ISAAC: An Introduction to IBM's Information System for 
Advanced Academic Computing at the University of Washington-
Seattle 

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ABSTRACT: ISAAC is a valuable resource that isn't yet widely known on 
college campuses in the United States and Canada. It is free. To gain access you 
need only fill out a short form. You may contact ISAAC through Bitnet, Internet 
or an 800-telephone number. You may use a PC, PS/2 or a compatible to join and 
interact, but you need not own one of these machines. ISAAC will send you a 
telecommunications diskette, 3.5" or 5.25". User status is granted to students, 
faculty and staff at academic institutions of higher learning. It consists of two 
databases and an electronic bulletin board spanning broad areas of pedagogical 
and research fields. This article traces the origin of ISAAC at the University of 
Washington Seattle through today. It highlights the establishment of the 
Languages and Linguistics Room, and it challenges the profession to help 
fashion a creative and supportive environment.

KEYWORDS: ISAAC, database, electronic bulletin board, Advanced 
Educational Projects, higher education, IBM

History of AEP and ISAAC

In 1984 IBM sponsored the creation of Advanced Educational Projects at 
19 universities in the United States. These universities were chosen by their 
resources in computing, their policy of making computing available across the 
disciplines, and their commitment to research and teaching. In the September 
1988 issue of Best of the Board, the first of a newsletter that is still being 
published by ISAAC, one will find that by June of 1986 these universities had 
been funded by AEP to conduct 2,600 projects. Although the return on the
investment of funding and manpower was of interest in itself, further description
and analysis of their output is outside the domain of this paper. Projects at the
AEP universities spanned the humanities, sciences, education, medicine, and
computer science and engineering, among other fields.

In 1985 IBM funded the creation of the AEP Bulletin Board intended as a
telecommunication forum for educators and researchers. In 1986 the Bulletin
Board became available through Bitnet and membership was extended to
students and staff at universities around the country. It was the Academic
Information Systems Business Unit, ACIS, at IBM that generated the direction
and funding for AEP.

Since its creation ISAAC has been organized into the following branches:
1. Bulletin board, subdivided into:
   A. Discipline rooms
   B. Special rooms
   C. Help rooms
2. Databases:
   A. Sources of Information:
      SoftInfo, University of Bridgeport (203) 576-4740
   B. Academic software packages:
      1. Conduit, University of Iowa (319) 335-4100
      2. Icec-Ware, Carnegie Mellon University
         (919) 737-3067
      4. OCLC, compiled from the Chronicle of Higher Ed column "Computer
         Software for Higher Education," by Sandy Albanese (614) 764-6000
      5. SciSoft, University of Warwick, UK
      6. Software Clearinghouse for Higher Education, Board of Governors of
         State Colleges and Universities, State of Illinois (217) 782-6392
      7. Wisc-Ware, University of Wisconsin (800) 543-3201
      8. Miscellaneous software from various sources, developed by individuals
         and brought to the attention of ISAAC; many of these are available
directly from the authors (206) 543-5604
   C. General Information
      - Best of Board, compiled from entries of lasting value that originally
        appeared in the various rooms (206) 543-5604
   D. Abstracts of projects:
      1. Community college, Johnson County Community College (913) 469-8500
Profile of User Population

As of September 1988 there were 6,000 users from among 1,100 colleges and universities. To put this in perspective please note that in April 1987 there were about 750 users; by April 1988 their number reached 5,000. Growth has been exponential. No figures as to how many students, faculty and staff make up this population have been published. From personal experience it appears that students, especially undergraduates, are a vital part of this community.

Methods of Access

At present one can reach ISAAC via modem through an 800-telephone number. This is my preferred choice. Students who don’t have a personal computer on campus prefer access through Bitnet, which, of course, is also free and ubiquitously available. I have requested and used both methods. Additionally one could also reach ISAAC through Internet, which option I have yet to explore.

Though a subjective observation, I would like to report that it is quite enjoyable to be able to navigate this service for an hour or more, as I did on my first visit. Like Bitnet ISAAC exists for academe. And it also bolsters your morale when your own exploration replicates the demo that you had seen or the instructions that you have read.

The application form to join ISAAC is simple and straightforward: name, address, academic affiliation—which now includes professional societies—and the method of access you require. If you would like all three types of connection you should fill out a form for each.

Perhaps more remarkable is the fact that membership is not restricted to owners of PC’s or PS/2’s. It is also available to people who have, use, or own an IBM-compatible. In the case of users who will access via modem you need to specify diskette size—5.25" or 3.5". ISAAC will mail you the specified diskette containing the communications software (your modem’s telecommunications software will not work).

Modem access is simple and uneventful. The transfer protocol is Kermit. It permits you to send and receive files with ease. You may also write an entry directly to the bulletin board, since use of the service and its telephone link are
both free. The text editor, again, doesn’t take long to figure out. For you to submit a document such as a bibliography, you need a wordprocessor that allows you to prepare an ASCII textfile (text without any formatting marks).

However, if you access ISAAC via Bitnet, the process is a bit more complicated. A modest command of Bitnet itself is essential for attempting to try ISAAC out for the first time. Here, again, the software provided by the University of Washington-Seattle is reliable. It is sent to your Bitnet address directly. Whichever of the two approaches you take, hardcopy documentation is sent to you directly by the administrative staff.

If you are a computing activist, ISAAC will furnish you a well-done demo kit written on Storyboard. It is a reliable alternative to giving an on-line workshop only to find out that the equipment furnished by your host does not match.

**Description of Top Menu and Screen Environment**

It isn’t surprising that the screen background is light blue throughout. Characters are white and legible. There are no graphic images. Every subsequent screen is fully menu-driven and commands are consistent. F3, for example always quits to the next higher level.

When you access via modem you select any entry that you would like to download by pressing F6. This puts the entry on a virtual reader that you can actually look through before you initiate a transfer.

**An Appraisal of Content and Activities of the Various Rooms**

As seen in the main menu, ISAAC is organized in three parts: The ISAAC Database, which is in turn divided into Access and Help Rooms; Special Rooms; and Discipline Rooms.

We have included illustrations of an actual database search on the subject of CALICO. Note the fact that the user is always presented with available choices through on-screen documentation. It should be pointed out that "New or infrequent users // are // ... guided through a prompted search.” In this case the search yielded entries on CALICO under associations, databases and journals, respectively SoftInfo Entry #215, SoftInfo Entry #287, and SoftInfo Entry #84.

As previously indicated, other databases are maintained by respected universities.

The Help Rooms, physically located below the Database column are self-explanatory. "Ask Isaac” is a good way to see give and take on the nuts and bolts of using this service. It is the broadest forum on which to post questions and
comments. Replies normally appear within 24 hours.

The Special Rooms column are of general appeal to users at large in terms of function rather than subject-matter specialty. To CALICO members, Hypertext and Interactive Videodisc should be of high interest. Technical Exchange and Windows (the Microsoft environment) are two rooms to which my undergraduate students have made solid contributions.

It is in the Discipline Rooms where we can see exciting activities on a regular basis. The keyword here perhaps should be interdisciplinary discussion in an engagingly lively atmosphere. Room managers facilitate discussion, answer questions and encourage people. Rules of urbanity as found on other telecommunications services apply.

In the discipline departments, one will generally find bibliographies, calls for papers, lists of sources of supply (biological specimens, for instance), field notes and reports, papers in progress asking for pre-publication reactions, proceedings of professional associations, and results of academic competitions and grants (such as the 1988 Educom/NCRIPATAL Software Contest) to name a few.

In preparing this article and two workshops related to it, it was ISAAC that invited me to create its newest room: Languages and Linguistics.

Languages and Linguistics Room: A New Resource with Growth Potential

In our first full month of operations we had 130 visits. This, according to several sources knowledgeable in bulletin boards and distributions lists, is very encouraging. Once you become a member of ISAAC you can start contributing directly to our room or any other room in the system.

For a couple of years I have been an active participant in FLEFO on CompuServe, and the Languages and Linguistics community on ISAAC has not been designed as its rival. At ISAAC our mandate is to serve higher education exclusively, as is the mandate of the system in general (community colleges, colleges, universities, and learned societies). However, like FLEFO, we too are interested in pedagogy. One further distinction is that our service is free. And access is possible from PC's, PS/2's or compatibles only. Unlike CompuServe, ISAAC does not support real-time conferencing.

Members of CALICO should find the Languages and Linguistics Room a supportive forum for debate, a launching pad for projects, a place to reflect on the impact of last year's SIG meetings, and a place to keep in touch between
conferences and issues of the Journal. In short, our scope is as broad as the aims of CALICO: if it is of concern to the profession, whether it be applied linguistics, comparative literature, artificial intelligence, multimedia instructional delivery, cultural anthropology, or classical and contemporary civilizations, we can carry on the discussion here.

My challenge to you is simple: let us stake our claim as computing professionals in the exciting domain of the electronic cottage. In fact, items that you send to BBS like Humanist or Nuestro BBS-AATSP will reach many more readers if you also send them to us.

Conclusion

ISAAC as a whole has had a tremendous impact in higher education not just in the United States, Canada and Puerto Rico, where members can gain access through free telephone links, but also abroad where it is gaining further acceptance through the remarkably liberal stewardship of Bitnet. As Daniel Boorstin pointed out in The Republic of Technology, telecommunications and by extension computing will not lessen our individual importance as educators, and we are not likely to be replaced by automata, but if we are able to reach across vast distances and to fathom information to be analyzed into yet other ways, perhaps the excitement of More, and Vives and Erasmus and Luther is yet to be found after the next carriage return. Vale!

To join ISAAC, write to:

ISAAC
m/s FC-06
University of Washington
Seattle, WA 98195

or call at (206) 543-5604.

Notes

- I owe a special word of thanks to Lorraine Edmond, Editor of ISAAC, for providing me with documentation on the history of ISAAC and photocopies of articles without which this article could not have been written. To her I am also grateful for providing the language community a unique electronic meeting place.

- I am also indebted to Jane Holley of IBM, Academic Specialist, Information Systems Group, South-West Marketing Division, for introducing me and my lab to the world of ISAAC.


In preparing this article I have used the following issues of Best of Board, former title of the now Isaac Newsletter:


The following Isaac instructions documents were also used:

- "Connection to ISAAC from IBM PC-Convertibles"
- "Demonstrating ISAAC"
- "Using ISAAC via PC and Modem"
- "Intro to ISAAC for Bitnet Users"
- "Bitnet User's Guide"

**Author's Biodata**

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