files into your `.dtx` file. The documentation is ambiguous and that key piece is missing, or not terribly clear. As I said earlier, in my talk, I cheat, in the sense that my `.dtx` files are all generated from an XML document, so I can retain control of the way they're output. If I make a change, I can just do a regression test on all the documents and they all come out looking the same. But that's just me.

AH: My suggestion is Victor Eijkhout, *TeX by Topic*. That's very helpful, because the other basic reference guide is *The TeXbook*, and it's not well organized, really, in terms of, if you want one bit of information. So I think Victor's book, which is free to download, is a real good help. And also just starting with an existing `.cls` file, see how running heads are handled, for instance, you can make a variation on that pretty easily.

BV: [Victor's book] is free to download, but if you want to save your eyes and if you want Victor to have a couple of bucks, I would suggest buying it from Lulu. I did it myself, and it's one of my favorite books, to tell the truth, when I do TeX.

DW: It doesn't get Victor any money, but they're also for sale, used, on Amazon.

Another, very specific, question from a member of our group. He's working on a textbook, copyediting it, which has two `.bib` files. When he compiles it to PDF, sometimes the relevant `.bbl` file changes, and sometimes it doesn't. He wants a glimmer of, what makes that file change, and what makes it not change.

AH: Did he run BibTeX on it?

DW: I presume BibTeX was run on it? [Yes.] My own experience in compiling, and I'm far from an expert, is every once in a while it seems to pay to delete all the `.aux` files and somehow make TeX think that it needs to start from scratch.

CT: I've done that.

BV: I would look into the logs, the `.blg` file (which is the BibTeX log), the main TeX log, because sometimes BibTeX just dies under you, and if you are not careful, if you use an IDE which does not tell you, I prefer Make because Make just stops when something goes wrong. But if you use an IDE, sometimes it just dies and you don't know this, and you happily go further, which would be wrong. So just look at the log files and they will tell you a lot of the story.

SP: Sacrificing a chicken under the full moon is the best way.

PF: If the file is changed, and sometimes not, my immediate reaction is to run Diff. *What* is TeX'ed? The only thing I can think of that can immediately affect it is if you have two works by the same author, one in each `.bib` file, of the same year, so on alternate occasions, it would be computed as "1994a" and "1994b", or something like that. And if you updated a part of the document that did not cause that to change, it would not trigger that addendum.

Nelson Beebe: I've probably done more BibTeX than anybody else. Here's an example that I use extensively in my bibliographic work. You have an article on a particular topic, and six months later, an erratum is published. So I put in the BibTeX entries a pointer to the original to be read so if you cite the original the first time through, you get the original. There's still a new reference dumped into the `.aux` files if you need to run BibTeX twice. So the reality is, for heavily cross-referenced bibliographic needs, you really have to run BibTeX every time you run LaTeX, and then probably one more time. If you're using something like Make, you end up with something that can be set up with the right number of steps consistently.

Unfortunately, all of these people work with GUIs that click a button; they can't remember how many times they have to run the index program and BibTeX, and other programs. They get it wrong.

BV: Yes. If you have several entries from the same book, then the threshold is such that the book might be good, or it might not, then unfortunately it is done only on the second run of BibTeX.

DW: Do the panel members have any questions for each other?

SP: One thing I want to bring up, one of the reasons I suggested we have this discussion is, about three weeks ago, I had a call out of the blue from another consultant listed on the `tug.org` site. He just wanted to chat, and said, basically, "How do you guarantee that you get paid?" Because he had a couple of cases recently; one of them he described, and I know who it was because the guy contacted me at one point, and I wasn't able to do the work at that point, so i passed him on, I said just look at the `tug.org` site. But I personally have had a couple of jobs and it seems to be an increasing case in the past few years of people getting work, and not getting paid. In general, if I've got somebody coming to me who says "I need you to do x, y and z and I need it by next week", and it's going to be a $200 job, you can't really say "Send me a check for $100 first, before I'll start on it." If it's a small amount and a short-term job, I'll just go ahead and do it. And those are rarely the problems. But it's the ones that are $1500 and they want things, what do other folks do?

DL: I know some people who have had this problem. One way to combat it is to ask for a partial up-front payment. In some cases maybe 10–15%. In cases where you have to collect the rest of your money, unfortunately, hopefully you have enough information on the project client to give to some collection agency. Beyond that, there isn't really much that you can do.

BV: If you have organization or corporate customers, they always pay. You just sign an agreement. Maybe there are some corporations that don't pay, but with individual people, ... If it's $1500, you can always say, pay me 25% up front. But when it's a couple of hundred, you cannot do this, and several times I was burned. You cannot do much when it's a couple hundred. Well, maybe it's a cost of doing business.

I'm sorry if some of you are economists, but I have a very low opinion about economics students, because it seems they are taught that morally it's something which should not be done, but business efficiency is very important, and one part of business efficiency is not to pay when you owe. I have a problem with business students, unfortunately. Maybe it's just my bad luck. When it's a couple of hundreds, you can't do much. You could go to small claims court, but you'll spend more time. What can you do? But to say the truth, lots of students are very good. I had one student who said "I cannot work with you unless I pay you up front. Let me just pay you my bank balance." I said "Fine." There are many people who understand this.

Robin Laakso: I have a suggestion. Sometimes when you go to a restaurant, especially a small one, and they have a bounced check, they'll put it on the wall. They'll have a list, and these days, a list on the wall or a blog.

BV: They could try to sue you for defamation. I wouldn't. It's very interesting, but...

DW: I think when they put it on the restaurant wall, their excuse is not that I'm exposing this person to the world, but I'm telling my staff not to let this person come in any more. So they've got kind of a fake excuse.

CT: I've actually had two cases. One time I got to a point where I had too much work, and I asked Steve if he could help on the front end grunt work. So I couriered the stuff down, it was for a university prof, not from my university, and it took so long to even get messages and responses back from him. amd we lost money. Steve did all the way up to the PDF proofs, I gave it to the author, and it finished. We had no recourse, I couldn't find him any more, the material was actually time sensitive, and five years after economic forecast papers, that's pointless. So it was a total loss. And then there was another where it was a very large book, and it simply took a lot more time than the two authors had found funds for. So whatever they *were* able to scrape up, I gave to the fellow I co-worked with, and I got zip. But it was for one of the authors who was editor of a publishing house for which I had done at least two series, at least 20–30 volumes over time, so I felt morally obliged to bring this book to its conclusion. And it took a very long time, there were two rounds of very thorough edits that came from other colleagues, yet more time. There *is* no recourse, because there was no money. That's one of the problems with getting jobs through university profs who apply for funding: they underestimate savagely, because they don't think a large sum would get them money. Somehow, magically, things will work out. Of course, if you feel morally obliged, they *do* work out.

AH: I actually have good experience with economics people! I've worried plenty of times. This is my way of making a living; it's *not* a luxury. One time I was working for a guy with a journal in Brazil, and I think, I have no recourse! If the guy doesn't pay me, he just doesn't pay me. So you're kind of relying on the people's sense of honor and the fact that you work with them in a nice way. And they usually come across. There was one example recently where I had a guy who sort of had a temper tantrum. He said "Oh, I can't use what you did, so I'm not going to pay you." Oh, well, that's not going to work. So I just had to talk to him, long distance, for like four hours, and soothed him through whatever his problem was, and showed him how to get the results he was looking for, and eventually that all worked out. However, I will say the other problem I've had is that people don't necessarily pay quickly. When this is your rent money, that's an issue. So I always suggest that anybody doing consulting have a good cache of money in your background so that if somebody plays around with you for a couple of months without giving you the money they owe you, you can still pay your rent.

BV: [...] For me the US government was a very good customer. They paid on time, and very well and very fast. Basically, the UN was also fast; they also paid well. Second, what I wanted to say, there is some asymmetry here. The secret is this: even if the customer doesn't have any money, and there are some problems, it is very difficult when you have — I'm speaking about myself — some sort of moral feeling that, well, the customers don't want to pay, but for us, not to finish the job, not to do the job, is very difficult. I don't remember ever saying that I'm going to drop this client.

DW: Nelson, you had a question?

NB: Two related questions. They have to do with the adoption of what we consider technology futures. One is color, the other is input [...]

DW: Let me repeat the question. Color is getting easier to use, color laser printers are getting inexpensive. The other part of the question is, Unicode is out there but it's somehow mixed up sometimes with other codes. To the panel: what is your experience with color and with Unicode?

PF: Unicode, yes, because most of what I do, whether I end up doing it with TeX or something else, comes through XML. The customer has all kinds of files and all kinds of mixed formats. I turn it around and tell him, I'm sorry, you have to provide [better input]. I can't do it — it won't process!

AH: Color's great, and that's the wonder of PDF files.

CT: Just a very small comment. I offer PDF in color even before their electronic versions because the journals now want both hard copy and ...

SP: The question is, do you get an opportunity to put in a colophon on your work?

SP: So far, no, because most of the consulting work I'm doing is class files, and they really don't want to call attention to the fact that they're using TeX, especially since, lots of times, they're matching Word. I've had one book that I was requested to do the typesetting on that I was able to put a colophon on. The one commercial book that I did in ConTeXt, I put it in and it got printed the first time, and for whatever bizarre reason, when the press, Cambridge University Press, did the second edition, they retypeset it and left off the colophon altogether. But you could tell it was no longer my typesetting.

CT: For the job that paid nothing, the editor had several series going — there are some Renaissance plays, all sorts of stuff in that vein, Italian plays, Spanish plays, English plays, and so on — and I *always* had a colophon, because he gave me free rein. I always had a colophon that said the Barnaby Rich Series is typeset using TeX with Palatino fonts. Every single one. Always printed. And then I thought, every book that I did in between, all those books in that series, I would always generate a colophon page, and I would leave it to the publisher, with or without the editor, to make the decision about including it. So it makes no never mind to typeset that one page with a little block of text right in the middle and then let someone else decide. A lot of them don't even know what it is; they have to look up what is a colophon. That says something about publishers. But I would say, produce it, make it look good, let someone else decide if they want to include it, but you've done a good job by saying this is it.

PF: Sometimes the author or editor will mention in the foreword or preface that it was typeset with TeX. I leave it to the author. Other times I put a colophon. The publisher will frequently take it out because the publisher will re-typeset the legal blurb — that is the title verso — because they have their own stuff that needs to be included; so frequently the colophon will disappear because that page has been redone.

BV: Of course a good book should have a colophon. I have a publisher; I designed a style for this, and it has a colophon; and the colophon mentions fonts, everything, and my name. I don't understand why, but in e-books — they produce e-books and hard copy books — my name is on e-books, and somehow they delete it from the hard copy. Nobody has explained why to me!

SP: I always like the e-books that say they're printed on acid-free paper. [general laughter]

PF: How do you get an author to sign the e-book?

DW: I'd like to thank our panelists, all six of them. Thanks very much for taking the time.