June 1999

Back Talk-Chains of Complexity

Anthony W. Ferguson

Columbia University, ferguson@columbia.edu

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

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

Recommended Citation

Ferguson, Anthony W. (1999) "Back Talk-Chains of Complexity," *Against the Grain*: Vol. 11: Iss. 3, Article 13.
DOI: <https://doi.org/10.7771/2380-176X.3906>

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.

Rumors
from page 90

The final round of winners in the **Library of Congress/Ameritech National Digital Library Competition** will be announced in the spring. The winners will be chosen from the 48 applications representing 70 institutions (some applications were submitted by institutional teams) that were submitted last fall. So far, in the previous two rounds, 21 institutions have shared in awards totaling more than \$1.3 million. Once digitized, these winners' collections of important American historical materials will be added to the **American Memory Website of the Library of Congress**. They will also be available from the winning institutions' Web sites. Currently, three past winners have added their collections to the Library's American Memory site. Most recently, **The Robert Runyon Photograph Collection of the South Texas Border Area**, an assemblage of more than 8,000 visual items documenting the Lower Rio Grande Valley during the early 1900s, has become available. The **Library of Congress/Ameritech National Digital Library Competition Website** is at lcweb2.loc.gov/ammem/award/.

OCLC FastDoc will be withdrawn from the **OCLC FirstSearch Service** effective July 1, 1999. The **New OCLC FirstSearch service**, scheduled for release this summer, will feature improved links to fulltext across all **FirstSearch** databases, making all fulltext much more visible. **FastDoc** was originally created as a database that provided easy access to fulltext; because this will now be true for **New FirstSearch** as a whole, the reason to continue **FastDoc** as a separate database is gone. We have an upcoming interview by the incredible **Ron Chepesiuk** with **OCLC's Connie Zuga** about the **New FirstSearch**.

And speaking of **Ron Chepesiuk**, this awesome man (how does he write all that he does?) has won the **ALA International Relations Humphry/OCLC/Foster Press Award** for 1998/99. As **Tracey Hunter Hayes** says, "Ron has made us all particularly aware of the challenges that exist in many known and obscure locations in our ever-changing world." Congratulations, Ron!

The **Medical Library Association (MLA)** and the **Association of Academic Health Sciences Libraries (AAHSL)** have joined the **Scholarly Publishing & Academic Resources Coalition (SPARC)**, a coalition of academic institutions and research libraries that uses library buying power to support lower cost alternatives to high-priced science journals. **MLA** members spend over \$200 million on journal collection development, and membership includes those who are also members of **AAHSL**. www.arl.org/sparc.

And we saved the best for last! **Janis Bandelin** (Furman University) <Janis.Bandelin@furman.edu> will be coming to the **Charleston Conference**! Janis did a timely and

ChoiceReviews.online

More than reviews, it's a complete

R eviewing evolution!

- ★ access to some 65,000 reviews via the Internet
- ★ search by author, title, ISBN, subject, readership level, and more
- ★ *Basic* and *Advanced* search capability
- ★ e-mail notification of new reviews, based on your subject interests
- ★ includes all corresponding printed copies of the magazine
- ★ **SUBSCRIBE** prior to June 30 for only \$325 (regular 1-yr. subscription is \$395)

Receive credit for any issues remaining on your current subscription! Fax (860-704-04655) or e-mail subscriptions@ala-choice.org for conversion information.

CHOICE

100 Riverview Center Middletown, CT 06457-3445

www.ala.org/acrl/choice

CHOICE is a publication of ACRL, a division of ALA.

interesting survey over **ACQNET** and has done lots of other research on allocation formulas in libraries.

Be sure and look for the brochure and registration information for the **1999 Charleston Conference** which was mailed to you with this issue of **ATG**!

Correction

Oops! **Matt Nauman** (Blackwell's) <Matt.Nauman@Blackwell.com> noticed that on page 10 in **Rumors** (April), we have a note about the **Collection Manager** launch in Australia. Unfortunately, the URL www.blackwells.com/cm/ is incorrect and just gets a "Not Found." Like I said, oops! Sorry! The correct URL is: <http://cm.blackwell.com>

Back Talk

from page 94

years or so. Moving from browsable to remote collections minimizes the serendipitous discoveries that result from looking at books to the right and left of the one you knew about. Changing from list price to national consortial price seems a bit like going full circle back to list price again. Consortial work saves money but it takes away from other things like talking more with our user communities.

Dorner's message for us is fairly simple: Nothing is as simple as it seems and it pays to look at the big picture as well as the one that is in your face at any given moment.

<<http://www.against-the-grain.com>> 93

Back Talk — Chains of Complexity

by **Anthony W. Ferguson** (Associate University Librarian, Columbia University)
Phone: 212-854-7401; Fax: 212-854-9099 <ferguson@columbia.edu>

**Dietrich
Dorner** in
his work
*The Logic
of Failure:*

Why Things Go Wrong and What We Can do To Make Them Right (1989) tells an interesting story about what happens when experts fail to comprehend the complexity of a situation, when they look for non-existent simple relationships of cause and effect and ignore "chains of complexity," when they fail to "see that a process that develops exponentially will, once it has begun, race to its conclusion with incredible speed" (p. 33). The Chernobyl reactor, located in the Ukraine, was one of the most advanced in the former Soviet Union. It was designed to produce steam to generate electricity. A reactor is basically a huge core of graphite, in this case, four million pounds of graphite, with 1,600 channels or tubes cut through it. Into the tubes nuclear fuel rods can be inserted to generate heat, 211 control rods can be inserted to reduce the level of reactivity and to reduce the heat, and water can be pumped through the tubes or channels to both cool the graphite core and to be heated to produce the steam needed to generate the electricity. As long as these three variables—fuel rods, control rods, and water—are managed correctly, the level of heat in the reactor is kept within a range of safety. If they are not managed correctly, instead of a reactor to produce steam, you have a nuclear explosion that generates so much heat that it melts everything and that is what happened on April 26, 1986: The Chernobyl disaster.

On that day the experts operating the reactor needed to run some experiments to improve the reactor's safety system. To run the experiments they needed to bring the reactor down to 25% of its normal level of heat. At such a level, the reactor could not generate sufficient

steam to generate electricity. To insure that during the experiments the automatic safety system would not kick in, it was turned off. In the midst of the safety system experiment, however, a request was made to continue generating electricity to meet an unexpected demand for power. The experiment was therefore delayed for many hours. Once they could resume the experiment, the experts manually manipulated the controls to bring the system down to the target of 25%. Instead, however, they overshoot the target and brought the reactor's heat level down to 1%. Like your car engine that is operating too slow, the reactor began to operate in an erratic or chugging manner. The experts knew that operating the reactor below 20% of capacity was extremely dangerous so they removed a huge number of control rods to bring the core up to a 25 percent heat level. Once they did this, a cavalcade of things took place that they could not control. The experts faced with much heat oversteered and made things even worse. Eventually the channels or tubes through which the water to cool could be pumped, and into which the control rods could be inserted, buckled under the pressure: No control rods could be inserted, the water could not be circulated, and the reactor was like a runaway truck going down a steep hill without brakes. The results were inevitable and tragic.

Now what does this story have to do with librarianship? I find that much of what is written about what we should do about how to handle many of the problems facing collection developers fails to appreciate the level of complexity that exists in our world of information. We are like the Chernobyl experts. We knew what to do with the information world when it was acting normal but it hasn't been normal for at least 15 years and we are playing with a variety of inputs which produce a cavalcade of time-delayed outcomes which play on each other. Our infor-

mation machine, some days it seems like the reactor, or the runaway truck—bound for a disaster.

Let me review a few examples. By citing them I AM NOT inferring that these are the wrong things to do, just to illustrate the complexity of the information system in which we labor:

• We are dissatisfied with the pricing practices of commercial publishers, so we manipulate the inputs by encouraging authors to withhold copyright, we organize consortially to force the publishers to reduce their prices, and we jump from print to digital because the Web is/was "free."

• We are dissatisfied with spending so much in anticipation of use so we manipulate the inputs by substituting unmediated interlibrary borrowing and commercial document delivery for browsable collections.

• We are dissatisfied with being victims of electronic pricing schemes so we manipulate the inputs by creating local, state, regional, national and now international consortia and push publishers into coming up with ever larger aggregated pricing schemes.

• Some of our provosts and presidents are frustrated with the possibility eternal library addition programs manipulate the inputs by funding storage facilities and digitizing programs to avoid cement and brick solutions.

Each of these actions has their own set of consequences or problems that must be resolved. Getting authors to withhold copyright in order to free themselves and us from the control of predatory publishers will turn reserve libraries and distance education programs which "just want permission to make 25 copies or allow 25 simultaneous readers" into an Orwellian nightmare. Switching from low tech print to high tech digital includes a whole trail of very expensive details including hardware, software, and content migrations every five

continued on page 93

ADVERTISERS' INDEX

23	ABC CLIO	67	BELL & HOWELL	21	COUTTS	87	LIBRARY TECHNOLOGY ALLIANCE
49	ABSOLUTE BACKORDER SERVICE	3, 77	BLACKWELL'S BOOK SERVICE	17	EASTERN BOOK COMPANY	19	MAJORS
3	ACADEMIC BOOK CENTER	73	BLACKWELL'S INFO SERVICE	19	EASTERN BOOK COMPANY	71	MARTINUS NIJHOFF
11	ACADEMIC PRESS	59	BOOK HOUSE	21	EASTERN BOOK COMPANY	61	McFARLAND
61	ACCENTS	33	BOOK NEWS	81	EBSCO INFO SERVICES	51	MCGRAW-HILL
2	ALFRED JAEGER	35	BOOK NEWS	41	EMERY PRATT	96	MIDWEST LIBRARY SERVICE
9, 13	AMERICAN CHEMICAL SOCIETY	37	BOOK NEWS	33	ERASMUS	75	PUVILL
83	AM. INSTITUTE OF PHYSICS	31	BOWKER	55	FAXON	43	RITTENHOUSE
65	ANNUAL REVIEWS	57	CAMBRIDGE SCIENTIFIC	39	GROVE'S DICTIONARIES	35	SCHOENHOF FOREIGN BOOKS
37	ASHGATE	73	CASALINI LIBRI	69	HAWORTH	25	SWETS
63	ASME	15	CATCHWORD	29	IEEE	27, 53	WILEY
5	ATG	85	THE CHARLESTON ADVISOR	91	INSTITUTE OF PHYSICS	89	WILEY
24	AUX AMATEURS DE LIVRES	87	THE CHARLESTON REPORT	95	KLUWER ACADEMIC	45	WILEY - VCH
7	BAKER & TAYLOR BOOKS	93	CHOICE	79	LIBRARIAN'S YELLOW PAGES	47	YBP

Ad Manager: Edna Laughrey Internet: elaughey@aol.com phone: 734-429-1029; fax: 734-429-1711