A CANADIAN ONLINE BRS CONSORTIUM: FIRST IMPRESSIONS

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ABSTRACT

In September, 1978, a group of five Ontario universities entered into a contract with Bibliographic Retrieval Services, Inc. (BRS), a relatively new entrant in the online database search services field. The immediate rationale behind this venture was to cut costs, both to the library systems involved and to their user communities. The long term effect of the lowered costs would hopefully be the perenially sought after "greater access" for the end user. This paper reviews briefly the history of BRS and the development of the BRS Ontario Online Consortium. Some of the features of BRS will be discussed along with the initial impressions of two of the libraries involved, UWO and Guelph, with regard to the effect that the new system has had on costs, usage, etc.

UN CONSORTIUM CANADIEN DE SYSTEMES BSR PREMIERES IMPRESSIONS

RESUME

En septembre 1978, un groupe de cinq universités de l'Ontario se sont engagés dans un contrat avec le système BSR, service de relevés bibliographiques Ltée un système très avant-garde pour cette période. Nous nous étions embarqués dans cette avanture pour raison économique afin d'améliorer nos services existant et pour venir en aide aux bibliothèques communautaires. Notre désir était de pouvoir offrir un meilleur service et une plus grande disponibilité d'accès à tous nos lecteurs. Alors cette étude est une analyse des développements accomplit depuis le début du système BSR. C'est notre intention de démontrer les caractéristiques de ce système en utilisant comme exemple deux bibliothèques en question, celle de l'université de Western Ontario et celle de l'université de Guelph.

Bibliographic Retrieval Services, Inc. was established in May of 1976 and began regular commercial operation on January 3, 1977 with the advertised aim of providing "low-cost online access to a set of major bibliographic databases". The people involved were some of the leading lights of the State University of New York (SUNY) network, who felt that there was a large untapped segment of potential users who would benefit from and use online services if the costs fell to a point somewhere between that at which the private sector was then operating, and the very highly subsidized services available to some in the public sector. The connect hour rates that they aimed at in the planning stages were between $10 and $25 in U.S. funds, excluding telecommunications and royalties.

While in the planning stages, BRS had the active support of many members of the SUNY network's user group known as "BCN", the Biomedical Communications Network. They formed about half of the approximately 120 online users who signed contracts with the new firm by December, 1976. This was basically a MEDLINE user group and successfully offering this heavily used database on a commercial basis was one of the main objectives of the whole venture, along with better service to educational users by, in part, giving them larger discounts than commercial customers. Such price discounting (up to 60%) to customers who guaranteed a large amount of connect time per month was one of BRS' main marketing strategies. By the time the system was up and running, both SDC and Lockheed were offering variations on the theme but not enough to match BRS' prices.

Another feature unique to BRS was their attempt to involve users actively in the planning process. A formal user organization, the eleven member BRS User Advisory Board, was established. The major contracting groups, plus elected representatives from among the independent subscribers to BRS comprise this board. Through a Database Acquisition Committee and a Technical Committee, the Board monitors all system activity and provides feedback regarding the needs of the overall BRS user community. This feature, plus the fact that BRS is not part of a much larger corporate structure, contributes to the ability to react to user-expressed requirements more quickly and positively than would otherwise be possible.

Starting with a respectable list of eleven major databases (some nine million records), BRS grew quickly. Within four months it had inherited a hard core of biomedical users formerly on the defunct SUNY network, and had signed contracts with four major library networks including the Federal Library Committee of the Library of Congress and the statewide University of California system.

After ten months of running on the leased computer facilities of the Carrier Corporation in Syracuse, New York, BRS installed its own computer (an IBM System 370/155) at its new headquarters in Scotia, New York. This enabled BRS to improve service in general and in particular

to move ahead with plans to add several new databases. BRS is currently running twenty-one, the latest addition being Social Sciences Citation Index. The acquisition of its own computer also allowed BRS to enter into a new sphere of activity with its so called "private database service". After developing such a capacity for three large network users, BRS began to offer it publicly early in 1978.

The latest expansion for BRS, after its September 1978 move into the Canadian marketplace (described in the next section of this paper by Walter Zimmerman who was very actively involved) was an evaluation of the possibility of starting a European service which was finally launched in November 1978.

HISTORY OF BOOGIE

BRS was slow getting off the ground in Canada. Almost a year after its introduction in the United States, the Online Services Libra-rian at The University of Western Ontario, Walter Zimmerman, wrote a letter to Jan Egeland, Vice-President of BRS, requesting more informa-tion. In March of 1978, he received a telephone call from Patricia Vaughan from her office in Hanover, New Hampshire. What he learned made it apparent that there was much to be gained from setting up a consortium to receive maximum benefit from a BRS contract. Because the University of Guelph had been a member of the Biomedical Communication Network, the user group which became the nucleus of the original BRS membership, he first contacted Ellen Pearson of Guelph. She indicated an immediate interest in pursuing the concept and they devised a list of potential partners.

The first "feelers" went out to the Universities of Toronto and Waterloo and to McMaster University on the basis of guesstimates with respect to the amount of searching they did. They limited the original group to five (including Western and Guelph) because there is a BRS-imposed limit of five passwords per contract and they didn't want to risk disappointing a sixth or other potential group member. As it turned out, the fear was groundless and resulted in a delay in the determination of the final group of five consortium members.

A worksheet listing databases available on BRS with columns to be filled in based on annual use was distributed along with the letter inviting participation in a BRS consortium. The purpose of the form was to assist in determining whether a library would use on the average four hours per month of connect time. By providing BRS' rates and those of the cheapest of CAN/OLE, DIALOG, and ORBIT, it was also possible to calculate the savings to the users of the service and/or the institution.

An official reply from Guelph was received on June 8, 1978, indi-cating that their calculations made it "[seem] to us that a consortium

agreement/subscription with BRS would be worthwhile, at least for a one year trial period." That same day, on the suggestion of Ms. Pearson, Queen's University was invited to join the group since Waterloo had declined its invitation. Queen's had independently decided to join BRS on its own at a higher hourly fee. By joining with a larger group, Queen's would be able to obtain lower rates. On July 18th, Queen's responded with a tentative yes, subject to not being required to guarantee more than four hours per month. This was because their statistics indicated an expectation of three hours use per month. Even paying for four would yield savings. Naturally, using four or more hours would be "gravy." This condition (four hours maximum commitment) was met and so Queen's became the third member.

The Science and Medicine Library was the first contact made at the University of Toronto. Their initial response on June 1st was negative, not because of price but rather reasons such as the small on-line portions of large science files and the lack of time to take on another system with its new features and the re-training required. The letter ended with "I applaud your energetic pursuit of a very logical idea. Good Luck!" Undaunted, another attempt at attracting Toronto was made through the Arts and Social Sciences Library. With some reservations centring around the availability date of SSCI, Toronto tentatively agreed to join as the fourth member.

A fifth member was still needed. McMaster had declined, as had York. The University of Ottawa was suggested and on July 20th, the spot was offered through Audrey Dube, head of Reference. On July 28th, a special meeting of their Computerized Reference Service Committee met and approved the concept. The group, then, would consist of Western, Guelph, Queen's, Toronto, and Ottawa.

During these negotiations, Mr. Zimmerman had two opportunities to gain a better understanding of the BRS search system. The first came on June 19th when a BIOSIS workshop and demonstration was held at Western. Normally, DIALOG, CAN/OLE, and ORBIT would have been the sole systems demonstrated since there were at that time no BRS customers in Canada. However, searchers from neighbouring Michigan, New York, and Ohio had been invited and for this reason as well as the possibility of an Ontario consortium, Pat Vaughan of BRS agreed to come. This gave the potential consortium members a chance to question a BRS representative face to face. This probably helped convince the searchers of BRS' value. A second opportunity came two weeks later when the Online Services Librarian from Western was in Boston. He visited with Boston College's Marilyn Grant on what was, luckily, the last day of their annual contract. There were a few left over hours and he was allowed to try out the system for himself and to discuss with a BRS searcher how she felt about the system. This, too, helped convince him of the need to introduce BRS into Canada.

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The next step after having organized the group members was the arranging of a training session. Because the group had been dealing with Pat Vaughan out of BRS' Hanover, N.H. office, she was its choice for the person to train the group. However, as she was about to go off to England to test the waters for a European operation, there could have been some difficulty as to the date. Fortunately, in late July as it appeared a consortium would be a reality, a tentative date of August 14th was set up with the University of Toronto chosen for the site because of its central location both for searchers and Ms. Vaughan. A one-day session was held and the group was on its way. In addition to two or three searchers from each institution, one searcher each from the library schools of Toronto and Western Ontario attended since this was a prerequisite for their gaining access to BRS at the library school rate of $8.00 per connect hour (for the current update portions of each file.)

For bookkeeping and academic year reasons, the group chose September first as the date to inaugurate the new service. Western's Online Services Librarian, in an August 18th letter to the group members, suggested the vehicle for making the group a true consortium - a news-letter. Thus was born the BOOGIE Newsletter (BRS Ontario Online Group Information Exchange). Its monthly issues are distributed from Western to exchange search tips, discoveries, statistics, and all kinds of ideas related to online services. As will be seen in the other sections of this paper, September first was the beginning of a new era in Canadian online information retrieval.

FEATURES OF BRS

While it was the price which initially attracted members to the consortium, it is the IBM STAIRS retrieval system as modified and improved by BRS which will ultimately determine the success of this new service in Canada.

In a sense, price is a feature. To begin with, connect time is less expensive in every case than on CAN/OLE, DIALOG, or ORBIT. In addition to this savings which averages 36% over all databases, there is the fact that the off-line printouts are on a per page rather than a per citation basis. As a later section will show, this can mean a savings of as high as 50 to 75 per cent on printouts. Online, too, one can look at as little as one wants and can easily go back and print additional infor-mation for any reference which looks promising based on, say, its title. Print flexibility, similar to ORBIT's, is a plus factor although unlike on ORBIT, you pay by the number of lines printed rather than citations. Finally, off-line prints in any database may be sorted by author, source, language, or any other printed field.

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Automatic SDI is also cheaper. It's a flat $3.00 U.S. plus 16 cents per page per monthly SDI run with royalties of $1.00 for Psychological Abstracts and $2.50 for INSPEC the only additional charge. There is no limit on the number of terms which can be included. Finally in the area of price is the search manual and database guide. Once paid for ($15.00 U.S.), it is perpetually updated free of charge.

Searching advantages are numerous. The most unique one is the truncation feature which is extremely flexible. Besides the usual truncation feature (comput$ means computer, computers, computation, computations, computational, computing, computerize, computer-science [i.e. the descriptor], etc.), the searcher can enter a truncation limiter such as comput$3 which limits the additional endings to three letters or fewer, leaving only the possibility of retrieving words such as computer, computers, computing, compute, computes, computed. In addition, the truncation feature may be used within an adjacency search. Thus, while DIALOG allows a searcher to search "coffee(w)break", it does not allow "coffee(w)break?". BRS, on the other hand, allows one to search for "coffee adj break$1". In fact, if a search were to deal with work breaks, smoke breaks, cigarette breaks, and coffee breaks, one could enter "(work or smoke or cigarette or coffee) adj break$1". The "or" is assumed and therefore, unnecessary, allowing "(work smoke cigarette coffee) adj break$1" to take the place of eight separate searches in DIALOG plus a combine command. This is a very useful time saver. In addition to adjacency searching, other proximity operands are "with" (i.e. the words appear in the same sentence) and "same" (i.e. the words appear in the same paragraph or field). There are also the standard, "or", "and", "not", and "xor" which is the "or not" operand, useful for determining the number of references in a database as in "bread xor bread".

BRS has standardized field tags to a great extent as well as codes for such things as year and language. This not only simplifies learning the codes, it also makes it easier to construct a search running across several databases using the "..save" feature. Even in databases which for all or part of their existence didn't bother to code the language if it was English (e.g. Psych. Abstracts until July 1976), BRS has supplied the language code so that a "..Limit/5 LG = EN" works over all years (1967-) of PSYC on BRS while "LIMIT 5/ENG" will not do the same on DIALOG nor will "5 and ENGL/LA" on ORBIT. To be fair to the latter two systems, by a process of "notting" out "foreign" language references, the same results may be obtained but with greater difficulty and cost and also the possibility of unwittingly missing out on English language articles indexed from 1967 to June 1976 if the searcher is not aware of the problem.

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As indicated above, there is a "..save" feature. In fact, there are two, temporary (same day) and permanent, with no charge for the former and none for the latter if it is erased prior to the end of the month. The result of any set can be chosen as on DIALOG and ORBIT. (As of this writing (December 1978), CISTI was re-working the CAN/OLE search system to allow for after-the-fact saves of this kind.)

Search terms or codes can be searched across all searchable fields or can be limited by two letter paragraph labels (e.g. windowless.ti.) or with two or more paragraph labels (e.g. microform$.ti,ab.) to certain fields. It is also possible to negate paragraphs such as woods..au. so as to eliminate references by an author named Woods. If a searcher wishes to do this after the set has been created, he or she simply enters 5.ti. to reduce the excessively large set to one where the keyword is found in at least the title. Similarly, if set 1 "woods" is too large and one feared that authors named Woods had infiltrated the set, the searcher could enter 1..au. to eliminate the author references. This also operates with descriptors and in particular is useful in databases with major and minor descriptors such as ERIC and NTIS.

Set numbers and words may be combined as in ORBIT (e.g. "12 and anteater$") and this reduces the number of sets needed for a search. With careful planning, extremely complex searches can be performed in two or three statements although the system limit per search is 999 with as many as 234 characters per statement (for a total of 233,766 characters!) Since unnecessary search sets can be purged along the way, there is effectively no limit to the size of a search.

BRS has continually introduced new features to the IBM STAIRS retrieval system inherited from the SUNY/BCN system. One of these which alleviates the inconvenience of files split between online and offline portions is the new Print-Hold feature. This allows next day on-line printing of documents from the offline portions of files if the requester is in a hurry. For example, the Social Sciences Citations Index file is split 1972-76 and 1977 on. A search is performed on the current segment of the SSCI file and references are printed online. At the end of the search, a "searchoff" is performed and the command is given not to mail the results. The next day, the results for 1972 to 1976 can be viewed at the terminal. There is actually an advantage to this since there is no royalty for terminal time when printing from the HOLD file. Since ISI's royalty is $35/hr U.S. over the basic rate to the consortium members of $16 + $5 Telenet/Datapac, there is a considerable savings in online printing costs over having the whole file directly searchable and printable. Online printing the next day also saves the $0.16 U.S. per page cost and the $0.03 U.S. per hit royalty cost so it is probably cheaper to print online the next day than to have results mailed. It is also faster, of course, and was an excellent way of circumventing the

postal strikes in October 1978. The searcher still has the flexibility of ordering the results of a searchoff to come by mail by entering the HOLD file and typing MAIL DOC = ALL or whatever range of documents he wants.

A great step forward in SSCI searching is the feature which lets the searcher specify that the citations to be printed come from journals in a particular discipline. By use of these journal subject codes, one can, for example, exclude references from psychology journals if one has already performed a PSYC search or can limit to sociological journals the results of a citation search to get only sociological articles based on, say, a geographer's research.

If you've ever ordered an offline print and later changed your mind (or if your user changed his or her mind), it is usually difficult if not impossible to cancel the print. Not so on BRS. Anytime during the day the print request was generated, it can be purged by simply entering any database (presumably a royalty-free one such as ERIC) and issuing a simple purge command (e.g. "..PURGE Q0092" where Q0092 is the number given by BRS at the time the offline print was ordered). A similar purge can erase stored searches and SDI's.

COSTS

From its beginnings in 1976, BRS has offered a rate schedule advantageous to large connect time users. Initially accepting only those customers able and willing to commit themselves to a minimum of $125 (U.S.) per month of billing, they further offered stepped reductions in connect hour rates to those able to make larger commitments. The basic features of this system are shown in Table A.

Table A
BRS Connect Hour Rates

Contracted Hours Per Month	Connect Hour Rate	
	Cost/Month	Cost/Hour
5	$125	$25
10	$200	$20
20	$320	$16
40	$520	$13

These rates do not include telecommunications costs (basically the same regardless of retrieval system used since the advent of Datapac), nor do they include the connect hour royalty fees charged by most database producers. BRS billing assesses these separately for remittance to the producers.

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Under the 20 hours per month option ($16/hr) contracted for by the five members of the BRS group in Ontario, the actual connect hour rates (including database producer royalties but excluding telecommunications) for some of the main BRS databases are, in U.S. dollars per hour:

AGRICOLA (CAIN)	16	INFORM	46
BIOSIS PREVIEWS	31	INSPEC	31
CA CONDENSATES	20	NTIS	22
DISSERTATION ABSTRACTS	24	PSYCHOLOGICAL ABS	36
ERIC	16		

It was based on these figures that one of the authors, Walter Zimmerman, examined, early in 1978, The University of Western Ontario's online usage for 1977 to estimate potential savings obtainable with BRS. Taking the number of connect hours used on various databases throughout the year, the cost at BRS rates was calculated and compared with the cost of the most economical alternative at the time, whether offered by CAN/OLE, ORBIT, or DIALOG. The results of these calculations are shown in Table B. For these databases, an average saving per connect hour of $15.16 appeared to be reasonable, based on a division of the calculated total difference in cost ($746.72) by the annual usage for 1977 (49.27 hours). These figures are in U.S. dollars based on the exchange rate of $1.00 U.S. to $1.10 Canadian then in effect. This potential saving was one of the binding elements that brought the five members of the Ontario BRS group together.

Table B

U.W.O. Cost Comparison Study
(U.S. Dollars)

Database	Connect Hours In 1977	BRS Cost		Alternative System Cost*			Difference
BIOSIS	8.833	273.83	(@$31/hr)	397.50	(@$45/hr)	D,C	123.67
CAC	7.57	151.40	(@$20/hr)	302.80	(@$40/hr)	C	151.40
PSYC. ABS.	8.42	303.12	(@$36/hr)	421.00	(@$50/hr)	S,D	117.88
AGRICOLA/CAIN	.867	13.87	(@$16/hr)	21.68	(@$25/hr)	D	7.80
ERIC	11.283	180.53	(@$16/hr)	282.08	(@$25/hr)	D	101.55
NTIS	2.75	48.40	(@$17.6/hr)	96.25	(@$35/hr)	D	47.85
INFORM	4.866	223.84	(@$46/hr)	316.29	(@$65/hr)	D	92.45
INSPEC	2.166	67.15	(@$31/hr)	97.47	(@$45/hr)	D	30.32
CDI	2.166	51.98	(@$24/hr)	119.13	(@$55/hr)	D	67.15
POLLUTION ABS.	.35	16.10	(@$46/hr)	22.75	(@$65/hr)	D	6.65
Totals	47.27 hr						$746.72

D = DIALOG   C = CAN/OLE   S = SDC ORBIT

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In addition to the savings realized through lower connect hour rates, offline print charges levied by BRS in general lead to a lower cost per citation than is attainable on other systems, with exceptions like CAN/OLE and its royalty-free databases such as BIOSIS and INSPEC. Several searches, resulting in large and small printouts, done at Western's D.B. Weldon Library in November, 1978, illustrate this. Based on a 20 cents per page charge (which covers exchange plus a small buffer), the cost per offline reference printed in a 500 hit Psychological Abstracts search, with abstract number, author, title, source and abstract printed was 6.2 cents Canadian. A reasonable comparison would be DIALOG's format 5 at 12 cents Canadian or ORBIT at 11 cents Canadian. A less typical but still actual example was a Comprehensive Dissertation Index search in which 33 full references were printed offline (5 pages) at a total cost of $1.00 Canadian, or about 3 cents each. This can be compared to 13 cents on ORBIT or approximately 14 cents on DIALOG.

With regard to actual costs passed on to end users, each member of the group receives separate billing from BRS and so is entirely free to work out whatever system it wishes. Guelph and Western have variations on a full cost recovery system, charging the appropriate BRS connect hour rate, plus exchange, telecommunications, offline printing, and mailing costs.

EFFECTS

In the last section, we did not attempt the difficult and premature task of assessing in any comprehensive way the costs (pro and con) of BRS as opposed to other bibliographic search systems. The short time span examined, the difficulty of fair comparisons between systems offering a bewildering variability of formats and searching options, and other factors, precluded such comparisons.

The same parameters which affected our discussion of costs similarly limits what we can say about the effects that using BRS has had on the online search services offered at the University of Guelph and The University of Western Ontario. With those constraints in mind, data on the number of searches done and the connect time used since the availability of BRS was compiled from the "Search Logs" maintained at both McLaughlin Library and Weldon Library. The definition of a search used here is a single database search from sign on to sign off. Repeating or extending a search to another database counts as an entirely new search.

Tables C.1 and C.2 summarize the number and percentage of searches done (at Guelph and Western respectively) with the major search service suppliers, on a monthly basis since September, 1978. Retrospective figures were available for Western's usage in September and October of 1977, and they are included as well.

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Table C.1
Guelph Searches; Monthly/System

	BRS	DIALOG	ORBIT	CAN/OLE	MEDLINE	QL	TOTAL
Sept./78	22	16	4	13	6	1	62
	(35.5%)	(25.8%)	(6.4%)	(21.07%)	(9.7%)	(1.6%)	(100%)
Oct./78	7	22	5	9	4	0	47
	(14.9%)	(46.8%)	(10.6%)	(19.1%)	(8.5%)	(0.0%)	(100%)
Nov./78	33	50	7	9	4	4	107
	(30.8%)	(46.7%)	(6.5%)	(8.4%)	(3.7%)	(3.7%)	(100%)
Dec./78	23	27	2	7	3	2	64
	(35.9%)	(42.2%)	(3.1%)	(10.9%)	(4.7%)	(3.1%)	(100%)
Jan./79	35	36	3	24	5	3	106
	(33.0%)	(34.0%)	(2.8%)	(22.6%)	(4.7%)	(2.8%)	(100%)
Sept.78 thru	120	151	21	62	22	10	386
Jan. 79	(31.1%)	(39.1%)	(5.4%)	(16.1%)	(5.7%)	(2.6%)	(100%)

Table C.2
Western Searches; Monthly/System

	BRS	DIALOG	ORBIT	CAN/OLE	MEDLINE	QL	TOTAL
Sept./77	0	35	4	25	53	5	122
	0%	28.7%	3.3%	20.5%	43.4%	4.1%	(100%)
Oct./77	0	53	3	34	52	1	143
	0%	37.1%	2.1%	23.8%	36.4%	0.7%	(100%)
Sept./78	64	10	2	22	53	0	151
	42.4%	6.6%	1.3%	14.6%	35.1%	0%	(100%)
Oct./78	82	3	2	34	86	4	211
	38.9%	1.4%	0.9%	16.1%	40.8%	1.9%	(100%)
Nov./78	62	28	1	27	75	0	193
	32.1%	14.5%	0.5%	14.0%	38.9%	0%	(100%)
Dec./78	51	14	2	6	81	0	154
	33.1%	9.1%	1.3%	3.9%	52.6%	0%	(100%)
Jan./79	65	29	7	29	105	5	240
	27.1%	12.1%	2.9%	12.1%	43.6%	2.1%	(100%)
Sept./78 thru	324	84	14	118	400	9	944
Jan./79	34.3%	8.9%	1.5%	12.5%	42.4%	0.9%	(100%)

From these tables it is clear that BRS had an immediate effect on searching patterns, both at The University of Western Ontario and the University of Guelph. Approximately 1/3 of the total number of searches

performed at each institution were executed on BRS as soon as it was available, indicating that a significant proportion of their online searching needs could be met by the new system. There will of course continue to be a need to access the other systems for various reasons, ranging from unique searching features to unique database holdings. For example, Western's large component of Medline searches in support of the medical school on campus will not be affected directly. At Guelph, the concentration of research in specialized life science disciplines such as agriculture, veterinary science and nutrition creates high demand for several databases such as Food Science and Technology Abstracts and the Commonwealth Agricultural Bureaux files, which are not available on BRS. Usage of DIALOG and ORBIT, the systems which feature these files, is correspondingly higher than at Western, and the residual number of searches being performed on them will probably not be further affected by BRS.

The total number of searches being done at both libraries appears to be increasing. This is attributable, at least in part, to greater attractiveness in terms of cost to the end user. Both libraries are examining the reduced connect hour rates available on BRS with regard to the possibility of increasing the use of online services by undergraduates. At Guelph, a pricing schedule is being looked at which would, for a fixed, low fee, offer undergraduates a certain number of the most recent (and hopefully relevant) citations on topics able to be delineated by relatively few keywords.

In Tables D.1 and D.2 below, the average connect time per search on the various online vendor systems is listed on a monthly basis. Here, as with the figures on the number of searches performed, it would be unwise to try to make any firm conclusions because of the limited time span examined and other factors such as searcher variability. It does appear that BRS searches run a little below average in connect time at Western, and slightly above average at Guelph. As searcher familiarity with the system increases, the average connect time may decrease further. The benefits of this are compounded beyond the obvious saving by the generally lower connect hour rates of BRS.

TABLE D.1 – Guelph; Average Connect Time (Hours) of Searches

	BRS	DIALOG	ORBIT	MEDLINE	CAN/OLE	QL	ALL SYSTEMS
Sept./78	.125	.074	.300	.142	.184	.420	.137
Oct./78	.214	.178	.099	.101	.205	——	.162
Nov./78	.163	.115	.234	.087	.169	.324	.145
Dec./78	.185	.178	.165	.151	.189	.083	.175
Jan./78	.193	.179	.283	.115	.248	.278	.178
Sept./78 thru Jan./79	.172	.146	.215	.118	.200	.271	.160

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TABLE D.2 - Western; Average Connect Time (Hours) of Searches

	BRS	DIALOG	ORBIT	CAN/OLE	MEDLINE	QL	ALL SYSTEMS
Sept./77	−	.136	.142	.137	.169	.140	.151
Oct./77	−	.159	.078	.138	.160	.200	.155
Sept./78	.104	.122	.184	.073	.115	−	.105
Oct./78	.121	.189	.066	.094	.124	.254	.121
Nov./78	.083	.060	.083	.075	.111	−	.090
Dec./78	.080	.109	.033	.125	.108	−	.099
Jan./79	.103	.088	.080	.075	.114	.243	.105
Sept./77 thru Jan./79	.100	.090	.086	.083	.114	.243	.104

With regard to end user response to BRS searches versus other
systems, only two parameters appeared to draw any comment at Guelph;
quality and format of offline prints and overall search cost. Repeat
users, who may have been accustomed to one or more other system formats,
required re-education to the BRS "look", but no negative or positive
reaction has really been expressed. The difference is simply noted. The
difference in cost has drawn positive comment but is not such that it
would be the deciding factor if the system offered less in terms of
usability and intellectual output. The fact that some BRS files are
partially available for offline (batch) searching only has not proven to
be any deterrent whatsoever. If the need is urgent, search results from
the offline files can be printed the next morning online. This is
usually sufficient. In normal circumstances, most online search results
are printed offline in any case. For first time (especially under-
graduate) users, lower cost does sometimes make the difference in
deciding to proceed with a search.

At Western, the reaction of end users for whom DIALOG, ORBIT, and
CAN/OLE searches had been performed previously was quite positive, mainly
for cost reasons. Partly, this was due to lower connect hour rates and
cheaper yet equally useful off-line printouts. It was also the enhanced
search features which many found allowed for better results in less time.
It has been apparent since the introduction of BRS that more students
feel they can afford online searches. It is also obvious that at least
for Western, the BRS "gamble" has paid off. In the first six months of
its contract, Western used 40 out of its 48 hour commitment, or 83%!
Other members in the consortium haven't done quite as much but are
keeping up with their commitments.

CANADIAN ONLINE BRS CONSORTIUM

THE FUTURE

The future looks good for BRS in Canada. An informal survey of
BRS users in Ontario shows a great deal of satisfaction with the service
in terms of price and the search system's features, capabilities, and
response time. Inquiries have been received from a number of libraries
in Ontario about BRS and as of this date (December 1978), it would appear
that there will be several more contracts signed in the near future.

One area that still needs to be improved is access to the MEDLINE
file. Currently, MEDLINE is available in Canada exclusively through
CISTI and as a result, Canadian searchers have a disadvantage vis-a-vis
Americans in terms of using a specified number of hours per year on BRS.
With MEDLINE available here, a much greater number of institutions would
be able to take advantage of BRS' rates because the dependence on the
other databases would be considerably reduced. At The University of
Western Ontario, for example, the use of MEDLINE by itself is enough to
cover the four hours per month commitment. MEDLINE is not only royalty-
free, it costs a flat $10/hr. plus $5/hr. Telenet/Datapac for connect
time and a reduced rate of $0.13/page U.S. for off-line prints.

New databases are also a part of the future. BRS polls its
subscribers to determine their priorities and a fair number of wide-
interest databases are added each year. Currently, Compendex, SSIE, and
Sociological Abstracts to name but a few are under serious consideration.
The more databases there are, the easier it will be to use the
contracted-for time and the easier it will be for BRS to attract new
customers.

All in all, BRS will do much to spread the benefits of online
information among more and more Canadians as time passes.