June 1999

Chaos-What Will Next Generation EDI Really Look Like?

Sandra K. Paul

SKP Associates, SKPAssoc@cwixmail.com

Albert Simmonds

SKP Associates, awsimmo@ibm.net

Follow this and additional works at: <https://docs.lib.purdue.edu/atg>

Part of the [Library and Information Science Commons](#)

Recommended Citation

Paul, Sandra K. and Simmonds, Albert (1999) "Chaos-What Will Next Generation EDI Really Look Like?," *Against the Grain*: Vol. 11: Iss. 3, Article 34.

DOI: <https://doi.org/10.7771/2380-176X.3927>

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.

Biz of Acq from page 82

item record, we would add a record, code it "d" for discard, and suppress it from the public display. For discarded items that we do not want to count, e.g. supplements, we could simply delete the item record from the system outright. The Innovative system automatically records the date a record was last edited, and so at the end of the year we could use the "create list" function to make a list of all item records with the code "d", last updated between July 1 and June 30 (our fiscal year).

Training the acquisitions, serials, and periodicals staff to enter a single code in an item record, rather than record the author, title, and accession number (or barcode) of a book being discarded, was hardly difficult. The new procedure took so much less time, it was truly a welcome change. It was decided that item records for discards would be purged from the system each year a few months after the ABA statistics were completed. We would create a list of item records from the previous fiscal year, and delete them using the "Delete item records function." Though the records would look a bit messy at first glance, they would never get truly out of control. Also, there would be no significant strain on the number of item records we had available to us.

While the new procedure has worked admirably well, there have been a few minor problems. First, we make an assumption that after a record is encoded as deleted, it will remain untouched. This is the case 99% of the time. However, occasionally a staff member who does not understand the discard procedure will go into a record and update it as "missing," possibly affecting the year end statistics. This can be avoided by proper staff training (see below). Care must be taken to delete supplement records rather than encode them "d", otherwise they will be counted as discarded volumes. Finally, for titles entirely withdrawn from the collection, there must be a code in the bibliographic record that means "discarded—suppressed from public display." This way, the item records attached to the particular bibliographic record can still be counted.

One troublesome problem has come with the new discard procedure. Because item records for withdrawn volumes remain on the system for at least a year, the staff display of a title often looks a bit cluttered. When reference and public service librarians search for a title, they usually see a bibliographic record, and a "summary of attached records." They see an item record attached to a bibliographic record, and assume that the volume is in the library somewhere; the item code indicating "discard" is not visible in the summary. One solution to this is to train public service librarians either to look at the public display (from which discarded volumes are suppressed), or to go into the item records and look for the discard code. Neither solution is practical: there is information on the staff display—e.g. record creation date—that is not available on the pub-

lic display. Also, it is not fair to expect public service librarians to dig into item records looking for codes to determine a book's whereabouts. Our solution was to use the fixed field: "LOCATION," and create a location code for discarded items. The item location is displayed in the summary of attached records—locations like 'ser' for serials collection, 'per' for periodicals, 'treat' for treatises, etc. We've created an item code 'discd' for discarded items. (Our cataloging librarian talked me out of using "trash," so that the summary of a discarded item would read LOCATION=trash.)

This case study illustrates only one way fixed field codes can be used in conjunction with the "create lists" function (or other search facility) to create useful statistical reports. Using such codes in other records, we are able to separate out electronic orders from firm orders from approval plan books, and determine the most efficient means of acquiring new materials. We can create a list of professors' requests, or books purchased for specific courses, and create statistical reports showing how much we are spending on materials directly supporting the curriculum. Automated systems usually come equipped with some kind of statistical program. However, even a well designed system (and don't get me wrong—Innovative is a very well designed system) cannot anticipate all of the statistical reporting that will be required of it. To get the most out of the system, a user must be willing and able to re-evaluate persistent problems from as many innovative angles as possible.

Endnotes:

¹ In nearly every college guidebook (e.g. *Guide to U.S. Law Schools*, *Peterson's*, etc.), library quality is represented (or at least implied) by a numerical volume count. In this age of electronic information—including CD-ROM, online and Web-based information—this statistic is increasingly fallacious. In 1995, the **American Bar Association** recognized this. In their accreditation standards for libraries, they used to include a list of titles in a "core collection;" each library was required to own the listed volumes. In 1995, the standard was changed to read: "A law library shall provide within the law school's facilities, through ownership or reliable access, a core collection of essential materials"—the key phrase here being reliable access. Libraries depend more and more on electronic information, resources not so easily quantifiable as "volume count." Traditional book budgets are cut back to make room for greater computer resources. Libraries and librarians make efforts to be proactive, to move forward, to lead in this (damn the cliché, full speed ahead) "age of information." It is a shame the only representation of library quality in so many evaluative resources remains "volume count."

² For more ideas about ways to generate acquisitions and collection development statistics from an integrated automated system—in this case the **Innovative Interfaces** system—see the presentations entitled *Innovative Use of INNOPAC Statistics* (last modified Feb. 27, 1997) <http://coast.lib.uncwil.edu/ronj/innopac/>.

Chaos — What Will The Next Generation EDI REALLY Look Like?

by **Sandra K. Paul** (President, SKP Associates)

Column Editors: **Sandra K. Paul**
(President, SKP Associates)

<skpassoc@CWIXmail.com> and **Albert W.**

Simmonds (SKP Associates) <awsimmo@ibm.net>

There is lots of talk about **XML**—**eXtensible Mark-up Language**—as the answer to the question posed above. I hope you read **Norman Desmarais'** article on that topic in the last **Chaos** column (*ATG*, April, 1999, pp. 86-89, 93), providing a great deal of information about the XML standard and its potential. If you didn't, you should. His last article specifically points to the potential of XML for Electronic Commerce, the area previously dominated by **Electronic Data Interchange (EDI)** standards in the U.S. and abroad. Many of us subscribe to the **XML/EDI listserv** and

get message after message telling us that the next generation is here. The problem is, that the next generation is NOT ONE SINGLE STANDARD — it's A LOT OF DIFFERENT approaches.

Do we really need new EDI standards?

Today's EDI standards were really developed to replace paper forms. We call them "Purchase Orders," "Invoices," and the like. They are standard, but a great deal of leeway was provided for the needs of different com-

continued on page 85

Chaos

from page 84

munities—like the book and serial folk versus those delivering barges of coal—and the wants of different users. How many libraries really want exactly the same information on their purchase orders? How much of that will vendors actually read? This type of “flexibility” has led to high implementation costs, the need to talk with your trading partner before you can send an EDI message, and has resulted in only 2% of those NOT in the **Fortune 500** actually using today’s EDI, while 95% of the **Fortune 500** do so.

Add to that, today’s market reality—the Internet is the communications network of choice, yet traditional EDI runs through Value Added Networks. AND defacto solutions are being adopted and promulgated by various new alliances, such as **Open Buying on the Internet** and **RosettaNet**.

Is XML the answer?

XML is certainly not just hype, although there is plenty of that, too. It is, as advertised, easy to use because it’s human readable, flexible enough to handle complex data, portable enough to run on a variety of computer platforms AND over the Internet, and POPULAR, due to its early support from **Microsoft** and **Netscape**, both of which included it in the capabilities of their next Web browsers.

So, there has been a “bottom-up” bandwagon of XML E-commerce applications onto

which several major players have jumped. They include: **Ariba’s Commerce XML (cXML)** supported by **Sterling, Barnes & Noble**; **Veo’s Common Business Library (CBL)** supported by **CommerceNet’s eCo** group; and **Microsoft’s BizTalk Framework for E-Commerce** supported by **Sterling, Harbinger, SAP, PeopleSoft**. Recently-announced XML/EDI applications include: **Edifecs Commerce’s Guideline XML (gXML)** developed standards for **EDIFACT** and **X12**; and a **Danish Consortia’s XCAT Project** includes an Internet demo of the use of XML to convert an EDIFACT message (www.fl.dk/xcat.htm)—for the English Language version.

Everyone is talking about XML. **IBM, Oracle, Sun, Netscape** and **Microsoft** have announced their support. The XML/EDI Group discuss it on their listserv (www.xmledi.com). **Commerce One’s** new **MarketSite 3.0**, **Open Marketplace Platform** “features” XML. And XML Conferences are being held in the U.S. and Europe frequently, sponsored by the **Graphics Communications Association** and others.

All of these initiatives are interesting and different. Will any result in a STANDARD approach that we can use across vendors, systems, libraries, publishers? There is “work” afoot in **ANSI-Accredited Standards Committee X12**. An initiative launched by **X12** and **CommerceNet** culminated in **White Paper** in August, 1998. It suggested that XML should be applied to the **X12 EDI** standards. When an attempt was made to do so, the responsible

ASC X12 folks found semantic problems with the current EDI standards that precluded the development of unique XML tags. For instance, the value “TITLE” in **X12** can refer to the title of a book or of its author! Four different approaches to applying XML to the **X12 EDI** standards are currently under consideration for decision at the June, 1999 **X12 Tri-Quarter Meeting**. This should result in a **Technical Report** on the STANDARD method for tagging **X12 EDI** standards in XML. In addition, **ISO/IEC Joint Technical Committee 1** (on Information Technology), **Subcommittee 32** (on Data Management & Interchange) is developing a STANDARD XML Rendition of its **Data Metamodel** and a STANDARD approach to a Repository for XML applications.

A top-down approach

Before this bandwagon left the gate, a group of us who participate in **X12’s Strategic Implementation Task Group (SITG)** had been working very hard on a different approach to the next generation of EDI standards. We, too, realize the problems and costs involved in implementing today’s EDI and are determined that the next generation of EDI standards should not carry the same problems. We believe that the next generation of standards must be structured/predefined information, require no prior agreements, no human intervention, be independent from underlying IT systems, and support cross sectorial exchanges.

We envision them as “modules” you’ll buy
continued on page 86

The Charleston ADVISOR

Critical Reviews of Web Products for Information Professionals

Yes

ENTER MY SUBSCRIPTION FOR ONE YEAR

Name _____

Title _____

Organization _____

Address _____

City/State/Zip _____

Phone _____ Fax _____ Email _____

Signature _____

I am Interested in being a Reviewer. ☐ Yes

618 S. Monroe Way, Denver, CO 80209 Ph: 303-282-9706 Fax: 303-282-9743 <http://www.charlestonco.com>

Don't Miss the
Premier Edition!

Subscribe Today
at the Introductory
Price of \$295.⁰⁰
for Libraries
and \$495.⁰⁰
all others.

Chaos from page 85

off the shelf—as you do word processing and database modules today. We hope to provide the systems developers who offer these products for sale with STANDARD business practices which have been modeled into re-usable objects. I won't get into the "technology" in this article, but simply say that we believe that modeling will: provide consistent means of capturing user requirements; clarify the semantics of business; provide unambiguous communications exchange among parties; introduce objectivity rather than subjectivity to the process; and provide traceability and documentation of customer requirements.

We have selected **Object Oriented Technology** and the method of providing the models in a format that includes both the "thing" and the "instructions for its use" to eliminate the conversations between trading partners before starting to do EDI. We believe that you can express those "objects" in many languages—including XML. We call this next generation **EDI OO-edi**—Object Oriented EDI.

We have been working on this approach along with the **United Nations** group that developed the EDI standard popular outside of North America—**EDIFACT**. We believe that this work will result in international alignment and a single standard. Saying this, we also recognize that change is required by the X12 and EDIFACT communities. It will require a strategic rather than a tactical approach to manage the change process and expand the user organizations' focus outward, rather than into their own, native requirements.

Conclusion

The February, 1999 edition of **SunWorld** (electronic edition), in an article, "XML, The Future of EDI," stated: "XML-EDI has the potential of taking EDI from an arcane, if venerable technique to the rapidly developing center of enterprise information technology. On the other hand, XML-EDI poorly applied has the potential for wasting billions of dollars and a great deal of effort, and holding up traditional EDI development, for no more than a radically new format that runs immediately into the same old problems."

I think that we should give X12 until June to come up with a STANDARDIZED bottom-up approach to **XML EDI** for the United States, BUT be ready to convert to the **OO-edi** top-down approach to GLOBAL STANDARDS next year. I hope those in the book and serial community anxious to grab hold of XML will wait that long.

Webworthy

Column Editor: **Pamela M. Rose** (Web Services and Library Promotion Coordinator, Health Sciences Library, University at Buffalo, 3435 Main St., Buffalo, NY 14214-3002; ph. 716-829-2408) <pmrose@acsu.buffalo.edu> <http://www.acsu.buffalo.edu/~pmrose>

Note: Unique and interesting Web sites organized by broad subject area are visited just prior to publication to ensure they are still active. Please let the editor know of any sites that are not accessible. Comments and suggestions are welcome! Unless otherwise noted in square brackets following the description, Internet addresses were published in Science, NetWatch column edited by Jocelyn Kaiser. — PR

Anatomy

Ethical objectors to dissecting living things can now turn to animated reconstructions on the Web. The **Digital Anatomist Project** at the **University of Washington, Seattle** offers interactive images of various anatomical sections, with 360 degree animation and selectable cross-sections. Just a few Quicktime movie animations are available here, but all can be purchased on CD. <http://www9.biostr.washington.edu/da.html>

Animation

Want to feel that thrill in the pit of your stomach without actually bungee jumping? Visit the **Animation Lab** at **Georgia Tech's Graphics, Visualization and Usability Center (GVU)**, where a Quicktime simulation of a bungee jumper off a bridge will remind you why you stay on the ground. Experts create algorithms which run computer models for animation which build on the physical principles of human movement. They also add realism to animated images through attention to such secondary motion details as making sure a trampoline flexes, or a skirt on a female on a swing moves properly. The site also offers Quicktime movies (which take a good 5-10 minutes to load, but are worth the wait if you can multitask) and links to fulltext PDF files of relevant publications. <http://www.cc.gatech.edu/gvu/animation>

Bioethics

The **Littleton, Colorado** high school deaths were the latest topic on the **University of Pennsylvania's Health System Center for Bioethics** site. Dubbed the **Bioethics Internet Project**, the site collaborates with the NBC television drama **ER**, dissecting the upcoming episode each week in an online essay. A great tool for school classrooms to use as a springboard for discussion, the site also links to scholarly journals, legal documents, and related Web sites. Especially popular is the "Bioethics for Beginners" historical section. The project prides itself on its independent and unbiased approach to issues. www.bioethics.net

Chemistry

Billed as the "Worldwide Club for the Chemical Community," **ChemWeb**, a subsidiary of **Elsevier Science**, requires users to register as members before using the site. Membership is free, but obviously the publishing giant wants user information for demographic reasons. Once registered, users can access a wealth of free information or fee-based fulltext access. Included are journals (many are **Elsevier** titles), chemistry book shopping, lab and software supplies, **ChemDex** (a directory of chemistry Websites), **ChemInform** (the MEDLINE of organic chemistry), a library of chemical structures, patents databases, and notices of job openings and upcoming meetings, as well as online conferences or archived lectures. <http://www.chemweb.com/>

Distance Learning

Sharing is the great power of the Web, and the **University of Texas** is maximizing that benefit by maintaining the **World Lecture Hall**, where hundreds of professors worldwide have posted links to their online courses. Full and/or not Boolean searching capability with an impressive list of subjects. <http://www.utexas.edu/world/lecture/>

Internet

"Possibly the most useful round-up of new resources for academic users" — *The Student's Guide to the Internet 1998/99*. The **Internet Resources Newsletter** site provides access to the current issue as well as an archive of all sites covered in previous issues. The annotations are chatty but informative, with sites selected for primary interest to UK academics. An exciting section called **PINAKES** (after the catalogue developed by the poet **Callimachus** for the **Library of Alexandria** in Egypt) organizes links by broad subject areas including **OMNI** for medicine and **BUBL** for information and library science. Anyone can submit interesting sites for inclusion. <http://www.hw.ac.uk/libwww/irn/>

Medicine

Controversial former **JAMA** editor **George Lundberg** has launched the first all-electronic, peer-reviewed general medical journal, **Medscape General Medicine**. **MedGenMed** intends to follow the same rules for medical journals set by the **Vancouver Group** as other prestigious print medical journals, with an emphasis on brevity for the electronic environment. Frequency? According to its Web introduction,

continued on page 87