The LLMC-Digital Newsletter
Issue No. 6: April 2004

First Use of Emergency Listserv

The *LLMC-Digital* emergency listserv was used for the first time on April 7 to alert subscribers that a temporary data-extraction problem involving the computers at the University of Michigan had rendered the March statistics unreliable. Patrons were advised not to use their figures as reported until a follow-up listserv e-mail gives notice that the system is back to normal. Michigan was expected to have the problem solved by "the end of the week." Our apologies to those who may have been inconvenienced.

First Digital Book Scanner Arrives

We are delighted to report that the first digital book scanner was installed last week at LLMC headquarters in Kaneohe. This marks the beginning of our changeover from reliance on film to a system in which we will perform all original data-capture digitally. We plan to have replaced all five of our film cameras within the next twelve months or so. (See endnote one) There are at least two great advantages to capturing data digitally from the beginning. The first, of course, is that immediately after capture the data is ready for mounting on the web site. The other advantage is that digital scanners are capable of a subtlety which eluded us through the film era. The problem with film is that it is "too true"; too faithful to the original, warts and all. Thus, when print originals manifest such common faults as foxing, browning, or bleed through, the film process captures all of those faults and, in some cases, even exaggerates them. Digital book scanning incorporates a number of "enhancement" features which can mitigate, if not always eliminate, these flaws in the original print copies. So, the course upon which we now are embarked should lead us down the road toward a generally higher quality of image. (See endnote two) This new data-capture capacity will also impact on our current digitization-from-fiche program. As you know, that involves digitizing the images from our backfile of roughly 570,000 microfiche. Some of those fiche were created from less than ideal hardcopy. In other cases the nature of the original paper is such that we expect that scanning would produce a better image. With that option in mind, we have been reviewing all of our microfiche before they get sent out for digitization. In those cases where we think we can get a better image going the scanning route, we have scheduled those titles for "re-filming" (i.e. scanning) whenever hardcopy can be obtained. Finally, while moving to digital scanning for data capture, we still must meet the commitment made to our members that we will preserve the master copies of all images in an archival and analogue format. As described previously, the technology is available for "writing" digital data to silver halide archival film for preservation purposes. We are now down to a choice between two equipment systems, each of which promises to fill that need in a somewhat different way. Site visits to help us decide between

these options are scheduled for May and June. We expect to come to a final decision on this front and to have a "write back" system in operation before summer's end.

Page two in the hardcopy begins here:

Saving Raw TIFFs

The digital images of pages which we are creating, either by digitizing from our fiche, or by original scanning, are saved in what is known as "TIFF" (See endnote three) files; referred to in tech parlance as "tiffs". As mentioned above, the digital technology incorporates the possibility of effecting some enhancement of these images. After tiffs are created, they are put through a post-production process whereby the quality of the images is modestly enhanced in various ways; mainly by the elimination or toning down of such flaws as foxing and bleed through. However, these enhancements are not reversible. Once one has "doctored" a tiff, it stays doctored. Meanwhile, since it's a balancing act, one may have pushed other elements in the tiff, say the darkness of the text, to limits beyond which further enhancement would be impossible. The main point is that the tiffs change irreversibly with each operation.

Given the evolution of most digitally-based systems, it is predictable that enhancement applications developed down the road will be superior to what we have today. In anticipation of those improvements, LLMC has instituted the practice of saving one "raw" copy of every tiff created. This "raw tiff" retention policy will apply, not only to the tiffs we create by digitizing from our fiche, but also to those created now that we are digitally scanning from original paper. Our feeling is that this temporary storage will not soon become a major burden, and that it may well pay dividends by keeping our options open for utilizing future technology.

Content Status Table Improvement

An astute user took one look at our new Content Status Table (featured in last month's newsletter) and immediately came up with a great suggestion for improvement. Noting that the table is updated monthly, and that it will soon grow quite large, the member requested that we summarize each months changes and then archive the summaries. This would fulfill two purposes. One, the summaries-of-changes-made will enable users to address only the actual changes, rather than repeatedly rechecking the whole list. Two, archiving the monthly changes will permit users to check the table on a schedule of their convenience. The member's suggestion was so simple and logical that we put it into effect immediately in the form of a new section added to the Content Status Table. Thank you member! The

new section can be accessed by clicking on the legend "Log of Past Monthly Additions to this Table" on the initial contents page of the Table.

Another possible improvement to the Content Status Table may occur naturally next month. We have noticed that the text on the web site "reads" differently, depending whether the consumer is on a PC or a Mac. We also notice that the formatting on the site is not as self evidently clear as it was in the original copy submitted. The likely problem is that the staff member who created the Table operates in a Mac environment, while our web master is completely PC. During the next month we will move the in-house part of the update task to one of our PCs, and next month's changes will have PC talking to PC. We hope the result will be that patrons will see a crisp and clear layout more closely approximating what was intended.

Mismatching Page Numbers

In middle March another astute user discovered that, when a given page number was called for in a TVP Search of the *Federal Communications Commission Decisions–1st Series,* a totally different page appeared. In this instance the problem turned out to be a mistake in the interpretation of the cataloging. As a result, the tagging metadata for the FCC Decisions–1st Series had been incorrectly "married" to the tiffs for the FCC Decisions–2nd Series. That problem has been solved already, but we flag it here so that all of our users will know that— this should never happen! If it does, then something is wrong. So please don't shrug it off as a minor glitch. Let us know, since the flaw may be more serious than it seems.

Page three in the hardcopy begins here:

Improving the Printing Option

Based on subscriber feedback, what members would like most in the way of improvements for *LLMC-Digital* would be a better printing option. When *LLMC-Digital* was first activated, our partners at Michigan had the default position for printing set up in such a way that pages were printed in batches of ten, regardless of what the user may have had in mind. This was done for some good reasons; but they weren't our reasons. So we soon convinced our technical partners to adjust the default setting to one-page-at-a-time. While tedious, this at least addressed the complaints of people who didn't want to waste so much paper when only a one-page print was desired. It's clear, however, that the only option which will serve the efficiency needs of our class of users is one that permits the custom printing of any desired range of pages. Especially given the fact that raster-scanned images (our technology) print more slowly than continuous stream digital text, it is highly desirable that a user be able to type in her desired range of pages and then set the

printer running, while she goes off to do something else productive. We are happy to report that improving the printing option has now risen to the top of our *desiderata* list as recognized by the University of Michigan's computer-programming community. They are now giving this matter priority attention, and believe that a solution will be coming in a matter of months, rather than years, or even quarters. We will keep you informed in future issues of the *Newsletter* as this project progresses.

Saving Cash by Off-Shoring

A subscriber with a strong economic bent, who has been paying attention to our descriptions of our physical processes over the past year, notes that much of the work we are doing (extracting digital images from our backfile of fiche; proofing, tagging and OCRing the tiffs; and even running the servers) could be outsourced "offshore" for possible savings. This, he points out, might lead to lower subscription fees or a greater quantity of materials being made available more quickly than possible under our present arrangements. He asks if we have given adequate consideration to the various possible off-shore options. We did indeed check out several off-shore possibilities; particularly for the digitizing of images from the fiche. We did so, not because we were particularly attracted to this course, but because we assume that our members rightly expect us to be the ones who are generally well informed in technical matters. As it turned out, we did not find that any of the offshore options we checked out promised significantly lower net dollar costs than the ones we now employ.

As, or even more, important, we did not find potential savings near high enough to compensate for the serious lack of quality control which might ensue if we did not directly control crucial components of the process. To give an example: we're not in the same situation as, say, a bank, which just wants "half-way-decent" copies of a trillion checks. Our users demand higher quality, and buying that from others far away is neither easy, nor, ultimately, very cheap. These conclusions were doubly reassuring, because they fortified a pronounced bias held by current LLMC management. We are very aware that a large percentage of our subscribers are institutions supported by public funds. In our opinion, public funds are something special and should not be used to export potential home front jobs unless the net balance of potential benefits from that course is overwhelming. Since, in our case, we did not find them even remotely so, we were happy to follow our basic instincts and keep all of this work in-country.

Winding Up Charter Membership Drive

April 30 marks the last day of the extension the LLMC Directors allowed in January for our Charter Membership drive. The drive has been going very well. We now have 224 subscribers, who, combined, account for an annual subscription base of

roughly $1.2- million. This gives us a firm economic base upon which to grow, while providing a sufficiently large, and representative core of Charter members to manage the project successfully. Of course, there's always room for more.

Page four in the hardcopy begins here:

So, if you have a friend in a law library which has not yet signed up, you might want to point out the benefits they would enjoy by meeting the deadline. In absolute numbers the academic law libraries dominate our governing structure (161 out of 224 subscribers). This was to be expected. They hold the highest percentage of the types of material *LLMC-Digital* is designed to deliver. So they will reap the most benefit from the space-recovery side of the program. Also, they arguably host the largest number of potential users. For this reason we designed a program with special appeal to the academics, both in price and in the range of access offered for their constituencies. We appear to have met many of their needs, since, at this writing, 78% of the AALS-associated U.S. academic law libraries, and 70% of Canadian academic libraries, have signed on as *LLMC-Digital* Charter Members.

Directors Retreat at AALL in Boston

Because the Consortium has a lot on its plate, the Board of Directors feel they will need more time than usual to address the various issues facing us. Therefore, they plan to hold a one day retreat at Suffolk Univ. Law School in Boston on Sat., July 10, just before the AALL convention. Issues on the agenda will include:

- designing new management structures
- recruiting new or replacing retiring staff
- major new equipment/renovation costs
- setting future goals for LLMC-Digital

As they approach these questions, they want maximum input from interested members. To facilitate that input, here are the names of the LLMC Directors and Advisory Councilors, any of whom who would welcome hearing from you on these issues:

Board of Directors: Carol Billings, *Dir., L.L. of Louisiana,* Georgia Clark, *L.L. Dir., Represent-ing Wayne St. U.,* Jerry Dupont, *LLMC Exec. Dir.,* Stuart T.K. Ho, *Lawyer, Representing U. of Hi,* Roger Jacobs, *Dir., Notre Dame U.L.L.,* Blair Kauffman, *Dir., Yale U.L.L.,* Daniel Lavering, *Dir., Judge Adv. Gen Sch Lib.,* Margaret Leary, *Dir., U. of Mich. L.L.,* Ann Rae, *Dir., U. of Toronto L.L.,* Maryruth Storer, *Dir., Orange Cnty. L.L.,* Jules Winterton, *Dir., IALS–U. London (UK)*

A Personal Note

For those of you who know me, Jerry Dupont, it may be of interest to hear that I just hit 65 and will be eligible for Social Security in June. Therefore, the LLMC Directors are wisely planning for my coming retirement and replacement. Given that our Consortium has just taken on major new responsibilities tied to *LLMC-Digital,* and that the organization is in the middle of a recruitment and training process for a larger staff to carry out these new duties, it would be inconvenient if I just upped and left. So I am offering to stick around for a bit longer, and will gradually slide into retirement as my various duties are off-loaded onto new shoulders. I have asked that the Directors make the replacement process a matter of deliberate policy, so that I can be confident that my involvement will methodically decline, and so I can plan on being totally free of LLMC responsibilities sometime in the next decade.

This process has implications for the authorship of this newsletter. As some may know, I have been providing all of the editorial matter for the first issues, and have been pretty free with the anonymous "editorial we." It just would have been too awkward to sign every paragraph, or too tiresome to write everything in the first person. I will continue to write the copy for the *Newsletter* in this fashion for the next several months, but will gradually be replaced by other staff members. When that happens, we'll move to signed articles, or some other device, to indicate authorship.

Endnotes:

1.) Our first digital book scanner is an Omniscan 5000 table top model manufactured by Zeutschel, a German company. Zeutschel products are at the high end of the market and reflect that company's long and distinguished presence in the filming and imaging industries. They are sold and serviced in the U.S. by Crowley Micrographics of Frederick, MD. One turnkey unit goes for about $40,000. Our remaining data-capture units may not necessarily be Zeutschels. However, the choice of this model as our inaugural unit indicates that we think it best meets our needs given our projected levels of production and the types of books we normally handle. Of course, we will be guided by in-house experience in making subsequent purchases.

2.) Moving to digital book scanners is not likely to save us production money overall. The scaning process is actually a bit slower than with filming. So labor costs for the act of initial capture will go

up. However, our current film operations incorporate a substantial “re-do” element. If you spoil just one image on a 98-image microfiche, you have to re-do the whole fiche. With digital one just corrects the single faulty image. All in all, we expect the various competing factors to balance out and are predicting roughly the same production costs per unit of information. Six months to a year of experience will no doubt resolve this question.

3.) TIFF stands for “Tag Image File Format. Readers may have heard of other possible raster-image file formats; e.g. PCX, GIF, JPEG, SGI, CALS, etc.; all of which have their uses. TIFF happens to be what is preferred, for good, or at least plausible, reasons, by producers of digital libraries in the academic community