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ABSTRACT

With electronic desktop delivery of information, increased ease of access allows for greater information use than previously possible. The OhioLINK experience thus far is that improved ease of access has demonstrated the high elasticity in information usage. The first 36 months of operation of the OhioLINK Electronic Journal Center (EJC) is an exemplary illustration of the dramatic benefits of expanded access. Small and two-year colleges are also beneficiaries through first-time access to scholarly journals. The evolving and maturing usage analysis that is made possible with an electronic journal system will provide the basis for making rational, value-based decisions about electronic journal needs. This paper focuses on the measurement and evaluation of the use of electronic journals. Several charts and tables present statistics, including: percent of titles held in print at each university, total article downloads from EJC, weekly total article downloads, annual downloads by publisher, article download ranges of percentile title groups, distribution of title/article percents across six publishers, articles downloaded not held in print, two-year college print and EJC use, small university and college EJC use, and private and community colleges downloads. (MES)

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Use of Electronic Journals in OhioLINK'S Electronic Journal Center

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Abstract:

With electronic desktop delivery to information, increased ease of access allows far greater information use than previously possible. The OhioLINK experience thus far is that improved ease of access has demonstrates the high elasticity in information usage. The first thirty-six months of operation of the OhioLINK Electronic Journal Center (EJC) is an exemplary illustration of the dramatic benefits of expanded access. Small and two-year colleges are also beneficiaries through first-time access to scholarly journals. The evolving and maturing usage analysis that is made possible with an electronic journal system will provide the basis for making rational, value-based decisions about electronic journal needs.

Introduction

The OhioLINK experience continues to strongly support an adoption of the new journal purchasing practices based on consortium-level licensing and access to expanded electronic collections. We can overcome the inherent limitations of the print medium, the entrenched and limiting economic practices of vendors to individual institutions, and the library-imposed, self-limiting, collection development mentality of information rationing that pervades our community. By radically changing the value equation of information delivered per dollar spent, consortia can set the evolution of our industry on a new and better, long-term course.

Critics claim we are doing no more than rewarding publishers who have gouged libraries with exorbitant price increases over the years. That we are buying large pre-set packages of journals that no one needs. That we are

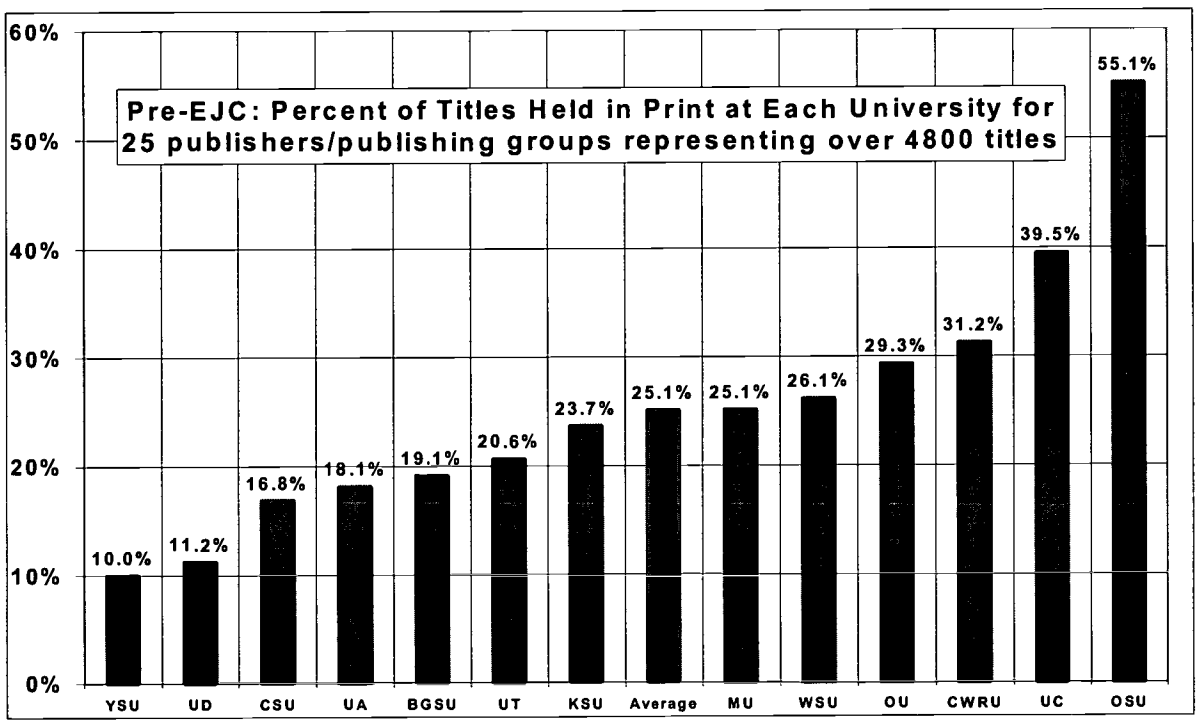
becoming more dependent on these publishers and their journals through these deals. That while what we are doing feels good in the short term, we are failing to do the right thing for the long term good of libraries and scholarly publishing.

Critics assume incorrectly that what we are doing today is an end state scenario. They fail to see the long term advantages these licenses provide in assessing what materials are really useful, what the true cost per use may be, an in negotiating economically sustainable, long term access to a wider array of useful and needed journals. This paper will continue to portray that these licenses are a positive evolutionary step for the library community in evaluating need and utility for library users.

For purposes of this paper I will focus on the measurement and evaluation of use of electronic journals rather than on the rational for group licensing. The latter can be found in other papers by the author. Suffice it to say, for Ohio universities, the traditional, individual library journal purchases has created a deteriorating world of individual collections whose trends follow the pattern repeated by ARL members and others; bigger budgets, reduced buying power, fewer books bought each year, fewer journal subscriptions. To illustrate, consider the holdings of 4,824 journal titles from twenty-five important commercial and society publishers and publisher groups whose electronic journals Ohio academic libraries were interested in licensing.

Chart 1 shows the percentage of the 4,824 titles owned in print by each library. Ten of the thirteen libraries hold fewer than 30% of the titles. Only Ohio State University holds more than half of the titles in print, but barely, with 55.1% ownership. At the low end of the range, Youngstown State University holds only 10.0%. Given these statistics, is it really possible that the collective academic interests of the state justify the collection of, on average, only 25.1% of these published titles?

CHART 1



In response, the OhioLINK community has accepted several new operating rules. The first, and most fundamental, new rule is that the need for and use of information is highly elastic as access is improved with the rapidly evolving advances in electronic technology. This elasticity holds true for both print and electronically delivered information. In an evolving arena we can be, at best, only partially correct in our decisions for selecting material, and must realize that information is being used in an evolving, expanded, and as yet not totally definable dynamic new way. To achieve effective practices we must focus on enabling this

expanded access rather than trying to precisely define it. The change in mentality from "I know what my users need" to "Let's find out what my users need" is the cornerstone to the new rules.

A second new rule is that the economics of group purchase are far superior to the old rule of the individual library as an economic island. The past pricing practices of vendors and publishers to individual libraries have been translated to electronic media in ways that allow for only a modest expansion in information resources. Consortium purchasing can enhance vendor revenues and profits while lowering the library unit cost of purchase. Many consortia have experienced this phenomenon, saving anywhere from 20% to 70% when buying as a group compared to accrued individual library prices. OhioLINK has executed group purchases as extensively as any consortium, and as a result we can claim to the State of Ohio administration that rather than additional investments in our libraries resulting in less efficiency, the opposite is now true. The unit cost of information is going down, and now for each dollar spent more information is bought and delivered. This argument provides an enhanced basis for future success and funding.

The third new rule is that the focus must be on information expansion and cost effectiveness. Rationing information in a way that is more cost efficient is a survival tactic but not a strategic approach for success. In general, the experience learned from the information licensing conducted by OhioLINK is that we should look carefully at what individual libraries will spend to maintain their current and scattered resources, and compare that cost against what it will take to achieve expanded group-wide access. OhioLINK has found that in many cases only a small increment in spending is needed to achieve expanded group-wide access. Even where a large increment is needed, the expanded access often results in a much better value. The remainder of this article will focus on the expanded use of information that results when the new rules are applied.

THE OHIOLINK ELECTRONIC JOURNAL CENTER EXPERIENCE

The OhioLINK Electronic Journal Center (EJC) is a tool created to improve dramatically our use of scholarly journals beyond the use of print journals. The EJC is an OhioLINK operated software and hardware site designed to aggregate the electronic journals licensed from multiple publishers. It is accessed directly with title and subject category menus or traditional search form options. There are URL links to the EJC from our local and central catalogs, from our locally mounted Institute for Scientific Information (ISI) *Web of Science*, and from 37 other journal citation databases mounted at our central site, such as Medline, BIOSIS, PsycINFO, INSPEC, MLA, Sociological Abstracts, and Compendex. For all titles of each publisher, all OhioLINK publicly supported universities and colleges, and 31 of the 38 member Ohio private liberal arts colleges have access.

The EJC was launched in April 1998 with the available full collections of Elsevier Science (now +1300 ISSN's) and Academic Press (now +200 ISSN's). Project MUSE titles were subsequently added in early 1999 and as available all the expanded MUSE titles (from 40 to now 135 ISSN's). Added in fall 1999 were the available collections of Wiley (+360 ISSN's), Kluwer (+600 ISSN's), Springer-Verlag (+400 ISSN's), and the American Physical Society (7 ISSN's). Spring 2000 saw MCB Press (150 ISSN's) and Royal Society of Chemistry (28 ISSN's) journals added. Over the summer of 2000 we added Institute of Physics (44 ISSN's), American Institute of Physics (31 ISSN's), and American Chemical Society (31 ISSN's). In early 2001 addition began of Thieme (31 ISSN's), Blackwell Publishers (+240 ISSN's), and Blackwell Science (+275 ISSN's). Association of Computing Machinery's Digital Library collection will be next. Negotiations continue with other interested publishers.

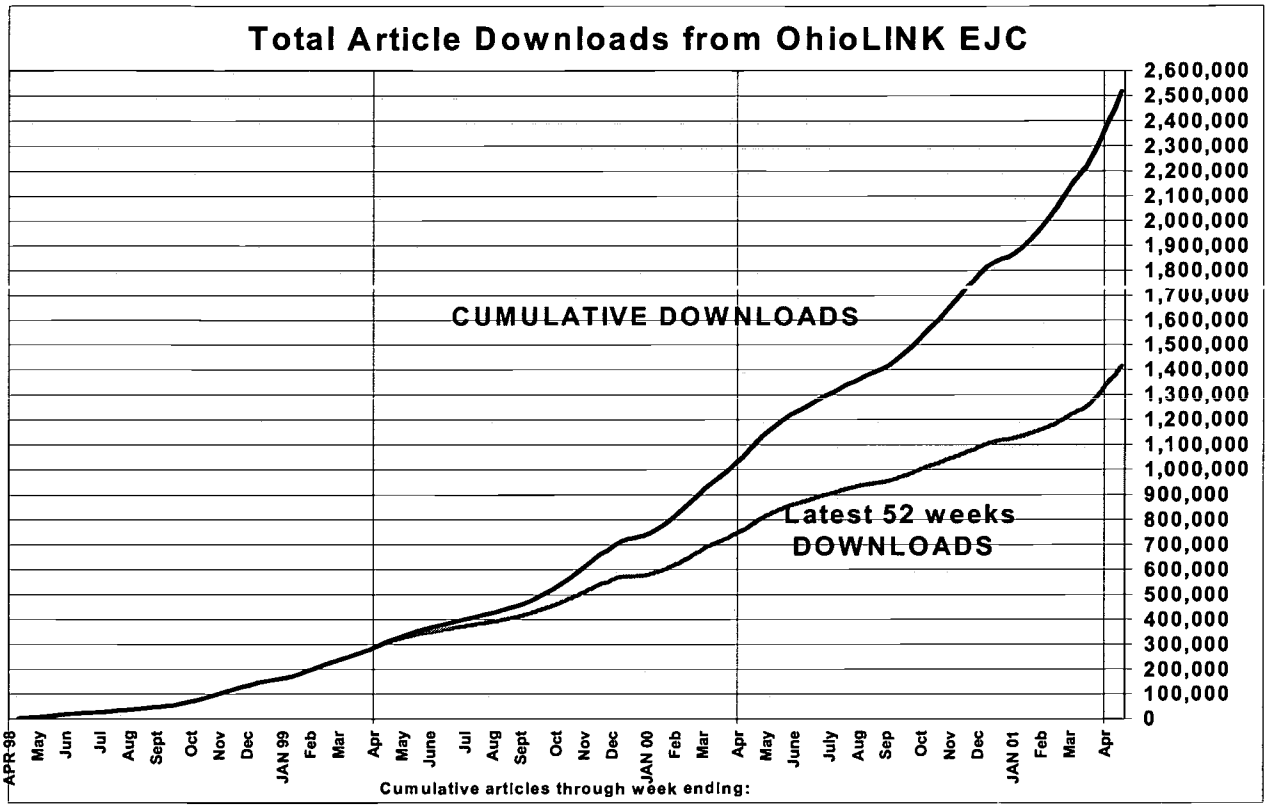
Print titles are still being added to the electronic collections of some publishers and regular additions and changes result in a dynamic and growing ISSN count. All discontinued ISSN's and their past issues stay in the EJC as well. Back files start at different points in time.

The EJC Experience:

As a result of expanded use and expanded titles, articles downloads have grown rapidly; during the initial 12 months of operation, April 1998-March 1999, users downloaded 280,000 articles; in the second 12 months of

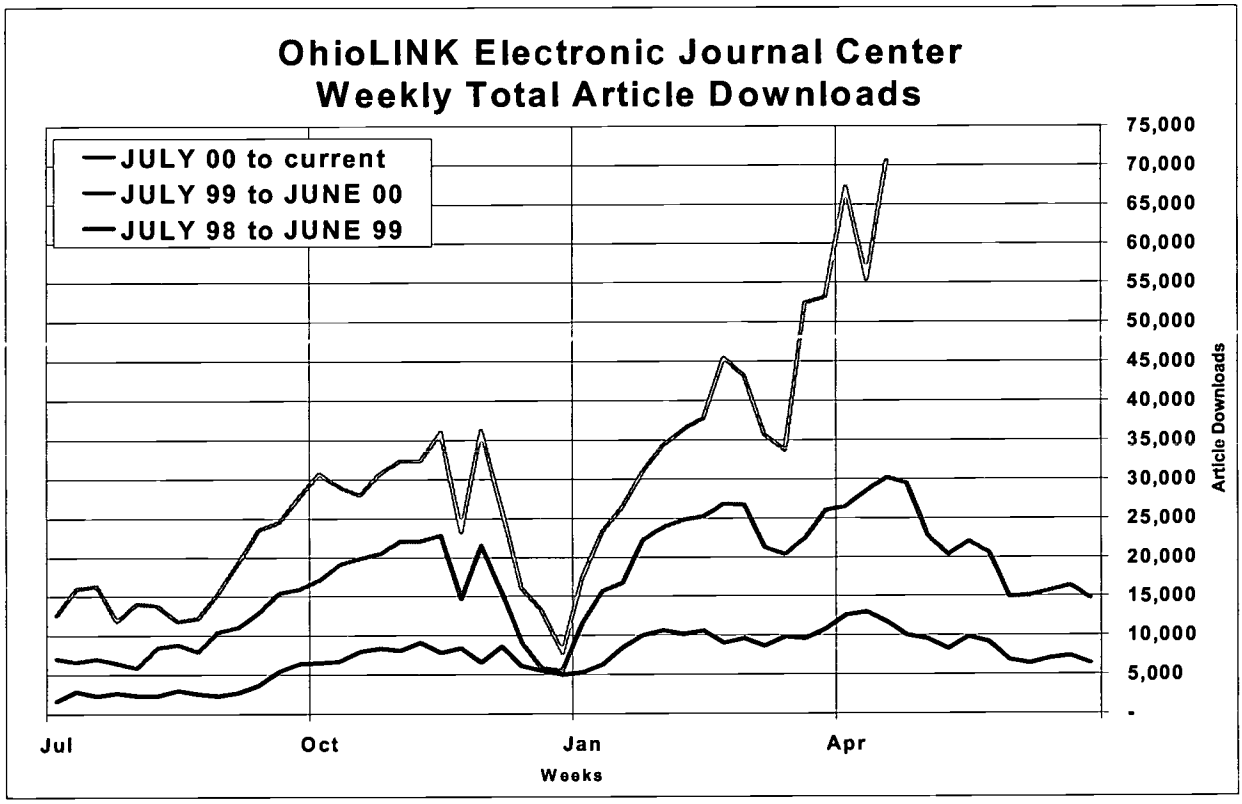
operation, April 1999-March 2000, 740,000; January 1999-July 2000, 1.1 million; and 1.4 million annually by mid-April 2001 (Chart 2).

CHART 2



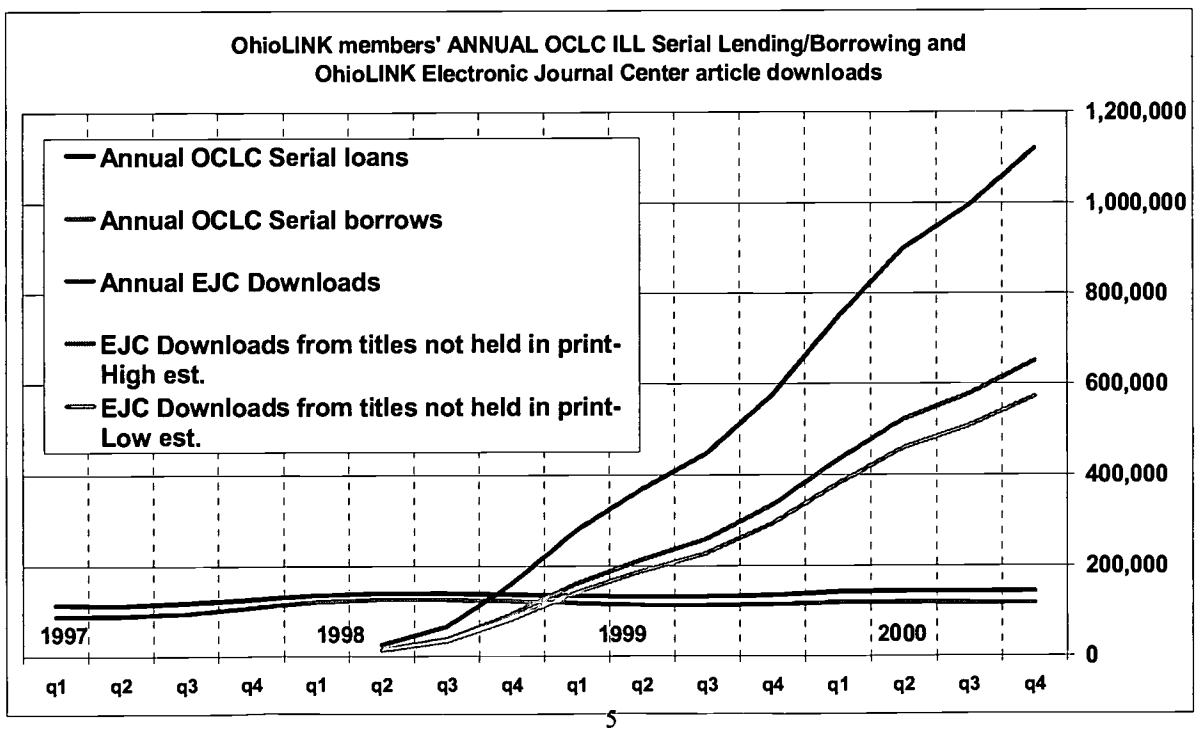
Weekly article downloads (AD) started out at 2,000-3,000 per week during the spring and summer of 1998, and during the 1998-1999 academic year, AD grew rapidly to a weekly peak of 12,500 (Chart 3). In 1999-2000 we had reached a weekly peak of 30,100 and in spring 2000-2001, shortly before the writing of this paper, we reached a weekly peak of 70,000.

CHART 3



How do we evaluate the significance of these download levels? Chart 4 compares our EJC download levels for articles not held in print at the patron's home library to our OCLC ILL requests for non-returnable items.

CHART 4

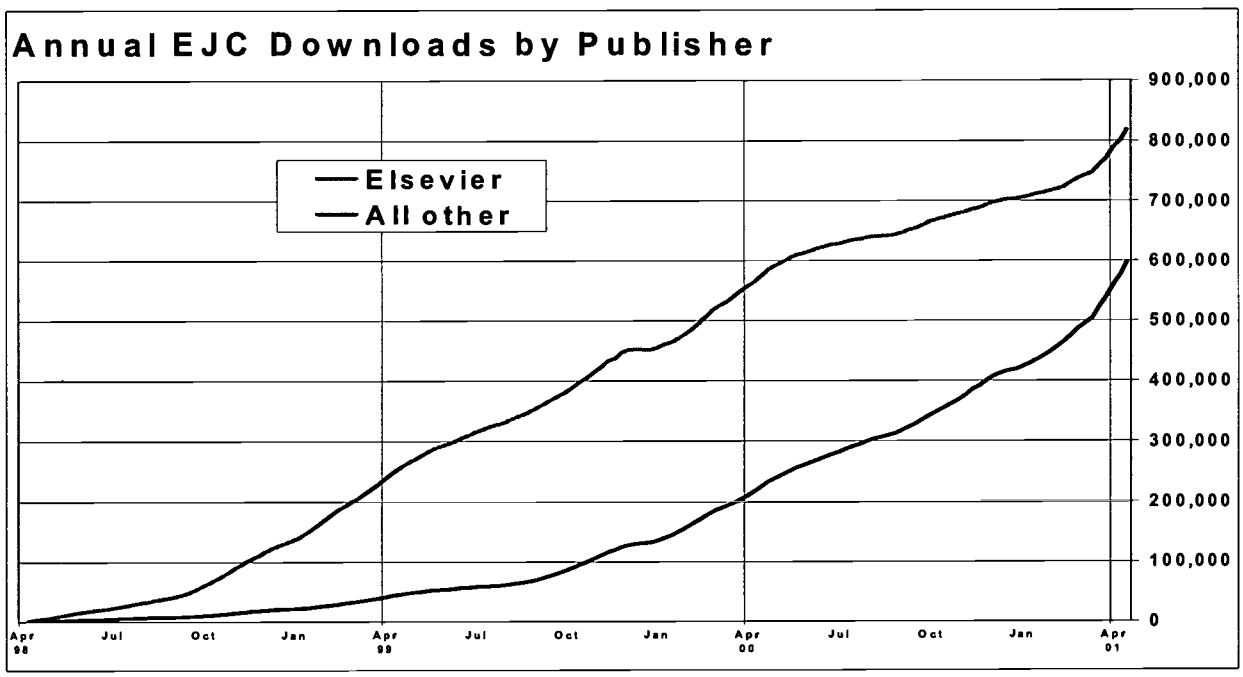


Of the 1,306,000 AD in the twelve months, April 2000 - March 2001, approximately 58% or 666,000 AD were from journals not held in print at the downloading patron's library. Universities average 52% with all smaller four year colleges and two year colleges above 90%, many approaching 100%. Traditionally, these articles would had to have been supplied via inter-library loan (ILL).

The number of articles downloaded from EJC journals, not held locally, greatly exceeds the number of ILL transactions among the OhioLINK community on OCLC, which are steady at about 120,000 requests per year. Only through immediate desktop delivery will users make use of journals at these expanded levels. This is even more impressive when one recognizes that the 666,000 articles were from just the limited EJC publishers available at the time. At this same time, we delivered almost 1,300,000 articles via ProQuest's ABI/INFORM and Periodical Abstracts and numerous other articles via Academic Universe and other databases. As OhioLINK expands to include additional publishers, undoubtedly the total AD will dwarf previous perceptions of journal use and need due in large part to ease and speed of desktop delivery.

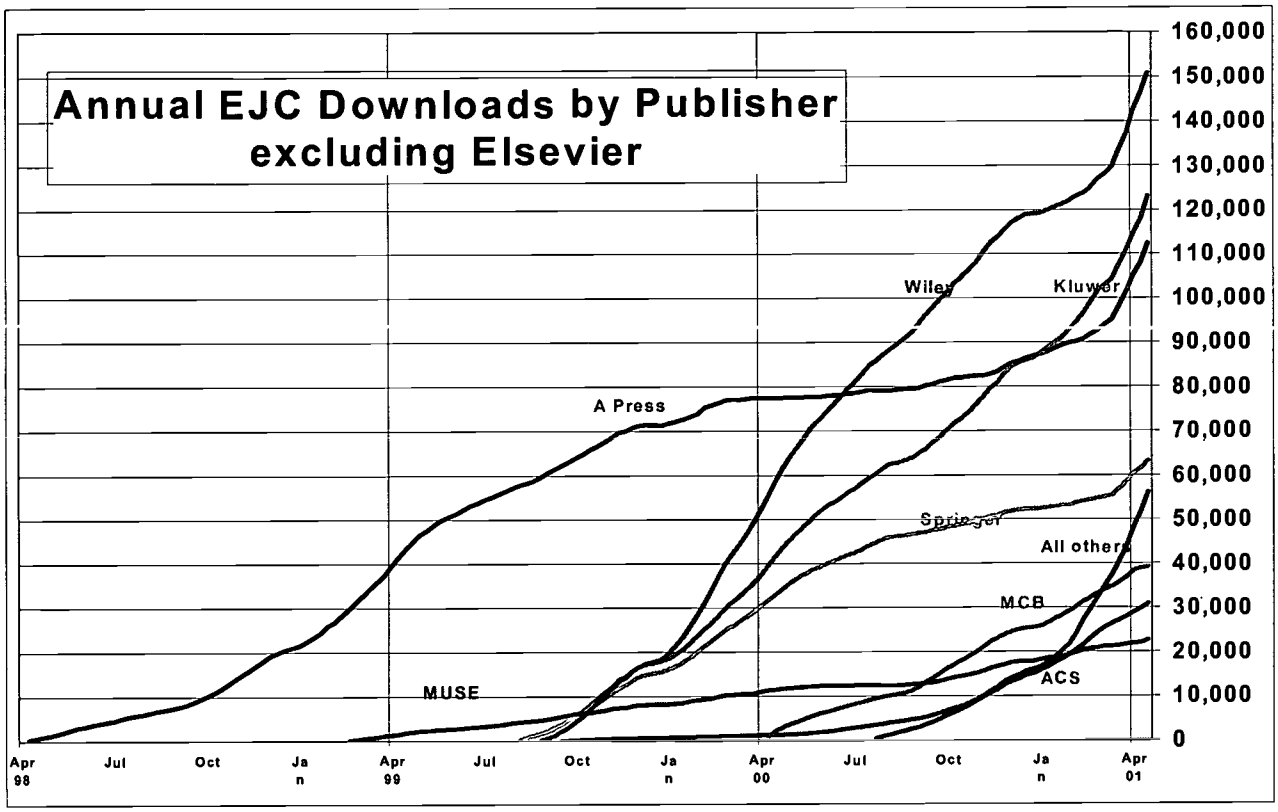
The EJC data also is very significant in its distribution among publishers. The introduction of additional major publishers and a more than doubling in the ISSN count has done little to arrest the growth in Elsevier Science downloads (Chart 5).

CHART 5



Downloads of Academic Press seemed to be affected by publisher additions, leveling off after the major expansion in titles in fall 1999 (Chart 6). Academic Press renewed growth in the current academic year after the addition of new back file years 1993-1995. Among new publishers Wiley has generated the most activity, 150,000 downloads annually, followed by Kluwer at 123,000, and Springer at only 63,000. The number of titles loaded would heavily favor Kluwer and Springer over Wiley. The difference in usage is also a reflection of the inherent demand as well as the number, currency, and completeness of articles delivered affects usage. Springer downloads have been negatively affected by its inability to deliver a complete back file and current content.

CHART 6



The "All Others" category is comprised of the publishers generating lesser activity levels. MCB Press is the leading publisher in this category with 39.000 downloads annually. We can expect both Blackwell groups to generate significant levels as they come online.

At this point we can observe that adding new titles is mostly, if not entirely, generating incremental, increased use. As we add linked bibliographies and enhanced searching options even more articles will be used. It may be some time before we see saturation in demand resulting in a broad cannibalization factor to develop.

At this early stage it is difficult to make equivalent comparisons of journal usage among publishers. Even if all titles are used, use relative to the number of articles in the EJC may be one such measure but only when there are significant and relative consistent back files. Currently there are significant differences in the average number of articles per title based on the extent of back files and journal frequency and articles per journal issue. These affect the aggregate rates of article downloads compared to total articles loaded for the major publishers for whom we have full calendar 2000 data.

As seen in Table 1 MUSE has the highest use at 74% above the average, followed closely by Wiley at 65% and Kluwer at 47%. Elsevier, Academic Press, and Springer-Verlag have rates of use below the average. Elsevier and Academic Press both have the most extensive back files and thus older, lower use articles could affect their use per article loaded. We have not yet conducted an analysis of use of articles downloaded by year of publication to verify this possibility. Springer-Verlag has had the most problems in supplying data and users have complained that this has negatively affected their reliance on the EJC.

TABLE 1

	Article Downloads Calendar 2000	Articles Loaded in EJC	Number of Downloads per Loaded Article	Average AD per Loaded Art. indexed to Average
Academic Press	86715	178210	0.487	0.80
Elsevier Science	703486	1244345	0.565	0.93
Kluwer	86385	96713	0.893	**1.47**
MUSE	17767	16854	1.054	**1.74**
Springer-Verlag	52213	100842	0.518	0.85
Wiley	119031	118745	1.002	**1.65**
Total/Average	1065597	1755709	**0.607**	**1.00**

Additional insight can be gained by putting each publisher's downloaded titles in descending order of use and then by dividing each publisher's titles into ten equal groups, percentiles. In this way we can compare relative use levels across a publisher's collection and relative to other publishers. Table 2 provides this analysis. It lists the highest and lowest values of each percentile for each publisher. For example, Elsevier Science's top percentile of titles range from 8,669 to 1,237 downloads. The next percentile of titles ranges from 1,237 to 726, the next 728 to 487, and so forth. It reveals that Elsevier's (ES) heaviest used percentiles have download ranges greater than the comparable percentiles of the other publishers. Academic Press and Wiley show similar range profiles while Kluwer, Springer-Verlag, and MUSE have similar but still lower range profiles.

TABLE 2
Full Year -2000 Article Download ranges of Percentile Title Groups -descending AD per title

Percentile	ES	A Press	Wiley	Kluwer	Springer	MUSE
10	8,669	4,273	4,618	2,659	1,407	897
9	1,237	1,095	988	356	329	368
8	726	522	553	213	209	255
7	497	388	333	152	136	158
6	369	242	252	109	87	124
5	260	190	176	76	58	86
4	187	139	125	52	38	58
3	122	88	92	34	22	46
2	63	71	62	17	14	35
1	25	27	38	8	7	15
	1	1	1	1	1	3

Importantly, none of these analyses yet examines the per article downloading cost at the title level. This is a critical analysis that must be addressed. Without it our evaluation of use is incomplete.

Notwithstanding the differences across publishers in Table 2, there is a very consistent internal distribution of article downloads across titles within each publisher. One consistent phenomenon across publishers is that virtually all titles loaded are downloaded, even if many titles have only a few. Chart 7 reveals that for each major publisher about 40% of the titles account for about 85% of the AD. This ratio is broader than the 20/80 rule that some people have assumed. The basic distribution curve holds true for all 5 of the major commercial publishers with no significant differences. MUSE shows a slightly less concentrated distribution but only by 5%. On the extremes, the most heavily used titles, which represent 8-10% of AD, are only 1% of the total titles. The 45% least used titles deliver only about 8-10% of the AD. It is too early to predict which titles will permanently remain high or low AD titles. Patterns will likely continue to shift as we add publishers, improve our database links, and our users adapt to this new resource. And, of course, low use does not necessarily mean low value.

CHART 7

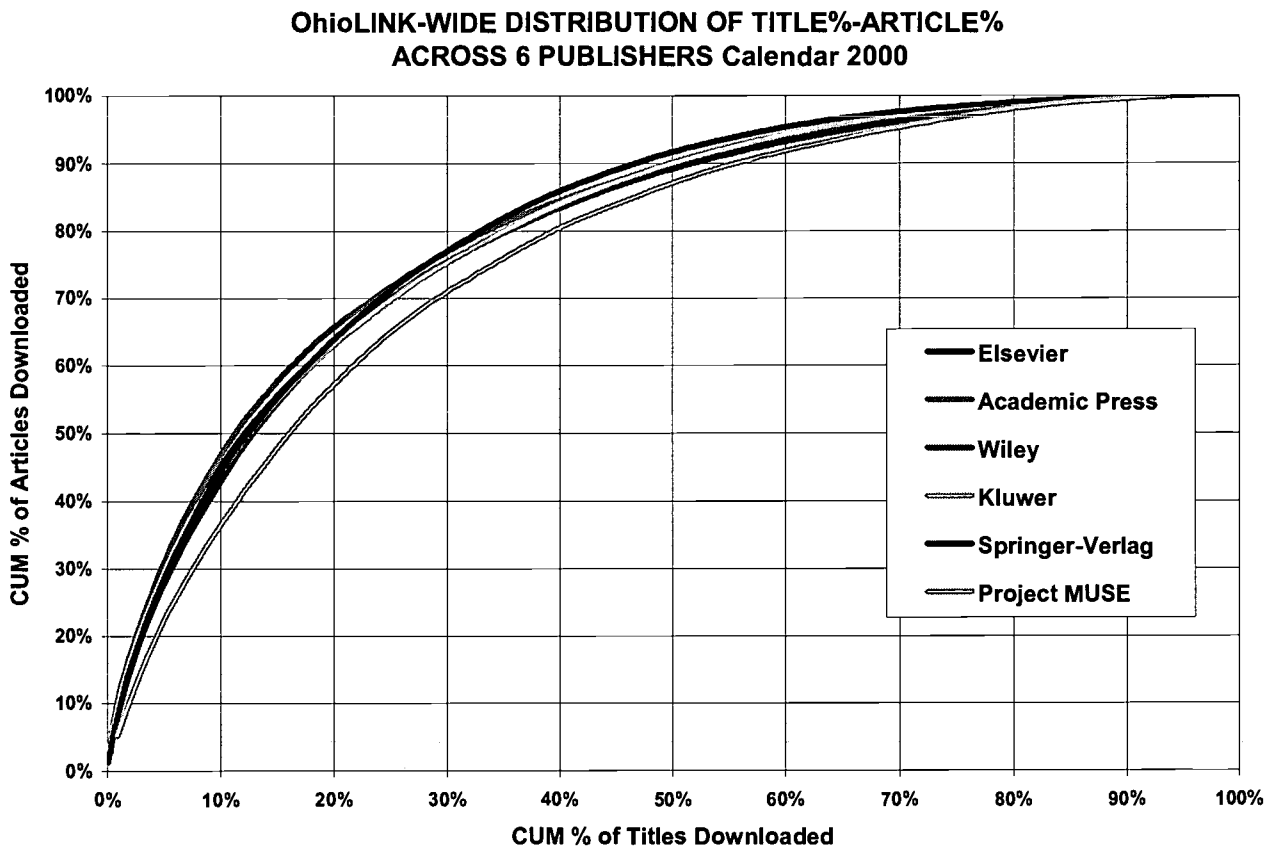
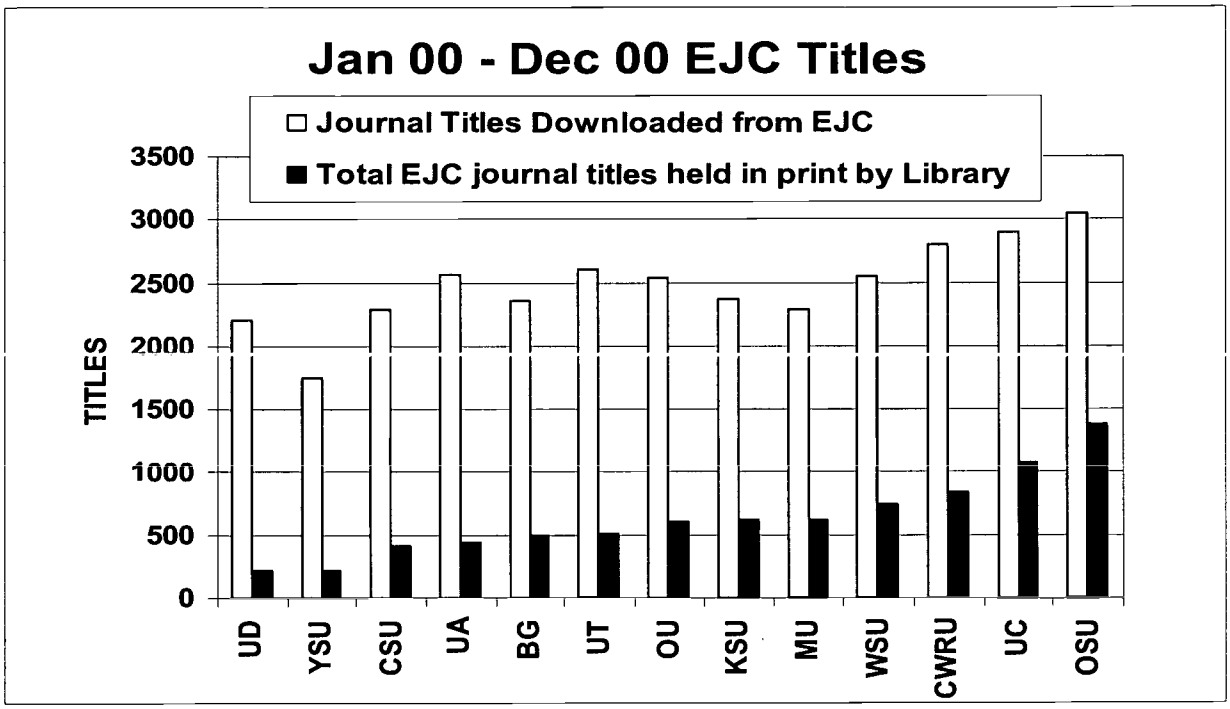


Chart 8 summarizes the dramatic expansion in journals used in our major universities when compared to the titles that were previously owned in print. On average, for the publishers available in 2000, each Ohio university owned in print 659 titles, based on the year prior to the start of each electronic license. In the twelve months from January 2000 – December 2000, patrons downloaded articles from an average 2,681 titles per university, a quadrupling in titles used over print access. The range of this phenomenon was widespread, from a low at Youngstown State of 1749 titles used to a high at Ohio State of 3,050. Even with 1376 of the EJC titles in print, the EJC more than doubled the title access at Ohio State.

CHART 8



At all campuses, including Ohio State, (Chart 9) the majority of titles with AD's are not held in print. This new access represented over two-thirds of the titles downloaded for all but the two largest libraries in the state, both of which are members of the Association of Research Libraries -- Ohio State University (OSU), and the University of Cincinnati (UC). The expansion in the number of titles used over those that were traditionally available in print is highly significant.

Chart 10 lists the total AD at each school and the average number of articles downloaded per title used. The averages are significant for all schools. Review of these statistics should cause one to speculate on the total cost if these articles had been ordered and received via traditional ILL or a commercial document delivery service. The obvious advantage of the EJC approach is that neither ILL nor document delivery are capable of providing the patron with immediate desktop access to the full-text of the articles.

CHART 9

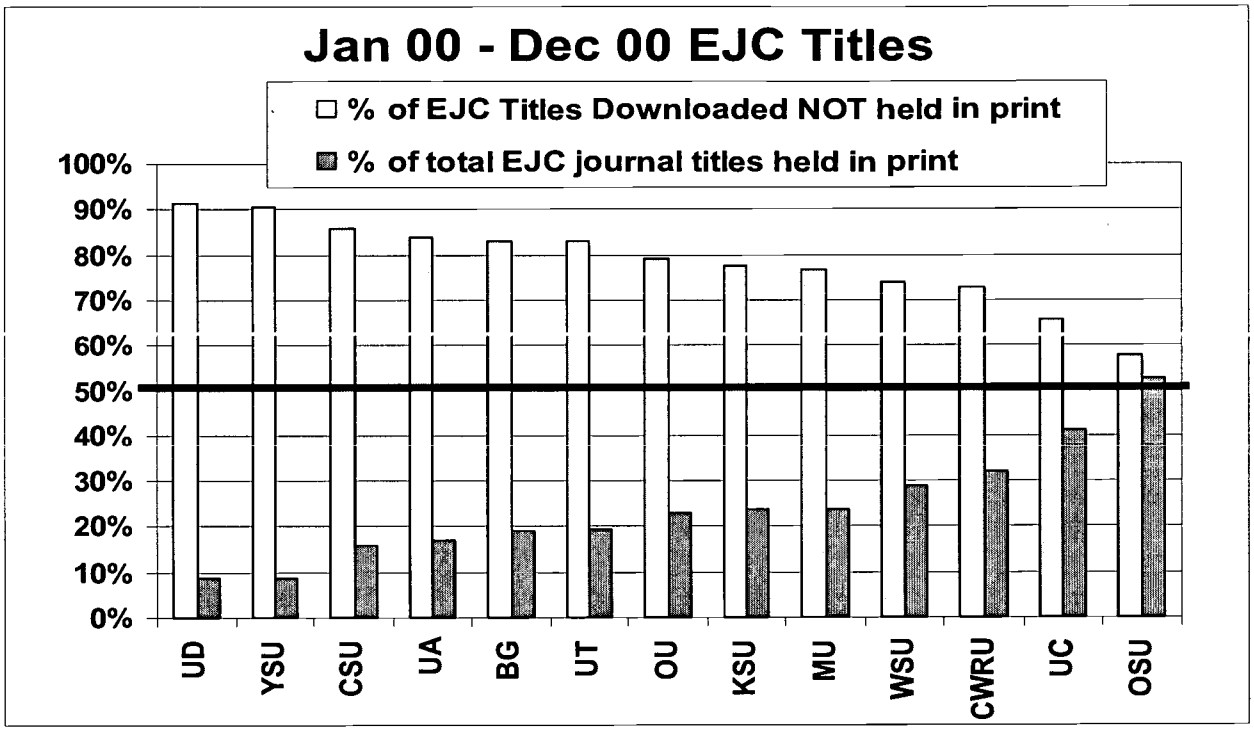
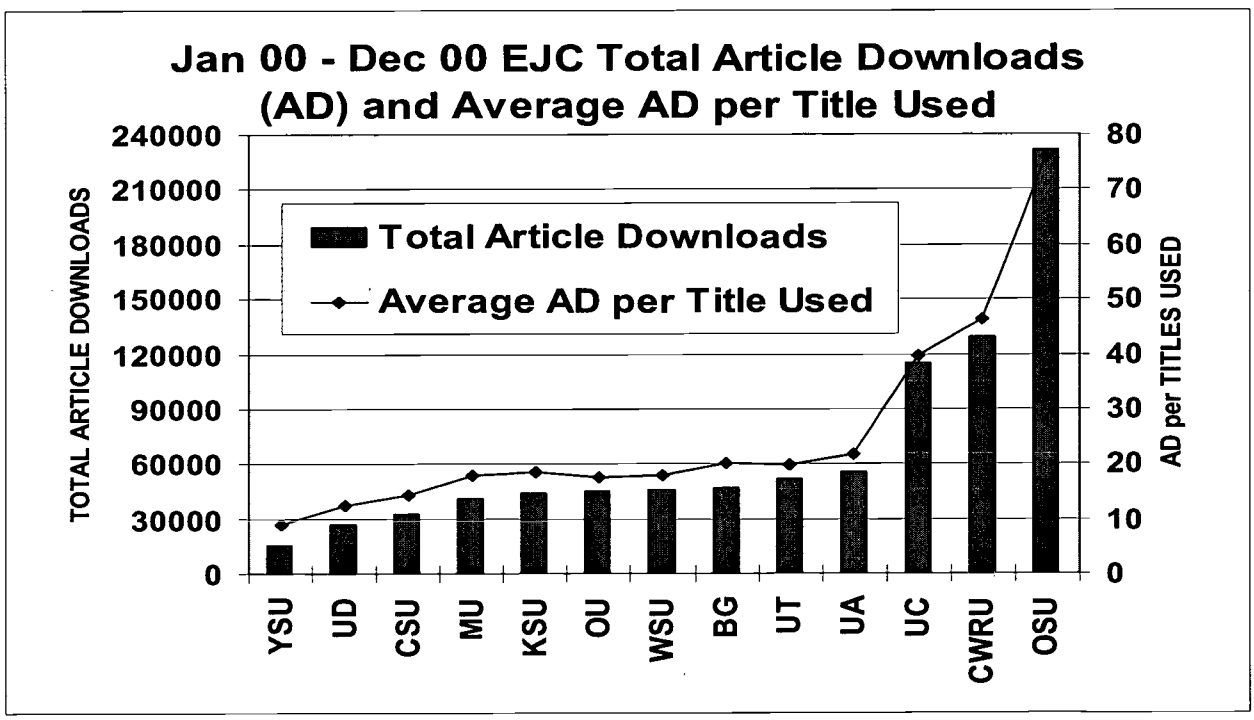


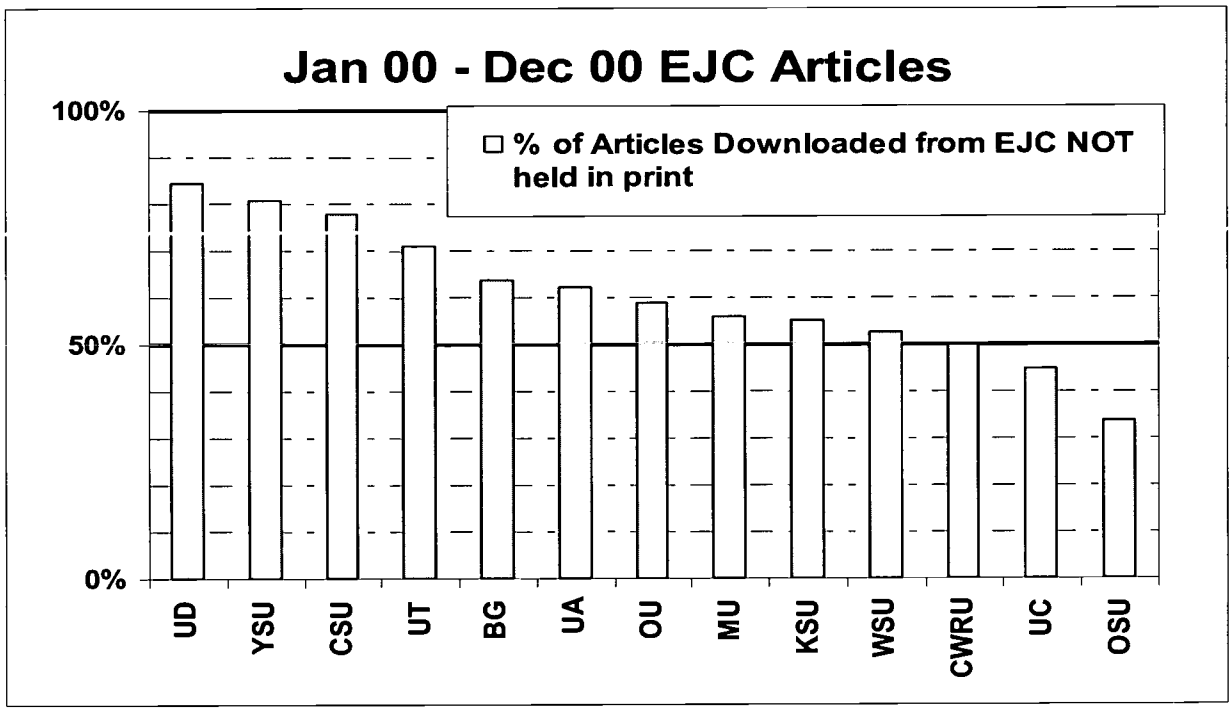
CHART 10



At all campuses except Ohio State, Case Western Reserve University, and the University of Cincinnati the percentage of articles from titles not held in print at the time license began represents a majority, with the average being 52% (Chart 11). A total of 476,370 articles were delivered to university patrons from the EJC

that were not otherwise available on campus. It is obvious to conclude that the availability of all of the journal titles in electronic form creates vast new opportunities for access that patrons welcome.

CHART 11



The use of the EJC also as a convenience tool for titles held in print is obviously significant at 438,150. On a per title basis patrons use in heavier amounts the journals that they have had on campus in print. On each campus the AD per TD for titles held in print exceeds that of the AD per TD for titles not held in print. Ohio libraries in general were buying in print titles needed by their patrons, and electronic access creates an even greater tendency for those titles to be used. Over time this is not just a convenience, but a necessity as libraries begin to cancel print copies.

As the EJC has expanded publishers, and as patrons have adopted use of the EJC, the growth in EJC usage has been consistent across all universities. Charts 12 and 13 illustrate that over the past two years the growth in annual AD has been universal at all universities.

CHART 12

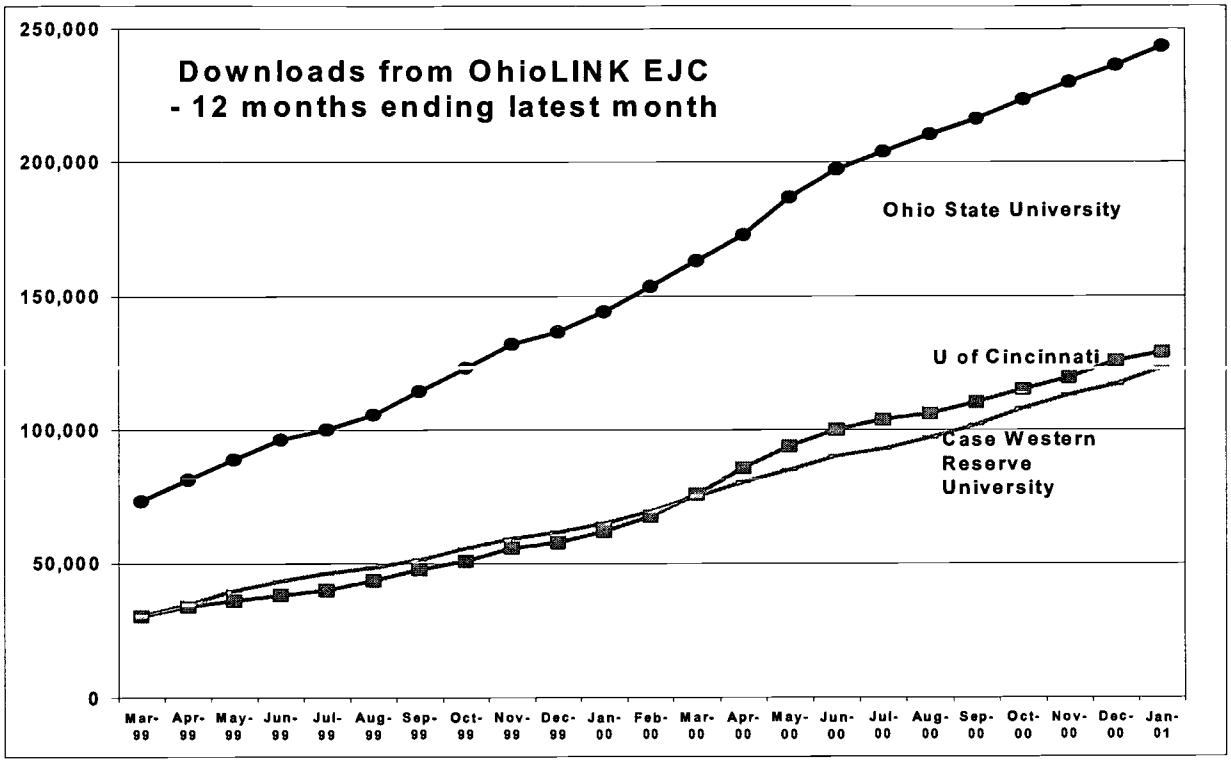
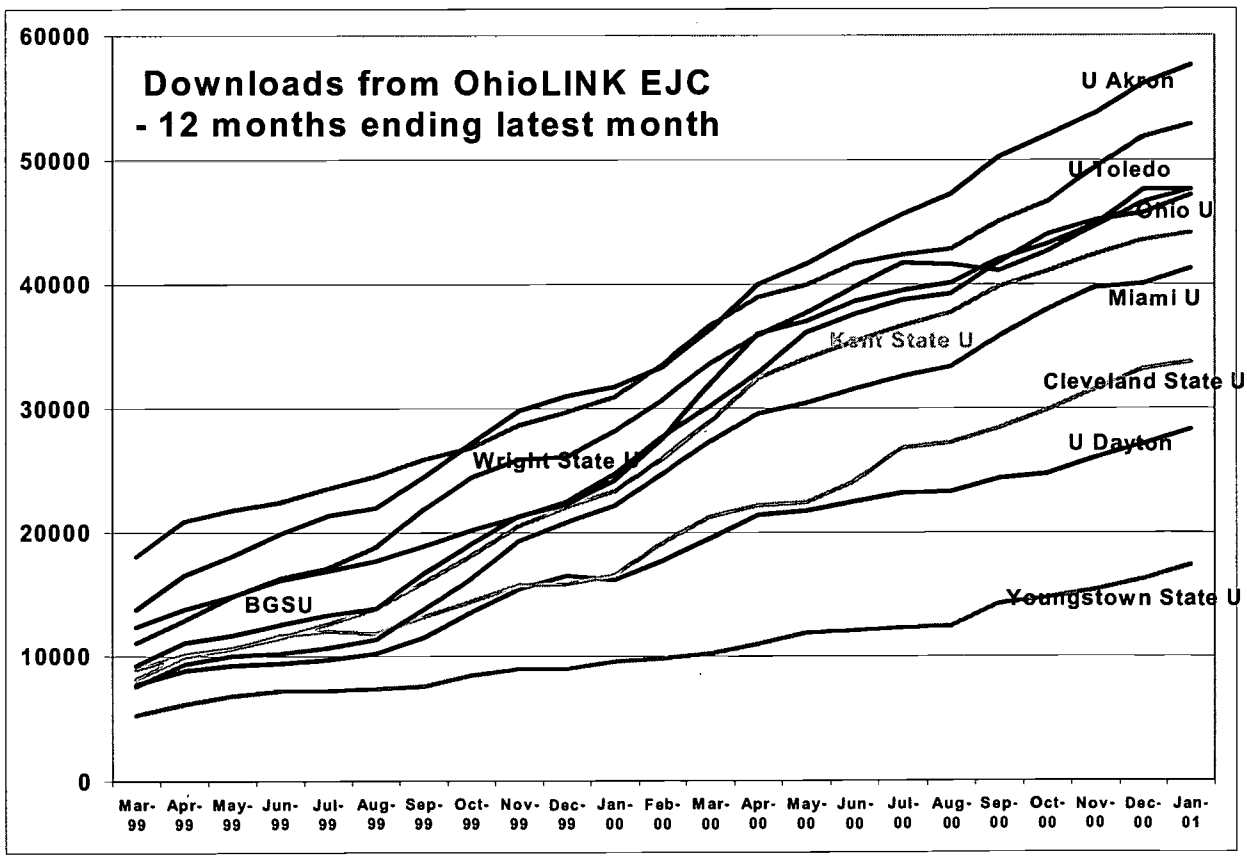


CHART 13



Effect on Smaller Institutions - Tables 3 and 4

The EJC has had similar beneficial effects at smaller institutions in Ohio, such as small public and private four-year liberal arts colleges and universities and public two-year community and technical colleges. During the past year, 17 two-year colleges and 32 small four-year universities and colleges had EJC access.

TABLE 3
Two -Year College Print and EJC Use
January 2000 – December 2000

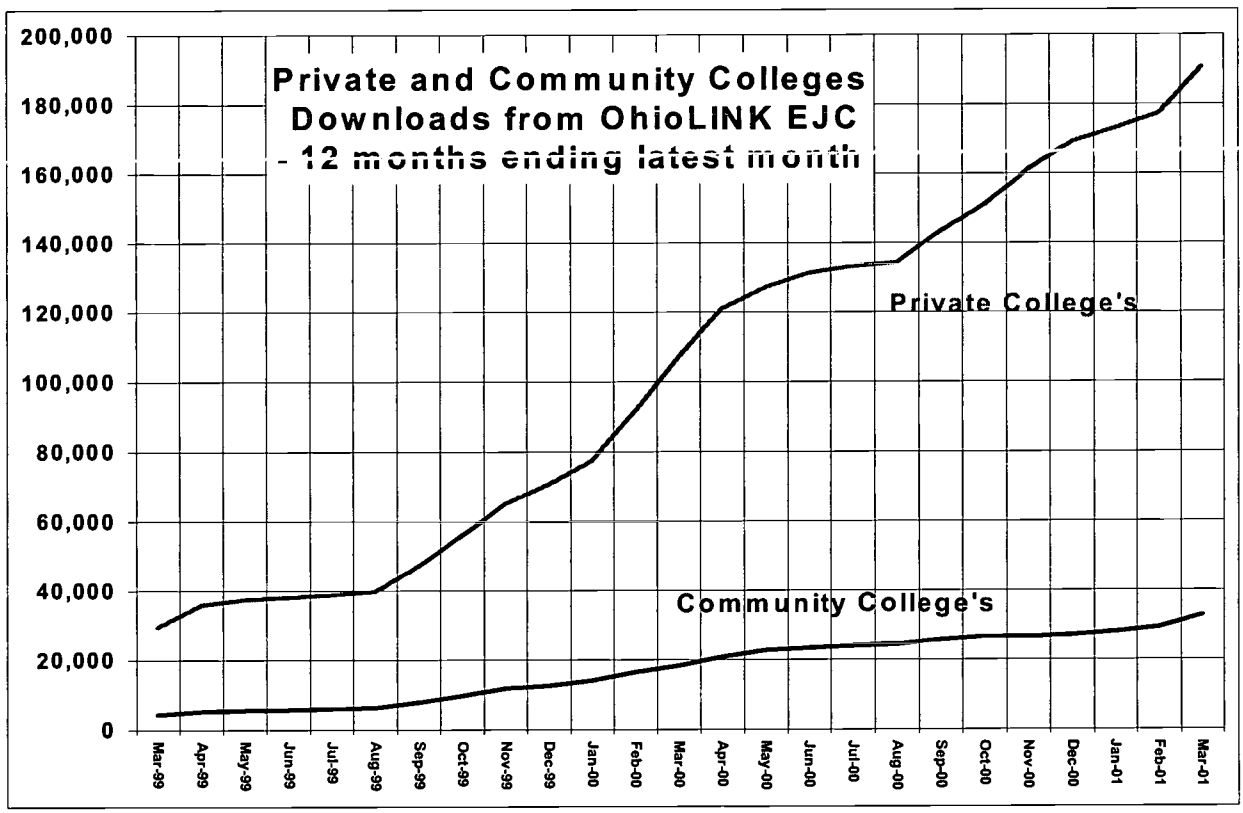
	TITLES USED	ARTICLES DOWNLOADED		TITLES USED	ARTICLES DOWNLOADED
No EJC titles in print			Fewer than 5 EJC titles in print		
Hocking CC	125	285	Belmont CC	136	220
Jefferson CC	74	119	Cincinnati State T&CC	111	215
Southern State CC	802	2735	Clark State CC	320	765
Terra CC	60	125	Edison State CC	132	235
Washington State CC	274	742	Lakeland CC	714	2339
			Northwest State CC	588	1791
Fewer than 10 EJC titles in print			Sinclair CC	883	3218
Columbus State CC	1270	5945			
Owens CC	577	2299	Fewer than 20 EJC titles in print		
			Cuyahoga CC	764	3344
			Lorain CC	387	1010
			Rio Grande CC	175	500

TABLE 4
Small University and College EJC Use
January 2000 –December 2000

	TITLES USED	ARTICLES DOWNLOADED		TITLES USED	ARTICLES DOWNLOADED
Fewer than 25 EJC titles in print			Fewer than 50 EJC titles in rint		
Ashland U	1368	8027	Capital U	900	5300
Baldwin-Wallace C	1213	7124	Denison U	1552	10729
Bluffton C	568	2319	U Findlay	868	2821
Cedarville U	1436	9632	Franciscan U	539	2267
Central State U	143	339	Hiram C	1171	5556
Heidelberg C	821	3894	Malone C	438	1363
C of Mt St Joseph	319	958	Xavier U	1292	9168
Mt. Union C	1058	5521			
Mt Vernon Nazarene C	796	3673	Fewer than 100 EJC titles in print		
Muskingum C	892	3983	John Carroll U	1464	9443
Notre Dame of Ohio	218	627	Ohio Northern U	1540	14198
Ohio Dominican U	493	1858	Ohio Wesleyan U	765	3120
Otterbein C	616	1900	C of Wooster	1158	7271
Shawnee State U	897	3682			
Tiffin U	301	1121	Fewer than 150 EJC titles in print		
Ursuline C	369	844	Kenyon C	1322	12166
Wilberforce U	180	381			
Wilmington C	484	1161	Fewer than 250 EJC titles in print		
Wittenberg C	1331	7051	Oberlin C	1192	7286

extensive use as in the universities, but on a relative scale to previous access in print it represents a dramatic increase by both two-year and small colleges in use of this material. For small colleges 90-95% of AD were from new EJC accessible titles. Similarly for two-year colleges, 95-100% of AD were from new EJC accessible titles. The benefits to both groups are more than marginal and allow both to upgrade their curriculum and provide faculty far greater access to the latest scholarly publications.

CHART 14



Conclusions

The usage analysis conducted so far indicates that there is a new horizon in information use that colleges and universities acting separately have not experienced in the print-based world. After almost three years of operation and the expansion to fifteen publishers and beyond we see no slow down or ceiling to this phenomenon of expansion in information use. Our continuing experience validates the underlying assumption that motivated the OhioLINK community to develop the EJC system.

The results strongly indicate that libraries and their consortia are in a rapidly evolving arena in which we know that levels of information use will rise through desktop electronic access, but it is not yet possible to predict how high that rise may be. More experience is necessary before we can say what that new and higher equilibrium will look like or at what level it will stabilize. At this early stage patrons have probably not yet fully absorbed what the EJC can do for them even as the OhioLINK EJC continues to become a broader spectrum of journal publishers and as we find new and better ways to integrate the EJC with our other information resources.

But as suggested in this paper usage analysis is in its early stages and not complete nor able to guide us in making more strategic decisions the best long-term equilibrium of economics and content. Acting collectively, with this knowledge, we are in a stronger long-term position to negotiate a healthier long-term solution

Up to this point the OhioLINK community's approach has been very pragmatic. We have a certain amount of funds currently in the system for journal subscriptions, divided among the publisher community in a certain way. Whether relatively high or low priced we seek to make each publisher relationship more economically sustainable with higher levels of journal access and use. Our usage analysis will become more sophisticated to marry usage with cost to determine the true value of each title to the OhioLINK community. This may provide surprising results but certainly a more rational process of managing our long-term needs.

We are very comfortable concluding that users avail themselves of a dramatically broader array of journals then we as individual libraries are able to provide. At the very least we can surmise that we are having a dramatic affect on browsing of journal articles to determine those worthy of more extensive use. The EJC allows for very rapid browsing behavior. The results thus far indicate that librarians should no longer presume to know exactly what patrons will need in the electronic world based solely upon past patron behaviors in the controlled print environment. We need to seek solutions that maximize our ability to let information use expand and seek new levels. Until we experience such an environment we can't accurately answer the question of what we need or don't need. Reliance upon old solutions ultimately deprives us and our patrons of the opportunity to enjoy a higher level of information access. To move forward, we must assume there is an evolution of information use at work and libraries and their consortia must be enablers rather than gatekeepers.

Our approach certainly has risks and will be questioned as a valid means to advance our long-term interests. The critics that would seem to question our approach make assumptions we are not willing to make. These assumptions seem based on the old rules of pre-selection, rationing, and single-site economics. Our experience indicates it is impossible to accurately pre-select even for the largest libraries. Our users are selecting a must wider array of materials than can be anticipated much less pre-defined. Our experience is that pre-selection under current economic constraints prevent access to materials that will be used if made available. Critics fail to appreciate the evolutionary and uncertain nature of what we are doing. At the very least, what we are doing by opening up access to the broadest array of journal titles is to vastly improve our measure of what will be used and not used, what we really need and don't need. No fundamental changes in the scholarly journal market are possible without this as a baseline. In the end we too will make selections, but based on a new definition of information use and need.

	A	B	N	O
1	**Type 2 totals (GEM)**			
2	last updated: 9/4/01			
3				
4				
5	**Folder name**	**SID**	**Activity 8-31-01 & 9-4-01**	**New total**
6	Accelerated	Accelerated		9
7	AccentPub	AccentPub		2
8	AdvanceSci	AdvanceSciEd		1
9	ALFY	ALFY		129
10	AlphaSuper	AlphaSuper		2
11	AmerCoal	AmerCoal		25
12	Amer Studies	Capitol, also Amer.Studies		72
13	Amish	AmishNet		1
14	AquaNIC	AquaNIC		1
15	armonk	Armonk		8
16	Artquizz-Satterlee	Satterlee		28
17	ArtsEdge-Cuesheets	ArtsEdge		78
18	ArtsEdge-Depth	PRC-AE	326	1193
19	ArtsEdge-Index	ArtsEdge		12
20	ArtsEdge-Lessons	ArtsEdge		120
21	ArtsEdge-Minisites	ArtsEdge		368
22	ArtsEdge-WebSpotlights	PRC-AE	-2	669
23	ArtsEdge-WebSpotlights-MC	PRC-AE		12
24	ArtsEdNet	ArtsEdNet		35
25	AskAsia	AsiaSoc		55
26	AssocSciEd	AssocSciEd		75
27	Atlantic	Atlantic	-67	0
28	AtlanticView	AtlanticView	67	67
29	AustEd	AustEd		4
30	baggetta	Baggetta		6
31	BBC Resources (in 16 subdirectories)			170
32	Beacon			119
33	BerkeleyWISE			1
34	BioMEDIA		7	19
35	Bluecamp			1
36	Bradshaw			3
37	Brookes			4
38	CareerEd			31
39	Cassutto			32
40	CausesCivil			1
41	CBT			2
42	CCCnet	CCCnet		0
43	CDE			100
44	CHNM			6
45	Ciese			17
46	Circle			1
47	CommTech			3
48	Concord			40

	A	B	N	O
5	**Folder name**	**SID**	**Activity 8-31-01 & 9-4-01**	**New total**
49	Co-nect	Co-net		9
50	Connexion	Connexion		4
51	Copyright			1
52	Cost			1
53	CountryWatch			1
54	CPRR			1
55	Crayon			75
56	CreativeImag			1
57	CreativeTeach	CreativeTeach		29
58	CrossMarket			1
59	Csula	CSULA		11
60	Curry	UV-CSE		90
61	CyberBee	CyberBee		25
62	CyberGuides	SCORE		87
63	Dahl			28
64	DanceSeries	DanceSeries	14	14
65	DimSum	Angier		61
66	Disney	Disney		35
67	Dole			32
68	Dramaworks			7
69	DreamMaker			8
70	DrippyRaindrop	DrippyRaindrop		1
71	Dsd			83
72	EarthSciAust			65
73	EcEdWeb			16
74	EconEdLink-Depth	PRC-EEL		766
75	EconEdLink-Index	EconEdLink		7
76	EconEdLink-Web	PRC-EEL		18
77	Edison			1
78	Edmark			24
79	EdNA			1
80	EDSITEment-Depth	PRC-EDS		1995
81	EDSITEment-Index	EDSITEment		6
82	EDSITEment-Learning Tools	PRC-EDS		106
83	EDSITEment-Lessons	EDSITEment		21
84	EDSITEment-Top Web	PRC-EDS		104
85	EDsOasis			96
86	EdSocResp			16
87	Eduation21			4
88	Educate	ETC		80
89	Educworld			89
90	ElecLearnMkpl			14
91	Elizabethtown			1
92	EngRes			86
93	EnvLit			20
94	EPERC			1
95	ERIC CH FL			11

	A	B	N	O
5	**Folder name**	**SID**	**Activity 8-31-01 & 9-4-01**	**New total**
96	ERL-plutonium			4
97	Esa			22
98	EtaCuisenaire			57
99	ETCAI			1
100	EVOP			1
101	Exeter			15
102	FAA		-3	62
103	FairfieldU			18
104	FamiliarTales			0
105	FinLit2001			7
106	FirstDay			3
107	ForeignAffairs	ForeignAffairs		11
108	Fowler			31
109	Franklin			0
110	FREE	FREE		12
111	FreeCanadian			1
112	FSCreations	FSCreations		1
113	Funschool	Funschool	77	77
114	Gander			41
115	GenesisInst			1
116	Genetic			21
117	GirlTECH			65
118	Glenbrook	GBS, also Glenbrook		25
119	Goodwill			9
120	GreatTeacher			1
121	GretchenPikus	MilfordSD		3
122	Guavaberry			1
123	Handwriting			8
124	HeartE			6
125	History Matters			162
126	HistoryWiz			19
127	Hunter	SEHC		26
128	Huntsville			17
129	IES	IES		26
130	IFETS	IFETS		30
131	Illuminations-Depth	PRC-IL		179
132	Illuminations-E-Examples	Illuminations		29
133	Illuminations-Index	Illuminations		6
134	Illuminations-Lessons	Illuminations		16
135	Illuminations-PRC	PRC-IL		76
136	Infotech	Infotech		2
137	IntlMontessori			1
138	JackLondon			38
139	JointRecruiting			3
140	Kaboom			1
141	KCMSD			35
142	KellyBear	KellyBear		21

	A	B	N	O
5	**Folder name**	**SID**	**Activity 8-31-01 & 9-4-01**	**New total**
143	KET			7
144	Key New Reader			1
145	Keywise			1
146	KidsAstronomy	KidsAstronomy		22
147	KIDSNET			11
148	LABB	LABB		12
149	Ladb			67
150	Lanius	Lanius		12
151	LearnDesign			0
152	Learning Horizons	Lhorizons		11
153	LearningPage			100
154	LearnWell			25
155	Lesson plan page	none		103
156	LibraryCongress	LOC		26
157	Limu			1
158	LivingInternet			7
159	LOC	LOC or none		6
160	LoneEagle	LoneEagle		23
161	Lower_Hudson	LHRIC		10
162	Mama	MamMinerals		14
163	Maricopa			1
164	MathCats	MathCats		40
165	Mathcom			55
166	Math Forum	Math Forum		43
167	Mathpower	mathpower		83
168	mathstory	mathstory		41
169	McREL			20
170	MECATS			1
171	MedEdOnline			16
172	Media Awareness			125
173	MediaSeek			1
174	Merriam-Webster	M-W		1
175	Misf			1
176	Monroe1BOCES			100
177	Morris	Morris		30
178	Mountcastle			8
179	Moves			3
180	Mrs Glosser			1
181	Museum Mania			1
182	Musicinc			1
183	MusicNotes			11
184	My Hero			100
185	Nasa	none		2
186	NASALangley	NASALangley		10
187	Navs			1
188	NBFS	NBFS		1
189	Ncc			92

	A	B	N	O
5	**Folder name**	**SID**	**Activity 8-31-01 & 9-4-01**	**New total**
190	Ncrel			12
191	NCSU			2
192	NCSU.Meridian	NCSU.Meridian		7
193	NCSU-SERVIT	NCSU-SERVIT		3
194	Neuroscience			68
195	NGA			5
196	NicerCentury			1
197	Niti	WhatsNews		6
198	Nmimt			1
199	Ntieva			15
200	Nummolt	Nummolt	6	6
201	Nwrel			1
202	NYTimes (in 5 subdirectories)			150
203	Onesti	Onesti		1
204	OPERAPLUS			1
205	Our-Montessori			6
206	Owl2	OWL		8
207	PCWWS			72
208	PELINKS4U			39
209	PhotoDisk			1
210	Pickle			8
211	Pilgrim			3
212	PNNL			29
213	Pol			18
214	Postcards			83
215	PRC Fund			122
216	Public TV19			1
217	RainBird	RainBird		48
218	RandomActs			32
219	ReachWorld			54
220	Relearning			1
221	Rice			24
222	Riverdeep	Riverdeep		100
223	SchoolCandy			4
224	SchoolGrants			3
225	SchoolHistory	SchoolHistory		96
226	SchoolsHistory	SchoolsHistory		58
227	Schoolsnet			63
228	Science House	NCSU-SH		45
229	ScienceED	Science.Ctr, DEA, TIsland, GBS		8
230	ScienceMaster	Science.Master, Science Master		74
231	ScienceNetLinks-Depth	PRC-SNL		1406
232	ScienceNetLinks-Index	ScienceNet		16
233	ScienceNetLinks-Lessons	ScienceNet		27
234	ScienceNetLinks-MCI rejects	PRC-SNL		196
235	ScienceNetLinks-PRC	PRC-SNL		203
236	ScienceNetLinks-Weekly	ScienceNet		5

	A	B	N	O
5	**Folder name**	**SID**	**Activity 8-31-01 & 9-4-01**	**New total**
237	SDSUDGS	SDSUDGS		8
238	SEDL	SEDL		100
239	SEMMSLC			100
240	Sericulum			2
241	SgBox			79
242	ShortCourses	ShortCourses		1
243	SHOT			12
244	SingaporeMath			1
245	Smallbusiness			1
246	SMARD	SMARD		65
247	SmPlanet			20
248	Smithsonian	Smithsonian		9
249	SoCo-op	SoCo-op		100
250	Soltesz			2
251	Spartacus			160
252	Spartanburg			47
253	SP-CGuides	SCORE		9
254	splash			12
255	SPRO			1
256	SSABSA			10
257	StatCan			93
258	STG	STG	4	4
259	SUInfo-AWArds	SUInfoStudies		12
260	SuseMcD			10
261	TeAch-nology	TeAch-nology		93
262	TeachMovies	TeachMovies, also Teachw/movies		86
263	TeamAgEd			11
264	Thayer	Thayer		15
265	ThisNation	ThisNation		1
266	Tramline	Tramline		7
267	Treemail			1
268	TulipTree			2
269	Turtle			2
270	U.St.Thomas	UStThomas		1
271	UArizona			28
272	UCLAEpidem			4
273	UMichigan			9
274	UNICEF-voy	UNICEF		5
275	USDAChild			1
276	Usfms			6
277	usmint			31
278	UT-Austin			1
279	Vista	Vista	5	5
280	VMMI			1
281	WarnerUnicam			35
282	Wce	WCE		259
283	Web de Anza			10

	A	B	N	O
5	**Folder name**	**SID**	**Activity 8-31-01 & 9-4-01**	**New total**
284	WebMD			100
285	WeeklyReader			41
286	WGBH			1
287	WhatNews	WhatsNews		60
288	Whootie	Whootie		22
289	Wordsmyth			1
290	Workplace			1
291	WorldEnglish			95
292	Xavier			1
293	Xpeditions-Atlases	Xpeditions		1
294	Xpeditions-Family Xpeditions	Xpeditions		6
295	Xpeditions-Index	Xpeditions		1
296	Xpeditions-Lessons	Xpeditions		50
297	Xpeditions-PRC	PRC-XP		1135
298	Zeeks.com			10
299				
300	Weekly Changes		434	
301	Running Total		16243	16243

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Office of Educational Research and Improvement (OERI)
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Educational Resources Information Center (ERIC)

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