Indexing with a computer
Past and present

Charles R. Anderson

A look back at the 1980s to illustrate how rapidly specialized indexing software has developed.

Computer software for indexers has come a long way in a relatively short time. The millennium issue of The Indexer is a good place to take a brief retrospective look at developments in specialized software over the past two decades, based on a summary of several of my past publications.

In 1982 I started looking for indexing software (before buying a PC) that would take much of the typing drudgery out of my indexing business. When I began visiting computer stores, I discovered that no one knew what I was talking about when I mentioned indexing – or sales people assumed I was indexing a database. I was about to give up and hire a programmer, when I came across some software that, while a bit cumbersome, could be adapted to the indexing process.

What follows below is a brief journey back in time to look at computer-aided indexing (excluding such side trails as KWIC and KWOC indexing) in the 1980s, with a final paragraph bringing us up to date.

Between 1983 and 1987, I published three articles on computer-aided indexing software. The articles appeared in The Indexer (October 1983), PC Magazine (16 April 1985) and Wilson Library Bulletin (May 1987), and provide a slice of computer indexing history at roughly two-year intervals. Looking back at these articles and reviewing what is currently available today gives a picture of just how far we have come in 18 years.

The first foray into using software to create indexes involved an information management system called ANSWER. This was a fascinating program written in FIG-FORTH and produced by North American Business Systems. The software took an approach that combined database management with the old familiar interface of index cards, which is what attracted me to it. One interesting facet was that by using the FORTH language, which builds programs based on word definitions, the user was actually programming while entering data. Using the reverse-Polish programming approach of FORTH, instead of the traditional method of inputting data, manipulating data, and then outputting the results, ANSWER actually put the computer through the data. (You would have to be a programmer to understand the significance of this difference, so just put it aside as an interesting concept!) Incomprehensible as the idea may be, the results with ANSWER were an extremely fast input and retrieval system that ran within 64KB of RAM and could be used on a floppy drive, although I bought the largest hard drive available at the time (10MB).

There were some weaknesses in the program as far as indexing goes:
- it could not handle a third-level sort (heading, subheading, sub-subheading);
- it did a pure ASCII sort, leading to problems with numbers;
- it used about eight bytes of housekeeping to store one byte of data, leading to very large files.

But it was a major improvement over 3 × 5 cards and retyping an index!

By 1985 great strides had been made in indexing software. In an article I wrote for PC Magazine I described the Micro Indexing System (MIS) from Compugramma, Inc. It was created by a husband/wife programmer/indexing team and was a compiled BASIC program. MIS ran with 128KB of RAM and could be used on a PC with two floppy drives or a hard drive. The software produced indexes following the University of Chicago Manual of Style. The display screen was divided into two, with the top half showing the previously entered record and the bottom half blank for a new record, keeping a basic 3 × 5 index card approach. MIS was very intuitive, including features such as pressing the ENTER key to create a new sub-(or sub-sub-)heading and using a function key to enter the record in the index.

In the review article I noted that ‘after about ten seconds the record is saved to the disk’. This must have been to a floppy disk, although given current indexing program speed, this probably sounds impossibly slow. It still seemed like a speed demon to me. MIS also handled problems of sorting on letters that did not need to be printed (having 25th Street sort in the Ts for example). Pressing the F1 key called back the previous heading, F2 recalled both heading and subheading. The user could list the records alphabetically or in order of creation, select letter-by-letter or word-by-word alphabetizing, concatenate entries and use many other features found in current programs. There was a 9000-record limit, but I also noted that MIS did support a ‘color/graphics monitor’, another hint about how far we have come in the succeeding years.

My final essay on indexing software came in 1987, when I reviewed version 1.0 of Cindex (Indexing Research) for Wilson Library Bulletin. Cindex was a DOS-based program, written in C. It already had many of the features that current users have come to appreciate. It added more flexibility in sorting and printing than MIS, and I made the switch immediately. This last article also listed seven other indexing programs based on a summary of several of my past publications.
programs: The Index Editor, IndexAid, INDEXIT, IN>SORT, IPS, MACREX and Micro Indexing System, which indicates how wide open the field was at the time. As I recall, several of these programs cost under $100 and were intended for the infrequent indexer or someone with fairly simple needs.

Now, using all the features of a Windows-based program like CINDEX for Windows, MACREX or SKY INDEX, it is difficult to remember all the extra steps that used to be required to create an index with a computer. Putting together the power of indexing software with programs like QuicKeys (a macro-generating program) and voice recognition software like Dragon Naturally Speaking, improves the physical side of creating indexes by at least a factor of 750 percent by my calculations (when I compare the time it used to take to type up 3 × 5 cards and then re-type the final index). No doubt future enhancements will keep coming in this area, but as a long-time keyboarder (formerly IBM Selectric user), I believe these indexing programs have made a world of difference for the professional indexer.

References


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Computer contrarian

High tech heretic: why computers don’t belong in the classroom and other reflections by a computer contrarian is the full title of Clifford Stoll’s trenchant new book from Doubleday (1999). The cover blurb describes it as ‘a thorough detonation of the hype surrounding computers in our lives’. With the author’s encouragement, the indexer of the book, Nancy Mulvany, carried the denunciations through to the index – which is headed ‘Index with an Attitude’. It includes these entries:

- Addictive nature of the Internet
- Anti-intellectual appeal of computers of the Internet
- Attention deficit syndrome, encouraged by technology
- Barbarians, invasion of teaching by Blandness and brevity multimedia writing style
- See also Educational dullness
- Community disengagement from undermining of Curriculum development anti-intellectual design of
- Customers as software guinea pigs
- Dumbing down of schools, challenging topics dodged Educational dullness
- See also Blandness and brevity; Intellectual passivity; Nation of dolts Empty promises, of the past

- Flops computer experts’ predictions electronic journals New Math
- Hack writing for multimedia Information is free, not really Information is power, not really Junk food analogy
- Macintosh computer, as aquarium Nation of dolts educational dullness how to create Planned obsolescence Presentation software as enemy of a good talk Sandbox replaced by computers Teaching slowed down by computers Third-rate education. See Distance learning Too far, a page Ugly computers Utter flop. See New Math Writing blandoity brevity, the new style cranking out info-nuggets to please the indexer

It also includes:

- Mulvany, Nancy 191n
- See also Pleasing the indexer Pleasing the indexer, a good idea, 191
- Wilson Award Index, this is not one [no page reference]

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