UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC., INSTAGRAM, LLC, and WHATSAPP INC., Petitioners

v.

BLACKBERRY LIMITED Patent Owner

U.S. Patent No. 8,209,634 B2 Issue Date: June 26, 2012

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

DECLARATION OF SYLVIA HALL-ELLIS, PH.D.

Facebook's Exhibit No. 1021 0001

Table of Contents

I.	INTRODUCTION 1		
II.	QUALIFICATIONS		
III.	PRE	LIMINARIES	
	А.	Scope of Declaration and Legal Standards	
	B.	Persons of Ordinary Skill in the Art5	
	C.	Use of Authoritative Databases	
		1. Indexing	
	D.	Summary of Opinions7	
IV.	LIBRARY CATALOGING PRACTICES7		
	A.	MARC Records and OCLC7	
		1. Fields 008, 005, and 955 in MARC Records as Indicators of Public Accessibility	
	В.	Journals	
V.	PUB	LICATIONS IN THIS PROCEEDING	
	A.	Dvorak [Exhibit B]22	
	B.	Strom [Exhibit E]	
	C.	Schwartz [Exhibit H]	
	D.	McPherson [Exhibit K]	
	E.	Crumlish [Exhibit N]	
VI.	CON	CONCLUSION	

I, Sylvia D. Hall-Ellis, Ph.D., declare as follows:

I. INTRODUCTION

1. My name is Sylvia D. Hall-Ellis. I have been retained as an expert by Facebook, Inc., Instagram LLC, and WhatsApp Inc., who I am informed are Petitioners to this IPR proceeding.

2. I have written this report at the request of the Petitioners to provide my expert opinion regarding the public availability of certain books and journal articles, identified below. My report sets forth my opinions in detail and provides the basis for my opinions regarding the public availability of these books and journal articles.

3. I reserve the right to supplement or amend my opinions, and bases for them, in response to any additional evidence, testimony, discovery, argument, and/or other additional information that may be provided to me after the date of this report.

4. I am being compensated for my time spent working on this matter at my normal consulting rate of \$300 per hour, plus reimbursement for any additional reasonable expenses. My compensation is not in any way tied to the content of this report, the substance of my opinions, or the outcome of this litigation. I have no other interests in this proceeding or with any of the parties.

5. All of the materials that I considered and relied upon are discussed explicitly in this declaration.

II. QUALIFICATIONS

6. I am currently an Adjunct Professor in the School of Information at San José State University in San José, California. I obtained a Masters of Library Science from the University of North Texas in 1972 and a Ph.D. in Library Science from the University of Pittsburgh in 1985. Over the last forty-five years, I have held various positions in the field of library and information resources. I was first employed as a librarian in 1966, and have been involved in the field of library sciences since, holding numerous positions.

7. I am a member of the American Library Association (ALA) and its Association for Library Collections & Technical Services (ALCTS) Division, and I served on the Committee on Cataloging: Resource and Description (which wrote the new cataloging rules) and as the chair of the Committee for Education and Training of Catalogers and the Competencies and Education for a Career in Cataloging Interest Group. I also served as the Chair of the ALCTS Division's Task Force on Competencies and Education for a Career in Cataloging. Additionally, I have served as the Chair for the ALA Office of Diversity's Committee on Diversity. Currently I serve as a member of the Editorial Board for the ALCTS premier cataloging journal, *Library Resources and Technical Services*.

8. I have also given over one hundred presentations in the field, including

Facebook's Exhibit No. 1021 0004

several on library cataloging systems and Machine-Readable Cataloging ("MARC") standards. My current research interests include library cataloging systems, metadata, and organization of electronic resources.

9. My full curriculum vitae is attached hereto as **Exhibit A**.

III. PRELIMINARIES

A. Scope of Declaration and Legal Standards

10. I am not an attorney and will not offer opinions on the law. I am, however, rendering my expert opinion on the authenticity of the documents referenced herein and on when and how each of these documents was disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, could have located the documents before the dates discussed below with respect to the specific documents.

11. I am informed by counsel that a printed publication qualifies as publicly accessible as of the date it was disseminated or otherwise made available such that a person interested in and ordinarily skilled in the relevant subject matter could locate it through the exercise of ordinary diligence.

12. While I understand that the determination of public accessibility under the foregoing standard rests on a case-by-case analysis of the facts particular to an

individual publication, I also understand that a printed publication is rendered "publicly accessible" if it is cataloged and indexed by a library such that a person interested in the relevant subject matter could locate it (i.e., I understand that cataloging and indexing by a library is sufficient, though there are other ways that a printed publication may qualify as publicly accessible). One manner of sufficient indexing is indexing according to subject matter category. I understand that the cataloging and indexing by a single library of a single instance of a particular printed publication is sufficient, even if the single library is in a foreign country. I understand that, even if access to a library is restricted, a printed publication that has been cataloged and indexed therein is publicly accessible so long as a presumption is raised that the portion of the public concerned with the relevant subject matter would know of the printed publication. I also understand that the cataloging and indexing of information that would guide a person interested in the relevant subject matter to the printed publication, such as the cataloging and indexing of an abstract for the printed publication, is sufficient to render the printed publication publicly accessible.

13. I understand that routine business practices, such as general library cataloging and indexing practices, can be used to establish an approximate date on which a printed publication became publicly accessible.

B. Persons of Ordinary Skill in the Art

14. I am told by counsel that the subject matter of this proceeding generally relates to electronic messaging and wireless communication devices.

15. I have been informed by counsel that a "person of ordinary skill in the art at the time of the inventions" is a hypothetical person who is presumed to be familiar with the relevant field and its literature at the time of the inventions. This hypothetical person is also a person of ordinary creativity, capable of understanding the scientific principles applicable to the pertinent field.

16. I am told by counsel that a person of ordinary skill in this subject matter or art would typically be someone who possessed at least a bachelor's degree in software engineering, computer science, computer engineering, or electrical engineering with at least two years of experience in software application development, including development of graphical applications on wireless devices, such as development of associated user interface features and functionality (or equivalent degree or experience). I have been further informed by counsel that a person of ordinary skill in the art would have been familiar with and able to understand the information known in the art relating to these fields, including the publications discussed in this declaration.

C. Use of Authoritative Databases

17. In preparing this report, I used authoritative databases, such as the OCLC bibliographic database and the Library of Congress Online Catalog, to confirm citation details of the various publications discussed.

1. Indexing

18. A researcher may discover material relevant to his or her topic in a variety of ways. One common means of discovery is to search for relevant information in an index of periodical and other publications. Having found relevant material, the researcher will then normally obtain it online, look for it in libraries, or purchase it from the publisher, a bookstore, a document delivery service, or other provider. Sometimes, the date of a document's public accessibility will involve both indexing and library date information.

19. Indexing services use a wide variety of controlled vocabularies to provide subject access and other means of discovering the content of documents. The formats in which these access terms are presented vary from service to service.

20. Online indexing services commonly provide bibliographic information, abstracts, and full-text copies of the indexed publications, along with a list of the documents cited in the indexed publication. These services also often provide lists of publications that cite a given document. A citation of a document is evidence that

the document was publicly available and in use by researchers no later than the publication date of the citing document.

D. Summary of Opinions

21. I am informed by counsel that the priority date for the patent at issue is December 1, 2003. As I will explain below, it is my opinion that the printed publications discussed in my Declaration were publicly accessible before the December 1, 2003 priority date.

IV. LIBRARY CATALOGING PRACTICES

A. MARC Records and OCLC

22. I am fully familiar with the library cataloging standard known as the MARC standard, which is an industry-wide standard method of storing and organizing library catalog information. MARC was first developed in the 1960's by the Library of Congress. A MARC-compatible library is one that has a catalog consisting of individual MARC records for works made available at that library.

23. Since at least the early 1970s and continuing to the present day, MARC has been the primary communications protocol for the transfer and storage of bibliographic metadata in libraries.¹ As explained by the Library of Congress:

¹ A complete history of the development of MARC can be found in *MARC: Its History and Implications* by Henrietta D. Avram (Washington, DC: Library of Congress, 1975) and available online from the Hathi Trust

> You could devise your own method of organizing the bibliographic information, but you would be isolating your library, limiting its options, and creating much more work for yourself. Using the MARC standard prevents duplication of work and allows libraries to better share bibliographic resources. Choosing to use MARC enables libraries to acquire cataloging data that is predictable and reliable. If a library were to develop a "home-grown" system that did not use MARC records, it would not be taking advantage of an industry-wide standard whose primary purpose is to foster communication of information.

> Using the MARC standard also enables libraries to make use of commercially available library automation systems to manage library operations. Many systems are available for libraries of all sizes and are designed to work with the MARC format. Systems are maintained and improved by the vendor so that libraries can benefit from the latest advances in computer technology. The MARC standard also allows libraries to replace one system with another with the assurance that their data will still be compatible.

Why Is a MARC Record Necessary? LIBRARY OF CONGRESS, <u>http://www.loc.gov/marc/umb/um01to06.html#part2</u> (last visited March 18, 2019).

24. Thus, almost every major library in the world is MARC-compatible. See, e.g., MARC Frequently Asked Questions (FAQ), LIBRARY OF CONGRESS,

^{(&}lt;u>https://babel.hathitrust.org/cgi/pt?id=mdp.39015034388556;view=1up;seq=1;</u> last visited March 18, 2019).

https://www.loc.gov/marc/faq.html (last visited March 18, 2019) ("MARC is the acronym for MAchine-Readable Cataloging. It defines a data format that emerged from a Library of Congress-led initiative that began nearly fifty years ago. It provides the mechanism by which computers exchange, use, and interpret bibliographic information, and its data elements make up the foundation of most library catalogs used today."). MARC is the ANSI/NISO Z39.2-1994 standard (reaffirmed in 2016) for Information Interchange Format. The full text of the standard is available from the Library of Congress at http://www.loc.gov/marc/bibliographic/ (last visited March 18, 2019).

25. A MARC record comprises several fields, each of which contains specific data about the work. Each field is identified by a standardized, unique, three-digit code corresponding to the type of data that follow. *See, e.g.*, <u>http://www.loc.gov/marc/umb/um07to10.html</u> (last visited March 18, 2019); <u>http://www.loc.gov/marc/bibliographic/</u> (last visited March 18, 2019). For example, a work's title is recorded in field 245, the primary author of the work is recorded in field 100, a work's International Standard Book Number ("ISBN") is recorded in field 020, and the publication date is recorded in field 260 under the subfield "c."

*Id.*² If a work is a periodical, then its publication frequency is recorded in field 310, and the publication dates (e.g., the first and last publication) are recorded in field 362, which is also referred to as the enumeration/chronology field. *See* <u>http://www.loc.gov/marc/bibliographic/bd3xx.html</u> (last visited March 18, 2019).³

26. The library that initially created the MARC record is reflected in field 040 in subfield "a" with that library's unique library code. *See, e.g.*, <u>http://www.loc.gov/marc/umb/um07to10.html</u> (last visited March 18, 2019); <u>http://www.loc.gov/marc/bibliographic/</u> (last visited March 18, 2019). Once a MARC record for a particular work is originally created by one library, other libraries can use that original MARC record to then create their own MARC records for their own copies of the same work. These other libraries may modify or add to

² In some MARC records, field 264 is used rather than field 260 to record publication information. *See* <u>http://www.loc.gov/marc/bibliographic/bd264.html</u> (last visited March 18, 2019) ("Information in field 264 is similar to information in field 260 (Publication, Distribution, etc. (Imprint)). Field 264 is useful for cases where the content standard or institutional policies make a distinction between functions").

³ Upwards of two-thirds to three-quarters of book sales to libraries come from a jobber or wholesaler for online and print resources. These resellers make it their business to provide books to their customers as fast as possible, often providing turnaround times of only a single day after publication. Libraries purchase a significant portion of the balance of their books directly from publishers themselves, which provide delivery on a similarly expedited schedule. In general, libraries make these purchases throughout the year as the books are published and shelve the books as soon thereafter as possible in order to make the books available to their patrons. Thus, books are generally available at libraries across the country within just a few days of publication.

the original MARC record as necessary to reflect data specific to their own copies of the work. However, the library that created the original MARC record would still be reflected in these modified MARC records (corresponding to other copies of the same work at other libraries) in field 040, subfield "a". The modifying library (or libraries) is reflected in field 040, subfield "d". *See* <u>http://www.loc.gov/marc/bibliographic/bd040.html</u> (last visited March 18, 2019).

27. I consulted the Directory of OCLC Libraries (http://www.oclc.org/contacts/libraries.en.html) in order to identify the institution that created or modified the MARC record. Moreover, when viewing the MARC record online via Online Computer Library Center's ("OCLC") bibliographic database, which I discuss further below, hovering over a library code in field 040 with the mouse reveals the full name of the library. I also used this method of "mousing over" the library codes in the OCLC database to identify the originating and modifying libraries for the MARC records discussed in this report.

28. MARC records also include one or more fields that show information regarding subject matter classification. For example, 6XX fields are termed "Subject Access Fields." *See* <u>http://www.loc.gov/marc/bibliographic/bd6xx.html</u> (last visited March 18, 2019). Among these, for example, is the 650 field; this is the "Subject Added Entry – Topical Term" field. *See*

http://www.loc.gov/marc/bibliographic/bd650.html (last visited March 18, 2019). The 650 field is a "[s]ubject added entry in which the entry element is a topical term." *Id.* These entries "are assigned to a bibliographic record to provide access according to generally accepted thesaurus-building rules (e.g., *Library of Congress Subject Headings* (LCSH), *Medical Subject Headings* (MeSH))." *Id.*

29. Further, MARC records can include call numbers, which themselves contain a classification number. For example, a MARC record may identify a 050 field, which is the "Library of Congress Call Number." See http://www.loc.gov/marc/bibliographic/bd050.html (last visited March 18, 2019). A defined portion of the Library of Congress Call Number is the classification number, and "source of the classification number is *Library of Congress Classification* and the LC Classification-Additions and Changes." Id. Thus, the 050 field may be used to show information regarding subject matter classification.

30. Each item in a library has a single classification number. A library selects a classification scheme (e.g., the Library of Congress Classification scheme just described or a similar scheme such as the Dewey Decimal Classification scheme) and uses it consistently. When the Library of Congress assigns the classification number, it appears as part of the 050 field, as discussed above. For MARC records created by libraries other than the Library of Congress (e.g., a

Facebook's Exhibit No. 1021 0014

university library or a local public library), the classification number may appear in a 09X (e.g., 090) field. *See* <u>http://www.loc.gov/marc/bibliographic/bd09x.html</u> (last visited March 18, 2019).

31. When a MARC-compatible library acquires a work, it creates a MARC record for its copy of the work in its computer catalog system in the ordinary course of its business. This MARC record (for the copy of a work available at the particular library) may be later accessed by researchers in a number of ways. For example, many libraries, including the Library of Congress, make their MARC records available through their website. As an example, the MARC record for the copy of The Unlikely Spy, by Daniel Silva,⁴ available at the Library of Congress can be viewed through the Library of Congress website, at https://catalog.loc.gov/vwebv/staffView?searchId=20265&recPointer=1&recCount =25&bibId=2579985 (last visited March 18, 2019). One could, of course, always physically visit the library at which the work is available, and request to see that library's MARC record for the work. Moreover, members of the Online Computer Library Center ("OCLC") can access the MARC records of other member institutions through OCLC's online bibliographic database, as I explain further

⁴ *The Unlikely Spy* is a 1996 novel written by Daniel Silva, who happens to be one of my favorite authors.

below.

The OCLC was created "to establish, maintain and operate a 32. computerized library network and to promote the evolution of library use, of libraries themselves, and of librarianship, and to provide processes and products for the benefit of library users and libraries, including such objectives as increasing availability of library resources to individual library patrons and reducing the rate of rise of library per-unit costs, all for the fundamental public purpose of furthering ease of access to and use of the ever-expanding body of worldwide scientific, literary and educational knowledge and information."5 Among other services, OCLC and maintaining its members responsible for the WorldCat are database (http://www.worldcat.org/), used by independent and institutional libraries throughout the world. All libraries that are members of OCLC are MARChttps://help.oclc.org/Metadata Services/OCLCcompatible. See. e.g., MARC records/About OCLC-MARC records (last visited March 18, 2019) ("OCLC-MARC records describes records produced since November 1993."); https://www.oclc.org/support/services/worldcat/documentation/cataloging/electron

⁵ Third Article, Amended Articles of Incorporation of OCLC Online Computer Library Center, Incorporated (available at <u>https://www.oclc.org/content/dam/oclc/membership/articles-of-incorporation.pdf</u>; last visited March 18, 2019).

<u>icresources.en.html</u> (last visited March 18, 2019) ("Like the two superseded OCLC documents, this revised set of guidelines is intended to assist catalogers in creating records for electronic resources in WorldCat, the OCLC Online Union Catalog. These guidelines pertain to OCLC-MARC tagging (that is, content designation). Cataloging rules and manuals (such as AACR2) govern the content of records. You should implement these guidelines immediately.").

When an OCLC member institution acquires a publication, like the 33. other MARC-compatible libraries discussed above, it creates a MARC record for this publication in its computer catalog system in the ordinary course of its business. MARC records created at the Library of Congress are tape-loaded into the OCLC database through a subscription to MARC Distribution Services daily or weekly. Once the MARC record is created by a cataloger at an OCLC member library or is tape-loaded from the Library of Congress, the MARC record is then made available to any other OCLC members online, and thereby made available to the public. Accordingly, once the MARC record is created by a cataloger at an OCLC member library or is tape-loaded from the Library of Congress, any publication corresponding to the MARC record has been cataloged and indexed according to its subject matter such that a person interested in that subject matter could, with reasonable diligence, locate and access the publication through any library with

access to the OCLC bibliographic database or through the Library of Congress.

1. Fields 008, 005, and 955 in MARC Records as Indicators of Public Accessibility

34. When a MARC-compatible library creates an original MARC record for a work, the library records the date of creation of that MARC record in **field 008**, characters 00 through 05, in the ordinary course of its business. *See* <u>http://www.loc.gov/marc/bibliographic/bd008a.html</u> (last visited March 18, 2019). For OCLC member institutions that use OCLC software to create original MARC records, the date of creation in field 008 is automatically supplied by the OCLC software. The MARC record creation date in field 008 thus reflects the date on which, or shortly after which, a work was first acquired and cataloged by the library that created the original MARC record.

35. When other MARC-compatible libraries subsequently acquire their own copies of the same work, as mentioned, they create MARC records in their own computer catalog systems for their copies in the ordinary course of business.⁶ They may use a MARC record previously created for that work (by another MARC-compatible library) to create their own MARC records for their own copies of that

⁶ Initial contributions to the bibliographic database for a work are called "master records."

same work.⁷ The previously created MARC record used by subsequently-acquiring libraries to create MARC records for their own copies may be obtained through the OCLC bibliographic database, as described above. If, when creating a MARC record to represent its own copy of the work, the subsequently-acquiring library uses the master MARC record in its original form, the subsequently-acquiring library cannot reenter data into the 008 field; therefore, the date in the 008 field will continue to reflect the date the MARC record was initially created by the originating library. On the other hand, if the subsequently-acquiring library modifies the previously created MARC record when creating its own MARC record for its own copy of the work, the subsequently-acquiring library may enter into the 008 field of its own MARC record the date its own MARC record was created.⁸ But the library that created the original MARC record used by the subsequently-acquiring library would still be reflected in the MARC record of the subsequently-acquiring library in field 040, subfield "a". Thus, the work identified by any MARC record possessed by any

⁷ When a local library uses a master record in OCLC and produces (or downloads) it to the in-house system, the three-character symbol for the subsequent library is added to the holdings for the work.

⁸ This practice is not required by, but is nevertheless consistent with, the MARC standard. Many MARC records exist today whose 008 fields indicate when the first original MARC record for a work was created, rather than when a derivative record was created based on the original MARC record by a subsequently-acquiring library for its own computer catalog system.

MARC-compatible library would have been accessible to the public <u>at least</u> as of the date shown in the 008 field, or shortly thereafter, either from the library that possesses the MARC record itself, or from the originating library indicated in field 040, subfield "a". As discussed, a MARC-compatible library in the ordinary course of its business creates a MARC record in its own catalog system for a work when it acquires a copy of that work.

Moreover, when a MARC record is created by a library for its own copy 36. of a work, field 005 is automatically populated with the date that MARC record was in format See created month, day (YYYYMMDD). year, http://www.loc.gov/marc/bibliographic/bd005.html (last visited March 18, 2019).9 Thereafter, the library's computer system may automatically update the date in field 005 every time the library updates the MARC record (e.g., to reflect that an item has been moved to a different shelving location within the library). *Id*.¹⁰ Thus, the work identified by any MARC record possessed by any MARC-compatible library would have been accessible to the public at least as of the date shown in the 005 field, or

⁹ Some of the newer library catalog systems also include hour, minute, second (HHMMSS).

¹⁰ Field 005 is visible when viewing a MARC record via an appropriate computerized interface. But when a MARC record is printed directly to hardcopy from the OCLC database, the "005" label is not shown. The date in the 005 field instead appears next to the label "Replaced".

shortly thereafter, from the library that possesses the MARC record itself. As noted, because the 005 field may be updated each time the library updates its MARC record, the work identified by the MARC record may, in fact, have been accessible to the public from that library much earlier than the date indicated in the 005 field.

37. Moreover, MARC records for copies of works available at the Library of Congress have 955 field. can a See http://www.loc.gov/cds/PDFdownloads/dcm/DCM 2007-03.pdf (last visited March 18, 2019). The 955 field in MARC records obtained from the Library of Congress provides Local Tracking Information, which is a record of internal steps in the cataloging process followed by the Library of Congress. Id. Entries in the 955 field for a particular work are generated by Library of Congress staff as the work progresses through the cataloging process. Id. One of the mandatory fields that library staff must enter for each step is the date (in the form of "yyyy-mm-dd" or "yy-mm-dd") the step was taken. Id. Thus, the work identified by a MARC record possessed by the Library of Congress would have been accessible to the public at least as of the earliest date shown in the 955 field, or shortly thereafter, from the Library of Congress.

38. Based on my personal experience as a professional librarian using the MARC and OCLC resources, it has been my experience that both of these resources

were continuously operational and available since at least 1992. Indeed, in the course of my work, I have regularly used both of these resources over the past 30+ years, and I have consistently found the information contained within these resources to be complete and reliable. I have never found the date of accessibility as indicated in fields 008, 005, or 955 to be incorrect. And in only a minute number of cases have I found any errors at all in these records – none of which affected my ability to render an accurate opinion as to accessibility, indexing, or subject headings.

B. Journals

39. Catalogers can create MARC records for all types of print, online, and digital resources. For example, MARC records cover serial publications, including both serially-published monographs and journals. OCLC hosts MARC records for more than 320 million serial publications. Serial publications are those publications that have the same collective title but are intended to be continued indefinitely with enumeration such as a volume or issue number (*e.g.*, magazines, journals, etc.). In the OCLC Connexion database, the first issue of the serial publication is typically cataloged (*i.e.*, a corresponding MARC record is created), but the date is left openended with the use of a punctuation mark such as a dash. OCLC serial publication MARC records represent the entire run of the serial title. With knowledge of the first issue published, future issues can be predicted based on the information

provided in the MARC record, for example in field 362. In my extensive professional experience, is it highly unusual for a library to stop collecting and shelving a serial publication prior to the end of its publication run. If a subscription to a serial publication ends its run or is cancelled before the end of its run, the library will denote that it has stopped receiving new volumes by filling in the end date in the MARC record.

40. The handling of printed journal subscriptions is shown on the covers of individual issues. As was the best practice among libraries, issues arrived at a central facility and were immediately received, verified as part of a subscription, checked in, and stamped with the institution's name and date. Determining that the issue was part of the library subscription ensured that the entire set of publications for the year had been received so that they could be professionally bound and retained. This process also verified that all of the published issues arrived so that the library staff did not have to request or claim an issue that did not arrive as expected. In large public libraries with branches and multi-campus libraries within academic institutions, the journals were sorted and delivered to the subscribing unit. The issues were frequently stamped again to acknowledge receipt. The new issue was placed in the public area; the older issue was stored so that it remained available.

41. The foregoing process has been standard library practice longer than I

Facebook's Exhibit No. 1021 0023

have been working in the profession. I first learned the steps in the process in the late 1970s and later supervised it. Although the checking in process has become automated and now links electronically to holdings records for the MARC record for each serial title, the manual stamping and placing the issue in a public area has not changed for 50 years. Unless I note otherwise below in reference to a specific serial publication, it is my expert opinion that this standard protocol was followed for all of the serial publications discussed below.

V. PUBLICATIONS IN THIS PROCEEDING

A. Dvorak [Exhibit B]

42. Exhibit B attached to my Declaration is a journal article, "Scarier than Spam" by John C. Dvorak (hereafter "Dvorak") which was published in Volume 18, Number 2 of the journal *PC Magazine*. The Dvorak article appears on page 87 of this issue dated January 19, 1999. Exhibit B is a true and correct copy of the *PC Magazine* containing the Dvorak article. Exhibit B is a true and correct copy of the issue cover, table of contents, and the article (page 87). It is my opinion that Dvorak was publicly accessible as early as January 6, 1999, and in any event, more than one year before the December 1, 2003 priority date, as I explain below.

43. I obtained this copy of Dvorak via counsel from the Library of Congress and made via counsel the copies which comprise Exhibit B. Specifically, the text of

the journal is complete; no pages are missing, and the text on each page appears to flow seamlessly from one page to the next. Ex. B was found within the custody of a library – a place where, if authentic, a copy of this journal would likely be. Ex. B is a true and correct copy in a condition that creates no suspicion about its authenticity.

44. As described above, standard procedure was to apply a stamp at the time of receipt and processing of a periodical. The stamp on the fourth page of Ex. B shows that the issue was received no later than January 6, 1999, and verified and made available to the public at the Library of Congress by January 6, 1999 or shortly thereafter.

The MARC record corresponding to issues of PC Magazine available 45. at the Library of Congress is attached to my Declaration as Exhibit C. I obtained this MARC through of record the Library Congress website (https://catalog.loc.gov/vwebv/staffView?searchId=25687&recPointer=7&recCoun t=25&bibId=11314730; last accessed March 27, 2019). The library code "DLC" appears in field 040, subfield "d" multiple times, which means that the MARC record shown in Exhibit C was modified by the Library of Congress on multiple separate occasions, and thus copies of the periodical were cataloged at the Library of Congress. Field 362 indicates a sequential designation "Vol. 5, no. 2 (Jan. 28,

1986)-v. 28, no. 1 (Jan. 2009)," thus confirming that the issue corresponding to Exhibit B, whose cover indicates that it is "VOL. 18 NO. 2," is among the issues cataloged at the Library of Congress.

46. The journal ceased the print version after the January 2009 issue; the journal continues as an online publication, as shown in the second field 776. The Field 321 entries of Exhibit D indicate that the frequency varied: biweekly (except July and August), biweekly (except one issue in Jan. and July, 3 issues in Oct., 2003), semimonthly (with occasional exceptions, 2005-2007), and monthly, 2008-2009. Accordingly, the MARC record in Exhibit C corresponds to those issues of the journal *PC Magazine* from January 1986 until the print edition ceased publication at the end of January 2009.

47. The MARC record attached as Exhibit C further includes an entry in field 050 ("QA76.8.I1015 |b P38"). As described above, this includes a subject matter classification number consistent with the Library of Congress Classification System. Exhibit C also includes an entry in field 082 ("004.165"). As described above, this is consistent with the Dewey Decimal Classification System. Exhibit C further includes at least two English language field 650 entries reading "IBM microcomputers |v Periodicals" and "Microcomputers |v Periodicals." Thus, as of its cataloging, *PC Magazine*, which is the publication corresponding to the MARC

record attached hereto as Exhibit C, was indexed according to its subject matter by virtue of at least three independently sufficient classifications: the field 050 entry, the field 082, and the field 650 entries.

48. I also obtained a MARC record for *PC Magazine* from the OCLC bibliographic database, and it is attached to my Declaration as Exhibit D. As confirmed by the "Entered" date in Exhibit D ("19860514"), a MARC record for the periodical *PC Magazine* would also have been accessible through any library with access to the OCLC bibliographic database or the online catalog at a library that subscribed to the serial as of May 14, 1986.

49. Therefore, Dvorak (Exhibit B) was publicly accessible as early as January 6, 1999, and in any more than one year before the December 1, 2003 priority date, because by that time it had been received, cataloged, and indexed at the Library of Congress and made part of the OCLC bibliographic database.

B. Strom [Exhibit E]

50. Exhibit E attached to my Declaration is a journal article, "Three New Wireless E-mail Devices" by David Strom (hereafter "Strom") which was published in Volume 33, Number 45 of the journal *Computerworld*. The Strom article appears on page 63 of this issue dated November 8, 1999. Exhibit E is a true and correct copy of *Computerworld* containing the Strom article. Exhibit E is a true and correct

copy of the issue cover, table of contents, and the article (page 63). It is my opinion that Strom was publicly accessible as early as November 9, 1999, and in any event, more than one year before the December 1, 2003 priority date, as I explain below.

51. I obtained this copy of Strom from the Business Library at the University of Wisconsin – Madison. Specifically, the text of the article is complete; no pages are missing, and the text on each page appears to flow seamlessly from one page to the next. Exhibit E was found within the custody of a library – a place where, if authentic, a copy of this journal would likely be. Exhibit E is a true and correct copy in a condition that creates no suspicion about its authenticity.

52. As described above, standard procedure was to apply a stamp at the time of receipt and processing of a periodical. The stamp on the third page of Ex. E shows that the issue was received no later than November 9, 1999, and verified and made available to the public at the Business Library at the University of Wisconsin – Madison by November 9, 1999 or shortly thereafter.

53. Attached hereto as Exhibit F is a true and correct copy of the MARC record for the journal *Computerworld* at the Business Library at the University of Wisconsin – Madison. The library ownership is indicated by the presence of the library's code (UW) in the fourth 035 field. Exhibit F also shows that the *Computerworld* periodical was catalogued with descriptor terms "Computer

industry |v Periodicals," "Electronic digital computers |v Periodicals," "Computers |v Periodicals," and "Electronic data processing |v Periodicals" in the 650 fields.

54. Based on finding a print copy of Exhibit E in the Business Library at the University of Wisconsin – Madison and MARC record in its online library catalog attached as Exhibit F, it is my opinion that the article "Three New Wireless E-mail Devices" by Strom published in the journal *Computerworld* was available in the Business Library at the University of Wisconsin – Madison on or shortly after November 9, 1999.

55. Attached hereto as Exhibit G is a true and correct copy of the MARC record for the journal *Computerworld* obtained from the OCLC bibliographic database. As can be seen in the "Entered" field in the MARC record for this exhibit, a cataloger created OCLC record number 2259660 on June 20, 1976. The "BLvl" entry in Exhibit G is "s," which indicates that the journal *Computerworld* is a serial publication. Field 310 of Exhibit I reads "Semimonthly, <Sept. 2009-." The journal ceased the print version after the June 23, 2014 issue; the journal continues as an online publication, as shown in the field 785. The Field 321 entries of Exhibit G indicate that the frequency varied: Weekly (except last week in Dec. & first week in Jan.), \$b <1967>-Aug. 2009. Accordingly, the MARC record in Exhibit G

corresponds to those issues of the journal *Computerworld* from January 1967 until the print edition ceased publication at the end of June 2014.

56. Exhibit G further includes an entry in field 050 ("QA76 ±b.C5816") as described above, this includes a subject matter classification number consistent with the Library of Congress classification system (analogous to the Dewey Decimal System). Exhibit I further includes an entry in field 082 ("001.64"), a subject matter consistent with the Dewey Decimal classification system. Exhibit I further includes three English language field 650 entries reading "Computers ‡v Periodicals" (see Exhibit J, Library of Congress subject heading sh2008101482), "Computer industry" [‡]v Periodicals" (see Exhibit K, Library of Congress subject heading sh2008101481), and "Electronic data processing [‡]v Periodicals" (see Exhibit L, Library of Congress subject heading sh2008102641). Thus, as of its cataloging, the publication corresponding to the MARC record attached hereto as Exhibit G was indexed according to its subject matter by virtue of at least three independently sufficient classifications: the field 050 entry, the field 082 entry, and the field 650 entries. Further, as of June 20, 1976, the MARC record attached hereto as Exhibit G was accessible through any library with access to the OCLC bibliographic database or the online catalog at a library that subscribed to the serial.

57. Therefore, Strom (Exhibit E) was publicly accessible as early as November 9, 1999, and in any event more than one year before the December 1, 2003 priority date, because by that time it had been received, cataloged, and indexed at the Business Library at the University of Wisconsin – Madison and made part of the OCLC bibliographic database.

C. Schwartz [Exhibit H]

58. Exhibit H attached to my Declaration is a book, *The Complete Idiot's Guide to Online Dating and Relating* by Joe Schwartz (hereafter "Schwartz") and published by QUE. Exhibit H is a true and correct copy of the cover, title page, verso of the title page, and table of contents. I obtained via counsel this copy of the book from the Library of Congress and made via counsel the copies which comprise Exhibit H. Specifically, the text is complete; no pages are missing, and the text on each page appears to flow seamlessly from one page to the next. Exhibit H was found within the custody of a library – a place where, if authentic, a copy of this book would likely be. Exhibit H is a true and correct copy in a condition that creates no suspicion about its authenticity.

59. It is my opinion that Schwartz was publicly accessible as early as May 10, 1999, and in any event, more than one year before the December 1, 2003 priority date, as I explain below.

The MARC record corresponding to the copy of Schwartz available at 60. the Library of Congress is attached to my Declaration as Exhibit I. I obtained this MARC record through the Library of Congress website (https://catalog.loc.gov/vwebv/staffView?searchId=1988&recPointer=0&recCount =25&searchType=1&bibId=203700; last accessed March 27, 2019). Field 040, subfield "d", shows the library code "DLC," which means that the MARC record for this book was modified by the Library of Congress, and thus a copy of the book was cataloged at the Library of Congress.

61. As can be seen in field 008 ("990510"), a cataloger created the MARC record on May 10, 1999. As can be seen in field 955 ("09-29-00"), one or more steps in the cataloging process was performed by the Library of Congress on September 29, 2000.

62. Exhibit I further includes an entry in field 050 ("a HQ801 |**b** .S43974 2000"). As described above, this includes a subject matter classification number consistent with the Library of Congress Classification System. Exhibit I further includes two English language field 650 entries reading "Dating (Social customs) |**x** Computer network resources" and "Interpersonal relations |**x** Computer network resources." Thus, as of its cataloging, Schwartz, which is the publication corresponding to the MARC record attached hereto as Exhibit I, was indexed

according to its subject matter by virtue of at least two independently sufficient classifications: the field 050 entry and the field 650 entries.

63. I also obtained a MARC record for Schwartz from the OCLC bibliographic database, and it is attached to my Declaration as Exhibit J. As confirmed by the "Entered" date in Exhibit J ("19990510"), a MARC record for Schwartz would also have been accessible through any library with access to the OCLC bibliographic database as of May 10, 1999.

64. Therefore, Schwartz (Exhibit H) was publicly accessible as early as May 10, 1999, and in any event more than one year before the December 1, 2003 priority date, because by that time it had been received, cataloged, and indexed at the Library of Congress and made part of the OCLC bibliographic database.

D. McPherson [Exhibit K]

65. Exhibit K attached to my Declaration is a book, *How to Do Everything with Your Pocket PC*, 2nd edition, by Frank McPherson (hereafter "McPherson") and published by McGraw-Hill/Osborne. Exhibit K is a true and correct copy of the cover, title page, verso of the title page, dedication, and table of contents. I obtained via counsel this copy of the book from the Library of Congress and made via counsel the copies which comprise Exhibit K. Specifically, the text is complete; no pages are missing, and the text on each page appears to flow seamlessly from one page to

the next. Exhibit K was found within the custody of a library – a place where, if authentic, a copy of this book would likely be. Exhibit K is a true and correct copy in a condition that creates no suspicion about its authenticity.

66. It is my opinion that McPherson was publicly accessible as early as April 3, 2002, and in any event, more than one year before the December 1, 2003 priority date, as I explain below.

67. The MARC record corresponding to the copy of McPherson available at the Library of Congress is attached to my Declaration as Exhibit L. I obtained this MARC through the Library of website record Congress (https://catalog.loc.gov/vwebv/staffView?searchId=2288&recPointer=0&recCount =25&searchType=1&bibId=12729376; last accessed March 27, 2019). As previously noted, the library that originally creates a MARC record is recorded in field 040, subfield "a", with a unique library code. For Exhibit L that library code is "DLC," which means that the MARC record for this book was originally created by the Library of Congress, and thus a copy of the book was cataloged at the Library of Congress. As further shown in field 040, subfield "d", the same library (Library of Congress) also modified the MARC record shown in Exhibit C after it was originally created.

68. As can be seen in field 008 ("020403"), a cataloger created the MARC

Facebook's Exhibit No. 1021 0034

record on April 3, 2002. As can be seen in field 955 ("2002-04-03"), one or more steps in the cataloging process was performed by the Library of Congress on April 3, 2002, the same day the MARC record was created.

69. Exhibit L further includes an entry in field 050 ("a QA76.5 |b .M37 2002"). As described above, this includes a subject matter classification number consistent with the Library of Congress Classification System. Exhibit L further includes two English language field 650 entries reading "Pocket computers" and "Portable computers." Thus, as of its cataloging, McPherson, which is the publication corresponding to the MARC record attached hereto as Exhibit K, was indexed according to its subject matter by virtue of at least two independently sufficient classifications: the field 050 entry and the field 650 entries.

70. I also obtained a MARC record for McPherson from the OCLC bibliographic database, and it is attached to my Declaration as Exhibit M. As confirmed by the "Entered" date in Exhibit M ("20011204"), a MARC record for McPherson would also have been accessible through any library with access to the OCLC bibliographic database as of December 4, 2001.

71. Therefore, McPherson (Exhibit K) was publicly accessible as early as April 3, 2002, and in any event more than one year before the December 1, 2003

priority date, because by that time it had been received, cataloged, and indexed at the Library of Congress and made part of the OCLC bibliographic database.

E. Crumlish [Exhibit N]

72. Exhibit N attached to my Declaration is a book, *The ABCs of the Internet* by Christian Crumlish (hereafter "Crumlish") and published by Sybex. Exhibit N is a true and correct copy of the cover, title page, verso of the title page, acknowledgements, and table of contents. I obtained via counsel this copy of the book from the Library of Congress and made via counsel the copies which comprise Exhibit N. Specifically, the text is complete; no pages are missing, and the text on each page appears to flow seamlessly from one page to the next. Exhibit N was found within the custody of a library – a place where, if authentic, a copy of this book would likely be. Exhibit N is a true and correct copy in a condition that creates no suspicion about its authenticity.

73. It is my opinion that Schwartz was publicly accessible as early as April30, 1996, and in any event, more than one year before the December 1, 2003 prioritydate, as I explain below.

74. The MARC record corresponding to the copy of Crumlish available at the Library of Congress is attached to my Declaration as Exhibit O. I obtained this MARC record through the Library of Congress website

Declaration of Sylvia Hall-Ellis, Ph.D. Petition for *Inter Partes* Review of U.S. Patent No. 8,209,634

(https://catalog.loc.gov/vwebv/staffView?searchId=2376&recPointer=0&recCount =25&searchType=1&bibId=693513; last accessed March 27, 2019). Field 040, subfield "d", shows the library code "DLC," which means that the MARC record for this book was modified by the Library of Congress, and thus a copy of the book was cataloged at the Library of Congress.

75. As can be seen in field 008 ("960430"), a cataloger created the MARC record on April 30, 1996. As can be seen in field 955 ("04-30-96"), one or more steps in the cataloging process was performed by the Library of Congress on April 30, 1996, the same day the MARC record was created.

76. Exhibit 0 further includes 050 entry in field an ("a TK5105.875.I57 |b C778 1996"). As described above, this includes a subject matter classification number consistent with the Library of Congress Classification System. Exhibit O further includes an English language field 650 entry reading Thus, as of its cataloging, Crumlish, which is the publication "Internet." corresponding to the MARC record attached hereto as Exhibit O, was indexed according to its subject matter by virtue of at least two independently sufficient classifications: the field 050 entry and the field 650 entry.

77. I also obtained a MARC record for Crumlish from the OCLC bibliographic database, and it is attached to my Declaration as Exhibit P. As

Facebook's Exhibit No. 1021 0037

35

Declaration of Sylvia Hall-Ellis, Ph.D. Petition for *Inter Partes* Review of U.S. Patent No. 8,209,634

confirmed by the "Entered" date in Exhibit P ("19960430"), a MARC record for Crumlish would also have been accessible through any library with access to the OCLC bibliographic database as of April 30, 1996.

78. Therefore, Crumlish (Exhibit N) was publicly accessible as early as April 30, 1996, and in any event more than one year before the December 1, 2003 priority date, because by that time it had been received, cataloged, and indexed at the Library of Congress and made part of the OCLC bibliographic database.

VI. CONCLUSION

79. In signing this Declaration, I recognize that the Declaration will be filed as evidence in a case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to crossexamination in the case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

80. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

36

Declaration of Sylvia Hall-Ellis, Ph.D. Petition for *Inter Partes* Review of U.S. Patent No. 8,209,634

Dated: March 31, 2019

Respectfully submitted,

Spia S. Hell-fellir

Sylvia D. Hall-Ellis, Ph.D.

Facebook's Exhibit No. 1021 0040

EXHIBIT A

Facebook's Exhibit No. 1021 0041

CURRICULUM VITAE SYLVIA D. HALL-ELLIS

EDUCATION

Ph.D., University of Pittsburgh, Pittsburgh, Pennsylvania, 1985
M.P.S., University of Denver, Denver, Colorado, 2014
Post Graduate Studies, University of Texas – San Antonio, Texas, 1975-1976
M.L.S., University of North Texas, Denton, Texas, 1972
B.A., Rockford University, Rockford, Illinois, 1971

PROFESSIONAL EXPERIENCE

1981- Consultant for higher education, non-profit organizations, and corporations.

- 2002- Adjunct Professor, School of Information, San José State University, San José, California. Serve as part-time faculty member teaching graduate students in technical services (cataloging, bibliographic control, classification), "core courses," and special topics.
- 2014-2016 Director, Grants and Resource Development, Colorado Community College System. Provided leadership and vision to foster the continued growth of rigorous scholarship, innovative projects, and creative work for statewide system, 13 campuses, and 50 teaching sites serving 155,000 students. Responsible for leadership and ensured efficient functioning of contract and grants in compliance with state & federal requirements and successful implementation and management. Served as a subject matter expert and liaison for college Grant Directors for all issues relating to grants and subcontracts.
- 2010-2014 Senior Grant Administrator, Morgridge College of Education, University of Denver (Colorado). Provided leadership and vision to foster continued growth of rigorous scholarship, innovative research, and creative work in the Morgridge College of Education. Ensure that contract and grants processes function effectively and efficiently for 60 faculty and researchers with a focus on the successful progression and efficient management of grants totaling \$13M. Worked effectively and collegially with Department Chairs and Program Coordinators on operational grant-related management activities and with a broad range of internal and external constituencies. Supported the dissemination and promotion of faculty research and scholarship to outside constituents at conferences and through publications. Assisted Principal Investigators and grant project teams by coaching, mentoring, and financial management.
- 2011-2013 Interim Director & Assistant Dean, Westminster Law Library, Sturm College of Law, University of Denver. Planned, organized, and directed all administrative activities for the library serving students, faculty, and alumni; oversaw the employment, retention, promotion, transfer and termination of library personnel; represented the library at professional conferences and public meetings; created and promoted a climate and culture of acceptance for new programs and services, a positive high-quality image of the law library, and that reflect the organization's values, encourage excellent performance, and reward high productivity and innovation; provided leadership and set strategic direction of the organization; ensured that the library provided excellent customer service through solution-oriented staff response to patron needs and by responsiveness and continuous improvement of the organization; promoted, developed, and maintained positive working relationships with colleagues and customers including key stakeholders and groups, higher education institutions, the legal community, other regional libraries and districts statewide, and national library organizations.
- 2007-2014 Associate Professor, Library & Information Science, Morgridge College of Education, University of Denver (Colorado). Served in leadership role and worked collaboratively in program, college, campus and community environments. Advised and supervised students, taught core and specialized courses at the graduate level in an integrative, student-centered

learning environment. Served on LIS, College, and University committees, and maintained working relationships with colleagues in other academic units and information professionals in the Rocky Mountain region and beyond. Served on and chair doctoral student dissertation committees. Oversaw and facilitated the College and LIS graduate student association.

- 2002-2007 Assistant Professor, Library & Information Science, College of Education, University of Denver (Colorado). Served as tenure-track faculty member teaching graduate students in "core courses," resource description and access, service learning, and independent studies. Advised graduate students, participate on LIS and College committees, and serve on doctoral student dissertation committees. Oversaw and facilitated the LIS graduate student association and alumni association.
- 2000-2002 Affiliate Faculty, Library & Information Science, College of Education, University of Denver (Colorado). Served as part-time faculty member teaching graduate students in technical services (cataloging, bibliographic control, classification), "core courses," and special topics. Oversaw and facilitated the LIS graduate student association and alumni association.
- 2000-2001 Special Assistant to the Secretary's Regional Representative, U.S. Department of Education, Region VIII, Denver, Colorado. Served as the principal advisor and representative of the U. S. Secretary of Education's Regional Representative (SRR). Ensured the implementation of major goals of the SRR and the Secretary. Provided leadership on behalf of the SRR in contacts with high-level officials in Region VIII requiring sensitive policy interpretation in communication with senior Department officials to solve problems and resolve issues raised by State and local education officials. Served as the primary contact for School-to-Work/Career, Children's Health Insurance Program, and Safe and Drug-Free Schools. Delivered technical assistance to local education agencies and institutions of higher education in technology, professional development, and school construction.
- **1999-2000** Catalog Librarian, Jefferson County Public Library, Lakewood, Colorado. Performed original, copy cataloging and classification of library materials (English and Spanish) using standard library protocols; completed original descriptive cataloging and subject analysis; enhanced brief catalog and authority records in III.
- **1997-1999 Development Officer, McREL International, Aurora, Colorado.** Served as senior member of corporate management team in strategic planning, development of proposals and contracts, implementation, and evaluation of new services, products, and programs for educational agencies. Provided creative leadership to corporate committees to solicit ideas, identify goals and objectives, plan, develop, present, and evaluate professional development opportunities.
- **1995-1997** Education Specialist, Education Service Center, Region One, Edinburg, Texas. Served as member of Administrative Cabinet team in strategic planning, development of proposals and contracts, implementation, and evaluation of telecommunications capabilities, services, products, and programs for 40 school districts serving 283,000 students in 7 counties. Provided creative leadership to regional and state committees to solicit ideas, identify strategic goals and objectives, plan, develop, present, and evaluate funding opportunities and professional development for 400 librarians.
- **1993-1996** Assistant Professor of Library Science, Sam Houston State University, Huntsville, Texas. Served a faculty member teaching 400 graduate students in technical services (cataloging, bibliographic control, classification), automation, and networking. Participated in distance education program and coordinated annual conference. Conducted university and Texas Library Association-funded field research focused on library collection development and academic achievement.

- 1992-1993Head Librarian, Rocky Mountain College of Art & Design, Denver, Colorado.Responsible for the daily operation, selection and acquisition of materials, formulation of
policies for library operations, media center, and photography/slides archives. Designed and
implemented library automation and delivery of electronic resources to college community.
- **1981-1985 Development Officer, PRLC, Inc., Pittsburgh, Pennsylvania.** Served as senior member of corporate management team in strategic planning, development of proposals and contracts, implementation, and evaluation of new services, products, and programs for 100 institutional member organizations. Coordinated the development of proposals and contracts totaling \$4,000,000 annually. Provided creative leadership to corporate committees to solicit ideas, identify goals and objectives, plan, develop, present, and evaluate professional development opportunities.
- 1981 Director of Library Development, Pennsylvania Department of Education, Harrisburg, Pennsylvania. Responsible for statewide development, technical assistance, professional development, resource sharing, children's services, institutional library services, networking, and state aid program for all libraries throughout the Commonwealth. Functioned as liaison to Governor's Advisory Council, LSCA Advisory Council, District Administrators, private colleges, universities, consortia managers, and network directors. Supervised \$14,000,000 formula-based state aid program and \$3,000,000 grant awards to individual libraries, consortia, and networks.
- **1978-1981** Assistant Director, Southern Tier Library System, Corning, New York. Coordinated operation of system-wide programs (technical assistance, professional development, resource sharing, technical services, outreach) to 40 public libraries in 5 counties serving 500,000 residents. Solicited ideas, identified goals, sponsored, and evaluated professional development opportunities and technical assistance sessions.
- 1976-1978 Division Librarian for Technical Services, Corpus Christi Public Libraries, Corpus Christi, Texas. Provided leadership in acquisitions, cataloging, serials control, and processing for main library and 4 branches serving 250,000 residents. Participated as senior member of library management team. Compiled and prepared technical evaluations, reports, and statistical analyses of Division operations to measure the achievement and cost of annual goals, objectives, and staff performance.
- 1975-1976 System Coordinator, San Antonio Major Resource Center, San Antonio, Texas. Served as senior member of the management team for District X Office, charged to provide technical assistance, resource sharing, media services, and professional development to librarians and staff representing 30 public library jurisdictions in 21 counties serving 1,500,000 residents. Functioned as liaison to System Director, staff, and members of governing bodies with the System Board of Directors and the Texas State Library and Historical Commission. Prepared LSCA grant applications and monitored awards totaling \$1,100,000 annually.
- 1973-1975 Bilingual Branch Librarian, San Antonio Public Library, San Antonio, Texas. Worked as librarian providing reference, information, and readers' advisory services in branch serving 50,000 Spanish-speaking residents in southwest San Antonio. Participated in collection development and resource acquisition activities, specializing in children's work, Spanish language resources, and multicultural studies.
- **1972-1973** Librarian, Holding Institute, Laredo, Texas. Worked as high school librarian serving 500 boarding students in Spanish-speaking environment of private school. Provided reference, research assistance, and library instruction to students and 35 faculty members.
- 1966-1971Rockford Public Library, Rockford, Illinois. Worked in branches as part-time as a Library
Assistant, Clerk, and Page in city library serving 150,000 residents.

PUBLICATIONS

Editor-reviewed Monographs (Completed and in Progress)

- Hall-Ellis, Sylvia D., and Mary Beth Weber. *Contemporary Cataloging in an RDA Environment: A Handbook for Students and Practitioners.* Chicago, IL: American Library Association. Under contract & In development.
- *RDA Testing: Lessons Learned and Challenges Revealed.* Sylvia D. Hall-Ellis and Robert O. Ellett, Jr., eds. Binghamton, N.Y.: Haworth, 2012. 128 p.
- Hall-Ellis, Sylvia D., Stacey L. Bowers, Christopher D. Hudson, and M. Claire Williamson. *Librarian's Handbook* for Seeking, Writing, and Managing Grants. Santa Barbara, Calif.: Libraries Unlimited, 2011. 315 p.
- Hall-Ellis, Sylvia D., with Ann Jerabek, and Merrie W. Valliant. *Contemporary Cataloging: A Handbook for Practitioners and Students*. Open access text. Athens, GA: University of Georgia System Regents, 2011. 767 p.
- Grealy, Deborah S. and Sylvia D. Hall-Ellis. From Research to Practice: The Scholarship of Teaching and Learning in LIS Education. Westport, Conn.: Libraries Unlimited, 2009. 175 p.
- Hall-Ellis, Sylvia D. with J. Ann Jerabek. *Grants for School Libraries*. Westport, Conn.: Libraries Unlimited, 2003. 197 p.
- Hall-Ellis, Sylvia D., Doris Meyer, Frank W. Hoffmann, with J. Ann Jerabek. *Grant Writing for Small Libraries and School Library Media Centers*. Boulder, Colo.: NetLibrary, 2001. 173 p.
- Hall-Ellis, Sylvia D., Doris Meyer, Frank W. Hoffmann, with J. Ann Jerabek. *Grant Writing for Small Libraries and School Library Media Centers*. Englewood, Colo: Libraries Unlimited, 2000. 173 p.

Editor-reviewed Chapters (Completed and In Progress)

- Hall-Ellis, Sylvia D. "Grant Writing and Sponsored Research Funding for Academic Librarians." In *The New Librarianship*. Vol. 4. Bradford Lee Eden, ed. New York: Scarecrow Press, 2015. (pp. 163-174)
- Hall-Ellis, Sylvia D. "Organizing Information: Technical Services." In Information Services Today: An Introduction. Sandra Hirsch, ed. Lantham, Md.: Rowman and Littlefield, 2015. (pp. 139-148)
- Hall-Ellis, Sylvia D. "Metadata, MARC, and More." In *Rethinking Technical Services, Considering Our Profession and Ourselves: What's the Future of Our Profession?* Mary Beth Weber, ed. Lantham, Md.: Rowman and Littlefield, 2015. (pp. 29-55)
- Hall-Ellis, Sylvia D., ed. "Contingent Faculty: Non-Tenure Track Faculty Series." In the Faculty Personnel Guidelines Relating to Appointment, Promotion, and Tenure. November 2011. Denver, Colo.: University of Denver, 2011. 42 p.
- Hall-Ellis, Sylvia D., ed. "Standard VII: Information Resources." In the Sturm College of Law Self-Study Presentation for Accreditation by the American Bar Association. Denver, Colo.: University of Denver, Sturm College of Law, 2011. 20 p.
- Hall-Ellis, Sylvia D. "Applying for Grants from Foundations, Corporations, or Government." In *The Volunteers' Guide to Fundraising: Raise Money for Your School Team, Library or Community Group.* 1st ed. Ilona M. Bray, ed. Berkeley, Calif.: Nolo, 2011. (pp. 1-38 on accompanying disc)

- Hall-Ellis, Sylvia D., ed. "Standard III: The Faculty." In the Library and Information Science Program Self-Study Document for Accreditation by the American Library Association. Denver, Colo.: University of Denver, Morgridge College of Education, 2010. 22 p.
- Hall-Ellis, Sylvia D. "Library and Information Science Programs and Education for Catalogers and Metadata Specialists: Challenges for the Twenty-first Century." In *Conversations with Catalogers in the Twenty-First Century*. Elaine R. Sanchez, ed. Santa Barbara, Calif.: ABC-Clio, 2010. (pp. 226-254)
- Hall-Ellis, Sylvia D., ed. "Standard III: The Faculty." In the *Library and Information Science Program Self-Study Document for Accreditation by the American Library Association*. Denver, Colo.: University of Denver, College of Education, 2003. 15 p.
- Lesesne, Teri S. and Sylvia D. Hall-Ellis. "The Selection, Evaluation, and Integration of Culturally Authentic Texts: A Case for Making the Online Catalog Reflect Parallel Cultures." In *Literacy: Traditional, Cultural, Technological.* Pittsburgh, Pa.: International Association of School Librarianship, 1995. (pp. 110-113)
- Lesesne, Teri S. and Sylvia D. Hall-Ellis. *The Selection, Evaluation, and Integration of Culturally Authentic Texts:* A Case for Making the Online Catalog Reflect Parallel Cultures. In Conference Proceedings of the 23rd Annual International Association of School Librarianship, Pittsburgh, Pennsylvania, July 17-22, 1994. ERIC Document ED374816. 17 p.
- Hall-Ellis, Sylvia D. "Curriculum Folio for School Library Media Specialist Programs." In the National Council for Accreditation of Teacher Education Self-Study for Sam Houston State University. Huntsville, Tex.: Sam Houston State University, College of Education and Applied Science, 1994. 25 p.
- Bruntjen, Scott and Sylvia D. Hall. "Attempting to Automate: Lessons Learned Over Five Years." In Advances in Library Administration. Volume 4. Weston, Conn.: JAI Press, 1985. (pp. 177-192)

Peer-Reviewed Journal Articles (Completed and In Progress)

- Hall-Ellis-Sylvia D. "Job Design for Cataloging and Metadata Librarians." Submitted to *Journal of Library Administration*. In progress.
- Hall-Ellis, Sylvia D. "The Relationship of Situational Leadership and the Dreyfus Model of Skill Acquisition for Supervisors in Cataloging and Metadata Services." To be submitted to *Library Resources and Technical* Services. In progress.
- Hall-Ellis, Sylvia D. The Relationship of Core Competencies on Learning Outcomes and Employers' Expectations for Catalog Librarians and Metadata Specialists. To be submitted to the Journal of Education for Library and Information Science. In progress.
- Hall-Ellis, Sylvia D. "Building Cataloger Competencies: The Dreyfus Model as a Prototype for the Education and Professional Development of Catalog Librarians and Metadata Specialists in Bibliographic Control." To be submitted to the *Cataloging & Classification Quarterly*. In progress.
- Hall-Ellis, Sylvia D. "Descriptive Impressions of Entry-Level Cataloger and Metadata Specialists Positions, 2000-2016: Reflections and Trends." To be submitted to *Library Resources and Technical Services*. In progress.
- Hall-Ellis, Sylvia D. "Competencies for Metadata and Cataloging Leaders: What Employers Expect as Reflected in Position Descriptions, 2000-2016." *Cataloging & Classification Quarterly*. In progress.
- Hall-Ellis, Sylvia D. "Stackable Micro-credentials A Framework for the Future." *The Bottom Line 29*, no. 4 (April 2016), <u>http://www.emeraldinsight.com/doi/pdfplus/10.1108/BL-02-2016-0006</u>

- Hall-Ellis, Sylvia D. "Succession Planning and Staff Development A Winning Combination." *The Bottom Line*, 28 no. 3 (May 2015): 95-98.
- Hall-Ellis, Sylvia D. "Succession Planning and Staff Development A Winning Combination." *The Informed Librarian Online* (September 2015), http://www.informedlibrarian.com/featuredArticle.cfm?FILE=succession 1509.pdf
- Hall-Ellis, Sylvia D. "Nudges and Decision Making: A Winning Combination." *The Bottom Line 28*, no. 4 (July 2015): 133-136.
- Hall-Ellis, Sylvia D. "Succession Planning and Staff Development A Winning Combination." *The Bottom Line* 28, no. 3 (May 2015): 95-98.
- Hall-Ellis, Sylvia D. "Metadata Competencies for Entry-Level Positions: What Employers Expect as Reflected in Position Descriptions, 2000-2013." *Journal of Library Metadata 15*, no. 2 (June 2015): 102-134.
- Hall-Ellis, Sylvia D. "Onboarding to Improve Library Retention and Productivity." *The Bottom Line 27*, no. 4 (October 2014).
- Hall-Ellis, Sylvia D. "Accept, Coach, and Inspire: A Formula for Success." *The Bottom Line* 27, no. 3 (July 2014): 103-106.
- Hall-Ellis, Sylvia D. Reward Systems for Staff in Higher Education Institutions: Case Studies of 15 Higher Education Institutions in Colorado. Capstone Thesis. Denver, Colo.: University of Denver, University College, 2014.
- Hall-Ellis, Sylvia D. "Reward Systems Promote High-Performance Work Teams Achieving Library Mission." *The Bottom Line 27*, no. 2 (April 2014): 66-69.
- Hall-Ellis, Sylvia D. "Investment in Staff Development for Seeking External Grant Funds." *The Bottom Line* 27, no. 1 (January 2014): 22-25.
- Hall-Ellis, Sylvia D. "Staff Investments for High Performance Teams." *The Bottom Line 26*, no. 4 (October 2013): 149-152.
- Hall-Ellis, Sylvia D. and Deborah S. Grealy. "Service Learning in LIS Education: A Case for Holistic Assessment." *Catholic Library World* 82, no. 3 (March 2012): 178-187.
- Hall-Ellis, Sylvia D., and Deborah S. Grealy. "The Dreyfus Model of Skill Acquisition: A Career Development Framework for Succession Planning and Management in Academic Libraries." *College and Research Libraries* (June 2012). <u>http://crl.acrl.org/content/early/2012/06/19/crl12-349.full.pdf+html</u>

Hall-Ellis, Sylvia D. "Cataloger Competencies...What Do Employers Require?" Cataloging & Classification Quarterly 46, no. 3 (2008): 305-330. <u>http://ccq.haworthpress.com/doi:10.1080/01639370802034565</u>

- Hall-Ellis, Sylvia D. "Subject Access for Readers' Advisory Services: Their Impact on Contemporary Spanish Fiction in Selected Public Library Collections." *Public Library Quarterly* 27, no.1 (2007): 1-18. <u>http://plg.haworthpress.com/doi:10.1080/01616840802122377</u>
- Hall-Ellis, Sylvia D. "Language Proficiencies among Catalogers and Technical Services Librarians." *Technical Services Quarterly* 25, no. 2 (2007) 31-47. <u>http://tsq.haworthpress.com/doi:10.1300/J124v25n02_03</u>
- Hall-Ellis, Sylvia D. "Cataloging Electronic Resources & Metadata: Employers' Expectations as Reflected in American Libraries and AutoCAT, 2000-2005." Journal of Education for Library and Information Science 47, no. 1 (2006): 38-51.

- Hall-Ellis, Sylvia D. "Descriptive Impressions of Managerial & Supervisory Cataloger Positions as Reflected in American Libraries, AutoCAT, and the Colorado State Library Jobline, 2000-2004: A Content Analysis of Education, Competencies, and Experience." Cataloging & Classification Quarterly 42, no. 1 (2006): 55-88.
- Hall-Ellis, Sylvia D. "Descriptive Cataloging Proficiencies among Beginning Students: A Comparison among Traditional and Virtual Class Students." *Journal of Library & Information Services in Distance Education* 2, no. 2 (2005): 13-44.
- Hall-Ellis, Sylvia D. "Descriptive Impressions of Entry-Level Cataloger Positions as Reflected in American Libraries, AutoCAT, and the Colorado State Library Jobline, 2000-2003." Cataloging & Classification Quarterly 40, no. 2 (2005): 33-72.
- Hall-Ellis, Sylvia D. and Mary Ann Berry. "The Impact of Library Resource Centers on Academic Achievement in Selected Public Schools in South Texas: Preliminary Findings." *Texas Library Journal* 71, no. 2 (Summer 1995): 94-97.
- Hall-Ellis, Sylvia D. "Visual Arts as Foundation for Successful Library Automation: The Rocky Mountain College of Art & Design Experience." Art Reference Serials Quarterly 4 (1994): 43-54.
- Hall, Sylvia D. *High School Databases: An Examination of Bibliographic Data Elements*. Dissertation. Pittsburgh, Pa.: University of Pittsburgh, School of Library and Information Science, 1985.

Technical Reports

- Hall-Ellis, Sylvia D. Colorado Community College System Grant Handbook. Denver, CO: Colorado Community College System, 2015.
- *Faculty Voices: Testimonials from the Frontiers of a Development Education Redesign.* Elaine DeLott Baker, Marilyn Smith, and Sylvia D. Hall-Ellis, eds. Denver, CO: Colorado Community College System, 2014.
- Lewis, Melanie, Jamie M. Van Leeuwen, and Sylvia D. Hall-Ellis. *Project Homeless Connect 7 Event Evaluation*. Denver, Colo.: University of Colorado Denver, 2009.
- Hall-Ellis, Sylvia D. Grant Writing Tips and Resources. Denver, Colo.: University of Denver, 2008-2014. http://portfolio.du.edu/grants
- Hall-Ellis, Sylvia D. and Duan Zhang. *Project Homeless Connect 6 Event Evaluation*. Denver, Colo.: Center for Community Engagement and Service Learning, 2008.
- Hall-Ellis, Sylvia D. Strategic Plan for Denver Medical Library System: Final Report. Denver, Colo.: HealthONE and Denver Medical Library, 2008.
- Hall-Ellis, Sylvia D. and Duan Zhang. *Project Homeless Connect 5 Event Evaluation*. Denver, Colo.: Center for Community Engagement and Service Learning, 2008.
- Hall-Ellis, Sylvia D. Strategic Plan for Denver Medical Library System: Phase Two Report. Denver, Colo.: HealthONE and Denver Medical Library, 2007.
- Hall-Ellis, Sylvia D. and Duan Zhang. *Project Homeless Connect 4 Event Evaluation*. Denver, Colo.: Center for Community Engagement and Service Learning, 2007.
- Hall-Ellis, Sylvia D. Strategic Plan for Denver Medical Library System: Phase One Report. Denver, Colo.: HealthONE and Denver Medical Library, 2007.

- Hall-Ellis, Sylvia D. *Denver Public Library: Opportunities for Change*. Denver, Colo.: University of Denver, Colorado Community-Based Research Network & Metropolitan Organization of People, 2005.
- Hall-Ellis, Sylvia D. *Resources in Grant Writing for Colorado Schools and Libraries*. Sponsored by the Colorado Department of Education, Educational Telecommunications Unit, 1999. Revised September 2000.
- Hall-Ellis, Sylvia D. Lewis & Clark Fellows Concept Paper for the Bicentennial Commemoration. Vancouver, Wash.: Lewis and Clark Bicentennial Council, 1998.
- Hall-Ellis, Sylvia D. and Mary Ann Berry. The Impact of Library Resource Centers on Academic Achievement in Public Schools in Texas: The Final Report. Prepared under the sponsorship of the Research Enhancement Fund award from Sam Houston State University, the Texas Association of School Librarians, the Children's Services Round Table, and the Young Adults' Services Round Table. Huntsville, Tex.: Sam Houston State University, College of Education and Applied Science, 1997.
- Hall-Ellis, Sylvia D. The Impact of Library Resource Centers on Academic Achievement in Selected Public Schools in Texas. Huntsville, Tex.: Sam Houston State University, College of Education and Applied Science, 1997.
- Hall-Ellis, Sylvia D. Planning for Educational Technology: the Distance Education Implementation Phase: An Investigation of Technology and Telecommunication Needs for Region One Education Service Center, South Texas Community College, TCI Cablevision of South Texas, Inc., Tech Prep of the Rio Grande Valley, Inc., Texas State Technical College, Centro Cultural en el Valle de Texas, McAllen Independent School District, Harlingen Consolidated Independent School District, Donna Independent School District, Edinburg Consolidated Independent School District, La Joya Independent School District, Mercedes Independent School District, Pharr-San Juan-Alamo Independent School District, Sharyland Independent School District, Easter Seal Society of the Rio Grande Valley, Inc., and McAllen Memorial Library. Harlingen, Tex.: Tech Prep of the Rio Grande Valley, 1996.
- Hall-Ellis, Sylvia D. "Barcodes for the Texas Library Connection." Prepared under the sponsorship of the Office of Technology Services, Texas Education Agency. Austin, Tex.: TENET News and Conferences, March 1995.
- Hall-Ellis, Sylvia D. [et. al.] Planning for Educational Technology: A Study of Future Technology Needs for the Donna Independent School District, Region One Education Region Service Center, Tech Prep of the Rio Grande Valley, Inc. South Texas Community College, and the Department of Library Science, Sam Houston State University. Research team: Sylvia D. Hall-Ellis, Ruth Ann Riggins, Noe Torres, Patricia G. Bubb, and Michael D. Bell. Harlingen, Tex.: Tech Prep of the Rio Grande Valley, 1994. Funded through a grant award from the Texas Education Agency.
- Hall-Ellis, Sylvia D. and Mary Ann Berry. *The Impact of Library Resource Centers on Academic Achievement in Selected Public Schools in South Texas*. Huntsville, Tex.: Sam Houston State University, College of Education and Applied Science, 1993. Funded through a grant award from the Sam Houston State University Research Enhancement Fund.
- Hall-Ellis, Sylvia D., Alice Krueger, and Linda Brannan. *Thesaurus Development for National Curriculum Materials Database at the Eisenhower National Clearinghouse for Mathematics and Science Education, Columbus, Ohio.* Developed under the sponsorship of Mid-Continent Regional Educational Laboratory Corporate Library, Aurora, Colo. Washington, D.C.: National Science Foundation; Columbus, Ohio: ERIC Clearinghouse for Mathematics and Science Education, 1993.
- Hall-Ellis, Sylvia D. and Clarence L. Coffindaffer. *Partners in Progress: The 1992 Montana Library Federation Study Final Report.* Helena, Mont: Montana State Library and The Blue Bear Group, Inc., 1992.
- Hall-Ellis, Sylvia D. and Clarence L. Coffindaffer. *Montana Federation Study Identification Paper*. Denver, Colo.: The Blue Bear Group, Inc., 1992.

- Bruntjen, Scott and Sylvia D. Hall. Recommendations on the Development of System-Wide Efforts of the Northern Waters Library Service. Ashland, Wisc.: Northern Waters Library Service and The Blue Bear Group, Inc., 1989.
- Hall, Sylvia D. *The Iowa Union List of Serials as A Part of The Iowa Locator: Planning Document.* Des Moines, Ia.: State Library of Iowa, 1988.
- Hall, Sylvia D. *Iowa Computer-Assisted Network (ICAN Users' Manual. IBM Compatible Edition: Version 7.0.* Des Moines, Ia.: State Library of Iowa, 1988.
- Hall, Sylvia D. *Iowa Computer-Assisted Network (ICAN Users' Manual. IBM Compatible Edition: Version 5.0.* Des Moines, Ia.: State Library of Iowa, 1986.
- Hall, Sylvia D. *Iowa Computer-Assisted Network (ICAN Users' Manual. Apple MacIntosh Edition: Version 5.0.* Des Moines, Ia.: State Library of Iowa, 1986.
- Bruntjen, Scott and Sylvia D. Hall. The District of Columbia Public Library Planning for Retrospective Conversion of Bibliographic Records and Automation Issues for the 1990's: Final Report. Central City, Colo.: The Blue Bear Group, Inc., 1986.
- Bruntjen, Scott and Sylvia D. Hall. *The Iowa Locator: Final Report.* Central City, Colo.: The Blue Bear Group, Inc., 1986.
- Bruntjen, Scott and Sylvia D. Hall. Discovering Resource Sharing Treasures: Accessing Pennsylvania's High School Library Collections. Harrisburg, Pa.: State Library of Pennsylvania, Bureau of School Library Media Resources, 1985.
- Hall, Sylvia D. Retrospective Conversion and the Completeness of Cataloging in Pennsylvania High School Libraries. Pittsburgh, Pa.: PRLC, Inc., 1985.
- Bruntjen, Scott and Sylvia D. Hall. *The Iowa Locator*. Des Moines, Ia.: State Library of Iowa, 1985http://www.statelibraryofiowa.org/ld/silo/locator
- Bruntjen, Scott and Sylvia D. Hall. ICAN Analysis. Des Moines, Ia.: State Library of Iowa, 1985.
- Bruntjen, Scott and Sylvia D. Hall. Zebras: Bar Codes, Standards, and Library Automation. Central City, Colo.: The Blue Bear Group, Inc., 1985.
- Hall, Sylvia D. and Scott Bruntjen. Access Pennsylvania. Harrisburg, Pa.: State Library of Pennsylvania, 1984http://www.accesspa.org
- Hall, Sylvia D. Reconfiguration of the ITAC Cataloging Data Base to Machine Readable (MARC) Format. Classified Document. Arlington, Va.: U. S. Army Intelligence and Threat Analysis Center, 1984.
- Bruntjen, Scott and Sylvia D. Hall. *South Dakota Library Automation Plan: Final Report*. Pittsburgh, Pa.: PRLC, Inc., 1982. Reprinted by the South Dakota State Library, 1983.
- Bruntjen, Scott and Sylvia D. Hall. Altoona Automation Plan: Final Report prepared for the Altoona Area Public Library and the Altoona District Library Center. Pittsburgh, Pa.: PRLC, 1983.
- Bruntjen, Scott, Sylvia D. Hall and Paul J. Pugliese. *College Space Utilization Study*. Pittsburgh, Pa.: PRLC, Inc., 1983.
- Hall, Sylvia D. Pennsylvania Public Library Film Center Union Catalog Cataloging and Technical Services Procedures Manual. Pittsburgh, Pa.: PRLC, Inc., 1982.

- Hall, Sylvia D. History of Library Development in Pennsylvania: A Review and Content Analysis of the Plans, 1955-1980. Pittsburgh, Pa.: PRLC, Inc., 1982.
- Hall, Sylvia D. Newspapers on Microfilm: A Listing of Newspapers in Allegheny, Chemung, Schuyler, Steuben, and Yates Counties. Ithaca, N.Y.: South Central Reference and Research Council, 1981.
- Hall, Sylvia D. OCLC/ILL Subsystem at Southern Tier Library System. Albany, N.Y.: SUNY/OCLC Network, 1980.
- Hall, Sylvia D. Retrospective Conversion for Major Public Libraries in South Central New York State: A Technical Report. 2 vols. Corning, N.Y.: Southern Tier Library System, 1979-1980.
- Hall, Sylvia D. The Librarian and the Mexican-American Patron in Texas. Austin, Tex.: Texas State Library, 1978.

Other Publications

- Hall-Ellis, Sylvia D., ed. Library and Information Science Program Self-Study Document for Accreditation by the American Library Association. St. Paul, MN: St. Catherine University, 2017. 255 p.
- Hall-Ellis, Sylvia D., and Robert O. Ellett, Jr., guest editors. *RDA Testing: Lessons Learned and Challenges Revealed: A Special Issue of Cataloging & Classification Quarterly* 49, no. 7-8 (November 2011).
- Hall-Ellis, Sylvia D. and Robert O. Ellett, Jr. *Fundamentals of Cataloging I: An Online ALCTS Course*. Chicago, Ill.: American Library Association, 2009.
- Hall-Ellis, Sylvia D., Angela J. Kinney and Martha Ann Bace, editors. Best Practices in Cataloging Education Identified at the 2007 ALCTS Pre-conference: A Special Issue of the Journal for Library and Information Science Education 49, no. 2 (Spring 2008).
- Hall-Ellis, Sylvia D. Cataloging Education: A New Emphasis for the Library and Information Science Curriculum. Presentation delivered to the ALCTS Pre-conference, 132nd Annual Conference, American Library Association, Washington, D.C., June 22, 2007. <u>http://www.loc.gov/aba/professional/</u>
- Hall-Ellis, Sylvia D. "Cataloger Competencies: Do the Employers Require What the Professors Teach?"
 Presentation delivered to the ALCTS CCS Heads of Cataloging Discussion Group, 131st Annual Conference, American Library Association, New Orleans, Louisiana, June 26, 2006. <u>http://dlist.sir.arizona.edu/</u>
- Hall-Ellis, Sylvia D., guest editor, with Deborah S. Grealy, Clara L. Sitter, and Tassos Petrou. *Library Students'* Voices in Colorado: An Issue of Colorado Libraries 31:1 (Spring 2005).
- Hall-Ellis, Sylvia D., ed. Library and Information Science Program Self-Study Document for Accreditation by the American Library Association. Denver, Colo.: University of Denver, College of Education, 2003. 125 p. with CD-ROM.
- Hall-Ellis, Sylvia D. and Deborah S. Grealy, guest editors. *Library Education in Colorado: An Issue of Colorado Libraries* 29, no. 2 (Summer 2003).
- Hall-Ellis, Sylvia D., ed. Library and Information Science Program Self-Study Document for Accreditation by the American Library Association. Denver, Colo.: University of Denver, College of Education, 2003.
- Hall-Ellis, Sylvia D. "Adaptive Furniture for the ADA-Qualified: An Investigative Study." 2001. Unpublished manuscript.
- Hall-Ellis, Sylvia D. "Cataloging Electronic Serials: A Study in User Access and Article Delivery." 2001. Unpublished manuscript.

- Hall-Ellis, Sylvia D. "E-books: Acquisition and Circulation Issues in Public Libraries." 2001. Unpublished manuscript.
- Hall-Ellis, Sylvia D. "Authority Control and Its Importance in School Library Media Online Catalogs." 1999. Unpublished manuscript.
- Hall, Sylvia D. "Cooperation Improving Service in San Antonio System." *Texas Libraries* XXXVII (Spring 1976): 27-29.
- Hall, Sylvia D. "Summer is Sea Monstrously Fun!" Texas Library Journal L (December 1974): 224-226.
- Hall, Sylvia D. "A Brief Annotated Bibliography of Non-book Materials on the Mexican American." *Texas Library Journal* XLVIII (October 1972): 213-232.

Book Reviews

- ALA Book of Library Grant Money. Ann Kepler, ed. 8th ed. Chicago, IL: American Library Association, 2011. 978-0-8389-1058-0, \$175.00 [Colorado Libraries, June 2012]
- Developing a Compensation Plan for Your Library. Paula M. Singer and Laura L. Francisco, comps. 2nd ed. Chicago, IL: American Library Association, 2009. 978-0-8389-0985-0, \$57.00 [Colorado Libraries, March 2012]
- *Frugal Librarian*. Carol Smallwood, ed. Chicago, IL: American Library Association, 2011. 978-0-83891-075-7, \$42.00 [*Colorado Libraries*, February 2012]
- Dowlin, Ken. *Getting the Money: How to Succeed in Fundraising for Public and Nonprofit Libraries*. Westport, Conn.: Libraries Unlimited, 2008. 978-1-59158-597-X, \$50.00 [Colorado Libraries, February 2009]
- Lundahl, Mats. *Bebo de Cuba; Bebo Valdés y Su Mundo*, by Mats Lundahl. Traducción de Linda Oakeshott Dragó. Barcelona: RBA Libros, 2008. 978-849-86-7259-6, \$33.99 [*Críticas*, November 2008]
- Bonelli, Florencia. *Marlene*, by Florencia Bonelli. Buenos Aires: Aguilar, Altea, Taurus, Alfaguara, 2008. 978-987-04-0995-3, \$24.95 [*Críticas*, October 2008]
- Keret, Etgar. Traducción de Ana María Bejarano. *Pizzería Kamikaze y Otras Relatos*. México, D.F.: Editorial Sexto Piso, 2008. 968-5679-29-0, no price given [*Críticas*, September 2008]
- Littauer, Marita, and Florence Littauer. Enriquece tu Comunicación. Miami, Fla.: Editorial Unilit, 2008. 978-0-7899-1521-4, \$11.99 [Críticas, August 2008]
- Martínez, Guillermo. La Muerte Lenta de Luciana B. New York: Rayo Planeta, 2008. 978-0-06-156551-9, \$14.95 [Críticas, May 2008]
- Matthews, Joseph R. *The Evaluation and Measurement of Library Services*. Westport, Conn.: Libraries Unlimited, 2007. 978-1-59158-532-9, \$50.00 [Colorado Libraries, April 2008]
- Gómez-Jurado, Juan. A Masacre de Virginia Tech: Anatomía de una Mente Torturada. Barcelona: Ediciones El Andén, 2007. 978-84-935789-4-7, €16.50 [Críticas, February, 2008]
- Matthews, Joseph R. Library Assessment in Higher Education. Westport, Conn.: Libraries Unlimited, 2007. 978-1-59158-531-2, \$45.00 [Colorado Libraries, February 2008]
- Chacón, Inma. La Princesa India: Cuando el Viento Azul. México: Alfaguara, 2006. 970-770398-9, \$19.95 [Críticas, June 2006]

- Vargas Llosa, Mario. Israel/Palestina: Paz o Guerra Santa. fotogs. by Morgana Vargas Llosa. Spain/U.S.: Aguilar: Santillana, 2006. 84-03-09691-7, paper, \$19.95 [Críticas, May 2006]
- Findlay, Diane. *Digging into Dewey*. Fort Atkinson, Wisc.: Upstart Books, 2005. 978-1-932146-18-9, \$16.95 [Colorado Libraries, May 2006]
- Pequeñas Resistencias 4: Antología del Nuevo Cuento Norteamericano y Caribeño. Menéndez, Ronaldo, Ignacio Padilla & Enrique del Risco, eds. Madrid: Páginas de Espuma, 2005. 84-95642-59-X, paper, \$36.95 [Críticas, April 2006]
- Rueda, André. Vengo a Salvar a España: Biografía de Un Franco Desconocido. Madrid: Nowtilus (Investigación Abierta), 2005. photogs., bibliog. 84-9763-202-8, paper, \$23.95 [Críticas, March 2006]
- Becerra, Ángela. *El Penúltimo Sueño*. 1st ed. Barcelona: Planeta, 2005. 84-08-05795-2, \$25.95. [*Críticas*, January 2006]
- Aguilar Camín, Héctor. La Conspiración de la Fortuna. 1st ed. México: Planeta, 2005. 970-37-0368-2, \$19.95 [Críticas, October 2005]
- *México en Sus Libros*. Enrique Florescano with Pablo Mijangos, editors & compilers. 1st ed. México, D.F.: Taurus Aguilar, 2004. 968-19-0783-3, \$16.95 [*Críticas*, September 2005]
- Historia Económica de México. Coordinator, Enrique Semo. México: Universidad Nacional Autónoma de México, Editorial Oceano de México, 2004. 13 vols. 970-32-0805+3 (obra completa), \$9.25 each [Críticas, August 2005]
- Czarnowsky, Christyne A. and Michael H. Williams. *Managing Your Wired Workforce: A Practical Guide*. Denver, Colo.: Bradford Pub., 2003. 1-883726-79-4, \$24.95 [Colorado Libraries, 2004]
- Abraham Lincoln. Colección Grandes Biografías. Madrid: Edimat Libros, 2003. 84-8403-858-0, €4.95 [Críticas, 2004]
- Alponte, Juan María. Colón: el Hombre, el Navegante, la Leyenda. México, D.F.: Aguilar, 2003. 968-19-1260-8, \$16.95 [Críticas, 2004]
- Olcese Salvatecci, Alfieri. Cómo Estudiar con Exito: Téchnicas yHhábitos Para Aprender Major. México, D.F.: Alfaomega Grupo Editor, 2002. 970-15-0764-9 [Críticas, 2003]
- Mujeres Como Islas: Antología de Narradoras Cubanas, Dominicanas, Puertoriqueñas. Edición: Olga Marta Pérez, Thelma Jiménez, Andrés Blanco D., eds. Santo Domingo, República Dominicana: Ediciones Ferilibro, 2002. 959-209-419-5 [Críticas, 2003]
- Tibol, Raquel. Los Murales de Diego Rivera: Universidad Autónoma Chapingo. México, D.F.: Editorial RM, Universidad Autónoma Chapingo, 2002. 968-5208-08-5 [Críticas, 2003]
- Lindsay-Poland, John. *Emperors in the Jungle: the Hidden History of the U.S. in Panama*. Durham, N.C.: Duke University Press, 2003. 0-8223-3098-9, \$18.95 [*Críticas*, 2003]
- Kaplan, Allison G. and Ann Marlowe Riedling. *Catalog It! A Guide to Cataloging School Library Materials*. Worthington, Ohio: Linworth Pub., 2002. 1-58683-014-7, \$44.95 [*Colorado Libraries*, 2002]
- Bardach, Ann Louise. *Cuba Confidential: Love and Vengeance in Miami and Havana.* New York: Random, 2002. 0-375-50489-3, \$25.95 [Library Journal, 2002]

- Swan, James. Fundraising for Libraries: 25 Proven Ways to Get More Money for Your Library. New York: Neal Schuman, 2002. 1-55570-433-6, \$69.95 [Colorado Libraries, 2002]
- Puíg de Lange, Victoria. Sol Con Agua. Nashville, Tenn.: Editorial Vistazo/Ediciones Reio Negro, 2002. 0-9724506-0-2, \$17.75 [Críticas, 2002]
- *The Encyclopedia of Latin American Politics*. Edited by Diana Kapiszewski; assistant editor, Alexander Kazan. Westport, Conn.: Oryx Press, 2002. 1-57356-306-4, \$74.95 [*Library Journal*, 2002]
- Vargas Lizano, Isabel. *Y Si Quieres Saber de Mi Pasado*. Con la colaboración de J.C. Vales. Madrid: Santillana Ediciones Generales, S.L., 2002. 84-03-09278-4, \$18.95 [*Críticas*, 2002]
- Ruy Sánchez, Alberto. Los Jardines Secretos de Mogador: Voces de Tierra. México, D.F.: Alfaguara, S.A., 2001. 968-19-0879-1, \$16.95 [Críticas, 2002]
- Chávez, Ricardo and Celso Santajuliana. *El Final de las Nubes*. Barcelona: RBA Libros, S.A., 2001. 84-7901-760-0, \$11.95 [*Críticas*, 2002]
- The Power of Language / El Poder de la Palabra: Selected Papers from the Second REFORMA National Conference. Edited by Lillian Castillo-Speed and the REFORMA National Conference Publications Committee. Englewood, Colo.: Libraries Unlimited, 2001. 1-563089459, \$35.00 [Colorado Libraries, 2001]
- Martínez, Rubén. Crossing Over: A Mexican Family on the Migrant Trail. Metropolitan: Holt, 2001. 0-8050-4908-8, \$26.00 [Library Journal, 2001]
- Guevara, Ernesto "Che." *The African Dream: the Diaries of the Revolutionary War in the Congo*. Translated from the Spanish by Patrick Camiller. With an introduction by Richard Gott and a foreword by Aleida Guevara March. New York: Grove Press, 2001. 0-8021-3834-9, \$13.00 [*Library Journal*, 2001]
- Cooper, Gail and Garry Cooper. New Virtual Field Trips. Englewood, Colo.: Libraries Unlimited, 2001. 1-56308-887-8, \$27.50 [Colorado Libraries, 2001]

NATIONAL SERVICE & PROFESSIONAL AFFILIATIONS

American Library Association

Association for Library Collections & Technical Services Cataloging, Classification, and Metadata Section ALCTS Editorial Board, Member, 2015-Committee on Cataloging: Description and Access, Member, 2008-2012 Test Site for RDA, Manager, 2009-2011 Nominating Committee, Member, 2007-2008 Committee for Education and Training of Catalogers, Chair, 2006-2007, Member, 2003-2007 Competencies & Education for a Career in Cataloging Interest Group, Chair, 2010-2012; Member, 2010-President's Program Committee, 2015-2016 Education Committee, Member, 2005-2007 Task Force on Competencies and Education for a Career in Cataloging, Chair, 2007-2009 2007 Annual Meeting Pre-conference, "What They Don't Teach in Library School: Competencies, Education and Employer Expectations for a Career in Cataloging," Steering Committee Chair Fundraising Committee, Member, 2004-2006 Office of Diversity Committee on Diversity, Chair, 2010-2011 Diversity Research Advisory Committee, Member, 2009-2010 Spectrum Scholar Mentor, 2009 Diversity Grants Review Committee, Member, 2007, 2010, 2012 Office of Statistics and Research Research and Statistics Committee, Member, 2005-2007; Intern, 2003-2005 Library Research Round Table Board of Directors, Member At-Large, 2009-2012 Member, 2003-Office of Accreditation Accreditation Panel Member (training completed 2004) Accreditation Review Panel Member (training completed 2004)

REFORMA

National Board of Directors, 2005-2013 National Fundraising Chair, 2005-2013 National Recruiting and Mentoring Committee, 2008-2010 Colorado Chapter, Secretary, 2004-2005 Colorado Chapter Liaison to National Board of Directors, 2004-2013

Online Audiovisual Catalogers Association (OLAC) American Association of Law Libraries (AALL) Colorado Association of Law Librarians (CoALL)

Association for Library and Information Science Education (ALISE) University of Denver ALISE Representative, 2003-2008; 2010-2011 Membership Advisory Committee, 2007-2010 Technical Services Education Special Interest Group, 2003-Garfield Doctoral Dissertation Award Reviewer, 2012 Garfield Doctoral Dissertation Scholarship Reviewer, 2014 American Association of University Professors (AAUP), 2006-American Grant Writers Association, 2014-Grant Professionals Institute, 2016-National Grants Management Association, 2014-

Grant Reviewer (National and Regional Team Leader), U.S. Department of Education, 1998-Grant Reviewer, Broadband Technologies Opportunity Program, U.S. Department of Commerce, 2009 Grant Reviewer, Institute of Museum and Library Services, 1998-2000 Grant Reviewer, Colorado Department of Education, 2014-Grant Reviewer, Colorado State Library, 1998-Grant Reviewer, American Association of Community Colleges *Working Connections* program, 1999 Peer Reviewer, *Journal for Library and Information Science Education*, 2005-Peer Reviewer, *Journal of Library Metadata*, 2009 Peer Reviewer, *International Journal of Library and Information Science*, 2011 Regular Columnist, *The Bottom Line*, 2013-2016 Book Reviewer, *Library Journal*, 2001 Book Reviewer, *Críticas*, 2002-2009 Book Reviewer, *Colorado Libraries*, 2000-2012

REGIONAL SERVICE & PROFESSIONAL AFFILIATIONS

Mountain Plains Library Association

Professional Development Grants Committee, Member, 2005-2006 Professional Development Policy and Guidelines Sub-committee Chair, 2006

Colorado Association of Libraries

"Student Voices" Column Editor, *Colorado Libraries*, 2005-2006 Conference Planning Committee, Member, 2002 Technical Services and Automation Division, Chair, 2002-2003; Member, 2000-Academic Libraries Division, Peer Review Conference Papers Committee, Member, 2007-2009 Education Committee, Member, 1988-1993 Diverse Populations Committee, Member, 2009-2013

SERVICE TO THE UNIVERSITY OF DENVER

Center for Teaching and Learning Faculty Advisory Board, 2007-2008; 2010-2012
Center for Community Engagement and Service Learning Advisory Board, 2007-2012
Faculty Senate

Executive Committee, 2008-2013
Nominations, Rules & Credentials Committee, Chair, 2008-2013; Member 2007-2013
Appointment, Promotion, and Tenure Revision Committee, 2010-2012
Grievance Policy Committee Member, 2007-2010

Law Library Director Search Committee Chair, 2012-2013
PROF Grant Review, College Representative to the University Review Team, 2006, 2008
Project Homeless Connect Evaluations, Principal Investigator, 2006-2009
University Technology Council, 2007-2009
University of Denver Hyde Interviews for Incoming Freshmen, 2003-2012

SERVICE TO THE MORGRIDGE COLLEGE OF EDUCATION

Appointment, Tenure & Review Committee Member, voting, 2003-2005; 2007- 2009 Chair, Clinical Faculty Promotion & Tenure Policy Subcommittee, 2008-2009 Member, Community Engagement Subcommittee, 2007-2009 Member, Tenure Review Panel, 2003
Advancement and Alumni Relations Committee, Chair, 2003-2007; Member, 2002-2007 College Building Committee Member, 2004-2010
College of Education Student Association, Faculty Advisor, 2004-2007; 2009-2010
Faculty Senator, 2007-2013
Research and Scholarship Committee, Chair, 2008-2009; Member, 2002-2003, 2008-2009
Research and Grant Mentoring Committee, Chair, 2009-2010
Research Task Force Member, 2010-2012
Search Committee Member, Assistant Professor for Curriculum & Instruction, 2010-2011
Workload Task Force Member, 2010-2011

SERVICE TO THE LIBRARY & INFORMATION SCIENCE PROGRAM

Library and Information Science Student and Alumni Association, Faculty Advisor, 2002-2008 ALA Student Chapter, Faculty Advisor, 2005-2008 Beta Phi Mu Phi Chapter, Faculty Advisor, 2004-2014 Steering Committee Member, Accreditation by the American Library Association, 2001-2004 Search Committee Member, Associate Professor for LIS, 2006 Search Committee Chair, Assistant Professors for LIS, 2003, 2005, 2006, 2007 Search Committee Ex-Officio Member, Director for LIS, 2004

SERVICE TO SAM HOUSTON STATE UNIVERSITY

Rio Roundup: South Texas Literature Conference, Conference Coordinator, 1993 External Relations, Fund Raising, Grants Committee, Chair, 1993-1995 Advisory Council Committee, Chair, 1993-1995 Students, Admissions, and Advisement Committee, Chair, 1994 Institutional Effectiveness Committee, Member, 1993-1995

SERVICE TO THE COLLEGE OF EDUCATION AND APPLIED SCIENCE

Faculty Affairs Committee, Member, 1993-1995 Curriculum Committee, Member, 1993-1995 Continuing Education Committee, Member, 1993-1995

SERVICE TO THE COMMUNITY

Denver/Boulder Games 2022, Board of Directors, Secretary-Treasurer, 2015-2018
United Way Campaign Committee, College of Education, 2006
Arapahoe County, Election Judge for the County Clerk and Recorder, 2000-2005
Arthritis Foundation, Rocky Mountain Chapter, Certified Educator & Trainer, 1999-2008
Bonfils Blood Center, Silver Level Donor, 2000-2016
Denver Museum of Natural History, Docent, 1992
Tech Prep of the Lower Rio Grande Valley, Inc. (Harlingen, Texas) Board of Directors, 1995-1997
Executive Committee, 1996-1997; Chair, Development Committee, 1995-1997; Chair, Fiscal Agency
Committee, 1995-1996; Chair, Colleges and Universities Committee, 1996-1997
Gilpin County (Colorado) Public Library Board of Trustees, 1986-1989; Vice President, 1987-1989
City of Central (Colorado) Economic Development Committee, 1987-1989
Columbine Family Health Centers, Inc. (Nederland and Black Hawk, Colorado) Board of Directors, 1988-1989

CERTIFICATION

Permanent Public Librarian Certificate - Pennsylvania, New York, Texas Westlaw Expert Witness, 2008-Certified Grant Writer[®], 2016-

AWARDS AND HONORS

Advanced Practitioner for Service Learning and Community Engagement, University of Denver, 2011 Platinum Star Alumnae, College of Information, Library Science & Technologies, University of North Texas, 2009 Commendation for Integration of Technologies in Teaching & Learning Environment, University of Denver, 2006 Outstanding Adjunct Faculty Member Award, College of Education, University of Denver, 2002 Beta Phi Mu, Pi, University of Pittsburgh, 1985 Alpha Lambda Sigma, University of North Texas, 1972

Albert Nelson Marquis Lifetime Achievement Award, Who's Who in America; Who's Who in American Women; Who's Who of Women Executives; Dictionary of International Biography; Who's Who in the East; Who's Who in the South and Southwest; Who's Who in the World; Who's Who of Online Professionals; Who's Who in Library and Information Science; 2,000 Notable Women; Who's Who of Emerging Leaders; Who's Who in Professional and Executive Women; Who's Who in American Education; International Who's Who of Professional and Business Women; International Leaders in Achievement; International Educator of the Year; Who's Who in Finance and Industry; Who's Who in Finance and Business

Invited International and National Conference Presentations

- Hall-Ellis, Sylvia D. Invest in Me -- I'm Your Future: Succession Planning for Libraries. Keynote presentation delivered at the ALCTS President's Symposium, Boston, Mass., January 8, 2016.
- Seidel, Kent E. and Sylvia D. Hall-Ellis. *Making Grants Work for You: Strategies for Doctoral Students and Early Career Scholars*. Presentation delivered at the University Council for Educational Administration, Early Career Scholars Session, Indianapolis, Ind., November 9, 2013.
- Hall-Ellis, Sylvia D. So You Want to be a Manager; Leadership Skills and Competencies for Technical Services Managers and Administrators. Presentation delivered at the 138th Annual Conference, American Library Association, Chicago, Ill., June 29, 2013.
- Seidel, Kent E., Karen S. Riley, Lyndsay Agans, Susan Korach, and Sylvia D. Hall-Ellis. *Making Grants Work for You (Instead of Just Working for Grants).* A panel discussion delivered at the University Council for Educational Administration, Early Career Scholars Session, Denver, Colo., November 17, 2012.
- Hall-Ellis, Sylvia D. *After the Great TS Reorganization: The Westminster Law Library*. Presentation delivered at the 137th Annual Conference, American Library Association, Anaheim, Calif., June 23, 2012.
- Hall-Ellis, Sylvia D. *Conversations with Catalogers in the 21st Century*. A panel discussion sponsored by the ALCTS Competencies for a Career in Cataloging Interest Group, delivered at the 137th Annual Conference, American Library Association, Anaheim, Calif., June 22, 2012.
- Hall-Ellis, Sylvia D., moderator. *Mid-Career Leaders Program*. A panel discussion sponsored by the ALA Committee on Diversity delivered at the 136th Annual Conference, American Library Association, New Orleans, La., June 26, 2011.
- Hall-Ellis, Sylvia D., moderator. *Diversity Town Hall*. A community conversation sponsored by the ALA Committee on Diversity delivered at the 136th Annual Conference, American Library Association, New Orleans, La., June 24, 2011.
- LaBarre, Kathryn, Sylvia D. Hall-Ellis, Karen Anderson, Rick Hasenyager, Christopher Cronin, and Penny Baker. Briefings from RDA Test Participants. A panel discussion delivered at the Midwinter Conference, American Library Association, San Diego, Calif., January 7, 2011.
- Miksa, Shawne, Marjorie Bloss, and Sylvia D. Hall-Ellis. *Educating the Next Generation of Catalogers: Teaching RDA*. A panel discussion delivered at the 97th Annual Conference, Association for Library and Information Science Education, San Diego, Calif., January 7, 2011.
- Hall-Ellis, Sylvia D., Robert Maxwell, John Hostage, and George Prager. RDA Panel: What Cataloging Managers Need to Know. Presentation delivered at the 103rd Annual Conference, American Association of Law Librarians, Denver, Colo., July 12, 2010.
- Hall-Ellis, Sylvia D. and Stacey L. Bowers. Catalogers in the RDA Environment: Skill Sets, Expectations and Challenges. Presentation delivered at the 103rd Annual Conference, American Association of Law Librarians, Denver, Colo., July 11, 2010.
- Hall-Ellis, Sylvia D. Comfortable in Your Cataloging and Metadata Specialist Skin? Or, So You Want to Hire a Cataloger. Presentation delivered to the ALCTS Research Group at the 134th Annual Conference, American Library Association, Chicago, Ill., July 11, 2009.
- Perez, Megan, Sylvia D. Hall-Ellis, and Denise Anthony. *From Novice to Expert: Collaboration for Succession Planning*. A "hot topic" presentation delivered at the 14th ACRL Conference, Seattle, Wash., March 13, 2009.

- Hall-Ellis, Sylvia D. Cataloging in the RDA Environment: Skill Sets, Expectations and Challenges. Presentation delivered to the ALCTS Research and Publications Committee at the Midwinter Conference, American Library Association, Denver, Colo., January 24, 2009.
- Hall-Ellis, Sylvia D. LIS Cataloging Education for the 21st Century: Expectations and Challenges. A panel discussion held at the 95th Annual Conference, Association for Library and Information Science Education, Denver, Colo., January 23, 2009.
- Chu, Clara, Sylvia D. Hall-Ellis, and Mark Winston. *The Doctoral Degree & Building a Career*. A panel discussion delivered at the ALA Office of Diversity Spectrum Doctoral Fellows E.J. Josey Leadership Institute, Midwinter Conference, American Library Association, Denver, Colo., January 20, 2009.
- Hall-Ellis, Sylvia D. and Robert O. Ellett, Jr. Fundamentals of Cataloging Course: An Overview of the ALCTS Online Course. Presentation delivered to the ALCTS Big Heads Group, 133rd Annual Conference, American Library Association, Anaheim, Calif., June 30, 2008.
- Hall-Ellis, Sylvia D. Employers' Expectations for Technical Services Librarians: What We Don't Know. Presentation delivered to the ALCTS Research and Publications Committee Program, 133rd Annual Conference, American Library Association, Anaheim, Calif., June 28, 2008.
- Hall-Ellis, Sylvia D., Virginia R. Maloney, and Mary Stansbury. Institutional Responses to Engaged Scholarship: The Carnegie Foundation Engaged University Classification at Two Universities. Presentation delivered to the 94th Annual Conference, Association for Library and Information Science Education, Philadelphia, Pa., January 11, 2008.
- Hall-Ellis, Sylvia D. *Puzzles, Problems, and Predicaments*. Presentation delivered to the ALCTS Research Discussion Group, 132nd Annual Conference, American Library Association, Washington, D.C., June 23, 2007.
- Hall-Ellis, Sylvia D. Cataloging Education: A New Emphasis for the Library and Information Science Curriculum. Presentation delivered to the ALCTS Pre-conference, 132nd Annual Conference, American Library Association, Washington, D.C., June 22, 2007. <u>http://www.loc.gov/catdir/cpso/careercat.html</u>
- Ellett, Jr., Robert O. and Sylvia D. Hall-Ellis. Copy Cataloging Done Smarter. Presentation delivered to the International Conference on Interdisciplinary Information Sciences and Technologies (InSciT2006), October 25-28, 2006.
- Hall-Ellis, Sylvia D. and Robert O. Ellett, Jr. Cooperative Cataloging: Challenges and Opportunities for Defense Libraries. Presentation delivered to the 1st Annual Conference of Defense Libraries, Spanish Ministry of Defense, Madrid, Spain, July 7, 2006.
- Hall-Ellis, Sylvia D. Cataloger Competencies: Do the Employers Require What the Professors Teach? Presentation delivered to the ALCTS CCS Heads of Cataloging Discussion Group, 131st Annual Conference, American Library Association, New Orleans, La., June 26, 2006.
- Grealy, Deborah S. and Sylvia D. Hall-Ellis. *From Research to Practice: The Scholarship of Teaching and Learning in LIS Education*. Presentation delivered to the at the 92nd Annual Conference, Association for Library and Information Science Education, San Antonio, Tex., January 18, 2006.
- Hall-Ellis, Sylvia D. Employers' Expectations for Entry-Level Catalogers: What Position Announcement Data Indicate. Research paper delivered to the Technical Services Special Interests Group, 91st Annual Conference, Association for Library and Information Science Education, Boston, Mass., January 12, 2005. <u>http://dlist.sir.arizona.edu/</u>

- Hall-Ellis, Sylvia D. Common Errors in MARC Records Prepared by LIS Students: What Does It Mean? Research paper delivered to the ALCTS CCS Cataloging Norms Discussion Group, Mid-Winter Conference, 90th American Library Association, San Diego, Calif., January 10, 2004.
- Hall-Ellis, Sylvia D. Visual Arts as Foundation for Successful Library Automation: The Rocky Mountain College of Art & Design Experience. Paper delivered at the 6th Annual Conference of Higher Education, Charleston, S. C., 1993.
- Hall, Sylvia D. *Design Elements for Bibliographic Databases: An Overview*. Paper delivered at the 14th Online National Conference, New York, 1983.

Invited Regional Conference Presentations

- Hall-Ellis, Sylvia D., Hudson, Christopher D., Brittany Cronin, and Kathryn Michaels. "The Colorado Law Project: Meeting the Public's Need for Legal Information." Panel discussion delivered at the Mountain Plains Library Association Conference, Billings, Mont., April 9, 2011.
- Grealy, Deborah S. and Sylvia D. Hall-Ellis. *Education for Information Professionals in New Mexico: Library & Information Science Graduate Education at the University of Denver*. Presentation delivered at the New Mexico Library Education Summit, Las Vegas, N.M., September 26, 2005.
- Hall-Ellis, Sylvia D. *Public Library-School Library Partnerships*. Presentation delivered at the 3rd Annual Colorado Association of Libraries Conference with the Mountain Plains Library Association, Denver, Colo., October 22, 2004.
- Hall-Ellis, Sylvia D. Learn All You Can Educational Partnership Opportunities for the Lewis and Clark Bicentennial Commemoration. Paper delivered at the 3rd Annual Lewis and Clark Bicentennial Council National Planning Conference, Bismarck, N.D., April 26, 1998.

Invited State Conference Presentations

- Grealy, Deborah S. and Sylvia D. Hall-Ellis. Academic Library Leadership Changes: Using Succession Planning and Mentoring. Presentation delivered at the Minnesota Library Education Conference, St. Cloud, Minn., October 10, 2013.
- Hall-Ellis, Sylvia D., Merrie Valliant, and Melissa Powell. RDA: What Is It and What Do You Need To Do With It At Your Library? Presentation delivered at the Colorado Library Consortium Spring Conference, Ft. Morgan, Colo., April 26, 2013.
- Hall-Ellis, Sylvia D. Service Learning and the Library & Information Science Graduate Education at the University of Denver. Presentation delivered at the 4th LEADS Scholars Orientation, Denver, Colo., August 5, 2009.
- Hall-Ellis, Sylvia D. Service Learning: Enhancement to Library & Information Science Graduate Education at the University of Denver. Presentation delivered at the 3rd LEADS Scholars Orientation, Denver, Colo., June 2008.
- Hall-Ellis, Sylvia D. *Law Librarianship: A Community Conversation*. Sponsored by the Colorado Association of Law Libraries. Paper delivered at the Colorado Supreme Court Library, Denver, Colo., May 14, 2008.
- Hall-Ellis, Sylvia D. *Opportunities and Challenges in Law Librarianship: A Community Conversation.* Presentation delivered at the Sturm College of Law, Denver, Colo., November 7, 2007.
- Hall-Ellis, Sylvia D. *Grant Writing Resources for Nursing Professionals*. Presentation delivered at the Presbyterian / St. Luke's Health One Medical Center 1st Annual Research Symposium, Denver, Colo., October 17, 2007.

- Hall-Ellis, Sylvia D. Project Homeless Connect 4 Event Evaluation Insights and Lessons Learned. Presentation delivered at the Homelessness Research Symposium: What is DU Doing about Homelessness in Denver, Denver, Colo., September 14, 2007.
- Hall-Ellis, Sylvia D. Service Learning and the Library & Information Science Graduate Education at the University of Denver. Presentation delivered at the 2nd LEADS Scholars Orientation, Denver, Colo., August 10, 2007.
- Hall-Ellis, Sylvia D. Education for Information Professionals in a Digital Environment: Library & Information Science Graduate Education at the University of Denver. Presentation delivered at the 15th Spring Mountains and Plains Parapros Conference, Denver, Colo., February 24, 2007.
- Hall-Ellis, Sylvia D. Public Library Service to Spanish-Speaking and Latino Residents in Denver: A Case Study. Presentation delivered at the 4th Annual Colorado Association of Libraries Conference, Denver, Colo., November 10, 2005.
- Hall-Ellis, Sylvia D. Education for Information Professionals in a Digital Environment: Library & Information Science Graduate Education at the University of Denver. Presentation delivered at the 14th Annual Mountains and Plains Parapros Conference, Aurora, Colo., July 29, 2005.
- Hall-Ellis, Sylvia D. *Educational Opportunities: Library & Information Science Graduate Education at the University of Denver*. Presentation delivered at the 13th Annual Mountains and Plains Parapros Conference, Centennial, Colo., August 6, 2004.
- Hall-Ellis, Sylvia D. Library Education & Training: Focus on the West: An LIS Faculty Member's Personal Response. Presentation delivered at the 1st Annual Colorado Association of Libraries Conference, Keystone, Colo., October 18, 2002.
- Hall-Ellis, Sylvia D. *Grant Writing for School Librarians*. Presentation delivered at the 2002 Annual Colorado Education Media Association Conference, Colorado Springs, Colo., February 15, 2002.
- Hall-Ellis, Sylvia D. *Grants Opportunities for the Future*. Paper delivered at the Southeast Regional Accountability Annual Conference, Lamar, Colo., November 12, 1998.
- Hall-Ellis, Sylvia D. The Texas Library Connection and Interlibrary Loan: An Experiment in Resource Sharing. Paper delivered at the Texas Computer Educators' Association Annual Conference, Austin, Tex., February 6, 1997.
- Hall-Ellis, Sylvia D. Finding Grant Sources on the Internet: A Guide for Librarians. Paper delivered at the 2nd Annual Institute for School Library Personnel, Pharr-San Juan-Alamo North High School, Pharr, Tex., July 29, 1996.
- Hall-Ellis, Sylvia D. *Mathematical and Logical Thinking: A Critical Intelligence*. Paper delivered at the 3rd Annual Paraprofessional Conference at the University of Texas Pan American, Edinburg, Tex., March 8, 1996.
- Hall-Ellis, Sylvia D. *Cataloging Trends and Issues: Update Session.* Paper delivered at the 1st Annual Institute for School Library Personnel, South Texas Community College, McAllen, Tex., July 19, 1995.
- Hall-Ellis, Sylvia D. Grant Writing: Tips and Encouragement for School Librarians. Paper delivered at the 1st Annual Institute for School Library Personnel, South Texas Community College, McAllen, Tex., July 18 and 19, 1995.
- Hall-Ellis, Sylvia D. *How to Become an Expert Grant Writer*. Paper delivered at the 3rd Annual High School Principals' Academy, South Padre Island, Port Isabel, Tex., June 19, 1995.

- Hall-Ellis, Sylvia D. *Texas Library Study: Results from Regions I and II*. Paper delivered at the 3rd Annual Technology Conference, Texas A&M University, College Station, Tex., November 18, 1994.
- Hall-Ellis, Sylvia D. *Academic Achievement and Middle School Students*. Paper delivered at the 8th Annual Young Adult Conference, Sam Houston State University, Huntsville, Tex., November 5, 1994.
- Hall-Ellis, Sylvia D. *Multimedia Resources for Library Leaders*. Paper delivered at the Institute for Librarians in A Multicultural Environment, Sam Houston State University, Huntsville, Tex., June 10, 1994.
- Hall-Ellis, Sylvia D. Finding the Resource: Empowering the User, or, the Case for Curriculum Based Subject Access to Learning Resource Center Collections. Paper delivered at the 81st Annual Texas Library Association Conference, Corpus Christi, Tex., April 12-16, 1994.
- Hall-Ellis, Sylvia D. and William H. Pichette. Sam Houston State University Makes Use of OCLC/AMIGOS Collection Analysis CD. Paper delivered at the 81st Annual Texas Library Association Conference, Corpus Christi, Tex., April 12-16, 1994.
- Hall, Sylvia D. *Funding and Library Development in Pennsylvania: A Symbiotic Relationship.* Paper delivered at the Annual Graduate Student Colloquia, University of Pittsburgh, School of Library and Information Science, 1982.
- Hall, Sylvia D. *Leadership for Public Library Trustees*. Paper delivered for the Trustees Division, Pennsylvania Library Association Annual Conference, Lancaster, Penn., 1981.

Seminar and Professional Development Presentations

- Taylor, Meredith, and Sylvia D. Hall-Ellis. *Talent Management and Succession Planning*. ALCTS eForum, held March 22, 2017.
- Hirsh, Sandra, Heather O'Brien, Michelle Holschuh Simmons, Michael Krasulski, and Sylvia D. Hall-Ellis. Information Services Today: An Introduction. Part 3: Information Services: Roles in the Digital Age. Rowan and Littlefield in partnership with Library Journal webinar, recorded February 5, 2015.
- Hall-Ellis, Sylvia D. and Jennifer Sweda. *Copy Cataloging in an RDA Environment*. ALCTS eForum, held May 14 and 15, 2013.
- Hall-Ellis, Sylvia D. Law Librarianship: A Community Conversation. Sponsored by the Colorado Association of Law Libraries, presented at the Colorado Supreme Court Library, Denver, Colo., May 14, 2008.
- Hall-Ellis, Sylvia D. and Beatrice Z. Gerrish. *Reading and Libraries: Recent Research in Reading*. Presentation at the Ricks Center for Gifted Education, Denver, Colo., March 4, 2008.
- Hall-Ellis, Sylvia D. Cataloger Competencies: Do the Employers Require What the Professors Teach? Presentation for the School of Library and Information Science, San José State University, February 12, 2008.
- Hall-Ellis, Sylvia D. and Robert O. Ellett, Jr. Cooperative Cataloging: Rules, Tools, and Conventions for Building a Multi-institutional Catalog. Sponsored for the Spanish Ministry of Defense, Madrid, Spain, July 10, 2006.
- Hall-Ellis, Sylvia D. Cash for Kids: Grant Writing Opportunities for Youth Services Librarians. Sponsored by the Colorado Young Adult Librarians; presented at Bemis Memorial Library, Littleton, Colo., November 13, 2002.
- Hall-Ellis, Sylvia D. *MARC Records and Authority Control: Planning for Bibliographic Database Migration.* Sponsored and held at the Douglas County Public Library, Castle Rock, Colo., May 28, 2002.

Hall-Ellis, Sylvia D. Grant Writing: A Refresher for Librarians. Sponsored by Library and Information Science Program, College of Education, University of Denver; presented at University Center at Chaparral, August 12, 2000.

Hall-Ellis, Sylvia D. Shaking the Money Tree – Basic Grant Writing for Colorado Educators. Sponsored by the Office of Educational Telecommunications of the Colorado Department of Education.
Pikes Peak Community College, Colorado Springs, Colo., November 16, 1998.
Pueblo School District 60, Pueblo, Colo., November 12, 1998.
University of Northern Colorado, Greeley, Colo., November 10, 1998.
United Technology Educational Partnership, Grand Junction, Colo., November 9, 1998.

- Hall-Ellis, Sylvia D. *Cataloging Multimedia, Kits, Globes and Map Materials in USMARC*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., April 24, 1997 and December 12, 1996.
- Hall-Ellis, Sylvia D. New Standards for School Library Media Centers. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., April 15, 1997.
- Hall-Ellis, Sylvia D. *The School Library Media Specialist in the 21st Century: Visions for the Future.* Sponsored and hosted by Pharr-San Juan-Alamo Independent School District, Pharr, Tex., April 4, 1997.
- Hall-Ellis, Sylvia D. *Cataloging Sound Recordings and Audio Materials in USMARC*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., March 20, 1997 and November 21, 1996.
- Hall-Ellis, Sylvia D. *Evaluating and Selecting CD-ROMS for School Library Media Collections*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., March 18, 1997.
- Hall-Ellis, Sylvia D. Cataloging Audiovisual Materials in USMARC. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., February 27, 1997, November 7, 1996 and October 24, 1996.
- Hall-Ellis, Sylvia D. *Introduction to Dialog: Basic Searching Strategies*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., February 14, 1997.
- Hall-Ellis, Sylvia D. *Cataloging Books in USMARC*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., January 30, 1997, October 10, 1996, September 26, 1996 and August 8, 1996.
- Hall-Ellis, Sylvia D. Advanced Internet Searching Techniques for Librarians. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., January 21, 1997.
- Hall-Ellis, Sylvia D. *Texas Library Connection Full-Text Searching*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., December 13, 1996 and October 25, 1996.
- Hall-Ellis, Sylvia D. *Developing Evaluation Strategies for Grants and Proposals*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., December 10, 1996.
- Hall-Ellis, Sylvia D. Developing Needs Assessment for Grants and Proposals. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., November 12, 1996.
- Hall-Ellis, Sylvia D. *Texas Library Connection Union Catalog Searching*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., November 8, 1996 and September 6, 1996.
- Hall-Ellis, Sylvia D. *Grant Resources on the Internet*. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., October 23, 1996.

- Hall-Ellis, Sylvia D. Preparing a Response to the Telecommunications Infrastructure Fund Board: Needs Assessment, Professional Development Framework, and Evaluation Strategies. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., October 16, 1996.
- Hall-Ellis, Sylvia D. Texas Library Connection: Building the Districtwide Bibliographic Database. Sponsored and hosted by Mercedes Independent School District, Mercedes, Tex., September 13, 1996 and August 8, 1996. Sponsored and hosted by Los Fresnos Consolidated Independent School District, Los Fresnos, Tex., August 12, 1996.
- Hall-Ellis, Sylvia D. School-to-Work and Special Education: An Inclusive Partnership for Success. Sponsored and hosted by the Office of Special Education, Region One Education Service Center, Edinburg, Tex., September 11, 1996.
- Hall-Ellis, Sylvia D. *Telecommunications Infrastructure Fund Board: An Overview of Funding for Secondary Schools.* Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., August 31, 1996.
- Hall-Ellis, Sylvia D. *Cataloging Books, Multimedia, and Realia in USMARC*. Sponsored and hosted by Edinburg Consolidated Independent School District, Edinburg, Tex., August 6, 1996.
- Hall-Ellis, Sylvia D. Internet Resources for Grant Writers. Sponsored and hosted by Region One Education Service Center, Edinburg, Tex., April 20, 1996.
- Hall-Ellis, Sylvia D. Enhanced Grant Writing Skills for Mathematics Educators: Writing Skills for Campus Teams. Sponsored and hosted by the Office of General Education, Region One Education Service Center, Edinburg, Tex., March 22, 1996.
- Hall-Ellis, Sylvia D. *Internet Resources for Grant Writers*. Sponsored and hosted by the College of Education and Applied Science, Sam Houston State University, Huntsville, Tex., March 9, 1996.
- Hall-Ellis, Sylvia D. Grant Writing for Mathematics Educators: A Development Process for Campus Teams. Sponsored and hosted by the Office of General Education, Region One Education Service Center, Edinburg, Tex., March 4, 1996.
- Hall-Ellis, Sylvia D. Shaking the Money Tree: Preparing Successful Technology Grant Applications. Sponsored and hosted by the Office of Technology and Media Services, Region One Education Service Center, Edinburg, Tex., February 29, 1996 and April 29, 1996.
- Hall-Ellis, Sylvia D. District-wide Technology Planning: Technical Assistance for the Texas Education Agency Initiative. Sponsored and hosted by the Office of Technology and Media, Region One Education Service Center, Edinburg, Tex., February 2, 1996.
- Hall-Ellis, Sylvia D. *Enhanced Grant Writing Skills*. Sponsored and hosted by Pharr-San Juan-Alamo Independent School District, Pharr, Tex., January 27, 1996.
- Hall-Ellis, Sylvia D. United States Copyright Act of 1976, Video Transmissions, Computer Software and the Internet. Sponsored and hosted by the Office of Technology and Media, Region One Education Service Center, Edinburg, Tex., January 24, 1996.
- Hall-Ellis, Sylvia D. *The Grant Writing Development Process*. Sponsored and hosted by Pharr-San Juan-Alamo Independent School District, Pharr, Tex., January 20, 1996.
- Hall-Ellis, Sylvia D. *MARC Cataloging of Materials for Library Media Centers*. Sponsored and hosted by the Office of Media Services, Region One Education Service Center for the Donna Independent School District, Donna, Tex., August 17, 1995.

- Hall-Ellis, Sylvia D. *Classification*. Sponsored by AJ Seminars, Rockville, Maryland; presented at University Hilton Hotel, Houston, Tex., May 10, 1995.
- Hall-Ellis, Sylvia D. *Library Technical Services*. Sponsored by AJ Seminars, Rockville, Maryland; presented at University Hilton Hotel, Houston, Tex., April 26, 1995.
- Hall-Ellis, Sylvia D. *Grant Writing: An Introduction for Public School Administrators.* Sponsored and hosted by the Office of Administrative Services, Region One Education Service Center, Edinburg, Tex., April 19, 1995.
- Hall-Ellis, Sylvia D. *The School Library Media Specialist in the 21st Century: Visions for the Future.* Sponsored and hosted by the United Independent School District, Laredo, Tex., March 31, 1995.
- Hall-Ellis, Sylvia D. Using USMARC. Sponsored by AJ Seminars, Rockville, Maryland; presented at University Hilton Hotel, Houston, Tex., March 29, 1995.
- Hall-Ellis, Sylvia D. Library Media Center Policies and Guidelines: How to Prepare for School Board Adoption. Sponsored and hosted by the Office of Technology and Media Services, La Joya Independent School District, La Joya, Tex., March 10, 1995.
- Hall-Ellis, Sylvia D. Developing District-wide Policies and Guidelines for Library Media Centers. Sponsored and hosted by the Office of Technology and Media Services, La Joya Independent School District, La Joya, Tex., January 10, 1995.
- Hall-Ellis, Sylvia D. *MARC Cataloging of Audiovisual Materials for Library Media Centers*. Sponsored and hosted by the Office of Library Media and Technology Services, Cypress-Fairbanks Independent School District, Houston, Tex., December 1, 1994.
- Hall-Ellis, Sylvia D. *The School Library Media Specialist in the 21st Century: Visions for the Future.* Sponsored and hosted by United Independent School District, Laredo, Tex., October 14, 1994.
- Hall-Ellis, Sylvia D. *The School Library Media Specialist in the 21st Century: Visions for the Future.* Sponsored and hosted by the Laredo Independent School District, Laredo, Tex., October 7, 1994.
- Hall-Ellis, Sylvia D. *MARC Cataloging for Library Media Centers*. Sponsored by the Office of Library Media and Technology Services, Cypress-Fairbanks Independent School District, Houston, Tex., October 5, 1994.
- Hall-Ellis, Sylvia D. Jump to the Head of the Class: Undergraduate Library Resources Available at Sam Houston State University. Sponsored by the Office of the Associate Vice President for Student Services, Sam Houston State University, Huntsville, Tex., October 4, 1994.
- Hall-Ellis, Sylvia D. CD-ROMs 1994's Newest and the Best for Secondary Level Media Centers. Sponsored and hosted by Clear Lake Independent School District, Houston, Tex., June 3, 1994.
- Hall-Ellis, Sylvia D. *Introduction to Classification*. Sponsored by AJ Seminars, Rockville, Maryland; presented at Holiday Inn, Market Center, Dallas, Tex., May 18, 1994.
- Hall-Ellis, Sylvia D. *Basic Descriptive Cataloging*. Sponsored by AJ Seminars, Rockville, Maryland; presented at University Hilton Hotel, Houston, Tex., May 4, 1994.
- Hall-Ellis, Sylvia D. Shaking the Money Tree Part II: Writing Successful Grant Applications. Sponsored by Donna Independent School District, Donna, Texas, and Region One Education Service Center Edinburg, Texas; presented at South Texas Community College Library, McAllen, Tex., April 29, 1994.
- Hall-Ellis, Sylvia D. *Using MARC*. Sponsored by AJ Seminars, Rockville, Maryland; presented at Holiday Inn, Market Center, Dallas, Tex., April 6, 1994.

- Hall-Ellis, Sylvia D. *Automated Authority Control*. Sponsored by AJ Seminars, Rockville, Maryland; presented at University Hilton Hotel, Houston, Tex., March 23, 1994.
- Hall-Ellis, Sylvia D. Automating the District School Library Media Centers: Choices and Opportunities. Sponsored and hosted by the Office of Technology and Library Media Services, Fort Bend Independent School District, Sugar Land, Tex., March 4, 1994.
- Hall-Ellis, Sylvia D. *Shaking the Money Tree Part I: Preparing Successful Grant Applications*. Sponsored and hosted by the Office of Library Media Services, Donna Independent School District, Donna, Tex., February 4, 1994.

GRADUATE COURSES TAUGHT

San José State University, School of Library and Information Science

- INFO 249 Advanced Cataloging and Classification (Fall 2015, 2016; Summer 2016)
- INFO 287 Special Topics in Cataloging and Classification (Spring 2017, 2018, 2019)
- LIBR 248 Beginning Cataloging and Classification (Summer 2002, 2003, 2004, 2005, 2006)
- LIBR 249 Advanced Cataloging and Classification (Summer 2003; Fall 2014; Summer 2015)

University of Denver, Morgridge College of Education

- HED 5991 Grant Writing in Higher Education (Spring 2011)
- LIS 4010 Organization of Information (Fall 2002, 2003, 2004, 2005, 2006, 2009; Winter 2005; Spring 2004, 2005, 2006)
- LIS 4020 Professional Principles and Ethics (Summer 2000)
- LIS 4040 Management of Libraries and Information Centers (Fall 2010; Spring 2003, 2009 (DS); Winter 2005)
- LIS 4070 Cataloging and Classification (Winter 2008, 2009, 2010, 2011, 2012; Fall 2009 (DS))
- LIS 4321 Collection Management (Spring 2005)
- LIS 4326 LIS Research (Winter 2009 (DS); Spring 2009 (DS))
- LIS 4350 Adult Materials and Services (Summer 2006, 2009)
- LIS 4379 Social Sciences Resources (Spring 2009)
- LIS 4400 Cataloging and Classification (Spring 2000, 2001; Winter 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009; Summer 2005, 2006 course renumbered LIS 4070, September 2007)
- LIS 4401 Descriptive Cataloging (Winter 2001; Spring 2002, 2003, 2006, 2007, 2008, 2009; Summer 2005)
- LIS 4402 Subject Cataloging (Spring 2001, 2009; Summer 2005, 2006, 2007, 2008)
- LIS 4403 Classification Schemes (Fall 2007, 2008, 2009 (DS))
- LIS 4405 Authority Control (Winter 2009)
- LIS 4510 Materials and Services for Children (Winter 2004; Summer 2005)
- LIS 4620 Grant Writing and Fundraising (Summer 2000, 2002, 2004, 2010; Winter 2006; Fall 2006, 2007, 2008, 2009)
- LIS 4700 Seminar in Technical Services (Fall 2001)
- LIS 4700 Seminar in Public Libraries (Summer 2002)
- LIS 4804 Management of Electronic Records (Spring 2004; Fall 2005)
- LIS 4902 Capstone Projects (Winter 2003, Spring 2008, 2009, 2011)
- LIS 4910 Independent Study (every quarter Winter 2000 through Spring 2011)
- LIS 4920 Service Learning (every quarter Summer 2004 through Spring 2011)
- RMS 4954 Grant Writing (Summer 2013, 2014)
- RMS 4959 Content Analysis Methodology (Spring 2015)
- QRM 4978 Grant Writing (Summer 2011, 2012)

Rutgers University, School of Communication and Information

SC&I 522 - Cataloging and Classification (Summer 2013)

University of Arizona, College of Behavioral and Social Sciences

- LIS 602 Cataloging and Classification (Summer 1995)
- LIS 612 Advanced Online Search and Retrieval (Summer 1995)

Sam Houston State University, College of Education & Applied Science

- LIS 532 Cataloging and Classification (Fall 1993, 1994, 1995)
- LIS 563 Advanced Cataloging and Classification (Summer 1994)
- LIS 567 Research Methods (Spring 1994, Spring 1995)
- LIS 591 Educational Technology (Spring 1994, 1995)

LIS 596 - Networking and Computer Technologies in Education (Fall 1993, Summer 1994, Fall 1995)

Dissertations at the University of Denver

- Bowers, Stacey L. Library Anxiety of Law School Students: A Study Utilizing the Multidimensional Library Anxiety Scale. Chair, May 5, 2010.
- Fattor, Melissa M. Student Engagement Differences by Ethnicity and Scale for Ninth Grade Students. Chair, November 1, 2010.
- Fulton, Roseanne. A Case Study of Culturally Responsive Teaching in Middle School Mathematics. Kent Seidel, Chair, June 18, 2009, Outside Chair.
- Grealy, Deborah S. *Tribes and Territories in Library and Information Studies Education*. Bruce Uhrmacher, Chair, June 10, 2008, Committee Member.
- McCord, J. Michael. Developing a Standard of Care for Educational Malpractice. Chair, April 15, 2011.
- Priebe, Sarah J. Distinguishing Effects of Domain and General Knowledge on Passage Fluency and Comprehension. Jan Keenan, Chair. July 21, 2011, Outside Chair.
- Snyder-Mondragon, Sandra M. Institutional Factors that Impact the Retention of Graduate Students of Color in Schools of Library and Information Science: A Metaregression of Accredited Library School Statistics on Student Retention and Graduation Rates. Kathy Green, Chair, July 24, 2009, Committee Member.

Taylor, Karen Pickles. Effective Teaching. Elinor Katz, Chair, July 15, 2009, Outside Chair.

- Thompson, Jennifer. Distinguishing a Western Women's College: A History of the Curriculum and Student Experience at Colorado Women's College. Edith W. King, Chair, July 16, 2010, Committee Member.
- Walker, Emelda. Influence of Organizational Factors on Job Satisfaction of Disability Service Providers at Postsecondary Institutions. Chair, April 29, 2010.

Dissertation Proposals at the University of Denver

- Bowers, Stacey L. Library Anxiety of Law School Students: A Study Utilizing the Multidimensional Library Anxiety Scale. Chair, November 5, 2009.
- McCord, J. Michael. *Developing a Standard of Care for Educational Malpractice*. Edith W. King, Chair. April 23, 2010.
- Thompson, Jennifer. *History of Colorado Women's College*. Edith W. King, Chair, October 30, 2008. Committee Member.
- Walker, Emelda. Influence of Organizational Factors on Job Satisfaction of Disability Service Providers at Postsecondary Institutions. Chair, July 21, 2009.

Dissertations at Other Institutions

Rodríguez-Mori, Howard. *The Information Behavior of Puerto Rican Immigrants to Central Florida, 2003-2009: Grounded Analysis of Six Case Studies Use of Social Networks during the Migration Process.* Kathleen Burnett, Chair, April 10, 2009, Florida State University, Committee Member.

Schwartz, Brian More than a Look-up Skill: Medical Information Literacy Education in Osteopathic Medical Schools. D. Mirah Dow, Chair, July 18, 2017. Emporia State University, Committee Member.

Snow, Karen. A Study of the Perception of Cataloging Quality among Catalogers. Shawne D. Miksa, Chair, August 1, 2011. University of North Texas, Committee Member.

Dissertation Proposals at Other Institutions

- Schwartz, Brian More than a Look-up Skill: Medical Information Literacy Education in Osteopathic Medical Schools. D. Mirah Dow, Chair, December 4, 2015. Emporia State University, Committee Member.
- Snow, Karen. A Study of the Perception of Cataloging Quality among Catalogers. Shawne D. Miksa, Chair, May 11, 2010. University of North Texas, Committee Member.

Master's Thesis at the University of Denver

Hemingson, Jeff. Recital Paper. Lamont School of Music, February 2010, Outside Chair.

Capstones at the University of Denver

- Anthony, Alisa. Correlation of Library and Information Science Program outcomes and Vacant Position Qualifications Listed on the Colorado State Library Jobline by Employers During the Period September 1, 2000 through August 31, 2002. Chair, Winter Quarter, 2003.
- Borden, Donna M. Improving Emergency Communications Systems: Is a Radio Communications Network the Answer? Fall Quarter, 2014.
- Bowden, Heather L.M. Exploring Biological Models for Long-term Data Preservation. Chair, Spring Quarter, 2008.
- Casenada, Cassandra Y. Challenges to the Recruitment, Education, and Retention of Librarians of Color. Chair, Spring Quarter, 2008.

Chang, Jennifer C. Legal Research Practice and Preference: A Law Firm Perspective. Chair, Spring Quarter 2011.

- Ellis, Megan S. Fitzgerald. Design of a Public Library Adult Volunteer Recruitment Program and Training Curriculum. Chair, Winter Quarter, 2003.
- Kircher, Kathy. Development of a Library Pathfinder for Exobiology and Posting it on the Internet. Chair, Winter Quarter, 2003.
- Melhado, Loretta. Design of St. John's Episcopal Church Library. Chair, Spring Quarter, 2008.
- Radcliff, Kathy. Original Cataloging of Archival materials in the HERS Collection in Penrose Library. Chair, Winter Quarter, 2003.
- Sass, Carol Ann. ACT Periodical Index: Access to Catholic Thinking Periodical Index: Web Index to Select Catholic Periodicals. Spring Quarter 2000.
- Stone, Sergio D. Conducting Community Analysis for the Bemis Public Library (Littleton, Colorado) Using 2002 U.S. Census Data and the Online Outcome-Based Evaluation Toolkit. Chair, Winter Quarter, 2003.
- Tureson, Tamara. Design and Use of an Information Audit Tool for Use in a Law Library. Chair, Winter Quarter, 2003.
- Tweed, Beth. Evaluation of Email Reference Service in a Consumer Health Library Environment. Chair, Winter Quarter, 2003.

GRANTS AND CONTRACTS

- Student Learning in Agriculture STEM through Teacher Professional Development. Research team: Stanton Gartin (PI) and Cyndi Hofmeister, Northeast Junior College; Jeff Cash, Cheryl Sánchez, Anne-Marie Crampton, Lamar Community College; Suzanna Spears, Morgan Community College; Jack Wiley, Kerry Gabrielson, Trinidad State Junior College; Michael J. Miller, Colorado State University; Michael Womochil (Co-PI), Casey Sacks, and Sylvia D. Hall-Ellis, Colorado Community College System. U.S. Department of Agriculture, Agriculture and Food Research Initiative, Food, Agriculture, Natural Resources and Human Sciences Education and Literacy Initiative, \$404,460 (2017-2020)
- Leading and Achieving: the Colorado Agriculture Regional Consortium. Research team: Jack Wiley (PI), Kerry Gabrielson, Trinidad State Junior College; Jeff Cash (PI), Cheryl Sánchez, Anne-Marie Crampton, Lamar Community College; Suzanna Spears, Morgan Community College; Cyndi Hofmeister, Northeast Junior College; Michael Womochil (Co-PI), Casey Sacks, and Sylvia D. Hall-Ellis, Colorado Community College System. U.S. Department of Agriculture, Hispanic Serving Institutions Education Grants Program, \$504,414 (2017-2020)
- Cyber Prep Program Planning Grant. Research team: Debbie Sagen (PI), Brenda Lauer, Pikes Peak Community College; Gretchen Martin, Koiosa Insights; and, Sylvia D. Hall-Ellis, Colorado Community College System. U.S. Department of Commerce, Regional Alliances and Multi-stakeholder Partnerships to Stimulate (RAMPS) Cybersecurity Education and Workforce Development, \$199,681 (2016-2018)
- *Career and Technical Education in Colorado: Pathways to Education and Employment.* Research team: Heather McKay (PI), Rutgers University; Sarah Heath, Casey Sacks, Sylvia D. Hall-Ellis, Colorado Community College System. U.S. Department of Education, Institute of Education Sciences, \$1,400,000 (2017-2021)
- Pre-Alliance Planning Grant Colorado Community College Alliance. Research team: Victor Vialpondo (PI) and Janel Highfill, Community College of Aurora; Heidi Loshbaugh (Co-PI), Community College of Denver; Rick Reeves, Bill McGreevy, Liz Cox, and Kristin Aslin, Red Rocks Community College; Cathy Pellish, Front Range Community College; Samuel DeVries, Arapahoe Community College; Sylvia D. Hall-Ellis, Colorado Community College System. National Science Foundation, Louis Stokes Alliance for Minority Participation (LSAMP), \$86,817 (2016-2017)
- Towards Scalable Differentiated Instruction Using Technology-enabled, Competency-based, Dynamic Scaffolding. Research team: Karen Wilcox (PI) and Vijay Kumar, Center for Computational Engineering, Massachusetts Institute of Technology; Flora McMartin, Broad-based Knowledge; Quinsigamond Community College; and, Casey Sacks, and Sylvia D. Hall-Ellis, Colorado Community College System. U.S. Department of Education, First in the World Developmental Grant, \$2,891,882 (2015-2019)
- *Colorado Strategic Partnerships Emergency Grant.* Research team: Elise Lowe-Vaughn (PI), Amy Hodson, Celia Hardin, Barbara McBride, James Newby, Christopher Dewhurst, Nina Holland, Kate Anderson, MaryAnn Roe, Chrystalynn Chrystalynn, Elaine Edon, Mona Barnes, Tom Morgan, Rob Hanni, and Marie Valenzuela, Colorado Department of Labor and Employment; Steve Anton, Joelle Brouner, and, Katie Griego, Colorado Department of Human Services; Rebecca Holmes, Judith Martinez, and Jennifer Jirous, Colorado Department of Education; Emily Templin Lesh, Colorado Workforce Development Council; Cory Everett, Colorado Department of Regulatory Agencies; and, Casey Sacks and Sylvia D. Hall-Ellis, Colorado Community College System. U.S. Department of Labor, Strategic Partnerships Emergency Grant, \$5,000,000 (2015-2017)
- CAEL Jump Start Program: Competency-Based Education. Research team: Jerry Migler (PI), Casey Sacks, Debra Cohn, Thomas Hartman, and Sylvia D. Hall-Ellis, Colorado Community College System; Matt Jamison, Front Range Community College; Mike Coste, Red Rocks Community College; Amanda Corum, Pueblo Community College; Janet Colvin, Pikes Peak Community College; and, MaryAnn Matheny, Community College of Denver. Council for Adult and Experiential Learning, \$15,000 (2015)

- Summit on the Redesign of Developmental Education. Research team: Jerry Migler (PI), Casey Sacks, and Sylvia D. Hall-Ellis, Colorado Community College System; Chip Nava, Pueblo Community College; Kim Moultney, Arapahoe Community College; Debbie Ulibarri, Trinidad State Junior College; and, Kris Bernard, Front Range Community College. American Association of Community Colleges, \$15,000 (2015-2016)
- *Equity in Excellence at Colorado Community Colleges.* Research team: Keith Howard (PI) and Sylvia D. Hall-Ellis, Colorado Community College System; Estela Mata Bensimon, Center for Urban Education, University of Southern California; and Kerry Gabrielson, Trinidad State Junior College. Colorado Department of Higher Education, Colorado Opportunity Scholarship Program, \$150,000 (2015-2016)
- MBA High School of Business in Colorado. Research team: Laurie Urich (PI) and Sylvia D. Hall-Ellis, Colorado Community College System; Rudolph Sumpter and Beatrice Gerrish, Boulder Valley Schools; Keith Curry Lance, RSL Research Group. Colorado Department of Higher Education, Colorado Opportunity Scholarship Program, \$501,295 (2015-2016)
- Fullbridge Program in Colorado. Research team: Keith Howard (PI) and Sylvia D. Hall-Ellis, Colorado Community College System; Suzanna Spears, Fort Morgan Community College; and, Cheryl Sánchez and Anne-Marie Compton, Lamar Community College. Colorado Department of Higher Education, Colorado Opportunity Scholarship Program, \$300,000 (2015-2017)
- *Colorado Community College System Alternative Credit Program.* Research team: Jerry Migler (PI), Keith Howard, and Sylvia D. Hall-Ellis, Colorado Community College System. American Council on Education, \$13,000 (2015)
- Internationalization in Higher Education. Researcher: Samuel D. Museus. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Internationalization, \$8,000 (2014-2015)
- *International Perspectives on Bilingual Education*. Researcher: Sharolyn Pollard-Durodola. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Internationalization, \$3,700 (2014-2015)
- *Cultivating Culturally Relevant and Responsive Curriculum and Pedagogy in College.* Researcher: Samuel Museus. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, iRise Grant, \$5,000 (2014-2015)
- Project EMERGE (Educational Model for Evaluation and Replicability in Gifted Environments). Research team: Norma Hafenstein (PI) and Bruce Uhrmacher. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Lynde and Harry Bradley Foundation, \$235,000 (2014-2015)
- *Collecting Asian American Refugee Stories*. Researcher: Samuel Museus. Technical reviewer for MCE: Sylvia D. Hall-Ellis. American Educational Research Association, Research Grant, \$5,000 (2014-2015)
- *Developing Expertise in Teaching K-5 Mathematics.* Research team: Julie Sarama (PI) and Douglas H. Clements (Co-PI), in partnership with the School of Education at the University of Michigan. Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Science Foundation, \$130,344 (2013-2015)
- Investigation of the Long-Term Outcomes for Special Education Students. Researcher: Antonio Olmos-Gallos. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Jefferson County School District, Office of Assessment, \$40,000 (2014)
- *Refugee Community Collaboration.* Researcher: Vicki Tomlin (PI) in partnership with the African Community Center and Jewish Family Service. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Center for Community Engagement and Service Learning, \$14,854 (2014-2015)

- Access to Mathematics for All. Research team: Richard S. Kitchen (PI), Nicole M. Russell (Co-PI), and Terrence Blackman (Co-PI), Curriculum Studies and Teaching Program, Morgridge College of Education; Álvaro Árias (Co-PI, Department of Mathematics); and, James Gray (Co-PI), Department of Mathematics, Community College of Aurora. Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Science Foundation, The Robert Noyce Scholarship Program, Capacity Building Project, \$349,926 (2014-2016)
- Cognitive Test Battery for Intellectual Disabilities. Research team: Karen Riley (PI), Lyndsay Agans, Jessica Lerner, and Karin Dittrick-Nathan in partnership with David Hessl (PI), The MIND Institute at the University of California – Davis, and Elizabeth Berry-Kravis, Rush University Medical Center. Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Institutes of Health, Outcome Measures for Use in Treatment Trials for Individuals with Intellectual and Developmental Disabilities (R01), \$2,499,996 (\$588,672 at DU) (2014-2019)
- Broadening Participation in Engineering among Women and Latino/as: A Longitudinal, Multi-Site Study. Researcher: Patton Garriott (PI) in partnership with the University of North Dakota and the University of Missouri. Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Science Foundation, HER Core Research, \$677,390 (\$69,992 at DU) (2014-2019)
- Designing a Teacher Evaluation System to Improve Teacher Effectiveness for Culturally and Linguistically Diverse Learners. Research team: María del Carmen Sálazar (PI), Jessica Lerner, and Kathy Green. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Professional Research Opportunities for Faculty, \$29,988 (2014-2016)
- Developing a College-Going Culture in Latina/O Families: Exploring the Influence of Funds of Knowledge on Family Outreach Programs. Researcher: Judy Marquez Kiyama. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Professional Research Opportunities for Faculty, \$18,720 (2014-2016)
- Assessment of Quality of Life in Neutral Implantation Surgery for the Treatment of Parkinson's Disease. Researcher: Cynthia McRae. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Internationalization, \$3,967 (2014-2015)
- Pura Vida: Cloud Forest, Curriculum and Cross-Cultural Study. Research team: Norma Hafenstein (PI) and Bruce Uhrmacher (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Internationalization, \$8,000 (2014-2015)
- *Online Course Development for Curriculum and Instruction.* Researcher: Ruth Chao. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Teaching and Learning, \$3,000 (2014)
- Online Course Development for Curriculum and Instruction. Researcher: María del Carmen Sálazar. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Teaching and Learning, \$3,000 (2014)
- Online Course Development for Curriculum and Instruction. Researcher: Jessica Lerner. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Teaching and Learning, \$3,000 (2014)
- Online Course Development for Curriculum and Instruction. Researcher: Duan Zhang. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Teaching and Learning, \$3,000 (2014)
- *The Mathematics Education of African Americans, 1866 1954.* Researcher: Nicole M. Russell. Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Academy of Education, Spencer Foundation Postdoctoral Fellowship, \$55,000 (2014-2016)

- *Early Childhood Care and Education Study*. Research team: Carrie Germeroth (PI), Melissa Mincic, and Douglas H. Clements. Technical reviewer for MCE: Sylvia D. Hall-Ellis. State of North Dakota, Department of Public Instruction, \$73,500 (2013-2014)
- Graduate Level Specialty in Addiction Counselor Training with Emphasis on Integration of Native American Specific Content. Research team: Ruth Chao (PI) and Michael J. Faragher (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. The Galena Foundation, \$289,732 (2013-2016)
- The Collecting Asian American and Pacific Islander Refugee Stories (CARS) Project. Researcher: Samuel Museus. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Center for Community Engagement and Service Learning, \$15,000 (2014)
- Parents in Transition: A Multiple Case Study of Parent and Family Orientation Programs. Researcher: Judy Marquéz Kiyama. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Faculty Research Fund, \$1,500 (2014-2015)
- The Sistah Network: Black Women Graduate Students Supporting and Retaining Each Other. Researcher; Nicole M. Russell. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Faculty Research Fund, \$2,708 (2014-2015)
- *Evaluation of the Northeast Denver Babies Ready for College Program.* Research team: Carrie Germeroth (PI), Melissa Mincic, and Douglas H. Clements. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Mile High Montessori, \$9,922 (2013-2014)
- Developing Teaching Expertise in K-5 Mathematics. Research team: Julie Sarama (PI) and Douglas Clements (University of Denver), in partnership with Timothy Boerst (PI), Meghan Shaughnessy, Deborah Ball, Hyman Bass (School of Education at the University of Michigan). Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Science Foundation, \$449,827 (\$130,344 at the University of Denver (2013-2015)
- *Early Learning Care and Education Study Program Grant for the State of North Dakota.* Research team: Carrie Germeroth (PI), Melissa Mincic, and Sheridan Green. Technical reviewer for MCE: Sylvia D. Hall-Ellis. State of North Dakota Department of Public Instruction, \$73,500 (2013-2014)
- Local Professional Learning Community for School Leaders. Research team: Susan Korach (PI), Kristina Hesbol, and Rebecca McClure. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Education Development Center, \$10,950 (2013)
- Healthy Eaters, Lifelong Movers 2: Implementing Evidence-Based School Environment, Policy, and Curricular Changes to Increase Opportunities for Healthy Eating and Physical Activity in Low Income, Rural Colorado. Research team: Elaine Berlansky, University of Colorado at Denver (PI), Nicholas Cutforth, University of Denver (Co-PI), and Allison Reeds. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Health Foundation, \$3,103,108 (2013-2017)
- Hughes Rare Books Library Room Renovation in the Sturm College of Law. Project team: Patti H. Marks, Sylvia D. Hall-Ellis, and Leigh Elliott. Mabel T. Hughes Charitable Trust, \$34,000 (2013-2014)
- *The Promise Center Partnership with the Marsico Institute for Early Learning and Literacy and the City and County of Denver.* Research team: Karen Riley (PI), Douglas H. Clements (Co-PI), and Sheridan Green. Technical reviewer for MCE: Sylvia D. Hall-Ellis. The Piton Foundation, \$223,468 (2013-2014)
- Center of Excellence for Problem Gambling. Research team: Ruth Chao (PI) and J. Mike Faragher. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Department of Behavioral Health, \$68,021 (2012-2013)
- United Way Implementation and Validation Review. Research team: Douglas H. Clements (PI), Amanda Moreno, and Sheridan Green. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Mile High United Way, \$19,737 (2013)

- *Math/Science Partnership in Rural Districts.* Research team: Kristen Bunn (PI, Eagle County Schools), Paul Michalec (Co-PI), and Alegra Reiber. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Department of Education, Colorado's Mathematics and Science Partnership Program, \$750,000 (2013-2014)
- Mathematics and Science Education of African Americans. Research team: Nicole Russell (PI), Sylvia D. Hall-Ellis, Steve Fisher (Penrose Library). Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Professional Research Opportunities for Faculty, \$29,994 (2013-2015)
- Online Course Development for Curriculum and Instruction. Researcher: Nicole Russell. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Teaching and Learning, \$3,000 (2013)
- Discourse and Opportunity: Undocumented Students and Higher Education Policy. Researcher: Ryan Gildersleeve. Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Academy of Education, Spencer Foundation Postdoctoral Fellowship, \$55,000 (2012-2014)
- An Anthropological Study of the Latino Graduation Ceremony. Researcher: Ryan Gildersleeve. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Spencer Foundation, \$39,900 (2012-2013)
- Fragile-X and Pharmaceutical Company: Clinical Trial of AFQ056. University of California Davis Children's Hospital MIND Institute (Sacramento), Children's Hospital Denver, and Rush Children's Hospital at Rush University Medical Center (Chicago). Karen Riley, PI. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Novartis Pharmaceuticals Corporation, \$394,206 (2012-2014)
- Project Engage, Phase 2, a DAPRA Grant in partnership with Total Immersion Systems, Inc., and Texas A&M University. Research team: Karen Riley (PI) and Lyndsay Agans (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. U.S. Department of Defense, \$60,000 (2011-2013)
- International School Psychology Practicum Exchange. Researcher: Gloria L. Miller. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Center for Community Engagement and Service Learning, \$14,951 (2012-2013)
- Online Course Development for Curriculum and Instruction. Research team: Bruce Uhrmacher (PI) and Norma Hafenstein (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Teaching and Learning, \$18,193 (2012-2014)
- *Writers in the Schools*. Research team: Karen Riley (PI) and Amanda Moreno (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Humanities, \$4,965 (2012-2013)
- Learning Ecosystem Validation Grant. Research team: Karen Riley (PI), Lyndsay Agans, Kent Seidel, and Shimelis Assefa. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Bill & Melinda Gates Foundation, \$315,000 (2012-2013)
- Project Words of Oral Reading and Language Development (WORLD). Research team: Jorge E. Gonzalez (PI), Texas A&M University; Laura Saenz (Co-PI), University of Texas – Pan American; and, Sharolyn Pollard-Durodola (Co-PI), University of Denver. Technical reviewer for MCE: Sylvia D. Hall-Ellis. U.S. Department of Education, Institute of Education Sciences, \$53,354 (2012-2015); award \$640,718, transfer from Texas A&M University
- Increasing the Efficacy of an Early Mathematics Curriculum with Scaffolding Designed to Promote Self-Regulation. Research team: Douglas H. Clements (PI) and Julie Sarama (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. U.S. Department of Education, Institute of Education Sciences, \$1,445,315 (2008-2014); award \$4,541,975, transfer from University at Buffalo, The State University of New York

- Using Rule Space and Poset-based Adaptive Testing Methodologies to Identify Ability Patterns in Early Mathematics and Create a Comprehensive Mathematics Ability Test. Research team: Douglas H. Clements (PI) and Julie Sarama (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Science Foundation, \$323,791 (2010-2014); award \$1,194,944, transfer from University at Buffalo, The State University of New York
- *Comprehensive Postdoctoral Training in Scientific Education Research.* Researcher: Julie Sarama (PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. U.S. Department of Education, Institute of Education Sciences, \$133,458 (2010-2014); award \$613,353, transfer from University at Buffalo, The State University of New York
- Longitudinal Study of a Successful Scaling Up Project: Extending TRIAD. Research team: Douglas H. Clements (PI), Julie Sarama (Co-PI), and Abt Associates (Carolyn Layzer, Fatih Unlu, Laurie Bozzi, Lily Fesler, Alina Martinez, Cristofer Price, James van Orden). Technical reviewer for MCE: Sylvia D. Hall-Ellis. Institute of Education Sciences, \$384,940 (2011-2015; award \$1,250,286, transfer from University at Buffalo, The State University of New York
- Early Childhood Education in the Context of Mathematics, Science, and Literacy. Research team: Julie Sarama (PI), Douglas H. Clements (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. National Science Foundation, \$990,020 (2010-2014; award \$2,285,228, transfer from University at Buffalo, The State University of New York
- *Early Childhood Clearinghouse Information Center Redesign.* Research team: Karen Riley (PI) and Amanda Moreno (Co-PI).Technical reviewer for MCE: Sylvia D. Hall-Ellis. Office of the Lt. Governor of Colorado, \$12,000 (2012-2013)
- *Morgridge Rural Educational Leadership Initiative.* Research team: Lyndsay Agans (PI), Linda Brookhart (Co-PI), Susan Korach, and Rebecca McClure. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Morgridge Family Foundation, \$100,000 (2012-2014)
- *Center of Excellence for Problem Gambling.* Research team: Patrick Sherry (PI) and J. Mike Faragher. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Department of Behavioral Health, \$55,000 (2012-2013)
- Intermodal Transportation Institute Research Initiatives. Researcher: Patrick Sherry. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University Transportation Centers Program, Research and Innovative Technology Administration, U.S. Department of Transportation. \$600,000 (2012-2014)
- Mile High United Way Social Innovation Fund Early Literacy Initiative. Gloria L. Miller, PI, Amanda Moreano, Kim Hartnett-Edwards, and Sheridan Green. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Mile High United Way, \$89,992 (2012-2013)
- International School Psychology Practicum Exchange. Researcher: Gloria L. Miller. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Center for Community Engagement and Service Learning, \$1,000 (2012-2013)
- *Refugee Student Art Outreach.* Researcher: Karin Dittrick-Nathan. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Faculty Research Fund, \$3,000 (2012-2013)
- Resistance, Resilience, and Reciprocity: Centering the Voices of Black Doctoral Women with Faculty Aspirations. Researcher: Nicole M. Russell. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Faculty Research Fund, \$2,965 (2012-2013)
- Assessing Learning through Student Notebooks. Research team: Keith Miller, Nancy Sasaki, and Kathy Green. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Professional Research Opportunities for Faculty, \$30,000 (2012-2014)

- International School Psychology Practicum Exchange. Researcher: Gloria L. Miller. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Internationalization, \$2,000 (2012-2013)
- *ELO in Colorado*. Research team: Cynthia Hazel and Duan Zhang. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Legacy Foundation, \$150,000 (2012-2013)
- *Creating Online LIS Courses.* Research team: Mary C. Stansbury (PI), Shimelis Assefa, Denise Anthony, Xiao Hu, and Krystyna Matusiak. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Center for Teaching and Learning, \$15,000 (2011-2013)
- *Maritime Piracy Seminar*. Researcher: Ved Nanda, The Nanda Center, Sturm College of Law. Technical reviewer for Sturm College of Law: Sylvia D. Hall-Ellis. Arsenault Family Foundation, \$15,000 (2012-2013).
- *Early Childhood Librarianship: An Interdisciplinary, Experiential Learning MLIS.* Researcher: Mary C. Stansbury (PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. Laura Bush's 21st Century Librarians Program, Institute for Museums and Library Services, \$249,066 (2012-2014)
- Learning Ecosystem Planning Grant. Research team: Karen Riley (PI), Lyndsay Agans, Kent Seidel, and Shimelis Assefa. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Bill & Melinda Gates Foundation, \$281,217 (2011-2012)
- Advanced Service Learning Practitioner Faculty Grant, Sylvia D. Hall-Ellis, University of Denver, Center for Community Engagement and Service Learning, \$400 (2011)
- *Evaluating and Enhancing the EspeciallyMe Program.* Research team: Lori D. Patton and Nicole Russell. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Center for Community Engagement and Service Learning, Public Good Fellowship Grant, \$24,780 (2012)
- *Choosing Excellence: Let Every Child Bloom.* Research team: Shimelis Assefa (PI) and Mary C. Stansbury (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Center for Community Engagement and Service Learning, Public Good Grant, \$7,657 (2012)
- K-8 STEM Content Specific Professional Development to Improve Elementary Student Achievement. Research team: Kent Seidel (PI), Nicole Russell (Co-PI), Kimberly Hartnett-Edwards, Paul Michalec, Jeff Farmer, Keith Miller, Alegra Reiber, and Nancy Sasaki. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Department of Education, Improving Teacher Quality Grant, (Title II ESEA), \$307,299 (2011-2012)
- *Building a Better Principal Pipeline to Boost Student Achievement.* Researcher: Susan Korach. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Denver Public Schools; a subcontract from the Wallace Foundation Grant, \$170,000 (2011-2017)
- *Center of Excellence for Problem Gambling.* Research team: J. Mike Faragher (Co-PI) and Bobbie Vollmer (PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Department of Behavioral Health, \$79,999 (2011-2012)
- An Exploration of Novice Teachers' Core Competencies: Impacts on Student Achievement, and Effectiveness of Preparation. Research team: Kent Seidel (PI), Kathy Green (Co-PI), Kimberly Hartnett-Edwards, and Duan Zhang. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Institute of Education Sciences, Effective Teachers and Effective Teaching, \$990,987 (2012-2015)
- Project Engage, a DAPRA Grant in partnership with Total Immersion Systems, Inc., and Texas A&M University. Research team: Karen Riley (PI) and Lyndsay Agans (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. U.S. Department of Defense, \$49,964 (2011-2014)

- *User-centered Evaluation of Music Search Engines.* Researcher: Xiao Hu. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Faculty Research Fund, \$2,931 (2011-2012)
- *Educational Practicum in Vietnam and China to Promote the Inclusion of Young Children with Disabilities.* Researcher: Gloria L. Miller. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Office of Internationalization, \$5,000 (2011-2012)
- Evaluation of Colorado's Enhancing Quality in Infant-Toddler (EQIT) Initiative. Research team: Virginia R. Maloney and Amanda Moreno. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Buell Foundation, \$395,884 (2011-2013)
- Creating Engaging Environments to Teach Pre-Algebra Mathematics to Elementary Students. Research team: Álvaro Arias, Mario López, María del Carmen Salazar, and Lyndsay Agans. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver Interdisciplinary Grant, \$60,000 (2011-2012)
- Morgridge Education Technology Accessible (META) Resource Project. Research team: Lyndsay Agans (PI) and Shimelis Assefa (Co-PI). Technical reviewer for MCE: Sylvia D. Hall-Ellis. Morgridge Family Foundation, \$36,000 (2011)
- MCE Connect: A 21st Century Framework for Faculty Development. Research team: Bruce Uhrmacher (PI), Shimelis Assefa (Co-PI), Lyndsay Agans (Co-PI), Kimberly Hartnett-Edwards, Norma Hafenstein, Xiao Hu, Paul Michalec (Co-PI), María del Carmen Salazar (Co-PI), and Sandra Snyder-Mondragon. Technical reviewer for MCE: Sylvia D. Hall-Ellis. University of Denver, Center for Teaching and Learning, \$22,355 (2011-2012)
- Parent Education and Parent Leadership and Advocacy. Research team: Virginia Maloney (PI) and Amanda Moreno, Marsico Institute for Early Learning and Literacy. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Health Foundation, \$27,358 (2010-2011)
- Intentional School Culture. Researcher: Cynthia Hazel. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Denver Public Schools, \$38,040 (2010-2011)
- Healthy Eaters, Lifelong Movers: Implementing Evidence-Based School Environment, Policy, and Curricular Changes to Increase Opportunities for Healthy Eating and Physical Activity in Low Income, Rural Colorado. Research team: Elaine Berlansky, University of Colorado at Denver (PI), Nicholas Cutforth, University of Denver (Co-PI), and Allison Reeds. Technical reviewer for MCE: Sylvia D. Hall-Ellis. Colorado Health Foundation, \$1,683,277 (2011-2014)
- Second Life Learning Community. Research team: Don McCubbrey (PI), Sylvia D. Hall-Ellis (Co-PI), Walter LaMendola, and Paul Novak. University of Denver, Center for Teaching and Learning, \$13,000 (2010-2011)
- Reintroducing the Value of Law Librarians to Academic and Public Librarians in Colorado through the Identification and Use of Emerging Technologies. Research team: Sylvia D. Hall-Ellis (Co-PI), Stacey L. Bowers (PI), and Christopher Hudson, in partnership with Denver Public Library, Arapahoe Library District, and the Colorado State Supreme Court Library. University of Denver, Center for Community Engagement and Service Learning, \$5,773 (2010-11)
- Reintroducing the Value of Law Librarians to Public Librarians through the Identification and Use of Emerging Technologies and Resources. Research team: Stacey Bowers (PI) and Sylvia D. Hall-Ellis (Co-PI). American Association of Libraries, Wolters Kluwer Law & Business Grant Program, \$2,725 (2010-2011)
- *Faculty Service Learning Pod.* Research team: María del Carmen Salazar and Nicholas Cutforth (Curriculum and Instruction Program), Frank Tuitt (Higher Education Program), Cynthia Hazel and Gloria Miller (Child, Family, and School Psychology Program), and Sylvia D. Hall-Ellis (Library and Information Science Program). University of Denver, Center for Community Engagement and Service Learning, \$8,000 (2010-2011)

- *Lincoln Collaborative.* Research team: Antonio Esquibel (Principal, Lincoln High School), María del Carmen Salazar (Curriculum and Instruction Program), and. Sylvia D. Hall-Ellis. School Improvement Grant, Denver Public Schools, \$375,000 (2010-2012)
- *Future LEADers of America: Leaders III.* Research team: Denver Public Library (Kristen Svendson, PI), the University of Denver (Sylvia D. Hall-Ellis), the Colorado Chapter of REFORMA (Orlando Archibeque), and the Colorado Association of Libraries (Martin Garnar). Laura Bush's Recruiting Librarians for the 21st Century Program, Institute for Museums and Library Services, \$988,366 (2009-2012)
- *Teaching for Success in the Library Environment: LIS 4030 in Library 2.0.* Research team: Deborah S. Grealy (PI) and Sylvia D. Hall-Ellis (Co-PI). University of Denver, Center for Teaching and Learning, \$ 9,350 (2009-10)
- Writing Group Faculty Grant, Sylvia D. Hall-Ellis, University of Denver, Center for Community Engagement and Service Learning, \$750 (2008-2009)
- Collaborative Learning Faculty Grant, Sylvia D. Hall-Ellis, University of Denver, Center for Teaching and Learning, \$1,500 (2008)
- Connecting Information Literacy to Learning. Research team: Lori Micho, Merrie Valliant, Amanda Samland, and Sylvia D. Hall-Ellis. Colorado State Library, LSTA Discretionary Grant Program, \$19,548 (2008-2009)
- *Law Librarianship Fellows Program.* Research team: Sylvia D. Hall-Ellis (PI), Stacey Bowers (Co-PI), and Christopher Hudson, Westminster Law Library. Laura Bush's 21st Century Librarians Program, Institute for Museums and Library Services, \$999,370 (2008-2012)
- *Grant Writing in a Cooperative Learning Environment*. Sylvia D. Hall-Ellis. University of Denver, Center for Teaching and Learning, \$2,000 (2008-2009)
- Project Homeless Connect 6 Event Evaluation. Research team: Sylvia D. Hall-Ellis and Duan Zhang. University of Denver Center for Community Engagement and Service Learning, \$9,785 (2008)
- *Project Ecuador: International Learning Service Libraries A Faculty Development Experience in Ecuador.* Sylvia D. Hall-Ellis, Office of Internationalization, University of Denver, \$600 (2007)
- Project Ecuador: International Learning Service Libraries A Faculty Development Experience in Ecuador. Sylvia D. Hall-Ellis, International Service Learning Office, University of Denver, \$400 (2007)
- Project Homeless Connect 5 Event Evaluation. Research team: Sylvia D. Hall-Ellis and Duan Zhang. University of Denver Center for Community Engagement and Service Learning, \$1,000 (2007)
- Project Homeless Connect 4 Event Evaluation. Research team: Sylvia D. Hall-Ellis and Duan Zhang. University of Denver Center for Community Engagement and Service Learning, \$4,595 (2007)
- Future LEADers of America: Leaders II. Research team: Denver Public Library (Kristen Svendson, PI), the University of Denver (Sylvia D. Hall-Ellis), and the Colorado Chapter of REFORMA (Orlando Archibeque). Laura Bush's Recruiting Librarians for the 21st Century Program, Institute for Museums and Library Services, \$988,518 (2007-2010)
- Strategic Planning Assistance for the Denver Medical Library. Sylvia D. Hall-Ellis. Denver Medical Library, Inc., \$30,000 (2006-2007)
- *Destiny Software for JMAC Student Lab.* Sylvia D. Hall-Ellis, gift from the Sagebrush Corporation, Minneapolis, Minnesota, \$10,000 (2006)

- Libraries: Tools for Education and Development Worldwide: A Faculty Development Experience in France. Sylvia D. Hall-Ellis, Office of Internationalization, University of Denver, \$800 (2005)
- Denver Public Library: Opportunities for Change. Sylvia D. Hall-Ellis, Colorado Community Based Research Network, \$2,000 (2005)
- *Future LEADers of America*. Research team: Denver Public Library (Letty Icolari and Steve Taylor, PIs), Emporia State University (Jim Agee), and the University of Denver (Sylvia D. Hall-Ellis). Recruiting Librarians for the 21st Century Program, Institute for Museums and Library Services, \$670,315 (2005-2008)
- American Association of University Professors Summer Institute Professional Development Grant. Sylvia D. Hall-Ellis, American Association of University Professors, \$300 (2005)
- Beta Phi Mu Alumni Tea. Sylvia D. Hall-Ellis, gift from the Office of Alumni and Parent and Relations, University of Denver, \$2,000 (2005)
- Spectrum Software for LIS Student Lab. Sylvia D. Hall-Ellis, gift from the Sagebrush Corporation, Minneapolis, Minnesota, \$5,000 (2005)
- Developing Research Capacity in Community Organizations and Residents through Training and Technical Assistance. Nicholas J. Cutforth (PI) and Sylvia D. Hall-Ellis. Piton Foundation, \$25,000 (2005-2006)
- Libraries: Tools for Education and Development Worldwide: A Faculty Development Experience in Argentina. Sylvia D. Hall-Ellis, Office of Internationalization, University of Denver, \$500 (2004)
- Developing Research Capacity in Community Organizations and Residents through Training and Technical Assistance. Research team: Nicholas J. Cutforth (PI), Gary Lichtenstein and Sylvia D. Hall-Ellis, Piton Foundation, \$25,000 (2003-2004)
- Increasing Spanish-Speaking and Hispanic Diversity among Library and Information Science Students at the University of Denver: Development of a Student Recruitment Model. Researcher: Sylvia D. Hall-Ellis (PI), Office of Multicultural Excellence, University of Denver, \$2,750 (2003-2004)
- Collection Development Enrichment to Support the Cataloging & Classification Specialization and School Librarianship within the Library & Information Science Program at the University of Denver. Research team: Sylvia D. Hall-Ellis (PI) and Deborah S. Grealy. Women's Library Association, University of Denver, \$4,000 (2003)
- Collection Development Enrichment to Support the Library & Information Science Program at the University of Denver. Research team: Deborah S. Grealy (PI) and Sylvia D. Hall-Ellis. Women's Library Association, University of Denver, \$4,000 (2001)
- *Wireless LAN for Library Education*. Research team: Deborah S. Grealy (PI) and Sylvia Hall-Ellis. University of Denver, Center for Teaching and Learning, \$24,000 (2001-2002)
- Upward Bound A Program for South Texas Youth. Research team: Monte Churchill, Executive Director of Community Relations; Gary R. Sauceda, Outreach Coordinator; Raymond Hernandez, (PI) Associate Dean for Student Success; and Sylvia D. Hall-Ellis, South Texas Community College (McAllen, Texas). U.S. Department of Education, Office of Postsecondary Education, \$2,672,003 (1999-2003)
- Write Now! Improving Elementary Students' Writing Skills. Research team: Caryl G. Thomason, Assistant Superintendent (PI); Karen Tankersley, Principal; and, Hal Anderson, Director of Technology, Cheyenne Mountain School District 12 (Colorado Springs, Colorado); and Sylvia D. Hall-Ellis. Colorado Department of Education, Educational Telecommunications Unit, \$189,453 (1999-2001)

- Operation Quick Start -- Distance Learning in Rural Colorado. Research team: Randal Weigum, Technology Coordinator (PI); Bonnie Barns, Director of Federal Programs and Staff Development; and, Adam "Joe" Raskop, Executive Director, Southeastern Board of Cooperative Educational Services (Lamar, Colorado); and Sylvia D. Hall-Ellis. Colorado Department of Education, Educational Telecommunications Unit, \$400,000 (1999-2001)
- Advanced Technological Training for Information Professionals for the 21st Century. Research team: Mario Reyna, Division of Business Director (PI) and Sylvia D. Hall-Ellis, South Texas Community College (McAllen, Texas). Phi Delta Kappa and the National Science Foundation, \$250,000 (1999-2001)
- Working Connections Training Information Technologies Professionals for the 21st Century. Research team: Mario Reyna, Division of Business Director (PI) and Sylvia D. Hall-Ellis, South Texas Community College (McAllen, Texas). Microsoft Corporation and the American Association of Community Colleges, \$1,147,775 (1999-2001)
- *The ROAD (Research Oriented Amplification of Development to Literacy) Program.* Research team: Deborah J. Leong (PI), Metropolitan State University; Elena Bodrova, Metropolitan State University; Dmitri Semenov, Robert J. Marzano, and Sylvia D. Hall-Ellis, Mid-continent Regional Educational Laboratory (Aurora, Colorado). Hewlett-Packard Foundation, \$25,000 (1998-1999)
- Press to Literacy. Research team: Deborah J. Leong (PI), Metropolitan State University; Elena Bodrova, Metropolitan State University; Dmitri Semenov, Robert J. Marzano, and Sylvia D. Hall-Ellis, Mid-continent Regional Educational Laboratory (Aurora, Colorado). The Denver Post and the Robert S. McCormick Foundation, \$49,818 (1998-1999)
- International Telementor Center. Research team: David Neils, David B. Frost (PI), and Sylvia D. Hall-Ellis, Midcontinent Regional Educational Laboratory (Aurora, Colorado). Hewlett-Packard Philanthropy, \$100,000 (1998-1999)
- America Reads: Providing Tutor Training for the America Reads Challenge. Research team: Louis F. Cicchinelli (PI) and Sylvia D. Hall-Ellis, Mid-continent Regional Educational Laboratory (Aurora, Colorado). U.S. Department of Education, Office of Educational Research and Improvement, \$306,000 (1998-1999)
- Comprehensive School Reform. Research team: Louis F. Cicchinelli (PI), J. Timothy Waters, and Sylvia D. Hall-Ellis, Mid-continent Regional Educational Laboratory (Aurora, Colorado). U.S. Department of Education, Office of Educational Research and Improvement, \$285,000 (1998-1999)
- Sustainable Energy Education (SEE) Program for Grades 4-8: Preparing Today's Youth for Lifelong Learning and Responsible Actions in Energy Conservation. Research team: Mary Gromko, Colorado Department of Education; Gene McCarthy, Rocky Flats Field Office, U.S. Department of Energy; Gina Kissell, National Renewable Energy Laboratory; and Barbara L. McCombs (PI), Janet L. Bishop, and Sylvia D. Hall-Ellis, Midcontinent Regional Educational Laboratory (Aurora, Colorado). State of Colorado Governor's Office for Energy Conservation, \$499,936 (1997-1999)
- Review of Kansas Curriculum Standards in Mathematics and Language Arts. Research team: Robert J. Marzano (PI), John S. Kendall, David B. Frost, and Sylvia D. Hall-Ellis, Mid-continent Regional Educational Laboratory (Aurora, Colorado). Submitted to the Kansas State Department of Education, \$25,903 (1998)
- International Telementor Center. Research team: David Neils, John Kuglin, Chris Rapp, David B. Frost (PI), and Sylvia D. Hall-Ellis, Mid-continent Regional Educational Laboratory (Aurora, Colorado). Hewlett-Packard Company, \$54,752 (1998)

- Genesis Mission: Education Public Outreach. Developed in partnership by the Jet Propulsion Laboratory, California Institute of Technology, Los Alamos National Laboratory, Lockheed Martin Astronautics, and the Mid-continent Regional Educational Laboratory (Aurora, Colorado). Research team: John T. Sutton (PI), Alice Krueger, Martha Henry, Greg Rawls, Shae Isaacs, Jeff Johnson, Deb Jordan, Arlene Mitchell, David B. Frost, Jana Caldwell, J. Timothy Waters, and Sylvia D. Hall-Ellis. National Aeronautics and Space Administration, \$139,700,000; subcontract award, \$4,750,000 (1997-2007)
- North Dakota Mathematics Assessment Project. Developed in partnership by the North Dakota Department of Education and Mid-continent Regional Educational Laboratory (Mid-continent Regional Educational Laboratory). Research team: Ann Clapper, Clarence Bina, Greg Gallagher, North Dakota Department of Education; Don Burger (PI), Hillary Michaels, and Sylvia D. Hall-Ellis, Mid-continent Regional Educational Laboratory (Aurora, Colorado). U.S. Office of Education, \$1,618,214; subcontract award, \$389,076 (1997-2001)
- Pacific Resources for Education and Learning Distance Education: Project Evaluation. Developed in partnership by the Pacific Educational Community, the Pacific Resources for Education and Learning (PREL), and Midcontinent Regional Educational Laboratory (McREL). Research team: John W. Kofel (PI), Executive Director, PREL; J. Timothy Waters, Executive Director; Joan Buttram, Robert Keller, and Sylvia D. Hall-Ellis, Midcontinent Regional Educational Laboratory (Aurora, Colorado). U.S. Office of Education, Star Schools Program, \$10,000,000; subcontract award, \$500,000 (1997-2002)
- Identification of Bilingual Gifted and Talented Children: A Comprehensive School Grants for Bilingual Education. Developed in partnership by Hidalgo (Texas) ISD, Los Fresnos (Texas) CISD, Progreso (Texas) ISD, University of Texas – Pan American (Edinburg, Texas), and Education Service Center, Region One (Edinburg, Texas). Research team: Hilda Medrano, Dean, College of Education, University of Texas – Pan American; Linda Phemister (PI), Janie Navarro, and Sylvia D. Hall-Ellis, Education Service Center, Region One. U.S. Department of Education, Office of Bilingual Education and Minority Languages Affairs, \$1,670,633 (1997-2002)
- Academics 2000: First Things First -- The Texas Goals 2000. Developed for Jim Hogg (Hebbronville, Texas) County ISD, Mirando City (Texas) ISD, and San Isidro (Texas) ISD. Research team: Hilda Medrano, Dean, College of Education, University of Texas - Pan American (Edinburg, Texas); Angie Lehmann, Amy Mares, Ellen Gonzalez (PI), and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg, Texas). Texas Education Agency, \$339,987 (1997-2000)
- Southwestern Bell's Learning Communities Initiative. Developed for Tech Prep of the Rio Grande Valley, Inc. (Harlingen, Texas); the Center for Professional Teacher Development, University of Texas – Brownsville; Teach for America – Rio Grande Valley (McAllen, Texas); and Education Service Center, Region One (Edinburg, Texas). Research team: Patricia G. Bubb, Executive Director (PI), Tech Prep of the Rio Grande Valley; Martin Winchester, Executive Director, Teach for America – Rio Grande Valley; Aileen Johnson, Director, School of Education, University of Texas – Brownsville; and Sylvia D. Hall-Ellis. Southwestern Bell Foundation, \$100,000 (1997-1998)
- Texas School to Work: Regional Implementation. Developed for Tech Prep of the Rio Grande Valley, Inc. (Harlingen), South Texas Community College (McAllen), Texas State Technical College (Harlingen), Texas Southmost College (Brownsville), Empowerment Zone of the Rio Grande Valley (Mercedes), Project VIDA (Weslaco), Youth Fair Chance (McAllen), and Education Service Center, Region One (Edinburg). Research team: Patricia G. Bubb (PI), Tech Prep of the Rio Grande Valley; Stephen Vassberg, Texas State Technical College; Ellen Trevino, Youth Fair Chance; Wanda Garza, Project VIDA; Leonardo Olivares, University of Texas – Pan American; Michael Bell, South Texas Community College; and Sylvia D. Hall-Ellis. Texas Workforce Commission, \$4,250,000 (1997-2002).

- Comprehensive Bilingual Education Grant for Hidalgo ISD and Roma ISD. Developed for Hidalgo (Texas) ISD, Roma (Texas) ISD, College of Education, University of Texas – Pan American (Edinburg, Texas), and Education Service Center, Region One (Edinburg, Texas). Research team: Tomas Thomas (PI), Director, Office of Bilingual Education and Sylvia D. Hall-Ellis. U.S. Department of Education, Office of Bilingual Education and Minority Languages Affairs, \$1,531,361 (1997-2002)
- Lopez High School, Porter High School, Rivera High School, Central Middle School, and Perkins Middle School, Brownsville (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$1,473,611 (1997-1998)
- Donna High School, Todd Middle School, and Solis Middle School, Donna (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$704,052 (1997-1998)
- Memorial Middle School and Nellie Schunior Middle School, La Joya Independent School District (Texas). Telecommunications Infrastructure Fund Board, \$293,641 (1997-1998)
- Martin High School, Christen Middle School, Cigarroa Middle School, Lamar Middle School, Laredo (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$1,200,000 (1997-1998).
- Lasara Middle School, Lasara (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$246,210 (1997-1998)
- Los Fresnos High School and Resaca Middle School, Los Fresnos (Texas) Consolidated Independent School District. Telecommunications Infrastructure Fund Board, \$500,000 (1997-1998)
- Lyford Junior High School, Lyford (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$354,997 (1997-1998)
- Travis Middle School, McAllen (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$269,139 (1997-1998)
- Mission High School, Mission (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$297,010 (1997-1998)
- Progreso High School, Progreso (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$300,000 (1997-1998)
- San Perlita High School, San Perlita (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$293,490 (1997-1998)
- Myra Green Junior High School, Raymondville (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$225,000 (1997-1998)
- Rio Grande City High School, Ringgold Middle School, Gruella Middle School, Rio Grande City (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$809,934 (1997-1998)
- Rio Hondo Junior High School, Rio Hondo (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$297,024 (1997-1998)
- Roma High School, Roma (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$333,178 (1997-1998)
- San Benito High School, Miller Jordan Junior High School, San Benito (Texas) Consolidated Independent School District. Telecommunications Infrastructure Fund Board, \$547,000 (1997-1998)

- Santa Maria High School and Santa Maria Middle School, Santa Maria (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$400,000 (1997-1998)
- Salvador High School, United Independent School District (Laredo, Texas). Telecommunications Infrastructure Fund Board, \$250,879 (1997-1998)
- Weslaco High School, Cabaza Middle School, Cuellar Middle School, Weslaco (Texas) Independent School District. Telecommunications Infrastructure Fund Board, \$874,242 (1997-1998)
- Principals' Assessment and Training Center. Developed for Education Service Center, Region One (Edinburg, Texas). Research team: Roberto Zamora, Leonel Barrera, William H. Parry, and Sylvia D. Hall-Ellis. Texas Principals' Leadership Initiative, Texas Association of Secondary School Principals, Texas Association of Elementary School Principals, and the Sid Richardson Foundation. \$461,439 (1996-1998)
- The Texas Library Connection -- Integrating and Sharing Resources. Developed for Hidalgo County Library System (McAllen), Cameron County Library System (Brownsville), South Texas Community College (McAllen), the University of Texas Pan American (Edinburg), University of Texas Brownsville, and Education Service Center, Region One (Edinburg). Research team: William R. McGee, Coordinator, Hidalgo County Library System; Joe Garcia, Director, Cameron County Library System; Michael D. Bell, Library Director, South Texas Community College; Eleanor Folger Foster, University Library, University of Texas Pan American; Jaime Vela (PI), Director of Instructional Technology and Media Services, Ron Pontius, Instructional Technology, and Fabiola Fuentes, Media Services, Education Service Center, Region One; and Sylvia D. Hall-Ellis. Office of Library Media Services, Technology Services, Texas Education Agency. \$8,000 (1996-1997)
- Developing Leadership Communities for Improving Algebra I for All Students. Developed for a partnership of the Region One Statewide Systemic Initiative Team. Research team: Noel Villarreal (PI), Eduardo Cancino, and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). Texas Statewide Systemic Initiative for Reform in Mathematics, Science and Technology Education to The Charles A. Dana Center for Mathematics and Science Education, The University of Texas at Austin. \$25,000 (1996-1997)
- Academics 2000: First Things First -- The Texas Goals 2000. Developed for Edinburg (Texas) CISD. Research team: Hilda Medrano, Dean, College of Education, University of Texas - Pan American (Edinburg); Helen Jones, Director (PI), Gifted and Talented Education, Edinburg CISD; and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). Texas Education Agency, \$750,000 (1996-2001)
- Texas Teachers Empowered for Achievement in Mathematics (TEXTEAM) Institute for Algebra I. Developed for Hidalgo ISD, Jim Hogg (Hebbronville) County ISD, La Joya ISD, La Villa ISD, Lyford ISD, Mission CISD, Pharr-San Juan-Alamo ISD, Rio Hondo ISD, San Isidro ISD, San Perlita ISD, Santa Maria ISD, Santa Rosa, Sharyland ISD, Valley View ISD, Webb (Laredo) CISD, Weslaco ISD, and Zapata County (Zapata) ISD. Research team: Noel Villarreal (PI), Chuck McInteer, Ellen M. Gonzalez, Education Service Center, Region One (Edinburg); and Sylvia D. Hall-Ellis. Charles A. Dana Center for Mathematics and Science Education, University of Texas - Austin, \$15,975 (1996)
- *Community Learning Center for La Villa, Texas.* Developed for Edcouch-Elsa Independent School District. Research team: Noe Gonzalez (PI), Assistant Superintendent, Edcouch-Elsa Independent School District, and Sylvia D. Hall-Ellis. Delta Region Subzone, Rio Grande Valley (Texas) Rural Empowerment Zone, \$325,000 (1996-1997)
- *Monte Alto (Texas) Community Learning Center.* Developed for Monte Alto Independent School District. Research team: Homero A. Diaz (PI), Superintendent, Monte Alto Independent School District, and Sylvia D. Hall-Ellis. Delta Region Subzone, Rio Grande Valley (Texas) Rural Empowerment Zone, \$300,000 (1996-1997)
- *Community Learning Center for La Villa, Texas.* Developed for La Villa Independent School District. Research team: Sam Gonzalez (PI), Assistant Superintendent, La Villa Independent School District; and Sylvia D. Hall-Ellis. Delta Region Subzone, Rio Grande Valley (Texas) Rural Empowerment Zone, \$325,000 (1996-1997)

- Building Project for Taylor Elementary. Developed for Mercedes (Texas) Independent School District. Research team: Mrs. Denise Rivera, Librarian, and Eduardo Infante, Principal, Taylor Elementary School; Ismael S. Cantu (PI), Federal Programs Director, Mercedes Independent School District; and Sylvia D. Hall-Ellis. Delta Region Subzone, Rio Grande Valley (Texas) Rural Empowerment Zone, \$375,000 (1996-1997)
- Border Education Network (BEN) Distance Education through Cable Television. Developed for Edinburg (Texas) Consolidated Independent School District. Research team: Noe Torres (PI), Library Media Specialist, Magdalena Rosas, Library Media and Technology Coordinator, Edinburg Consolidated Independent School District; and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). Edinburg (Texas) Consolidated School District, \$250,000 (1996-1997)
- *Multiservice One-Stop Open Enrollment Charter School.* Developed for the Information Referral Resource Assistance, Inc. (McAllen, Texas). Research team: Pablo Perez and Aguie Pena (PI), Executive Director, Information Referral Resource Assistance, Inc.; Roberto Zamora and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). Texas Education Agency, \$3,066,000 (1996-2001)
- Project OK: A Community Youth Opportunities Grant for Summer, 1996. Developed for McAllen (Texas) Independent School District, St. Joseph the Worker Catholic Church, and the Office of Adult Education, Education Service Center, Region One. Research team: Father Bart Flatt, St. Joseph the Worker Catholic Church; Noe Calvillo (PI), Office of Adult Education; Maria Louisa Garcia, McAllen Independent School District; and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). Texas Protective and Regulatory Agency through the Office of the Mayor, City of McAllen, \$350,000 (1996-2001).
- Early Childhood: a Time of Discovery. Developed for a partnership of Lasara ISD, Rio Hondo ISD, San Perlita ISD, the School of Education, University of Texas - Brownsville, and Education Service Center, Region One (Edinburg). Research team: Hugo Rodriguez, Dean, School of Education, University of Texas - Pan American; Leonel Barrera and Jack Damron, Field Service Agents, Ellen M. Gonzalez (PI), Administrator for Student Instructional Services, Ruth Solis, Education Specialist in Special Education, and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). Texas Education Agency, \$722,090 (1996-2001)
- Innovative Gifted and Talented Programs for Early Childhood and Elementary Education Students. Developed for a partnership of Edinburg (Texas) CISD, the School of Education, University of Texas - Pan American (Edinburg), and Education Service Center, Region One (Edinburg). Research team: Hilda Medrano, Dean, School of Education, University of Texas - Pan American; Helen de la Garza (PI), Director of Elementary Curriculum and Instruction, Edinburg CISD; and Sylvia D. Hall-Ellis. Texas Education Agency, \$750,000 (1996-2001)
- Reading Recovery in Early Elementary Grades. Developed for a partnership of La Villa (Texas) ISD the School of Education, University of Texas Pan American (Edinburg), and Education Service Center, Region One (Edinburg). Research team: Hilda Medrano, Dean, School of Education, University of Texas Pan American; Marcario Salinas (PI), Supervisor of Elementary Curriculum and Instruction, La Villa ISD; and Sylvia D. Hall-Ellis, Education Service Center, Region One. Texas Education Agency, \$750,000 (1996-2001)
- Connected Mathematics Project for Middle and Junior High Students. Developed for a partnership of Michigan State University, The Charles A. Dana Center for Mathematics and Science Education, The University of Texas at Austin and Region One Statewide Systemic Initiative Team. Research team: Jack Damron, Chuck McInteer, Noel Villarreal (PI), and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). National Science Foundation through Michigan State University to the Charles A. Dana Center at the University of Texas - Austin, \$539,610 (1996-1999)
- Sharing Resources: Testing the Interlibrary Loan Potential of the Texas Library Connection -- Integrating Media Resources. Developed under the sponsorship of the Hidalgo County Library System (McAllen) and Education Service Center, Region One (Edinburg). Research team: William H. McGee, Hidalgo County System Coordinator; Fabiola Fuentes, Library Media; Ronald Pontius (PI), Instructional Technology, Education Service

Center, Region One; and Sylvia D. Hall-Ellis. Library Media Services Program, Office of Technology Services, Texas Education Agency, \$25,000 (1996-1997)

- State and Federal Adult Education JOBS Program. Developed for Education Service Center, Region One (Edinburg). Research team: Noe Calvillo (PI), Director, Adult Education Program, and Sylvia D. Hall-Ellis. Adult Education Program, Texas Education Agency, \$532,846 (1995-1996)
- Creating Safe and Drug-Free Schools and Communities. Developed for a partnership of the Region One Consortium for Safe and Drug-Free Education Environments. Research team: Clara Contreras (PI), Health Specialist, and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). Texas Education Agency, \$150,000 (1995-1996)
- Developing Leadership Communities for Improving Mathematics Performance for All Students on Title I Campuses. Developed for a partnership of the Region One Statewide Systemic Initiative Team. Research team: Jack Damron, Chuck McInteer, Noel Villarreal (PI), and Sylvia D. Hall-Ellis, Education Service Center, Region One (Edinburg). Texas Statewide Systemic Initiative for Reform in Mathematics, Science and Technology Education to The Charles A. Dana Center for Mathematics and Science Education, The University of Texas at Austin, \$50,669 (1995-1996)
- The Impact of Library Resource Centers on Academic Achievement in Selected Public Schools in South Texas. Sylvia D. Hall-Ellis (PI). Developed under the sponsorship of the Department of Library Science, College of Education and Applied Science, Sam Houston State University (Huntsville). Texas Association of School Librarians, Children's Services Round Table, and Young Adults Round Table (Austin, Texas), \$2,500 (1995)
- School Library Media Specialists Fellowship Program. Sylvia D. Hall-Ellis (PI). Developed under the sponsorship of the Department of Library Science, College of Education and Applied Science, Sam Houston State University (Huntsville, Texas). U.S. Department of Education, HEA Title II-B, Library Education and Human Resource Development Program, \$44,000 (1995-1996)
- Planning for Educational Technology. Research team: Ruth Ann Riggins (PI), Director of Library Media and Technology Services, Donna (Texas) Independent School District; Noe Torres, Education Service Center, Region One; Patricia G. Bubb, Tech Prep of the Rio Grande Calley, Inc; Michael D. Bell, South Texas Community College; and Sylvia D. Hall-Ellis, Sam Houston State University. Developed under the sponsorship of Donna (Texas) Independent School District, Education Service Center, Region One (Edinburg), Tech Prep of the Rio Grande Valley, Inc. (Harlingen), South Texas Community College (McAllen), and the Department of Library Science, Sam Houston State University (Huntsville). Funded through Infusion of Educational Technology Planning Grant Program (H.B. 18: Models). Texas Education Agency, \$18,000 (1993-1994)
- The Impact of Library Resource Centers on Academic Achievement in Selected Public Schools in South Texas. Sylvia D. Hall-Ellis (PI) and Mary Ann Berry. Developed under the sponsorship of the Department of Library Science, College of Education and Applied Science, Sam Houston State University (Huntsville). Sam Houston State University Research Enhancement Fund, \$7,500 (1993-1994)
- *Electronic Mail Resource Sharing System: Management and Operation of the Iowa Computer-Assisted Network.* State Library of Iowa, \$294,000 (1986-1993)
- The Iowa Locator: A CD-ROM Resource Sharing Tool. State Library of Iowa, \$567,000 (1986-1992)
- Statewide Database Development: An OCLC Tape Analysis To Determine Feasibility. State Library of South Dakota, \$15,000 (1987)

The Iowa Locator: A Feasibility Study. State Library of Iowa, \$50,000 (1986)

Electronic Mail Resource Sharing System: A Feasibility Study for Libraries in the State of Iowa. State Library of Iowa, \$5,000 (1985)

Access Pennsylvania: A Feasibility Study. State Library of Pennsylvania, \$50,000 (1984)

- Automating Library Administrative and Management Tasks: Procurement and Distribution of Microcomputer Systems for District Library Centers in the Commonwealth of Pennsylvania. State Library of Pennsylvania, \$495,000 (1982)
- Sharing Serial Titles Resources: Procurement and Distribution of Microfiche Readers for 550 Libraries in the Commonwealth of Pennsylvania. State Library of Pennsylvania, \$500,000 (1982)
- Electronic Mail System: A Pilot Project for Libraries throughout the Commonwealth of Pennsylvania. State Library of Pennsylvania, \$125,000 (1982)
- *Literacy Program for Adults in Rural Upstate New York State: Program Outreach and Evaluation Phase 3.* Appalachian Regional Commission, \$50,000 (1981)
- Database Building: A Cooperative Project of the Finger Lakes Library System (Ithaca), Four County Library System (Binghamton), and the Southern Tier Library System (Corning). New York State Library, \$450,000 (1980-1985)
- Faces of the Southern Tier: A Professional Photographer-in-Residence. New York State National Endowment for the Humanities, \$25,000 (1980)
- Literacy Program for Adults in Rural Upstate New York State: Program Implementation Phase 2. Appalachian Regional Commission, \$50,000 (1980)
- Small Business Resources Center: A Pilot Project for Rural Public Libraries. New York State Library, \$50,000 (1980)
- Media Programming: A Professional Development Program for Public Librarians in Upstate New York: A Program in Allegheny, Chemung, Schuyler, Steuben, and Yates Counties. New York State Library, \$35,000 (1979)
- Information and Library Resources for Inmates and Prisoners in Selected Upstate New York Facilities: A Cooperative Program in Allegheny, Chemung, Schuyler, Steuben, and Yates Counties. New York State Library, \$25,000 (1979)
- Library Resources for Homebound Adults in Upstate New York: An Outreach Program in Allegheny, Chemung, Schuyler, Steuben, and Yates Counties. New York State Library, \$40,000 (1979)
- Literacy Program for Adults in Rural Upstate New York State: Program Initiation and Establishment Phase 1. Funded by the Appalachian Regional Commission. Awarded to the Corning (New York) Public Library, \$50,000 (1979)

Information Reference Services to Homebound Adults. New York State Library, \$31,000 (1978)

- Books-By-Mail Services to Homebound Adults. New York State Library, \$31,000 (1978)
- System Headquarters Services and Programs for Public Libraries in District 10. Funded through Library Services and Construction Act Title I. Texas State Library and Historical Commission, \$880,000 (1976)
- County Library Development Grant for Atascosita County. Funded through Library Services and Construction Act Title I. Texas State Library and Historical Commission, \$15,000 (1976)
- Spanish Language Materials Collection Development Program. Texas State Library and Historical Commission, \$40,000 (1975)

Establishment of System Headquarters for Alamo Regional Library System (District 10) Headquartered at the San Antonio (Texas) Public Library. Texas State Library and Historical Commission, \$800,000 (1975)

SELECTED CONSULTANTSHIPS

Project Strategic Planning & Funding Proposal Development

Walden University, 2015.

Pikes Peak Library District, 2014.

Douglas County Public Libraries, 2011-2012.

Denver School for Science and Technology, 2008-2011.

Johnson & Wales University, Denver Campus, 2007-2009.

Challenges, Choices, and Images K-12 Charter School, Denver Public Schools, 2007.

Denver Medical Library, Inc., 2006-2010.

Bemis Public Library (Littleton), Ergonomic Design and Facilities Enhancement Consultant, 2003.

- Curtis Park Community Center (Denver), Community Technology Center Evaluation and Proposal Development Consultant, 2003.
- Colorado Community Based Research Network (Denver), Funding Research Associate, 2002-
- Our Lady of the Rosary Academy (Edgewater), Learning Resource Center Development Project Consultant, 2001-
- University of Southern Colorado (Pueblo). Technology Integration and Curriculum Enhancement into Higher Education Learning Environment. Proposal Development Consultant, 2000.
- Jefferson County Library System (Lakewood), 1999-2000.
- Southeastern BOCES (Lamar, CO). Distance Learning Curriculum Content Development Project. Proposal Development Consultant, 1998-2004.
- Cheyenne Mountain School District 12 (Colorado Springs, CO). Technology Integration into Elementary Writing Curriculum Project. Proposal Development Consultant, 1998.
- Telecommunications Infrastructure Fund Board Round #2 Application, 1997. Technical assistance to the following: La Villa (Texas) Independent School District; Mirando City (Texas) Independent School District; Monte Alto (Texas) Independent School District; San Isidro (Texas) Independent School District.
- Telecommunications Infrastructure Fund Board Round #1, 1996. Technical assistance to the following: Brownsville (Texas) Independent School District; Donna (Texas) Independent School District; Edinburg (Texas) Consolidated Independent School District; Harlingen (Texas) Consolidated Independent School District; Jim Hogg County Independent School District (Hebbronville, Texas); La Feria (Texas) Independent School District; La Joya (Texas) Independent School District; La Villa (Texas) Independent School District; Raymondville (Texas) Consolidated Independent School District; Progreso (Texas) Independent School District; Raymondville (Texas) Independent School District; Rio Hondo (Texas) Independent School District; San Benito (Texas) Independent School District; Sharyland Independent School District (Mission, Texas); Weslaco (Texas) Independent School District; Zapata (Texas) County Independent School District.
- South Texas Community College (McAllen). Strategy Development to Meet the Technology Instructional Needs for Vocational, School-To-Work and Academic Programs, 1994-2000. Development Consultant.

Facebook's Exhibit No. 1021 0088

- Donna (Texas) Independent School District. Planning for the Infusion of Technology in Middle Schools Serving High At-Risk Students, 1994-1995. Research Associate.
- Pettus (Texas) Independent School District. Planning for District-wide Automation in School Library Media Centers: Preparation of Data, and CD-ROM Hardware/Software Configuration Evaluation, 1994. Principal Investigator.
- Fort Bend Independent School District (Sugar Land, TX). Planning for District-wide Automation in School Library Media Centers, Preparation of Data, and CD-ROM Hardware/Software Configuration Evaluation, 1994-1995. Principal Investigator.
- Northern Waters Library Services (Ashland, WI). Professional Consulting Services to Make Recommendations on the Development of System-Wide Efforts of the Northern Waters Library Service, 1988-1989. Research Associate.
- State Library of Iowa (Des Moines). The Iowa Locator Compact Disc to Support Multi-Type Libraries Resource Sharing including Database Design, Building, Production, and Distribution, 1986-1991. Project Director.
- State Library of Iowa (Des Moines). Iowa Computer-Assisted Network Development, Enhancement, and Operation, 1985-1992. Technical Director.
- State Library of South Dakota (Pierre). Statistical Sampling and Analysis of Multi-Institutional OCLC Archive Tape for Statewide Online Database Building, 1985-1986. Research Associate.
- District of Columbia Public Library (Washington, DC). Planning Document for the Retrospective Conversion of Bibliographic Records and Automation Issues in the 1990's, 1984-1985. Research Associate.
- State Library of Pennsylvania (Harrisburg). Database Development for High School Libraries, 1984-1985. Research Associate.
- MINITEX (Minneapolis, MN). Workshops for Retrospective Conversion, Bar Coding, Library Statistics, and OCLC Serials Format, 1985. Presenter and Research Associate.
- ABC Film Consortium (Altoona, Bellefonte, Johnstown, PA). Database Building, System Design, and Implementation of Online Film Booking System, 1983-1985. Database Manager.

Library Automation -- System Design & Implementation

- Douglas County Library District (Castle Rock, CO). Library Automation Technical and System Performance Specifications, 2001.
- Pharr-San Juan-Alamo Independent School District (Pharr, TX). Library Automation Technical and System Performance Specifications, 1997. Project Development Consultant.
- Harlingen (Texas) Independent School District. Planning for District-wide Automation in Junior High School
 Library Media Centers: Preparation of Data, and CD-ROM Hardware/Software Configuration Evaluation, 1996.
 Principal Investigator.
- Sharyland (Texas) Independent School District. Design and Construction of New Elementary School Library and Technology Resources Center, 1995-1996. Principal Investigator.
- South Texas Independent School District (Mercedes, TX). Design and Construction of a New High School Library and Technology Resources Center, 1995-1996. Principal Investigator.

- Citizens' Library (Washington, PA). Online Community Resources Files: Design and Implementation, 1984. Research Associate.
- Altoona (Pennsylvania) Hospital. Integrated Online System Upgrade Study, 1984. Research Associate.
- State Library of South Dakota (Pierre). Automation Plan and State Database Development, 1982-1983. Principal Investigator.
- State Library of Pennsylvania (Harrisburg). COM Production and Preparation of the Technical Specifications Document, Procurement, and Distribution of Microcomputers in the Commonwealth of Pennsylvania, 1983-1984. Research Associate.
- Altoona (Pennsylvania) Area Public Library. Integrated System (Circulation/Online Catalog) Study, 1982-1983. Principal Investigator.
- COPSCAULD (Council of Pennsylvania State College and University Library Directors, Edinboro, PA). Design of Online Media Catalog, 1982. Principal Investigator.
- Erie (Pennsylvania) County Library System. Operations Research and Design for Automated Circulation, Hardware Upgrade and Re-Retrospective Conversion, 1982. Research Associate.
- Michigan Library Consortium (Lansing, MI). Tape Management System Design and Implementation, 1982-1984. Research Associate.
- State Library of Pennsylvania (Harrisburg). Preparation of the Technical Specifications Document, Procurement and Distribution of Microfiche Readers in the Commonwealth of Pennsylvania, 1982. Research Associate.
- Community College of Allegheny County, Allegheny Campus (Pittsburgh, PA). Integrated Systems Study, 1981. Principal Investigator.
- Community College of Allegheny County, South Campus (West Mifflin, PA). Retrospective Conversion Training Program for Handicapped Students, 1981. Technical Director.
- Southern Tier Library System (Corning, NY). OCLC Acquisitions Subsystem Evaluation, 1981. Principal Investigator.
- South Central Reference and Research Council (Ithaca, NY). South Central Regional Delivery System, 1980. Principal Investigator.
- Southern Tier Library System (Corning, NY). Newspapers on Microfilm in the Chemung-Southern Tier Library System, 1979-1981. Principal Investigator.

Cataloging & Bibliographic Database Building

Challenges, Choices, and Images K-12 Charter School, Denver Public Schools, 2007.

- Denver Medical Library, Inc., 2006-2010.
- Ricks Gifted and Talented School Library, 2005-

American Humane Society (Englewood), 2004-2006.

Fisher Early Learning Center Library, 2004-

Colorado Community Based Research Network (Denver), 2004-

Boulder Valley School District (Boulder), 2002-2003.

Douglas Public Library District (Castle Rock), 2001-2002.

- Bibliographic Center for Research, Inc. (Denver). Original Cataloging, 2001-2003 & 1992-1993. Professional Cataloger. Libraries include Arapahoe Library District (Centennial); Clarke College (Clarke, IA); Kaiser Permanente Center for Health Research (Portland, KS); Douglas County Library System (Carson City, NV); Grinnell College (Grinnell, IA); Kansas State University (Manhattan, KS); Kansas State Library (Topeka, KS); McPherson College (McPherson, KS); Newman University (Wichita, KS); Montana Technical University (Helena, MT); Montana State Library (Helena, MT); University of Texas Southwest Medical Center Library (Dallas, TX); Community College of Southern Nevada (Las Vegas, NV); Pikes Peak Library District (Colorado Springs); Mesa Community College (Grand Junction); Coe College (Cedar Rapids, IA); Briar Cliff College (Sioux City, IA); Tri-Care Health Systems (Aurora); The Penrose-St. Francis Healthcare System (Colorado Springs); Westminster Public Library (Westminster); Lutheran Medical Center Medical Library (Wheat Ridge); American Heritage Center, University of Wyoming (Laramie, WY); National Wildlife Research Center Library (Lakewood); University of Colorado Health Sciences Center, Denison Memorial Library (Denver); Water Resources Library, Denver District Office, Bureau of Land Management (Lakewood); Mesa State Community College Learning Resources Center (Westminster).
- Colorado Historical Society Library (Denver). Original Cataloging of Serials for Multi-Institutional Union Listing Project, 1993. Technical Services Associate. Institutional partners: Denver Art Museum, Denver Museum of Natural History Library, and Denver Botanical Gardens Library.

Arapahoe Library District (Centennial). Original Cataloging of Major Media, 1991.

- Original Cataloging Projects: Davis and Elkins College (Elkins, WV), 1989-1990; Waldorf College (Forest City, IA), 1989-1990; Kennametal Corporation (Latrobe, PA), 1984-1985; Pennsylvania Public Libraries Film Center (Harrisburg), 1982-1985.
- Retrospective Conversion Projects: North Central Regional Library Service (Mason City, IA), 1987-1988;
 Southeastern Library Services (Davenport, IA), 1986-1987; Virginia Theological Seminary (Alexandria), 1984-1985; California University of Pennsylvania (California, PA), 1984-1985; Kennametal Corporation (Latrobe, PA), 1984-1985; West Virginia University (Morgantown), 1983-1985; Altoona Area Public Library (Altoona, PA), 1983-1984; George Washington University (Washington, DC), 1983-1984; Indiana University of Pennsylvania (Indiana, PA), 1983-1985; Health Education Center (Pittsburgh), 1983-1984; Central Pennsylvania District Library Center (Bellefonte, PA), 1982-1985; Duquesne University Law School Library (Pittsburgh), 1982-1983; Allegheny County Law Library (Pittsburgh), 1982-1984; Calgon Technical Information Center (Pittsburgh), 1982; Dow Corning Corporation, Technical Information Center (Midland, MI), 1982-1983; Tri-System Public Library Retrospective Conversion Project (Binghamton, Corning, and Ithaca, NY), 1978-1981, Technical Project Director.

Updated September 2018

EXHIBIT B

Facebook's Exhibit No. 1021 0092 deo card, on the gives you the speed ahead of raphics ailed than t this ar. Call

ive ron[®]

AGP ve d s e

dition

PCI).

L:

Keycode #04005

ell.com

MAGAZINE

PC Labs Tests 20 Digital Cameras Plus: 18 Digital Imaging Packages





After Hours: 6 Encyclopedias on Disk
 11 Servers to Let You Share Printers
 More Jim Seymour Win 98 Survival Tips

250

FIRST LOOKS:

- Exclusive: 250MB lomega Zip Drive
- 19" Flat-Screen Monitors
- Diamond Rio PMP300
- Deneba Canvas 6
- Sun's Solaris 7.0
- Intel eMall Station

WWW.PCMAG.COM

ZIFF-DAVIS a SOFTBANK

OM THE INDEPENDENT GUIDE TO PERSONAL COMPUTING VOL. 18 NO. 2 JANUARY 19, 1999



THE BEST DOWNLOAD SITES FOR WORD PROCESSING, WEB BROWSING, E-MAIL, AND MORE

HE WER



PLUS Tips and Tricks for

Downloading

WHO DO YOU DO IT FOR?





Winner takes all.

New Rules. New Tools[™]



Facebook's Exhibit No. 1021

Free Tuition! **Micron University is** our gift to you - the gift of knowledge.



At Micron, we invest in you: Buy any new Micron system and you're automatically 1. rolled in Micron U. You'll have access to hundreds of free', online courses, seminar and lutorials for one full year on the hottest topics in computing, software and oday Log in from any computer, 24 hours a day, 7 days a week. It's that easy



THE FIRST 450MHz DESKTOP

WITH A POST-GRADUATE DEGREE.

MICRON U - HERE'S HOW IT WORKS.

Micron University offers two ways to learn either with others in online, instructor-le 2. classes, or on your own, at your own pace, with our self-study tutorials Both offer comprehensive and flexible ways to become a more powerful PC user and better logy to your life



INSTRUCTOR-LED CLASSES.

ming takes place in a virtual classroom, which utilizes a powerful, yet simple to 3 use, threaded message board Each class is led by industry experts and professional trainers so you know you're being taught by the best. You'll get personalized ion and do it all from the keyboard of your computer - no matter where you are

Award-Winning Complete Internet-Ready¹⁰ 450MHz Systems Starting at Just \$1,699





nnia 450 at a

Be Smart



Get Mor

Micron[™] Millennia[®] -The Ultimate Desktop.

Just ranked the #1 450MHz desktop by the editors of CNET and the #1 Power Desktop by the editors of PC World Magazine (Millennia 400 DVD · Oct '98, Millennia 450 MAX • Nov '98, Millennia 400 MAX • Dec '98), Micron's Millennia desktop product line continues a long tradition of industry-leading, award-winning performance. Perhaps that's why some of the most prominent power users around rely on Micron. But Micron offers far more than outstanding systems. We provide the new tools necessary to win in today's demanding new economy, the latest of which is called Micron University and it's absolutely free' with the purchase of any new Micron system

Exclusive – Micron University – The Ultimate Learning Tool.

In our continuing effort to build not only powerful systems, but powerful users, we are proud to introduce Micron University. Offering hundreds of free' online, instructor-led classes, seminars and self-paced tutorials on the hottest topics in computing and business today Micron University will turn any Micron owner into a highly educated power user. When you combine this powerful new tool with Micron's revolutionary MPower purchase program, offering qualified users no interest or payments for six months and our PowerXchange trade-in options, you get more than a great machine at a great price, you get a deal you probably won't find anywhere else. Call today to order your system or visit our Web site to find out more about Micron University

BREAKTHROUGH PRICE! **COMPLETE INTERNET-READY 450MHz DESKTOP SYSTEM**

Intel[®] Pentium[®] II processor 450MH · 64MB 100MHz SDRAM 8.4GB Ultra ATA hard drive 17" Micron display (15.9" display + 32X max speed CD-ROM drive • 56K 3Com USR modem* 8MB SGRAM 3D 2X AGP graphics Microsoft[®] Windows[®] 98 Microsoft Office 97 Small Business Editio





RAM

Moder



"Best Lightweight Notebook PC"-Computer Shopper 1998 Rest Ruy Awards

Computer Snopper		998 Best Buy Awards	
Model Name	GoBook [™] 233	GoBook ² 300	
Houet Manie	GODOUK 200	GODOON SUU	
Processor	Intel Pentium processor with MMX™ technology 233MHz	Intel Pentium II processor 300MHz	
Cache	512KB L2 pipeline burst cache	512KB L2 pipeline burst cache	
RAM	64MB EDO DRAM	32MB EDO DRAM	
Hard Drive	3.268 hard disk drive*	3.268 hard disk drive*	
Monitor	12.1" SVGA display	12.1" SVGA TFT display	
CD-ROM	24X CD-ROM drive	24X modular CD-ROM	
Graphics	2MB/128-bit graphics accelerator	2MB/128-bit graphics accelerator	
Sound System	16-bit stereo/Wavetable sound	16-bit stereo/Wavetable sound	
Warranty	5-year/1-year Micron limited warranty	5-year/1-year Micron limited warranty	
Upgrades	Add SuperBase battery for \$299	Add SuperBase battery for \$299	
Scholarship	1-year free' luition to Micron U online	1-year free' tuition to Micron U online	
Price	\$ 1,799 \$63/mo. TechRefresh Bus. Lease, 36 mos."	\$2,699 \$94/mo. TechRefresh Bus. Lease, 36 mos."	

ORDER DIRECT 1-888-215-6399 Call toll-free or order online at www.micronpc.com/pcmag

Get Ahead.

lable up front freight charge applies for participation in PowerXchange to c net Service Provider required and is not included. Internet service questions must be resolved by ISP



The Critics Rave

Alliennia 400 MA ⁴1 Power Desator Dec '98

PEWORL

Millennia 400 MA ⁴1 Gunne Sister Dec '98

PC WORLD

Millennia 450 H Bist Bir Nov '98

RC WORLD



SELF-STUDY TUTORIALS.

Learn on your own by following comprehensive tutorials, involving a series of learning ercises. After you master the skills and concepts of each tutorial, you can move on to the А next lesson or choose a new topic. You can take tutorials to become a power user on the most popular software applications on the market including Microsoft Office and Windows NT.



Millennia 450

Intel Pentium II processor 450MHz 512KB internal L2 cache 64MB 100MHz SDRAM 8.468 Ultra ATA hard drive* 17" Micron 700Vx monitor (15.9" display)

32X max speed CD-ROM drive

3Com U.S. Robotics 56K WinModem**

PCI 64-voice Wavetable sound

5-year/3-year Micron Power limited warranty

3.5" floppy drive

1-year free¹ luition to Micron U online





Millennia 450 MAX

Intel Pentium II processor 450MHa

512KB internal L2 cache

128MB 100MHz SDRAM

6X DVD III ROM drive

13.668 Uttra ATA hard drive*

15" Micron 900Lx monitor (18" displa

3Com U.S. Robotics 56K WinModem*

16MB Diamond Viper 550 TnT 2X APG graphic

Millennia 450 MAX Intel Pentium II processor 450MHz 512KB internal L2 cache 128MB 100MHz SDRAM 14.46B 7200 RPM Ultra ATA hard drive*

19" Micron 900Lx monitor (18" display) 6X DVD III ROM drive

3Com U.S. Robotics 56K WinModem**

16M8 Diamond Viper 550 TnT 2X APG graphic PCI 128-voice Wavetable sound

5-year/3-year Micron Power limited warranty 3.5° floorty drive 100M8 Iomega Zip drive

1-year free' luition to Micron U online



TREK² 300

Intel Pentium 11 processor 300MH

3.2GB hard disk drive (removable)*

DVD-ROM drive (dedicated bay)

Built-in stereo speakers & microphone

5-year/1-year Micron limited warranty

4MB AGP graphics accelerator

512KB L2 pipeline burst cache

64MB SDRAM

14.1" XGA TFT display





TREK^{2™} 233

Intel Pentium II processor 233MH;

512KB L2 pipeline burst cache 32MB SDRAM 3.258 hard disk drive (rem 12.1" SVGA TFT displa

24X CD-ROM drive (dedicated bay)

4MB AGP graphics accelerato Built-in stereo speakers & microphone

5-year/1-year Micron limited warranty

Upgrade to 128MB SDRAM for \$199

1-year free¹ luition to Micron II online







Intel Pentium II processor 266MHz 512KB L2 pipeline burst cache

64M8 SDRAM 3.268 hard disk drive (re-

14.1" XGA TFT display

24X CD-ROH (dedicated bav) 4MB AGP graphics accelerator

Built-in stereo speakers & microphon

5-year/1-year Micron timited warranty Upprade to 128MB SDRAM for \$199

1-year free¹ Luition to Mirron U online

Upgrade to 128MB SDRAM for \$199 1-year free¹ tuition to Micron II online



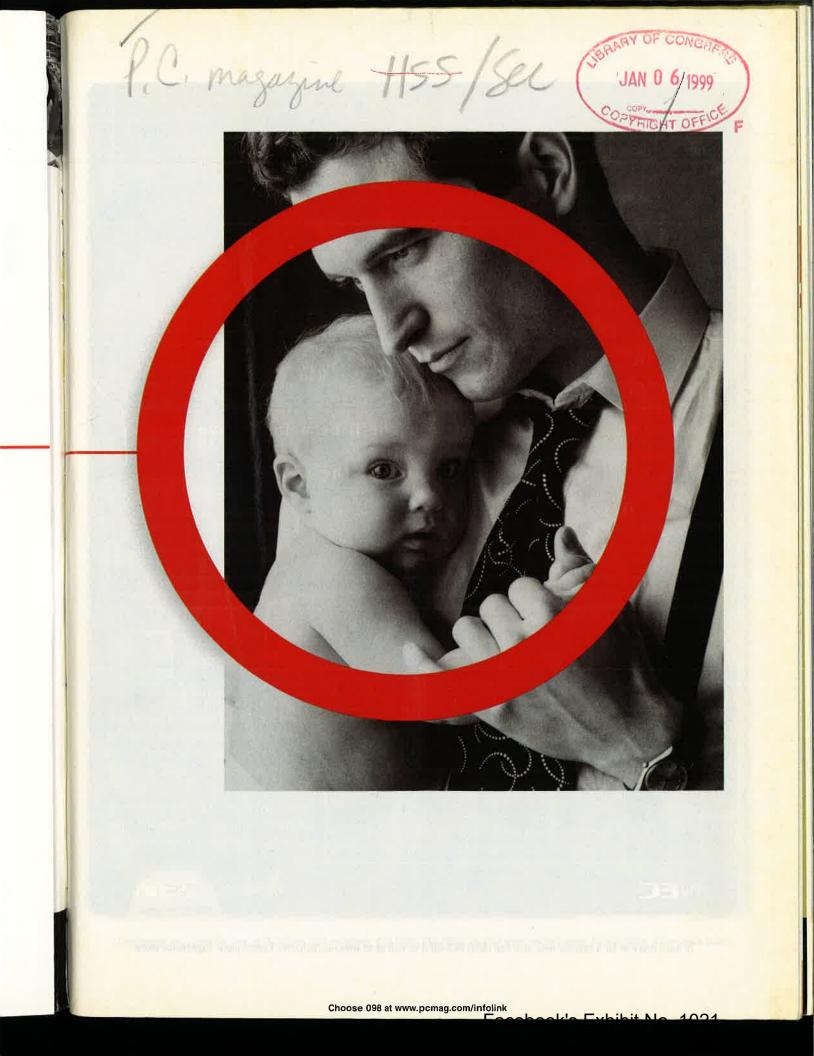












We can't say what applications she'll be using in five years.

We can, however, predict the monitor.



Software goes out of date. CPUs are superseded.

OUR NEW SHORT-DEPTH MULTISYNC E750 Completes the e series family.

In the face of nearly chaotic change, it's reassuring to know you can count on MultiSync E Series monitors for years to come. Take a look. Our CromaClear and dot trio CRTs deliver all the contrast, sharpness and color-saturation you need for demanding applications. But what isn't so apparent is the reliability and flexibility we build into each monitor. Refresh rates up to 120 Hz, PC and Macintosh compatibility and

	MultiSync E500"	MultiSync E750*	MultiSyna E900+	MultiSync El160+
Viewable Image Area	13.8*	16.0:	18.0*	19.8*
CRI	CromaClear	Short-depth CromaClear	Microfilter Dot Trio	Microfilter Out Trio
Dot Pitch	0.75mm mask	0.25mm mask	0.26mm dot 0.22mm horizontal	0.28mm dot 0.24mm horizontal
Maximum Resolution	1280 x 1024 @ 65Hz	1600 x 1200 @ 73Hz	1600 x 1200 @ 77Hz	1600 x 1200 @ 77Hz

the optional IntelliBase" Series' monitor bases mean they'll grow as your needs change. And for added security, they're backed by a three-year warranty. MultiSync E Series monitors. With longevity like this, you might just retire before your monitors do.





To learn more or for a reseller near you, call (800) NEC-INFO or visit us at www.nectech.com. Expect more. Experience more.

For under \$1,000 you'd expect an entry level 15" LCD monitor.

NEC

me. But and

ean

ded nty.

his,

Sorry to disappoint you.

MultiSync The new MultiSync=LCD1500M[™] monitor surprises in many ways. Along with our famed reliability, you'll find astounding image quality and a robust multimedia speaker system. There's even a four-port USB hub that lets you hot swap peripherals with true plug and play ease. If you're looking for an LCD monitor, check out the model with high-end performance. The MultiSync LCD1500M monitor.

MultiSync LCD usering



Learn about our complete line of MultiSync LCD monitors. Call (800) NEC-INFO, or visit www.nectech.com. Expect more. Experience more.

Michael J. Miller

Personal Multimedia

Remember when the promise of personal computers was just that—bringing computer power to individuals? People used PCs to create their own word processing documents and spreadsheets, things that automated processes done by hand or on large computers. Then, about ten years ago, we got desk-

top publishing applications and fonts and graphics in documents. Suddenly anyone could create professional-looking documents.

The same thing is happening now in multimedia applications, with software designed to let almost anyone create fancy graphics and even music. Such programs have been available for professionals for some time. Most of the publications and graphics you see are created in programs such as QuarkXPress, CorelDraw, or Adobe Photoshop or Illustrator. But for those of us who aren't graphics professionals, getting good-looking results from these programs is rather difficult.

On the other side of the spectrum, there are many template-driven and clip-art style pro-

grams that let you create graphics pretty easily but are aimed at home users.

Nowadays, many of us are creating our own Web sites and publications, and we want something unique but still professional looking. For those of us who aren't pros, this can be a challenge.

I recently met with a number of my colleagues to discuss some of the best software we've seen in the past year. The trend is clear: Many of the best programs are now trying to use the

power of the PC to make it easier for anyone to create great multimedia elements.

This is particularly true in the graphics arena, where new applications aimed at typical business users—instead of graphics professionals—are the big trend. Among my favorites:

Microsoft PhotoDraw 2000 lets you start with your own photo or clip art and then format it for a document or a Web page. It offers basic photo-editing tools—for things like fixing red-eye—and lets you easily create compressed images that are the right size for putting on a Web site. It has a number of templates for logos and Web buttons, and was designed to fit in with the Microsoft Office suite.

Adobe ImageStyler is a bit more sophisticated

and is aimed specifically at people trying to create graphics for a Web site. You'd likely start with a photograph or clip-art image, but ImageStyler makes it very easy to create your own logos, graphics designs, and even Web buttons by applying predefined styles to your image. You can easily mix and match colors, textures, shading, and 3-D effects to create a unique image. And you can link graphics together, so that you can change them all at once, giving your site a consistent look. You can even attach things like specific HTML commands or roll-over text that pops up when you put your cursor on the graphic.

For those who want to get even more sophisticated, Macromedia Fireworks offers a vast array of

Letting average users create and things only professionals loa could before is one of the PC's hallmarks.

higher-end tools packaged in a way that even those of us who aren't designers can use. Along with symbols and templates, it adds features such as bundled animations, color corrections, and image slicing (so users can download parts of an image first). It is designed as a complete environment for creating Web graphics, suitable for both business and professional users.

And it's not just graphics that are moving this way. If you want unique music for your Web page, check out

Acid, from Sonic Foundry. Acid lets you start with its music clips or your own files and then mix them together to create a unique sound. By combining various clips from multiple instruments, changing the tempo or the pitch, adjusting the volume, and adding a variety of effects, you can easily make your own music.

Taken together these programs represent a range of new tools that let anyone create pages that look and sound both unique and professional. With these tools, a digital camera, and a simple Web-site creation tool, you can easily create a top-notch site.

Letting average users create things only professionals could before is one of the PC's hallmarks. It's good to see it continuing.



More on the Web: Editor-in-chief Michael J. Miller answers your computing questions every Tuesday, exclusively at PC Magazine Online.

www.pcmag.com/miller

SEAGATE'S SIDEWINDER AIT TAPE DRIVE TRANSFERS DATA TWICE AS FAST AS THE DLT4000.

SAVING YOU ALMOST ENOUGH TIME TO JUSTIFY READING THIS MAGAZINE.

Does it really matter how fast you can backup data? You bet it does. When you do it every day, it matters a lot. So a faster drive, like our Sidewinder[®] AIT tape drive, is hard to resist. But there's more to Sidewinder than speed. Sidewinder tape is superior, too. It's the only tape media with a memory chip in each cassette to index data for faster access and restore. And Seagate Advanced Metal Evaporated (AME) media resists the flaking and peeling of standard metal particle tape for less contamination and greater reliability. In fact, Sidewinder drives almost never need routine cleaning, which saves you even more time. But we have to admit, the most attractive thing about Sidewinder is speed. And you can never have too much of that. Seagate Tape. We'll back you up.

	EVI	
-	r H	1

13 Mar 1	
and the second	Capacity (C
A CONTRACTOR	Transfer Ral
	Head Life
A	Media Load
	Avg. File Aci

	SIDEWINDER 50	DLT400D	SEAGATE ADVANTAGE
Capacity (Compressed)	50 68	40.68	26% Higher Capacity
Transfor Rate (Compressed)	6 MB/sec	3 MB/soc	Faster Backup
Head Life	50.000 Hours	10.000 Hours	Up to 5 times tonger
Media Load Time (w/ MIC)	20 sec	45 sec	Faster Restorn
Avg. File Access	27 580	68 sec	Accesses Data Faster

www.seagate.com/ait1

111100 Security Technology, Tec. All radio memory. Terpole: The physical fluctuating was the property of the factoring on the Technology and Technology and



ging word esses lesk-

create with a makes ics delefined match reate a ther, so our site ags like at pops

isticatrray of a way en't deymbols such as ections, downlt is denent for for both t. that are

unique eck out with its hem tong variging the I adding our own

a range hat look th these creation

profesarks. It's



UP FRONT

From the	
Editor-in-Chie	f 4
Pipeline	9
Letters	21

- More choices in wireless and phone-line home networking
- What's in an Oracle appliance?
- Tuning into desktop TV
- On-screen reading that's easy on the eyes
- Roam the planet
- Chips change their spots
- The Palm goes wireless

► USB speaker technology



First Looks......41

- ► 250MB lomega Zip Drive
- ▶ 19" flat-screen monitors
- ► Diamond Rio PMP300
- Deneba's Canvas 6
- PC radios from ICOM, Sony, and Ten-Tec
- ► O'Reilly Utilities for Windows 98 Annoyances
- Microtek ImageDeck
- Painter 5.5 Web Edition
- ▶ FoneCam
- ►L&H iTranslator
- **Professional Service**
- ► ALPS MD-5000
- ► LMSoft Presenter 3.0
- ► Systat 8.0

Networking First Looks......75

OVER ILLUSTRATION BY TOM WHITE; PHOTOGRAPHY BY THOM O'CONNOR

- ► Sun's Solaris 7.0
- ►Intel InBusiness eMail Station

▶Norton AntiVirus 5.0

Dragon NaturallySpeaking



- DVD Fat

Punch

7:20 39:20 39:20

Free Software On the Web



System Utilities
Microsoft Office Add-Ons
Internet Tools
Communications Tools
Organizational Tools
Web Development Tools114
Games
Tips on Web Downloading and Storage
Where To Get It: The Sites
Essentials

BY GAIL SHAFFER

Downloading software. Besides sending e-mail, it's still our favorite thing to do online-especially if it's free or almost free! We scoured the Web and found a bunch of great programs for you that do all sorts of things. And we surveyed the best download sites so you can save some time the next time you're looking for something......100



NETWO Shai

BY STEVE RIGNEY

Still useful after all these years, print servers give you great flexibility in placing your shared printers right where you need them. They're inexpensive and easy to set up179

Axis Communications Inc.	
Castelle Inc	
D-Link Systems Inc.	186
Emulex Corp	
Extended Systems Inc.	
Hewlett-Packard Co	
Intel Corp.	
Lexmark International Inc.	
Linksys Inc	193
Microplex Systems Ltd	
Osicom Technologies Inc	
Two Ways to Print	
Editors' Choice	185
Single-Printer Sharing	
Summary of Features	188
Performance Tests	191

6 PC MAGAZINE JANAURY 19, 1999

FEATURES

CONSUMER IMAGE EDITING

Point-and-Shoot Software

BY SALLY WIENER GROTTA AND DANIEL GROTTA

You'll fall in love with your PC all over again once you start playing with digital images using one of these packages. Fix red-eye, adjust contrast and brightness-all with a click or two of the mouse-then move on to even more fun things, including making your own cards and calendars......154



Adobe PhotoDeluxe Home Ean	001 3,0
Corel Print House Magic Delux	ce 3.0
LivePix 2.0	
MGI PhotoSuite II	
Ulead Photo Express 2.0	
Editors' Choice	
Suitability to Task	
The Digital ShoeBox	
Other Image Editors	

PERIPHERALS **Digital Cameras**

BY DANIEL GROTTA AND SALLY WIENER GROTTA

100

.102

104 104

114

_114 101

_104

185

186

188

188

.189

189

193

193

180

....185

188 _191

They've come a long way (in a short time), baby. The latest generation of digital cameras delivers near-35-mm quality photos in larger sizes. Models range from \$300 to \$1,200 and vary in features, so we've awarded Editors' Choices in three market segments. For all that digital cameras offer, they're worth the price......116

Get more online at www.pcmag.com

Online Exclusive:

Photo Samples

How good do the photos taken by the digital cameras tested for this issue's story look? See for yourself at our Web site.

Plus: The Daily Download! A fresh new pick from the ZDNet Software Library every day.

Also Currently Online:

100 Desktop Fixes

Windows doesn't have to look that way. Customize it to your heart's content with this collection of hints and free utilities.

Plus:

► Test your PC for Y2K compliance live online! Are you ready?

Agfa ePhoto 780, ePhoto 1680 Casio QV-7000SX 125 Fastman Kodak DC210 Plus DC260 125 Epson PhotoPC 700 128 Fujifilm MX-500, MX-700 128 HP PhotoSmart C30 Konica Q-M100V 131 Leica digilux 128 Nikon Coolpix 900s Olympus D400 Zoom, D-620L 149 Ricob RDC-4200, RDC-4300 Sanyo VPC-X300 150 Sony MVC-FD71, MVC-FD81 152 Toshiba PDR-M1 .152 Editors' Choice118 Performance Tests and Output Samples ... 133 Hitachi M2: Video, Too Image Transfer: Easier than Ever... .150 Summary of Features151

125

Multimedia Extra: CD plus Web Site

Top Software

- ▶ 30 utilities ready to install ▶ Searchable
- back-issue database
- ► Web site link to more free utilities and the best downloads

Visit Extra at www.pcmagextra.com. To order, call 800-335-1195 in the U.S. or 303-665-8930 elsewhere.

See this issue's free utility in action atwww.pcmag.com/download

COLUMNISTS

JAKE KIRCHNER	30
BILL MACHRONE	85
JOHN C. DVORAK	87
INSIDE TRACK	89
JIM SEYMOUR	93
BILL HOWARD	99

SOLUTIONS

Expansion buses provide vital connection to peripherals. Use Word to create presentations, automate Windows log-on, transpose Excel images easily, and more. InCtrl4 makes keeping track of program installation easy. You can get DHTML to work in both IE and Navigator. Microsoft Visual C++ 6.0 is both easier and more powerful. AFTER HOURS A World View......247 **Disk-based encyclopedias** provide useful, up-to-date information. Sound's Descenable

Britannica Classic-

Shogo252

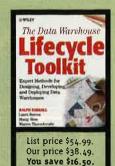
A first-person shooting game that's in a league of its own.

Also in This Issue:

PC Magazine Marketplace	
Coming Up	254
Editorial Product Index	256
Advertisers' Index: Companies	
Advertisers' Index: Products	260
Abort, Retry, Fail?	



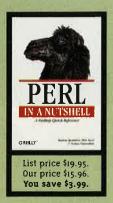
Our price \$39.95. You save \$7.99.

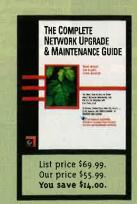


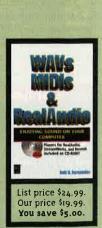


Upgrade your cerebral hard drive.

How do you stay ahead of the technology curve? With books like these and more than 3 million other titles, Amazon.com has many ways to keep you wired into the latest on programming, the Internet, software and more. Plus, at up to 40% off, we'll keep you from crashing your budget.







amazon.com

©1999 Amazon.com, Inc. All rights reserved. AMAZON.COM is the registered trademark of Amazon.com, Inc.



UPGRADING ND **R**EPAIRING PCs

List price \$54.99 Our price \$38.49

You save \$16.50.

nue

List price \$59.99. Our price \$47.99. You save \$12.00.

A

Net

far-

becc

that tane with

esti side

allia

"to; grov prismer Sun;

ogy

Inte

that Inte Am any

to a the

prin

pro

mil

and

AO

Sun

wor thin sod roo net

T

acc

hor

buy

for

HE

ULUSTRATION BY HAL MAYFORTH

PIPELINE

DISPATCHES FROM THE WORLD OF COMPUTING

AOL Gazes at Sun

with AOL is just as interesting as the Netscape side of the deal.

The AOL/Sun alliance is designed "to accelerate the growth of enterprise-class e-commerce, and to use Sun's Java technology to develop Internet devices that will help Internet users access America Online brands from

anywhere, anytime," according to an AOL statement. As part of the deal, Sun will become a primary systems and service provider to AOL.

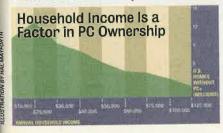
AOL will get more than \$350 million in licensing, marketing, and advertising fees from Sun. AOL's big hope, though, is that Sun's vision of ubiquitous networking—incorporating everything from Internet-connected soda machines to conference room tables with plug-and-play networking—can help make AOL ubiquitous. Thus your Java-smart hand-held device might connect easily to an airport Internet kiosk, bringing up AOL and Netscape's browser.

AOL CEO Steve Case has made clear that he has his eyes on Sun's hardware and software platforms as opportunities to marry AOL with enterprise ecommerce strategies. AOL and Netscape will continue development of the upcoming Netscape browser, called Communicator 5.0, and will add Version 1.2 of Sun's Java Development Kit to the browser. AOL will also embed Sun's scaled-down version of Java, PersonalJava, in all AOL clients.

The PC Proliferates

ow PC prices and the lure of the Internet drove almost 4 million buyers to purchase their first PCs in the first six months of 1998, according to data from ZD Market Intelligence. Some 50 million homes—almost half of U.S. households—now have at least one PC.

Declining prices have also led more lower-income families to buy PCs. Households with incomes of less than \$30,000 accounted for a third of all new PC purchases in the first half of 1998. Still,



households flush with cash are far more likely to house PCs than low-income households: Those earning less than \$30,000 constituted only a quarter of all homes owning PCs.



Thinking Thin

of respondents to a recent PC Magazine Online poll told us that they didn't expect to have a flat-screen display on their desktops until 2001. Another 30 percent said that they'd have one by 2000. Only 13 percent of those responding said that they'd have one by 1999. Seven percent of respondents told us they already had flatpanel displays.

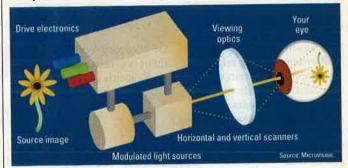
The Eye Is the Display

www.hat's round, super-lightweight, ultraportable, low-cost, and long-lasting? It can support millions of colors at perfect resolution and comes in blue, green, or brown. It's your eye, of course, and it may be the ultimate display of the future.

Microvision, a developer based in Seattle, acquired rights to a technology known as Virtual Retinal Display (VRD) from the University of Washington Human Interface Technology Laboratory in 1993. A VRD device sends an encoded beam of light through the pupil to the retina, stimulating the receptors so you seem to see a high-quality image an arm's length away. It eliminates the need for any screen, letting the eye complete the function performed by a flat panel's matrix array.

Built into eyeglasses or goggles, VRD could display images that don't block one's view, useful in image-guided surgery. And in cellular phones and pagers, it could let you view e-mail, Web pages, faxes, and files as if on a full-size monitor.

Microvision says VRD poses no danger to the eye and adheres to safety standards.



www.pcmag.com

Just How Good Are Digital Cameras?	Join us online to compare digital camera output samples. By a process of elimina- tion, you'll end up with your favorite.	
The Top 100 Web Sites	Our new list has five sites in each of 20 categories that reflect the Web's expanding scope.	
John C. Dvorak: Fresh Weekly	Check in with our cantankerous columnist every Monday for his news, views, and snide asides.	
100 Tools for Desk- top Renovation	Our download experts have found 100 free utilities that let you customize your desktop.	
Do You Get Our Newsletter?	Stop by our home page and sign up for our newsletter, now featuring expert insight from Bill Machrone. We'll send it right to your e-mail box.	

PIPELINE

Walking Web

ireless tablets for Web surfing on the run are due to arrive in 1999. The WebPad. from the **Conceptual Products Group** at Cyrix, is one of the most talked-about tablets. Powered by the Cyrix MediaGX processor, the tablet is about the size of an Etch A Sketch



NO WIRES: The Cyrix WebPad. and accesses the Internet wirelessly via a radio-frequency base station-a set-top box or standalone base station.

The base station options provide for cable modem, ISDN, or 56-Kbps connections. Once you connect to the base station, you can roam wirelessly at a range of about 150 feet and use a pen and on-screen navigation buttons to surf the Web. Though the unit is only a prototype now, Cyrix is talking to manufacturers and expects units to start shipping early this year. Cyrix foresees the WebPad being popular for use with home networks. No pricing information is out yet.

Global Converging Technologies is also working on a wireless tablet for Web surfing, the Cendis Net Display, to arrive in the summer of 1999. It will be touch-sensitive and priced around \$500. The Cendis Net Display, unlike the Cyrix WebPad, will have a monochrome display.

Bio-Identities

B iometric identification systems-which rely on fingerprints, voice prints, retinal scans, and the identification of other unique attributes you carry around—are slowly making the transition out of the exotic stage and into the mainstream.

To move product development along, Microsoft and a group of software companies have come up with BioAPI (API stands for application programming interface), a tool that software developers can use to build support for all sorts of biometric devices right into their applications. Today developers need to write support for specific biometric devices and force their customers to use certain hardware. A standard such as BioAPI

can offer complete interoperability between applications and any biometric gadget-a key ingredient that will help broaden



the market, says Karan Khanna, lead product manger for Windows Security at Microsoft. The proposal is only in the initial stages now, with product development a year away.

THIS ISSUE'S CONTRIBUTORS: Angela Hickman, Carol Levin, Sebastian Rupley, Don Willmott.

Personal Projection

orldwide sales of ultraportable projectorsmodels that weigh under 10 pounds-grew nearly 400 percent from 1997 to 1998, according to the market research firm Pacific Media Associates. The ultraportable market should nearly double by next year, reaching almost \$1 billion in sales, according to Pacific Media.

Key to this growth is that these projectors weigh less than half as much as competing designs, while offering many of the same features and, in some cases, brighter images. Low price is also a factor. Released nearly two years ago, the Lightware VP800 remains one of the



PRESENTING: The 6.8-pound InFocus LP425 is one of the lightest projectors you can buy.

best-selling projectors for professionals. Sales shot up last year when Lightware lowered the price to \$3,000-unprecedented in a market where most projectors were closer to \$10,000. The unit now sells for under \$2,000.

Soon you'll be able to carry a notebook and a projector that together will weigh less than a laptop did just a few years ago.



HP Photosmart C-20 (\$380) Source: ZD Market Intelligence; data for October

E-Shopping Arrives

hile the final numbers won't be compiled for another couple of months, 1998 appears to have marked the arrival of big-time e-commerce revenues. According to Cyber-Dialogue, a research firm, about 6.7 million adults shopped online in 1998. According to America Online, nearly 50 percent of its 14 million subscribers have shopped online, with the numbers sharply increasing during the last quarter of 1998. A big boost came during the holiday season as major retailers such as Nordstrom offered online shopping options.

HŊ



match Web start-ups, according to market research firm IDC. In 1998, online brokers collected \$1.28 billion in transaction-based revenue, and they're expected to generate over \$5 billion in commission fees in 2002.



IDC.

10 PC MAGAZINE JANUARY 19, 1999

Facebook's Exhibit No. 1021

Oracle Express analyzes 50 times

data than Hyperion Essbase.

	Data Density	Query Execution Time	
Oracle Express 6.1	5.0	0:34:02	1.27
Hyperion Essbase 5	0.1	0:36:30	



١g *l*are

))

))))

))

0)

1801

g

mbers ed for 1s, 1998 the imerce Cybern, about ed online nerica t of its 14 shopped sharply t quarter e during ijor ren offered

fits

>5 Illion

02. Projected 1998

Source IDC,

for October.

In a recent industry standard OLAP council benchmark, Oracle" Express" ran 250,000 queries against a data density of 5.0 and delivered an average response time of 0.07043 seconds. That's 50 times more data than the previous record. With a data density of 0.1, Otacle Express was 34% faster than the previous record. Oracle Express offers unparalleled scalability against the largest volumes of data. What's more, Oracle Express, combined with Oracle Discoverer* and Oracle Reports, delivers

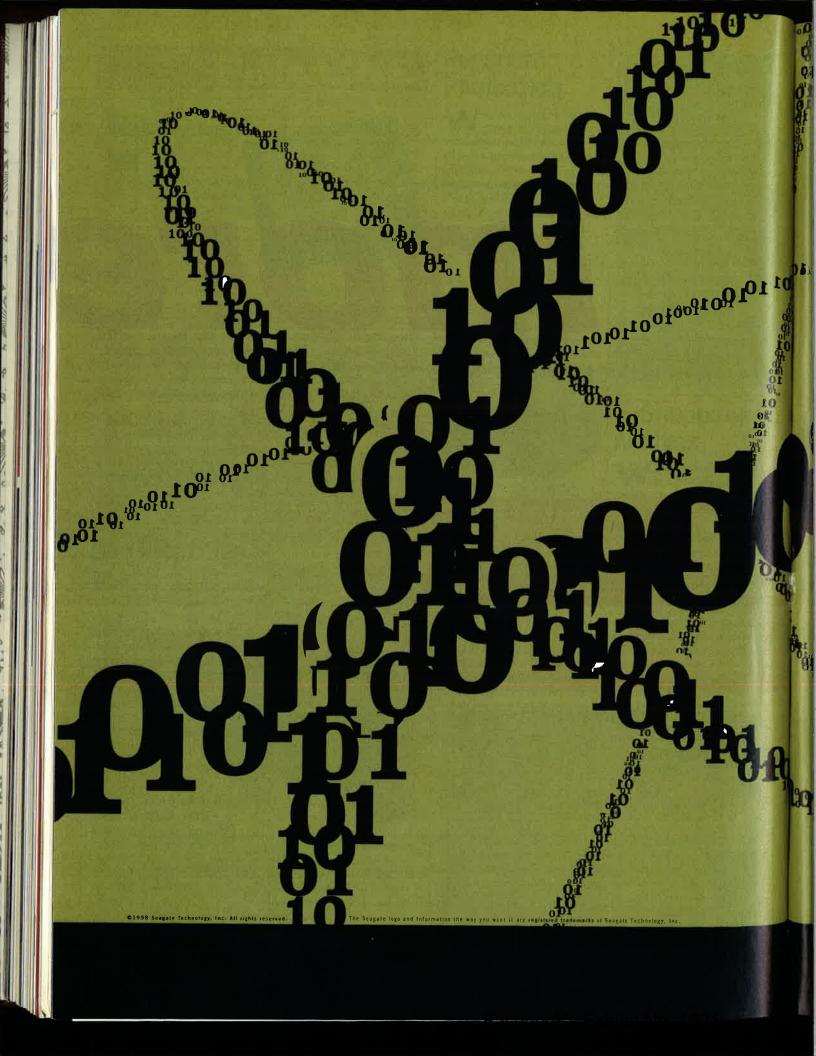
an integrated business intelligence solution, from reporting to ad hoc query and advanced analysis. When you want fast answers to hard

questions, Express finds them-no matter how much data you have. Call us at

1-800-633-0510, ext. 18202, or visit us on the Web at www.oracle.com/info/24 today.



©1998 Oracle Corporation. All rights reserved, Oracle is a registered trademark, and Oracle Express and Oracle Discoverer are trademarks or registered trademarks of Oracle Corporation, All other names may be trademarks of their respective owners.



WOULD IT or WOULD IT NOT be nice to have central control of all your data? WITH STORAGE NETWORKING, YOU WILL.

In order to take control of data, you need a place to keep it. All of it. Consider the revolutionary new Storage Networking architecture. A new concept for the enterprise. A blindingly fast sub-network dedicated to storage, based on high-speed fibre channel technology. It will make your enterprise information into a flexible, manageable, and continuously accessible resource. It will free your main network from back-up duties that consume valuable bandwidth, and it will speed up the entire network. As Storage Networking becomes a reality, Seagate intelligent storage devices and software will play a central role. And you will be in control.

2236366

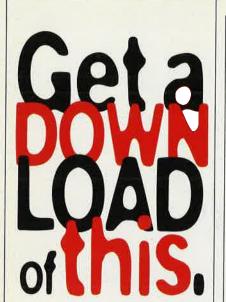
FYI: 🔲 www.seagate.com/sn2

HERE BERNE

The second secon



Choose 374 at www.pcmag.com/infolink



EDITOR Jake Kirchner SENIOR EXECUTIVE EDITOR Bill Howard

MAGA

EXECUTIVE EDITORS Leon Erlanger, Peter McKie, Gail Shaffer, Don Willmott **DIRECTOR, PC LABS** Steve Buehler ART DIRECTOR Laura Baer

SENIOR NETWORKING EDITOR Frank J. Derfler, Jr.

EDITOR-IN-CHIEF Michael J. Miller

SENIOR ONLINE EDITOR John Clyman SENIOR EDITORS Carol Venezia (First Looks), Sebastian Rupley (West Coast) MANAGING EDITOR Paul B. Ross

SENIOR ASSOCIATE EDITORS Jamie M. Bsales (Hardware), Carol Levin (Trends), Sharon Terdeman (Technical Columns) ASSOCIATE EDITORS Eileen Bien (First Looks Networking), David Lidsky (Internet), John Morris (Software), Tom Ponzo (First Looks Online), Jennifer Triverio (After Hours), Anush Yegyazarian (PCs) ASSISTANT MANAGING EDITOR Kim Schueler PRODUCTION EDITOR Monica Sirignano COPY CHIEF Glen Bolsseau Becker STAFF EDITORS Mary E. Behr, Doug Beizer, Paul Dwyer, Matthew Graven, Nancy E. Hirsch, Josh Levy, Carol A. Mangis, Michael W. Muchmore SENIOR WRITER Cade Metz STAFF WRITER Angela Hickman SENIOR COPY EDITORS Jennifer Golub, Joseph N. Levine COPY EDITORS Michael Feist, Jeremy A. Kaplan, Barbara McGeoch, Ann Ovodow ASSISTANT COPY EDITOR Serah Pike PRODUCTION MANAGER Patricia Perkowski SENIOR LAYOUT EDITOR Lillian Gaffney LAYOUT EDITOR Michal Dluginski PRODUCTION SYSTEM SUPPORT ANALYST Nancy Goodman-Slayback LIBRARIAN Nancy Sirapyan LIBRARY ASSISTANT Dolores Williams EDITORIAL RESEARCHERS Adam Asch, Roderick A. Beltran, Richard Brown, Sharon Nash, Angela Tuka DIRECTOR, IS TECHNOLOGY Craig Ellison NETWORK SUPPORT ANALYST Melvin Acevedo COMMUNICATIONS MANAGER Anita Anthony ASSISTANT TO THE EDITOR-IN-CHIEF Christine Curti ASSISTANT TO THE EDITOR Rita Aprahamian ADMINISTRATIVE ASSISTANT Christina Okang SYSOP, PC MAGNET Ken Hipple

CONTRIBUTING TECHNICAL EDITOR Neil J. Rubenking CONTRIBUTING EDITORS Bill Machrone (Vice President, Technology), Greg Alwang, Douglas Boling, Padraic Boyle, Bruce Brown, Sheryl Canter, John C. Dvorak, Les Freed, Daniel Grotta, Sally Wiener Grotta, David Linthicum, Edward Mendelson, Jan Ozer, Charles Petzold, Stephen W. Plain, Alfred Poor, Jeff Prosise, John R. Quain, Neil Randall, Sal Ricciardi, Steve Rigney, Winn L. Rosch, Jim Seymour, Barry Simon, Luisa Simone, Craig Stinson, M. David Stone

SENIOR ASSOCIATE ART DIRECTOR Lisa Kocaurek ASSOCIATE ART DIRECTORS Eileen Hanley, Michael Scowden ASSISTANT ART DIRECTOR Lora Morgenstern GRAPHICS DIRECTOR David Foster GRAPHIC ARTIST Mark Tyner ART PRODUCTION MANAGER Talor Min CONTRIBUTING PHOTOGRAPHER Thom O'Connor ASSISTANT TO THE ART DIRECTOR Frieda T. Smallwood

TECHNICAL DIRECTORS Ben Z. Gottesman (Software), Nick Stam (Hardware), Jeffrey G. Witt (Networking and Communications) DIRECTOR, OPERATIONS John R. Delaney SENIOR PROJECT LEADERS Richard Fisco (PCs), Jay Munro (Internet, PC Tech) PROJECT LEADERS Laura Cox (First Looks), Russ Iwanchuk (Networking and Communications), Diane Jecker (Software), S. Jae Yang (Hardware), Kevin Young (Networking and Communications) PROGRAMMERS Richard V. Dragan, Win Swarr PRODUCT TESTING MANAGER Charles Rodriguez TECHNICAL ANALYSTS Oliver Kaven, Melanio Lopez, Jacqueline Paredes, Mark Valentine, Brad Walden, Martin Wong SUPPORT TECHNICIANS David Carela, William Pagan, Miriam Sampson, Sunita Sawh, Jeffrey Spada INVENTORY CONTROL MANAGER Tom Kennedy INVENTORY CONTROL COORDINATORS Richard P. Bifone, Bryan Hughes ADMINISTRATIVE ASSISTANTS Christina M. Evelyn, Leslie Sorich

PC MAGAZINE ONLINE

MANAGING EDITOR Tin Albano SENIOR EDITOR Josh Taylor SENIOR TECHNICAL EDITOR Thomas W. Giebel TECHNICAL EDITOR Webster T. Mudge PROGRAMMER Brian D. Buck ASSOCIATE EDITOR Edward Grossman DESIGNER Marcie Gandell STAFF EDITORS Jennifer L. Anderson, Troy Dreier, Richard Egan PRODUCTION EDITOR Matthew Slaybaugh

PUBLISHING DIRECTOR Nancy Newman

NATIONAL SALES DIRECTOR Vickie Pinsky GROUP BUSINESS DIRECTOR Bret Violette ASSOCIATE BUSINESS MANAGER Christine Holsten RESEARCH DIRECTOR Gordon Plutsky MARKETING MANAGER Dawn Gudelis

SENIOR ADVERTISING PRODUCTION MANAGER (vis Fundichely ADVERTISING PRODUCTION COORDINATORS Milena Kotrch, Simone Oliver-Weekes EDITORIAL PRODUCTION MANAGER Pamela J. Berkowitz MULTIMEDIA PRODUCTION MANAGER Louise Laberge

ADVERTISING OFFICE: One Park Ave., New York, NY 10016-5802; 800 33 MAG AD, 212-503-5100

THE INDEPENDENT GUIDE

PC Magazine is the Independent Guide to Personal Computing. Our mission is to test and review products and report fairly and objectively on the results. Our editors do not invest in firms whose products we review, nor do we accept travel tickets or other gifts of value from such firms. Except where noted, *PC Magazine* reviews are of currently available products. We review products without regard to advertising or business relation-ships with any vendor. Softbank, the majority holder of ZD Inc., has made a number of strategic investments in high-technology companies. A list of those companies is available online at www.pcmag.com/faq, and we will alert our readers to such investments whenever pertinent.

HOW TO CONTACT THE EDITORS

We welcome comments from readers. Send them to Internet address pcmag@zd.com or to PC Magazine, One Park Ave, New York, NY 10016-502. Please include a daytime telephone number. PC Magazine's gen-eral number is 212-503-5255. The West Coast Operations number is 650-313-8000. We cannot look up stories from past issues, recommend prod-ucts, or diagnose problems with your PC by phone. For an index of past issues and a list of upcoming stories, browse www.pcmag.com.

If you are dissatisfied with a product advertised in *PC Magazine* and cannot resolve the problem with the vendor, write (do not call) Ellen Askin, Advertising Department, at the above address. Please include copies of your correspondence with the vendor.

SUBSCRIPTION SERVICES

Internet: http://subscribe.pcmag.com/service. U.S. and Canada: telephone, 303-665-8930: fax, 303-604-7455. Elsewhere: telephone, 303-604-7445; fax, 303-604-0540. Mail: *PC Magazine*, P.O. Box 54093, Boulder, CO 80322-4093.

Subscription rates. The one-year rate (22 issues) is \$49.97 in the U.S., \$85.97 elsewhere. Make checks payable to PC Magazine; U.S. currency only.

Back issues are \$8 each in the U.S., \$10 elsewhere (subject to availability). Prepayment is required. Make checks payable to PC Magazine, U.S. currency only. Mail your requests to Back Issues, ZD Inc., P.O. Box 53131, Boulder, CO 80322-3131.

Mailing lists. We sometimes make lists of our customers available to mailers of goods and services that may interest you. If you do not wish to receive their mailings, please write to us. Include your mailing label with any correspondence; it contains information about your subscription that will facilitate processing. Please allow 6 to 8 weeks for your first issue to arrive or for any changes in your subscription to take place

14 PC MAGAZINE JANUARY 19, 1999

Additional information on advertised products can be requested online at www.pcmag.com/infolink.

PC MAGAZINE EXTRA

PC Magazine Extra, the interactive CD-ROM companion to PC Magazine, is available quarterly. To order (\$4995 per year in the U.S., \$72 in Canada, \$99 elsewhere), please call 303-655-8930 in the U.S. or 303-604-7445 elsewhere. Or write to PC Magazine Extra, PO. Box 54949, Boulder, CO 80322-9494.

PC MAGAZINE ONLINE

PC Magazine is on the World Wide Web (www.pcmag.com) and The Microsoft Network (Go To pcmagazine), We operate PC MagNet, an on-line service of ZDNet, hosted by CompuServe. (For details, see the Utilities column.) PC Magazine subscribers receive free access to our online archives. 1

PERMISSIONS, REPRINTS

Reprints PERMISSIONS, REPRINTS Netroin 15 Section 15 S Reprints at 800-825-4237

The following are registered trademarks of ZD Inc.: DOSMark, NetBench, PC, PC DIRECT, PC Labs, PC MAGAZINE, PC MAGAZINE AWARD FOR TECHNICAL EXCELLENCE, PC MagNet, ServerBench, WinBench, Winstone, and ZD.

The following are trademarks of ZD Inc.: Abort, Retry, Fail?, After Hours. The following are trademarks of ZD Inc: Abort, Retry, Fail?, After Hours, BusinessCard, Corporate Developer, CPUmark, EasyComputing, Extending Your Apps, Features Plus, First Looks, First Looks Plus, Lab Notes, New & Improved, OFF THE STACK, PC Bench, PC Magazine At Homa, PC Magazine CD, PC MAGAZINE EDITORS' CHOICE: PC Magazine Extra, PC Magazine Marketplace, PC Solutions, PC Tech, Pipeline, Power Programming, Quick Clips, Read Only, ScreenDemos, Tech Notes, Tutor, User-to-User, WinDrain, ZDigit, ZDNat, and ZiffNet. **ZDNet, and ZiffNet**

Other trademarks and trade names used throughout the publication are the property of their respective owner

Copyright (c) 1998 ZD Inc. All rights reserved. Reproduction in whole or in part without permission is prohibited.

PRINTED IN THE U.S.A.

250 FREE DOWNLOADS (to be precise)

m





p

C

m

q

John C. Dvorak

Scarier than Spam

The entire antitrust case against Microsoft was bolstered by e-mail records, many of which were simply the outgrowth of sloppy business practices and the mess that the overreliance on e-mail has created. It's going to get worse, and I see no way out of it. And I'm not talking about the Microsoft case; I'm talking about

e-mail users and what they have to face daily.

0

hinks.

on with

angle;

cards.

x 960

al zoom

n with

en shots;

ovable

Genie

otoGenie

nages.

3.

0

aD:

There is some irony here, because I myself have been promoting the use of e-mail as the primary form of intercompany and interpersonal nonverbal communication since I first got involved with computers. Even back in the 1970s, it was apparent that e-mail was more efficient than anything else. E-mail would have been a worldwide standard earlier had not the cheap fax machine come along to dominate the 1980s and put e-mail on the back burner.

Many of us, during the dark ages of e-mail, were plugged into CompuServe Mail, or even better, MCI Mail. Internet mail was more difficult and less universally accepted, and it appeared as if proprietary systems would rule. MCI fostered AT&T Mail and other systems, which all languished. MCI Mail itself was never improved, and before you knew it AOL came up with its "You've got mail" message and dominated the scene, followed by what we have today, which is mostly Internet mail.

Then only a few people were using e-mail, and it was manageable. Now that everyone does, it's become a disaster. This is worsened by mediocre e-mail organizational tools and a lack of verification for standard Internet mail. Combine these problems with the ubiquitous HTML "mailto." command and the "reply to all" command and what we have is nothing less than a monster no tool can easily fix. Let's examine just a few of the e-mail problems.

• *E-mail is too easy to send.* This is the primary problem. It's simply far too easy to send e-mail, whether you need to or not. The natural barriers that force an individual to make a compose-and-send decision (printing, cost of postage, and so on) have been removed. To make things worse, it's too easy to develop mailing lists that let people broadcast e-mail as if it were bulk mail. Sloppy practices don't help, either. For example, I get numerous e-mails that don't concern me from various Ziff-Davis departments sent to broadcast lists.

• It's too easy to reply to e-mail. On top of the ease with which mail can be sent, it's even easier to reply

to. And the reply often has the old message embedded for reference. You also have the "reply to all" function, which turns each recipient into a broadcaster and any e-mail into nothing less than a chain letter growing in distribution with each iteration. • *Fear of nonreceipt*. I've always considered this the biggest headache with general Internet mail. I'm not the only one, since I'm often subjected to the solution to this problem: multiple sends. I know that some people have multiple e-mail boxes, usually to help them sort through mail by levels of importance. Because I can't be sure that mail is received, no matter how many safety nets are in place to notify me of problems, I'll send multiple copies.

· Mail storms. Often when a mail thread begins, people will feel the obligation to chime in for no good reason except to make their presence felt. Adding "Amen,""I agree with this idea," or other such blather and rebroadcasting the message does nobody any good. And getting into an e-mail argument that is broadcast company-wide quickly becomes a nightmare. I can't imagine what productivity losses occur when a simple argument develops into a mail storm. • Attachments. The ease with which someone can attach a program to an e-mail message causes bandwidth and server problems as well as lengthy downloads. Then there are support issues, such as the Mac user who wants to run the Windows program. The program, of course, is some silly animation someone collected off the Web and sent around as today's humor. • Organization. This is the subject of another column. But suffice it to say, we have poor tools to sort and organize (or even find) the mail we collect.

• The pack-rat phenomenon. This brings us back to Gates and company and all the mail they collected for no good reason.

Needless to say, there are a lot of problems developing with e-mail, and they're continuing to grow. I didn't even have to mention spam mail to swamp you with problems. And I see no easy cure for this situation except discipline. It will sink us if we don't try to do something. Starting with strict policies would help.



Combine all the other e-mail problems with the "mailto:" and "reply to all" commands and what we have is a monster.

More on the Web: Read John C. Dvorak's news, views, and snide asides every Monday, exclusively at PC Magazine Online.

www.pcmag.com/dvorak

EXHIBIT C



÷

PERIODICAL OR NEWSPAPER

PC magazine : the independent guide to IBMstandard personal computing

Full Record **MARC Tags** 000 07008cas a2201417 a 4500 001 11314730 005 20190115110739.0 800 860514d19862009nyumr p 0 a0eng 010 |a 86644488 |z sn 86029673 016 7_ |a 9884024 |2 DNLM 016 7 |a SR0064977 |2 DNLM 016 7 |**a** 007190922 |**2** Uk 022 0 |a 0888-8507 |l 0888-8507 |y 0745-2500 |2 1 032 |a 685110 |b USPS 035 |a (OCoLC)ocm13566002 040 a AGL b eng c AGL d IUL d NSD d DLC d NST d DLC d NST d HUL d NSD d NST d DL C |d OCL |d NST |d HUL |d NLM |d NST |d EYM |d HUL |d NST |d NYG |d NST |d HUL |d NST |d MYG |d NSD |d DLC |d MXC |d WAU |d B2Q |d OCLCQ |d CDS |d OCLCQ |d HNK |d NLGGC |d NYDWH |d ZYU |d UMC |d WAU |d CUS |d OCLCQ |d MYG |d DLC |d UKMGB |d OCLCO |d CG U |d OCLCF |d DLC |d OCLCO |d OCLCQ |d OCLCO |d WNC |d OCLCO |d OCLCA |d GILDS |d OCLCO |d PAU |d OCLCQ |d OCLCA |d HTM 042 a pcc a nsdp 050 |a QA76.8.11015 |b P38 00 070 |a QA76.8.I126P35 0 072 0 |**a** X200 082 00 |a 004.165 |2 19 130 a PC magazine (New York, N.Y.) 0

3/26/2019		LC Catalog - Item Information (MARC Tags)
210	0_	a PC mag. b (N.Y.N.Y.)
222	_0	a PC magazine b (New York, N.Y.)
245	10	a PC magazine : b the independent guide to IBM-standard personal computing.
246	3_	a Personal computer magazine
246	30	a PC
249	0_	i ACQUIRE Title: a PC magazine : the independent guide to IBM-standard personal computing
260		a [New York, N.Y.] : b [PC Communications Corp.], c [1986-2009]
300		a volumes : b illustrations (some color) ; c 28 cm
310		a Monthly, b 2008-2009
321		a Biweekly (except July and Aug.)
321		a Biweekly (except one issue in Jan. and July, 3 issues in Oct.), b <2003->
321		a Semimonthly (with occasional exceptions), b <2005->2007
336		a text b txt 2 rdacontent
337		a unmediated b n 2 rdamedia
338		a volume b nc 2 rdacarrier
362	0_	a Vol. 5, no. 2 (Jan. 28, 1986)-v. 28, no. 1 (Jan. 2009).
500		a Title from cover.
500		a Subtitle varies.
500		a Published: New York, N.Y. : Ziff Davis Media, Inc., <2008>-2009.
515		a Volumes for <2003-> have an extra issue in Oct., called special fall issue.
590		a SERBIB/SERLOC merged record
592		a ACQN: aq 94018209
592		a Biweekly (except July and Aug.)
592		a Faxon title no. 323858
650	_0	a IBM microcomputers v Periodicals.
650	_0	a Microcomputers v Periodicals.
650	_2	a Microcomputers.
650	_3	a IBM microcomputers v Periodicals.
650	_3	a Microcomputers v Periodicals.
650	_6	a IBM (Micro-ordinateurs) v Périodiques.
650	_6	∣ a Micro-ordinateurs ∣ v Périodiques.
650	_7	a IBM microcomputers. 2 fast 0 (OCoLC)fst00966309
650	_7	a Microcomputers. 2 fast 0 (OCoLC)fst01019642
650	17	a Microcomputers. 2 gtt
650	07	a MICROCOMPUTERS. 2 unbist
650	07	a DATA PROCESSING. 2 unbist
650	_4	a Magazines z United States.

655 2 |a Periodical. |a Periodicals. |2 fast |0 (OCoLC)fst01411641 655 7 655 7 a Periodicals. 2 lcgft 775 80 i Also issued in Spanish: It PC magazine en español |x 1069-9953 |w (DLC)sn 93002726 |w (OCoLC)28210102 776 80 **i** Also issued in CD-ROM format: **it** PC magazine CD **i** 1078-8085 **i** (DLC) 94646727 776 80 i Online version; beginning Feb. 2009 published only in online format: It PC magazine |x 2373-2830 |w (DLC) 2014202275 |w (OCoLC)34196174 780 00 |t PC (San Francisco, Calif.) |x 0745-2500 |w (DLC) 84644391 |w (OCoLC)8853934 |a AAP |a AMAU |a AU |a ArU |a C |a CSt |a CU |a CU-A |a CU-RivP |a CU-850 S |a CaBViPA |a CaOLU |a CaOOEC |a CaOONL |a CaOONM |a CaOPAL |a CoFS |a CtY |a CtY-D |a DGW |a DLC |a DNAL |a DeU |a GASU |a IC |a ICarbS |a IEN |a INS |a IaAS |a IaU |a InLP |a INU JA KMK JA KPT JA KYU JA LU JA MBU-M JA MCM JA MH-BA JA MH-CS JA MH-KG JA MH-L |a MH-SD |a MMeT |a MiD |a MiDW |a MiEM |a MiU |a MoSW |a MoSW-M |a MsU |a N |a NBC |a NIC |a NN |a NNC |a NNStJ |a NRU |a NSyU |a NcD |a NcD-L |a NcRS |a NcU |a NcWsW |a NhD |a NjP |a NjR |a NmU |a OCU |a OU |a OrU |a PBL |a PPD |a PPT |a PPiD |a PU |a TU |a TxCM |a TxDaM |a TxHMC |a ULA |a UPB |a UU |a ViU |a ViBlbV |a Vi W |a VtU |a WM |a Wa |a WaU |a WvU 859 41 |u http://www.pcmag.com/previous issues/ 853 20 |8 1 |a v. |b no. |u 23 |v r |i (year) |j (month) |k (day) |w s |x 01 863 41 **|8** 1.1 **|a** <22 > **|b** <2 > **|i** <2003 > **|j** <02 > **|k** <04 > 890 a PC magazine. New York, N.Y. ii 86-644488 906 |a 7 |b cbc |c serials |d 3 |e ncip |f 19 |g n-oclcserc 920 a Keep 1 923 d 20021118 |s Group Registration 984 **|a** srvf **|d** 2001-08-07 991 |b c-GenColl |h QA76.8.11015 |i P38 |w SERIALS 991 |b c-GenColl |h QA76.8.I1015 |i P38 |p 00034490727 |t Copy 1 |v 12 * 1993 : JUL-AUIG |w CCF 991 |b c-GenColl |h QA76.8.I1015 |i P38 |p 00034490697 |t Copy 1 |v 13 * 1994 : JAN-FEB |w CCF 991 |b c-GenColl |h QA76.8.11015 |i P38 |p 00034490831 |t Copy 1 |v 13:Jul-Aug * 1994 |w CCF 991 |b c-GenColl |h QA76.8.11015 |i P38 |p 00019805918 |t Copy 1 |v 8 * 1989 :OCT-NOV |w CCF 991 |b c-GenColl |h QA76.8.I1015 |i P38 |p 00019805876 |t Copy 1 |v 8 * 1989 : DEC |w CCF |b c-GenColl |h QA76.8.11015 |i P38 |p 00019805852 |t Copy 1 |v 8 * 1989 : JUL-SEPT |w CCF 991 991 |b c-GenColl |h QA76.8.11015 |i P38 |p 00011150123 |t Copy 1 |v 9 * 1990 OCT |w CCF 991 |b c-GenColl |h QA76.8.11015 |i P38 |p 00019805864 |t Copy 1 |v 9 * 1989 : APR 24-MAY |w CCF 991 |b c-GenColl |h QA76.8.I1015 |i P38 |p 00019805888 |t Copy 1 |v 9 * 1989 : JUN 12-JULY |w CCF 991 |b c-GenColl |h QA76.8.|1015 |i P38 |p 0001980589A |t Copy 1 |v 9 * 1989 : MAR-APR 10 | w CCF |b c-GenColl |h QA76.8.I1015 |i P38 |p 00019805906 |t Copy 1 |v 9 * 1989 : MAR-APR 991 https://catalog.loc.gov/vwebv/staffView?searchId=25687&recPointer=7&recCount=25&bibId=11314730

0114

3/26/2019

10 w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00025514051 t Copy 1 v 10 * 1991 : SEPT w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00020505527 t Copy 1 v 10 * 1991 : JUL-AUG w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00011146958 t Copy 1 v 10 * 1991 : MAR w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00019133357 t Copy 1 v 10 Dec 1991 * 1991 w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00022967599 t Copy 1 v 11 * 1992 : JAN w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00011146922 t Copy 1 v 11 * 1992 : OCT w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00022967642 t Copy 1 v 11 * 1992 : jul-aug w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00011146910 t Copy 1 v 11 * 1992 : DEC w CCF
 b c-GenColl h QA76.8.I1015 i P38 p 00011456650 t Copy 1 v 12 * 1993 : DEC w CCF
 b o-COP/LD w ACQUIRE
 b o-ITS/LIB w ACQUIRE
 b o-PR&TD w ACQUIRE
 b o-COP w ACQUIRE
 b o-APLO w ACQUIRE
 b c-Ser w ACQUIRE
 b o-FLICC w ACQUIRE
 b o-NLS/REF w ACQUIRE
 b o-OVOP/PAK w ACQUIRE
 b o-OVOP/RIO w ACQUIRE
 b o-PAO w ACQUIRE
 b SER w SERLOC
 b 93000498 w ACQUIRE
 b 93000431 w ACQUIRE
 b 93000570 w ACQUIRE
 b 93000445 w ACQUIRE
 b 93000432 w ACQUIRE
 b 93000589 w ACQUIRE
 b 93000465 w ACQUIRE
 b 93000437 w ACQUIRE
 b 93003017 w ACQUIRE
 b 98000002 w ACQUIRE
 b 93003940 w ACQUIRE
 b 93000577 w ACQUIRE

992 ____ |**b** 93000584 |**w** ACQUIRE

4/5

Request this Item

LC Find It

CALL NUMBER	QA76.8.I1015 P38 Set 1
Request in	Jefferson or Adams Building Reading Rooms
Status	Not Charged
Older receipts	v.5:no.1-v.5:no.16 (1986), v.5:no.19-v.7:no.1 (1986-1988), v.7:no.2 (1988), v.7:no.4-v.7:no.9 (1988) v.7:no.11-v.7:no.12 (1988), v.7:no.14-v.10:no.19 (1988-1991:Nov.8) v.10-v.17 (1991:Dec1998:Dec.), v.18-v.22 (1999:Feb-2003:June), v.23-v.28:no.1 (2004-2009:Jan.)
Supplements	v.18 (1999:Dec.14)
CALL NUMBER	QA76.8.I1015 P38 Copy 1 Unbound issues
Request in	Newspaper & Current Periodical Reading Room (Madison LM133)
Latest receipts	v. 28, no. 1 (2009 Jan.)
CALL NUMBER	QA76.8.I1015 P38 Copy 2 Unbound issues
Request in	Newspaper & Current Periodical Reading Room (Madison LM133)

>

EXHIBIT D

OCLC 13566002 No holdings in XXX - 2270 other holdings			
		<u>Re</u> <u>En</u> 198	<u>Re</u> 2019011
			ace 1203227
Continuing Resources	_	<u>Stat</u> <u>d</u> 14 <u>d</u>	.0
Type a ELvi	<u>Srce</u>	<u>GPub</u> <u>Ctrl</u>	Lang eng
BLvl ^s Form	Conf 0	Freq MRec	Ctry nyu
S/L Orig	EntW	Regi r Alph a	
Desc a SrTp P	Cont	DtSt d Dates 1986	, 2009

010 86644488 \$z sn 86029673

040 AGL \$b eng \$c AGL \$d IUL \$d NSD \$d DLC \$d NST \$d DLC \$d NST \$d HUL \$d NSD \$d NST \$d DLC \$d OCL \$d NST \$d HUL \$d NLM \$d NST \$d EYM \$d HUL \$d NST \$d NYG \$d NST \$d HUL \$d NST \$d MYG \$d NSD \$d DLC \$d MXC \$d WAU \$d B2Q \$d OCLCQ \$d CDS \$d OCLCQ \$d HNK \$d NLGGC \$d NYDWH \$d ZYU \$d UMC \$d WAU \$d CUS \$d OCLCQ \$d MYG \$d DLC \$d UKMGB \$d OCLCO \$d CGU \$d OCLCF \$d DLC \$d OCLCO \$d OCLCQ \$d OCLCO \$d WNC \$d OCLCO \$d OCLCA \$d GILDS \$d OCLCO \$d PAU \$d OCLCQ \$d OCLCA \$d HTM 012 3 \$i 8610 \$j 2 \$m y 016 7 9884024 \$2 DNLM 016 7 SR0064977 \$2 DNLM 016 7 007190922 \$2 Uk 019 1000694467 \$a 1012057400 \$a 1054978642 \$a 1063322079 022 0 0888-8507 \$I 0888-8507 \$y 0745-2500 \$2 1 032 685110 \$b USPS 042 pcc \$a nsdp 050 00 QA76.8.11015 \$b P38 070 0 QA76.8.I126P35 072 0 X200 082 00 004.165 \$2 19 090 \$b 130 0 PC magazine (New York, N.Y.) 210 0 PC mag. \$b (N.Y.N.Y.) 222 0 PC magazine \$b (New York, N.Y.) 245 10 PC magazine : \$b the independent guide to IBM-standard personal computing. 246 3 Personal computer magazine 246 30 PC 260 [New York, N.Y.] : \$b [PC Communications Corp.], \$c [1986-2009] 300 volumes : \$b illustrations (some color) ; \$c 28 cm 310 Monthly, \$b 2008-2009 321 Biweekly (except July and Aug.) 321 Biweekly (except one issue in Jan. and July, 3 issues in Oct.), \$b <2003-> 321 Semimonthly (with occasional exceptions), \$b <2005->2007 336 text \$b txt \$2 rdacontent 337 unmediated \$b n \$2 rdamedia 338 volume \$b nc \$2 rdacarrier 362 0 Vol. 5, no. 2 (Jan. 28, 1986)-v. 28, no. 1 (Jan. 2009). 500 Title from cover.

- 500 Subtitle varies.
- 500 Published: New York, N.Y. : Ziff Davis Media, Inc., <2008>-2009.
- 515 Volumes for <2003-> have an extra issue in Oct., called special fall issue.
- 650 0 IBM microcomputers \$v Periodicals.
- 650 0 Microcomputers \$v Periodicals.
- 650 2 Microcomputers. \$0 (DNLM)D008838
- 650 3 IBM microcomputers \$v Periodicals.
- 650 3 Microcomputers \$v Periodicals.
- 650 6 IBM (Micro-ordinateurs) \$v Périodiques.
- 650 6 Micro-ordinateurs \$v Périodiques.
- 650 7 IBM microcomputers. \$2 fast \$0 (OCoLC) fst00966309
- 650 7 Microcomputers. \$2 fast \$0 (OCoLC)fst01019642
- 650 17 Microcomputers. \$2 gtt
- 650 07 MICROCOMPUTERS. \$2 unbist
- 650 07 DATA PROCESSING. \$2 unbist
- 650 4 Magazines \$z United States.
- 655 2 Periodical. \$0 (DNLM)D020492
- 655 7 Periodicals. \$2 fast \$0 (OCoLC)fst01411641
- 655 7 Periodicals. \$2 lcgft

775 08 \$i Also issued in Spanish: \$t PC magazine en español \$x 1069-9953 \$w (DLC)sn 93002726 \$w OCoLC)28210102

776 08 \$i Also issued in CD-ROM format: \$t PC magazine CD \$x 1078-8085 \$w (DLC) 94646727 776 08 \$i Online version; beginning Feb. 2009 published only in online format: \$t PC magazine \$x 2373-2830 \$w (DLC) 2014202275 \$w (OCoLC)34196174

780 00 \$t PC (San Francisco, Calif.) \$x 0745-2500 \$w (DLC) 84644391 \$w (OCoLC)8853934 850 AAP \$a AMAU \$a AU \$a ArU \$a C \$a CSt \$a CU \$a CU-A \$a CU-RivP \$a CU-S \$a CaBViPA \$a CaOLU \$a CaOOEC \$a CaOONL \$a CaOONM \$a CaOPAL \$a CoFS \$a CtY \$a CtY-D \$a DGW \$a DLC \$a DNAL \$a DeU \$a GASU \$a IC \$a ICarbS \$a IEN \$a INS \$a IaAS \$a IaU \$a InLP \$a InU \$a KMK \$a KPT \$a KyU \$a LU \$a MBU-M \$a MCM \$a MH-BA \$a MH-CS \$a MH-KG \$a MH-L \$a MH-SD \$a MMeT \$a MiD \$a MiDW \$a MiEM \$a MiU \$a MoSW \$a MoSW-M \$a MsU \$a N \$a NBC \$a NIC \$a NN \$a NNC \$a NNStJ \$a NRU \$a NSyU \$a NcD \$a NcD-L \$a NcRS \$a NcU \$a NcWsW \$a NhD \$a NjP \$a NjR \$a NmU \$a OCU \$a OU \$a OrU \$a PBL \$a PPD \$a PPT \$a PPiD \$a PU \$a TU \$a TxCM \$a TxDaM \$a TxHMC \$a ULA \$a UPB \$a UU \$a ViU \$a ViBlbV \$a ViW \$a VtU \$a WM \$a Wa \$a WaU \$a WvU

856 41 \$u http://www.pcmag.com/previous_issues/

EXHIBIT E

CRUNCH TIME

T^{HE \$20} MILLION ad campaign starts today. The Web site will be swamped. So IT staffers at online gift merchant Send.com have been working 15- and 20-hour days — bulletproofing servers, scrambling for bandwidth, polishing the home page. Last week, *Computerworld's* Steve Ulfelder observed Send.com's final, frantic preparations for a very public debut. Page 25

4



THE NEWSPAPER FOR IT LEADERS . WWW.COMPUTERWORLD.COM

NOVEMBER 8, 1999 = VOL. 33 = NO. 45 = \$4/COPY

SAP GETS STUCK IN THE SPIN CYCLE

Whirlpool's fast R/3 rollout defied 'red flags'

BY STACY COLLETT

DG

Whirlpool Corp. made a risky and ultimately damaging business decision by

going live with its SAP R/3 implemen-

tation over the Labor Day weekend knowing that "red flags" had been raised, according to SAP AG officials.

Fixing the problem would have delayed Whirlpool's golive date by a week, SAP said. But pressure to take advantage of the long holiday weekend and to get off of its legacy system well before 2000 —

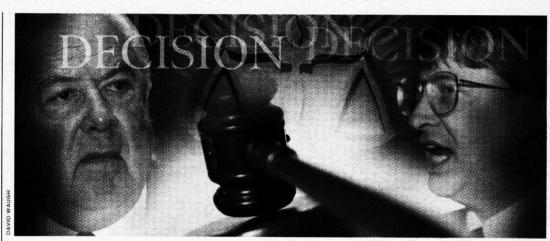
| pushed Whirlpool ahead.

The decision resulted in a botched shipping system that, until it was fixed Nov. 1, left appliances sitting in warehouses. Some stores experienced sixto eight-week delays before re-

"We suspected there would be

problems, but the customer made a decision to go live" despite warning signals, said Jeff Zimmerman, senior vice president of customer support services at SAP.

Officials at Benton Harbor, Mich.-based Whirlpool wouldn't discuss details of the snafu. "We have had some delays, SAP, page 85



UDGE SLAMS MICROSOFT CORP. IS A MONOPOLY that is free to charge

 ICROSOFT CORP. IS A MONOPOLY that is free to charge what it wants for its operating systems and isn't threatened by rival platforms, such as Linux, said antitrust trial Judge Thomas Penfield Jackson Friday in hard-hitting and long-awaited findings in a landmark antitrust case.

In a sweeping rebuttal of the company's defense, Jackson said Microsoft, "enjoys so much power in the market for Judge Slams Microsoft, page 4

DOT-COM FILLS ONLINE FINANCING VOIL

Network to link lenders, merchants, customers

BY THOMAS HOFFMAN

Although consumers can buy a toy or a book on the Web with a credit card and a click, there hasn't been an easy way for a manufacturing company to get short-term financing to buy \$100,000 worth of supplies online. Even though the businessto-business market is expected to be where the big e-commerce action is — \$1.3 trillion by 2002, according to Forrester Research Inc. — analysts said obtaining financing and credit. online has been an obstacle to its growth.

That's about to change.

Next week, a Westwood, Mass.-based maker of Webbased automated credit software is launching an online network that will link merchants, customers and lenders together under the same hood. The secured Internet system, hosted by eCredit.com Inc., was designed to benefit sellers, buyers and lenders by opening up financing to a bigger pool of corporate customers. The idea is to drive more business-to-business transactions by making it Dot-com Finance, page 85

RACE HEATS UP FOR E-SUPPLY CHAINS

Ford, GM tout dueling automated purchasing

BY CRAIG STEDMAN

Ford Motor Co. and General Motors Corp. ratcheted up their contest for the auto industry's e-commerce pole position last week, announcing plans to set up rival online marketplaces aimed at automating purchasing activities in their supply chains.

The importance of the e-commerce race for the two automakers was illustrated by GM's decision to rush out its BUSINESS LIBRARY

Univ of Wisconsin-Madison

announcement just hours after Ford went public with its initiative. GM officials coc their



GM could take 20% of Commerce One's stock. Its exchange will be linked to others run by Commerce One in different industries and to a companion system GM will use for its purchasing. plans were sped up by several days in response to Ford's move. GM also quickly changed the name of its marketplace from GM MarketSite to GM TradeXchange after a survey showed potential users preferred the second choice. "Welcome to the Internet world," a company spokesman said.

The dueling exchanges, which will provide Web-based forums for automotive suppliers to buy and sell parts and materials, are both due to go live by March. Ford is setting up a joint venture with Oracle Corp. to run its marketplace, while GM is teaming up with Commerce One Inc. *E-Supply Chains, page 16*

0121

NEWSPAPEF

AD INDEX

SALES OFFICES

Computerworld Headquarters: 500 Old Connecticut Path, PO Box 9171, Framingham, MA 01701-9171 Phone: (508) 879-0700, Fax: (508) 875-4394

SVP/Publisher Peter C. Horan

Vice President/Associate Publisher West Elaine R. Offenbach

Regional Vice President Southwest

Michele Gerus

DIRECTORS: Isabelle Kane, Laurie Marinone; SALES OPERATIONS MAN-AGER: Leslie Murray, FIELD MARKETING EXECUTIVE: Nathaniel Hampson; SALES ASSOCIATE: Samantha Hadley, 500 Old Connecticut Path, Fram-Ingham, MA 01701 (508) 879-0700 Fax: (508) 270-3882 TDD: (800) 428-8244

DIRECTOR: Lisa Ladle-Wallace, 5242 River Park Villas Dr., St. Augustine, FL 32092, (800) 779-5622 Fax: (800) 779-8622

DIRECTOR: Fred LoSapio: DISTRICT MAN-AGER: John Bosso; FIELD MARKETING EXECUTIVE: Maureen Grady; SALES & OFFICE ASSOCIATE: Susan Kusnic; SENIOR SALES ASSOCIATE: Jean Dellarobba: SALES ASSOCIATE: John Radzniak, Mack Center 1, 365 West Passaic St., Rochelle Park, NJ 07662 (201) 587-0090 Fax: (201) 587-9255, (201) 587-1289 TDD: (800) 208-0288

NORTHWEST

EAST

DIRECTOR: Judith Hamerman: ACCOUNT DIRECTOR: Denyce Kehoe: SALES ASSOCIATES: Carrie Peterson; SALES OPERATIONS MANAGER: Emmine Hung, 177 Bovet Road, Suite 400, San Mateo, CA 94402 (650) 357-0200 Fax: (650) 524-7000 TDD: (800) 900-3179 SENIOR SALES ASSOCIATE: JIII Colley, 10900 N.E. 8th Street, Suite 820, Bellevue, WA 98004 (425) 451-0211 Fax: (425) 451-3822

CUSTOM PUBLISHING

BOSTON: Sales Operations Manager/Maria McGrath; Faith Pasternak/ Event Operations Manager; Senior Graphics Production Coordinator /Heidi Broadley; Editorial Director/Ellen Fanning, Editor/Stefanie McCann, Online Account Executive/Gregg Pinsky, 500 Old Connecticut Path, Box 9171, Framingham, MA 01701-9171 (508) 879-0700 Fax: (508) 875-6310 SAN FRANCISCO: Sales Operations Coordinator/ Nikki Wilson 177 Boyet Road, Suite 400, San Mateo, CA 94402 (650) 357-0200 Fax: (650) 524-7000 EAST: Director/Peter Oxner, 1011 East Touhy Avenue, Suite 550, Des Plaines, IL 60018 (847) 759-2719, Fax: (847) 827-0690

MARKETPLACE/DIRECT RESPONSE CARDS

Sales Manager/Laurie Gomes, 500 Old Connecticut Path, Box 9171, Framingham, MA 01701-9171 (508) 820-8249 Fax: (508) 875-3701 EAST: Account Director/Norma Tamburrino, Mack Center 1, 365 West Passaic St., Rochelle Park, NJ 07662 (201) 587-8278 Fax: 201-712-0430 MIDWEST: Account Director/Linda Clinton, 500 Old Connecticut Path, Box 9171, Framingham, MA 01701-9171 (508) 820-8288 Fax: (508) 875-3701 CALIFORNIA, ALASKA, HAWAII: Account Executive/ Jason Bishop, 500 Old Connecticut Path, Box 9171, Framingham, MA 01701-9171 (508) 271-8009 Fax: (508) 875-3701 WEST: Account Executive/Maureen Roberti, 500 Old Connecticut Path, Box 9171, Framingham, MA 01701-9171 (508) 271-8007 Fax: (508) 875-3701

DIRECTOR: Blayne Long; SALES ASSOCIATE: Cathy Viox, 1011 East Touhy Suite 550, Des Plaines, IL 60018 (847) 827-4433, Fax: (847) 827-0690 SOUTHWEST DIRECTOR: Ernie Chamberlain; SALES ASSOCIATES: Claude Garbaring Stefan Mayo, 177 Boyet Road, Suite 400, San Mateo, CA 94402 (650) 357-0200 Fax: (650) 524-7001 TDD: (800) 900-3179 DIRECTOR: Jennifer Hedges; SALES ASSOCIATE: Doreen Robinson, 14651 Dallas Parkway, Suite 118, Dallas, TX 75240 (972) 233-0882 Fax: (972) 701-9008 TDD: (800) 822-4918

Vice President/Associate Publisher - East

Sherry Driscoll

Vice President/Key Accounts Linda Holbrook

> DIRECTOR: Cindy Wager; FIELD MAR-KETING EXECUTIVE: Robert J. Pietsch, 18831 Von Karman Avenue, Suite 200 Irvine, CA 92612 (949) 250-3942 Fax: (949) 476-8724

ADVERTISING OPERATIONS PRINT & ON-LINE DISPLAY ADVERTISING COORDINATOR: Peter Coen, (508) 879-0700 Fax: (508) 879-0446

RECRUITMENT ADVERTISING SALES OFFICES

Operations Director/Cynthia Delany, 500 Old Connecticut Path, Fram-ingham, MA 01701-9171 (800) 343-6474 NEW ENGLAND & UPSTATE NEW YORK: Senior Account Executive/Nancy Mack 500 Old Connecticut Path Framingham MA 01701 (800) 343-6474 MID-ATLANTIC: Senior Account Executive/Caryn Dlott, (800) 343-6474 TDD: (800) 208-0288 SOUTH ATLANTIC: Regional Manager/Katie Kress-Taplett, 8304 Professional Hill Drive, Fairfax, VA 22031 (703) 280-5162, Product Manager/Pauline Smith (800) 343-6474 MIDWEST: Regional Man-ager/Pat Powers, 1011 East Touhy Avenue, Suite 550, Des Plaines, IL 60018 (847) 827-4433, Account Executives/Nicholas Burke (800) 343-6474 TDD: (800) 227-9437 MARKETING: Field Marketing Director/Derek E. Hulitzky, Marketing Director/Chris McGarry, Copywriter/ Steve Stamates CIRCULATION: Vice President Circulation/Maureen Burke PRODUCTION: Production Director/Christopher P. Cuoco, Production Manager/Beverly Wolff DISTRIBUTION: Distribution Manager/Bob Wescott RESEARCH: IT Market Analyst/David Daoud, Research Analyst/Matt Duffy, Research Analyst/Candace O'Keefe

LIST RENTAL- POSTAL: Rich Green, (508) 370-0832, e-mail: rich_green@idg.com. LIST RENTAL- E-MAIL: Christine Cahill, (508) 370-0808, e-mail: christine_cahill@idg.com. MAILING ADDRESS: IDG List Services, P.O. Box 9151, Framingham, MA 01701-9151, FAX: (508) 370-0020

COMPUTERWORLD

President/CEO Michela O'Connor Abrams

Vice President/

Vice President/CIO **Rick Broughton** (508) 620-7700

John Corrigan (508) 820-8273

PRESIDENT/CEO. Kelly Conlin

Vice President/

Manufacturing Operations

Carolyn Medeiros

(508) 620-7733

Senior Vice President/

Finance & Operations

Matthew C. Smith

(508) 820-8102

Technical Recruiting Confere

Vice President/Editor in Chief enior Vice President/Publisher Maryfran Johnson (508) 620-7724

Vice President/General Manager Vice President/ Strategic Circulation Operations **Enterprise Business Solutions**

Eric Schmierer (508) 820-8217

INTERNATIONAL DATA GROUP

CHAIRMAN OF THE BOARD, Patrick I. McGovern

Peter C. Horan

(650) 524-7017

Ronald L. Milton

(508) 820-8661

Computerworld is a publication of International Data Group, which informs more people world wide about information technology than any other company in the world. With annual revenues of \$2.35 billion, ID6 is the leading global provider of IT media, research, contenses and expositions. ID6 publishes more than 290 computer mewspapers and magazines and 700 book titles in 75 countries, led by Computerworld/Infoworld, Maxworld, Network World, PC World, Channel World, and the "...For Dummiss" global product lines. ID6 offers online users the largest network of technology tiss around the world hory ID6.net (Intri/Jwww.idg.net), which comprises more than 252 targeted web sites in 55 countries. ID6 is also a leading producer of 168 computer-related expositions in 35 countries, and its research and analysis through 49 offices in 41 countries world wide. Company information is available at http://www.idg.com.

ADVERTISERS INDEX Interleaf

www.interleaf.com

Attachmate www.attachmate.com	9
BMC Software	
Canon	53
CAST Software	32/33, 33
Cisco	7
Compaq Computer Corp www.compaq.com	
Computer Associates	C2
Epicor Software	13
Getronics Wang www.getronics.com	
Ericsson www.ericsson.com	51
Getronics Wang	
IBM Placard	
IBM Storage	60-61
InfoQuote www.infoquote.com	69
Information Builders	

COMPUTERWORLD ONLINE INDEX

www.ajilon.com **America Online** www.aol.com **American Power C** www.apc.com www.hmc.com **Check Point Softw** nologies www.checkpoint.co Cisco www.cisco.com **Computer Associa** www.cai.com

InterSystems Corp
Lockheed Martin
Lotus Development CorpC3 www.lotus.com (800) 343-5414
McGraw Hill40 www.mcgraw-hill.com
New Horizons
SAS Institute15, 26, 47 www.sas.com
Sun Microsystems
Syncsort5 www.syncsort.com
techies.com
Unisys
VeritasC4 www.veritas.com

*Regional Select Edition

This index is provided as an additional service. The publisher does not assume any liability for errors or omissions

ILD VIILINL	INVLA	
	Compuware www.compuware.com	Pacific Bell www.pacbell.com
	Ecrix www.ecrix.com	Red Hat www.redhat.com
Conversion	IBM www.ibm.com	STAC www.stac.com
	IDG.net www.idg.net	SolutionCentral www.solutioncentral.com
ware Tech-	INS www.ins.com	Symantec www.symantec.com
om	Intraware www.intraware.com	THOMSON multimedia www.thomson-
	MCI WorldCOM	multimedia.com/ Viewsonic
ates	Microsoft	www.viewsonic.com
	www.microsoft.com	ZoneTrader.com www.zonetrader.com

HAVE A PROBLEM WITH YOUR COMPUTERWORLD SUBSCRIPTION?

We want to solve it to your complete satisfaction, and we want to do it fast. Please write to: Computerworld, P.O. Box 2043, Marion, Ohio 43305-2043.

Your magazine subscription label is a valuable source of information for you and us. You can help us by attaching your magazine label here, or copy your name, address, and coded line as it appears on your label. Send this along with your correspondence.

Address Changes or Other Changes to Your Subscription

All address changes, title changes, etc. should be accompanied by your address label, if possible, or by a copy of the information which appears on the label, including the coded line.

Your New Address Goes Here: Address shown: Home Business

NAME COMPANY

ADDRESS

CITY

Other Questions and Problems

It is better to write us concerning your problem and include the magazine label. Also, address changes are handled more efficiently by mail. However, should you need to reach us quickly the following toll-free number is available: 1-800-552-4431 Outside U.S. call (740) 382-3322. Internet address: circulation@cw.com

STATE

COMPUTERWORLD allows advertisers and other companies to use its mailing list for selected offers we feel would be of interest to you. We screen these offers carefully. If you do not want to remain on the promotion list please write to th following address - COMPUTERWORLD, Circulation Department, 500 Old Connecticut Path, Framingham, MA 01701. rite to the

Facebook's Exhibit No. 1021

710

d L

STATE

ADDR

NAME TITLE

Aiilon BMC.



WAITING IT OUT

Forget the New Year's Eve party Many Y2K professionals want to be at the office at midnight to see how their efforts turn out. Page 46

FTER THE WALL

Ten years after the collapse of the Berlin Wall, IT in Central Europe is catching up to the ways of the West. Page 42

MEGAMERGER POSES huge SAP R/3 integration challenge for Warner-Lambert, American Home Products.

- LEVI BACKS OFF online 8 clothing sales, citing channel conflict; plans to sell through J. C. Penney and Macy's sites.
- **DIGITAL SIGNATURES** 10 approach legal status as Congress tries to add provisions allowing them, while protecting consumers.

12 MICROSOFT REVEALS complex pricing for Win 2000, with price breaks for competitive upgrades. Remains mum on cost of high-end version.

- 14 **CAPACITY-ON-DEMAND** plan from Sun and others may let users buy big servers, but pay only for power they use.
- 16 WHITE HOUSE gears up for Y2K with command center to contain panic. OPINION
- LOGISTICS POSE the big-30 gest problem for e-commerce, not technology, John Gantz warns.
- WEB BUSINESSES RISK 32 federal ire and regulation if they don't act on privacy, other issues, Bill Laberis charges.

MORE
Editorial/Letters 30, 31
How to Contact CW 84
Shark Tank 86
Stock Ticker
Company Index 84

BUSINESS

COMPUTERWORLD

- 38 **BOEING REPLACES** clipboards with Palm IIIx handhelds to improve quality of military planes.
- TESTS FAIL to find ERP 38 weaknesses if they're too cursory or if they check only a few modules.
- 40 DOT-COMS TURN to Internet maintenance companies that can actively monitor e-commerce sites to make sure they stay fast and available.
- OPINION 41 IT MANAGERS lack communication skills in some organizations even though their job is to align IT with the business, gripes Peter G. W. Keen.
- JOB-SEEKERS demand the 44 most ridiculous things. In a hot job market, even individual contributors sometimes ask for perks a top exec might not rate.
- **TWENTY COMPANIES** snap 48 up 60% of all H-1B visa professionals; how do you get your share?
- QUICKSTUDY 52 **INVENTORY ALLOCATION** saves money, reducing product delays and the need for overstocked product discounts and IT is a primary factor in how to make it work.
- 54 **READ THE FINE PRINT** in licenses, especially if your vendor was recently acquired, cautions Joe Auer, who helped one client dodge a bullet on a faulty Y2K warranty.

INOLOG

NOVEMBER 8, 1999

37

58 LESS EXPENSIVE, easierto-use product data management software is helping more customers link to their business partners.

THS

57

- **TURNING AN INTRANET** 58 into an extranet means beefing up security and prettying up the user interface.
- 61 **NETWORK INTEGRITY** and Imation team up to offer real-time backup and storage services over IP connections as low as 56K bit/sec.
- EMERGING COMPANIES 62 START-UP NEXPRISE'S ipTeam claims to expedite Web-based collaborative engineering and design. EXEC TECH
- 63 WHICH WIRELESS e-mail device is right for you? We check out new models from Sprint PCS, Palm and Research in Motion.
- QUICKSTUDY **HOW SPEECH** recognition 65 works — and why sometimes it doesn't.
- FLASHBACK 68 IN 1993, personal digital assistants were Pretty Darn Annoying, which is why Apple's Newton crashed and burned in the marketplace.
- **TWO TRANSPLANTS** to 70 Atlanta share their experiences scouting out, negotiating and landing jobs in this lucrative IT market. Both say it's the quality of life that got them hooked on Southern charm.

RECEIVED NOV 0 9 1999 U.W. Business Library

THESE **IMPLEMENTATIONS** ARE LIKE DOING **OPEN-HEART** SURGERY. WHAT HERSHEY TRIED TO DO — NOW YOU'RE TALKING HEART, LIVER AND LUNG TRANSPLANT.

CHRIS SELLAND, AN ANALYST AT THE YANKEE GROUP IN BOSTON, ON WHY HERSHEY HIT SNAGS AFTER SQUEEZING A FOUR-YEAR SAP IMPLEMENTATION INTO 30 MONTHS. SEE PAGE 1.

TECHNOLOGYEXEC TECH

Three New Wireless **E-Mail Devices**

BY DAVID STROM

RAVELING EXECUTIVES looking to cut the cord on their e-mail habit have lots of choices these days. I looked at three of the latest wireless e-mail devices - the Palm VII, the Touchpoint phone with a built-in Web browser from Sprint PCS and an updated two-way pager from Research in Motion Ltd. All three do more than wireless e-mail, of course: You can jot down notes, keep track of your schedule and, in the case of Touchpoint, make cellular phone calls. skill is required to type a typi-

Although each unit has its | frustrations and problems, all are improvements over the trio of devices I reviewed Feb. 15.

I've used one form or another of wireless e-mail for more than eight years and suggest that you consider the following: ■ Can you get e-mail on these devices with the same corpo-

rate e-mail account that you use on your desktop? Most devices require some effort and some combination of software and services to do this.

How much

■ Is the price reasonable and predictable? All the devices come with an array of monthly service plans and fees. Make sure you understand the pricing plan you need up front.

In an ideal world, each device would come with everything you need to extract e-mail from your existing corporate account. However, these devices aren't there yet. Each comes with its own e-mail account, separate from your existing corporate e-mail account. If your corporate e-mail system has messageforwarding features, you can turn that on when you leave town and have your mail forwarded to your device.

I took all three devices with me on several business trips and also carried them all over town to determine coverage capabilities and battery life. I also connected them to a Windows NT desktop and tested their synchronization software

and other utilities. Of the three, the Palm offers the most promise: It has the largest and most active developer community and the best software. However, to be a really effective Palm user, you will need to learn its Graffiti scripting language to compose messages.

Strom is a freelance reviewer in Port Washington, N.Y.



Palm VII

Palm Computing Inc., a subsidiary of 3Com Corp. www.palm.com Wireless service: BellSouth Wireless Data Price: \$499, plus various plans (\$10 to \$40 per month, depending on volume) and \$10 activa-

with Graffiti script; 3.5-in. diagonal Palm screen Batteries: Two AAA batteries last for two or more

Available: In New York since May; nationwide since October

The Palm VII has a variety of ways to read and respond to e-mail. It comes with its own built-in e-mail software, called iMessenger. However, it doesn't have as many features as I'd like, such as filtering, scheduled forwarding and mass message deletes. For example, you have to log in to the Palm.Net Service Web site to delete multiple messages at once.

To obtain these features and to read berry as well. Facebook's Exhibit No. 1021 0124

your existing e-mail account, you will need to make use of either Visto Corp., Yahoo Mail or MonkeyMail services. Another choice is to use ThinAirApps.com's ThinAirMail client software, a free product that is my favorite of the current alternatives available for wireless e-mail.

63

No matter which service or software you use, you have to use Graffiti to compose messages. It will take a while to learn this language. but it's easier than typing responses on the Touchpoint phone's keypad.

Blackberry **Interactive** Pager

Research in Motion Ltd. www.blackberry.net Wireless service: BellSouth Wireless Data (850 model uses Ardis) Price: \$399, plus \$40 per month for unlimited usage Keyboard/screen: Full QWER-TY keyboard but very small keys; screen has up to eight-line display Battery: One AA lasts up to three days Available: Now

The Blackberry has the best keyboard of the three, with a full typewriter layout of keys, albeit only 3 in. wide. Given its size, I could type fairly easily and compose longer messages than on the other devices. It comes with relatively weak desktop synchronization software, because you can't synchronize your e-mails yet between the device and your desktop. It also has the most confusing set of models. There's one that works only with Microsoft Exchange servers, another that works with Internet e-mail and a third that runs over American Mobile's Ardis wireless networks. This



latter model has a \$60-per-month usage plan and works with e-mail accounts through American Mobile's eLink Agent.

GoAmerica Communications Corp. (www.goamerica.net) offers e-mail access for varying fees and will sell you a reduced-price Black-

0

Touchpoint Phone With Wireless Web

Sprint PCS (manufactured by Denso Corp.) www.sprintpcs.com

cal reply message? None of the

devices is as handy as a full-

size keyboard. You should try

one out before buying to make

sure you're comfortable with

Do these devices work in-

doors and in out-of-the-way

places? All three I tested work

best outdoors and in major

metropolitan areas. The far-

ther inside buildings and away

from the city you take them,

the worse the radio reception

gets. This is just physics.

its controls and key layouts.

Wireless service: Sprint PCS with service from Phone.com Inc. Price: Various pricing plans for both voice and data start at \$10 per

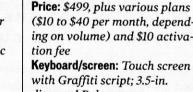
month, plus price of phone Keyboard/screen: Seven lines, with 12-button phone keys with Tegic script

Batteries: Rechargeable; lasts up to two days Available: Now

Sprint PCS has introduced its Wireless Web service, through which you can browse some Web sites using your cellular phone. Several phones are available for this service, including ones from Motorola Inc., Nokia Corp. and Qualcomm Inc.

I tested a phone from Denso called Touchpoint. Any of these phones come ready to read e-mail: You can set up a free account with Yahoo Inc. and have it collect your corporate e-mail. And if you don't need to reply to your messages, you can forward or copy mail to Sprint's short messaging feature (every Sprint phone is equipped to receive e-mail at phonenumber@messaging.sprintpcs.com). I wanted to use the phone to read my mail at Infinite Technologies Inc.'s Mail-AndNews.com site, but Infinite is still working out the bugs with

Sprint. Built in to the phone is software from Tegic Communications Inc. called T9. Because you have only 12 buttons to key in any text, Tegic has developed a way to predict what you're going to type and to facilitate the process. Although it's no substitute for a QWERTY keyboard, it does a credible job.



weeks

EXHIBIT F

001	992037283602122
005	20180321155105.0
008	760620c19679999mauwx1pe 0uuua0eng d
010	\$a sf 84005996 \$z sc 82004388 \$z sn 79005954
012	\$a 2 \$i 8404
019	\$a 03876316 \$a 01564615 \$a 11086403
022	<pre>0_ \$a0010-4841\$y127-420\$z0882-9063</pre>
030	\$aCMPWAB
032	\$a127420 \$b USPS
035	\$a (OCoLC)02259660
035	\$9 AAX0713UW
035	\$a 203728
035	<pre>\$a(WU)203728-uwmadisondb</pre>
035	<pre>\$z(OCoLC)03876316\$z(OCoLC)01564615\$z(OCoLC)11086403</pre>
035	<pre>\$a(EXLNZ-01UWI_NETWORK)999486938702121</pre>
037	<pre>\$bCW Communications/Inc., Box 880, 375 Cochituate Rd., Framingham, Mass. 01701</pre>

040		<pre>\$aPIT\$beng\$cPIT\$dPIT\$dNSD\$dIUL\$dNSD\$dHUL\$dDLC\$dNSD\$dRCS\$dNSD \$dAIP\$dNSD\$dOCL\$dNST\$dAIP\$dDLC\$dAIP\$dNSD\$dAIP\$dNST\$dNSD\$dNST \$dOCL\$dDLC\$dNST\$dDLC\$dNSD\$dNST\$dNSD\$dDLC\$dNST\$dNSD\$dNST</pre>
042		<pre>\$alc\$ansdp</pre>
050	00	\$aQA76\$b.C5816
082	1_	\$a004 \$2 11
210	1_	<pre>\$aComputerworld</pre>
222	_0	<pre>\$aComputerworld\$b(Framingham, Mass.)</pre>
245	00	\$aComputerworld.
246	0_	<pre>\$aComputer world</pre>
246	33	<pre>\$aComputer world</pre>
260		<pre>\$a[Framingham, Mass., etc.] :\$b[CW Communications/Inc., etc.],\$c1967-</pre>
300		<pre>\$avolumes :\$billustrations ;\$c40 cm</pre>
310		<pre>\$aWeekly (with additional special issues)</pre>
336		<pre>\$atext\$btxt\$2rdacontent</pre>
337		<pre>\$aunmediated\$bn\$2rdamedia</pre>
338		<pre>\$avolume\$bnc\$2rdacarrier</pre>

362	1_	\$a Vol. 1, no. 1 (June 1967)-
500		<pre>\$aDescription based on: Vol. 16, no. 23 (June 7, 1982); title from caption.</pre>
530		<pre>\$aAlso available online.</pre>
530		<pre>\$aAvailable in microform from University Microfilms.</pre>
555		<pre>\$aAnnual subject and author index issued separately with title: Computerworld index, 1967-1983; Computerworld. Editorial index, 1984-</pre>
525		<pre>\$aHas special issues with individual titles, e.g., Computerworld buyer's guide, Computerworld on communications, Computerworld office automation, Computerworld focus.</pre>
650	_0	<pre>\$aComputer industry\$vPeriodicals.</pre>
650	_0	<pre>\$aElectronic digital computers\$vPeriodicals.</pre>
650	_0	<pre>\$aComputers\$vPeriodicals.</pre>
650	_0	<pre>\$aElectronic data processing\$vPeriodicals.</pre>
730	0_	<pre>\$aComputerworld index.</pre>
730	0_	<pre>\$aComputerworld. Editorial index.</pre>
730	02	<pre>\$aComputerworld buyer's guide.</pre>
730	02	<pre>\$aComputerworld on communications.</pre>

730	02	<pre>\$aComputerworld office automation.</pre>
730	0_	<pre>\$aComputerworld focus.</pre>
770	0_	<pre>\$tOn communications\$x8750-7854\$w(DLC) 85648228\$w(OCoLC)11447108 \$gNov. 1984-86</pre>
770	0_	<pre>\$tComputerworld (Special campus ed.)\$w(DLC)sf 90090326</pre>
770	0_	<pre>\$tComputerworld buyer's guide\$w(OCLC)10284822</pre>
770	0_	<pre>\$tComputerworld client/server journal\$w(OCoLC)29423264</pre>
770	0_	<pre>\$aComputerworld financial services journal</pre>
787	1_	<pre>\$tComputerworld index\$w(DLC)sc 79004740</pre>
997		\$aMARCIVE

EXHIBIT G

OCLC 2259660 No holdings in XXX - 1047 other holdings					
		<u>R</u>	<u>e En</u> 197 <u>Re</u> 2018042		
		<u>C</u>	dere 606 place 1020255		
Continuing Resources		Stat	<u>d</u> 20 <u>d</u> .7		
Type a <u>ELvi</u>	<u>Srce</u> [℃]	<u>GPub</u>	<u>Ctrl</u> <u>Lang</u> eng		
<u>BLvl</u> s <u>Form</u>	<u>Conf</u> 0	Freq s	MRec Ctry mai		
<u>S/L</u> Orig	e <u>EntW</u>	Regl r	Alph a		
Desc SrTp	P <u>Cont</u>	DtSt d	Dates 1967 , 2014		

010 sf 84005996 \$z sc 82004388 \$z sn 79005954

040 PIT \$b eng \$c PIT \$d PIT \$d NSD \$d IUL \$d NSD \$d HUL \$d DLC \$d NSD \$d RCS \$d NSD \$d AIP \$d NSD \$d OCL \$d NST \$d AIP \$d DLC \$d AIP \$d NSD \$d AIP \$d NST \$d NSD \$d NST \$d OCL \$d DLC \$d NST \$d DLC \$d NSD \$d NST \$d NSD \$d DLC \$d NST \$d NSD \$d NST \$d IUL \$d HUL \$d NSD \$d DLC \$d MYG \$d HLS \$d MYG \$d WAU \$d OCL \$d HNK \$d IUL \$d ORZ \$d OCLCQ \$d HNK \$d SINLB \$d GUA \$d OCLCQ \$d GUA \$d OCLCF \$d HLS \$d FUG \$d HUL \$d GILDS \$d OCLCO \$d RDF

012 2 \$b 3 \$j 3 \$k 1 \$l y \$m 1

016 7 C36480000 \$2 DNLM

019 1564615 \$a 3876316 \$a 11086403 \$a 243510223 \$a 895043660 \$a 896088687

022 0 0010-4841 \$| 0010-4841 \$y 127-420 \$z 0882-9063 \$2 1

- 030 CMPWAB
- 032 127420 \$b USPS
- 037 \$b Computerworld, 500 Old Connecticut Path, Box 9171, Framingham, Mass. 01701-9171
- 042 pcc \$a nsdp

050 00 QA76 \$b .C5816

082 04 001.64

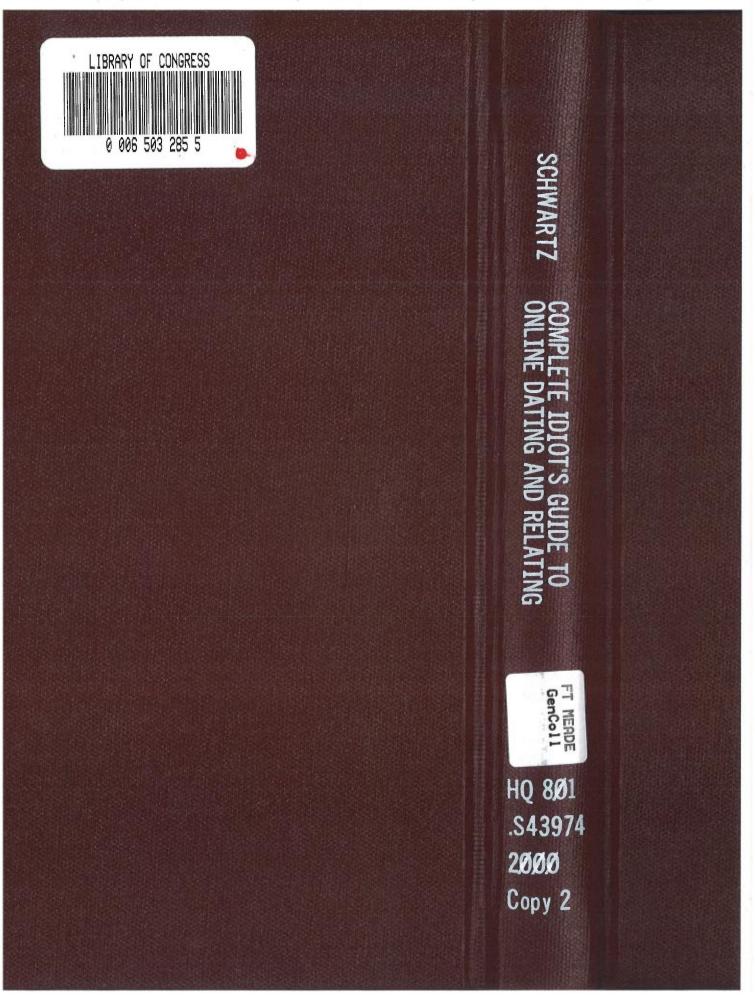
- 090 \$b
- 222 0 Computerworld \$b (Framingham, Mass.)
- 245 00 Computerworld.
- 246 3 Computer world
- 260 [Framingham, Mass., etc., \$b Computerworld Inc., etc.]
- 300 v. \$b ill. \$c 31-40 cm.
- 310 Semimonthly, \$b Sept. 2009-
- 321 Weekly (except last week in Dec. & first week in Jan.), \$b <1967>-Aug. 2009
- 362 1 Began in 1967; ceased with v. 48, no. 11 (June 23, 2014).
- 500 Special issues have also individual titles, e.g., Computerworld buyer's guide, Computerworld on communications, Computerworld office automation, Computerworld focus.
- 515 Additional special issues also published.
- 515 Vol. 23, no. 10 (Mar. 13, 1989) not published.
- 530 Also available on microform and online.

555 Annual subject and author index issued separately with title: Computerworld index, 1967-1983; Computerworld. Editorial index, 1984-

- 580 Has also supplements: On communications, published 1984-86; Computerworld client/server journal; Computerworld electronic commerce journal; and: Computerworld ROI.
- 580 Issued also in a Special campus ed., Careers ed., and: Campus ed.
- 650 0 Computers \$v Periodicals.
- 650 0 Computer industry \$v Periodicals.

- 650 0 Electronic data processing \$v Periodicals.
- 650 7 Computer industry. \$2 fast \$0 (OCoLC)fst00872154
- 650 7 Computers. \$2 fast \$0 (OCoLC)fst00872776
- 650 7 Electronic data processing. \$2 fast \$0 (OCoLC)fst00906956
- 655 7 Periodicals. \$2 fast \$0 (OCoLC)fst01411641
- 655 7 Periodicals. \$2 lcgft
- 655 4 Electronic journals.
- 740 02 Computerworld buyer's guide.
- 740 02 Computerworld on communications.
- 740 02 Computerworld office automation.
- 740 02 Computerworld focus.
- 740 02 Computerworld index.
- 740 02 Computerworld. \$p Editorial index.
- 740 02 Computerworld ROI
- 770 1 \$t On communications \$x 8750-7854 \$w (DLC) 85648228 \$w (OCoLC)11447108 \$g Nov. 1984-86
- 770 1 \$t Computerworld client/server journal \$x 1077-5803 \$w (DLC) 95652803 \$w (OCoLC)29423264
- 770 1 \$t Computerworld electronic commerce journal \$w (DLC)sn 98047959 \$w (OCoLC)34880526
- 770 1 \$t Computerworld ROI \$w (DLC) 2001220069 \$w (OCoLC)46630086
- 770 1 \$t Computerworld (Special campus ed.) \$w (DLC)sf 90090326 \$w (OCoLC)20861150
- 770 1 \$t Computerworld (Careers ed.) \$w (DLC)sf 97093300 \$w (OCoLC)37367854
- 770 1 \$t Computerworld (Campus ed.) \$w (DLC)sf 97093343 \$w (OCoLC)37368181
- 776 08 \$i Online version: \$t Computerworld \$w (OCoLC)696040858
- 785 04 \$t Computerworld digital magazine \$w (DLC) 2016234964 \$w (OCoLC)913619356
- 856 41 \$u http://www.computerworld.com/

EXHIBIT H



"This clever book takes the mystery and pitfalls out of looking for and learning about love on the Internet. With humor and intelligence, author Joe Schwartz provides an entertaining and easy-to-use guide that makes the vast plains of cyberspace accessible to the would-be romantic and just plain curious."

> --- 'eMale', advice columnist for women.com

Online Dating and Relating

DETO

OMPLET

- The quick and easy way to meet new people who share your interests
- Idiot-proof steps to establishing lasting friendships and relationships online
- Down-to-earth advice for when the going gets tough



Joe Schwartz

alpha

books

Dear Reader,

No doubt, if you are reading this, you are asking yourself the question "Should I buy this book?" Take this simple quiz to find out.

Dating is:

- (A) The measurement of an object's carbon content as a means to determine its age.
- (B) The process of ingesting a sweet edible oblong fruit.
- (C) The hellish dance of loneliness played out between two people as they vie for position to eviscerate each other's soul.
- (D) I do not date. I am a Vulcan.

If you answered any of the above, or even made up your own answer, you are correct and should buy this book (thus ensuring me a royalty). For those of you who need additional convincing, let's examine the answers more closely.

If you selected choice A, you probably have limited exposure to socializing with people. Since the last thing you want to do is converse with people face to face without any practice, purchasing this book will allow you to talk to others over the Internet without having to confront issues associated with grooming or hygiene. Inside these pages we'll explore chat rooms, instant messaging, and Web-based message boards, all of which can put you into contact with others over the Internet, while keeping you safe and anonymous.

If you selected choice B, you are either a farmer or someone obsessed with sexual innuendo. In either case, you need to meet people soon. Going through life relating to everything as a function of survival or a sick joke can only lead you to a troubled existence. In this book, you'll learn the best places to seek companionship online and, when converting it into an offline relationship, how to do so safely.

If you selected choice C, you're bitter. Nothing can really help you except the positive reinforcement of good experiences. Throughout this book are anecdotes from people who've met others online. Not all the stories end well, but all the storytellers have survived their tales. These stories hopefully will give you the courage to try to meet people via the Internet and the confidence to know that even if you do have a few dreadful experiences, you will survive.

Finally, if you selected choice D, you are an extraterrestrial. Who more than you needs to understand other humans? As such, these pages will introduce you to Web sites designed to give advice of the heart, assist with online romance, and ease the pain of getting over a relationship. As an alien, you will probably never use these resources yourself, but imagine how much better you'll interact with the human population after having been exposed to this information.

Thank you for taking this quiz to determine whether you need to buy this book. And thank you for your purchase.

Sincerely,

Joe Schwartz

The Complete Idiot's Command Reference

People socializing and dating on the Internet often have different reasons for wanting to meet others. Here are the five most common types of people, based on their social objectives.

The Dabbler has gone online to "see what this Internet dating thing is all about," but doesn't usually have any plan other than "to have fun." As you begin your journey socializing with others over the Net, you might find yourself in the middle of an email or chat room conversation that you thought was going really well, when the other party goes AWOL. That's the dabbler either getting bored or realizing that connection with another individual is not really what he or she is after.

The Nester wants to find a committed relationship and is looking to the Internet as one of many ways to find one. He or she is usually very goal-oriented in that the purpose of socializing online is not about the process of forging friendships, but is about finding THE ONE PERSON that will be his or her lifetime mate.

The Hormone wants sex. Usually he or she will make this very clear early on. Hormones vary in that some just want virtual sex (that is, simulating sex via a private chat room discussion or email), some want to meet you in the physical world, and some want it in all manner, shape, and form.

The Butterfly goes from chat room to chat room, person to person, having conversations with a multitude of different people. He or she is looking to make one or more friends and usually keeps the relationship platonic. In a simpler time, this person went by the name pen pal.

The Seeker doesn't know what he or she is looking for, but unlike the Dabbler, is seeking to make some sort of connection with another person. He or she might claim to be looking for a partner or just looking for sex, but the actual agenda is usually unknown to the Seeker.

Emoticons			
Emoticon	Description		
:) or :-)	The original smiley that means "I'm happy." Can also mean "I'm joking."		
:(or :-("I'm sad." Indicates to the reader that the current writer is sad at what he or she has just heard.		
;-)	A wink. Usually used for a flirtatious or sarcastic remark.		
{hug} or [hug]	A hug.		
{{{***}}}	Hugs and kisses.		

If you'd like to explore the hundreds (if not thousands) of emoticons currently being used (or if you need to find the meaning of one), you can check out the following resources:

Online Lingo http://www.thirdage.com/features/tech/netglos/index.html Internet Smileys.... ^_ http://members.aol.com/bearpage/smileys.htm Smilies Unlimited http://www.czweb.com/smilies.htm

que'

Acronyms that are common to the Internet have made their way into the messages people use to socialize online. Some of the more widely used ones are:

Acronym	Meaning
AFAIK	As far as I know
A/S/L	Age/Sex/Location
BBL	Be back later
BTW	By the way
DIKY	Do I know you?
GAL	Get a life
ILY	I love you
F2F	Face to face
IRL	In real life
LOL	Laugh out loud

If you want to learn and decipher the hundreds of additional acronyms found online, check out the following resources:

Alphabet Soup Explained http://members.aol.com/nigthomas/alphabet.html Usenet Acronyms Dictionary http://homepages.ihug.co.nz/~tajwileb/ dictionary.html

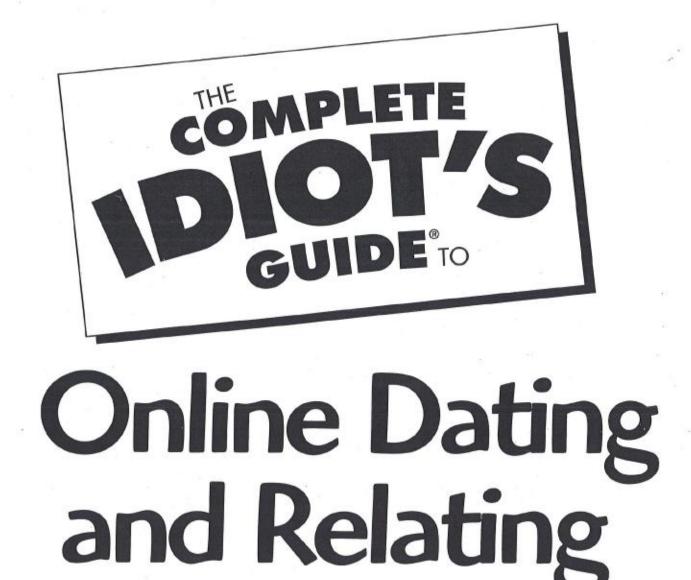
V.E.R.A. (Virtual Entity of Relevant Acronyms) http://userpage. fu-berlin.de/~oheiabbd/vera-e.html (This is a search engine for acronyms.)

Do You Hate to Type?

Would you rather just click a link to visit the Web sites in this book? Just point your browser to

http://www.size-eight.com/book

This site provides links to every Web page discussed in *The Complete Idiot's Guide to Online Dating and Relating* as well as new socializing Web sites that were created after this book went to press.



Joe Schwartz



A Division of Macmillan USA 201 West 103rd Street, Indianapolis, Indiana 46290

The Complete Idiot's Guide to Online Dating and Relating

Copyright © 2000 by Que Corporation

All rights reserved. No part of this book shall be reproduced, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher. No patent liability is assumed with respect to the use of the information contained herein. Although every precaution has been taken in the preparation of this book, the publisher and author assume no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from the use of the information contained herein.

International Standard Book Number: 0-7897-2169-4

Library of Congress Catalog Card Number: 99-63407

Printed in the United States of America

First Printing: November 1999

01 00 99 4 3 2 1

Trademarks

All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. Que cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

Warning and Disclaimer

Every effort has been made to make this book as complete and as accurate as possible, but no warranty or fitness is implied. The information provided is on an "as is" basis. The author and the publisher shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book. Associate Publisher Greg Wiegand

Acquisitions Editor Angelina Ward

Development Editor Sarah Robbins

Managing Editor Thomas F. Hayes

Technical Editor *Robert E. Patrick*

> **Illustrator** Judd Winick

Project Editor Lori A. Lyons

Copy Editor Sossity Smith

Indexer Kevin Broccoli

Proofreader *Tricia Sterling*

Team Coordinator Sharry Gregory

Interior Designer Nathan Clement

Cover Designer Michael Freeland

Copy Writer Eric Borgert

Production Dan Harris Cyndi Davis-Hubler

54397; 2000

LELI 9 ADN

Contents at a Glance

Part	: 1:	All Alone with a Warm Box	5
	1	Hey, Nice Keyboard!	7
		Who's out there? What are they doing? Why should I join them?	
	2	My Modem Blinks at Me and I Get Excited	15
		Get the lowdown on all the hardware and software you need to connect to all the beautiful people.	
	3	Was George Orwell Paranoid or an Optimist?	23
		<i>Taking it slow. Taking it safe. Protecting yourself from predators.</i>	
Part	2:	Dating Bytes	35
		Is That Email in Your Inbox, or Are You Just Happy to Read Me?	37
		The ins and outs of online personal ads that get results.	
	5	Do You Type Here Often?	57
		Now you have a great personal ad that will catch Mr. or Ms. Right, where do you post it?	
	6	I Want Values for My Money	73
		You don't want to date just anybody. Find folks who have the same beliefs you do. Hey, Mom might even like them.	
	7	How Do I Love Thee? Let Me Modem the Ways	91
		Great places to express your love online.	
	8	Advice IS Cheap!	101
		Expert (and not so expert) advice for the lovelorn.	
Part	3:	I Just Want Someone I Can Talk To	115
	9	I'm Typing As Fast As I Can	117
		Find out how to chat like a pro and win hearts while doing it	
	10	Why Is Everyone Talking About Medieval Cookware?	127
	,	Different types of chat for different types of people.	
	11	The Velvet Rope	147
		Instant messages. Instant love?	

	12	All the News That's Fit to Post	159
		Find today's news and a hot date at the same place.	
	13	"Funny, I Never Expected to Meet Someone Here."	171
		You just never know where Mr. Perfect might be hiding.	
	14	"The First Time I Laid Eyes on Your Font I Heard Bells."	185
		After the dates and chats, he pops the questions. Here are wedding resources to get you started planning your big day.	
Part	4:	I've Had a Hard Day	195
	15	When a Door Closes, It Gets Dark	197
		So it didn't work out. Where to look for others who might understand.	
	16	There's More to Venting Than Duct Tape	207
		She dumped you, took your CD collection, and kicked your dog. Here's how to get sweet Internet revenge!	
	17	Me, Myself, and I	217
		<i>He said you were a mental case and left. Find out if he was right. Self-help on the net.</i>	
Daut	Б.	Has Anyona Soon My Magic Fight Ball?	227
Part		Has Anyone Seen My Magic Eight Ball?	229
	18	"I See a Tall, Dark, and Handsome"	44)
		Are wedding bells in your future? Find out on these astrological love pages.	
	19	Listen to Me! Listen to Me!	239
		The Idiot's Guide's Predictions for the Future of Dating and Relating Online.	
		Index	241

Contents

	Introduction	1
	How to Use This Book	1
	How Do You Use This Book?	
Par	t 1: All Alone with a Warm box	5
1	Hey, Nice Keyboard!	7
	These Boots Were Made for Quaking	7
	But Who Is Really Out There?	8
	Just How Long Has Online Socializing Been Going On	
	What Are People Looking For?	
	What Are They Really Looking For?	
	The Dabbler	
	The Nester	
	The Hormone	
	The Butterfly	
	<i>The Seeker</i> What About All the Internet Nightmare Stories I've	
	Heard About?	12
2	My Modem Blinks at Me and I Get Excited	15
	Higher Power Concerns About Hardware	16
	Don't I Already Have the Software I Need?	
	Web Browsers	
	Email Programs	
	Instant Messaging Programs	
	Newsgroup Readers	
	Chat Programs	22
1		
3	Was George Orwell Paranoid or an Optimist?	23
	Guidelines for Keeping Yourself Safe	23
	Take Your Time	
	Be Inquisitive	24
	Watch for Red Flags	24
	Only Give Sensitive Information Sparingly and When	
	You're Ready	26

Enter the Offline World Cautiously	27
Use Your Instincts	27
Keeping Your Identity Anonymous	28
Web-Based Email	28
Personal Ad Services and Anonymous Remailers	30
Using the Web to Protect Yourself	31
SmartDate	31
CyberAngels	32
DateSmart.com	32
Check-A-Date	33

Part 2: Dating Bytes

4 Is That Email in Your Inbox, or Are You Just Happy to Read Me? 37

Getting Personal with Personal Ads	38
Choose an Identity Carefully	
Create an Attention-Grabbing Headline	
Honestly Describe Yourself and What You're	
Looking For	40
Reveal Something About Yourself	40
Create a Little Mystery	41
Be Specific	41
Be Positive	41
Common Personal Ad Pitfalls to Avoid	
Avoid the Laundry List	
Embody the Soul of Wit	42
Embody the Soul of Wit	12
Act Upon Self-Subjectivity	
It's Raining Cats and Dogs on My Personal!	
Be Confident	
Use Capitalization Sparingly	44
Reading and Replying to Other Ads	
Photograph Yeas and Nays	46
The Direct Approach	
Cyber-Flirting	
Emoticons	
Acronyms	
Signatures	51
SIXTIULUTES	

35

5 Do You Type Here Often?

57

73

Personal Ads Sites That Charge a Fee
Match.com
Matchmaker.com60
Mingles.com64
One & Only Internet Personals
metrodate.com
Other Sites
Personal Ads Sites That Are Free
Yahoo! Personals
<i>Excite Classifieds and Auctions</i>
Love@AOL Photo Personals
Other Sites
Online Dating Resources
About.com's Dating Advice Page
SingleSites.com
Cupid's Network
Search Engines

6 I Want Values for My Money

Christian Sites	73
Christian Singles Connection	
Christian Singles Commitments	74
catholicsingles.com	75
Other Sites	
Jewish Sites	
Jdate The Jewish Singles Network	77
Jewish Quality Singles	
The Jerusalem Post Personals	79
Other Sites	80
More Personal Ads Sites Based on Religion	
Same Sex Personals	
Gay Match Maker	82
Edwina	
Nu? Yenta	83
Special Challenges	
D.A.W.N. (Differently Abled Winners Network)	
Worldfriends	
Deaf World Web Talks	85
Living Positive HIV Dating Online	
MPwH (Meeting People with Herpes)	

Selective Beginnings		86
	ernational Personals	

7 How Do I Love Thee? Let Me Modem the Ways 91

Courting the New-Fashioned Way	91
Test the Waters	
Convey Your Feelings	
The Cyber-Subway	
Make Your Intended Laugh	
Send an Electronic Postcard	

8 Advice IS Cheap!

101

Who Are These People?	101
Serious Advice	
eMale	
Delilah	
The Doc Is In	
Ask Dr. Tracy	104
Ask Dr. Love	
Ask-a-Chick	
Flirt	
Not So Serious Advice	
Self Help with Lori	
The Advice Lady	
Brenda's Dating Advice for Geeks	
Tips for Dating Emotional Cripples	
Dear Duke	
Dear Toadmeister	

Part 3: I Just Want Someone I Can Talk To

117

115

9 I'm Typing As Fast As I Can

	+10
Chat and the Newcomer	117
Is Chat Just Talking?	
How Safe Is Online Chat?	
What's All This I Hear About Cybersex?	
Does Online Chatting Take an Emotional Toll?	

viii

10	Why Is Everyone Talking About Medieval	
	Cookware?	127
	If You're New to Chat	
	Web-Based Text Chat	
	Yahoo! Chat	
	Excite Chat	
	Go Chat	
	MSN Web Communities Chat	
	Lycos	
	IRC Web-Based Text Chat	
	Talk City	
	ChatSpace	138
	Chat Indices	138
	The Ultimate Chatlist	
	The WebArrow Chat Directory	138
	RIC Language Chat Sites	
	Graphical Chat	139
	OnChat	140
	The Palace	141
	Other Graphical Chat Sites	
	Video Chat	143
	CU-SeeMe and CU-SeeMe Pro	
	Microsoft NetMeeting	144
	CuSeeMe.net	
	Personal Ads Chat	144

11 The Velvet Rope

It's All in the Message	147
ICQ	
Yahoo! Messenger	151
AOL Instant Messenger	152
MSN Messenger Service	
PowWow	154
Other Instant Messengers	156
Ding!	156
ichat Pager	156
PeopleLink	156

12 All the News That's Fit to Post**159**Message Boards and Newsgroups159Usenet and the Web160Talkway160Deja.com161It Takes a Community163Yahoo! GeoCities, Yahoo! Clubs, and Yahoo! Message164Delphi Forums166Women.com, iVillage, and Oxygen166Other Community Sites168The Uncounted Thousands168

13 "Funny, I Never Expected to Meet Someone Here."

Some Enchanted Evening171
Teaching an Old Browser New Tricks
Gooey
Odigo
Play a Game
<i>The Mystery Match Game</i> 175
The Dating Game Online and The Station
Plan a Get-Together with Evite.com178
Talk Up a Collection at eBay179
Catch Up with the News
Meet a Jock
Hang Out with the Geeks
Talk About Finance

Usenet References: Usenet Without a Web......169

14 The First Time I Laid Eyes on Your Font, I Heard Bells. 185

The Knot	185
WeddingChannel.com	187
The Ultimate Internet Wedding Guide	188
ModernBride.com	190
unGROOM'd	
thebestman.com	193
Other Sites	194

Х

Par	rt 4: I've Had a Hard Day	195
15	When a Door Closes, It Gets Dark	197
	Breaking Up Is Hard to Do Breakup Girl	197
	Sample Posting from Breakup Girl's Deep Dish Message Board	
	I Dumped a Loser Society An IDALS Excerpt	200 200
	Breakup Survival Guides Divorce Survival Sites	201

16 There's More to Venting Than Duct Tape

Rule #1: Never Hurt Anyone Who Can Build a Web Joelogon's Foolproof Guide to Making Any Woman

17 Me, Myself, and I

207

Par	t 5: Has Anyone Seen My Magic Eight Ball?	227
18	"I See a Tall, Dark, and Handsome"	229
	Serious Futures	229
	Astronet	229
	Rob Brezsny's Real Astrology	000
	Tarot Magic	232
	Facade	234
	Not So Serious Futures	234
	Dean Martin's Sunny Summertime Horoscopes	235
	Foo Foo's Cat Astrology	235
	Magic 8-Balls Unlimited	237
19	Listen to Me! Listen to Me!	239
	The Idiot's Guide's Predictions for the Future of Dating and Relating Online	239
	Index	241

xii

EXHIBIT I





BOOK

The complete idiot's guide to online dating and relating

Full Reco	ord	MARC Tags
000	013	26cam a2200313 a 4500
001	203	700
005	201	80411142424.0
800	990	510s2000 inua 001 0 eng d
906		a 7 b cbc c copycat d 2 e ncip f 20 g y-gencatIg
925	0_	a acquire b 1 shelf copy x policy default
925	1_	a acquire b 2 shelf copies x policy default
955		a sf02 import 09-29-00; sf00 11-14-00; sf02 (desc) 12-07-00; sf12 12-20-00; sb31 to Dewey 01- 08-01; sb31 c.2 to Dewey 01-08-01; aa20 02-05-01
010		a 99063407
020		a 0789721694
035		a (OCoLC)ocm42949885
040		a ORX c ORX d VHB d DLC
042		a lccopycat
050	00	a HQ801 b .S43974 2000
082	00	a 646.7/7/0285 2 21
100	1_	a Schwartz, Joe, d 1961-
245	14	$ {f a}$ The complete idiot's guide to online dating and relating / $ {f c}$ Joe Schwartz.
246	30	a Online dating and relating
260		a Indianapolis, Ind. : b Que, c c2000.
300		a xii, 253 p. : b ill. ; c 23 cm.
500		a Includes index.

https://catalog.loc.gov/vwebv/staffView?searchId=1988&recPointer=0&recCount=25&searchType=1&bibId=203700 Exhibit No. 1021

LC Catalog - Item Information (MARC Tags)

650 _0 |a Dating (Social customs) |x Computer network resources.

650 _0 |a Interpersonal relations |x Computer network resources.

- 42 |3 Contributor biographical information |u http://www.loc.gov/catdir/enhancements/fy0720/99063407-b.html
- 42 |3 Publisher description |u http://www.loc.gov/catdir/enhancements/fy0720/99063407-d.html

Item Availability

CALL NUMBER	HQ801 .S43974 2000 FT MEADE Copy 2
Request in	Jefferson or Adams Building Reading Rooms - STORED OFFSITE
Status	c.2 Charged - Due on 05-18-2019

>

EXHIBIT J

OCLC 42949885 No holdings in XXX - 126 other holdings						
				<u>Re</u>	<u>En</u> 199	<u>Re</u> 2018041
r				<u>c</u> (<u>te</u>	<u>re</u> 905 j	place 0081855
Books	_			<u>Stat</u> d	10 <u>c</u>	<u>d</u> .7
<u>Type</u>	a <u>ELvi</u>	<u>Srce</u>	d <u>Audn</u>	<u>Ctr</u>		Lang eng
<u>BLvi</u>	m <u>Form</u>	<u>Conf</u>	⁰ <u>Biog</u>	MR	ec	Ctry inu
	<u>Cont</u>	GPub	LitF	• <u>Ind</u>	X 1	
Desc	a <u>Ills</u>	a <u>Fest</u>	0 <u>DtSt</u>	s <u>Dat</u>	<u>es</u> 2000	

010 99063407

040 ORX \$b eng \$c DLC \$d ORX \$d BAKER \$d BTCTA \$d YDXCP \$d UKV3G \$d OCLCG \$d OCLCQ \$d OCLCQ \$d OCLCQ \$d OCLCQ \$d OCLCF

- 015 GBA366795 \$2 bnb
- 019 59451615
- 020 0789721694
- 020 9780789721693
- 042 Iccopycat
- 050 00 HQ801 \$b .S43974 2000
- 082 00 646.7/7/0285 \$2 21
- 090 \$b
- 100 1 Schwartz, Joe, \$d 1961-
- 245 14 The complete idiot's guide to online dating and relating / \$c Joe Schwartz.
- 246 30 Online dating and relating
- 260 Indianapolis, Ind. : \$b Que, \$c ©2000.
- 300 xii, 253 pages : \$b illustrations ; \$c 23 cm
- 336 text \$b txt \$2 rdacontent
- 337 unmediated \$b n \$2 rdamedia
- 338 volume \$b nc \$2 rdacarrier
- 500 Includes index.
- 520 "Category--relationships/dating; covers--online dating and communication"--Page 4 of cover.
- 650 0 Dating (Social customs) \$x Computer network resources.
- 650 0 Interpersonal relations \$x Computer network resources.
- 650 7 Dating (Social customs) \$x Computer network resources. \$2 fast \$0 (OCoLC) fst00888096
- 776 08 \$i Online version: \$a Schwartz, Joe, 1961- \$t Complete idiot's guide to online dating and relating. \$d Indianapolis, Ind. : Que, ©2000 \$w (OCoLC)760327989
- 856 42 \$3 Contributor biographical information \$u
- http://catdir.loc.gov/catdir/enhancements/fy0720/99063407-b.html
- 856 42 \$3 Publisher description \$u http://catdir.loc.gov/catdir/enhancements/fy0720/99063407-d.html

EXHIBIT K



MCPHERSON HOW TO DO EVERYTHING WITH YOUR POCKET PC FT MEADE GenColl QA 76 .5 .M37 2002 Copy 2

How to Do *Everything* with Your

Pocket PC Second Edition

45 5:40 08

- 四

MEC

Unternet Explore

alı 🔹 🔁 🖾 🔄 🔁

COMPAD

Play music, browse the Web, send instant messages, download games—and more

Personalize your Pocket PC to match your style and needs

Manage appointments, take notes, crunch numbers, and synch data with your desktop PC

Frank McPherson

OSBORNE

How to Do with Your

Everything with Your POCKGtPG **Second Edition**

What You'll Do in This Book	CHAPTER
Learn the hardware and software features of your Pocket PC	1
Work with information and run programs using the Pocket PC user interface	2
Change the appearance of your Pocket PC by selecting different themes	3
Change the settings on your Pocket PC to tailor it to your needs	4
Connect your Pocket PC with desktop computers	5
Synchronize your data with a desktop computer	6
Install programs onto your Pocket PC	7
Schedule appointments, manage contacts, and track tasks	8
Make phone calls using the Pocket PC Phone application	9
Create documents using Pocket Word	10
Work with numbers using Pocket Excel	11
Balance your checkbook and track investments	1:
Record voice messages and take notes	13
Give presentations and view pictures	14
Create and query databases	15
Use your Pocket PC at the office	10
Go on road trips with your Pocket PC	17
Play games during your free time	18
Connect to the Internet	19
Send and receive e-mail	2
Chat with friends using instant messaging	2:
Browse your favorite Web sites	2:
Expand your Pocket PC	23

How to Do E*verything* with Your

Pocket PC Second Edition



About the Author

Frank McPherson is an avid user of handheld computers, starting with the Newton MessagePad in 1993 and later the Windows CE Handheld PC. Since 1993 he has been helping Newton, Handheld, and Pocket PC users online with Compuserve, the Microsoft Network, and Internet newsgroups. He developed and maintains the PocketPCHow2 website (http://www.pocketpchow2.com), which is visited by people from around the world seeking help using their Pocket PCs. Microsoft has recognized him as a Most Value Professional for his contributions to the mobile device community.

Frank has been a sports columnist and reporter for the Norway Current, a weekly newspaper in Norway, Michigan, and has also covered high school sports for the Iron Mountain Daily News in Iron Mountain, Michigan. Articles written by Frank about Pocket PCs have appeared in *Pocket PC Magazine*, *Brighthand.com*, and *PocketPC.com*.

A 1989 graduate of Michigan Technological University with a BS degree in Computer Science, Frank is also a Microsoft Certified Systems Engineer and Senior Information Specialist at EDS, where he has been employed for over ten years. Originally from Norway, Michigan, located in Michigan's beautiful Upper Peninsula, this Yooper now lives in West Bloomfield, Michigan with his wife, Ruth.

How to Do Everything with Your

C.H. Lebus

Pocket PC Second Edition

Frank McPherson

12-14

601 -

MITC



New York Chicago San Francisco Lisbon London Madrid Mexico City Milan New Delhi San Juan Seoul Singapore Sydney Toronto

McGraw-Hill/Osborne 2600 Tenth Street Berkeley, California 94710 U.S.A.

To arrange bulk purchase discounts for sales promotions, premiums, or fund-raisers, please contact **McGraw-Hill**/Osborne at the above address. For information on translations or book distributors outside the U.S.A., please see the International Contact Information page immediately following the index of this book.

How to Do Everything with Your Pocket PC, Second Edition

Copyright © 2002 by The McGraw-Hill Companies. All rights reserved. Printed in the United States of America. Except as permitted under the Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of publisher, with the exception that the program listings may be entered, stored, and executed in a computer system, but they may not be reproduced for publication.

ISBN 0-07-219414-6

Publisher:Brandoo A. NordVice President &Brandoo A. NordAssociatePublisher:Scott RogersAcquisitions Editor:Megg BonarProject Editor:Julie M. SmithAcquisitions Coordinator:Tana DiminyatzTechnical Editor:Todd OgasawaraCopy Editor:Linda MarousekProofreaders:Paul Medoff, LinIndexer:David HeiretComputer Designers:Lauren McCarthIllustrators:Michael MuellerSeries Design:Dodie Shoemako

Brandon A. Nordin Scott Rogers Mege Bonar Julie M. Smith YRIGHT OFFIC Julie M. Smith Y

This book was composed with Corel VENTURA ™ Publisher.

Information has been obtained by McGraw-Hill/Osborne from sources believed to be reliable. However, because of the possibility of human or mechanical error by our sources, McGraw-Hill/Osborne, or others, McGraw-Hill/Osborne does not guarantee the accuracy, adequacy, or completeness of any information and is not responsible for any errors or omissions or the results obtained from the use of such information.

Compaq iPAQ image used by permission from Compaq Computer Corporation

Jornada 560 image used by permission from Hewlett-Packard Company

NEC Mobile Pro P300 image used by permission from NEC Corporation

Screen shot(s) reprinted by permission from Microsoft Corporation

Screen shot(s) reprinted by permission from Crown Logic Corporation, CNetX, Biohazard Software, DDH Software, IA Style, Inc., Idruna Software, Applian Technologies Inc., and Conduit Technologies Inc.

Dedication

I was nearly halfway through writing this book on September 11, 2001. It was hard to write anything as the horror of that day's events, and the suffering of so many people, made writing books and Pocket PCs seem unimportant. Like many other Americans, I struggled with fear and uncertainty.

As the days passed with images of New York, Washington DC, and Pennsylvania constantly on television, I wondered what it is that I could do. All the people who died on that day did so enjoying the freedom the United States provides. Americans are free to travel anywhere within this great country, and earn a living doing work that provides personal satisfaction. In the United States everyone is free to practice any religion, go to any school, and voice their own opinions. Writing this book is one way that I enjoy my freedom, and in so doing bring honor to those who died on September 11, 2001.

This book is dedicated to those died on the planes, in the buildings, and on the ground in New York, Washington DC, and Pennsylvania. It is dedicated to our real heroes, the men and women of our fire and police departments, doctors, nurses, and emergency technicians, and members of our armed forces.

Let us never forget how precious all life is, and how truly blessed we are to live in a country in which we are free to seek out and fulfill our dreams.

Contents at a Glance

PARTI	Getting Started	
1	Welcome to Windows for Pocket PCs	3
2	Get Acquainted with Your Pocket PC	21
3	Personalize Your Pocket PC	45
4	Change Your Pocket PC System Settings	71
5	Connect Your Pocket PC with Desktop Computers	83
6	Synchronize Data with Desktop Computers	107
7	Manage Your Pocket PC from Your Desktop	127
PART II	Make the Most of Your Pocket PC	
8	Manage Appointments, Tasks, and Contacts	143
9	Call a Friend from Your Pocket PC	183
10	Create Documents with Pocket Word	195
11	Crunch Numbers	209
12	Manage Your Money	233
13	Take Notes	251
14	View Pictures and Presentations	267
15	Store and Query Data	287
16	Be Productive At Work	303
17	Travel With Your Pocket PC	325
18	Relax with Games, Music, Books, and Movies	341
PART III	Go Online with Your Pocket PC	
19	Connect to the Internet with or without Wires	365
20	Send and Receive E-Mail	389

VIII How to Do Everything with Your Pocket PC

21 22	Send and Receive Instant Messages Browse the Web	411 425
PART IV	Customize Your Pocket PC	
23	Expand Your Pocket PC with Software and Hardware	447
	Index	461

Contents

	Acknowledgments Introduction	xix xxi
PART I	Getting Started	
CHAPTER 1	Welcome to Windows for Pocket PCs	3
	Information Appliances	4
	Microsoft PC Companions	6
	Windows Powered Devices	7
	Handheld PCs	8
	Palm-size PCs	10
	Auto PCs	11
	Handheld PC 2000	12
	Pocket PCs	14
	Looking to the Future	15
	Windows for Pocket PCs	15
	Windows CE	16
	ActiveSync	17
	Pocket Outlook	17
	Pocket Office	17
	Microsoft Money	18
	Play Music and Games	18
	Read Books	18
	Connect to the Internet	18
	Wrapping Up	19
CHAPTER 2	Get Acquainted with Your Pocket PC	21
1.1	Meet Your Pocket PC	22
	Review the Pocket PC	23
	Set Up Your Pocket PC	26
	Meet the Today Screen	29
	Use the Pocket PC Start Menu	30
	Work with Applications	33

ix

X How to Do Everything with Your Pocket PC

	Get Help	36
	Print Documents	37
	File Storage and Program Memory	37
	Configure Memory	38
	Manage Files with File Explorer	39
	Wrapping Up	43
CHAPTER 3	Personalize Your Pocket PC	45
	Change the Personal Settings	46
	Program Hardware Buttons	46
	Configure the Input Methods	48
	Change the Start Menu	50
	Edit Owner Information	51
	Turn On Password Protection	52
	Change Sounds & Notifications	53
	Change the Today Screen	55
	Enter Information on Pocket PCs	57
	Use the Software Input Panel	58
	Try Alternative Recognizers	66
	Manage Running Programs	67
	Enhance the Today Screen	68
	Wrapping Up	70
		71
CHAPTER 4	Change Your Pocket PC System Settings	71
	Change the System Settings	72
	Change the Device Name Using the About Icon	72
	Align the Screen	74
	Adjust the Backlight or Brightness	75
	Set the Clock and Alarms	75
10 A	Adjust Memory	78
	Manage Power	79
	Change the Regional Settings	81
	Remove Programs	81
	Wrapping Up	82
CHAPTER 5	Connect Your Pocket PC with Desktop Computers	83
	Introducing ActiveSync	84
	Prepare for Installation	85
	Install ActiveSync on Desktop PCs	87
	Start ActiveSync on Desktop PCs	93
	Change Desktop ActiveSync Connection Settings	94
	Connect with Desktop PCs by Using Infrared	96
	Connect with Desktop PCs by Using Ethernet Networking	97
	Connect with Desktop I Co by Using Euleniet Retworking	11

	Connect with Desktop PCs Using a Modem	102
	Wrapping Up	106
CHAPTER 6	Synchronize Data with Desktop Computers	107
	Create a Partnership	109
	Create Two Partnerships	111
	Delete Partnerships	113
	Configure Synchronization Settings	114
	Change Calendar Synchronization Settings	116
	Change Contact Synchronization Settings	116
	Change Inbox Synchronization Settings	116
	Change Task Synchronization Settings	118
	Change File Synchronization Settings	118
	Change Notes Synchronization Settings	119
	Change Favorites Synchronization Settings	119
	Change AvantGo Synchronization Settings	120
	Change the Synchronization Mode	122
	Resolve Synchronization Conflicts	122
	Configure File Conversion Settings	124
	Wrapping Up	125
CHAPTER 7	Manage Your Pocket PC from Your Desktop	127
	Explore Files and Folders	128
	Browse Files and Folders	129
	Copy, Delete, and Rename Files and Folders	130
	Back Up and Restore Files	131
	Define the Backup Type	132
	Define Where to Store the Backup	132
	Restore from a Backup	133
	Install and Remove Programs	134
	Use ActiveSync to Install Programs	134
	Use ActiveSync to Remove Programs	136
	Use Desktop Pass Through	137
	Wrapping Up	139
PART II	Make the Most of Your Pocket PC	
CHAPTER 8	Manage Appointments, Tasks, and Contacts	143
	Use Pocket Outlook on Your Pocket PC	144
	Schedule Appointments Using Calendar	146

XII How to Do Everything with Your Pocket PC

	Store and Retrieve Addresses Using Contacts Manage Your Tasks Wrapping Up	163 172 182
CHAPTER 9	Call a Friend from Your Pocket PC Buy a Pocket PC Phone Make and Receive Phone Calls Make Phone Calls Receive Phone Calls Manage Calls Program Speed Dial	 183 184 185 186 189 189 190
	Configure the Pocket PC Phone Change the Phone Settings Change the Services Settings Change the Network Settings Wrapping Up	191 191 192 192 193
CHAPTER 10	Create Documents with Pocket Word Use Pocket Word on Your Pocket PC Create, Open, and Save Documents Edit Your Pocket Word Documents Format Your Pocket Word Documents Use the Four Pocket Word Modes Use the View Menu to Change the Screen Display Share Documents Easily with Other Users Copy and Delete Pocket Word Documents Wrapping Up	195 196 198 200 203 203 203 207 207 207 208 208
CHAPTER 11	Crunch Numbers Pocket Excel on the Pocket PC Start Pocket Excel Create a New Workbook Save Workbooks Move Around in Workbooks Add Data and Formulas to Workbooks Change the View in Workbooks Edit Data in Workbooks Format Data in Workbooks Work with Data in Workbooks Password-Protect Workbooks Share Workbooks The Pocket PC Calculator Use Calculator Use Calculator Wrapping Up	224 227 229 230 231 231

CHAPTER 12	Manage Your Money	233
	Install Microsoft Money	234
	Synchronize with Microsoft Money 2002	235
	Configure Synchronization Settings	236
	Use Pocket Money	238
	Create, Edit, and Delete Accounts	239
	Use Accounts and the Account Register	240
	Edit and Delete Transactions	244
	Create, Edit, and Delete Categories	245
	Create, Edit, and Delete Payees	246
	Create, Edit, and Update Investments	240
	Change Settings	247
	Set Passwords	
		249
	Wrapping Up	249
CHAPTER 13	Take Notes	251
	Create, Open, and Save Notes	252
1	Write Notes	252
	Edit Notes	254
	Zoom Notes	254
	Make Voice Recordings	254
	Create Recordings	255
	Send Notes and Recordings via E-mail or Infrared	255
	Synchronize Notes and Recordings	
	Manage Your Notes and Bagardings	259
	Manage Your Notes and Recordings	260
	Search for Notes and Recordings	261
	Configure Notes	261
	Synchronize the Outlook Journal using CLC Journal	262
	Create a Journal Entry using CLC Journal	264
	Wrapping Up	265
CHAPTER 14	View Pictures and Presentations	267
	View Pictures	268
	View Pictures Using PicturePerfect	208
15-	View Pictures Using IA Album Edit Pictures	273
and a second as	Edit Pictures Edit Pictures with Pocket Artist	276
d'		277
	Edit Pictures with Photogenics	278
	Show PowerPoint Presentations	280
	Show Presentations Using Pocket SlideShow	280
	Create Presentations Using Pocket Slides	284
	Wrapping Up	286

XIV How to Do Everything with Your Pocket PC

CHAPTER 15	Store and Query Data	287
	Select a Pocket PC Database	288
	Create Databases with HanDBase	289
	Install HanDBase	290
	Create a Database	290
	Enter and Edit Data	292
	Synchronize Data with Your Desktop	293
	Synchronize Microsoft Access Databases	294
	Synchronize PC Databases	294
	Configure Database Synchronization Options	296
	Synchronize Mobile Device Databases to the Desktop	297
	Stop Database Synchronization	297
	Work with Pocket Access Databases Using Data On The Run	298
	Install Data On The Run	298
	Open a Database	298
	View Data	299
	Search for Data	301
	Edit Data	301
	Wrapping Up	302
CHAPTER 16	Be Productive At Work	303
UNAFIEN 10		304
	Bring Your Pocket PC to Work	304
	Connect to Your PC at Work	304
	Work with Non-Microsoft Applications	309
	Access the Corporate Network	316
	Secure Information Use the Power-On Password	316
		316
	Use AntiVirus Software Store Sensitive Information in Secure Databases	317
		317
	Assign Passwords to Documents	318
	Encrypt Files	318
	Connect to Corporate E-Mail Systems	319
	Send and Receive E-Mail from Exchange Send and Receive E-Mail from Lotus Notes	319
		320
	Run Windows Programs Use Microsoft Mobile Terminal Server Client	320
		323
	Use Citrix Winframe	323
	Use Other Remote-Control Applications	323
	Wrapping Up	545
CHAPTER 17	Travel With Your Pocket PC	325
	Prepare to Travel with Your Pocket PC	326
	Keep Your Pocket PC Running	326

XV

	Plan How to Connect Your Pocket PC to the Internet Print on the Road Back Up Your Pocket PC on the Road Secure Your Data Turn Your Pocket PC into a Traveling Tool Know Where to Go and How to Get There Language Translation Hit the Road	328 330 331 331 332 332 332 337 337
	Make Final Preparations Complete a Travel Checklist Wrapping Up	337 338 339
CHAPTER 18	Relax with Games, Music, Books, and Movies	341
	Play Games on Your Pocket PC	342
	Download Games to Play	
	Use Emulators to Play Games	345
	Play Solitaire on Your Pocket PC	345
	Play a Game of Solitaire	346
	Configure Solitaire	348
	Play Music	349
	Play Music Using Windows Media Player	350
	Personalize Windows Media Player	353
	Copy Music to Your Pocket PC	353
	Where to Find Music on the Internet	354
	Listen To to Books Using Audible Player	354
		355
		355
	Read eBooks Using Microsoft Reader Download Microsoft Reader eBooks	
		359
	Read eBooks Using Other Programs	359
	Play Movies	360
	Play Movies Using Windows Media Player	360
	Play Movies Using PocketTV	361
	Play Movies Using ActiveSky	3.61
	Watch Television Shows Using SnapStream Pocket PVS	361
	Wrapping Up	362
PART III	Go Online with Your Pocket PC	
CHAPTER 19	Connect to the Internet with or without Wires	365
	Gather Internet Service Provider Information	366
	Use Connection Manager	368
	Use the Connection Wizard	369
	Connect Using Modems	373
	Connect Using Wireless Modems	379
	A REAL PROPERTY AND A REAL	

XVI How to Do Everything with Your Pocket PC

	Connect Using ActiveSync Desktop Pass Through Connect to Local Area Networks Select a Network Adapter Configure Network Interface Adapters Use Network Adapters Wrapping Up	382 383 384 385 386 388
CHAPTER 20	Send and Receive E-Mail Use Inbox to Work with E-Mail Start Inbox Add Internet E-Mail Services Edit and Remove Services Synchronize E-Mail With Outlook Send and Receive E-Mail Compose a New E-Mail Message Read and Respond to E-Mail Manage Messages Manage Attachments Receive Meeting Requests Find Messages Wrapping Up	 389 390 392 393 396 396 398 400 404 405 407 408 409 409
CHAPTER 21	Send and Receive Instant Messages Send and Receive Instant Messages Using MSN Messenger Send and Receive Messages Manage Contacts Change MSN Messenger Options Send and Receive Instant Messages Using Yahoo Messenger Download and Install Yahoo Messenger Send and Receive Messages Manage Friends Change Preferences Send and Receive Instant Messages Using AOL Instant Messenger Download and Install AOL Instant Messenger Send and Receive Messages Manage Buddies	411 412 413 416 417 418 418 418 418 419 420 420 420 420 421
	Change Preferences Send and Receive Instant Messages Using ICQ Download and Install ICQ Send and Receive Messages Manage Contacts Change Preferences Wrapping Up	421 421 422 422 423 423 423 423

CHAPTER 22	Browse the Web	425
	Start Pocket Internet Explorer	427
	Browse Websites	428
	Use the Address Bar and History	428
S0	Use Favorites	429
	Keep Track of Your Favorite Pages	430
	Add to Favorites	430
	Synchronize Favorites	431
	Configure Security Options	431
	Control Cookies	432
	Change the Display	432
	Change the Home Page	433
	Store Web Pages on Your Pocket PC	434
	Synchronize Mobile Favorites Content	434
	View Mobile Favorites	437
	Synchronize AvantGo Content	437
	Sign Up with AvantGo.com	438
	Configure AvantGo Connect	438
	View AvantGo Channels	440
	Subscribe to Channels	442
	Synchronize Content Using Mazingo	443
	Wrapping Up	443
PART IV	Customize Your Pocket PC	
CHAPTER 23	Expand Your Pocket PC with Software and Hardware	447
	Find Pocket PC Software	448
	Download Free Software from Microsoft	448
	Download Software from CNET	449
	Download Software from TUCOWS PDA	449
	Download Software from HPC.net	449
	Download Games from PocketGamer.org	450
	Download Skins and Themes	450
	Buy Pocket PC Software	451
	The Top Ten Pocket PC Downloads	451
	PowerToys	451
	Create Lists with ListPro	451
	Read the Bible with PocketBible	453
	Test Network Connections with vxUtil	453
	Create Outlines with OutALine	454
	Secure Information in eWallet	454
	Explore the Pocket PC Registry	454
	Capture Screenshots with Pocket ScreenSnap	455

XVIII How to Do Everything with Your Pocket PC

Print Pocket Word Documents and E-Mail	455
View Flash Content	455
Add Storage Space with Peripheral Cards	456
Expand with PC Cards	456
Expand with CompactFlash Cards	457
Expand with Secure Digital Cards	458
Increase Storage Space	458
Wrapping Up	460
Index	461

EXHIBIT L





BOOK

How to do everything with your Pocket PC

Full Rec	cord MARC Tags
000	01296cam a22003015a 4500
001	12729376
005	20020911201203.0
800	020403s2002 nyua 001 0 eng
906	a 7 b cbc c origcop d 2 e ncip f 20 g y-gencatIg
925	0_ a acquire b 2 shelf copy x policy default
955	a pv07 2002-04-03 to ASCD a jf00 2002-04-09; c jf03 2002-07-30 to Subj. d jf09 2002-07-30 to sl e jf25 2002-07-31 2 copies to Dewey a aa03 2002-08-12
010	a 2002279411
020	a 0072194146
040	a DLC c DLC d DLC
050	00 a QA76.5 b .M37 2002
082	00 a 004.16 2 21
100	1_ a McPherson, Frank.
245	10 a How to do everything with your Pocket PC / c Frank McPherson.
250	a 2nd ed.
260	a New York : b McGraw-Hill/Osborne, c c2002.
300	a xxii, 481 p. : b ill. ; c 24 cm.
500	a Rev. ed. of: How to do everything with your pocket PC & handheld PC. Berkeley, Calif. : Osborne/McGraw-Hill, c2000.
500	a Includes index.
650	_0 a Pocket computers.
650	_0 a Portable computers.
700	1_ a McPherson, Frank. t How to do everything with your pocket PC & handheld PC.
s·//catalog	Lloc.gov/vwebv/staffView?searchId=2288&recPointer=0&recCount=25&searchType=1&bibId=12729376

https://catalog.loc.gov/vwebv/staffView?searchId=2288&recPointer=0&recCount=25&searchType=1&bibId=12729376

856

42 |3 Publisher description |u http://www.loc.gov/catdir/description/mh024/2002279411.html

41 |3 Table of contents |u http://www.loc.gov/catdir/toc/mh023/2002279411.html

Request this Item

Item Availability		>
CALL NUMBER	QA76.5 .M37 2002 FT MEADE Copy 1	
Request in	Jefferson or Adams Building Reading Rooms - STORED OFFSITE	
Status	Not Charged	
CALL NUMBER	QA76.5 .M37 2002 FT MEADE Copy 2	
Request in	Jefferson or Adams Building Reading Rooms - STORED OFFSITE	
Status	c.2 Charged - Due on 03-27-2019 05:00:00	

2/2

EXHIBIT M

<u>OCLC</u> 48570	233 No ho	ldings in XX	X - 95 other	holdings
			<u>R</u>	Re <u>En</u> 200 <u>Re</u> 2018011
			<u>C</u>	dere 112 place 7185619
Books	<u> </u>		<u>Sta</u>	<u>t d</u> 04 <u>d</u> .8
Type a	<u>ELvi</u>	<u>Srce</u>	Audn	Ctrl Lang eng
<u>BLvi</u> m	<u>Form</u>	Conf 0	<u>Biog</u>	MRec Ctry cau
	<u>Cont</u>	<u>GPub</u>	LitF 0	Indx ¹
Desc a	Ills a	Fest ⁰	DtSt s	<u>Dates</u> 2002

040 UKM \$b eng \$c UKM \$d TXA \$d BTCTA \$d OTP \$d YDXCP \$d AU@ \$d OCLCO \$d OCLCF \$d OCLCQ \$d JID \$d PCQ

015 GBA2Z9968 \$2 bnb

- 015 GBA333268 \$2 bnb
- 019 49048819 \$a 52194647 \$a 155129553 \$a 223133168 \$a 974858114
- 020 0072194146
- 020 9780072194142
- 042 pcc

050 14 QA76.5 \$b .M37 2002

082 04 004.16 \$2 21

082 04 005.4469 \$2 21

090 \$b

100 1 McPherson, Frank.

245 10 How to do everything with your pocket PC / \$c Frank McPherson.

- 250 2nd ed.
- 260 Berkeley, Calif. ; \$a London : \$b McGraw-Hill/Osborne, \$c ©2002.
- 300 xxii, 481 pages : \$b illustrations ; \$c 24 cm.
- 336 text \$b txt \$2 rdacontent
- 337 unmediated \$b n \$2 rdamedia
- 338 volume \$b nc \$2 rdacarrier
- 490 1 How to do everything with--

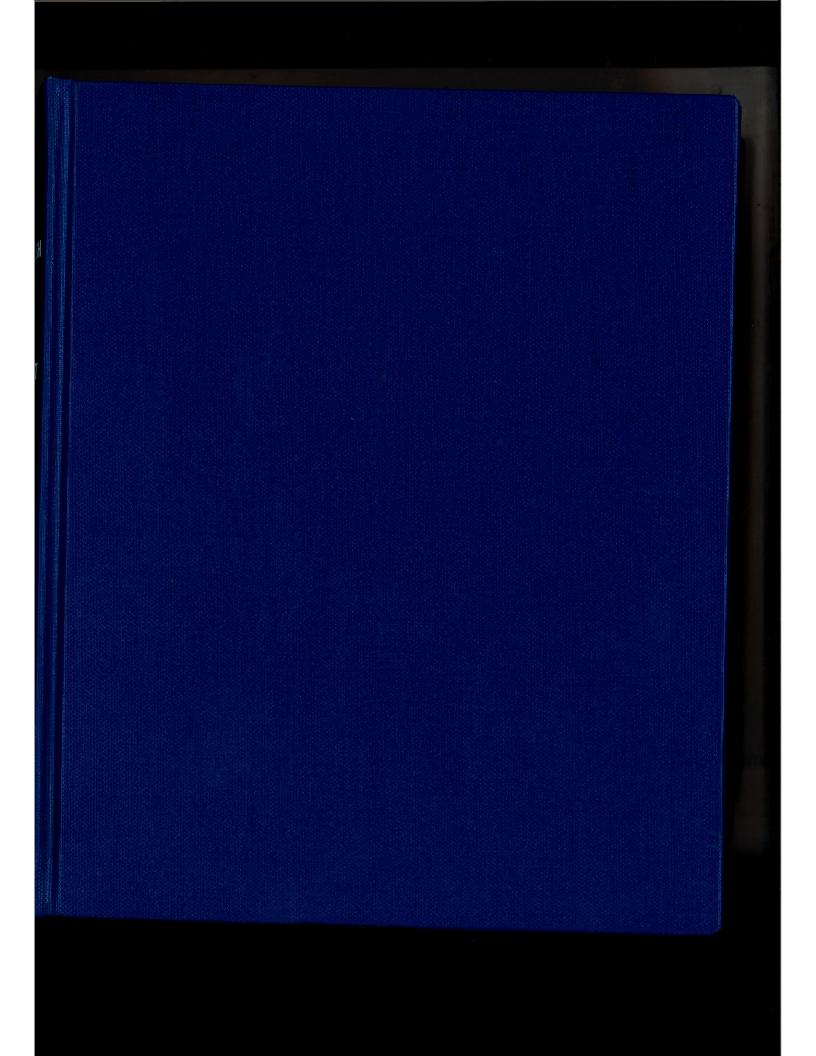
500 Previous edition: published as How to do everything with your pocket PC & handheld PC. 2000.

500 Includes index.

505 0 Welcome to Windows for pocket PCs -- Get acquainted with your pocket PC -- Personalize your pocket PC -- Change your pocket PC system settings -- Connect your pocket PC with desktop computers - Synchronize data with desktop computers -- Manage your pocket PC from your desktop -- Manage appointments, tasks, and contacts -- Call a friend from your pocket PC -- Create documents with pocket Word -- Crunch numbers -- Manage your money -- Take notes -- View pictures and presentations -- Store and query data -- Be productive at work -- Travel with your pocket PC -- Relax with games, music, books, and movies -- Connect to the Internet with or without wires -- Send and receive e-mail -- Send and receive instant messages -- Browse the Web -- Expand your pocket PC with software and hardware. 650 0 Pocket computers.

- 650 0 Portable computers.
- 650 7 Pocket computers. \$2 fast \$0 (OCoLC) fst01067594
- 650 7 Portable computers. \$2 fast \$0 (OCoLC)fst01072033
- 830 0 How to do everything with-

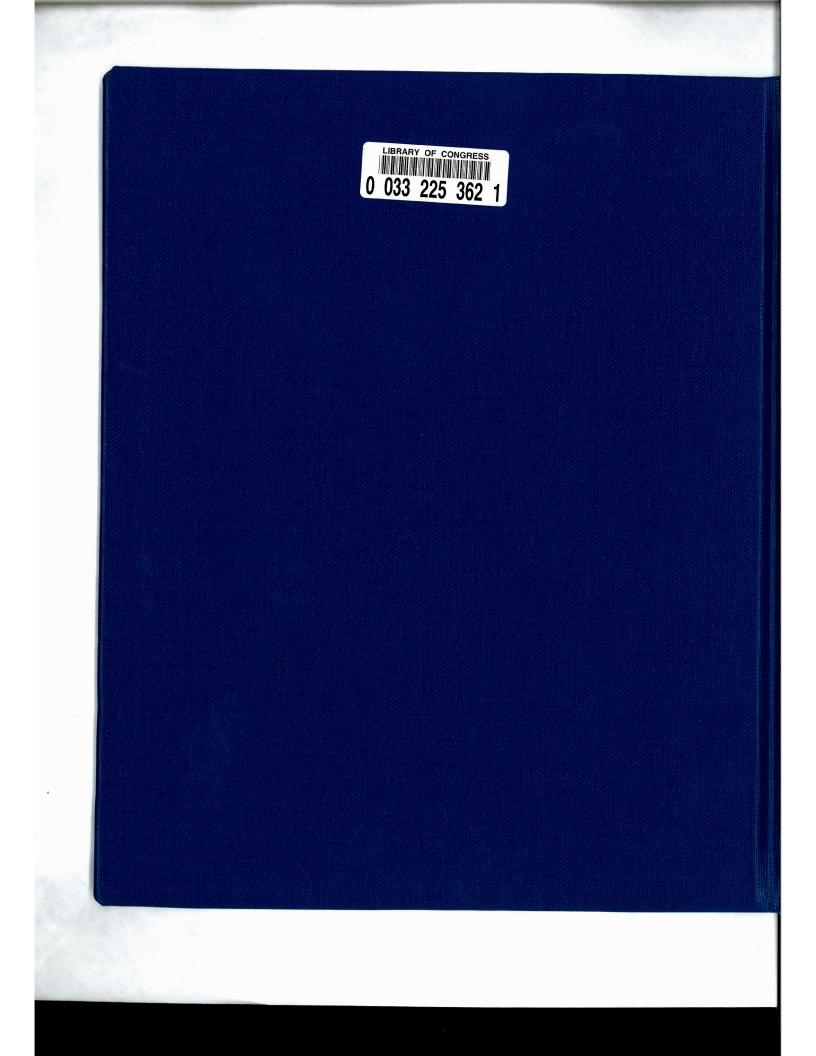
EXHIBIT N



CRUMLISH

ABCs OF THE INTERNET

TK 51Ø5 .875 .I57 C778 1996



The ABCs of the Internet

Make the Most of Your Time Online

READY, SET, GO...

The ABCs of the Internet

The ABCs of the Internet

Christian Crumlish



San Francisco – Paris – Düsseldorf – Soest



TK5105 .875 .Is7C778 1996

Associate Publisher: Carrie Lavine Acquisitions Manager: Kristine Plachy Developmental Editor: Dan Brodnitz Editor: Lee Ann Pickrell Technical Editor: Sandra Teng Book Design Director: Catalin Dulfu Book Designer: Design Site, Tracy Dean Desktop Publisher: GetSet! PrePress Production Coordinators: Alexa Riggs, Robin Kibby Indexer: Ted Laux Cover Designer: Design Site Cover Photographer: Dennis O'Clair, photograph furnished by Tony Stone Images

Screen reproductions produced with Collage Complete.

Collage Complete is a trademark of Inner Media Inc.

SYBEX is a registered trademark of SYBEX Inc.

TRADEMARKS: SYBEX has attempted throughout this book to distinguish proprietary trademarks from descriptive terms by following the capitalization style used by the manufacturer.

Netscape Communications, the Netscape Communications logo, Netscape, and Netscape Navigator are trademarks of Netscape Communications Corporation.

Every effort has been made to supply complete and accurate information. However, SYBEX assumes no responsibility for its use, nor for any infringement of the intellectual property rights of third parties which would result from such use.

Photographs and illustrations used in this book have been downloaded from publicly accessible file archives and are used in this book for news reportage purposes only to demonstrate the variety of graphics resources available via electronic access. Text and images available over the Internet may be subject to copyright and other rights owned by third parties. Online availability of text and images does not imply that they may be reused without the permission of rights holders, although the Copyright Act does permit certain unauthorized reuse as fair use under 17 U.S.C. Section 107.

An earlier version of this book was published under the title *A Guided Tour of the Internet* ©1995 SYBEX Inc. Copyright ©1996 SYBEX Inc., 2021 Challenger Drive, Alameda, CA 94501. World rights reserved. No part of this publication may be stored in a retrieval system, transmitted, or reproduced in any way, including but not limited to photocopy, photograph, magnetic or other record, without the prior agreement and written permission of the publisher.

Library of Congress Card Number: 96-67838 ISBN: 0-7821-1887-9

Manufactured in the United States of America

10987654321

To the Merry Punsters (NTAP)

Acknowledgments

Of the many wizards I've met or asked advice of through the Net or in the real world, I'd like to particularly thank Richard Frankel. I'd also like to thank Mitch Goldman for checking some e-mail program details for me and James "Kibo" Parry for allowing me to reproduce a Usenet article. Most of all, I'd like to thank Nick "Griffin" Meriwether, whose cheerful assistance made the preparation of the manuscript possible.

At Sybex, I'd like to thank the following people: Richard Mills for suggesting that I adapt my book *A Guided Tour of the Internet* to the *ABCs* format and bring the information in it up-to-date; Dan Brodnitz for helping me think through what's needed for a beginner's Internet book these days; Lee Ann Pickrell for patiently editing the content; Sandra Teng for checking the technical accuracy of the book; Alexa Riggs and Robin Kibby for coordinating the production of the book; and David Kamola of Get Set! PrePress for desktop publishing.

Of the many people who worked on the previous *Guided Tour* version of this book, I'd like to thank Guy "Text Butcher" Hart-Davis for editing the original manuscript (and putting up with my various idiosyncrasies). Many readers have sent me e-mail to praise or complain about various aspects of that book and all the feedback is appreciated. I'd especially like to thank the following readers who sent me corrections: Brenda J. Panawash-Bielinski (bjpanaw@whin.net), Peter Glenn White (PGW@ix. netcom.com), Glen (gaspasRx@eworld.com), Bari Nirenberg (yairli@bgumail. bgu.ac.il), Baruch Kantor (barlea@netvision.net.il), (cloak@ mcstoon.com), Daniel Headrick (dheadric@acfsysv.roosevelt.edu), Daniel Rozenshein (drozen@carmel. haifa.ac.il), Jeremiah Heller (heller6@aloha.net), Ilan Bukai (ilan_ buk@ilan_buk. netvision.net.il), John B. Delack (ab571@sfn.saskatoon.sk.ca), Michael L. Canute (canute@ uhunix .uhcc.Hawaii.Edu), Santiago Cardoso (scardoso@infosel.net.mx), Susan Enabnit (susanena@aztec.asu.edu), and Wojciech Turski (omicron@lodz. pdi.net).

Thanks as always to Briggs, who has stood by me through my ridiculous way of working on too many projects at once.

viii

Contents at a Glance

Introduction
Chapter 1: Just Enough to Get Started1
Chapter 2: Sending and Receiving E-Mail
Chapter 3: Making the Most of E-Mail
Chapter 4: Browsing the Web
Chapter 5: Finding Stuff on the Net
Chapter 6: Plugging In to Multimedia
Chapter 7: Getting on Mailing Lists
Chapter 8: Usenet News–Read All about It
Chapter 9: Chatting on the IRC 205
Chapter 10: FTP and Telnet—the Transporter Beams
Chapter 11: Gopher and Gopherspace
Chapter 12: Making a Simple Home Page
Appendix A: Getting Connected and Getting Started
Appendix B: Glossary of Internet Terms
Index

Table of Contents

Introduction
Chapter 1: Just Enough to Get Started
What Is the Internet?2E-Mail and a Whole Lot More2The Web Is Not the Net, or Is It?4Getting on the Internet9Accessing the Net at Work9Accessing the Net at Home10The Internet Doesn't Care What Kind of Computer You Use13What You Can Do on the Net13A Few Words about Internet Addresses15
Chapter 2: Sending and Receiving E-Mail
Working with E-Mail21Running a Mail Program21Sending Mail23Reading Mail25Replying to Mail26Deleting Mail29Exiting a Mail Program29Using Specific E-Mail Programs30America Online30cc:Mail32CompuServe32Eudora34
Eudora

iх

Pegasus Mail	
Pine	41
Chapter 3: Making the Most of E-Mail	
Mail-Sending Tricks	46
Forwarding Mail	
Sending Mail to Multiple Recipients	
Filing E-Mail Messages	
Using Your Word Processor to Write E-Mail Messages	
Sending Files via E-Mail	
Saving E-Mail Addresses	
Checking Your Spelling in E-Mail Messages	
Finding Internet E-Mail Addresses	
Say "Send Me E-Mail"	
Send Mail to Postmaster@	
Ask the Knowbot	
More E-Mail with Specific Programs	54
AOL	
cc:Mail	
CompuServe	
Eudora	
Netscape Mail	
Pegasus Mail	
Pine	
Chapter 4: Browsing the Web	60
Web Addresses (URLs)	71
Different Types of Web Browsers	
Using Web Browsers	
Reading a Page in a Web Browser	74

	14
	Λ

	Knowing Where to Go	76
	Making a Bookmark	76
	Saving or Mailing a Document	
	Peeking behind the Scenes	
	Changing Your Home Page	
	Web Help and Info	
	Keeping Up with What's New	
S	Surfing the Web with Your Web Browser	
	Browsing the Web with AOL	
	Browsing the Web with CompuServe Mosaic	80
	Browsing the Web with Lynx	
	Browsing the Web with Microsoft Internet Explorer	87
	Browsing the Web with Mosaic	
	Browsing the Web with NetCruiser	
	Browsing the Web with Netscape Navigator	94
Chap	pter 5: Finding Stuff on the Net	97
	pter 5: Finding Stuff on the Net	
	Searching the Web	98
	Searching the Web Searching through a Directory	98 98
	Searching the Web Searching through a Directory Searching with a Search Engine	
	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page	
S	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page Some Search Addresses	
S	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page Some Search Addresses Downloading Files and Keeping Your Software Up-to-Date	
S	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page Some Search Addresses Downloading Files and Keeping Your Software Up-to-Date	
S	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page Some Search Addresses Downloading Files and Keeping Your Software Up-to-Date ooking for People on the Internet Using Whois	
S L	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page Some Search Addresses Downloading Files and Keeping Your Software Up-to-Date ooking for People on the Internet Using Whois Using Whowhere?	
S L	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page Some Search Addresses Downloading Files and Keeping Your Software Up-to-Date ooking for People on the Internet Using Whois Using Whowhere? Searching off the Web	
S L	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page Some Search Addresses Downloading Files and Keeping Your Software Up-to-Date ooking for People on the Internet Using Whois Using Whois Searching off the Web Searching Usenet	
S L	Searching the Web Searching through a Directory Searching with a Search Engine Visiting a Central Search Page Some Search Addresses Downloading Files and Keeping Your Software Up-to-Date ooking for People on the Internet Using Whois Using Whowhere? Searching off the Web	

Lhapter 6: Plugging In to MultimediaId	
Downloading and Installing Applications	22
Different Ways to View Other Media	23
Viewers and Players 12	23
Helper Applications12	24

Facebook's Exhibit No. 1021 0196

xi

The Types of Media out There 125 Sounds and Music 126 Movies and Animations 128 3D Environments 129 AOL's Web Browser 132 CompuServe Mosaic 132 Lynx (Don't Laugh!) 132 Microsoft Internet Explorer 132

Finding Mailing Lists	
A General List of Lists	
Specific Lists of Lists 142	>
Subscribing to Lists	ŧ
People-Administered Lists 145	;
Robot-Administered Lists	;
Canceling Your Subscription	;
People-Administered Lists 146	;
Robot-Administered Lists 146	
Temporarily Unsubscribing 146	
Posting to Lists	
Participating in a List	

Chapter 8: Usenet News—Read All about It	151
What Is Usenet?	152

xii

Where Everybody Knows Your Signature	53
What Is a Newsgroup?	51
What Is an Article?	7
What Is a Newsreader?	57
Usenet as a Public Forum	19
Semi-Anonymity on the Net	9
Being a Good Netizen	0
Being a Good Netizen	0
Shooting Stars and net.spewers	0
Getting Help	1
The Quality of Usenet	1
How to Read Newsgroups	2
Net News by Mail–If You Don't Have Usenet Access	3
Newsreading Basics	Λ
Getting Help and Avoiding Problems	0
Some Advanced Stuff You Should Know	n
Reading News with Specific Newsreaders	1
AOL	2
CompuServe	4
Microsoft Internet Explorer	2
Mosaic	1
NetCruiser	1
Netscape News	7
NewsWatcher	י ר
News Xpress	, ,
Tin)
196)

Η	ow IRC Programs Work in General	7
C	natting with Specific IRC Programs	na.
	Chatting with Irc	na
	Chatting with Ircle	
	Chatting with mIRC	2
	Chatting with NetCruiser	z
	Chatting with Netscape Chat	5
		S

xiii

Chapter 10: FTP and Telnet—the Transporter Beams	
FTP—the File Transfer Protocol	
How to Find FTP Sites	
How to Do FTP in General	
FTP by E-Mail If You Don't Have "Real" FTP	
Transferring Files from a Unix Shell Account	
FTP with Your Web Browser	
Specific FTP Programs	
Telnet—a Computer in Your Window	
Finding a Telnet Program	
Telnetting from Your Web Browser	
Charles II. Carbor on J. Carborrenze 230	
Chapter 11: Gopher and Gopherspace239	
What Is Gopher	
Exploring Gopherspace	
Browsing Gopherspace with Gopher	
Getting around the Menus242	
Reading Documents243	
Getting to Another Gopher Server	
Bookmarks in Gopherspace	
Quitting Gopher	
Getting Help for Gopher	
Browsing Gopherspace with NetCruiser	
Getting around the Menus	
Reading Documents	
Getting to Another Gopher Server	
Quitting Gopher in NetCruiser	
Browsing Gopherspace with TurboGopher	
Getting around the Menus	
Reading Documents	
Getting to Another Gopher Server	
Bookmarks in Gopherspace	
Quitting TurboGopher	

xiv

Getting Help253Browsing Gopherspace with your Web Browser253Getting around the Menus253Reading Documents254Bookmarks in Gopherspace254Browsing Gopherspace with WSGopher254Getting around the Menus254Getting around the Menus254Getting around the Menus254Getting to Another Gopher Server254Bookmarks in Gopherspace254Getting to Another Gopher Server254Gotting WSGopher254Getting Help for Gopher254Getting Help for Gopher254 <td>3344567888</td>	3344567888
Chapter 12: Making a Simple Home Page	
Creating a Home Page 26 Visiting the GNN Site 26 Going to the Template Page 26 Saving the Template 26 Looking at the HTML Document 26 Editing the HTML Document 26 Putting in an Image and the Links 26 Previewing the Home Page 26 Finding a Home for Your Page 27	34457892
Appendix A: Getting Connected and Getting Help	5
Different Types of Connections27Equipment You'll Need27Hardware27Software27Going Online with a Macintosh27Finding a Service Provider28The Chicken or the Egg28Getting Started28Logging In28You're on the Net28	77890133

хv

EXHIBIT O





BOOK

The ABCs of the Internet

000 00983cam a2200301 a 4500 001 693513 005 20000615084450.0 008 960430s1996 caua 001 0 eng d 035 19 (DLC) 96067838 906 19 cbcc c copycat d 2 e opcn f 19 g y-gencatlg 955 1a pb07 06-11-96 to cat.;jf00 08/13/96; jf09 to sub 8-13-96; jf08 10-03-96 to SL;jf12 10-17-9 955 1a pb21 04-30-96; OCLC import, pb07, 06-11-96 010 1a 96067838 020 1a 0762118879 (pbk.) : c \$19.99 035 1a (OCoLC)34726612 035 1a 3655-17160 040 1a Coco c OCo d DLC 042 1a lcocpycat 050 00 a TK5105.875.157 b C778 1996 082 00 a 005.71/13 2 21 100 1 a Caumlish, Christian. 245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a San Francisco : b Sybex, c c1996. 300 a Inc	Full Reco	rd	MARC Tags
001 693513 005 20000615084450.0 008 960430s1996_caua0010 eng d 035			
005 20000615084450.0 008 960430s1996 caua 0010 eng d 035	000	009	83cam a2200301 a 4500
008 960430s1996 caua 001 0 eng d 035	001	693	513
035	005	200	00615084450.0
906	800	960	430s1996 caua 001 0 eng d
955	035		9 (DLC) 96067838
955	906		a 7 b cbc c copycat d 2 e opcn f 19 g y-gencatlg
010 a 96067838 020 a 0782118879 (pbk.) : c \$19.99 035 a (OCoLC)34726612 035 a 3655-17160 040 a OCo c OCo d DLC 042 a lccopycat 050 00 a TK5105.875.157 b C778 1996 082 00 a 005.7/13 2 21 100 1 a Crumlish, Christian. 245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a xxi, 362 p. : b ill.; c 23 cm.	955		a pb07 06-11-96 to cat.;jf00 08/13/96; jf09 to sub 8-13-96; jf08 10-03-96 to SL;jf12 10-17-96
020 a 0782118879 (pbk.) : c \$19.99 035 a (OCoLC)34726612 035 a 3655-17160 040 a OCo c OCo d DLC 042 a lccopycat 050 00 a TK5105.875.157 b C778 1996 082 00 a 005.7/13 2 21 100 1 a Crumlish, Christian. 245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a San Francisco : b Sybex, c c1996. 300 a xxi, 362 p. : b ill. ; c 23 cm.	955		a pb21 04-30-96; OCLC import, pb07, 06-11-96
035 a (OCoLC)34726612 035 a 3655-17160 040 a OCo c OCo d DLC 042 a lccopycat 050 00 a TK5105.875.157 b C778 1996 082 00 a 005.7/13 2 21 100 1 a Crumlish, Christian. 245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a San Francisco : b Sybex, c c1996. 300 a xxi, 362 p. : b ill. ; c 23 cm.	010		a 96067838
035	020		a 0782118879 (pbk.) : c \$19.99
040 a OCo c OCo d DLC 042 a lccopycat 050 00 a TK5105.875.157 b C778 1996 082 00 a 005.7/13 2 21 100 1 a Crumlish, Christian. 245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a San Francisco : b Sybex, c c1996. 300 a xxi, 362 p. : b ill. ; c 23 cm.	035		a (OCoLC)34726612
042 a ccopycat 050 00 a TK5105.875.157 b C778 1996 082 00 a 005.7/13 2 21 100 1 a Crumlish, Christian. 245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a San Francisco : b Sybex, c c1996. 300 a xxi, 362 p. : b ill. ; c 23 cm.	035		a 3655-17160
050 00 a TK5105.875.157 b C778 1996 082 00 a 005.7/13 2 21 100 1_ a Crumlish, Christian. 245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a San Francisco : b Sybex, c c1996. 300 a xxi, 362 p. : b ill. ; c 23 cm.	040		a OCo c OCo d DLC
082 00 a 005.7/13 2 21 100 1_ a Crumlish, Christian. 245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a San Francisco : b Sybex, c c1996. 300 a xxi, 362 p. : b ill. ; c 23 cm.	042		a lccopycat
1001_ a Crumlish, Christian.24514 a The ABCs of the Internet / c Christian Crumlish.260 a San Francisco : b Sybex, c c1996.300 a xxi, 362 p. : b ill. ; c 23 cm.	050	00	a TK5105.875.I57 b C778 1996
245 14 a The ABCs of the Internet / c Christian Crumlish. 260 a San Francisco : b Sybex, c c1996. 300 a xxi, 362 p. : b ill. ; c 23 cm.	082	00	a 005.7/13 2 21
260 a San Francisco : b Sybex, c c1996. 300 a xxi, 362 p. : b ill. ; c 23 cm.	100	1_	a Crumlish, Christian.
300 a xxi, 362 p. : b ill. ; c 23 cm.	245	14	a The ABCs of the Internet / c Christian Crumlish.
	260		a San Francisco : b Sybex, c c1996.
500 a Includes index.	300		a xxi, 362 p. : b ill. ; c 23 cm.
	500		a Includes index.
650 _0 a Internet.	650	_0	a Internet.
922 a ad	922		a ad

0203

Request this Item

Item Availability		>
CALL NUMBER	TK5105.875.I57 C778 1996 Copy 1	
Request in	Jefferson or Adams Building Reading Rooms	
Status	c.1 Charged - Due on 05-25-2019	
CALL NUMBER	TK5105.875.I57 C778 1996 FT MEADE Copy 2	
Request in	Jefferson or Adams Building Reading Rooms - STORED OFFSITE	
Status	Not Charged	

EXHIBIT P

OCLC 34726612 No holdings in XXX - 76 other holdings								
				<u>Re</u>	<u>En</u> 199	<u>Re</u> 2018110		
-				<u>c</u> (<u>t</u>	:ere 604	<u>place</u> 8095145		
Books	-			<u>Stat</u>	<u>d</u> 30	<u>d</u> .6		
<u>Type</u>	a <u>ELvi</u>	<u>Srce</u>	d <u>Audn</u>	<u>C</u>	trl	Lang eng		
<u>BLvi</u>	m <u>Form</u>	Conf	⁰ Biog	<u>M</u>	IRec	Ctry cau		
	<u>Cont</u>	<u>GPub</u>	LitF	0 <u>I</u>	<u>ndx</u> 1			
Desc	a <u>Ills</u>	a <u>Fest</u>	0 <u>DtSt</u>	s <u>D</u>	ates 19	96		

040 OCo \$b eng \$c DLC \$d UKM \$d BTCTA \$d YDXCP \$d BGCBL \$d OCLCO \$d OCLCF \$d NLE \$d OCLCQ \$d UKMGB

015 GB9752534 \$2 bnb

- 016 7 011370681 \$2 Uk
- 019 60284007 \$a 877199977
- 020 0782118879 \$q (pbk.)
- 020 9780782118872 \$q (pbk.)
- 042 Iccopycat
- 050 00 TK5105.875.I57 \$b C778 1996
- 082 00 005.7/13 \$2 21

090 \$b

100 1 Crumlish, Christian.

245 14 The ABCs of the Internet / \$c Christian Crumlish.

- 260 San Francisco : \$b Sybex, \$c ©1996.
- 300 xxi, 362 pages : \$b illustrations ; \$c 23 cm
- 336 text \$b txt \$2 rdacontent
- 337 unmediated \$b n \$2 rdamedia
- 338 volume \$b nc \$2 rdacarrier
- 500 Includes index.

520 The ABCs of the Internet is an easy-to-use, task-oriented guide to using the Internet's most practical features. Friendly design and accessible chapters show you how to harness the Internet's capabilities.

650 0 Internet.

650 7 Internet. \$2 fast \$0 (OCoLC)fst00977184