To: Pafet Management Committee

From: Jim Rosse

Date: June 9, 1994

Subject: **MANAGEMENT COMMITTEE MEETING**

The next meeting of the Pafet Management Committee is planned for:

- Wednesday, June 15, 1994
- St. Louis, Missouri
- Ritz Carlton Hotel
- 10:00 a.m. to 1:00 p.m.

For those in town on Tuesday, June 14, 1994 a dinner meeting is planned at the St. Louis Club with refreshments beginning at 6:30 p.m.

The major agenda items for the Management Committee Meeting are:

- Review and approval of the 1994 Operating Plan and budget.

- Review and approval of the plan for a full time Pafet Executive Coordinator.

- Review and approval of the Pafet Joint Venture Agreement. (You may want to insure that all tax and legal issues have been addressed prior to the meeting.)

Materials for the meeting are in the enclosed Management Committee Book.

Jim
Enclosure

PAFET
MANAGEMENT COMMITTEE
June 15, 1994, 10 a.m. to 1:00 p.m.
(St. Louis)

AGENDA

Introduction	J. Rosse
Agenda & Logistics	P. Irestone
Motion on Minutes of Last Meeting	J. Rosse
Operating Plan	P. Irestone/D. Blythe
Motion on Operating Plan & Budget	J. Rosse
Joint Venture Agreement	D. Blythe
Motion on Agreement	J. Rosse
Executive Coordinator	P. Irestone
Motion on Executive Coordinator	J. Rosse
Next Meeting	P. Irestone
Management Committee Only	J. Rosse

April 18, 1994

Alan

From Alan Flaherty (phone: 310-286-9684; fax: 310-286-9685)

To **Pafet Management Committee**

A. H. Belo Corporation:	Robert Decherd
Central Newspapers, Inc.:	Frank Russell
Cowles Media Company:	David Cox
Freedom Communications, Inc.:	Jim Rosse
McClatchy Newspapers Inc.:	Erwin Potts
Pulitzer Publishing Co.:	Michael Pulitzer

Pafet Operating Committee

The Dallas Morning News:	Dean Blythe
Phoenix Newspapers:	Howard Finberg
Star-Tribune:	Pat Irestone
The Orange County Register:	Dick Jablonski
Pulitzer/2000:	David Lipman
McClatchy Newspapers, Inc.:	Sylvia Chavez Sitters

This document will present the minutes of the initial meeting of the Management Committee of Pafet, held at the Phoenician Resort at 10 a.m. Friday, March 11, 1994. The following members and alternate attended:

A. H. Belo Corporation:	Robert Decherd
Central Newspapers, Inc.:	Frank Russell
Cowles Media Company:	Joel Kramer (alternate)
Freedom Communications, Inc.:	Jim Rosse, chair
McClatchy Newspapers Inc.:	Erwin Potts
Pulitzer Publishing Co.:	Michael Pulitzer

The following people attended as guests of the Management Committee:

Pafet Operating Committee

The Dallas Morning News:	Dean Blythe
The Orange County Register	Dick Jablonski
Phoenix Newspapers, Inc.	Howard Finberg
Star Tribune	Patrick P. Irestone, chair
McClatchy Newspapers Inc.:	Sylvia Chavez Sitters
Pulitzer/2000	David Lipman
Pafet Executive Coordinator:	Alan Flaherty

The agenda was followed as distributed prior to the meeting, and was as follows:

1. **Introduction:** Comments from Jim Rosse
2. **Name and Mission Statement:** Discuss/approve name and mission statement.
3. **Structure:** Organizational roles and partnership material.
4. **Operating Plan:** Plans for initiating and/or participating in research, including development of database of member activities. Discussion of possible group relationship with Delphi.
5. **Finance/Budget:** Proposed budget and contributions.
6. **Confidentiality:** Proposed standards and procedures.
7. **Communications:** Draft announcement and any other release materials.
8. **Executive Session:** Discussion as appropriate.
9. **Next Steps:** Next Management Committee meeting; other issues to be addressed.

Two handouts were used at the meeting. Alan Flaherty provided an eight-page agenda package dated March 10, and Dean Blythe provided a three-page undated document entitled *Financial Administration and Guidelines*. Materials from these documents will not be repeated in these minutes, except insofar as they were modified, or were the basis for specific resolutions adopted by the Management Committee. These minutes are arranged in agenda order. In actual discussion, there was some moving back and forth between operating-plan and financial issues as the Management Committee gathered an overall picture of the proposed actions. The meeting adjourned at approximately 12:10 p.m.

Name and Mission Statement

The name *Pafet*, standing for *Partners Affiliated for Exploring Technology*, was adopted. The wording of the mission statement was adjusted to the following, in accordance with a suggestion from Joel Kramer:

> The mission of Pafet shall be to assist individual member companies in the development of mechanisms for presentation and marketing of information using new technologies, in order to help the member companies make better individual decisions concerning the future of their businesses.

Organization and Functions

A general partnership format was agreed upon for Pafet, and nomenclature was adopted consistent with this format. Specifically, the policy body will be the Management Committee rather than the Board of Directors. The Management Committee unanimously adopted the structure described in the agenda package, elected Dean Blythe as Treasurer and authorized him to engage the Dallas law firm of Locke Purnell Rain Harrell to prepare a partnership agreement, with a budget of $25,000 for the purpose. The agreement is to be consistent with the terms of the meeting handouts, modified in accordance with these minutes.

The concept of staggered two-year terms for the chairs of the Management and Operating Committees was agreed upon conceptually, but the Management Committee felt the initial focus should be on obtaining commitments through the end of 1995 from Jim Rosse and Pat Irestone as chairs of their respective committees. Jim Rosse suggested that vice-chairs be selected for each committee, especially during the second year of the chair's incumbency, with the presumption of succession.

Operating Plan

All elements of the operating plan were discussed. Specific action was taken as follows.

Multi-Sponsor Research

1. **MIT Media Lab:** The Management Committee authorized the Operating Committee to commit up to $100,000 for a one-year group affiliation with the News of the Future program at the MIT Media Lab. This affiliation would be achieved by transferring the current Pulitzer membership to Pafet, and treating Pafet as a single entity with respect to field visits by the MIT project team. David Lipman will take the lead on this issue. He said that Pulitzer's current objectives within the program are 1) voice personals, 2) multimedia platforms, and 3) news content of the future. He said he believes one more topic might be added as the membership is broadened and transferred to Pafet.

2. **Other Research and Information Programs:** The Management Committee authorized the Operating Committee to commit a total of up to $75,000 for one-year affiliations with whatever groups and programs the Operating Committee selects by unanimous vote. This amount shall be in addition to affiliation with the MIT Media Lab.

Group Approaches to Potential Partners/Vendors

David Lipman summarized the current agreement between Pulitzer and Delphi, under which Delphi will provide the technology for PostLink, scheduled to launch June 1. He said Pulitzer hopes to have 1,500 to 2,000 subscribers quickly, and 4,000 within a year. At a flat monthly price of $12.95, the service is projected to be in the black at 4,000 subscribers. He also said that Delphi is committed to providing full-motion video, but no firm target date has been established.

Belo, Cowles, and Freedom all indicated a desire to move quickly with Delphi and with the alternatives to Delphi. The Management Committee directed the Operating

Committee to proceed with all deliberate speed to develop terms for relationships with Delphi and with other on-line service vendors.

Information Dissemination

Several members emphasized the importance of extensive communications. Joel Kramer emphasized the importance of both executive-level and operating-level interchange. Jim Rosse suggested intensive BBS use. Michael Pulitzer suggested emphasis on communication with working level people in all companies.

Finance and Budget Issues

The Management Committee agreed unanimously on financial provisions as follows:

1. The initial funding authorizations shall be $100,000 per member, which is expected at this point to cover 1994 activities. Pafet's financial year shall be the calendar year.

2. Each member shall remit $50,000 to the Treasurer as soon as structure is in place to handle it, and the other $50,000 shall be called for as required.

3. Pafet shall pay for all group expenses associated with meetings (meeting rooms, group meals), while member companies shall pay for all individual expenses (travel, lodging, etc.). Freedom's expenses for the Executive Coordinator and Central's expenses associated with this meeting shall be netted out of their initial contributions.

4. The Operating Committee shall submit at the June Management Committee meeting a proposed budget for the rest of 1994. Financial reporting shall be provided at each Management Committee meeting.

5. The operating plan and operating budget for 1995 shall be submitted together. Jim Rosse said that the 1995 budget should reflect Pafet's priorities and Erwin Potts said it should be built from the bottom up.

Confidentiality Standards

The confidentiality standards were adopted as presented in the agenda package.

Communications

Various changes were made to the press-release text as submitted, and Pat Irestone agreed to have Star Tribune people complete the release in accordance with good public relations practices. The release is to be submitted to each member company for approval during the week of March 14. It will not be distributed until approved by all member companies. Pat Irestone will coordinate the input from all members into a final version. Howard Finberg will be responsible for distribution, and for appropriate notification of key outlets.

Next Management Committee Meeting

The next meeting of the Management Committee will be scheduled for St. Louis on Wednesday, June 15. The site was selected as convenient for those returning home from the media analysts' conference in New York on Monday and Tuesday of that week. Dinner will be scheduled the preceding evening, Tuesday, June 14, for those able to make it. The actual Management Committee meeting will convene at 10 a.m. Wednesday and is scheduled to conclude not later than 1 p.m.

PAFET 1994 OPERATING PLAN

June 15, 1994

PAFET 1994 OPERATING PLAN

Preface

The Pafet Operating Plan charts our first five months and the next 18 months of activity. What this plan may not convey is the dynamic processes and relationships that have evolved as the group has become "Partners Affiliated For Exploring Technology."

A significant amount of ground has been covered as our six unique companies have met to exchange ideas and experiences, and develop a plan. While much remains to be done to fulfill Pafet's promise, a great deal has already been accomplished. The on-line area has been tackled, contacts have been made with technology and consulting companies, and a research plan is in the development stage. Pafet has also created a communications infrastructure to ensure our companies are informed about technology developments and Pafet-related projects. And perhaps most importantly, the Operating Committee has developed a process to understand and blend our diverse viewpoints into a common vision for Pafet.

Through the exchange of these divergent viewpoints came a need to balance technology and marketing. This plan reflects the view that while technology is the tool that will be used to create and distribute new products and services, it will be the marketing, including understanding consumer needs and market segmentation, that will ultimately determine the success or failure of new ventures.

The plan is designed to assist the Operating Committee in identifying goals and activities necessary to accomplish Pafet's mission. It is not intended to be a strategic plan outlining a recommended direction for Pafet-member newspapers to address technological developments. Rather, it is a framework to guide Pafet in its mission to provide support and facilitation for member companies to make company-specific and market-specific decisions.

The plan is divided into four sections. The first section, in outline form, is a summary of the plan. The second section is the plan narrative, with each point in the outline included and described in greater detail. The exhibits - a proposed 1994 budget and a Gant chart of activities - comprise the third section. The fourth section is a group of appendices containing some of the output from the organizational and communications set-up activities of the group.

The plan was designed so that each functional portion of the plan could stand by itself - or in other words, could be read and understood with minimal cross-referencing to other portions of the plan. As a result, the plan contains recurring themes that in a cover-to-cover reading may appear redundant.

PAFET 1994 OPERATING PLAN

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OPERATING PLAN

<u>Outline and Summary</u>

PAFET 1994 OPERATING PLAN
Outline and Summary

I. **Introduction and Mission**

A. Background and Overview

B. Mission Statement

C. Activities to Date

1. Developed and formalized structure.

2. Implemented organizational infrastructure, including Partnership Agreement [Appendix I] and finance and accounting matters.

3. Beginning in January 1994, held monthly Operating Committee meetings.

4. Completed new technology product and service inventory at each member company. [Appendix II]

5. Initiated and completed research project on consumer appliance (p.c.'s facsimile, etc.) penetration in member company markets.

6. Formulated and produced first issue of newsletter [Appendix III] to serve as vehicle to communicate Pafet activities within member companies.

7. Identified key technological areas that could present opportunities or threats to member companies, and assigned Operating Committee members to follow developments in these areas.

8. Initiated negotiations with on-line service providers (America Online, Delphi, and Prodigy) over structuring umbrella deal for Pafet members: Orange County Register has concluded initial deal.

9. Initiated dialogue and set meetings with various technology companies, including Microsoft, Apple, IBM, and Motorola.

10. Retained the Yankee Group to provide organizational consulting and technology and market tracking services.

11. Initiated and concluded discussions with MIT regarding participation in various Media Lab research groups.

12. Provided electronic BBS access at each member company to facilitate inter-member communication.

II. 1994 Objectives

A. Emphasis on Identification of Vulnerabilities, Opportunities, and Technologies

1. Identify current newspaper business segments that may be vulnerable to products and services that employ emerging technologies.

2. Identify opportunities that may be created by emerging technologies to extend current franchise or enter new businesses by leveraging existing strengths.

3. Identify key technology areas and developments that are changing the current landscape and could result in competitive threats to and present business opportunities for member companies.

4. Formulate a plan for Pafet to serve as facilitator for development activity at member companies based on the vulnerabilities, opportunities, and technologies identified.

5. Prioritize Pafet action items to ensure that sufficient resources can be applied to projects offering the greatest potential for creating new value-added products and services.

B. 1994 Objectives serve as Basis for Subsequent Years

III. 1994 Activities

A. Identify Threats and Opportunities

1. Identify key business and market segments.

a. Collect and use existing studies and published works.
b. Use resources of member companies in identification process.
c. Use research affiliation with Yankee Group, and other affiliations that may be developed, in identification process.

2. Assign segments to Operating Committee members to guide work in identifying threats and opportunities.

B. Identify Technological Areas and Developments

1. Assign known and existing delivery system technologies to Operating Committee members to study and track. [Summaries at Appendix IV]

   a. Interactive Voice Response (audiotex/facsimile) - Sylvia Chavez Sitters
   b. Wireless Information Services - Pat Irestone
   c. Consumer Information Software (including CD-Rom) - Howard Finberg
   d. Multimedia Storage and Delivery Devices (Media Servers) - Howard Finberg
   e. On-line Information Services - David Lipman
   f. Interactive TV - Dick Jablonski

2. Use Yankee Group resources to track developments in these technology areas, and emergence of new technologies.

3. Adjust or expand technology assignments based on Yankee Group tracking services.

C. Identify and Track Players and Alliances

1. Identify current and potential information service/advertising industry players.

2. External Alliances.

   a. Analyze current alliances.
   b. Identify types of potential third party alliances.

3. Internal Alliances.

   a. Identify characteristics needed to compete offering new products and services applying emerging technologies.
   b. Inventory and assess strengths and weaknesses of member companies in these areas.
   c. Based on results, identify characteristics and skills member companies will need to develop or acquire through an alliance.
   d. Identify company types and specific companies possessing these characteristics as potential partners for member companies.

D. Establish Methods for Pafet to serve as Facilitator for Member-Company Development

1. Establish communication lines.

   a. From member companies out to Pafet.
   b. Within Pafet.
   c. From Pafet back to member companies.
   d. Within member companies.

2. Organize and edit information Pafet obtains from member companies, research affiliations, and other outside sources.

3. Disseminate edited information to member companies.

4. Monitor member company development efforts, and disseminate results.

IV. Operating Methods

A. Communications

1. Newsletter.

2. Electronic BBS.

3. Product and Service Inventory Catalog.

4. Weekly telephone conference calls.

B. Research Affiliations and Activities

1. Affiliations

   a. Yankee Group.
   b. Other commercial research organizations.
   c. Existing research programs at academic institutions.
   d. Customized research programs at academic institutions.

2. Activities - Commissioned or Member-Conducted.

   a. Consumer appliance penetration.
   b. Consumer usage and acceptance.

C. Third-party Dealings

1. Initiate contact with information services/technology related companies.

   a. Establish awareness.
   b. Gather information and insight.

2. Negotiate umbrella agreements under which member companies may participate.

V. 1994 Budget [Exhibit A]

A. Funding - $600,000

B. Approved Expenditures to Date

C. Proposed Expenditures

VI. Timetable of 1994 Activities [Exhibit B]

VII. Long Range Plan: 1995 - 96

A. Delivery of 1995 Plan

B. Continue 1994 Activities

1. Tracking and information gathering and dissemination will continue throughout life of partnership.

2. Certain activities undertaken in 1994 scheduled to continue beyond 12/31/94.

C. Member Company Development

1. Market tests.

2. Technology tests.

3. New products and services.

OPERATING PLAN

PAFET 1994 OPERATING PLAN
June 15, 1994

I. Introduction and Mission

A. Background and Overview.

Pafet is an alliance of six media companies formed to advance the interests of the member companies' newspaper properties and businesses with respect to new media.

Pafet is not intended to be a development or operating entity, but rather will provide information, experience, and analytical support for the activities of its member companies. While not an operating company, Pafet's work may result in the creation of rights to various concepts and processes. Pafet's partnership agreement has been structured to address the protection and licensing to member companies of these rights.

In developing the Operating Plan for 1994, the Operating Committee's guiding principle was to maintain a balance between technology and marketing. Arriving at this concept of a balance, and specifically identifying each factor, was a lengthy and arduous process that shaped this entire Operating Plan.

Pafet's formation was in response to technological developments and evolution, but it is at the intersection of new technologies and market segments where products and services will be developed by member companies. Additionally, the marketing of these new products and services, and determining whether and at what level demand exists, is an indispensable step in the overall process.

The purpose of developing an Operating Plan is to articulate how Pafet will accomplish its mission. In its simplest distillation, this Operating Plan describes a cycle in which member-company experiences are fed out to Pafet, which supplements this information with research resources and information gathered about non-member experiences, and then moves synthesized information back out to the member companies where development occurs, which in turn will lead to further member-company experiences.

B. Mission Statement.

The Management Committee adopted a mission statement for Pafet on March 11, 1994:

The mission of Pafet shall be to assist individual member companies in the development of mechanisms for presentation and marketing of information using new technologies, in order to help the member companies make better individual decisions concerning the future of their businesses.

C. Activities to Date.

The Operating Committee's primary focus since its formation in January 1994 has been on developing and implementing an organizational structure, and on establishing communication lines from member companies into Pafet, and within Pafet. Additional substantive work has been performed in the on-line information services area and in establishing relationships with research organizations and technology companies. Specifically, the Operating Committee has completed the following activities:

1. Developed and formalized structure.

2. Implemented organizational infrastructure, including Partnership Agreement [Appendix I] and finance and accounting matters.

3. Beginning January 1994, held monthly Operating Committee meetings.

4. Completed new technology product and service inventory at each member company. [Appendix II]

5. Initiated and completed research project on consumer appliance (p.c.'s facsimile, etc.) penetration in member-company markets.

6. Formulated and produced first issue of newsletter [Appendix III] to serve as vehicle to communicate Pafet activities within member companies.

7. Identified key technological areas that could present opportunities or threats to member companies, and assigned Operating Committee members to follow developments in these areas.

8. Initiated negotiations with on-line service providers (America Online, Delphi, and Prodigy) over structuring umbrella deal for Pafet members: Orange County Register has concluded initial deal.

9. Initiated dialogue and set meetings with various technology companies, including Microsoft, Apple, IBM, and Motorola.

10. Retained the Yankee Group to provide organizational consulting and technology and market tracking services.

11. Initiated and concluded discussions with MIT regarding participation in various Media Lab research groups.

12. Provided electronic BBS access at each member company to facilitate inter-member communication.

II. 1994 Objectives

The changing technological landscape is creating both threats to newspapers' current business segments, and opportunities for newspapers to strengthen their existing franchises by extending their product and service offerings. One particular threat posed by this landscape change is the pursuit of a product or service offering based solely on the fact it has become technologically possible, without an analysis as to whether the market for the offering is likely to generate a return.

The 1994 objectives are directed toward identifying the threats, opportunities, and black holes that may arise from technology changes. As part of this process, it will also be necessary to identify and track the technology changes. Finally, Pafet's resources must be focused on projects offering the greatest potential for return.

Five objectives have been established for 1994:

1. Identify current newspaper business segments that may be vulnerable to products and services that employ emerging technologies.

2. Identify opportunities that may be created by emerging technologies to extend current franchise or enter new businesses by leveraging existing strengths.

3. Identify key technology areas and developments that are changing the current landscape and could result in competitive threats to and present business opportunities for member companies.

4. Formulate a plan for Pafet to serve as facilitator for development activity at member companies based on the vulnerabilities, opportunities, and technologies identified.

5. Prioritize Pafet action items to ensure that resources are applied to projects offering the greatest potential for creating new value-added products and services.

III. 1994 Activities

The 1994 activities have been designed to provide the basis for meeting the objectives that have been established. These activities fall into four categories:

- Threats and opportunities
- Technology areas and developments
- Alliances
- Facilitation of member-company development

A. Identify Threats and Opportunities.

In order to maintain the balance between a technology focus and a marketing focus, it will be necessary to identify existing key newspaper business segments, and relevant market segments, in order to have a backdrop against which to lay the technology. An example of a business segment is classified advertising in general, and the residential real estate resale market in particular. Among the market segments to be specifically identified are mobile information users, home business owners, and geographic market newcomers.

Identifying these segments will require little if any original research work. Existing industry studies and generalized marketing studies will serve as the resources from which the identification will be made. Much of this work is also done routinely within each member-company newspaper. Additionally, an existing research affiliation with the Yankee Group will be used in the identification process.

Once the segments have been identified, Operating Committee assignments will be made to accomplish the next step of specifically identifying the threats and opportunities in each of these segments.

The activities in this category, therefore, will be as follows:

1. Identify key business and market segments.

    a. Collect and use existing studies and published works.

    b. Use resources of member-company newspapers in identification process.

    c. Use research affiliation with Yankee Group, and other affiliations that may be developed, in identification process.

d. Assign segments to Operating Committee members to guide work in identifying threats and opportunities.

B. Identify Technological Areas and Developments.

The next group of activities focuses on identifying relevant technological areas, and tracking developments in these areas and in newly emerging areas. This will be a fluid process as developments and changes occur. The initial group of technologies, with an emphasis on electronic delivery systems, has been identified.

1. Assign technologies to Operating Committee members to study and track.

Technology areas have been assigned to Operating Committee members to track. These assignments, and a brief description of each area, follow. A more detailed description of these areas is contained in Appendix IV.

a. Interactive Voice Response (audiotex/facsimile) - Sylvia Chavez Sitters:

This area includes telephone-based delivery of information in audio and facsimile format. Speech recognition and synthesis developments are included.

b. Wireless Information Services - Pat Irestone:

Wireless information services encompass both communication services (principally e-mail) and information services. User platforms for delivery of these services range from cellular phones to notebook computers to personal digital assistants.

c. Consumer Information Software (including CD-Rom) - Howard Finberg:

Consumer information software describes static information that is delivered to a user (by downloading through a modem or physical delivery of a standard disc or CD ROM disc) and "read" by the user through a P.C. platform. Much of the development in this area has involved games, with recent reference material development for CD ROM.

d. Multimedia Storage and Delivery Devices (Media Servers) - Howard Finberg:

This area will track the development of platforms and systems for the digital formatting, storage, and networking of all media content in random-access databases. These devices seek to distribute information in multiple media formats from a single storage format.

e. On-line Information Services - David Lipman:

On-line services provide the capability of delivering real-time, dynamic information in an interactive format. In general, delivery is currently over phone lines, but can be wireless or delivered through cable systems.

f. Interactive TV - Dick Jablonski:

Interactive TV is a screen-based service (including both static images and full-motion video) delivered to the TV set using an intelligent set-top box and a two-way communications infrastructure providing for interactivity.

2. Tracking developments and emergence of new technologies - Yankee Group services.

The Yankee Group has been retained to provide services to track developments in the technology areas identified, and to track the emergence of new technologies. Pafet has subscribed to two Yankee Group planning services: consumer communications and wireless/mobile. This will be the primary resource used by Operating Committee members to track technology areas.

3. Revising technology assignments.

The initial group of technology assignments are related to electronic delivery systems. Given the rapidly evolving technical environment, part of the tracking of technology will also include periodic refocusing and reassignments as developments warrant.

C. Identify and Track Players and Alliances.

A key part of identifying threats to and opportunities for member companies will be to track existing or potential alliances that create a competitive or complementary entity. This category of activities will have a two-prong focus: an external orientation on alliances among third parties; and an internal orientation devoted to identifying the characteristics of potential partners for member companies, and which third parties possess these characteristics.

1. Identify current and potential information service/advertising industry players.

   For both the external focus and the internal focus, Pafet will identify the companies and types of companies impacting technology developments and serving or potentially serving the key business and market segments identified.

2. External Alliances.

   Pafet will look at existing alliances and attempt to predict types of future alliances by:

   a. Analyzing current alliances to determine whether these alliances represent:
      (i) Competitive threats to existing member-company businesses or franchises;
      (ii) Potential competitors in business lines member companies may seek to enter.

   b. Identifying types of potential third party alliances that could represent:
      (i) Competitive threats to existing member-company businesses or franchises;
      (ii) Potential competitors in business lines member companies may seek to enter.

3. Internal Alliances.

   The internal alliance activities will focus on identifying characteristics of potential partners for member companies and which third parties possess these characteristics. This will entail a four-step process:

a. Identify characteristics needed to compete in development and marketing of new products and services applying emerging technologies.

b. Inventory and assess strengths and weaknesses of member companies in these areas.

c. Based on a. and b., identify characteristics and skills member companies will need to develop or acquire through an alliance.

d. Identify company types and specific companies possessing these characteristics as potential partners for member companies.

D. Establish Methods for Pafet to serve as Facilitator for Member-Company Development.

Development activity will occur at the member company level. Pafet's role is to serve as a facilitator for this development. In this role, the Pafet activities will consist of gathering, organizing, and synthesizing information; communicating this information throughout member companies; monitoring development activities and results; and communicating these results throughout member companies. Another key role Pafet will play in facilitating development will be to initiate contacts with technology companies and possible development partners, and to structure umbrella agreements under which individual members can finalize market or product specific deals.

The specific activities to enable Pafet to serve as a development facilitator will be the following:

1. Establish communication lines.

a. From member companies out to Pafet. The product and service inventory catalog (see Section IV.A. below) will serve as one of the primary vehicles for this communication.

b. Within Pafet. The McClatchy electronic BBS and the weekly Operating Committee telephone conference calls (see Section IV.A. below) will accomplish this function.

c. From Pafet back to member companies. The newsletter (see Section IV.A. below), methods established internally by the individual Operating Committee members, and project specific/appropriate methods to be developed, will serve as this communication line.

d. Within member companies. Each Operating Committee member will work within the member company to establish general and project specific communication lines to ensure the dissemination of information throughout the member company.

2. Organize, edit, and synthesize information Pafet obtains from member companies, research affiliations, and other outside sources.

3. Disseminate results of step 2 above to member companies using the communication lines that have been established.

4. Monitor member company development efforts, and disseminate results using the communication lines that have been established.

IV. Operating Methods

Certain procedures and affiliations have been and will be established to provide a framework for conducting Pafet activities, and will facilitate the 1994 activities that have been identified. These procedures and affiliations relate to communications, research activities, and third-party contacts and dealings.

A. Communications.

The communications infrastructure for Pafet has been established.

1. Newsletter. A newsletter tracking Pafet activities and the identified technology areas will be produced four to six times a year and distributed throughout member companies. Each newsletter will review all of the technology areas, with an extended piece on one area. The first issue of this newsletter is included as Appendix III.

2. Electronic BBS. Access to the McClatchy BBS has been provided at each member site and serves as a key communication device for the Operating Committee. Operating Committee members use this tool for e-mail and to post and transmit documents. Additional electronic communication channels will be established as warranted.

3. Product and Service Inventory Catalog. An inventory of new media activities at the member companies has been completed and cataloged (Appendix II). This inventory contains information about the planning, start-up, and operations of new media activities, including specific information on customer usage and results. The catalog will be updated periodically.

4. Weekly telephone conference calls. The Operating Committee has established a fixed weekly telephone conference call. An agenda is prepared and distributed prior to each week's call, and call notes are distributed following each week's call.

B. Research Affiliations and Activities.

By conducting joint research through Pafet around new media technology and markets, the effective cost of this research to the member companies can be reduced. A research affiliation has been established with one commercial firm (the Yankee Group), and other affiliations with commercial firms and academic institutions will be pursued as research projects are identified.

1. Affiliations.

a. Yankee Group. The Yankee Group is a Boston-based research and consulting company providing services in strategic planning, technology forecasting, and market research. Their research focuses on communications and computer systems for business, factory, and consumer markets. The Yankee Group has provided consulting services in connection with the development of this Operating Plan, and Pafet has subscribed to two technology tracking services of the Yankee Group (consumer communications and wireless/mobile).

b. Other commercial research organizations. To the extent the technology tracking services or market research of the Yankee Group needs supplementing, or if specific expertise is required, other commercial research affiliations will be pursued.

c. Existing research programs at academic institutions. Discussions were initiated with the Massachusetts Institute of Technology regarding a group membership by Pafet in the News in the Future program within the MIT Media Lab. The Pafet proposal for group membership in this program was rejected. Other existing academic research programs will be reviewed for possible participation by Pafet on a group basis.

d. Customized research programs at academic institutions. Based on the experience with MIT, an initiative has been undertaken to create and sponsor an academic research program specifically designed to facilitate Pafet's activities and objectives.

2. Activities - Commissioned or Member-Conducted.

In addition to broad research affiliations, Pafet will undertake specific research projects to complete identified activities. These projects will be undertaken either directly using the research resources of the member companies, or through a Pafet-commissioned study. Two specific projects have been identified:

a. Consumer appliance penetration. This project, dealing with the penetration of various consumer appliances such as home computers and facsimile machines in Pafet-member markets, was coordinated by Central Newspapers and has been completed.

b. Consumer usage and acceptance. In order to assess potential market demand for various services employing new technologies, a research project has been identified to study usage and acceptance of consumer information appliances for the receipt of different types of information. This will be commissioned research. The entity to conduct the research has not been selected.

C. Third-party Dealings.

As an ongoing activity, Pafet will initiate contact with technology companies and other participants in new media activities. To date, contact has been made with the following entities: America Online; Prodigy; Delphi; Apple Computer; IBM; Motorola; and Microsoft.

1. Initiate contact with information services/advertising/technology related companies.

The initial benefits of these various contacts will be to:

a. Establish awareness of Pafet.

b. Gather information and insight.

2. Negotiate umbrella agreements under which member companies may participate.

To the extent common development activity will occur at more than one member company, Pafet will also attempt to negotiate umbrella agreements under which member companies may then conclude specific geographic market or product agreements. The combination of the member company properties may lead to the structuring of more favorable deal terms in the umbrella agreement. A loose form of an umbrella understanding has been arranged with Delphi, which led to a specific agreement between Delphi and Freedom Communications' Orange County Register.

V. 1994 Budget

Exhibit A contains the proposed 1994 operating budget for Pafet. Capital contributions from the members were set by the Management Committee in the March 11, 1994 meeting in the amount of $100,000 per member, for an aggregate 1994 capitalization of $600,000.

The proposed budget provides for 1994 expenditures or commitments totalling $591,000, leaving a projected uncommitted balance at the end of the year of $9,000. Of these expenditures, $405,000 were identified or approved at the March 11 Management Committee meeting. The budget submitted with this Operating Plan calls for additional expenditures of $186,000, plus the redirection of another $100,000 expenditure previously approved (from MIT to another academic institution).

Details on the previously approved and proposed expenditures are contained below and in the attachments to the budget at Exhibit A.

A. Funding.

Of the $600,000 of approved funding, $300,000 ($50,000 per member) has been contributed. The remainder of the funding will be drawn down as the timing of expenditures warrant.

B. Approved Expenditures to Date.

The following expenditures were identified or approved at the March 11 Management Committee meeting, and are included in the 1994 budget:

1. Organizational Expenses - $25,000. This expenditure relates to legal and filing fees for the establishment of Pafet as a general partnership. These expenses have been incurred.

2. Executive Coordinator - $175,000. The Management Committee approved the consulting relationship with ComPlan at a rate of $180 per hour, plus expenses. No annual amount, however, was identified. Approximately $60,000 has been incurred to date. Fees and expenses for the remainder of the year, plus a possible search fee, are estimated to total up to $115,000.

3. Meeting Expenses - $30,000. The Management Committee adopted a policy calling for Pafet to bear group expenses for Operating Committee and Management Committee meetings. No specific amount, however, was identified. A total of 12 meetings will be held in 1994, with group expenses of approximately $2,500 per meeting.

4. Research Affiliations (Yankee Group) - $75,000. The Management Committee granted the Operating Committee discretion to establish general research and consulting affiliations provided (i) the 1994 expenditure was $75,000 or less, and (ii) the Operating Committee was in unanimous agreement about the relationship. These criteria having been met, the Operating Committee established a research and consulting affiliation with the Yankee Group. As described in Sections III. (1994 Activities) and IV. (Operating Methods), Yankee Group services have been used in organizing Pafet's activities, and will be used as a primary resource to track technology developments.

5. Research Affiliations (Academic) - $100,000. The Management Committee approved up to $100,000 for a group membership to the MIT Media Lab's News in the Future program. The Pafet proposal for a group membership was rejected by MIT. The proposal contained in the budget is to shift this money to fund a Pafet-specific research program at a yet to be determined academic institution.

C. Proposed Expenditures.

The following items have not been approved by the Management Committee and are included in the 1994 budget for approval:

1. Communications Expenses - $11,000. This amount is to cover the cost of the printing of the Pafet newsletter, and the expenses of the weekly Operating Committee telephone conference call that has been established.

2. Research Projects (Consumer Acceptance) - $100,000. A study of consumer acceptance and usage of various media appliances and types of information has been identified as a key component in marrying technology developments with market segments (see Section IV.B.2.b.). The estimated cost of the study is $100,000. The entity to undertake this study has not yet been identified.

3. Research Projects (Alliances) - $20,000. Tracking of existing alliances and advanced warning of potential alliances have been identified as 1994 activities. The estimated cost of outside resources to assist in this process has been estimated at $20,000. The entity to perform these services has not yet been identified.

4. Research Projects (Fax/Audiotex) - $10,000. Facsimile and audiotex services are currently the most widely offered newspaper new media services. Few of these services, however, have been financially successful. This research project would attempt to identify a financially viable offering. The project would be undertaken by a McClatchy affiliated company.

5. Pilot Projects (Cowles PDA) - $10,000. Cowles Media currently is undertaking a pilot project to develop information services to be delivered to personal digital assistants. Pafet participation in this pilot could be achieved for an expense of $10,000.

6. Membership Fees and Publications (SRI Pocket Intelligence Forum) - $25,000. This expense is for Pafet participation in a group studying the delivery of information to PDA's and other consumer media appliances.

7. Membership Fees and Publications (SIMBA Reports) - $10,000. This expense is for subscriptions to various media and technology reports published by SIMBA Information, a Cowles affiliate.

VI. Timetable of 1994 Activities

Attached as Exhibit B is a timetable of Pafet activities in 1994.

VII. Long Range Plan: 1995 - 96

The 1994 objectives and activities will serve as the basis for Pafet activity throughout its existence. Many of these activities will continue into 1995 and beyond, as technology and markets will continue to evolve. The 1994 emphasis on information gathering and synthesis, however, will begin to give way in 1995 to facilitation and support of member-company development.

A. Delivery of 1995 Plan.

The 1995 Operating Plan will be presented to the Management Committee for approval during the Management Committee meeting to be held in the first quarter of 1995.

B. Continue 1994 Activities.

Tracking and information gathering and dissemination will continue throughout the life of the partnership. Certain specific projects undertaken in 1994 are scheduled to continue beyond 12/31/94. These projects include establishment of the academic research affiliation, the consumer acceptance research project, the alliance study, and the Cowles PDA pilot project.

C. Member Company Development.

Member-company development activities based on Pafet facilitation and support are expected to begin in 1995. It is anticipated this development activity will comprise:

1. Market tests.
2. Technology tests.
3. New products and services.

EXHIBIT A

1994 BUDGET

PAFET
1994 BUDGET

FUNDING			
Member Capital Contributions			$600,000
EXPENDITURES			
Organizational Expenses		$25,000	
Executive Coordinator (fees and expenses)		$175,000	
Meeting Expenses		$30,000	
Communications Expenses		$11,000	
Research Affiliations			
Yankee Group	$75,000		
Academic	$100,000		
		$175,000	
Research Projects			
Consumer Acceptance	$100,000		
Alliances	$20,000		
Fax/audiotex	$10,000		
		$130,000	
Pilot Projects			
Cowles PDA	$10,000		
		$10,000	
Membership Fees and Publications			
SRI Forum	$25,000		
SIMBA Reports	$10,000		
		$35,000	
Total Expenditures		$591,000	
PROJECTED END OF YEAR BALANCE (SHORTFALL)			$9,000

PAFET: 1994 Budget – Management Committee Approvals prior to 6/15/94

FUNDING			
	Member Capital Contributions	$600,000	
Expenditures			
	Organizational Expenses	$25,000	
	Executive Coordinator	(1)	
	Meeting Expenses	(2)	
	Research Affiliations		
	Yankee Group	$75,000	(3)
	Academic	$100,000	(4)

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(1) The Executive Coordinator position was approved, with fees of $180/hr. plus expenses. No specific annual amount identified.

(2) The policy of group meeting expenses to be incurred by Pafet was approved. No specific annual amount identified.

(3) This amount was approved, with the Operating Committee granted discretion to select an entity provided there was unanimous approval.

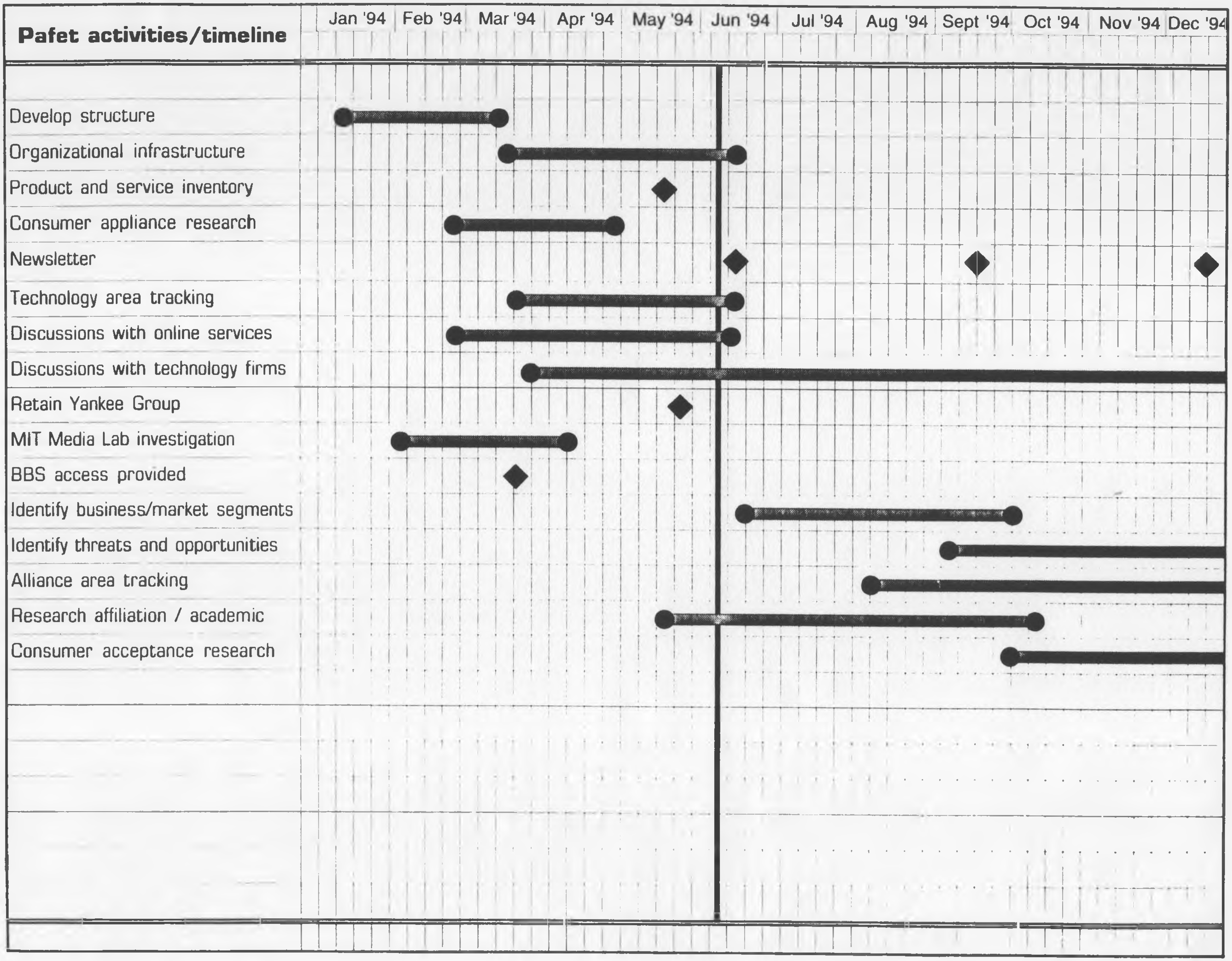
(4) This amount was approved for participation in the MIT Media Lab's News in the Future program.

PAFET: 1994 Expenditure Status

Item	Amount	Status	Mgt. Com. Action	Description
Organizational Expenses	$25,000	Incurred	Approved 3/11	Legal fees – Locke Purnell Rain Harrell
Executive Coordinator	$175,000	$60,000 incurred	Position approved 3/11	Hourly fees and expenses.
Meeting Expenses	$30,000	$15,000 incurred	Proposed for approval	Group expenses (meeting rooms, meals) for Committee meetings.
Communications Expenses	$11,000	$5,000 incurred	Proposed for approval	Weekly conference call charges; newsletter printing expenses.
Research Affiliations				
Yankee Group	$75,000	$40,000 incurred	Approved 3/11	Organizational consulting; technology tracking; market research.
Academic	$100,000	Pending	Approved 3/11 for MIT; proposed revision	Funding of Pafet specific research effort at college or university.
Research Projects				
Consumer Acceptance	$100,000	Pending	Proposed for approval	Commissioned research (see Operating Plan)
Alliances	$20,000	Pending	Proposed for approval	Commissioned research (see Operating Plan)
Fax/Audiotex	$10,000	Pending	Proposed for approval	Commissioned research – McClatchy–affiliated research company.
Pilot Projects				
Cowles PDA	$10,000	Pending	Proposed for approval	Participation in ongoing Cowles pilot regarding PDA's.
Membership Fees and Pub.				
SRI Forum	$25,000	Pending	Proposed for approval	Membership in group studying PDA's.
SIMBA Reports	$10,000	Pending	Proposed for approval	Various media/technology reports – Cowles–affiliated publisher.
	$591,000	$145,000 to date		

EXHIBIT B

1994 TIMELINE OF ACTIVITIES


Pafet activities/timeline
Jan '94
Feb '94
Mar '94
Apr '94
May '94
Jun '94
Jul '94
Aug '94
Sept '94
Oct '94
Nov '94
Dec '94
Develop structure
Organizational infrastructure
Product and service inventory
Consumer appliance research
Newsletter
Technology area tracking
Discussions with online services
Discussions with technology firms
Retain Yankee Group
MIT Media Lab investigation
BBS access provided
Identify business/market segments
Identify threats and opportunities
Alliance area tracking
Research affiliation / academic
Consumer acceptance research

APPENDIX I

PARTNERSHIP AGREEMENT

PAFET

(PARTNERS AFFILIATED FOR EXPLORING TECHNOLOGY)

JOINT VENTURE AGREEMENT

Dated as of June 15, 1994

TABLE OF CONTENTS

PAFET
(PARTNERS AFFILIATED FOR EXPLORING TECHNOLOGY)
JOINT VENTURE AGREEMENT

This Joint Venture Agreement ("Agreement") is entered into effective as of June 15, 1994 by and among A. H. BELO CORPORATION, a Delaware corporation, CENTRAL NEWSPAPERS, INC., an Indiana corporation, COWLES MEDIA COMPANY, a Delaware corporation, FREEDOM COMMUNICATIONS, INC., a Delaware corporation, MCCLATCHY NEWSPAPERS, INC., a Delaware corporation, and PULITZER PUBLISHING COMPANY, a Delaware corporation (each entity, individually, a "Member" and collectively, the "Members").

RECITALS:

A. The Members desire to form a joint venture (the "Joint Venture") to assist in the research and development, evaluation, analysis, testing, experimentation, demonstration, collection, exchange and production of new technology, applications, products, processes and services so that each Member organization may better serve its newspaper advertisers and readers by providing the most innovative and cost-effective products and services;

B. The Member organizations recognize the importance of competition as the prime regulator of the United States' economy and further that the economic freedoms that all enjoy depend significantly on the free enterprise system that is characterized by free competition in business; and

C. This Agreement is being entered into by the Members pursuant to the National Cooperative Research and Production Act of 1993, as amended, 15 U.S.C. §§4301-06 (1994) ("NCRPA").

NOW, THEREFORE, in consideration of the premises and the mutual representations, warranties, covenants, and agreements hereinafter contained, the parties hereby agree as follows:

ARTICLE 1
ORGANIZATIONAL MATTERS

1.1 Formation. The parties hereby form a Joint Venture pursuant to the Texas Revised Partnership Act (the "Partnership Act") upon the terms and conditions set forth in this Agreement.

1.2 Name. The business of the Joint Venture will be conducted under the name "Pafet" (Partners Affiliated for Exploring Technology). The Members will execute and deliver for filing all assumed or fictitious name certificates or other certificates required by law in connection with the formation or operation of the Joint Venture.

1.3 Purpose and Scope. The Joint Venture is organized to assist each Member and its Affiliates (as defined below) in developing mechanisms for presentation and marketing of information using new technologies, in order to help each Member and its

Affiliates make better individual decisions concerning the future of their respective businesses. Joint Venture activities may include researching and developing, evaluating, analyzing, testing, collecting, exchanging, experimenting, demonstrating and producing products, processes and services. The Joint Venture and each of the Members will take all appropriate steps to carry out the Joint Venture's activities without in any way diminishing competition. An "Affiliate" of a Member means, for purposes of this Agreement, any corporation, partnership, limited liability company, joint venture and other entity that, directly or indirectly, controls, is controlled by, or is under common control with such Member. For purposes of this Agreement, the term "control" (including, with correlative meanings, "controlled by," "change in control" and "under common control with") shall mean the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract or otherwise.

1.4 Term. The Joint Venture will commence effective on the day and year first above written and will continue for a period of five (5) years thereafter unless earlier terminated as provided in this Agreement.

1.5 Representations and Warranties. Each Member hereby makes to each other Member the following representations, warranties, and covenants:

(a) It is, and at all times during the term of this Agreement will be, duly incorporated, validly existing, and in good standing under the laws of its state of incorporation, and it has, and at all times material to this Agreement will continue to have, the full power and authority to take all actions contemplated by this Agreement. The execution, delivery, and performance of this Agreement have been, or at the appropriate time will be, duly authorized by all necessary action on its part.

(b) This Agreement constitutes a valid and binding obligation of it, enforceable in accordance with the terms hereof, subject to bankruptcy, insolvency, or similar laws affecting creditors' rights generally and the availability of equitable remedies. The execution, delivery, and performance of this Agreement do not violate any provision of law applicable to it, any of its organizational documents, or any agreement binding on it.

(c) It shall, at all times during the term of this Agreement, comply in all material respects with all applicable laws that relate to or affect that Member's participation in the Joint Venture, including, without limitation, the NCRPA, and shall not knowingly take, or direct the Joint Venture or any Affiliate to take, any action that is illegal.

(d) There are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against or affecting it or any of its Affiliates or any of its or their properties or assets, in any court or before or by any governmental entity, or any arbitrator that could, if adversely determined (or, in the case of an investigation could lead to any action, suit, or proceeding, that if adversely determined) could reasonably be expected to materially impair its ability to perform its obligations under this Agreement or subject any other Member to liability by virtue of or in connection with the Joint Venture.

1.6 Compliance with the NCRPA. The Joint Venture, through one of its Members, acting on behalf of itself, the Joint Venture and all other Members, will file a notice with the U. S. Attorney General and the Federal Trade Commission pursuant to the provisions of §4305 of the NCRPA within ninety (90) days of the execution of this Agreement and will otherwise comply with all applicable provisions of the NCRPA, including, without limitation, any further notice requirements in connection with any change in the membership of the Joint Venture.

ARTICLE 2
CAPITAL

2.1 Initial Capital Contributions. Each Member will contribute the sum of $100,000 to the capital of the Joint Venture during 1994. Each Member will pay $50,000 of its initial capital contribution upon the execution of this Agreement and the balance as and when reasonably requested by the Joint Venture's Treasurer to enable the Joint Venture to have sufficient funds to carry out its purpose and meet its financial obligations. Requests for capital contributions will be made of each Member at the same time. The Members will make all capital contributions in the same amounts and at approximately the same time.

2.2 Membership Interests. Unless and until changed in accordance with terms of this Agreement, each Member's ownership interest (the "Membership Interest") in the Joint Venture will be equal to its pro rata share of the aggregate of all capital contributions made by all Members from time to time. All Members will have equal Membership Interests in the Joint Venture.

2.3 Additional Capital Contributions. If at any time during the existence of the Joint Venture it shall become necessary to increase the capital of the Joint Venture, then upon the unanimous approval of the Management Committee, each Member will contribute to the capital of the Joint Venture, within thirty (30) days of a written request, its pro rata share, based on its Membership Interest, of the amount called for by the Management Committee.

2.4 Capital Accounts. An individual capital account will be maintained by the Joint Venture for each Member. Each of the Members shall make additional capital contributions to and receive distributions from, the Joint Venture in such amounts so that their respective capital accounts are equal at all times, except upon a permitted withdrawal or an expulsion of a Member.

2.5 Interest; Return of Capital. No Member will receive interest on or with respect to its capital contributions or its capital account. Return of capital will be made only as provided in this Agreement or as unanimously approved by the Management Committee from time to time.

2.6 Allocations. All items of income, gain, loss, deduction and credit of the Joint Venture will be allocated for federal income tax purposes among the Members in accordance with their Membership Interests.

2.7 Distributions. Distributions of the Joint Venture's cash on hand, if any, or other property may be authorized by the Management Committee and will be distributed to the Members in accordance with their Membership Interests.

2.8 Reserves. The Management Committee may set aside reserves for contingencies or for specific Joint Venture purposes or expenditures and may designate the manner in which such reserves may be expended.

2.9 Loans and Leases. The Joint Venture will not borrow any funds without the unanimous consent of the Management Committee. Subject to the provisions of Section 4.1 of this Agreement, the Joint Venture may enter into leases and incur trade payables in the ordinary conduct of its activities without such consent. The Joint Venture will not enter into any leases extending beyond the term of the Joint Venture by more than six months without the unanimous consent of the Operating Committee.

ARTICLE 3
MANAGEMENT

3.1 Management Committee.

(a) A Management Committee is hereby established to oversee and supervise the activities of the Joint Venture.

(b) Except for situations in which the approval of the Members is required by this Agreement or by nonvariable provisions of the Partnership Act, (i) the powers of the Joint Venture will be exercised by or under the authority of, and the business and affairs of the Joint Venture will be managed under the direction of, the Management Committee; and (ii) the Management Committee may make all decisions and take all actions for the Joint Venture not otherwise provided for in this Agreement, including, without limitation, the following:

(i) entering into, making, and performing contracts, agreements, and other undertakings binding the Joint Venture that may be necessary, appropriate, or advisable in furtherance of the purposes of the Joint Venture and making all decisions and waivers thereunder;

(ii) maintaining the assets of the Joint Venture in good order;

(iii) acquiring, utilizing for Joint Venture purposes, including leasing and licensing, and disposing of, any asset of the Joint Venture;

(iv) determining distributions of Joint Venture cash and other property as provided in Section 2.7;

(v) developing the long term goals of the Joint Venture and providing basic guidelines to the Operating Committee (as hereinafter established) for implementing the overall goals of the Joint Venture;

(vi) approving all budgets and assessments of the Joint Venture;

(vii) admitting new members to the Joint Venture; and

(viii) approving all commitments by the Joint Venture to participate in activities with third parties external to the Joint Venture or the Members.

3.2 Composition of the Management Committee. The Management Committee will be composed of one representative from each Member as designated by that Member from time to time. Each Member's representative on the Management Committee will have full power and authority to act for and bind the Member it represents with respect to all matters concerning the business of the Joint Venture. Each Member may from time to time, by prior notice to the other Members, remove its representative on the Management Committee and designate a new representative. Each such representative shall serve in such capacity without compensation by the Joint Venture.

3.3 Meetings and Actions of the Management Committee. It is anticipated that the Management Committee will have at least two (2) and no more than four (4) regular meetings annually. The times and places of such meetings will be approved in advance by the Management Committee. The Executive Coordinator (as described in Section 3.12) will give each Management Committee representative notice of a meeting at least ten (10) days prior to the scheduled date. Each Member must be represented at any meeting of the Management Committee, either by its appointed representative or by its Alternate Representative (as defined in Section 3.9), for there to be a quorum. Management Committee representatives will have one vote each on every matter properly brought before the Management Committee. Management Committee meetings may be conducted in whole or in part by means of conference telephone or similar communications equipment whereby all persons participating in the meeting may hear and speak to one another. The Management Committee may take any action permitted to be taken at a meeting without a meeting if the action is evidenced by a written consent (or counterpart thereof) describing the action taken and signed by each Management Committee representative. Representatives to the Operating Committee (as hereinafter defined) or other representatives of a Member may, if requested by the Management Committee representative of that Member, attend meetings of the Management Committee and participate in the discussions thereof but will have no right to vote on any action brought before the Management Committee. Except as otherwise specifically provided in this Agreement, actions of the Management Committee will require the affirmative approval of a majority of the Management Committee representatives.

3.4 Chairman of the Management Committee. The Management Committee representatives will select a Chairman of the Management Committee from among the Management Committee representatives. The Chairman will serve a term of no longer than two (2) years, and may serve more than one two-year term provided the terms are not consecutive. The Chairman will be responsible, directly or through the Executive Coordinator, for providing guidance to the Operating Committee and otherwise facilitating the activities of the Joint Venture between meetings of the Management Committee. The Management Committee may remove the Chairman at any time without cause and appoint a new Chairman as provided herein.

3.5 Operating Committee. The Operating Committee is hereby established to oversee the operations and implement the goals of the Joint Venture pursuant to the guidelines established from time to time by the Management Committee. Operating Committee representatives will take a substantial role in shaping and conducting the research, analysis, and development tasks identified by the Operating Committee, and the Operating Committee as a whole will be responsible for preparing and presenting recommendations to the Management Committee. The Operating Committee will, subject to the guidelines established by the Management Committee, engage and utilize appropriate consulting resources and employees of Members or their Affiliates to facilitate the activities of the Joint Venture.

3.6 Composition of the Operating Committee. The Operating Committee will be composed of one representative from each Member as designated by that Member from time to time. Each of the Members' representatives on the Operating Committee will have full power and authority to act for and bind that Member with respect to all matters concerning the activities of the Operating Committee. Each Member may from time to time by notice to the other Members remove its Operating Committee representative and designate a new representative to the Operating Committee. Each representative on the Operating Committee will have one vote with respect to Operating Committee matters. Except as otherwise specifically provided in this Agreement, actions of the Operating Committee will require the affirmative approval of a majority of the Operating Committee representatives. Each such representative shall serve in such capacity without compensation by the Joint Venture.

3.7 Meetings and Actions of the Operating Committee. It is anticipated that the Operating Committee will meet at least six (6) and no more than twelve (12) times annually. The times and places of such meetings will be approved in advance by the Operating Committee. The Executive Coordinator will give each Operating Committee representatives notice of a meeting at least ten (10) days prior to the scheduled date. Each Member must be represented at any meeting of the Operating Committee, either by its appointed representative or by its Alternate Representative, for there to be a quorum. Operating Committee meetings may be conducted in whole or in part by means of conference telephone or similar communications equipment whereby all persons participating in the meeting may hear and speak to one another. The Operating Committee may take any action permitted to be taken at the meeting without a meeting if the action is evidenced by a written consent (or counterpart thereof) describing the action taken and signed by each of the Operating Committee representatives.

3.8 Chairman of the Operating Committee. The Operating Committee representatives will select a Chairman of the Operating Committee from among the Operating Committee representatives. The Chairman will serve a term of no longer than two (2) years, and may serve more than one two-year term provided the terms are not consecutive. The Chairman will be responsible, directly or through the Executive Coordinator, for providing guidance to the Executive Coordinator and otherwise facilitating the activities of the Joint Venture between meetings of the Operating Committee. The Operating Committee may remove the Chairman at any time without cause and appoint a new Chairman as provided herein.

3.9 Alternate Representatives. In addition to the representatives designated by each Member to serve on the Management Committee and the Operating Committee, each Member may designate one or more alternates to represent it in Management Committee and Operating Committee activities (each an "Alternate Representative"). A Member's Alternate Representative will represent the Member on all issues, including voting, in the absence of its regular committee representative. Alternate Representatives will have access to all notices and materials provided to regular representatives of the Management Committee or Operating Committee, as the case may be. In addition, Alternate Representatives may accompany regular representatives of the Management Committee or Operating Committee to meetings and may participate in all discussions; provided, that each Member may cast only one vote on each action brought before the respective committees. An Alternate Representative may be changed or shared at the discretion of each Member.

3.10 Treasurer.

(a) A Treasurer of the Joint Venture will be designated by the Management Committee from among the Operating Committee representatives to act as the financial administrator of the Joint Venture. The Treasurer may appoint up to two Assistant Treasurers to assist with the duties of the office. The appointment of Assistant Treasurers will not require Management Committee or Operating Committee approval. The Treasurer will serve until such time as he or she resigns or the Management Committee selects a replacement.

(b) The Treasurer will handle the financial administration of the Joint Venture and will be responsible for collecting and disbursing funds in accordance with guidelines set from time to time by the Management Committee and the decisions of the Operating Committee.

(c) The Treasurer will establish a bank account in the name of the Joint Venture. The Treasurer, Assistant Treasurers, and such other members or designees of the Operating Committee as the Operating Committee determines will have signature authority on the bank account. Any draw on the bank account of $10,000 or less will require the signature of the Treasurer or any Assistant Treasurer. Any draw on the account of greater than $10,000 will require the signature of the Treasurer or an Assistant Treasurer and one member or designee of the Operating Committee (who is not also the Treasurer or an Assistant Treasurer).

(d) The Treasurer will invest the funds of the Joint Venture, pending utilization to the extent feasible, in (i) time deposits, negotiable certificates of deposit, or similar instruments of deposit with a bank organized as a corporation under the laws of the United States or any state thereof; (ii) obligations of the United States and states or agencies thereof and obligations guaranteed by the same, maturing within ninety (90) days of the investment; or (iii) short term commercial paper having either of the two highest ratings for short term commercial paper assigned by any two nationally recognized commercial paper rating organizations.

3.11 Executive Coordinator. An Executive Coordinator will be appointed by the Management Committee. The Executive Coordinator will administer and coordinate the research and development activities of the Joint Venture and will implement the actions authorized or requested by the Management Committee or Operating Committee. In addition, the Executive Coordinator will coordinate communications among the Members, will formulate agendas for committee members to assure productive meetings of the Management Committee and Operating Committee and will be responsible for recording the minutes of all meetings of the Management and Operating Committees. The Executive Coordinator will also perform or provide administrative functions, such as scheduling and secretarial services. The Executive Coordinator will serve at the will of the Management Committee and may be removed without cause at any time by the Management Committee, which shall appoint a successor.

ARTICLE 4
BUDGET MATTERS

4.1 Project Budgets and Spending Approvals. The Members agree that the business of the Joint Venture will be conducted principally on an identified project by project basis. The Operating Committee will develop a budget and plan for each project. Each project budget must be approved by the unanimous vote of the Management Committee. Any expenditure in excess of $10,000 not included in a project budget will require additional unanimous approval of the Management Committee. Any expenditure of $10,000 or less not included in a project budget must be approved in writing by any two

(2) members of the Operating Committee. Any expenditure made in connection with a project budget approved by the Management Committee that results in actual expenditures exceeding budgeted expenditures by the greater of (i) 10% of the budgeted amount or (ii) $10,000, must be approved by the Management Committee. Any actual project expenditures that exceed budgeted expenditures but in an amount less than the greater of (x) 10% of the budgeted amount or (y) $10,000, must be approved in writing by any two (2) members of the Operating Committee.

4.2 General Costs and Expenses. The Joint Venture will be responsible for paying all direct costs and expenses of the Joint Venture, including the costs associated with the Executive Coordinator and accounting, legal, and consulting fees incurred by the Joint Venture, and all expenditures included in any budget approved by the Management Committee or otherwise pursuant to Section 4.1. All other costs and expenses incurred by the Members for Joint Venture business or in connection with their participation in activities of the Joint Venture will be borne by the Member incurring such costs and expenses and will not be considered a capital contribution to the Joint Venture.

ARTICLE 5
STANDARDS OF CONFIDENTIALITY

5.1 Dissemination of Information. Members of the Joint Venture may disseminate Confidential Information (as defined below) among themselves and their respective Affiliates and their employees provided that the Confidential Information is relevant to the recipient. For purposes of this Agreement, "Confidential Information" means (i) all otherwise non-public information disclosed to the Joint Venture by or on behalf of a Member concerning or relating to that Member or its Affiliates unless the disclosing Member expressly identifies any such information as being non-confidential and (ii) all otherwise non-public information concerning or relating to the Joint Venture. If a Member desires more stringent disclosure standards with respect to any Confidential Information to be disclosed by such Member to the Joint Venture, the Member making the disclosure will generally identify the Confidential Information and describe the required standards prior to any such disclosure. Such Member must obtain the approval of the Management Committee or the Operating Committee to adopt any such exceptional disclosure standards. If the Management Committee or the Operating Committee determines not to adopt exceptional disclosure standards, then such committee will expressly decline the disclosure of the information from such Member.

5.2 Disclosure to Third Parties. Subject to the provisions of Section 5.3, Confidential Information concerning the activities and plans of a Member or its Affiliates disclosed in the course of Joint Venture activities will not be disclosed to third parties outside of the other Members and their Affiliates. The Members are obligated to inform and advise their respective Affiliates concerning these confidentiality standards and to adopt any procedures that may be necessary or desirable to the extent required to protect against disclosure of Confidential Information other than in accordance with this Article 5.

5.3 Disclosure to Consultants. Confidential Information regarding the Joint Venture may be disclosed to consultants and other non-employees participating in activities of a Member who require such information, provided that these persons are made aware of these standards and enter into appropriate non-disclosure agreements with the Joint Venture in a form approved by the Operating Committee or are otherwise subject to confidentiality obligations. Operating Committee members will take all steps necessary to make such persons aware of the required confidentially standards to the extent required to protect against disclosure of Confidential Information other than in accordance with these standards.

5.4 Release of Information. Release of information in the name of the Joint Venture will be made only in accordance with the guidelines established by the Management Committee or with the unanimous approval of the Management Committee.

ARTICLE 6
OTHER ACTIVITIES; CONFLICTS OF INTEREST

6.1 Other Activities of Members. Any Member or its Affiliates may, without notice to or consent from any other Member, engage and invest in other business ventures of any nature, including, without limitation, all aspects of the newspaper business, whether or not competitive with the business of the Joint Venture or any of the Members or their Affiliates, and including, without limitation, the development, ownership, operation, management, and sale of newspapers and other competing businesses. Neither the Joint Venture nor any Member or Affiliate will, by virtue of this Agreement, have any right or interest in such other ventures or investments, or in the income or profits therefrom.

6.2 Conflicts of Interest. No Member or any Affiliate, by reason of its status as a Member of the Joint Venture or an Affiliate of a Member, will be prohibited from or otherwise limited in employing, contracting with, or otherwise dealing with, any corporation, partnership, individual, or other person, including, without limitation, any entity in which any Member or Affiliate has a direct or indirect material relationship, affiliation, or interest. Notwithstanding the foregoing, the fact of any such material relationship, affiliation, or interest between a Member or an Affiliate and a third party must be known by or disclosed to all Members prior to binding the Joint Venture with respect to any employment, contract or other dealing, and the terms and conditions, including the price, of such employment with the third party, contract, or other dealing between the Joint Venture and the third party must be no less favorable to the Joint Venture than it could obtain from an unaffiliated third party.

ARTICLE 7
ACCOUNTING AND TAX MATTERS

7.1 Fiscal Year. The fiscal year of the Joint Venture will be the calendar year.

7.2 Accounting Methods; Books and Records. The Treasurer will cause complete and correct books of account and records reflecting all Joint Venture operations to be prepared and maintained in accordance with generally accepted accounting principles consistently applied. Such books and records will be kept by the Treasurer on an accrual basis for both financial and tax reporting and will be made available for inspection by any Member upon request. Such books and records will be maintained at the Treasurer's office or at such other reasonable place as the Management Committee may determine.

7.3 Financial Reports. The Treasurer will prepare or cause to be prepared periodic reports detailing the financial condition and results of operations of the Joint Venture. These reports will be distributed quarterly to each representative of the Management Committee and each representative of the Operating Committee, or more frequently if so requested by the Management Committee. In addition, an annual financial statement will be distributed to each representative of the Management Committee and each representative of the Operating Committee within ninety (90) days of the end of each fiscal year.

7.4 Tax Matters Partner. The Member whose Operating Committee representative is the Treasurer is hereby designated the "Tax Matters Partner," as defined in Section 6231(a)(7) of the Internal Revenue Code. The Tax Matters Partner will cause the preparation and timely filing of all tax and information returns or reports required to be filed by the Joint Venture pursuant to the Internal Revenue Code and of all other tax returns and reports deemed necessary and required in any jurisdictions in which the Joint Venture does business.

7.5 Preparation of Tax Returns. The Tax Matters Partner will arrange for the preparation and timely filing of all returns of income, gain, loss, deduction, credit, and other items of the Joint Venture necessary for federal, state, and local income tax purposes and shall use all reasonable efforts to furnish to the Members as soon as possible, and in any event not later than ninety (90) days after the close of the taxable year, the tax information reasonably required for federal and state income tax purposes.

ARTICLE 8
TRANSFER OF INTERESTS; NEW MEMBERS

8.1 Restrictions on Transfer. No Member may transfer, sell, assign, mortgage, hypothecate, or pledge (collectively, a "transfer") all or any portion of its interest in the Joint Venture or in this Agreement without the unanimous written consent of the Management Committee; provided that, for purposes of this Agreement, a change in control of a Member will not constitute a transfer of a Member's interest in the Joint Venture or in this Agreement without a specific transaction actually effecting such a transfer. Any transfer of an interest purported to be made in violation of this Agreement will be void as against the Joint Venture.

8.2 Permitted Transfers. A Member may, at any time, transfer all or any portion of its interest in the Joint Venture or in this Agreement to an Affiliate.

8.3 Admission of New Members. Additional entities may be admitted to the Joint Venture as Members only upon the unanimous written consent of the Management Committee.

8.4 Conditions to Transfer; Admission. No transfer of an interest and no admission of any new Member will be effective as against the Joint Venture and no such transferee or proposed new Member will become a Member unless such person (i) executes and delivers to the Joint Venture a written consent to be bound by all of the provisions of this Agreement, as then amended, and becomes a Member with respect to the Joint Venture interest acquired, together with such other instruments as the Management Committee may consider necessary or appropriate to effect the person's admission to the Joint Venture, and (ii) pays to the Joint Venture all reasonable expenses, including, without limitation, attorneys' fees, incurred in connection with such admission.

ARTICLE 9
DISSOLUTION, LIQUIDATION AND TERMINATION

9.1 Dissolution. The Joint Venture will dissolve and its affairs will be wound up upon the first to occur of the following events ("Events of Dissolution"):

(a) The expiration of the term provided for in Section 1.4 of this Agreement, unless such term is extended by amendment of this Agreement;

(b) The unanimous written consent of all Members to dissolve the Joint Venture;

(c) The entry of a final order by a court of competent jurisdiction decreeing the dissolution of the Joint Venture;

(d) The occurrence of an event that makes it unlawful to carry on the business of the Joint Venture in its current form; or

(e) The occurrence of any of the following events; provided, that the Management Committee representatives of the unaffected Members unanimously agree to treat such event as an Event of Dissolution:

(i) the filing by a Member of any petition in bankruptcy or for reorganization, liquidation, or similar relief under any statute, law, or regulation governing the rights and relief of debtors, or the entry of an order for relief against a Member pursuant to an involuntary bankruptcy petition filed against such Member or the adjudication of a Member as bankrupt or

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(b) The unanimous written consent of all Members to dissolve the Joint Venture;

(c) The entry of a final order by a court of competent jurisdiction decreeing the dissolution of the Joint Venture;

(d) The occurrence of an event that makes it unlawful to carry on the business of the Joint Venture in its current form; or

(e) The occurrence of any of the following events; provided, that the Management Committee representatives of the unaffected Members unanimously agree to treat such event as an Event of Dissolution:

(i) the filing by a Member of any petition in bankruptcy or for reorganization, liquidation, or similar relief under any statute, law, or regulation governing the rights and relief of debtors, or the entry of an order for relief against a Member pursuant to an involuntary bankruptcy petition filed against such Member or the adjudication of a Member as bankrupt or insolvent or the application by a Member or such Member's consent to or acquiescence in the appointment of a trustee, receiver, or liquidator for all or any substantial part of such Member's assets or the making by a Member of an assignment for the benefit of creditors or any substantially similar action on the part of a Member;

(ii) the dissolution of a Member or the consummation of any merger, consolidation, sale, or issuance of stock or other equity interests, or similar transaction that results in loss of or change in control of a Member; or

(iii) the failure of a Member to make any required capital contributions or other payments within thirty (30) days of the date such contribution or other payment was due or requested pursuant to this Agreement.

If, upon the occurrence of any of the events set forth in paragraphs (i) - (iii) above, the Management Committee unanimously elects not to treat such event as an Event of Dissolution, the Management Committee may, upon the unanimous approval of the representatives of all Members not a party to such event, elect to expel the Member whose action or inaction caused the event. In this case, the expulsion of a Member will be deemed an Event of Withdrawal in accordance with Article 10 hereof, and the expelled Member will be subject to the same rights and obligations as a Withdrawing Member (as defined in Article 10) hereunder.

9.2 Liquidation and Termination. Upon dissolution of the Joint Venture for the reasons set forth in Section 9.1, the Management Committee will appoint a liquidator and wind up the affairs of the Joint Venture in accordance with the Partnership Act. The liquidator shall proceed diligently to wind up the affairs of the Joint Venture and make final distribution as provided herein. The costs of liquidation will be borne as a Joint Venture expense. Until final distribution, the liquidator will continue to operate the Joint Venture with all of the power and authority of the Management Committee, except that the liquidator shall have no authority to require Members to make any capital contributions not previously authorized by the Management Committee. As promptly as possible after dissolution and after final liquidation, the liquidator will cause a full accounting of the assets and liabilities of the Joint Venture to be made, and a statement of the assets, liabilities, and capital accounts will be furnished to each Member. The liquidator and the Members will take such action as is necessary so that the Joint Venture's business will be terminated, its liabilities discharged, its property liquidated, and the proceeds of liquidation distributed. After payment of all liabilities, the remaining assets of the Joint Venture will be distributed, subject to and in accordance with applicable law, to the Members in accordance with their respective Membership Interests. In connection therewith, each Member will receive a non-exclusive, royalty free license permitting each Member to utilize any New Products or Services (as defined in Section 11.1) developed by the Joint Venture prior to the date of dissolution. Upon completion of the winding up of the Joint Venture's business and affairs and the liquidation or distribution of its assets, the Joint Venture will be deemed terminated.

ARTICLE 10
WITHDRAWAL OF A MEMBER

10.1 Events of Withdrawal. The following events will be deemed "Events of Withdrawal" under the Agreement:

(a) Receipt by the Joint Venture of a written notice of the Member's express will to withdraw as a Member of the Joint Venture as of a specified date, such date being no earlier than the last day of the month that such notice is received by the Joint Venture; or

(b) Expulsion of a Member pursuant to Section 9.1(e).

10.2 Rights of Withdrawing Member. Upon the occurrence of an Event of Withdrawal, the withdrawing Member (the "Withdrawing Member") will cease to be a Member of the Joint Venture. The Joint Venture will redeem the Withdrawing Member's Membership Interest as of the date of withdrawal in exchange for a non-exclusive, royalty-free license, in form and substance satisfactory to the Joint Venture, permitting the Withdrawing Member to utilize any New Products or Services developed by the Joint Venture prior to the date of such withdrawal. The grant of such license shall be conditioned upon the Withdrawing Member's payment, with such Member's notice of withdrawal or within twenty (20) days after such Member's expulsion, as the case may be, of all assessed and unpaid capital contributions of the Withdrawing Member and all other amounts owed by the Withdrawing Member to the Joint Venture (in each case as of the specified date of withdrawal). Included within the amounts owed by the Withdrawing Member as of the withdrawal date shall be its pro rata share of any outstanding obligations of the Joint Venture even though such obligations either are not then due and payable by the Joint Venture or capital contributions shall not have then been requested from Members to satisfy such obligations.

ARTICLE 11
DEVELOPMENT OF NEW PRODUCTS AND SERVICES

11.1 Ownership of New Products or Services. In the event the Joint Venture develops a new product or service or improves upon an existing product or service (hereafter collectively the "New Products or Services") as a result of the efforts of the Joint Venture, the Members agree that the Joint Venture shall own the New Products or Services. Upon the development of any New Products or Services, the Joint Venture will take whatever steps may be reasonably necessary or appropriate, including, but not limited to, filing patent, trademark, and/or copyright applications to protect or perfect to the fullest extent possible the rights of the Joint Venture in such New Products or Services. Each Member agrees that it will communicate to the Joint Venture any material facts known to it respecting any and all New Products or Services and that it will testify in any legal proceedings, sign all lawful papers, execute all patent, trademark, and/or copyright applications, make all lawful oaths, and generally do everything reasonably possible to vest and/or perfect title to the New Products or Services in the Joint Venture and to aid the Joint Venture in obtaining and enforcing patent, trademark, and/or copyright protection for the New Products or Services.

11.2 Use of Joint Venture Products and Services by Members. Each Member will be permitted, without charge, to use for itself and its Affiliates any and all New Products or Services developed by the Joint Venture in such manner as may be deemed desirable by such Member. Upon request of any Member, the Joint Venture will prepare an appropriate form of non-exclusive, royalty free license agreement to govern such usage.

11.3 Sale or License of Products and Services to Third Parties. In the event that the Management Committee determines by unanimous decision that it is in the best interest of the Joint Venture to sell or license or otherwise grant to third parties the right to use, manufacture, or otherwise exploit any and/or all New Products or Services developed by the Joint Venture, the Members agree to negotiate in good faith among themselves and with such third parties approved by the Management Committee the terms of any such selling, licensing or similar arrangement.

ARTICLE 12
GENERAL PROVISIONS

12.1 Indemnification; Liability. Each Member will indemnify the Joint Venture, the other Members, the Management Committee representatives, and the Operating Committee representatives (and any Alternate Representatives), the Treasurer (and any Assistant Treasurers) and the Executive Coordinator and hold them (and, with respect to Members, their respective directors, officers, employees and agents) harmless from, any and all liability, loss, damage, and expense, including reasonable attorneys' fees, incurred as a result of (i) a breach of any representation, warranty, covenant or agreement made by such Member in or pursuant to this Agreement or (ii) any act or omission by or on behalf of such Member that is not performed or omitted in good faith in connection with the ordinary and proper conduct of the Joint Venture's business consistent with the provisions of this Agreement. Notwithstanding any other provision of this Agreement, no Member will be liable to any other Member or to the Joint Venture with respect to any act performed or omitted by or on behalf of such Member, including acts performed or omitted by its Management Committee or Operating Committee members (or Alternate Representative), the Treasurer (and any Assistant Treasurers) and the Executive Coordinator in good faith and in a manner in which such person reasonably believed to be necessary or appropriate in connection with the ordinary and proper conduct of the Joint Venture's business and not inconsistent with the provisions of this Agreement. The Joint Venture will obtain insurance policies as deemed reasonably necessary.

12.2 Dispute Resolution. The Members intend to promote the interest of the Joint Venture and to maintain its existence consistent with the obligations and commitments of the Members hereunder and hereby agree to cooperate in seeking approaches and solutions to problems that will benefit the interests of the Joint Venture consistent with the terms of this Agreement. If at any time disputes or differences arise between the Members, their successors, or permitted assigns, including disputes or differences concerning the interpretation, construction, legality, enforceability, meaning, or effect of any of the provisions of this Agreement or the rights, liabilities, or obligations of the Members regarding an alleged breach of this Agreement, every such dispute or difference to the extent permitted by applicable law will be referred to and finally settled by confidential arbitration. The arbitration will be conducted pursuant to the commercial arbitration rules of the American Arbitration Association then in effect unless otherwise agreed to unanimously by the Management Committee. The expenses of the arbitration will be borne in accordance with the judgment of the arbitrators. Any award rendered by arbitration pursuant to the provisions of this Section 12.2 will be final, binding upon the parties hereto, and enforceable in any court of competent jurisdiction. To the extent permitted by law, the Members hereby waive any right to judicial review.

12.3 Amendments. This Agreement may be amended only by the unanimous written approval of the Management Committee. All amendments to this Agreement must be in writing and signed by all of the members of the Management Committee in the name and on behalf of the Member who designated him or her.

12.4 Binding and Entire Agreement. This Agreement will be binding upon, and inure to the benefit of, the Members and their respective legal representatives, successors, and assigns, subject to the restrictions on transfers set forth herein. This Agreement constitutes the entire agreement of the Members with respect to the subject matter hereof, and supersedes all prior agreements and negotiations, whether written or oral.

12.5 Governing Law. This Agreement will be interpreted and enforced in accordance with the laws of the State of Texas without reference to the conflicts of laws principles thereof.

12.6 No Third Party Beneficiaries. Except as otherwise expressly provided herein, the Members intend and agree that no person will be a third party beneficiary of this Agreement. Any agreement to make any contribution or to otherwise pay any amount and any assumption of liability, express or implied, contained in this Agreement, will be only for the benefit of the Members and their respective successors and permitted assigns.

12.7 Further Assurances. Each of the Members of the Joint Venture will cooperate and will execute such other documents and perform such further acts as may be reasonably necessary or desirable to carry out and facilitate the purposes and intent of this Agreement.

12.8 Severability. If any provision of this Agreement, or the application thereof to any person or circumstance, is invalid or unenforceable to any extent, the remainder of this

Agreement, and the application thereof to other persons or circumstances, will not be impaired, and will be enforced to the fullest extent permitted by law.

12.9 Counterparts. This Agreement may be executed as one instrument, signed by all parties, or in counterparts, in which case all such counterparts will constitute one and the same instrument.

12.10 Notices. All notices, elections, demands, or other communications required or permitted to be made or given pursuant to this Agreement will be in writing and will be deemed given or made if sent by first class registered or certified (return receipt requested) United States mail, postage prepaid, by overnight courier, or if transmitted (and receipt confirmed) by facsimile and addressed, if to the Member, at its respective address as set forth on the signature page(s) of this Agreement, and if to the Joint Venture, in care of the then current Chairman of the Management Committee and Chairman of the Operating Committee at their respective addresses.

[The rest of this page is intentionally left blank.]

IN WITNESS WHEREOF, the undersigned parties have entered into this Agreement effective as of the day and year first above written.

<u>MEMBERS</u>	<u>ADDRESSES FOR NOTICES, ETC.</u>
A.H. BELO CORPORATION By: ______________________ Robert W. Decherd Chairman and Chief Executive Officer	400 S. Record Street Dallas, TX 75202 Facsimile No.: 214/977-8209 Attention: Robert W. Decherd Dean H. Blythe
CENTRAL NEWSPAPERS, INC. By: ______________________ Frank E. Russell President and Chief Executive Officer	First Indiana Plaza 135 N. Pennsylvania St., Suite 1200 Indianapolis, IN 46204-2400 Facsimile No.: 317/231-9208 Attention: Frank E. Russell Howard Finberg Phoenix Newspapers, Inc. 120 E. Van Buren St. Phoenix, AZ 85004 Facsimile No.: 602/271-8910
COWLES MEDIA COMPANY By: ______________________ David Cox President and Chief Executive Officer	329 Portland Avenue Minneapolis, MN 55415 Facsimile No.: 612/673-7020 Attention: David Cox Patrick P. Irestone

FREEDOM COMMUNICATIONS, INC.

By: ______________________
James N. Rosse
President and Chief Executive Officer

17666 Fitch
Irvine, CA 92714
Facsimile No.: 714/474-7675
Attention: James N. Rosse
Dick Jablonski

McCLATCHY NEWSPAPERS, INC.

By: ______________________
Erwin Potts
Chief Executive Officer

P. O. Box 15779
Sacramento, CA 95852-0779
Facsimile No.: 916/321-1869
Attention: Erwin Potts
Sylvia Chavez Sitters

PULITZER PUBLISHING COMPANY

By: ______________________
Michael E. Pulitzer
President and Chief Executive Officer

900 N. Tucker Blvd.
St. Louis, MO 63101
Facsimile No.: 314/340-3127
Attention: Michael E. Pulitzer
David Lipman

APPENDIX II

PRODUCT AND SERVICE INVENTORY CATALOG

TABULATION OF NEW PRODUCT/SERVICE PARAMETERS -- McCLATCHY NEWSPAPERS INC.

15:11 08-Jun-94	A	B	C	D	E
Operating Company	Sacramento Bee	Fresno Bee	Tacoma News-Tribune	Modesto Bee	Anchorage
Service Area	Sacramento	Fresno, CA	Tacoma, WA	Modesto, CA	Anchorage, AK
Parent Company	McClatchy	McClatchy	McClatchy	McClatchy	McClatchy
FREE AUDIOTEX SERVICES					

Average calls/month	360,000	124,000	48,000	108,000	80,000
Line sponsorship rates	$100-$150 per 30-sec	$300 average	$28-$200	$200	$50-$700
VOICE PERSONALS					

Calls per month	2,800	21,000 minutes	9,500	12,750	None
Price per minutes	$1.00	$1.10	$1.95	$2.19	
FAX SERVICES					

Pages per month	10,000 ??		225		None
Price per page	$0.50		free ??		

TABULATION NEW PRODUCT/SERVICE PARAMETERS -- FREEDOM COMMUNICATIONS, INC.

	14:47 08-Jun-94	A
17	Operating Company	Orange County Register
18	Product/Service Name	Voice Personals
19	Type of Service	900 service
20	- - - - - - - - - - - - -	- - - - - - - -
21	Service Area	Orange County, CA
22	Parent Company	Freedom
23	Launch Date (yr: first 2 char; mo: last 2)	9108
24	Current Subscribers - Base Level	
25	Current Subscribers - Upper Level	
26	Current Transactions/Month - Free	
27	Current Transactions/Month - Charge	47,500
28	- - - - - - - - - - - - -	- - - - - - - -
29	PLATFORM PARAMETERS	
30	-------------------	
31	Owner	Service Bureau
32	Length of Commitment (months)	
33	Technical Identification	
34	Fee Basis	
35	Base Charge	
36	Unit for Base Charge	
37	Variable Charge	
38	Unit for Variable	
39	- - - - - - - - - - - - -	- - - - - - - -
40	PLANNING AND LAUNCH ACTIVITIES	
41	--	
42	Planning duration (months)	
43	Average FTEs involved	
44	Peak FTEs involved	
45	Total staff expenses	
46	Cash promotional/ad expenses	
47	Total other expenses	
48	Total capital/startup investment	
49	Duration of in-paper promotion (weeks)	
50	- - - - - - - - - - - - -	- - - - - - - -
51	In-Paper Promotion Level (pages/week)	
52	Duration of pre-launch promotion	
53	Total pre-launch pages	
54	Weekly pages at launch	
55	- - - - - - - - - - - - -	- - - - - - - -
56	HISTORY/PROJECTION OF OPERATING PARAMETERS	
57	--	
58	Subscribership	
59	End Year 1	
60	End Year 2	
61	End Year 3	
62	- - - - - - - - - - - - -	- - - - - - - -
63	Free Transactions/Month	
64	End Year 1	
65	End Year 2	
66	End Year 3	
67	- - - - - - - - - - - - -	- - - - - - - -
68		
69		

B	C
Orange County Register Circulation Customer Service Interactive Voice	Orange County Register Circulation Billing Service Interactive Voice
Orange County, CA Freedom	Orange County, CA Freedom
Register 36 Informix/Qnix	Register 36 Informix/Qnix Free none $1.99 minute
12 2.0 5.0	24 0.5 3.0
	$0 3
2 0.3 0.3	3 10
10,000 25,000 100,000	10,000 50,000 100,000

	14:47 08-Jun-94	A
17	Operating Company	Orange County Register
18	Product/Service Name	Voice Personals
19	Type of Service	900 service
20	- - - - - - - - - - - -	- - - - - - - -
70	Charge Transactions/Month	
71	End Year 1	
72	End Year 2	
73	End Year 3	47,500
74	- - - - - - - - - - - -	- - - - - - - -
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	
78	Year 3	696,000
79	- - - - - - - - - - - -	- - - - - - - -
80	Annual Non-Subscriber Revenues	
81	Source	
82	Year 1	
83	Year 2	
84	Year 3	
85		
86	Ad revenue, year 1:	
87	- - - - - - - - - - - -	- - - - - - - -
88	Staff Utilized (FTE)	
89	End Year 1	none
90	End Year 2	none
91	End Year 3	none
92	- - - - - - - - - - - -	- - - - - - - -
93	Annual Staff Expense	
94	Year 1	
95	Year 2	
96	Year 3	
97	- - - - - - - - - - - -	- - - - - - - -
98	Annual Non-Staff Operating Expense	
99	Description	
100	Year 1	
101	Year 2	
102	Year 3	
103	- - - - - - - - - - - -	- - - - - - - -
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	
106	Weekly rate at end Year 2	
107	Weekly rate at end Year 3	
108	- - - - - - - - - - - -	- - - - - - - -
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	
112	News/editorial content	
113	Advertising content	
114	Marketing	
115	Finance	
116	Technology	
117		
118		

B	C
Orange County Register Circulation Customer Service Interactive Voice	Orange County Register Circulation Billing Service Interactive Voice
	0.5
Daniel Joynt John Walsh	Daniel Joynt John Walsh
Virginia Neal	Virginia Neal

	14:47 08-Jun-94	D
17	Operating Company	Orange County Register
18	Product/Service Name	InfoLine
19	Type of Service	Interactive Voice
20	- -	
21	Service Area	Orange County, CA
22	Parent Company	Freedom
23	Launch Date (yr: first 2 char; mo: last 2)	9202
24	Current Subscribers - Base Level	
25	Current Subscribers - Upper Level	
26	Current Transactions/Month - Free	250,000
27	Current Transactions/Month - Charge	
28	- -	
29	PLATFORM PARAMETERS	
30	-------------------	
31	Owner	Register
32	Length of Commitment (months)	2 year lease
33	Technical Identification	Unix/Informix
34	Fee Basis	
35	Base Charge	$5,000
36	Unit for Base Charge	month
37	Variable Charge	
38	Unit for Variable	
39	- -	
40	PLANNING AND LAUNCH ACTIVITIES	
41	--	
42	Planning duration (months)	5
43	Average FTEs involved	1.5
44	Peak FTEs involved	1.5
45	Total staff expenses	
46	Cash promotional/ad expenses	
47	Total other expenses	
48	Total capital/startup investment	
49	Duration of in-paper promotion (weeks)	ongoing
50	- -	
51	In-Paper Promotion Level (pages/week)	
52	Duration of pre-launch promotion	at launch
53	Total pre-launch pages	0.25
54	Weekly pages at launch	
55	- -	
56	HISTORY/PROJECTION OF OPERATING PARAMETERS	
57	--	
58	Subscribership	
59	End Year 1	
60	End Year 2	
61	End Year 3	
62	- -	
63	Free Transactions/Month	
64	End Year 1	250,000
65	End Year 2	280,000
66	End Year 3	
67	- -	
68		
69		

E
Orange County Register
Headline News
Audiotex

Orange County, CA
Freedom
9402

2,400

Register

IVR

6
0.5
3.0

	14:47 08-Jun-94	D
17	Operating Company	Orange County Register
18	Product/Service Name	InfoLine
19	Type of Service	Interactive Voice
20	- - - - - - - - - - - - - - - - - -	- - - - - - -
70	Charge Transactions/Month	
71	End Year 1	
72	End Year 2	
73	End Year 3	
74	- - - - - - - - - - - - - - - - - -	- - - - - - -
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	
78	Year 3	
79	- - - - - - - - - - - - - - - - - -	- - - - - - -
80	Annual Non-Subscriber Revenues	Advertising
81	Source	250,000
82	Year 1	355,452
83	Year 2	
84	Year 3	
85		
86	Ad revenue, year 1:	
87	- - - - - - - - - - - - - - - - - -	- - - - - - -
88	Staff Utilized (FTE)	
89	End Year 1	3
90	End Year 2	6
91	End Year 3	5
92	- - - - - - - - - - - - - - - - - -	- - - - - - -
93	Annual Staff Expense	
94	Year 1	
95	Year 2	
96	Year 3	
97	- - - - - - - - - - - - - - - - - -	- - - - - - -
98	Annual Non-Staff Operating Expense	
99	Description	
100	Year 1	
101	Year 2	
102	Year 3	
103	- - - - - - - - - - - - - - - - - -	- - - - - - -
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	5.0
106	Weekly rate at end Year 2	5.0
107	Weekly rate at end Year 3	3.0
108	- - - - - - - - - - - - - - - - - -	- - - - - - -
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	Michael Rinz
112	News/editorial content	Wes Wilde
113	Advertising content	Lelani Bluner
114	Marketing	Rusy Yearwood
115	Finance	Rusy Yearwood
116	Technology	Lelani Bluner
117		
118		

E
Orange County Register
Headline News
Audiotex

09:41 08-Jun-94	A	
Operating Company	Daily Southtown	
Product/Service Name	Southtown Connection	
Type of Service	Audiotex/Fax	
Service Area	Chicago, southern suburbs	
Parent Company	Pulitzer	
Launch Date (yr: first 2 char; mo: last 2)	9306	
Current Subscribers - Base Level		
Current Subscribers - Upper Level		
Current Transactions/Month - Free	30,000	(136,000 line requests)
Current Transactions/Month - Charge		
PLATFORM PARAMETERS		
Owner	Southtown	
Length of Commitment (months)		
Technical Identification	Microvoice AT 2000	
Fee Basis		
Base Charge	Free	
Unit for Base Charge		
Variable Charge		
Unit for Variable		
PLANNING AND LAUNCH ACTIVITIES		
Planning duration (months)	2	
Average FTEs involved	1.0	
Peak FTEs involved	1.0	
Total staff expenses	$4,500	
Cash promotional/ad expenses		
Total other expenses	$14,000	
Total capital/startup investment	$60,000	system & satellite dish
Duration of in-paper promotion (weeks)	2	
In-Paper Promotion Level (pages/week)		
Duration of pre-launch promotion	2	
Total pre-launch pages	7	+ 10 pgs stock symbols
Weekly pages at launch	6.0	
HISTORY/PROJECTION OF OPERATING PARAMETERS		
Subscribership		
End Year 1		
End Year 2		
End Year 3		
Free Transactions/Month		
End Year 1		
End Year 2		
End Year 3		

B	C
Post Dispatch PostLine Audiotex	Post Dispatch Voice Personals Audiotex
St. Louis	St. Louis
Pulitzer	Pulitzer
9407	
50,000	
IBM	Microvoice
12	12
	Model 900
Free	none
	$1.99 minute
6	24
3.0	0.5
3.0	3.0
	$0
Ongoing	3
	3
	10
100,000	
150,000	
200,000	

TABULATION OF NEW PRODUCT/SERVICE PARAMETERS -- PULITZER PUBLISHING CO.

	09:41 08-Jun-94	A		B	C
17	Operating Company	Daily Southtown		Post Dispatch	Post Dispatch
18	Product/Service Name	Southtown Connection		PostLine	Voice Personals
19	Type of Service	Audiotex/Fax		Audiotex	Audiotex
20	- - - - - - -	- - - -		- - - -	- - - -
70	Charge Transactions/Month				
71	End Year 1				
72	End Year 2				
73	End Year 3				
74	- - - - - - -	- - - -		- - - -	- - - -
75	Annual Subscriber Revenues				
76	Year 1				
77	Year 2				
78	Year 3				
79	- - - - - - -	- - - -		- - - -	- - - -
80	Annual Non-Subscriber Revenues			Advertising	
81	Source			100,000	
82	Year 1			250,000	
83	Year 2			400,000	
84	Year 3				
85					
86	Ad revenue, year 1:				
87	- - - - - - -	- - - -		- - - -	- - - -
88	Staff Utilized (FTE)				
89	End Year 1	2.00		3.00	
90	End Year 2	2.00		4.00	
91	End Year 3			5.00	
92	- - - - - - -	- - - -		- - - -	- - - -
93	Annual Staff Expense				
94	Year 1	$24,000	partial year		
95	Year 2	$60,000			
96	Year 3				
97	- - - - - - -	- - - -		- - - -	- - - -
98	Annual Non-Staff Operating Expense				
99	Description	Line feeds & phone lines		System Maintenance, Phones	
100	Year 1	$17,000	partial year	$10,000	
101	Year 2	$29,000		$11,800	
102	Year 3				
103	- - - - - - -	- - - -		- - - -	- - - -
104	In-Paper Promotion Level (pages/week)				
105	Weekly rate at end Year 1	8.3		0.5	0.5
106	Weekly rate at end Year 2				
107	Weekly rate at end Year 3				
108	- - - - - - -	- - - -		- - - -	- - - -
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS				
110	--				
111	Overall program management	Dan Cotter/Jody Carmack 312-229-2560			Dan Kilian 314-340-8590
112	News/editorial content	Jody Carmack 312-229-2415			
113	Advertising content	Kim Kirby 312-229-2416			
114	Marketing	Cotter or Carmack		Jeff Edwards	Jeff Edwards
115	Finance	George Voleta 312-229-2535		Fred Wilke	Fred Wilke
116	Technology	Pat Kennedy 312-229-2592			
117					
118					

	09:41 08-Jun-94	D
17	Operating Company	Post Dispatch
18	Product/Service Name	Fax on demand
19	Type of Service	Fax
20	- - - - - - - - - - - -	- - - - - - -
21	Service Area	St. Louis
22	Parent Company	Pulitzer
23	Launch Date (yr: first 2 char; mo: last 2)	9402
24	Current Subscribers - Base Level	
25	Current Subscribers - Upper Level	
26	Current Transactions/Month - Free	22,000
27	Current Transactions/Month - Charge	NA
28	- - - - - - - - - - - -	- - - - - - -
29	PLATFORM PARAMETERS	
30	-------------------	
31	Owner	Pulitzer
32	Length of Commitment (months)	
33	Technical Identification	
34	Fee Basis	
35	Base Charge	
36	Unit for Base Charge	
37	Variable Charge	
38	Unit for Variable	
39	- - - - - - - - - - - -	- - - - - - -
40	PLANNING AND LAUNCH ACTIVITIES	
41	---	
42	Planning duration (months)	6
43	Average FTEs involved	
44	Peak FTEs involved	
45	Total staff expenses	
46	Cash promotional/ad expenses	
47	Total other expenses	
48	Total capital/startup investment	
49	Duration of in-paper promotion (weeks)	ongoing
50	- - - - - - - - - - - -	- - - - - - -
51	In-Paper Promotion Level (pages/week)	
52	Duration of pre-launch promotion	1
53	Total pre-launch pages	0.25
54	Weekly pages at launch	
55	- - - - - - - - - - - -	- - - - - - -
56	HISTORY/PROJECTION OF OPERATING PARAMETERS	
57	---	
58	Subscribership	
59	End Year 1	
60	End Year 2	
61	End Year 3	
62	- - - - - - - - - - - -	- - - - - - -
63	Free Transactions/Month	
64	End Year 1	
65	End Year 2	
66	End Year 3	
67	- - - - - - - - - - - -	- - - - - - -
68		
69		

E
Post Dispatch
Postlink
Videotext
- - - - - - - - - - - - -
St. Louis
Pulitzer
9201 for StarText platform
1,000

NA
- - - - - - - - - - - - -

Delphi formerly StarText platform
12

$13.95
month, w/4 hrs use
$4.00
addl hours after 4
- - - - - - - - - - - - -

6 for relaunch
7.2
7.2

ongoing
- - - - - - - - - - - - -

- - - - - - - - - - - - -

1,000 after GUI re-launch
3,500
5,500
- - - - - - - - - - - - -

- - - - - - - - - - - - -

TABULATION OF NEW PRODUCT/SERVICE PARAMETERS -- PULITZER PUBLISHING CO.

	09:41 08-Jun-94	D
17	Operating Company	Post Dispatch
18	Product/Service Name	Fax on demand
19	Type of Service	Fax
20	- -	
70	Charge Transactions/Month	
71	End Year 1	
72	End Year 2	
73	End Year 3	
74	- -	
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	
78	Year 3	
79	- -	
80	Annual Non-Subscriber Revenues	
81	Source	
82	Year 1	
83	Year 2	
84	Year 3	
85		
86	Ad revenue, year 1:	
87	- -	
88	Staff Utilized (FTE)	
89	End Year 1	
90	End Year 2	
91	End Year 3	
92	- -	
93	Annual Staff Expense	
94	Year 1	
95	Year 2	
96	Year 3	
97	- -	
98	Annual Non-Staff Operating Expense	
99	Description	
100	Year 1	
101	Year 2	
102	Year 3	
103	- -	
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	
106	Weekly rate at end Year 2	
107	Weekly rate at end Year 3	
108	- -	
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	Jeff Edwards/Richard Shockey
112	News/editorial content	
113	Advertising content	
114	Marketing	Richard Shockey
115	Finance	Jeff Edwards 314-340-8213
116	Technology	Richard Shockey
117		
118		

E
Post Dispatch
Postlink
Videotext

120,000 after GUI re-launch
350,000
600,000

7.20 after GUI re-launch
8.50
10.00

Connie Hoffman
Connie Hoffman
Connie Hoffman
Connie Hoffman
Jeff Edwards 314-340-8213
Fred Wilke

TABULATIO[illegible] NEW PRODUCT/SERVICE PARAMETERS -- COWLES MEDIA COMPANY

	09:56 08-Jun-94	A	B	C
17	Operating Company	Star Tribune	Star Tribune	Star Tribune
18	Product/Service Name	Talking Ad/Caller's Choice/Contest Line	Star Tribune Fax	Reader Response Lines
19	Type of Service	Audiotex	Fax-On-Demand	Audiotex
20				
21	Service Area	Mpls./St. Paul	Mpls./St. Paul	Mpls./St. Paul
22	Parent Company	CMC	CMC	CMC
23	Launch Date (yr: first 2 char; mo: last 2)	9310	9211	9211
24	Current Subscribers - Base Level			
25	Current Subscribers - Upper Level			
26	Current Transactions/Month - Free	9,500		35,000
27	Current Transactions/Month - Charge		400	
28				
29	PLATFORM PARAMETERS			
30	-------------------			
31	Owner	Star Tribune	Polaris Telecom (vendor)	Star Tribune
32	Length of Commitment		1 year	
33	Technical Identification	AT&T MAP 100		AT&T MAP 100 (same for Talking Ads, etc)
34	Fee Basis			
35	Base Charge		$400	
36	Unit for Base Charge		month	
37	Variable Charge		$0.27 varies .15 to .40	
38	Unit for Variable		page	
39				
40	PLANNING AND LAUNCH ACTIVITIES			
41	--			
42	Planning duration (months)	6	3	2
43	Average FTEs involved	0.5		1.0
44	Peak FTEs involved	0.5		1.0
45	Total staff expenses			35,000
46	Cash promotional/ad expenses			0
47	Total other expenses			0
48	Total capital/startup investment		7,400	35,000
49	Duration of in-paper promotion (weeks)	2		Ongoing
50				
51	In-Paper Promotion Level (pages/week)			
52	Duration of pre-launch promotion			0
53	Total pre-launch pages			0
54	Weekly pages at launch	0.2		0.5
55				
56	HISTORY/PROJECTION OF OPERATING PARAMETERS			
57	--			
58	Subscribership			
59	End Year 1			
60	End Year 2			
61	End Year 3			
62				
63	Free Transactions/Month			
64	End Year 1		375	
65	End Year 2			
66	End Year 3			
67				
68				
69				

TABULATION OF NEW PRODUCT/SERVICE PARAMETERS -- COWLES MEDIA COMPANY

Row	09:56 08-Jun-94	A	B	C
17	Operating Company	Star Tribune	Star Tribune	Star Tribune
18	Product/Service Name	Talking Ad/Caller's Choice/Contest Line	Star Tribune Fax	Reader Response Lines
19	Type of Service	Audiotex	Fax-On-Demand	Audiotex
20				
70	Charge Transactions/Month			
71	End Year 1			
72	End Year 2			
73	End Year 3			
74				
75	Annual Subscriber Revenues			
76	Year 1			
77	Year 2			
78	Year 3			
79				
80	Annual Non-Subscriber Revenues			
81	Source			
82	Year 1			
83	Year 2		5,500 projected	
84	Year 3			
85				
86	Ad revenue, year 1:			
87				
88	Staff Utilized (FTE)			
89	End Year 1		0.12	
90	End Year 2			
91	End Year 3			
92				
93	Annual Staff Expense			
94	Year 1			$35,000
95	Year 2			
96	Year 3			
97				
98	Annual Non-Staff Operating Expense			
99	Description	System Maintenance & Phones		System Maintenance, Phones
100	Year 1	$6,700		$10,000
101	Year 2	$7,900		$11,800
102	Year 3			
103				
104	In-Paper Promotion Level (pages/week)			
105	Weekly rate at end Year 1	0.2 space avail		0.5
106	Weekly rate at end Year 2			
107	Weekly rate at end Year 3			
108				
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS			
110				
111	Overall program management	Rick Petersen 612-673-4005	Rick Petersen 612-673-4005	Rick Petersen 612-673-4005
112	News/editorial content	NA	Bob Schafer 612-673-7155	Larry Werner 612-673-4468
113	Advertising content	R. Petersen		
114	Marketing	R. Petersen	R. Petersen	R. Petersen
115	Finance	R. Petersen	R. Petersen	R. Petersen
116	Technology	R. Petersen	R. Petersen	R. Petersen
117				
118				

TABULATION [illegible]EW PRODUCT/SERVICE PARAMETERS -- COWLES MEDIA COMPANY

09:56 08-Jun-94	D
Operating Company	Star Tribune
Product/Service Name	Stockline
Type of Service	Audiotex
Service Area	Mpls./St. Paul
Parent Company	CMC
Launch Date (yr: first 2 char; mo: last 2)	9110
Current Subscribers - Base Level	
Current Subscribers - Upper Level	
Current Transactions/Month - Free	425,000
Current Transactions/Month - Charge	
PLATFORM PARAMETERS	
Owner	Star Tribune
Length of Commitment	
Technical Identification	AT&T Tower & AT&T Map
Fee Basis	
Base Charge	
Unit for Base Charge	
Variable Charge	
Unit for Variable	
PLANNING AND LAUNCH ACTIVITIES	
Planning duration (months)	6
Average FTEs involved	1.0
Peak FTEs involved	1.0
Total staff expenses	NA
Cash promotional/ad expenses	
Total other expenses	
Total capital/startup investment	70,000
Duration of in-paper promotion (weeks)	
In-Paper Promotion Level (pages/week)	
Duration of pre-launch promotion	
Total pre-launch pages	
Weekly pages at launch	
HISTORY/PROJECTION OF OPERATING PARAMETERS	
Subscribership	
End Year 1	
End Year 2	
End Year 3	
Free Transactions/Month	
End Year 1	240,000
End Year 2	425,000
End Year 3	

E	F
Star Tribune	Star Tribune
Horoscope/Soaps/Xword/Sports/Racing	Get Acquainted (Voice Personals)
Audiotex	Audiotex
Mpls./St. Paul	Mpls./St. Paul
CMC	CMC
9000	9109
	7,000
1,200	4,500
	Star Tribune
	AT&T Tower
	6
	15,000
	15,000
	70,000
	8
	2.0
	4,500
	7,000

TABULATION OF NEW PRODUCT/SERVICE PARAMETERS -- COWLES MEDIA COMPANY

	09:56 08-Jun-94	D
17	Operating Company	Star Tribune
18	Product/Service Name	Stockline
19	Type of Service	Audiotex
20	- -	
70	Charge Transactions/Month	
71	End Year 1	
72	End Year 2	
73	End Year 3	
74	- -	
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	
78	Year 3	
79	- -	
80	Annual Non-Subscriber Revenues	
81	Source	
82	Year 1	
83	Year 2	
84	Year 3	
85		
86	Ad revenue, year 1:	6,000
87	- -	
88	Staff Utilized (FTE)	
89	End Year 1	
90	End Year 2	
91	End Year 3	
92	- -	
93	Annual Staff Expense	
94	Year 1	$35,000
95	Year 2	
96	Year 3	
97	- -	
98	Annual Non-Staff Operating Expense	
99	Description	System Maintenance, Phones
100	Year 1	$50,200
101	Year 2	$59,400
102	Year 3	
103	- -	
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	0.5
106	Weekly rate at end Year 2	0.5
107	Weekly rate at end Year 3	
108	- -	
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	Rick Petersen 612-673-4005
112	News/editorial content	R. Petersen
113	Advertising content	R. Petersen
114	Marketing	R. Petersen
115	Finance	R. Petersen
116	Technology	R. Petersen
117		
118		

E Star Tribune Horoscope/Soaps/Xword/Sports/Racing Audiotex	F Star Tribune Get Acquainted (Voice Personals) Audiotex
1,200 1,200	4,000 4,500
	140,000 160,000
	1.00 1.00
	$17,000 $17,000
	Newsprint,Ink,Promo,Phones $133,700 $100,000
Larry Werner/(612)673-4468 L. Werner L. Werner	Rick Petersen/(612)673-4005 R. Petersen R. Petersen R. Petersen R. Petersen R. Petersen

TABULATION NEW PRODUCT/SERVICE PARAMETERS -- CENTRAL NEWSPAPERS, INC.

	09:45 08-Jun-94	A
17	Operating Company	Phoenix Newspapers Inc.
18	Product/Service Name	AdSnap
19	Type of Service	Multimedia
20	- - - - - - - - - - - - - -	- - - - - - - -
21	Service Area	Arizona
22	Parent Company	Central Newspapers Inc.
23	Launch Date (yr: first 2 char; mo: last 2)	9310
24	Current Subscribers - Base Level	46,000 free magazines
25	Current Subscribers - Upper Level	5,000 free phone calls
26	Current Transactions/Month - Free	500 free fax requests
27	Current Transactions/Month - Charge	20,000 free log-ons
28	- - - - - - - - - - - - - -	- - - - - - - -
29	PLATFORM PARAMETERS	
30	-------------------	
31	Owner	ITI. Microvoice, Coconel
32	Length of Commitment (months)	
33	Technical Identification	DOS, UNIX
34	Fee Basis	Listing & display ads
35	Base Charge	$55
36	Unit for Base Charge	per house-month
37	Variable Charge	$90 to $300
38	Unit for Variable	color surcharge
39	- - - - - - - - - - - - - -	- - - - - - - -
40	PLANNING AND LAUNCH ACTIVITIES	
41	------------------------------	
42	Planning duration (months)	12
43	Average FTEs involved	3.0
44	Peak FTEs involved	8.0
45	Total staff expenses	$91,600
46	Cash promotional/ad expenses	$46,000
47	Total other expenses	$186,000
48	Total capital/startup investment	$153,000
49	Duration of in-paper promotion (weeks)	ongoing
50	- - - - - - - - - - - - - -	- - - - - - - -
51	In-Paper Promotion Level (pages/week)	
52	Duration of pre-launch promotion	3
53	Total pre-launch pages	32
54	Weekly pages at launch	7.0
55	- - - - - - - - - - - - - -	- - - - - - - -
56	HISTORY/PROJECTION OF OPERATING PARAMETERS	
57	--	
58	Subscribership	
59	End Year 1	
60	End Year 2	
61	End Year 3	
62	- - - - - - - - - - - - - -	- - - - - - - -
63	Free Transactions/Month	5,000 BBS, year 1
64	End Year 1	70,000 audiotex, year 1
65	End Year 2	24,000 fax, year 1
66	End Year 3	1,090,000 circulation, year 1
67	- - - - - - - - - - - - - -	- - - - - - - -
68		
69		

B	C
Phoenix Newspapers Inc. Pressline VIS	Phoenix Newspapers Inc. Meet Your Match 900 personals
Arizona Central Newspapers Inc. 8907	Arizona Central Newspapers Inc. 9404
Microvoice 36 AT-2000	Microvoice 900 service bureau phone time $1.99 minute
1	6
1	1
1	1
$8,950	$1,200
	$35,000
$21,500	$1,000
$108,000	
$6	$3
	3
	5
2	4
1,900,000 calls	5,800
6,200,000 calls	6,500
7,600,000 calls	8,000

	09:45 08-Jun-94	A
17	Operating Company	Phoenix Newspapers Inc.
18	Product/Service Name	AdSnap
19	Type of Service	Multimedia
20	- - - - - - - - - - -	- - - - - - - -
70	Charge Transactions/Month	Listing Ads
71	End Year 1	19,800
72	End Year 2	22,000 projected
73	End Year 3	22,900 projected
74	- - - - - - - - - - -	- - - - - - - -
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	
78	Year 3	
79	- - - - - - - - - - -	- - - - - - - -
80	Annual Non-Subscriber Revenues	
81	Source	1,500,000
82	Year 1	1,800,000 projected
83	Year 2	2,100,000 projected
84	Year 3	
85		
86	Ad revenue, year 1:	
87	- - - - - - - - - - -	- - - - - - - -
88	Staff Utilized (FTE)	
89	End Year 1	4.25
90	End Year 2	6.25
91	End Year 3	6.00
92	- - - - - - - - - - -	- - - - - - - -
93	Annual Staff Expense	
94	Year 1	none
95	Year 2	none
96	Year 3	none
97	- - - - - - - - - - -	- - - - - - - -
98	Annual Non-Staff Operating Expense	
99	Description	
100	Year 1	
101	Year 2	
102	Year 3	
103	- - - - - - - - - - -	- - - - - - - -
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	7.0
106	Weekly rate at end Year 2	
107	Weekly rate at end Year 3	
108	- - - - - - - - - - -	- - - - - - - -
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	Marilyn Tanious 602/271-8907
112	News/editorial content	David Gianelli 602/271-8601
113	Advertising content	Michael Hilbert 602/271-8714
114	Marketing	Michael Hilbert
115	Finance	Mrilyn Tanious
116	Technology	David Gianelli 602/271-8601
117		Howard Finberg 602/271-8248
118		

B	C
Phoenix Newspapers Inc. Pressline VIS	Phoenix Newspapers Inc. Meet Your Match 900 personals
	6,400 6,800 8,000
	Callers 175,000 227,000 293,000
Line sponsors $36,000 $40,000 $68,000	Classifieds 10,000 $13,000 $17,000
1 1 2	1 1 1
$36,000 $40,000 $68,000	15,000 21,000 22,000
IP fees, lease 50,000 183,000 162,000	newsprint 90,000 107,000 140,000
1.0 1.0 0.5	3.0 1.0 3.0
Amy Ettinger 602/271-8357 Amy Carlile 602/271-8878 Amy Ettinger Amy Ettinger Steve Lazar 800/553-0003	Amy Ettinger 602/271-8357 Amy Ettinger Amy Ettinger Amy Ettinger Sig Strommesen 602/271-8566 Steve Lazar 800/553-0003 (Microvoice)

TABULATIO NEW PRODUCT/SERVICE PARAMETERS -- CENTRAL NEWSPAPERS, INC.

09:45 08-Jun-94	D
Operating Company	Phoenix Newspapers Inc.
Product/Service Name	Talking Directory
Type of Service	Audiotex Advertising
Service Area	Arizona
Parent Company	Central Newspapers Inc.
Launch Date (yr: first 2 char; mo: last 2)	9407
Current Subscribers - Base Level	
Current Subscribers - Upper Level	
Current Transactions/Month - Free	
Current Transactions/Month - Charge	
PLATFORM PARAMETERS	
Owner	Microvoice Applications
Length of Commitment (months)	36
Technical Identification	AT-2000
Fee Basis	
Base Charge	140
Unit for Base Charge	month
Variable Charge	
Unit for Variable	
PLANNING AND LAUNCH ACTIVITIES	
Planning duration (months)	3
Average FTEs involved	0.5
Peak FTEs involved	0.5
Total staff expenses	$1,320 projected
Cash promotional/ad expenses	$1,800 projected
Total other expenses	$350
Total capital/startup investment	
Duration of in-paper promotion (weeks)	3
In-Paper Promotion Level (pages/week)	
Duration of pre-launch promotion	3
Total pre-launch pages	
Weekly pages at launch	
HISTORY/PROJECTION OF OPERATING PARAMETERS	
Subscribership	
End Year 1	
End Year 2	
End Year 3	
Free Transactions/Month	
End Year 1	
End Year 2	
End Year 3	

E	F
Phoenix Newspapers Inc. Oscar Contest 900 vote reader	Phoenix Newspapers Inc. At Your Service Public Research
Arizona Central Newspapers Inc. 9402	Arizona Central Newspapers Inc.
	203
200	197
Microvoice Applications 6 weeks AT-2000	PNI (in-house database)
	$2 article
$0.95 minute	$60 hour
1	4
1.0	0.25
2.0	1.00
	absorbed
$10,800	
	$165
	$165
6	1
	none
3	
1,600	203
	no forecast
	no forecast

	09:45 08-Jun-94	D	E	F
17	Operating Company	Phoenix Newspapers Inc.	Phoenix Newspapers Inc.	Phoenix Newspapers Inc.
18	Product/Service Name	Talking Directory	Oscar Contest	At Your Service
19	Type of Service	Audiotex Advertising	900 vote reader	Public Research
20				
70	Charge Transactions/Month			
71	End Year 1		350	197
72	End Year 2			no forecast
73	End Year 3			no forecast
74				
75	Annual Subscriber Revenues			
76	Year 1			
77	Year 2			
78	Year 3			
79				
80	Annual Non-Subscriber Revenues			
81	Source	contract advertisers	900-number fees	
82	Year 1	$403,000 projected	$300	$9,285
83	Year 2	$500,000 projected		no forecast
84	Year 3			no forecast
85				
86	Ad revenue, year 1:			
87				
88	Staff Utilized (FTE)			
89	End Year 1	1		1.0
90	End Year 2	1		
91	End Year 3			
92				
93	Annual Staff Expense			
94	Year 1	25,000		25,000
95	Year 2	27,000		26,000
96	Year 3			27,000
97				
98	Annual Non-Staff Operating Expense			
99	Description	mewsprint. phones	900-line service	ohone, office expenses
100	Year 1	40,000	700	500
101	Year 2	60,000		
102	Year 3			
103				
104	In-Paper Promotion Level (pages/week)			
105	Weekly rate at end Year 1	0.5	8.0	
106	Weekly rate at end Year 2	1.0		
107	Weekly rate at end Year 3			
108				
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS			
110	--			
111	Overall program management	Amy Ettinger 602/271-8357	Chris Lavelle 602/271-8966	Paula Stevens 602/271-8115
112	News/editorial content	Lee Bolin 602/238-4474	Howard Finberg 602/271-8248	
113	Advertising content	Lee Bolin	Chris Lavelle	
114	Marketing	Lynn Town 602/271-8750	Lynn Town 602/271-8750	
115	Finance	Sig Strommesen 602/271-8566		
116	Technology	Steve Lazar 800/553-0003 (Microvoice)	Amy Ettinger 602/271-8357	
117				
118				

	09:45 08-Jun-94	G	H	I
17	Operating Company	Phoenix Newspapers Inc.	Phoenix Newspapers Inc.	
18	Product/Service Name	PNI database access	NewsBank	
19	Type of Service		CD-ROM news database	
20				
21	Service Area	Arizona	Arizona	
22	Parent Company	Central Newspapers Inc.	Central Newspapers Inc.	
23	Launch Date (yr: first 2 char; mo: last 2)	9405	9104	
24	Current Subscribers - Base Level		32	
25	Current Subscribers - Upper Level		1,200	
26	Current Transactions/Month - Free			
27	Current Transactions/Month - Charge			
28				
29	PLATFORM PARAMETERS			
30	-------------------			
31	Owner	Dialog, DataTimes. Mead Data Central	NewsBank Inc.	
32	Length of Commitment (months)	36 average	36	
33	Technical Identification			
34	Fee Basis		Subscription	
35	Base Charge	Varies by vendor		
36	Unit for Base Charge			
37	Variable Charge			
38	Unit for Variable			
39				
40	PLANNING AND LAUNCH ACTIVITIES			
41	-------------------------------			
42	Planning duration (months)	6 average	6	
43	Average FTEs involved			
44	Peak FTEs involved			
45	Total staff expenses			
46	Cash promotional/ad expenses	vendors do marketing		
47	Total other expenses	$1,000 per vendor (modem/lines)		
48	Total capital/startup investment	$225,000	$2,000	
49	Duration of in-paper promotion (weeks)			
50				
51	In-Paper Promotion Level (pages/week)		none	
52	Duration of pre-launch promotion			
53	Total pre-launch pages			
54	Weekly pages at launch			
55				
56	HISTORY/PROJECTION OF OPERATING PARAMETERS			
57	---			
58	Subscribership			
59	End Year 1		1	
60	End Year 2		193	
61	End Year 3		945	
62				
63	Free Transactions/Month		none	
64	End Year 1			
65	End Year 2			
66	End Year 3			
67				
68				
69				

	09:45 08-Jun-94	G
17	Operating Company	Phoenix Newspapers Inc.
18	Product/Service Name	PNI database access
19	Type of Service	
20	- -	
70	Charge Transactions/Month	
71	End Year 1	
72	End Year 2	
73	End Year 3	
74	- -	
75	Annual Subscriber Revenues	User revenues, 3 most recent years
76	Year 1	68,178
77	Year 2	62,552
78	Year 3	77,884
79	- -	
80	Annual Non-Subscriber Revenues	
81	Source	
82	Year 1	
83	Year 2	
84	Year 3	
85		
86	Ad revenue, year 1:	
87	- -	
88	Staff Utilized (FTE)	
89	End Year 1	5.0
90	End Year 2	5.0
91	End Year 3	5.0
92	- -	
93	Annual Staff Expense	
94	Year 1	162,000
95	Year 2	166,000
96	Year 3	177,000
97	- -	
98	Annual Non-Staff Operating Expense	
99	Description	maintenance, telecommunications
100	Year 1	23,300
101	Year 2	24,100
102	Year 3	41,000
103	- -	
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	none
106	Weekly rate at end Year 2	
107	Weekly rate at end Year 3	
108	- -	
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	Paula Stevens 602/271-8115
112	News/editorial content	Cheryl Thomas 602/271-8382
113	Advertising content	
114	Marketing	
115	Finance	
116	Technology	Cheryl Thomas
117		
118		

H

Phoenix Newspapers Inc.
NewsBank
CD-ROM news database

I

- -

- -

485
16,987
20,964

- -

- -

minimal
minimal
minimal

- -

- -

office expenses
2,100
250
250

- -

none

- -

Paula Stevens 602/271-8115
Cheryl Thomas 602/271-8382

Cheryl Thomas

09:45 08-Jun-94	J
Operating Company	Indianapolis Newspapers Inc.
Product/Service Name	Star Plus
Type of Service	stocks fax line
- - - - - - - - - - - -	- - - - - - - -
Service Area	Indianapolis
Parent Company	Central Newspapers Inc.
Launch Date (yr: first 2 char; mo: last 2)	9401
Current Subscribers - Base Level	37
Current Subscribers - Upper Level	
Current Transactions/Month - Free	
Current Transactions/Month - Charge	
- - - - - - - - - - - -	- - - - - - - -
PLATFORM PARAMETERS	

Owner	AP Service
Length of Commitment (months)	
Technical Identification	
Fee Basis	
Base Charge	
Unit for Base Charge	
Variable Charge	
Unit for Variable	
- - - - - - - - - - - -	- - - - - - - -
PLANNING AND LAUNCH ACTIVITIES	

Planning duration (months)	
Average FTEs involved	
Peak FTEs involved	
Total staff expenses	
Cash promotional/ad expenses	
Total other expenses	
Total capital/startup investment	
Duration of in-paper promotion (weeks)	
- - - - - - - - - - - -	- - - - - - - -
In-Paper Promotion Level (pages/week)	
Duration of pre-launch promotion	
Total pre-launch pages	
Weekly pages at launch	
- - - - - - - - - - - -	- - - - - - - -
HISTORY/PROJECTION OF OPERATING PARAMETERS	
--	
Subscribership	
End Year 1	
End Year 2	
End Year 3	
- - - - - - - - - - - -	- - - - - - - -
Free Transactions/Month	
End Year 1	
End Year 2	
End Year 3	
- - - - - - - - - - - -	- - - - - - - -

K	L
Indianapolis Newspapers Inc. InfoLine Audiotex	Indianapolis Newspapers Inc. Voice Personals voice/VRU
Indianapolis Central Newspapers Inc. 9212 325,000 690,000 requests	Indianapolis Central Newspapers Inc. 9209 1,000 ads/month 49,000 minutes/month
Brite, 48 line own	Microvoice

TABULATION OF NEW PRODUCT/SERVICE PARAMETERS -- CENTRAL NEWSPAPERS, INC.

	09:45 08-Jun-94	J
17	Operating Company	Indianapolis Newspapers Inc.
18	Product/Service Name	Star Plus
19	Type of Service	stocks fax line
20	- - - - - - - - - - - - -	- - - - - - - -
70	Charge Transactions/Month	
71	End Year 1	
72	End Year 2	
73	End Year 3	
74	- - - - - - - - - - - - -	- - - - - - - -
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	
78	Year 3	
79	- - - - - - - - - - - - -	- - - - - - - -
80	Annual Non-Subscriber Revenues	
81	Source	
82	Year 1	
83	Year 2	
84	Year 3	
85		
86	Ad revenue, year 1:	
87	- - - - - - - - - - - - -	- - - - - - - -
88	Staff Utilized (FTE)	
89	End Year 1	
90	End Year 2	
91	End Year 3	
92	- - - - - - - - - - - - -	- - - - - - - -
93	Annual Staff Expense	
94	Year 1	
95	Year 2	
96	Year 3	
97	- - - - - - - - - - - - -	- - - - - - - -
98	Annual Non-Staff Operating Expense	
99	Description	
100	Year 1	
101	Year 2	
102	Year 3	
103	- - - - - - - - - - - - -	- - - - - - - -
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	
106	Weekly rate at end Year 2	
107	Weekly rate at end Year 3	
108	- - - - - - - - - - - - -	- - - - - - - -
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	
112	News/editorial content	
113	Advertising content	
114	Marketing	
115	Finance	
116	Technology	
117		
118		

K	L
Indianapolis Newspapers Inc. InfoLine Audiotex	Indianapolis Newspapers Inc. Voice Personals voice/VRU
Advertising $159,000 current year	$460,000 current year
2.0 current year	

TABULATION C[illegible]W PRODUCT/SERVICE PARAMETERS -- CENTRAL NEWSPAPERS, INC.

	09:45 08-Jun-94	M	N	O
17	Operating Company	Indianapolis Newspapers Inc.	Indianapolis Newspapers Inc.	Indianapolis Newspapers Inc.
18	Product/Service Name	Tax Form Faxline	Classifacts	FastBreak Fax
19	Type of Service		mailed ads	Basketball Information
20				
21	Service Area	Indianapolis	Indianapolis	Indianapolis
22	Parent Company	Central Newspapers Inc.	Central Newspapers Inc.	Central Newspapers Inc.
23	Launch Date (yr: first 2 char; mo: last 2)	9,404 two-week duration	9,402	9402 three-week duration
24	Current Subscribers - Base Level			
25	Current Subscribers - Upper Level			
26	Current Transactions/Month - Free			
27	Current Transactions/Month - Charge	79 total calls, $380 revenue	1,000	10 in three-week duration
28				
29	PLATFORM PARAMETERS			
30				
31	Owner	Forms of Demand	North American Classifacts	AP/service bureau
32	Length of Commitment (months)			
33	Technical Identification		service bureau	
34	Fee Basis			
35	Base Charge			
36	Unit for Base Charge			
37	Variable Charge			
38	Unit for Variable			
39				
40	PLANNING AND LAUNCH ACTIVITIES			
41				
42	Planning duration (months)			
43	Average FTEs involved			
44	Peak FTEs involved			
45	Total staff expenses			
46	Cash promotional/ad expenses			
47	Total other expenses			
48	Total capital/startup investment			
49	Duration of in-paper promotion (weeks)			
50				
51	In-Paper Promotion Level (pages/week)			
52	Duration of pre-launch promotion			
53	Total pre-launch pages			
54	Weekly pages at launch			
55				
56	HISTORY/PROJECTION OF OPERATING PARAMETERS			
57				
58	Subscribership			
59	End Year 1			
60	End Year 2			
61	End Year 3			
62				
63	Free Transactions/Month			
64	End Year 1			
65	End Year 2			
66	End Year 3			
67				
68				
69				

	09:45 08-Jun-94	M
17	Operating Company	Indianapolis Newspapers Inc.
18	Product/Service Name	Tax Form Faxline
19	Type of Service	
20	- -	
70	Charge Transactions/Month	
71	End Year 1	
72	End Year 2	
73	End Year 3	
74	- -	
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	
78	Year 3	
79	- -	
80	Annual Non-Subscriber Revenues	
81	Source	
82	Year 1	
83	Year 2	
84	Year 3	
85		
86	Ad revenue, year 1:	
87	- -	
88	Staff Utilized (FTE)	
89	End Year 1	
90	End Year 2	
91	End Year 3	
92	- -	
93	Annual Staff Expense	
94	Year 1	
95	Year 2	
96	Year 3	
97	- -	
98	Annual Non-Staff Operating Expense	
99	Description	
100	Year 1	
101	Year 2	
102	Year 3	
103	- -	
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	
106	Weekly rate at end Year 2	
107	Weekly rate at end Year 3	
108	- -	
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	
112	News/editorial content	
113	Advertising content	
114	Marketing	
115	Finance	
116	Technology	
117		
118		

N	O
Indianapolis Newspapers Inc.	Indianapolis Newspapers Inc.
Classifacts	FastBreak Fax
mailed ads	Basketball Information

caller charges
2,585 in first 3 months

TABULATION OF NEW PRODUCT/SERVICE PARAMETERS -- A. H. BELO CORPORATION

	09:33 08-Jun-94	A
17	Operating Company	Dallas Morning News
18	Product/Service Name	WeatherTrak
19	Type of Service	VRU-900
20	- - - - - - - - - - - - - -	-
21	Service Area	Dallas
22	Parent Company	Belo
23	Launch Date (yr: first 2 char; mo: last 2)	9100
24	Current Subscribers - Base Level	
25	Current Subscribers - Upper Level	
26	Current Transactions/Month - Free	
27	Current Transactions/Month - Charge	3,000
28	- - - - - - - - - - - - - -	-
29	PLATFORM PARAMETERS	
30	-------------------	
31	Owner	USA Today
32	Length of Commitment (months)	1
33	Technical Identification	Service Bureau, VRU/900 number
34	Fee Basis	
35	Base Charge	
36	Unit for Base Charge	
37	Variable Charge	$0.375
38	Unit for Variable	per call to newspaper
39	- - - - - - - - - - - - - -	-
40	PLANNING AND LAUNCH ACTIVITIES	
41	--	
42	Planning duration (months)	
43	Average FTEs involved	
44	Peak FTEs involved	
45	Total staff expenses	
46	Cash promotional/ad expenses	
47	Total other expenses	
48	Total capital/startup investment	
49	Duration of in-paper promotion (weeks)	
50	- - - - - - - - - - - - - -	-
51	In-Paper Promotion Level (pages/week)	
52	Duration of pre-launch promotion	
53	Total pre-launch pages	
54	Weekly pages at launch	
55	- - - - - - - - - - - - - -	-
56	HISTORY/PROJECTION OF OPERATING PARAMETERS	
57	--	
58	Subscribership	
59	End Year 1	
60	End Year 2	
61	End Year 3	
62	- - - - - - - - - - - - - -	-
63	Free Transactions/Month	
64	End Year 1	
65	End Year 2	
66	End Year 3	
67	- - - - - - - - - - - - - -	-
68		
69		

B		C
Dallas Morning News		Dallas Morning News
Dial it Sports		DataTimes
VRU-900		On-line database
Dallas		National
Belo		Belo
9000		
NA		NA
NA		NA
0		NA
3,250 minutes		NA
United Media		DataTimes
1		36
Service Bureau - VRU; 900 number		NA
0		NA
0		NA
$0.08	$.75/min to caller	NA
per minute to newspaper		NA
NA		
0		
0		
0		
0		
0		
0		
NA		
None		
NA		
NA		
NA		NA
NA		NA
NA		NA
NA		NA
NA		NA
NA		NA

TABULATION OF NEW PRODUCT/SERVICE PARAMETERS -- A. H. BELO CORPORATION

	09:33 08-Jun-94	A
17	Operating Company	Dallas Morning News
18	Product/Service Name	WeatherTrak
19	Type of Service	VRU-900
20	- - - - - - - - - - - - - -	-
70	Charge Transactions/Month	
71	End Year 1	
72	End Year 2	
73	End Year 3	
74	- - - - - - - - - - - - - -	-
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	
78	Year 3	
79	- - - - - - - - - - - - - -	-
80	Annual Non-Subscriber Revenues	
81	Source	
82	Year 1	
83	Year 2	
84	Year 3	
85		
86	Ad revenue, year 1:	
87	- - - - - - - - - - - - - -	-
88	Staff Utilized (FTE)	
89	End Year 1	none
90	End Year 2	none
91	End Year 3	none
92	- - - - - - - - - - - - - -	-
93	Annual Staff Expense	
94	Year 1	none
95	Year 2	none
96	Year 3	none
97	- - - - - - - - - - - - - -	-
98	Annual Non-Staff Operating Expense	
99	Description	
100	Year 1	
101	Year 2	
102	Year 3	
103	- - - - - - - - - - - - - -	-
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	
106	Weekly rate at end Year 2	
107	Weekly rate at end Year 3	
108	- - - - - - - - - - - - - -	-
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	Bob Wassinger 214/977-7346
112	News/editorial content	
113	Advertising content	Bob Wassinger 214/977-7346
114	Marketing	Bob Wassinger 214/977-7346
115	Finance	
116	Technology	
117		
118		

B	C
Dallas Morning News	Dallas Morning News
Dial it Sports	DataTimes
VRU-900	On-line database
NA	NA
NA	NA
NA	NA
0	0
0	0
0	0
900-number	Royalty
$7,400	NA
NA	$100,000
$3,125	$70,000
0	0
0	0
0	0
0	
0	0
0	0
0	0
	NA
0	0
0	0
0	0
	Less than one
4.67 total for year	Less than one
	Less than one
Duff Daniels 214/977-7346	Barbara Van Pelt 214/977-7352
	NA
Duff Daniels 214/977-7346	Barbara Van Pelt 214/977-7352
Duff Daniels 214/977-7346	Barbara Van Pelt 214/977-7352
	NA
	Bonnie Rogers 214/977-8462

TABULATION ( )W PRODUCT/SERVICE PARAMETERS -- A. H. BELO CORPORATION

	09:33 08-Jun-94	D
17	Operating Company	Dallas Morning News
18	Product/Service Name	NewsBank
19	Type of Service	Database - CD Rom
20	- - - - - - - - - - - -	
21	Service Area	National
22	Parent Company	Belo
23	Launch Date (yr: first 2 char; mo: last 2)	9108
24	Current Subscribers - Base Level	NA
25	Current Subscribers - Upper Level	NA
26	Current Transactions/Month - Free	NA
27	Current Transactions/Month - Charge	NA
28	- - - - - - - - - - - -	
29	PLATFORM PARAMETERS	
30	-------------------	
31	Owner	NewsBank
32	Length of Commitment (months)	36
33	Technical Identification	CD Rom
34	Fee Basis	
35	Base Charge	NA
36	Unit for Base Charge	NA
37	Variable Charge	NA
38	Unit for Variable	NA
39	- - - - - - - - - - - -	
40	PLANNING AND LAUNCH ACTIVITIES	
41	--	
42	Planning duration (months)	
43	Average FTEs involved	
44	Peak FTEs involved	
45	Total staff expenses	
46	Cash promotional/ad expenses	
47	Total other expenses	
48	Total capital/startup investment	
49	Duration of in-paper promotion (weeks)	
50	- - - - - - - - - - - -	
51	In-Paper Promotion Level (pages/week)	
52	Duration of pre-launch promotion	
53	Total pre-launch pages	
54	Weekly pages at launch	
55	- - - - - - - - - - - -	
56	HISTORY/PROJECTION OF OPERATING PARAMETERS	
57	--	
58	Subscribership	
59	End Year 1	NA
60	End Year 2	NA
61	End Year 3	NA
62	- - - - - - - - - - - -	
63	Free Transactions/Month	
64	End Year 1	NA
65	End Year 2	NA
66	End Year 3	NA
67	- - - - - - - - - - - -	
68		
69		

E	F
Dallas Morning News NewsSource Research Service	Dallas Morning News Nexis On-line database
Dallas	National
Belo	Belo
9403	9202
NA	NA
NA	NA
0	NA
95	NA
Dallas Morning News/DataTimes	Mead Data Central
NA	36
Basis Software	NA
NA	NA
None	NA
None	NA
None	NA
None	NA
4	
2	
2	
$3,500	
$0	
$0	
$10,000	
0	
None	
None	
None	
None	NA
NA	NA
NA	NA
None	NA
NA	NA
NA	NA

	09:33 08-Jun-94	D
17	Operating Company	Dallas Morning News
18	Product/Service Name	NewsBank
19	Type of Service	Database - CD Rom
20	- - - - - - - - - - - - - -	
70	Charge Transactions/Month	
71	End Year 1	NA
72	End Year 2	NA
73	End Year 3	NA
74	- - - - - - - - - - - - - -	
75	Annual Subscriber Revenues	
76	Year 1	
77	Year 2	0
78	Year 3	0
79	- - - - - - - - - - - - - -	0
80	Annual Non-Subscriber Revenues	
81	Source	Royalty
82	Year 1	NA
83	Year 2	NA
84	Year 3	$57,000
85		
86	Ad revenue, year 1:	
87	- - - - - - - - - - - - - -	
88	Staff Utilized (FTE)	
89	End Year 1	0
90	End Year 2	0
91	End Year 3	0
92	- - - - - - - - - - - - - -	
93	Annual Staff Expense	
94	Year 1	0
95	Year 2	0
96	Year 3	0
97	- - - - - - - - - - - - - -	
98	Annual Non-Staff Operating Expense	
99	Description	0
100	Year 1	0
101	Year 2	0
102	Year 3	0
103	- - - - - - - - - - - - - -	
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	Less than one
106	Weekly rate at end Year 2	Less than one
107	Weekly rate at end Year 3	Less than one
108	- - - - - - - - - - - - - -	
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	---	
111	Overall program management	Barbara Van Pelt 214/977-7352
112	News/editorial content	NA
113	Advertising content	Barbara Van Pelt 214/977-7352
114	Marketing	Barbara Van Pelt 214/977-7352
115	Finance	NA
116	Technology	Bonnie Rogers 214/977-8462
117		
118		

E	F
Dallas Morning News NewsSource Research Service	Dallas Morning News Nexis On-line database
95	NA
NA	NA
NA	NA
None	0
NA	0
NA	0
Users of service	Royalty
$50,000 annualized	$25,000
NA	NA
NA	NA
1.0	0
NA	0
NA	0
60,000	0
	0
	0
Miscellaneous	
2,500	0
NA	0
NA	0
0.5	Less than one
NA	NA
NA	NA
Judy Metcalf 214/977-7777	??
NA	??
Dean Blythe 214/977-8246	??
Dean Blythe 214/977-8246	??
Dean Blythe 214/977-8246	??
Dean Blythe 214/977-8246	??

TABULATION EW PRODUCT/SERVICE PARAMETERS -- A. H. BELO CORPORATION

09:33 08-Jun-94	G
Operating Company	Dallas Morning News
Product/Service Name	Options by Fax
Type of Service	Facsimilie
- - - - - - - - - - - - - -	
Service Area	Dallas
Parent Company	Belo
Launch Date (yr: first 2 char; mo: last 2)	9300
Current Subscribers - Base Level	NA
Current Subscribers - Upper Level	NA
Current Transactions/Month - Free	1,500
Current Transactions/Month - Charge	0
- - - - - - - - - - - - - -	
PLATFORM PARAMETERS	

Owner	AP/Dynofax
Length of Commitment (months)	NA
Technical Identification	Facsimilie
Fee Basis	
Base Charge	0
Unit for Base Charge	0
Variable Charge	0
Unit for Variable	0
- - - - - - - - - - - - - -	
PLANNING AND LAUNCH ACTIVITIES	
--	
Planning duration (months)	3
Average FTEs involved	Less than one
Peak FTEs involved	Less than one
Total staff expenses	0
Cash promotional/ad expenses	0
Total other expenses	0
Total capital/startup investment	0
Duration of in-paper promotion (weeks)	2
- - - - - - - - - - - - - -	
In-Paper Promotion Level (pages/week)	
Duration of pre-launch promotion	2
Total pre-launch pages	3
Weekly pages at launch	NA
- - - - - - - - - - - - - -	
HISTORY/PROJECTION OF OPERATING PARAMETERS	
--	
Subscribership	
End Year 1	NA
End Year 2	NA
End Year 3	NA
- - - - - - - - - - - - - -	
Free Transactions/Month	
End Year 1	1,500
End Year 2	NA
End Year 3	NA
- - - - - - - - - - - - - -	

H
Dallas Morning News
Personal Portfolio
Facsimile

Dallas
Belo
January, 1994
785
NA
325
750

AP/Dynafax
6 months
Facsimile service/searchable database

None
N/A
Varies by service
N/A

5 months
Less than one
Less than one
0
0
0
None
None

None
None
None

785
NA
NA

325
NA
NA

	09:33 08-Jun-94	G
17	Operating Company	Dallas Morning News
18	Product/Service Name	Options by Fax
19	Type of Service	Facsimilie
20	- - - - - - - - - - - -	
70	Charge Transactions/Month	
71	End Year 1	0
72	End Year 2	0
73	End Year 3	0
74	- - - - - - - - - - - -	
75	Annual Subscriber Revenues	
76	Year 1	0
77	Year 2	0
78	Year 3	0
79	- - - - - - - - - - - -	
80	Annual Non-Subscriber Revenues	
81	Source	None
82	Year 1	NA
83	Year 2	NA
84	Year 3	NA
85		
86	Ad revenue, year 1:	
87	- - - - - - - - - - - -	
88	Staff Utilized (FTE)	
89	End Year 1	0
90	End Year 2	0
91	End Year 3	0
92	- - - - - - - - - - - -	
93	Annual Staff Expense	
94	Year 1	0
95	Year 2	0
96	Year 3	0
97	- - - - - - - - - - - -	
98	Annual Non-Staff Operating Expense	
99	Description	Service Bureau charges
100	Year 1	15,000
101	Year 2	NA
102	Year 3	NA
103	- - - - - - - - - - - -	
104	In-Paper Promotion Level (pages/week)	
105	Weekly rate at end Year 1	0
106	Weekly rate at end Year 2	NA
107	Weekly rate at end Year 3	NA
108	- - - - - - - - - - - -	
109	CONTACT INDIVIDUALS & TELEPHONE NUMBERS	
110	--	
111	Overall program management	Debra Hampton 214/977-8422
112	News/editorial content	Debra Hampton 214/977-8422
113	Advertising content	NA
114	Marketing	NA
115	Finance	NA
116	Technology	NA
117		
118		

H
Dallas Morning News
Personal Portfolio
Facsimile

750
NA
NA

$7,200 (annualized)
NA
NA

On demand callers
$6,500 (annualized)
NA
NA

0
NA
NA

0
N/A
N/A

uSAGEUsage-based charges from vendor
12,500
NA
NA

0.5
NA
NA

Debra Hampton 214/977-8422
Debra Hampton 214/977-8422
Debra Hampton 214/977-8422
Debra Hampton 214/977-8422
N/A
N/A

APPENDIX IV

TECHNOLOGY AREA SUMMARIES

PAFET 1994 TECHNOLOGY AREAS

Table of Contents

TECHNOLOGY AREAS

IVR/FAX

IVR/FAX

OBJECTIVE

One of the objectives of Pafet is to research and learn about the continued applications and integration of interactive voice response (audiotex) and fax products into "traditional" deliveries of news, information, advertising and transaction services. This includes research into possible revenue opportunities and consumer demand for specific information using these two types of services.

BACKGROUND

For many newspapers, interactivity still means dialing a phone, not going on-line. According to the NAA, there are currently 500 voice information services offered by 400 newspapers in North America representing a four-fold increase since 1991. Voice personals, offered by close to 70 percent of the papers surveyed, is clearly the "killer app" in this category. Free-call audiotex services ranks No. 2 with 150 papers; classified is third with 75.

Over 2700 newspapers around the country are currently "interactive" - offering fax or audio services - that's up from 42 in 1989. Most newspapers made the decision to go "interactive" for the following reasons: to remain the top information source, to provide additional reader services and to explore additional revenue sources.

By using these non-traditional methods of information distribution, newspapers are able to provide readers with more information about a particular topic or information that is currently unavailable through the newspaper. Fax service provides newspapers with a way for readers to access the many databases of information which are available through a newspaper.

FAX:

Over 25 newspapers across the country are now using **fax-on-demand** (specific information targeted to one person, i.e., news, articles, travel information, box scores) and **broadcast fax** (one piece of information sent to various customers, i.e., personal newspaper, stock portfolio, sponsor coupons) services as part of their newspaper product lines.

AUDIOTEX:

Audiotex services range from voice personals to N11 access to information. The most popular paid categories are: Voice personals, Horoscopes, Sports and Voice Classifieds. The most popular free categories are: Sports, Weather, Opinion Lines and Soap operas.

Newspaper companies have two choices when deciding whether to provide fax or audiotex services:

> **Service bureaus** provide quick ramp-up. Faxing capabilities are handled off-site allowing newspapers to package data.
>
> **Internal support.** Newspapers can develop their own system and use their own sets of data or utilize information provided through syndicates or other newspaper companies.

PLAN:

A proposed plan might include:

- o Identifying key elements of success for fax and audiotex services.
- o Developing an electronic classified "model" for audiotex services.
- o Researching high-demand categories and pricing structures for fax and audiotex.
- o Developing recommendations to ensure audiotex and fax are adaptable to future technological advances, i.e., video, on-line, etc.
- o Developing a relationship with telcos to create electronic yellow page products
- o Providing recommendations to integrate fax/audiotex services into other electronic products, i.e., on-line, media server, PDA's, etc.
- o Collect audiotex scripts, promotional ads and fax samples to provide to Pafet newspapers for revenue and reader opportunities.
- o Integrate discussion of audio/fax into discussions with Yankee Group, US West, Southwestern Bell etc.
- o Provide recommendations for campaigns to cross-promote all electronic services.
- o Develop and conduct study of audiotex/fax users to determine category usage, costs for services, etc. AND/OR study past studies.

COSTS:

- o Research study could be done by McClatchy's research company at a cost of approximately $5,000-10,000
- o Travel to meet with telcos could be integrated with other meetings being scheduled for other topics

TECHNOLOGY AREAS

WIRELESS INFORMATION SERVICES

WIRELESS INFORMATION SERVICES

OBJECTIVE

An objective of Pafet is to research and learn about the potential application of personal digital assistants to the future delivery of news, information, advertising and transaction services to:

- o Consumer markets
- o Businesses
- o Education markets

By the end of 1994 Pafet plans to have:

- o Learned about the PDA capability
- o Studied market potential
- o Created learning/awareness in all Pafet organizations
- o Established a 1995-96 plan

SCOPE

The scope of this plan includes:

- o Portable intelligent screen based computing devices designed to be used by consumers.
- o Operating in a portable environment - both wireless communication and portable software (i.e. flash cards, etc.).
- o Useful for the delivery of news, information, advertising and transaction services.

The scope of this plan excludes:

- o Devices designed only for personal productivity, communications or special purposes.

RATIONALE

Recent studies indicate that hand-held computing/communication devices will surpass PC shipments by the year 2000. Numerous forces are working to determine and exploit the technology advances and market opportunities that this may uncover. A number of organizations are working to determine how news, information, advertising and transaction services may be involved (Knight-Ridder, Apple, AT&T, Dow Jones).

Although probably not the basis for a mass reach consumer product in the next few years -

Pafet needs to follow and influence the development of PDA's as a distribution platform for our businesses.

PLAN

A Preliminary plan on PDA's will have the following elements.

1. Integrate PDA technologies/markets in meetings with:

    - o Apple
    - o AT&T
    - o U.S. West
    - o Microsoft
    - o Stanford Research Institute (SRI)
    - o Knight Ridder
    - o Dow Jones
    - o Yankee Group

    Consider joining the SRI Pocket Intelligence Forum ($25K).

2. Consider a limited PDA pilot by members of Pafet Operating Committee using the framework and pilot project begun by Cowles Media ($10K).

3. Integrate PDA related materials in the consumer acceptance studies conducted by Pafet.

4. Create a full report on the priority, potential and plan related to PDA's for inclusion in the 1995-96 plan by 11/94.

5. Create a Pafet-wide communication on PDA's for use throughout Pafet organizations (11/94).

The plan will be coordinated by Pat Irestone and implemented through the regular work of the Pafet Operating Committee.

Up to $25K of funds will be earmarked to join the SRI Pocket Intelligence Forum but will not be committed until step 1 of the plan (meetings with key players) is completed.

The Executive Coordinator will coordinate the Integration of the plan and it's steps into the regular work of Pafet. In addition the E.C. will coordinate/edit the reports as identified in steps 4 and 5 of the plan (25 hours).

TECHNOLOGY AREAS

CONSUMER INFORMATION SOFTWARE

CONSUMER INFORMATION SOFTWARE

Introduction

Compact Disk-Read Only Memory technology is an exceptionally vital part of new media. It has great potential on many different levels: content providers such as newspaper companies could offer disks not only to the traditional research market but also to the consumer market.

With the vast amount of storage available — more than 650 megabytes per disk — and the relatively cheap cost of manufacturing, the CD-ROM disk provides an interesting transition between transmission methods moving vast amounts of data. Old methods would be costly with multiple disks or long transmission times via local area networks or online services. The new method will probably be almost instantaneous via high-speed fiber/cable network. Until the new transmission methods arrive, CD-ROM can play an effective role in delivering large amounts of data quickly and easily.

An example of CD-ROM's ability to store information is the creation of a single disk that contained all 60 volumes of Pennsylvania's legal code, including more than 2,000 diagrams.

According to Digital Media, a trade publication of the Seybold Group, two companies — Digital Information Group and Veronis, Suhler & Associates Inc. — have attempted to gauge the growth of multimedia:

• Stamford, Conn.-based Digital Information Group released a report forecasting future growth of the CD-ROM industry. The study concludes that commercial CD-ROM sales will grow 80 percent in 1994 to reach almost $ 6 billion worldwide. It estimates 1993 sales of CD-ROM machines at $ 2 billion and says this figure will approach $ 2.7 billion in 1994. Information and reference products will continue to account for most CD-ROM title sales. Hot areas of growth will be in the consumer market, where the study says sales will increase 150 percent this year, compared to 50 percent last year. Despite this growth, competition among publishers for consumers' attention is getting fierce -- Digital Information says more than 1,200 new titles appeared on the market last year.

• Veronis, Suhler & Associates, a New York-based investment banking company, concluded that interactive software emerged as the biggest growth sector of the communications industry in 1992. Revenues for the 30 digital consumer, entertainment, and information publishers surveyed rose 21 percent to $ 3.4 billion, and operating profits rose 56 percent to $ 308.9 million. The review looked at 30 publicly reporting software companies in the areas of consumer data and transactions, consumer reference, education, games and home shopping/infomercials. Video games, led by Sega and Nintendo, is the largest of these categories with gross annual revenues exceeding $ 7.7 billion for 1992. Education and consumer reference enjoyed the highest margins of these five categories.

John Suhler, president of Veronis, Suhler & Associates, said that the growth experienced in this area is due to the increasing number of computers and CD-ROM drives in the home. An estimated 40 to 50 million households have video games and 20 million to 25 million homes have personal computers. The 30 million personal computers that were sold in 1992 exceeded the number of cars sold worldwide, according to Suhler. "In addition, the growing population of CD-ROM readers now routinely installed in new PCs, mega-mergers in the cable television and entertainment industries and double and triple-digit growth for online services all point toward significant growth for the interactive digital media segment," Suhler told Digital Media.

It is very difficult to gauge total dollar and volume amounts for CD-ROM market because many of the products are for in-house distribution (training, catalogs, etc.) and those that are for commercial sale do not go through traditional retail channels. And to compound the problem, many titles are sold bundled with hardware.

Other market trends include:

• Windows and the Mac remain the primary development and delivery platforms. Many CD-ROM players are being shipped with drivers for both types of software.

• Recordable CD technology is growing as a storage medium for image archiving, multimedia presentation and low-volume CD-ROM publishing. CD-Recording (the system necessary to "cut" a CD-ROM product) has dropped in price to the $4,000 to $8,000 range.

In working with the consumer market, however, the challenge for newspapers will be to make that CD-ROM disk as entertaining and informative as possible. And for most media companies, that is a difficult trick, at best. While the promise of CD-ROM is high, so is the pain of creation. The tools necessary to create multi-platform are difficult to find and often don't do a very good job with the one thing that newspapers excel at: text. However, there is hope: Both Adobe and Quark have promised the development of more user friendly authoring tools for CD-ROM

The players

Many of the key players in the new media field are active — either with hardware or software — in the CD-ROM area. These trendsetters in the converging worlds of entertainment, computers and communications include:

• Telco and cable companies, such as Ameritech, AT&T, Bell Atlantic, TCI, Comcast and Cox

• Content providers, such as News Corp., Capital Cities/ABC, Paramount and Walt Disney Co., Washington Post's Newsweek magazine.

• Technology component developers, such as Apple Computer, General Magic, Hewlett-Packard, IBM, Microsoft, SGI and 3DO.

Apple Computer has effectively been "giving away" CD-ROM drivers during the past two years in an effort to build up critical mass in the marketplace for software. It is now possible to purchase an after-market CD-ROM driver for less than $200 and have several software disks included with the purchase price.

The development of this market seems to bear a striking resemblance to the audio compact disk market. The difference for newspapers is that, unlike the audio market, they have material (content) that is suited for development and delivery on a CD-ROM drive.

However, developing CD-ROM projects is neither simple nor cheap. A great deal of attention must be paid to the quality of the program: text, audio, video and animation which must be coordinated seamlessly. Going to market with poor-quality programs is known as "shovelware" and will not generate much revenue.

Those companies working with this new medium need to find a new breed of worker for a product that is neither video game nor music CD. Because the programs are interactive, the user can explore them for hours, jumping back and forth from the videos to animation or just listening to the songs. Such skills might be present in limited number at Pafet newspapers; however, it is unlikely that any of the partner papers has an abundance of graphic artists, illustrators, programmers, animators, musicians and video experts.

It is unclear which products created from a newspaper's vast collection of information might be the "killer app." It is clear that there will be the need for additional types of material to create a successful CD-ROM product: video and audio aren't forms found at many newspapers.

Focus of CD-ROM studies

Pafet must, by the nature of its interests and charter, focus on the development of CD-ROMs that play off the unique strengths of newspapers. We should look toward the possibilities of seamless creation from our existing databases rather than go off to develop a "music video."

Part of that focus must include examination of the tools necessary for the current newspaper graphics artist employee to create a CD-ROM. It seems unlikely that Pafet partners will be creating new companies for the sole purpose of CD-ROM development. A more likely scenario would have a new media department that would handle content for a variety of formats: CD-ROM, electronic delivery, online services.

In addition to understanding how to easily create such a different product, there is little to no research available as to what consumers want in a CD-ROM product, especially one that would use the content of a newspaper as a base.

Possible Pafet action plan

The following are possible action items for continued monitoring of this technology area:

• Study projects already underway so there is a clear understanding as to the potential and pitfalls with such technology.

• Undertake a study of the consumer likes and dislikes of CD-ROM technologies, especially as they might apply to news content programs.

• Identify tools and skills necessary for the creation of CD-ROM.

• Help develop a relationship with a software developer of authoring tools so that the needs of the newspaper industry are met.

While the media server area crosses many technology lines among the Pafet Operating Committee, Howard Finberg will coordinate the group's activities in this area working with full committee and the executive coordinator.

TECHNOLOGY AREAS

MULTIMEDIA STORAGE AND DELIVERY DEVICES

Multimedia Storage and Delivery Devices

Introduction

It is important to recognize that newspapers today — like any media organization handling vast amounts of varied content — need a central storage system/device for all forms of text, photographs, graphics, advertisements and full pages. Future needs may call for the management of audio and full motion video. The common name for such a storage device is a "media server."

A media server is not just a file-storage device which runs on a network. Rather it is a unified multi-media tool which distributes a variety of products in a variety of forms.

The re-marketing — or multiple marketing — of information is vital to the long-term financial interests of newspaper companies. However, there is a critical lack of tools to help structure such information as alternative distribution products.

The development of effective media server technology will provide a common database where information is entered only once and available for a variety of markets: the printed newspaper page, specialty print products, CD-ROM creations, online distribution and so forth.

The players

Currently there are only a handful of players in this field, with Oracle Corp. the major force. Another player for the newspaper industry is Scitex/P.Ink which has just launched a system they called P.Ink Media. Another player that is expected to announce soon is Harris Publishing Systems Corp. [Because of the lack of information available about both systems, this report will focus on Oracle.]

Earlier this year, Oracle announced its new Media Server, a digital multimedia library that stores, retrieves and manages all forms of video, audio, image, text and tabular data. The company said this product extends Oracle's proven database technologies to such consumer applications as personalized newspapers, movies-on-demand and home shopping.

Oracle's new products are:

• Oracle Media Objects, a new software authoring tool that "enables rapid creation of multimedia interactive services and CD-ROMs," according to the company. It also includes `smart TV` and set-top software.

• Oracle Media Net, a layer of software that "hides the complexity of various network mechanisms such as phone links, satellite broadcasts and cable connections," and enables the connection of smart TVs to the Media Server.

While on the surface such products seem out of the domain for companies focused on newspapers, the development of media servers is an important technology that should not be overlooked.

Already Oracle, as the leader of such development, has put together an impressive list of alliances with both technology companies and information suppliers:

• On January 12, Bell Atlantic and Oracle announced plans to use Oracle's software, systems and systems integration services as the platform for its Stargazer programming on demand and interactive home shopping services.

• US West and Oracle, already allied from an agreement last year, have announced an additional plan to move forward their joint development of interactive multimedia applications that will be deployed on a city-wide basis, focusing on video-on- demand. (US West also could use such a media server to provide interactive classified information.)

• Honeywell announced a joint technology and marketing alliance with Oracle to enable the development of energy management applications for home and business.

• On January 14, Capital Cities/ABC and Oracle announced an alliance to develop a new multimedia news -on-demand application slated for use in trials this year.

• The Washington Post Company and Oracle announced an electronic publishing alliance for creation of electronic publications and advertising combining text, audio, and video.

• Oracle has alliances for the support of its Media Server with Apple Computer's newly announced Macintosh-based television set -top boxes, General Instrument Jerrold's Linx computer-based module; General Magic's Magic Cap Communicators; Goldstar's set top box, Philips Consumer Electronics and Compression Labs, Scientific-Atlanta's planned analog and digital home terminals, Sega of America's advanced game machines, and Sharp Electronics' personal productivity products.

Focus of Media Server studies

This is a difficult area for a single newspaper company to enter. And there will be a very high penalty to the media company that cannot develop — economically — effective multi-product distribution.

While the tremendous amount of resources to even co-develop media server technology is beyond most of the Pafet companies, these companies can take advantage of the growth and development of media server technologies.

Because of our strong content base, those companies already deep in the technology development are knocking on our doors with interesting offers of alliances and shared revenue. These proposed alliances add to already muddy waters. Among the challenges are:

• Revenue sharing potential

• Ownership of the "customer"

• Cost of co-development (either individually or collectively)

• Ability to move current "data" to new media server structure from current "file" structure of newspaper library and production systems.

This last point — the ability to move from one type of data structure to another — cannot be treated lightly. Few newspapers have experiences in the new world of "client server" technology and its related standard query language (SQL) protocol.

For a newspaper company to take full advantage of media server technology, there must be the ability to standardize all information sources within a single database language.

Once this challenge has been met, the newspaper company would have the ability to use Oracle or any other media server platform for the delivery of non-newspaper products.

Possible Pafet action plan

The following are possible action items for continued monitoring of this technology area:

• Identify how media server technology might work best within the structure of a newspaper company or companies.

• Study projects already under way so there is a clear understanding as to the potentials and pitfalls of such technology.

• Track the developments of media server technology and alliances.

• Develop a relationship with major players within the media server development area. This might mean Pafet working with a company to help create technology that would be especially useful to newspaper industry.

• Explore alliances with existing media server companies, primary Oracle.

While the media server area crosses many technology lines among the Pafet Operating Committee, Howard Finberg will coordinate the group's activities in this area working with full committee and the executive coordinator.

TECHNOLOGY AREAS

ON-LINE INFORMATION SERVICES

ONLINE SERVICES

INTRODUCTION

Since the early 1980s, online services accessed by the computer have been the predominant way in which consumers in North America have traveled on the interactive information highway.

Other than the newspaper industry's results with less-than-glamorous audiotex systems, these online services have provided the most significant market experience in interactivity. And their growth in subscribers provides strong indications of attractive business possibilities.

The national online market is dominated by five information providers which are estimated to represent over 80 percent of the 5 million subscribers-give or take a few thousand-in what has become a $750 million market.

The five are America Online, CompuServe Inc., Delphi Internet Services, General Electric's GEnie and Prodigy Services Co. These companies are introducing new services almost daily. Ziff Davis and Apple are entering the competition at the international level. Experiments are planned in Nebraska, Florida, California and elsewhere.

Beyond these five national information providers (IP's), there are a growing number of newspapers with operational online services. In addition, there are dozens of specialty services (e.g., banking, games, investments) catering to a local or national market and more than 40,000 bulletin boards (BBs) in North America. BBs are another form of online services.

We all adore paper. Few things are as convenient or friendly as newspapers. We can carry them anywhere and the modern newspaper has a graphical user interface so refined that the best thinking in computer design can scarcely touch it. But as a means for the mass delivery of temporal information, the newspaper is something of an anachronism.

The newspaper will not die. Yet change is coming. And possibly much sooner than we anticipate. Deloitte & Touche, in its major assessment of the interactive multimedia age, predicted that the era of interactive, multimedia products and services will be well underway years earlier than had been predicted by most forecasts.

By 1998-2000, fiber optics will be deployed to the neighborhood level in telephone and cable networks. Switched broadband services will penetrate a substantial portion-at least 40 percent-of the residential and small business markets across the United States.

If the decade unfolds as predicted, the next few years will see the emergence of depend on management's ability to capitalize on the opportunities presented by market, demographic, regulatory and technological trends in the mid-to late-1990s, according to Deloitte & Touche.

Today's online services offer a glimpse of the future. And the public likes what it sees. It is estimated that the current almost 5 million users of the major commercial systems will grow to 20 million in the next four years. Computers are being sold at record rates and today 27 percent of American homes have them. Last year the electronics industry sold more computer monitors than color televisions.

Almost half of home computers today are already outfitted with modems that allow them to connect to outside networks. Before the decade is over being connected to an information network will be as much a part of daily life as being connected to the telephone system is today.

This might be the best news of all for newspapers. Because the online industry is available now, it offers us the opportunity to develop mature services before the main wave of electronic information delivery hits.

Online delivery obviously is an extension of the newspaper. But a mistake that newspapers might make when approaching online services is selling short the ultimate meaning of the beast-that it also is a new publishing medium, full-bodied and warm-blooded.

Pafet's commitment to track online services as one of its major technological studies is an obvious result of this challenge.

FOCUS OF ONLINE STUDY

The options for newspapers going online are several. A paper can piggy back onto an existing service. That makes for a quick and easy transition to the online world, but it entails a certain loss of control of one's fate. A second option is to create your own online service from scratch. A tough proposition, but one that allows papers to continue to own their own "presses". However, there appear to be expensive downsides to this approach and this will merit continuing Pafet attention.

However it is done, going online provides newspapers with exciting opportunities. If done correctly, online services allow newspapers to migrate into full-featured *communications companies.*

There are many challenges that will be addressed. Among them are:

- Technical barriers.

- Regulatory hurdles.

- Intellectual property rights ownership.

- Adding sufficient value to end users.

  Cost of service:

  - What will consumers pay for new interactive services?

  - Are they willing to pay for news services in addition to what they pay now for conventional media?

  - Will the consumer want to substitute new for old? (One study indicated consumers were willing to pay at least in the $20-$30 range for a selection of services.)

But with these challenges, there are rewards:

Capturing incremental revenues, initially from user fees but later from advertising sales.

- Expanding reach without the significant capital investment of acquiring or starting new publications.

- Capturing attention of younger consumers who seldom read.

- Preempting new entrants into the market that seek to capture traditional circulation and advertising revenues.

ONLINE ACTION PLAN

This area of technological monitoring and development will require a multifaceted approach:

- Identifying each of our markets and its needs.

- Inventorying and analyzing our resources and weaknesses.

- Identifying projects already in progress among Pafet members and share critical information and possibly share in further development to avoid "reinventing the wheel".

- Identifying companies that can provide necessary hardware and software-as well as identifying those that might be alliance partners in delivering online services.

- Tracking latest developments in the online field. This would include engaging in significant product and consumer research. Consumer acceptance will be a key factor.

- Partnering with research institutions such as MIT and the University of Missouri School of Journalism and/or with research companies such as IBM or US West to address technical hurdles.

David Lipman will coordinate the various Pafet activities in the online area. However, the full operating committee and the executive coordinator will be major participants. Each company will-within appropriate boundaries-share individual development and operations activities.

Periodic reports will be provided. Full reports will be available at meetings of the management committee or as required by developments.

CONCLUSION

This executive summary is followed by an addendum giving a snapshot of the current state of commercial online services and examining in far greater detail options open to newspapers wishing to take the plunge. This compilation was authored by one of the Pulitzer Publishing Company's top students of this new world of new electronic information superhighways, Robert S. Cauthorn, Director of New Technology for Pulitzer's "The Arizona Daily Star" in Tucson.

Also included are two studies - a box score on new electronic services and a rundown of online newspaper editions and affiliated online services.

Addendum: Newspapers and Online Services

By
Robert S. Cauthorn
Director of New Technology
The Arizona Daily Star

Going by the Numbers: Online Sizzles Today, Will Explode Tomorrow

Online services represent the land rush of the much touted information superhighway. Unlike ephemeral superhighway knickknacks such as video-on-demand, commercial online services are available today and are linking together to form an international web of information and communication. And the public is flocking to them. Last year the subscriber base for major commercial online services grew more than 30 percent, an unprecedented rate. There are no signs of it abating. In the fall of 1993, aggressive marketing by America Online resulted in a sign-up rate and usage level such that the service crumpled under the load.

As of late January there were 4.5 million people connected to commercial online services. Forrester Research, an influencial telecommunications analyst, predicts that number will grow to *20 million* in the next four years. An astonishing 710,000 subscribers signed up during the holiday season and sparked an 18 percent quarterly growth according to the Information and Interactive Services Report, an industry newsletter.

The problems with America Online became the topic of stories in the mainstream media and forced the service to issue public assurances that it could handle its newfound popularity. Instead of remaining the sleepy niche of computer aficionados, woes in the online world were played on the front pages of The New York Times and the Wall Street Journal. While certainly embarrassing to America Online, the event signalled that online services had arrived in American life.

One now regularly reads about online services or the internet in the daily newspaper. Several years ago a bright Cornell graduate student made national news by writing a program that brought the internet to its knees. People first marveled at the feat and then expressed surprise that so many computers were interconnected. Today, when stories are run about an MIT student indicted for posting pirated software on the internet, many readers instantly understand the gravity of the act and the general topology of the network. At last count there were no fewer that 32 mass circulation books about the internet in bookstores. This is despite the fact that there remain relatively few public access providers to the network.

The potential market for online services appears vast. A study conducted by the Software Publishers Association in January and February of 1994 found that 27 percent of American households now have home computers. Of those, 49 percent are considered "superhighway ready" because they have modems attached.

As home computer penetration approaches the 30 percent mark, an interesting historical relationship emerges. For cable television and, farther back, color TVs the main body of market growth came right after each reached penetration of 30 percent. In a sense, the situation today is not unlike the wiring of the nation for telephones. When a few people were attached to the system, phones were semi-convenient oddities. When more people became attached telephone service became attractive, though not essential. When many people were hopped on the phone system it became a necessity. And again the 30 percent

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rule appears — the phone system worked hard to reach 30 percent penetration and then simply exploded.

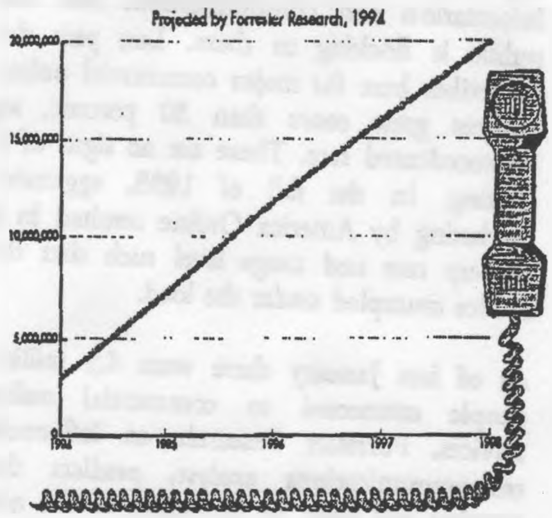
By these standards we are now on the verge of a tremendous growth period in online services. (It's amusing to note that in the famed home of the computer culture, Silicon Valley, there was only a 17 to 18 percent penetration of home computers in September, 1993. This is less than, for instance, the 31 percent found in Tucson, Ariz.) Amidst all these numbers, an additional figure puts the entire matter into perspective: in 1993 the electronics industry sold more computer monitors than color televisions.

Competition among computer manufacturers in the last 18 months resulted in a peculiar statistical artifact. Even though personal computing is in its second decade, 31 percent of *all* home computers were purchased in the last 18 months (i.e. 1993 and early 1994). The buying spree was almost certainly inspired the relative low cost and high performance of today's computers. By a large margin — 70 percent — people are running Windows over MS-DOS on their new computers.

The profile of the average computer household is decidedly upscale. According to the SPA study, in 1993 nearly one quarter of computer households had incomes over $75,000 (versus 10 percent of U.S. households) and one half had incomes over $50,000 (versus 25 percent of U.S. households). Roughly 60 percent of computer households included people who had attended or graduated college (versus 21 percent of the general population).

One cause for concern is that while upscale households were adopting computers en masse the percentage of computer households headed by high school drop-outs fell from 10 percent in 1992 to 2 percent in 1993. This statistical performance doesn't reflect an actual drop in computer ownership in this group. Rather, it is a function of the huge growth of ownership

Growth of Commercial Online Services



in the upper echelons of society. Still, we must worry that we are becoming a nation of information haves and have-nots. In our traditional role as the conscience of society, newspapers should take note.

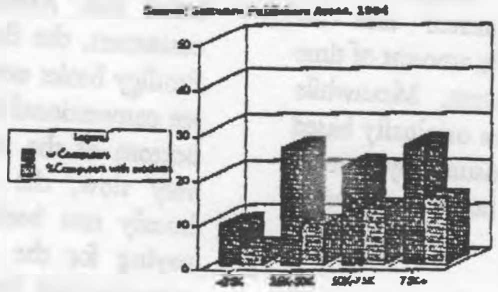
Of those computers purchased in 1993 62 percent included modems. That figure is nearly double 1992 modem sales. Outside of system essentials such as monitors and printers, modems are the most popular computer peripheral. More popular even than CD-ROM drives (present in 37 percent of computers purchased in 1993) and sound cards (present in 19 percent of computers purchased).

These figures are particularly interesting for this reason: historically home computers were purchased principally for games and children's education. Both CD-ROM players and sound cards are considered necessary computer game peripherals today. The fact that modem sales outstrip game equipment indicates a major shift in favor of information. (Arguably, the sales of CD-ROMs also augers well in this regard. When not used for games, the high capacity drives deliver massive amounts of information — encyclopedias, etc. — in a manageable form). The overall implication of the modem purchases is simple: People are buying computers with the idea of connecting to an online service and thence to other people.

The Connection Game: Roses and Nettles

Connecting to other people has become one of the central appeals of online services. The major players in the field — Prodigy, America Online and the grand daddy of them all, Compuserve — report that the use of e-mail and "forums" in which people post public electronic messages are the most popular features of online life. Prodigy's experience in this regard is intriguing. When the service was created by IBM and Sears, it was assumed that the news and information aspects of the service would dominate. Instead, it was e-mail and forums that grabbed public imagination. The use of e-mail on Prodigy was so popular that the service had to rethink its initial policy about providing free mail and now charges for e-mail beyond a basic monthly allotment.

Computer Distribution by Income



E-mail's popularity has fascinating ramifications. Softened by broadcast television, free radio and advertising subsidized printed news, people are unaccustomed to paying much for information. The public does not balk, however, at paying to be put in contact with other people. The telephone has taught us to accept this as a fact of life. More about this anon.

The boom in commercial online services isn't limited to the major players. Many formerly free local and regional computer bulletin board services have begun charging — and profiting from — their efforts. Some, like Exec-PC, gross millions of dollars by charging users a flat subscription rate. Fees exacted by other BBSs merely cover the cost of PCs and phone lines purchased by the operators. All told, however, this is hardly a cottage industry: analysts estimate that the private BBS business has become a $1 billion a year industry.

Yet the online revolution isn't simply a wire pulsing toward future wealth. While most commercial services are marginally profitable, few companies get rich with online services today. Although it also has a deal with America Online, the San Jose Mercury News has its own locally based online service. Published reports peg the subscriber base at 5,100 — a small number for a paper with a circulation of about 280,000.

Despite the bright prospects for growth in the near term, the major commercial online services have a penetration of about 4 percent of the nation's households. Thus, while the market is poised to expand and the installed base of equipment exists to support that expansion, service providers have yet to give people a compelling reason to log on.

IBM and Sears have not seen a profit from their $1 billion investment in Prodigy. The service lost $100 million in 1991, $50 million in 1992, $25 million in 1993. By aggressively modifying its pricing structure, Prodigy successfully halved its losses each year and might pull into the black this year.

The most famous failure of a online news service is the $50 million Knight-Ridder lost in a rudimentary videotex project more than a decade ago. While this flop is often cited, the company doesn't deserve this rap. The mid-1980s is the stone age in technological terms and events from that time have scant relevance today. Home computer penetration was insignificant and the user interfaces of the era were primitive. Interface matters, too. It's not accidental that Compuserve's growth spiked when it provided users with a better interface.

The Black Arts of How Much to Charge

Pricing schemes of online services reflect different views of how to fix the value of what is delivered to the home. For-profit BBSs typically charge a flat annual rate for membership irrespective of the amount of time a user spends on the system. Meanwhile industry pioneer Compuserve originally based its fee structure on usage measured by time on the system. Most other large commercial services followed suit.

Users on these systems often found their bills running close to $100 a month. As a result there was a high churn rate with memberships. People signed up, explored, got hit with large bills at the end of the month and, just as they learned enough about the system to use it effectively, dropped out because of online sticker shock.

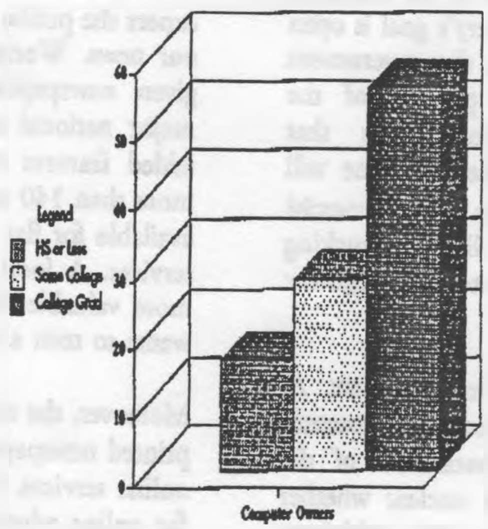
When Prodigy arrived with the promise of a flat rate in the affordable $12 range, it attracted many people stung by the usage-based fees. Aside from being appealing to customers, the flat rate was essential because Prodigy broke new ground by forcing users to see conventional display advertisements on the bottom of the screen. Highly graphical and very slow, the service couldn't charge an hourly rate because no one would tolerate paying for the time it took to display an advertisement for panty hose. Even with the flat rate, Prodigy's display ads rankled an online community that likes its information pure and resents being forced into anything, much less being made to see advertisements.

Prodigy's vision was to derive a revenue stream from several tributaries: advertising, subscriptions and the sale of start-up kits. Advertising was envisioned as the key revenue producer. Indeed, the vexing layers of menus one must navigate to use the service are partially designed to provide Prodigy with the screen real estate to deliver more advertisements.

Currently, the service derives 41 percent of its revenue from subscriber fees, 30 percent from advertising, 13 percent from start-up kits, 3 percent from the sale of start-up kits and 13 percent from other sources. The figures for advertising have not met the company's goals.

Computer Ownership/ Education Level

Source: Software Publishers Assoc. 1994



As mentioned earlier, Prodigy was not designed for robust communications between members. When e-mail usage took off, the company was caught off guard. Beyond e-mail, Prodigy featured public forums that were also swamped. According to "Wired" magazine, in 1992 Prodigy's membership grew at 45 percent while user messages in various forums grew by 500 percent to 40 million postings.

Afraid of losing market share to Prodigy, Compuserve instituted a flat rate for "basic services" last year. Now users can gain access to such material as stock quotes, the Groliers encyclopedia, limited e-mail and the AP news feed for $8.95 per month. Additional services still carry a per-hour levy.

America Online, Genie and Delphi all feature variations of a flat rate for basic access and apply extra charges for extended services. And after introducing flat rates to the world, Prodigy is expanding its suite of extra services charged at an hourly rate.

Usage-based tariffs may also appear on the Internet in the next two years. As it stands people pay to connect to the system, but once on don't incur charges for traveling the network. The National Science Foundation funds the main high speed T3 backbone on the Internet, which is administered by Advanced Network and Services, Inc. The current plan is for the NSF to withdraw its funding in order to force the backbone to be commercially self sustaining. The NSF might kill its support by this time next year and ANS will operate the backbone for profit. If this happens users won't be charged by the minute and instead will pay for the amount of data they move through the digital pipeline. This will further confuse pricing models for online internet providers because per-minute pricing schemes are easier to understand and plan around.

Whether the NSF actually ceases its funding is another matter. NSF administrators — who have found themselves struggling to keep up with a network as complex as the Internet — are eager to pass the responsibility to others. But among Internet power players, there is resistance to the commercialization of the main backbone. The resistance stems more from a philosophical stance than commercial fears. Few people realistically hope to forestall the commercialization of the internet. But there is an argument that the government, in order to ensure all people have access to the information superhighway, needs to fund a portion of the infrastructure.

Adherents to this view describe the federal government's role in this regard as being like its role in rural electrification or the interstate highway system. If this country's goal is open access to the digital stream, the government must provide at least a portion of the infrastructure. This position holds that governmental support of the backbone will encourage economic activity — commercial enterprises can flourish just like the trucking companies that use the interstate highway system.

Contrary to this view, Vice President Al Gore's National Information Infrastructure initiative calls for the privatization of the Internet. Nevertheless, it is unclear whether the government actually can withdraw completely from its support role. Stay tuned....

For commercial online services connect-time charges make great profit margins, but they have suppressed the market's growth. As a result, the general trend in commercial services leads to the expansion of flat-rate services. Many observers predict that when the dust settles we will likely see a vision not unlike that of the current phone system. Customers will pay a flat rate for most usage — ala local phone service — and will pay a tariff on certain extras just as they do with long distance fees today.

How substantial that tariff will be and what services can successfully levy it remain open questions. This much is true, bandwidth is pretty cheap now and getting cheaper. So the tariffed features had better be attractive to justify the cost in a flat-rate environment.

Flat rates are a sobering fact of life for newspapers venturing into the online arena. As mentioned earlier people aren't accustomed to paying much for news in a rich information culture. Put in the simplest terms, we can't expect the public to pay by the minute to read our news. Worse, in order to differentiate a given newspaper's online service from the major national systems, an inventive set of added features is required. At the moment more than 140 newspapers and magazines are available for flat rates on the various national services. A local paper must add something more valuable than the local news feed if it wants to turn a profit.

Moreover, the advertising revenue we enjoy in printed newspapers becomes a tricky matter in online services. There are no clear metaphors for online advertisements. Often attempts at advertising online attract more ire than interest.

On the Internet, companies that advertise in conventional ways expose themselves to outright ridicule. Those foolish enough to use the system's ability to create mailings to millions of people find themselves mocked across the entire network. The result has been the retreat of aggressive advertising on the Internet. Instead, companies quietly post information on their servers and hope people with come.

Another problem exists. Even with today's relatively fast modems, transmitting and displaying graphic advertisements drastically slows online sessions. Again, this makes ads irritants rather than inducements to buy. It is very difficult to replicate the easy browsing one does with a printed newspaper in an online medium.

For commercial online services, the question of how much to charge for ads and how to best deliver them is a matter of alchemy rather than economics. Disk space is inexpensive compared to paper publication. How much of this economy should be passed on to the advertiser? The same classified ad that has a real cost in terms of precious newsprint has almost no cost to the electronic publisher in terms of disk space. The means of delivery and storage in an online service are tiny compared to the expense of printing and delivering a newspaper. Even at massive profit margins, the real cost of an online ad is almost nothing. Measured by conventional standards, online advertising should cost pennies.

Therein lies the fault with Prodigy and others that opt to charge for conventional advertising models. The metaphor is all wrong. It's absurd to recreate conventional advertisements online. Instead, newspapers can exploit the elegant communications features of online services to put sellers and buyers together in new ways.

An online newspaper could allow companies to present their entire product inventory to browse and, if necessary, ask questions about. Restaurants could post their menus for people to search. A car dealership could pay for the opportunity to sponsor its own forum about automotive matters. Other applications might include selling companies the ability to maintain online customer-service centers. An online mall arranged by product category could be a compelling sell to advertisers. Plus advertisers will know anyone who steps into their online store wants to be there. A person is unlikely to go into a portion of the online system dedicated to washing machines unless that person is ready to buy.

Essentially, instead of selling printed advertisements that encourage people to *come into the store in the first place* an effective online marketplace puts sellers in direct contact with buyers immediately. If structured correctly, this new kind of "ad" would trigger complex interactions between sellers and buyers. Such contact is something that can be sold for a tidy profit. For users a communications driven model of online commerce could have much of the appeal of a local version of cable TV's home shopping channels.

Better still, an online approach that focuses on communication works in concert with printed ads rather than attempting to supplant them.

The old idea that we sell news to our readers and eyeballs to our advertisers takes on a new spin. In our print medium we still sell eyeballs to advertisers, but in the online medium we sell *two-way communications.* By tying together the different thrusts of the printed ad and the online ad, we can sell companies something that borders on a unified information strategy.

Some bright folks are working along these lines already. On April 12 the Internet Shopping Network was formally introduced. Featuring more than 10,000 products, it allows people to browse through merchandise in a virtual mall. Product descriptions, pictures, consumer advice are all a keystroke away. In addition, people can actually initiate purchases through an entirely automated ordering system that makes mail-order catalog sales look primitive.

In a similar vein, the Los Angeles Times has announced plans to work with PacTel to create an LA-area online mall. Later this year Apple Computer will introduce e*World, which will sport elaborate online shopping features. When the city of Palo Alto, Calif. created community wide internet access, a "one-woman bookshop" posted its inventory. It got an order the first day... From France!

The Newspaper as a Communications Company, A New Vision.

Transforming online advertising and shopping into a communications activity is a robust use of the online medium. Indeed, newspapers considering online services must realize that it is *communications* that will be the added value the public seeks.

Mixing news stories with e-mail and online discussion forums employs today's technology to reaffirm yesterday's reality. Once it was common for people to gather around the newspaper office to read the pages posted in the window. From those gatherings spontaneous discussions sprang.

Urban America conspires against such direct contact. Yet still, newspapers are the ground from which most discussion in a community springs. The news connects us to others and draws us outside the confines of our immediate circle of friends. Online newspapers with easy links to electronic discussion could create a virtual town mall.

Certainly, the idea of giving the public the ability to read the news and, with a few keystrokes, fire off an e-mail to city hall has enormous appeal. In a like manner, hooks are easy to devise that allow readers with sympathetic interests to find each other. The psychological distances that separate us in modern cities narrow in an online system. Such a system powerfully reasserts the local paper's central role in a community's life. For a hundred years newspapers have fostered dinner table discussions. Now we have the chance to host the debate and, wonder of wonders, be paid for it.

Anyone who regularly uses e-mail knows it to be a superb communications medium. And it has a refreshing sociological aspect. Electronic communications have a leveling impact on discussions. The value of ideas matters more than the stature, appearance or class of the people presenting them. This liberates tongues constrained by social circumstances. One study of corporate of e-mail usage found that in face-to-face meetings, men were five times as likely as women to make the first decision proposal. When the sessions were taken to electronic conferences women and men were equally likely to make the first proposal. This finding is reaffirmed in various flavors by almost all examinations of e-mail.

Providing communitywide electronic communications as an adjunct to the news makes philosophical sense. It makes business sense too. It quietly moves newspapers into a new and lucrative area — we can become full-bodied *communications companies* as well as news organizations. Why wait for the telcos and cable television to step in? An online presence allows us to exploit our dominant roles in our communities. Why shouldn't newspapers aspire to sell everyone in town an e-mail address? In abstract terms we are the connective force in a community, why not be the connective force in literal terms as well?

The miscalculations of Prodigy's designers demonstrates the importance of communication features in online services. The experience of the San Jose Mercury News' presence on Online America bears this out. On any given day, hundreds of simultaneous message threads about local events are spun off from its news coverage. Once newspapers become the major force in this area, the technological platform won't matter — computers, smart phones, smart set-top TV boxes, they are all variations of being online. If we are the ones selling the e-mail addresses, *selling the connection,* the particulars of the delivery mechanism don't matter in the slightest. The hometown paper can be and should be its readers' home readers in cyberspace.

Approaches to Putting the News Online

The particulars of taking newspapers online can be tricky. One approach involves signing a pact with an existing provider such as America Online, Prodigy or Compuserve. This is a popular route for newspapers today. For instance, The Chicago Tribune and The San Jose Mercury News have a presence on America Online while The Atlanta Journal Constitution and USA Today have landed on Prodigy. The St. Louis Post-Dispatch has inked a deal with Delphi.

(The Associated Press feed exists on several online services, such as Compuserve and the Internet's Clarinet news service. Eventually, the AP's aggressive interest in this area will force a reckoning with its member newspapers. Because the AP feed can be had on as a basic service — a flat rate — it means that in the online arena the AP is in direct competition with member papers. This could be construed as a violation of the charter and is a matter that will have to be resolved at a some point.)

The advantages of signing up with an existing commercial provider are many. It allows a newspaper to avoid the complexities of managing its own service. The commercial service supplies the servers, the dial-up connection and both billing and customer service. All of which are major issues.

Posting the paper on an existing commercial service permits a newspaper to simply transmit its news to the provider. Other people are left to worry about delivering the news to subscribers' screens. This frees the newspaper to concentrate on the content of its offerings. Some commercial providers even allow a newspaper limited advertising opportunities.

As easy as it is, this tack harbors hidden pitfalls. First and foremost, it erodes the sheer authority of the local newspaper. Many newspapers have built their subscriber base and their psychological presence for more than a hundred years. Yet delivering their feed to an existing service makes them subsidiary to the service itself — if we piggyback on existing services, we aren't the *publishers* in this medium.

You might read the Chicago Tribune online, but psychologically you aren't really buying the Tribune, you're buying America Online. And because America Online has many other features, the Chicago Tribune is subtly diminished in the eyes of the reader. In the worse case the paper might be on par with the Pets Forum which is only a mouse click away. The social and emotional weight of a great newspaper is thus reduced to being a mere *feature* on a commercial service.

This too: when the Tribune or the Atlanta Journal Constitution encourage readers to sign up for the online service, they are actually handing over their dearly won subscriber base/readership to someone else.

Issues of control must also be considered. For instance, the commercial provider determines what advertising opportunities a newspaper might have. The initial contract for the service becomes critical because newspapers will not be able to add or delete features as easily as they could if they owned the service.

Even in the public message forums a dilution of impact takes place. America Online is national in scope, and thus Chicago residents who post their remarks in Tribune-related forums may not feel they're truly on home turf.

Options exist. The St. Louis Post-Dispatch's arrangement with Delphi takes steps to prevent many of the limitations listed above by having people first sign on to a local service and then connect to Delphi. Also Ziff-Davis' Interchange system to be introduced later this year shows an extreme sensitivity to the concerns of newspapers. Interchange has been designed precisely to support electronic publishing. It allows newspapers to maintain their logos, illustrations and features of the printed version. All of which helps to enforce the newspapers identity in the in the minds of users.

Ziff-Davis' vision is intriguing, particularly if one thinks online papers should be indistinguishable from printed ones. Interchange intends to create the equivalent of a printing press in cyberspace. The Washington Post is the first newspaper to sign up with Interchange. Gannet corporate, which watches the Post carefully, has started to propagate information about the service among its papers.

But because Interchange moves complicated graphics images over phone lines, it will not be a sprightly service. Slow speed can be a major liability, as Prodigy found out. And while the conventional wisdom holds that people want online newspapers that look just like printed ones, that has not been demonstrated in real life. People certainly want an attractive interface. But it's reasonable to expect that people who connect via computer expect things to look different than they do on paper. After all, it's a computer, right? Why not do things meaningfully different in terms of design and content? Let users slice and dice the news to conform to their interests and they won't give a whit what it all looks like. If one goes to all the trouble to establish an online service it makes sense to exploit the power of the computer to do more than pretend it's paper.

The other course a newspaper might take is the establishment of its own dial-up service. Such efforts can be scaled according to the ambitions of a newspaper. On the simplest level a news service can be a glorified BBS providing a basic news feed delivered by off-the-shelf BBS software.

Historically, bare bones online news access services haven't been particularly successful. The better route is to provide robust communications services and perhaps access to the Internet.

These are not small undertakings. The mechanics of a dial-up connection can be especially troublesome. Phone companies offer little help. The telcos still haven't made the mental adjustment to the flat-rate pricing schemes that have proven essential for mass adoption of an online services. In discussions with various telcos during the preparation of this paper, all conceded that flat-rate pricing is the coming thing. But not today. And maybe not this year or next. The telcos have gotten rich off usage-based pricing and they are loathe to change their practices.

In conversations with Sprint, MCI, AT&T and USWest, only AT&T proved genuinely interested in providing flat-rate pricing for a consumer service. It makes sense for the company to do so because network rates are not controlled by telecommunications regulations. Consequently, AT&T can set its own prices. The most attractive AT&T candidate for such service is found in its Infoshare product — a dial-up frame relay network that spans the country with a single 950 number.

Martha Asher, AT&T's west coast network expert, said she is trying to build a business case in favor of flat-rate pricing to take to her higher ups. Newspapers interested in convincing a phone company to provide flat rate dial-up service should contact her at 303.989.4686.

The irony is that newspapers can provide flat rate pricing themselves by purchasing incoming phone lines, modems to answer the phones and local servers to handle the traffic. This configuration has the air of absurdity about it — a newspaper can replicate the system of a telco and do so at a lower cost, though at greater effort. So much for economy of scale.

To establish a flat rate, newspapers have to decide upon a reasonable multiple of users over phone lines. Say, for instance, that one decides that having one phone line/modem for every four users is enough to guarantee easy access. It is then possible to deliver the service at a connection cost of about $10 per user per month. This formula means users might encounter busy signals at peak time. But these should be short lived.

The problem that arises is finding the correct multiple. Frankly, there are no rules of thumb because usage patterns of online services vary greatly depending on the range of features offered. This much is taken as a given — if you go much over 10 users per phone line the number of busy signals skyrockets.

Building an online service from the ground up is a difficult matter and managing modems can be an exercise in frustration. The issue of growth is troubling too. Imagine an online service eventually attracts 20,000 users, on a four to one ratio that means the newspaper has to house and manage 5,000 modems. As a practical matter, by this point scale does kick in and the number of modems required for reliable service tops out before that point. We won't bother with this calculation now. Any reader interested in it is welcome to contact the author for an explanation.

The bottom line is that until telcos wake up and realize the potential market they are missing, there's little that can be done to make the process easier. Newspapers that want to establish their own dial-up link can expect to manage their own modems.

Trot Out the Lawyers: Legal Issues and Online Life

The legal issues raised by online services sometimes appear more frightening than they need to be. Even in our litigious society online life has spawned surprisingly few lawsuits. As online services penetrate more deeply into our culture, however, this will probably change.

A full discussion of the legal issues in online services is beyond the scope of this paper. Still, several matters are worth considering.

If a newspaper provides communications features such as e-mail and discussion forums, it runs the risk a user will post a libelous statement. As the carrier of the libel, the newspaper might be at risk of a lawsuit.

To avoid such problems newspapers must take pains to explain it does not monitor nor endorse statements individuals post in public areas of the service. Editing the forums at all implies control, responsibility and an endorsement of the things said there. A hands-off policy doesn't confer absolute protection. But it allows a paper to argue in court that it has as little control and responsibility for what users post on the system as the phone company has in verbal communications.

Moreover, monitoring e-mail in a commercial service is illegal. The Telecommunications Privacy Act of 1986 specifically stipulates that commercial services cannot peek at a user's electronic mail. The only exemptions in this regard are for law enforcement agencies and employers. (Yes, your company does own the e-mail employees send over in-house networks and the company has the right to read it.)

Even as newspapers providing communications services must steer clear of monitoring the mail, they must have the ability to deal with problems that are brought to their attention. Crime and fraud are growing rapidly in the online arena. And online services attract yahoos in search of a soapbox. Some of these unruly users will post defamatory and libelous remarks on a daily basis.

Also, if an Internet connection is part of the service, it should be recognized that large amounts of pornography — including child pornography — can be found on the system. Online services that invite families to subscribe should warn parents about this and, when possible, take steps to prevent minors from accessing such material. As if this wasn't enough, there are periodic Internet incursions made by white supremacists and neo-Nazis who post deliberately inflammatory (and sometimes illegal) material.

Because of such abuses of the system, newspapers should craft their user agreements in a way that permits them to bounce people for grossly inappropriate or illegal behavior. The catch? Because newspapers would be unwise to edit online discussions and can't read e-mail, they must wait until a user brings the offenses to the attention of the service providers. By then the damage is done.

The effect of online services on JOAs raise other legal issues. Typically, JOAs cover the joint publishing of printed material. But does that cover electronic publishing? Does a JOA mean that newspapers are linked together in all business ventures?

There are compelling reasons for papers in JOAs to try to stake out a truly independent online presence. For the smaller paper in a given market, an online service lends prestige and adds extra utility for readers. For the dominant paper, online services can provide a stream of income that doesn't have to be split with the smaller partner.

Clearly, the constraints vary from one contract to the next. But any paper in a JOA contemplating an online service should carefully weigh the consequences for the future and its legal responsibilities to the other party.

Lastly, the reckoning with the AP that was mentioned earlier will probably end up in court sooner or later. Until then, newspapers should maintain a hard line with regard to use of AP copy in a local online service. Newspapers should insist they have an absolute right to publish the material electronically. Anything less is a concession that the AP, which sends its copy to many commercial services, has permission to compete with local papers in the new media.

A Changing News Culture

Finally, newspapers embarking on an online presence should understand the ramifications this has on their newsrooms. If the service is intended to be updated throughout the day, it means the normal editing cycle is condensed to resemble that of a wire service. The San Jose Mercury News already has journalists called "senders" whose mission is to deliver bare bones facts as quickly as possible.

Conflicts can be expected to arise when important breaking stories or significant investigative pieces are written by print journalists. The online editor will want it for the service immediately while the print editors will naturally be leery of letting the online service steal their thunder. Journalists are competitive by nature and these are just a few of the tensions that might emerge between the online journalists and their print counterparts.

Obviously, an appeal of online news services is the ability to provide readers with breaking news between publication cycles. Yet too rapid release of news online could damage our competitive advantage. Imagine that an A.M. paper releases a very hot story on its online service in the afternoon before publication the following morning. A local television station subscribes to the online service (where would TV news be without us?) and it rushes to put together an item on the story for that evening's broadcast. To the public that doesn't subscribe online it would appear the A.M. paper was following the TV news.

Also troubling is the possibility officials would use an online service in an effort to control the spin on the news. Suppose a politician reads an online item in advance of publication and calls editors in an effort to prevent — or modify — the eventual print story. Instances such as this have already occurred when national politicians subscribe to wire service feeds.

Newspapers that view online efforts as simply another product are missing the big picture. Audiotext and fax-back are add-on products, online news services branch into a fundamental *publishing medium*. Once a paper develops a mature online service it can easily port this to any form of electronic delivery whether it is cable television or wireless communications.

In the next decade we will face the first meaningful technological challenge to our core business since the advent of the daily newspaper. The development of online services is a critical step that prepares us for a very competitive future.

From commerce down to matters of newsroom politics online services present many challenges to newspapers. It's not easy to make money and it requires a great deal of work. But the opportunities it presents are immense and to ignore them is to forfeit a piece of the future.

Overview of the Main Online Services

The membership figures listed below are the most recent available. Because of the industry's rapid growth, the figures might be substantially larger than indicated. All services are nationally available. All services share features such as e-mail, online encyclopedias and stock quotes. Although it is an astonishingly rich source of financial information, Dow/Jones News Retrieval is not listed here because its pricing structure is not designed to appeal to the consumer market. All phone numbers provided here are the main numbers for the service's business office, not lines devoted to signing up users.

Compuserve — Membership: 1.6 million. Cost: $8.95 monthly for basic services. Extended services cost $4.80 per hour for 1200-2400 baud, $8.80 per hour for 9600 baud and up. In addition various specialized databases and personalized clipping services carry an hourly surcharge of $15 and up. Over 600 forums (discussion groups). News feeds: Associated Press, Reuters and 17 other newspapers and wire services. Eight full text magazine databases as well as the full text of a variety of magazines such as "U.S. News and World Report." Phone: 614.457.0802

America Online — Membership: 500,000 households (700,000 members). Cost: $9.95 with five free hours of connect time. Additional connect time costs $3.50 an hour. Approximately 280 discussion areas (forums). News feeds: Reuters and UPI, as well as 17 other news sources. Thirty-one magazines in full text of back issues, such as "Wired" and the "Atlantic Monthly." Phone: 703.448.8700

Genie -- Membership: 400,000. Cost: $8.95 monthly with 4 hours of connect time. Additional connect time costs $3-$18.50 per hour depending on the speed of the connection speeds and the time of day. Approximately 250 discussion areas. This service is rich in searchable databases, however they are surcharged at steep rates -- some as high as $20-$30 *per search*. Its "Newsstand" feature offers searchable back issues of nearly 900 publications and most major newspapers at prices from $2.50 to $29 per search. News feeds: Reuters. Phone: 301.251.6415

Prodigy: -- Membership: 1 million households (2 million members). Cost: $14.95 per month for a wide variety of basic services. "Plus" services cost $3.60 per hour at all baud rates. Approximately 40 discussion areas. One main news feed containing edited copy from Associated Press, Reuters and USA Today. The number of current periodicals and newspapers online not available. No searchable text databases for research. Phone: 914.993.8000

Delphi: Membership: 100,000 (subscriber base grew by 33 percent in the first quarter of 1994). Delphi has two membership plans: the 10/4 Plan and the 20/20 Plan. Each plan includes a free trial period of five hours. After the first five hours users of the 10/4 plan pay $10 per month for four hours of access per month. Additional time is billed at $4 per hour. After the first five hours, users of the 20/20 plan pay $20 per month for 20 hours of access per month. Additional time is billed at $1.80 per hour. Newsfeeds available on Delphi include Reuters, UPI, PR Newswire and Business Wire. Delphi is the only major online service providing full Internet access to its membership. Users of Delphi may access Delphi's own 50 special interest group forums as well as all the 3500 Internet Usenet newsgroups. Other Delphi features include Grolier's Encyclopedia, Eaasy Sabre Travel Service, Online Games, Online Shopping, 15-Minute Delay Stock Quotes, Downloadable Shareware. Delphi also provides a gateway to Dialog enabling users to search Dialog's approximately 350 databases, including the archives of 80 major daily newspapers. Features coming up on Delphi this fall include the Fox TV Network, 20th Century Fox, NFL Football, TV Guide Online, AP Newswire. Phone: 617.491.3342

Coming Soon

Of the systems on the horizon, two of the most interesting are Ziff-Davis' Interchange and Apple's e*World. As mentioned earlier, Interchange is intended as a publisher's platform that will allow others to exploit the highly graphical look of a real newspaper.

The bugaboos remain speed (you'll need a very fast modem to get adequate response with such a graphic's heavy system). Do people really want online services to look like a paper? We will see.

Apple's e*World will be devoted primarily to online shopping and use a sub-set of General Magic's Smart Agent Technology called Telescript.

Users will be greeted by an image that looks like a town square and they can venture off to such places as the mall, the library and the games arcade. Delphi is doing much the same.

In order to speed throughput, the system uses relatively low resolution graphics. It is expected that e*World will debut by the end of the summer and Interchange at least in a limited form by the fall. Most observers believe it will take Ziff-Davis well into 1995 before the interchange platform gets firmed up to the point where it will be ready for a general national audience.

Delphi may be well into the fray by then.

BOXSCORE — JANUARY 1994

On-Line Service	System Operator (Parent Firm)	Location	Start Date	Basic Price	Users as of 12/93	Growth From 9/93
Aline	NewCom Link (Nouvel Observateur)	International	July 1988	$9.50/mo.	40,000e	nc
America Online	America Online Inc.	National	October 1989	$9.95/mo.+$3.50/hr.	550,000	57%
CRS Online	Canada Remote Systems	Canada/United States	1981	$130 1st yr; $100/yr	9,500	nc
CompuServe Info Service	CompuServe (H&R Block)	International	August 1979	$8.95/mo.+$4.80/hr.	1,800,000	14%
CUC Interactive	CUC International	National	July 1981	$30/yr+$6/hr.	100,000	nc
Computer Sports World	Computer Sports World Inc.	National	1983	$29.95+var./min.	6,200	—15%
CTL City	CTL Telematique	U.S./Canada	January 1987	$.90/min.	300	—90%
Delphi	General Videotex Corp.	International	1982	$10/mo.+$4/hr.	75,000e	}
Echo	Echo Communications Group	National	March 1990	$19.95/30 hrs.; $10/10 hrs.	1,500	7%
eWorld	Apple Computer Inc.	National	April 1994	$8.95/mo./2 hrs.+ $4.95/add'l hr.+$2.95 prime	—	—
GEnie	GE Information Services Co.	International	October 1985	$8.95/mo.+$3 hr.	400,000	nc
ImagiNation Network	AT&T, Sierra Online Inc., General Atlantic	National	June 1991	$12.95/mo.+30/hr. eve., $7/hr. prime	40,000	}
Interchange Online Network	Ziff Communications Group	National	September 1994	—	—	na
MarketRoutes	CTI-Comtel	U.S./Canada	1981	$15/hr.+comm	1,000	nc
Minitel	Minitel Services Co.	National	April 1989	$10.20/hr. eve., $4.80/hr.+IP charges	15,000e	nc
Mnematics	Mnematics Videotex Inc.	International	January 1983	$50/mo. flat	50,000e	nc
MPGNet	Multi Player Games Network	National	July 1991	$4/hr ($2/hr. in New York City	350e	na
National Videotex Network	U.S. Videotel	National	May 1992	$8.95/mo.	19,000e	27%
101 OnLine	Meta International	San Francisco	January 1992	$9.95/mo. basic	6,500	34%
Portal	Portal Communications	International	September 1985	$19.95/mo.+comm	13,000e	nc
PowerVision	PowerVision Inc.	National	March 1992	$16.95/mo+$.09/min.	800	nc
Prodigy	Prodigy Services Co. (IBM, Sears)	National	June 1988	$49.95+$14.95/mo.	1,100,000	16%
Reality Technologies	Reality Technologies Inc.	National	November 1992	$9.95/mo.+$49 software	23,000	28%
SeniorNet	Seniornet	National	March 1986	$40+$5.70/hr.	1,450	32%
USA Today Sports Center	Gannett Co.	National	February 1989	$9.95/mo.	5,800	10%
Vicom Info Service	Chillicothe Telephone Co.	Ohio	September 1985	$8/mo.	450	nc
Videotex of America	Videotex of America	National	1992	$5.95-$19.95/mo	3,000	nc
The Well	The Well	National	April 1985	$15/mo.+$2/hr.+comm	8,000	14%
Women's Wire	Women's Wire	National	January 1994	$15/mo.+$2.60/hr.	—	—
X*Press	X*Press Info Services (TCI)	National	June 1985	$100+cable TV	60,000e	nc
ZiffNet	Ziff Communications Co.	National	May 1985	$2.20/hr.	185,000	19%
TELEPHONE COMPANY VIDEOTEXT GATEWAYS (Note: Fees indicate gateway access charges in addition to IP usage rates)						
Alex	Bell Canada	Montreal	December 1988	$7.95/mo.	350	—86%
Alex	Bell Canada	Toronto	April 1990	$7.95/mo.	350	—86%
IntelliGate Philadelphia	Bell of Pennsylvania (Bell Atlantic)	Philadelphia	January 1989	$10 sign-up	3,500	nc
IntelliGate Washington	C&P (Bell Atlantic)	Washington	January 1989	$10 sign-up	7,000	nc
Community Link	U S WEST	Omaha	November 1989	Free	1,500	nc
Community Link	U S WEST	Minneapolis	October 1991	Free	2,000	18%
Community Link	U S WEST	Seattle	1994	Free	—	—
COMMUNITY/MUNICIPAL SYSTEMS						
TriState Online	Cincinnati Bell Telephone	Cincinnati	January 1990	Free	14,000	17%
CAPAccess	Nat. Cap. Area Pub. Access Network	Washington	February 1993	Free	4,500	na

Cleveland Free-Net	Case Western Reserve University	Cleveland	November 1986	Free	49,600	nc
Hawaii INC	Hawaii Information Network Corp.	Hawaii	September 1990	Free	7,000	nc
Halton Free-Net	Sheridan College	Toronto	June 1993	Free	—	—
Heartland Free-Net	Heartland Free-Net Inc. (nonprofit)	Peoria, Ill.	March 1990	Free	8,000	14%
Medina Free-Net	Medina General Hospital	Medina, Ohio	April 1990	Free	1,400	nc
National Capital FreeNet	Carleton University	Ottawa, Ontario, Canada	February 1993	Free	14,500	65%
Public Electronic Network	City of Santa Monica, Calif.	Santa Monica	February 1989	Free	6,100	9%
Youngstown Free-Net	Youngstown State U./St. Elizabeth Hospital	Youngstown, Ohio	July 1987	Free	18,000	29%
ELECTRONIC NEWSPAPERS						
Access Atlanta	Atlanta Journal-Constitution	Atlanta	March 1994	$6.95/mo.	—	—
StarText	Fort Worth Star-Telegram	Texas	1982	$9.95/mo.	4,300	13%
Fred the Computer	Middlesex News	Massachusetts	1987	Free	1,200	nc
Electronic Trib	Albuquerque Tribune	New Mexico	1990	Free w/password or $20/3 mo. w/premium service	2,100	11%
Post Link	St. Louis Post-Dispatch	Missouri	1992	$9.95/mo.	1,600	nc
S-R Minerva	Spokane Spokesman-Review	Washington	1992	Free	2,500	nc
Connect/Observer	Charlotte Observer	North Carolina	1992	Free	na	na
Chicago Online	Chicago Tribune/America Online	Illinois	1992	$7.95/mo.	5,000e	nc
Florida Today Forum	Florida Today/CompuServe	Florida	1993	$8.95/mo.+$8/hr.	na	na
Mercury Center Online	San Jose Mercury News/America Online	California	1993	$9.95/mo.	5,300	43%
TELEFINANCIAL SERVICES						
Companion at Home	NCR Universal Credit Union	National	September 1983	$7.50/mo.	425	—6%
Direct Access	Citibank (Citicorp)	New York	December 1984	$15/mo.	30,000	nc
Excel	Chemical Bank	New York	October 1984	$10.95/mo. or $100/yr.	30,000e	nc
HomeBanking	Bank of America	California	December 1983	$14/mo.	34,000e	nc
Spectrum	Chase Manhattan Bank	New York	December 1984	$10/mo.	3,000e	nc
Wells Fargo Online	Wells Fargo Bank	California	October 1989	$12.95/mo.	9,200e	nc
SELECTED PROFESSIONAL SERVICES						
Baseline	Baseline II Inc.	International	September 1983	$197/one time+$3/min.	2,500	nc
Dialog	Dialog Information Services Inc.	International	1972	$35/yr+$60-$100/hr.	156,000	nc
Dow Jones News/Retrieval	Dow Jones & Co. Inc.	International	1974	$18/yr+$12.60/hr.	350,000e	nc
Lexis/Nexis	Mead Data Central (Mead Corp.)	International	1973	$50-$125/mo.+$30/hr.	372,000	nc
OAG-EE	Reed Elsevier	International	May 1983	$25+$10/hr.	40,000	nc
Reuters	Reuters Online Services	International	December 1993	$19/mo.+$2/hr.	na	na
BROADBAND SERVICES						
Main Street	GTE	Boston	1988	$9.95/mo.	300e	nc
Main Street	GTE	Cerritos, Calif.	1990	$9.95/mo.	1,000e	nc
Main Street	GTE	San Diego	1992	$9.95/mo.	1,500e	nc
Videoway	Le Groupe Videoway (Videotron Ltee.)	Montreal	1988	$7.95/mo. flat or $15.95/mo. premium	300,000	nc
SCREENPHONE SERVICES						
ScanFone	US Order	National	January 1992	$9.95/mo.	10,000	)
Citibank ET	Citibank (Citicorp)	New York	February 1990	$10/mo.	600e	nc
Maryland National Bank	Online Resources & Communications Inc.	Maryland	April 1992	$6.95/mo.+$70 phone	5,000	25%
Visual Banking Service	Bank of Boston	Massachusetts	April 1993	test, no fee	300	nc

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ONLINE NEWSPAPER EDITIONS AND AFFILIATED ONLINE SERVICES

	Newspaper
America Online	San Jose Mercury News
	Chicago Tribune
	Fort Lauderdale News/Sun Sentinel
	Orlando Sentinel
	New York Times
Prodigy	Atlanta Journal/Constitution
	Austin American Statesman
	West Palm Beach Post
	Los Angeles Times
	Newsday
	Hartford Courant
	Stamford Advocate
	Greenwich Time
	Baltimore Sun
	Allentown Morning Call
	Tampa Tribune
	Richmond Times – Dispatch
	Winston – Salem Journal
CompuServe	Florida Today
	Suburban New York (12 papers)
	Detroit Free Press
Delphi	St. Louis Post Dispatch
Ziff Communications	Washington Post
Self – Operated	Charlotte Observer
	Albequerque Tribune
	Middlesex (Mass.) News
	Fort Worth Star – Telegram
	Spokesman – Review (Spokane)
	Salt Lake City
	Raleigh News & Observer

Group	Status	Service Start Date
Knight–Ridder	Operational	5/93
Tribune	Operational	1992
Tribune	Announced 1992	Undetermined
Tribune	Announced 1992	Undetermined
NYT	Announced 12/93	4/94
Cox	Operational	3/94
Cox	Announced 7/93	Late 1994
Cox	Announced 7/93	Late 1994
Times Mirror	Announced 8/93	Mid to late 1994
Times Mirror	Announced 8/93	Mid to late 1994
Times Mirror	Announced 8/93	Undetermined
Times Mirror	Announced 8/93	Undetermined
Times Mirror	Announced 8/93	Undetermined
Times Mirror	Announced 8/93	Undetermined
Times Mirror	Announced 8/93	Undetermined
Media General	Announced 12/93	1994
Media General	Announced 12/93	Undetermined
Media General	Announced 12/93	Undetermined
Gannett	Operational	2/93
Gannett	Operational	11/93
Knight–Ridder	Operational	2/94
Pulitzer	Operational	1992 (Delphi in June)
Washington Post	Announced 11/93	Fall 1994
Knight–Ridder	Operational	1992
	Operational	1990
	Operational	1987
ABC/Cap Cities	Operational	1982
	Operational	1992
	Operational	1993
	Operational	3/94

TECHNOLOGY AREAS

INTERACTIVE TELEVISION

INTERACTIVE TELEVISION

OBJECTIVE:

Pafet will explore the possibility of conducting a series of experiments in conjunction with select communications providers, cable companies and technology developers to determine the feasibility of providing information, advertising and entertainment in a bi-directional and interactive format. To do this, we would partner with one or more technology providers such as GTE's MAINSTREET, ITN or other groups that offer some form of interactive television presentation strategy.

BACKGROUND

The cable companies have the bandwidth necessary to support interactive TV but lack switching and bi-directional capabilities.

The telco's have the switching and bi-directional capability but are severely hampered by lack of bandwidth. However that may change somewhat with the growing availability of ISDN.

CURRENTLY AVAILABLE TECHNOLOGY

Several providers such as GTE have attempted to achieve interactivity by using special set top boxes which are addressable and are capable of performing frame grabbing i.e., the ability to selectively send and display a static image in a timesliced manner. The subscriber communicates with the set top box by means of a remote device and these commands are routed back to the central cable head by telephone lines. These lines also provide incoming audio to accompany the frozen frame image being displayed on the television set by the set top box.

The problems with his technology are manifold. Among them are:

1. The need to tie up a telephone line whenever interactivity is desired.

2. The ability of the technology to provide only freeze frame instead of full motion video.

3. Poor audio quality as the telephone line clips all audio frequencies above 6k hertz.

4. The inherent limitation of the number of subscribers that can be serviced by a given cable channel or cable head device.

5. Lack of standards for the set top box.

Given these limitations, why should we proceed? Among the reasons are:

To gauge market acceptance of the concept as it exists now and as it may mature in the future.

To gain experience with the presentation of information and advertising material for this medium.

To prevent our competitors from gaining these insights and knowledge to our exclusion.

THE TESTS

While others have yet to be formulated, the first test appears to be to implement the ITN / ICAS technology which Freedom Communications will do later this year across a test environment of approximately 200 subscribers. The test will probably be performed somewhere within Orange County if a cooperative cable company can be found. The findings of this first test will be shared with all Pafet members.

THE PLAN

A proposed plan might include:

- Identifying key elements of success for ITV.
- Developing an electronic classified model for ITV
- Developing a news in any media facility.
- Developing a relationship with telco's, cable providers and purveyors of technology.
- Provide recommendations for campaigns to cross promote all electronic services and use them to leverage our existing printed media products.
- Develop and conduct studies of ITV users to determine category usage, costs for service, etc.

FUTURE EVOLUTION

The availability of ISDN will provide a next step, interim solution to alleviate problems 1 and 3, above.

The availability of fiber optic instead of coax will alleviate most of these shortcomings. However, this facility is available only in several special test markets and requires substantial overall investment.