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# An Examination of Business and Workflow Models for U.S. Newspapers

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A Research Monograph of the  
Printing Industry Center at RIT

No. PICRM-2009-02



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## Executive Summary

The newspaper industry is being redefined by changes of historic proportions. This redefinition has resulted in a disruptive shift within the core audience of newspapers. Thus, many pundits of the industry have commented that the traditional business model is “broken.” The reason for this declarative is primarily due to the reduction in circulation and the transference of audience attention to non-print media. Subsequently, the printed newspaper is no longer the primary “news” information source for most people.

The objectives of this research were:

1. To acquire a unified understanding of the traditional and emerging newspaper publishing business models for large, medium, and small newspapers, and to assess what newspapers are doing to change their business strategies.
2. To understand the prepress and production workflows for newspapers, to evaluate how they compliment and interfere with each other, and to determine if there are differences based on size of the newspaper.
3. To review audience analysis for the various print and on-line newspaper products.

To achieve these objectives, an extensive survey of five different newspaper organizations was conducted. In addition, the survey was supported by in-depth secondary research.

A thorough analysis of the research data revealed the following key findings:

- Primary research indicated that the core audience of most newspapers ranged between 30 to 49 years of age. An examination of the average reader age based on an analysis of 131 newspapers in the Audience-Fax database provided a different picture. Based on this data, the majority of readers are between 50 to 64 years of age (Audience-Fax, 2008a).
- As audience preference for media has changed, print readership has declined while online readership has increased.
- PDF has become the de facto file format standard used to receive information from external sources.
- None of the newspapers in this study considered outsourcing the printing process because it is still seen as a core business to their business model.
- According to the responses obtained from the survey, there were no major investment plans for upgrading or changing technology in the near future.
- The only product produced by all the newspapers in the study (in addition to their own newspaper) was other newspapers.



# Introduction

The printed newspaper represents one of the oldest and most widespread forms of mass media in the U.S. (Albarran, 2002). It is distributed on the local, national and international levels. It is generally a monopolistic structure within a particular market and is a document with high credibility and a short shelf life. Many newspapers are owned by holding companies. These companies not only own newspapers, but other media businesses such as TV, cable and radio stations, publishing companies and telecom companies.

The major players in the newspaper industry include:

- Gannett Company, Inc.
- The McClatchy Company
- Times Mirror Company
- The New York Times Company
- News Corp
- E.W. Scripps Company
- Cox Publishing Incorporated
- Gatehouse Media

Within these holding companies, printed newspapers represent about 10% of the total revenues (Peters & Donald, 2007). The majority of newspaper revenues are derived from advertising and circulation (Peters & Donald, 2007).

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## Literature Review

### Traditional Newspaper Model

The traditional newspaper business model has enjoyed extraordinary success over the last century. This business model sold space to advertisers who were willing to pay for access to readers, and newspapers to readers who were willing to subscribe to the printed newspaper. This represented the perfect symbiotic relationship between advertiser and reader. Advertisers had access to a known, stable audience, readers had access to inexpensive editorial content, and newspapers were the gatekeepers.

However, decreases in newspaper circulation have resulted in a sharp drop in advertising and circulation revenue. Consequently, the traditional business model is no longer viable. Evidence of this downward trend can be seen by reviewing the drop in circulation figures of the printed newspaper over a 60+ year span as shown in Figure

1. Additionally, when circulation is expressed as a percentage of the U.S. population, the decline is even more precipitous (see Figure 2). From the early 1990s to 2006, the percentage of newspapers purchased in relation to the U.S. population decreased from twenty-five to eighteen percent. The years 2005 and 2006 show an even steeper rate of decline.

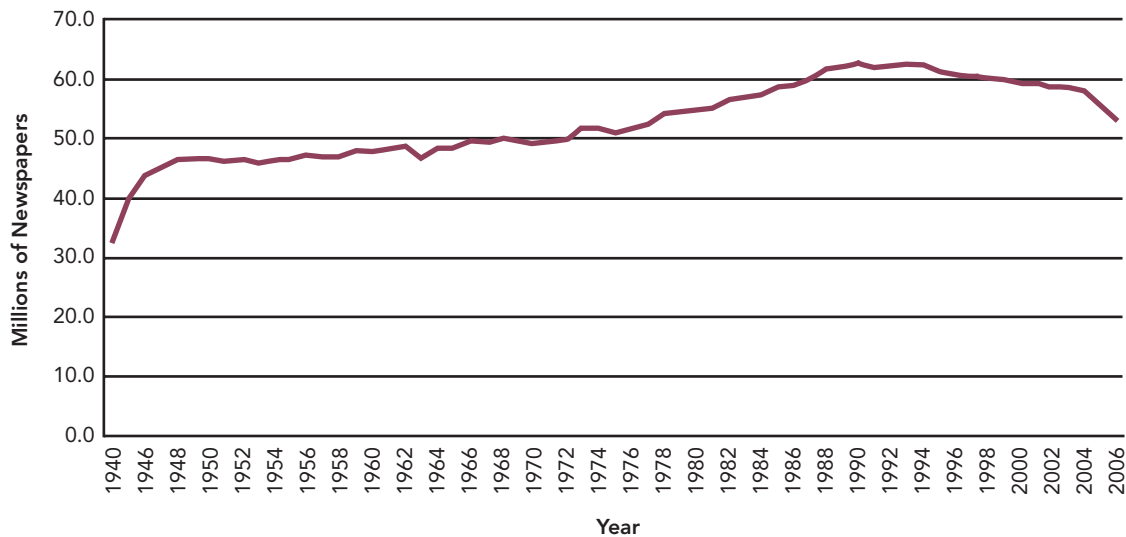


Figure 1. Total newspaper circulation, 1940 to 2006  
(Newspaper Association of America, 2008)

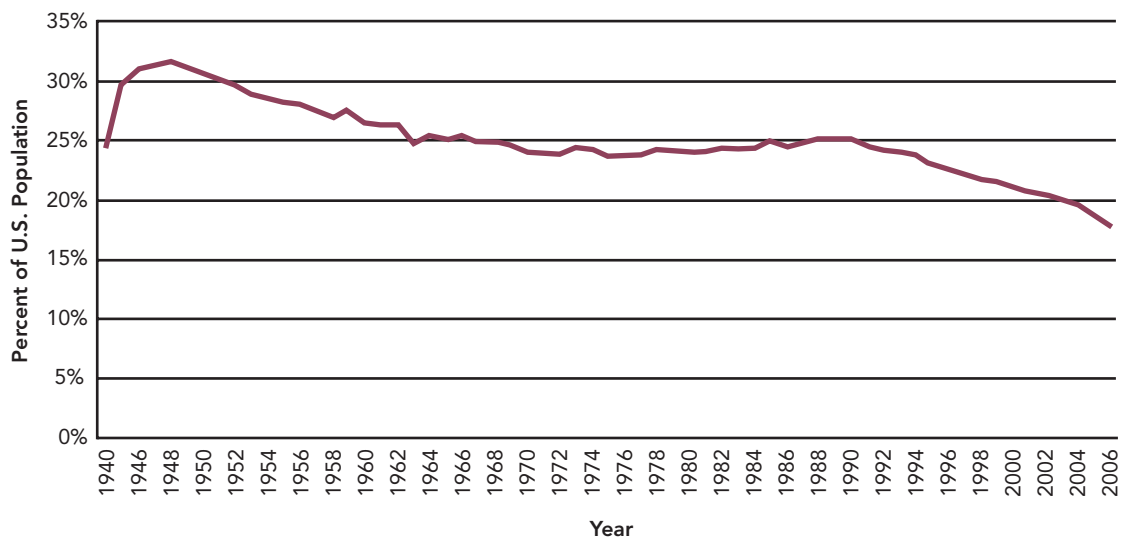


Figure 2. Total newspaper circulation as a percentage of the U.S. population, 1940 to 2006  
(Newspaper Association of America, 2008)

## The “New” Model of News Media

Today a variety of news media companies offer different services such as total ad production, development and management of online subscription-based services and digital archives, preventive and corrective maintenance, and printing operations (Arnould & Nair, 2007). With the advances in technology and the shift in reader demographics, the traditional news model has changed dramatically.

According to the American Press Institute’s *Newspaper Next Report* (2006):

Successful new business models are emerging, providing new ways to get and give information, buy and sell, create and maintain relationships, and convene communities. Many of these offerings supplant traditional newspaper functions, adding new dimensions of value, convenience and interactivity. Consumers and advertisers are eagerly adopting these new solutions to get key jobs done in their lives. Newspaper companies that make this commitment will discover broad new horizons of civic service and business opportunity. They will succeed in engaging large new segments of customers, both among the public and among businesses, and they will discover ways to serve them more effectively than ever before.

A key factor in the success of this new paradigm is leadership. If the leaders of news media companies operate with a traditional mindset, then the new business model will not be successful (Olmstead, 2007). The *Newspaper Next* model of this paradigm shift can be seen below in Figure 3. The information contained in the figure is indicative of how processes have changed and how information is received.

Old World	New World
Editors select news	Consumers and aggregators select news
Communities graphically defined	Communities virtually defined
One daily source of information	Multiple daily sources of information from multiple channels
One-way advertising	Two-way system of matching buyers’ wants with sellers’ offerings
Consumers browse lists for information	Consumers expect precise matches to their search criteria
Advertising revenue determines success	Items sold determine success

Figure 3. New styles for newspaper leaders (Olmstead, 2007)

## Challenges to the Printed Newspaper

As the new model for newspaper publishing emerges, the printed newspaper remains an integral part of the product offerings of most large and medium size papers. It also remains the core product for smaller local markets. Key challenges to keeping the printed newspaper a viable product are electronic media, declining readership, and technology.

### Electronic Media

The steep decline in newspaper circulation coincides with the ascent of the Internet. According to a Pew research study, during the ten-year period from 1996 to 2006 home computer access increased from thirty-six to seventy-three percent (2006, p. 50). This research also established that many people consider reading printed newspapers time-consuming and inconvenient as compared to obtaining information from electronic sources (The Pew Research Center for the People and the Press, 2006, p. 24). Newspapers have fought back by establishing their own websites, which have gained audiences. However, it is becoming increasingly apparent that the online revenue gained will not make up for the losses in print revenue.

In addition to the loss of revenue, electronic media has lowered the entry barrier for creating publications. It is no longer necessary to have a multimillion-dollar printing press to publish news content. All one needs is a computer and an Internet connection. This has diminished editorial exclusivity for newspapers, and has challenged their influence in the community.

### Declining Readership

Another challenge is the declining readership of newspapers by younger readers. As noted by Meyer, each successive generation reads the newspaper less than the generation before. Furthermore, there is no discernible increase in readership as each generation ages (Meyer, 2004, p. 17). Readership of the printed paper is highest among those 55 years of age and older (Peters & Donald, 2007).

The decline of younger readers has not gone unnoticed by newspaper organizations. For years, newspapers have attempted increase the readership levels of younger readers by promotions, changing content, and redesigning pages. All of these efforts have not been effective in stopping the steep decline in total circulation. Thus, newspapers have been forced to make a choice as to whether to continue to try to attract younger readers, or to preserve their older, revenue-generating, core audience.

### Technology

Technology challenges are generally directly related to business challenges because the business model defines the strategy that the company will follow. Once one path has been chosen, different technical problems will appear.

It is also true that new technology can generate new business models. The printed newspaper is one way to publish news content, and can be integrated with other products such as web, television, and/or mobile devices. In this climate of audience sharing, newspapers are increasingly turning to local content.

All these new characteristics of the market present several technical challenges to newspaper production. On the one hand, the newspaper company has to offer more products—not only the print edition, but also a web edition that provides additional material such as podcasts or videos. The local editions also require more news content. Due to current users' expectations, advertising companies are demanding more quality and more color in the print edition. Often, this extra work is done by existing staff, which leads to the need for automation, new technology, and the incorporation of workflow standards.

### A More Automatic Workflow

It has been shown that newspapers are evolving into a more extended service-oriented world, offering more products and going more local. Therefore, the benefits of a unique workflow—from editorial content to postpress production—are becoming evident. Allan Marshall, joint principal of iMedia Advisory Services Ltd., describes the following ideal components of a newspaper workflow:

- Efficiency (elimination of unnecessary steps),
- Better process control,
- Flexibility and evolution, and
- Focusing on business process (Arnould & Pascual, 2006).

Increasing CTP speed requires automated plate control. Vendors such as Agfa, Kodak, NELA, and OF2/2B Prazisionstechnik are developing systems that control not only plate-making parameters, such as dot size and orientation, but also provide the feedback to control the state of the device itself (Campbell, 2006).

In the pressroom, closed-loop processes are being used to increase efficiency; from cut-off register and color register to controlled ink settings and web tension, which are the next steps (Campbell, 2006). Automation is needed to reduce makeready in order to enable profitable shorter run lengths. Other automations in progress are plate change, press planning optimization, and computer to press, avoiding plates completely (IFRA Research and Consulting Department, 2006).

### Standardization

The International Press Telecommunication Council (IPTC) is developing many standards to define the different types of content that the newspaper deals with. These include NewsML for the global exchange of news, SportML for the sporting news, and

AdsML for the structured recording of ads (Beckam, 2006). Another standard format that is being developed by IPTC is News Industry Text Format (NITF). This format uses metadata, which makes it more searchable and useful than HTML pages (News Industry Text Format, n.d.). The use of these standards allows easy communication in the prepress area, using a structure that is vendor-independent. The purpose of standardization such as this is to reduce time, waste, and mistakes (Pascual, 2006).

## Printing Technology

Some companies are changing to heat set, UV and inert UV in order to increase the print quality of the newspaper (PRESSTIME Staff, 2008). This may also enable companies to increase the productivity of their press by using what would have been downtime to print commercial jobs while adding another new revenue stream as well.

With the decrease in printing production and the fragmentation of the product, another print technology is emerging: high-speed, full color, inkjet. Kodak is developing its inkjet technology specifically for the newspaper industry, with the ability to print more than 1,000 forty-page full color newspapers an hour (Campbell, 2006).

## Current Trends in Newspaper Production and Design

Three main drivers of today's newspaper industry are the emergence of new media, the development of advanced technologies, and the shifting target markets (Peters & Donald, 2006). These drivers have unleashed several trends: XML and web-based services, new media services, hybrid (semi-commercial) production, new business models (outsourcing and consolidation), customization, and physical changes to the printed edition.

### XML and Web-based Services

The use of XML and the development of web publishing systems are two significant trends in newspaper publishing. XML has the capability to manage great volumes of information independently from the output path. It streamlines the workflow and allows the implementation of cross-media applications. Web publishing systems allow customers to create and manage their own content on websites and send it to conventional print workflows (Lindstrom, 2006). On the advertising side, the portfolio of web-based services includes the self-creation and booking of ads as well as online approvals, payments, and complaints handling (Holland, 2006).

### New Media Services

The new media channels that publishers are incorporating in order to conform to an appealing cross media platform include video, podcasting, and mobile services (Riefler, 2007). In the newspaper industry, the use of videos has not yet reached maturity. In addition, the use of photo slide shows instead of full-motion videos is popular because of its effectiveness and simplicity (Covington, 2005). Podcasting has a young audience and creates a personal connection between provider and consumer at a low cost



(Northrup, 2005). Through the use of mobile phones, newspapers build relationships with young readers with real-time activities and other products such as ringtones and games (Roper, 2005b).

### **Hybrid (Semi-commercial) Production**

Hybrid production refers to the use of newspapers' facilities to print other kinds of jobs. Hybrid production includes inserts, flyers, ads, catalogs, guides, and other publications that have traditionally been printed by commercial printers ("Converging technologies shine in pressroom", 2007). More growth possibilities exist in product enhancements, using more and better color, and upgraded papers (Print City, 2006).

### **New Business Models**

A company's business model is a structure used to determine costs and how revenues will be generated. While the majority of revenues still come from the printed newspaper for many publishers, revenue streams such as the Internet are increasing. Additionally, publishers realize that other sources of revenue are necessary to stay in business. As part of this approach, several strategies are being undertaken to reduce cost, increase readership, and generate revenues. Some of these strategies include:

- Outsourcing,
- Focusing on the core readership,
- Selling other products,
- Circulation of free papers, and
- Plant reconstruction, consolidation and closings.

Outsourcing in particular is a practice that has become popular in newspaper operations over the last few years. The consolidation of newspapers to create a single printing facility is also an emerging trend. Through outsourcing and consolidation, publishing houses can reduce costs by separating printing from publishing (Woods, 2007).

### **Customization**

The concept of media consumers gathering at a certain time and place to obtain information is fading. Users expect information on demand. The Internet has made it easy for readers to have access to infinite amounts of information quickly and effectively. To combat this, newspapers are creating new products for targeted audiences within both their print and web editions. Some of the most common new products are:

- Community Journalism,
- Hyperlocalism,
- Micro-zoning,

- Commuter paper, and
- Digital and variable printing.

### Physical Changes in the Printed Edition

In order to attract younger readers and women, many newspapers have decided to print smaller format tabloid products (Janischewski, 2007). In addition to the change in size, some newspapers have adopted a more magazine-like appearance, which implies a redefinition of content and the use of more images and more color (Roper, 2005a).

### Future Outlook and Directions

Most industry reports suggest that the future outlook for the printed newspaper is bleak. This is largely due to the impact of the Internet and other electronic media. Additionally, as the age demographic changes and core readership declines, there are a growing number of young people who are not interested in news from newspapers, or who prefer to get their news elsewhere. Given this outlook, it is imperative for newspaper publishers to diversify their business model and incorporate a strategy that is consistent with the way people live and how technology works today.

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## Research Objectives

The primary objectives of this research project were:

1. To acquire a unified understanding of the traditional and emerging newspaper publishing business models for large, medium, and small newspapers, and to assess what newspapers are doing to change their business strategies.
2. To understand the prepress and production workflows for newspapers, to evaluate how they compliment and interfere with each other, and to determine if there are differences based on size of the newspaper.
3. To review audience analysis for the various print and on-line newspaper products.

### Study Limitations

No research study is without limitations. Some limitations were identified prior to the start of research, while others were encountered during the data collection phase. The major limitations cited were:

1. **Limited number of research participants.** The original goal was to collect data from nine newspapers (3 large, 3 medium and 3 small). Data could only be retrieved from five newspapers (1 large, 2 medium and 2 small).

2. **Data gaps.** Some participants chose not to respond to or were unable to respond to all of the questions.
3. **Inconsistency in data collection methods.** Some questionnaires were administered in person, while others were administered via e-mail.
4. **Limited access to large newspapers.** Access to large newspapers proved to be difficult due to the complex, fragmented infrastructure and layers of management.
5. **Lack of response to the survey instrument.** It was speculated that one reason for the lack of response was the length of the questionnaire. The questionnaire was quite comprehensive in order to obtain sufficient data and uncover areas for future research. This length may have resulted in a low response rate. This appeared to be particularly true in larger organizations where the questionnaire needed responses from several individuals.

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## Methodology

The following methods were used to achieve the defined research objectives:

1. Conducted in-depth secondary research study.
2. Developed research questionnaire (see the Appendix). The questionnaire was structured into four sections: demographic, market information, audience questions, and workflow.
3. Validated and revised questionnaire through reviews with key industry news media professionals.
4. Administered questionnaire via e-mail or in person to five newspaper entities.
5. Organized and analyzed research data.
6. Developed a representative graphical model of workflow processes.
7. Summarized research findings into research monograph.

## Research Findings

The information outlined in this section of the report focuses on data from five newspapers - one large, two medium, and two small. For the purposes of this research the size is defined based on total circulation as follows:

- **Small** – less than 50,000 copies
- **Medium** – 50,001 – 150,000 copies
- **Large** – greater than 150,000 copies

### Circulation of the Printed Newspaper

Figure 4 shows the daily circulation for each of the five participating newspapers. Newspaper L1 (large) has a daily circulation of over 700,000 copies. The two medium newspapers (M1, M2) have daily circulations of approximately 130,000 to 150,000 copies, while the small newspapers (S1, S2) have daily circulations ranging from 12,481 to 20,770 copies.

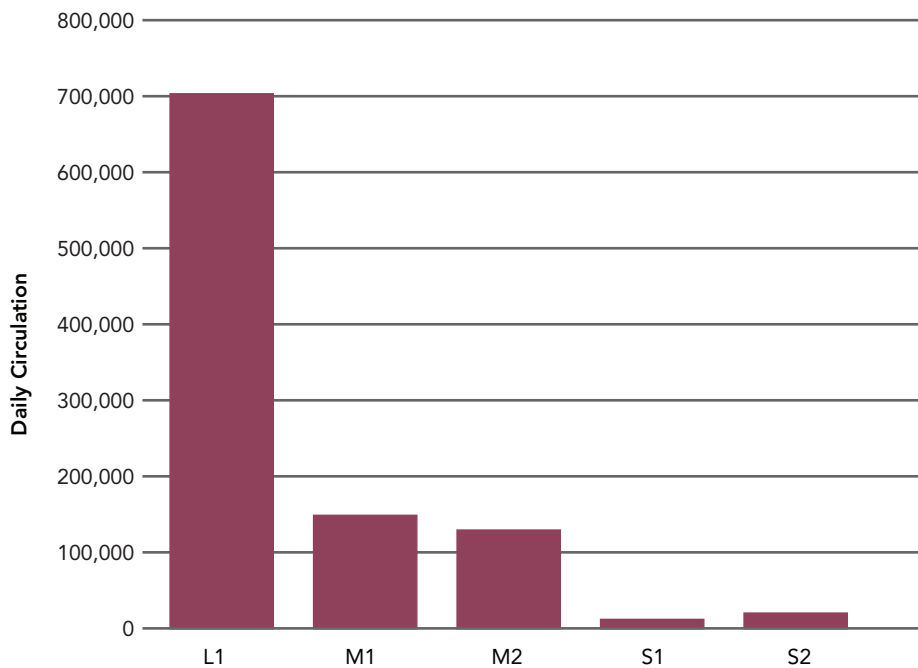
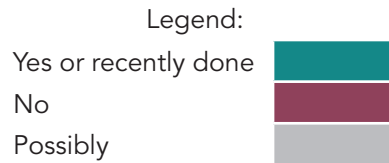


Figure 4. Daily circulation for research participants

### Business Strategies and Trends











Participants were asked several questions relative to the current and future business model for their newspaper operation. Additionally, questions were asked about current and future trends for the physical structure of the paper and the processes utilized to produce the printed newspaper. The following legend applies to Tables 1-4.



### Strategies to Maximize Profitability and Circulation

The respondents were questioned about business strategies to maximize profitability and circulation for both print and on-line. They were specifically queried about diversification, mergers and acquisitions, divestitures, and service diversification (see Table 1).

Table 1. Strategies to maximize profitability and circulation











Strategies	Large	Medium		Small	
	L1	M1	M2	S1	S2
Diversification					
Mergers, acquisitions, joint ventures, partnerships, etc.					
Divestitures					
Service diversification					

Both of the medium and small newspapers indicated that they have already or will soon diversify their business strategy. The large newspaper, both medium papers, and one of the small papers (S2) have already engaged in or plan to engage in a merger, acquisition, or some other type of partnership. Only one of the medium papers (M1) indicated a move to divest, while one medium (M1) and one small paper (S1) have already incorporated or will incorporate service diversification strategies.

### Major Equipment Purchases or Investments

Respondents were asked if their company had plans to invest in major equipment or had any planned process changes within the next five years (see Table 2). Only one of the small papers (S2) indicated “yes” to all three. The large paper has already invested in or will invest in new software. The second small paper (S1) indicated the possibility of incorporating CTP.

Table 2. Future major equipment purchases or other investments

Purchases or Investments	Large	Medium		Small	
	L1	M1	M2	S1	S2
Purchase of new press					
Incorporation of CTP					
New Software System					

### Physical Changes in the Printed Newspaper

Respondents were asked about physical changes in the printed newspaper that they foresee now and in the future. Table 3 shows the responses to this question. Four of the five newspapers point to reduced web width as something that has already been or will be done. The fifth paper indicated it to be a possibility. Three of the five also noted reduced page count and elimination of sections and or/features as other physical changes.

Table 3. Potential future physical changes in the printed newspaper

Physical Changes	Large	Medium		Small	
	L1	M1	M2	S1	S2
Reduced web width	Teal	Teal	Teal	Teal	Grey
Reduced page count		Teal	Teal	Teal	Maroon
Increased use of color		Teal		Maroon	Teal
Decreased use of color		Maroon		Maroon	Maroon
Addition of sections and/or features		Grey		Teal	Teal
Elimination of sections and/or features		Grey	Teal	Teal	Teal

### Strategic Changes in Newspaper Production

Respondents were asked about changes in their business strategies (see Table 4). The large newspaper pointed only to the consolidation of printing facilities as a recent or future strategy. One of the small papers (S2) also indicated this trend. One of the medium papers (M1) pointed to off site printing of specialty publications as a strategic change.

Table 4. Future strategic changes in newspaper production

Production Changes	Large	Medium		Small	
	L1	M1	M2	S1	S2
Consolidation of printing facilities	Teal	Maroon		Maroon	Teal
Outsourcing printing of all or part of the newspaper		Maroon		Maroon	Maroon
Off site printing of specialty publications		Teal		Maroon	Grey

### Core Audience

Research participants were asked about the average age of their core audience<sup>1</sup> (see Table 5). Three of the four respondents identified their core audience to be between 30 and 49 years old. However, newspaper L1 also described its core audience as spanning the 18-29, 30-49, and 50-64 age groups, while newspaper S1 indicated that their core audience is within the 50-64 age group.

1 - For the purpose of this research, “core audience” is defined as the newspaper’s single largest group of readers.



Table 5. Average age of core audience

Age Groups	Large	Medium	Small	
	L1	M1	S1	S2
18-29	X			
30-49	X	X		X
50-64	X		X	
65+				

Research participants were also asked about the composition of their core audience ten years ago (see Table 6). Newspaper L1 stated that their core audience did not include the 18-29 age group ten years ago. Newspapers M1 and S1 responded that there was no change in the age of their core audience. Newspaper S2 indicated that their core audience was younger ten years ago, within the 18-29 age group.

Table 6. Average age of core audience ten years ago

Age Groups	Large	Medium	Small	
	L1	M1	S1	S2
18-29				X
30-49	X	X		
50-64	X		X	
65+				

Research participants were also asked about the comparative size of the core audience from today to ten years ago (see Table 7). With the exception of newspaper L1, all other respondents indicated that the size of their core audience is smaller now than it was ten years ago.

Table 7. Size of core audience today as compared to ten years ago

Comparative Size	Large	Medium	Small	
	L1	M1	S1	S2
Larger	X			
Same				
Smaller		X	X	X

Newspaper L1 attributed their increased audience size to coverage of news, gossip, and the way content was delivered editorially. The organization has also increased female readership by widening the entertainment section to include fashion articles. Furthermore, newspaper L1 believed that their high print quality had some favorable impact on circulation. Newspaper M1 commented that there was an overall decrease in its core audience because of a regional decrease in the population of the 30 to 49 year old age group. Newspaper S1 stated that the decline in its core audience was due partly to the diversity of media choices readers now have, as well as an overall decline in population of its core readership. Newspaper S2 commented that, even though its core audience had decreased, if new products were included in the total, its' total print circulation had actually increased.

Research participants were also asked to describe their strategy regarding their core audience (see Table 8). The respondents all gave multiple answers. In spite of the multiple strategies utilized, all respondents indicated that a key business strategy was to establish a leadership role serving their core audience. Newspapers M1 and S1 also said they wished to optimize cash flow from their core audience.

Table 8. Organization’s strategy regarding core audience

Core Audience Strategy	Large	Medium	Small	
	L1	M1	S1	S2
Identify and invest in a profitable segment of the core audience	X			
Increase value added services to the core audience		X		
Establish a leadership role serving the core audience	X	X	X	X
Optimize cash flow derived from core audience		X	X	
Divest from core audience				X
Other strategy (please explain)*		X		

\*Grow Integrated Newspaper Audience, through growth of unduplicated online audience (to offset decline in core audience)

Newspaper L1 defined their strategy as both establishing a leadership role and identifying and investing in profitable segments of the core audience. Newspaper M1 wished to increase value added services, and expressed the strategy of developing an integrated audience through the growth of their unduplicated online audience. Newspaper S2 was the only respondent to explicitly state that their business strategy was divested from their core audience.

### Prepress Workflow

The research team attempted to understand the prepress workflow used by newspaper publishers. This section of the survey contained questions about editorial and advertising workflows, process automation, use of PDF, bottlenecks, source of photographs, standards, and types of products produced.

### Editorial and Advertising Workflows

Four newspapers use the same workflow for both the editorial and advertising content (see Table 9). Only one small newspaper (S1) uses a different workflow for each.

Table 9. Editorial and advertising workflows

Workflows	Large	Medium		Small	
	L1	M1	M2	S1	S2
Same	X	X	X		X
Different				X	




### Process Automation

Participants were asked about processes in the workflow that had been automated (see Table 10). The question focused on: preflight, photo retouching, embedding metadata, and archiving, and allows for distinguishing between totally automated and partially automated workflows.

Table 10. Automated workflow processes

Workflow Processes	Large	Medium		Small	
	L1	M1	M2	S1	S2
Preflight	Not automated	Totally automated	Partially automated	Partially automated	Not automated
Photo retouching	Partially automated	Totally automated	Totally automated	Partially automated	Not automated
Embedding metadata	Partially automated	Not automated	Not automated	Partially automated	Partially automated
Archiving	Not automated	Totally automated	Totally automated	Totally automated	Totally automated

Legend:

Totally automated	
Partially automated	
Not automated	

There are more automated processes in the medium newspapers than in the large or the small ones. One of the medium newspapers (M1) has three processes that are totally automated and one that is partially automated. The other medium newspaper (M2) has very similar levels of automation, with one difference: preflight is not automated. The large newspaper (L1) only has two partially automated processes: preflight and archiving. One of the small newspapers (S1) has only one totally automated process: archiving. The other small newspaper (S2) also has a totally automated archiving process, as well as partially automated photo retouching and preflighting processes. The most automated process in this sample group is archiving. The process that is least automated is embedding metadata. Only two newspapers have archiving as a partially automated process.

### Percentage of External Files Received as PDF

The data in Table 11 shows that three of the five newspapers (one large, one medium and one small) are receiving between 81% and 100% of their external files as PDF. The other medium newspaper (M2) is receiving between 21% and 40% of their external files as PDF, while the other small newspaper (S2) is receiving between 41% and 60% of their external files as PDF. The current percentage of external files received as PDF is increasing in all newspapers.

Table 11. Percentage of external files received as PDF

Percentage Range	Large	Medium		Small	
	L1	M1	M2	S1	S2
0-20%					
21-40%			X		
41-60%					X
61-80%					
81-100%	X	X		X	

### Bottlenecks in Prepress

Respondents were asked to order the processes listed in Table 12 from 1 to 5, with 1 indicating where bottlenecks most often occur, and 5 indicating that bottlenecks less often or never occur. The answers to this question were mixed. Some newspapers rank all the processes and give a different value to each one, while others newspapers give the same value to more than one process. Using the average value for each process, the process that is most often considered a bottleneck is the creation of editorial content (2.2), which is followed by the processing of ads (2.6). The process that is least often considered a bottleneck is photo retouching (4.0), while the pagination process is in between (3.0).

Table 12. Occurrence of bottlenecks in the workflow<sup>2</sup>

Workflow Processes	Large	Medium		Small		Average
	L1	M1	M2	S1	S2	
Processing of ads	4	3	1	1	4	2.6
Creation of editorial content	2	3	2	2	2	2.2
Photo retouching	3	4	5	3	5	4.0
Pagination	2	4	4	4	1	3.0

### Source of Photographs

Respondents were asked about the percentage of the photographs used daily from internal photographers, archives, and/or external databases. Table 13 shows this data and Figure 5 gives a graphical illustration.

<sup>2</sup> - Processes were ranked from 1 to 5, with 1 indicating where bottlenecks most often occur and 5 indicating where bottlenecks least often or never occur.

Table 13. Source of photographs used on a daily basis

Source of Photographs	Large	Medium		Small	
	L1	M1	M2	S1	S2
Internal photographer		60%	50%	65%	48%
Archive		10%	25%	5%	14%
External database		30%	25%	30%	38%

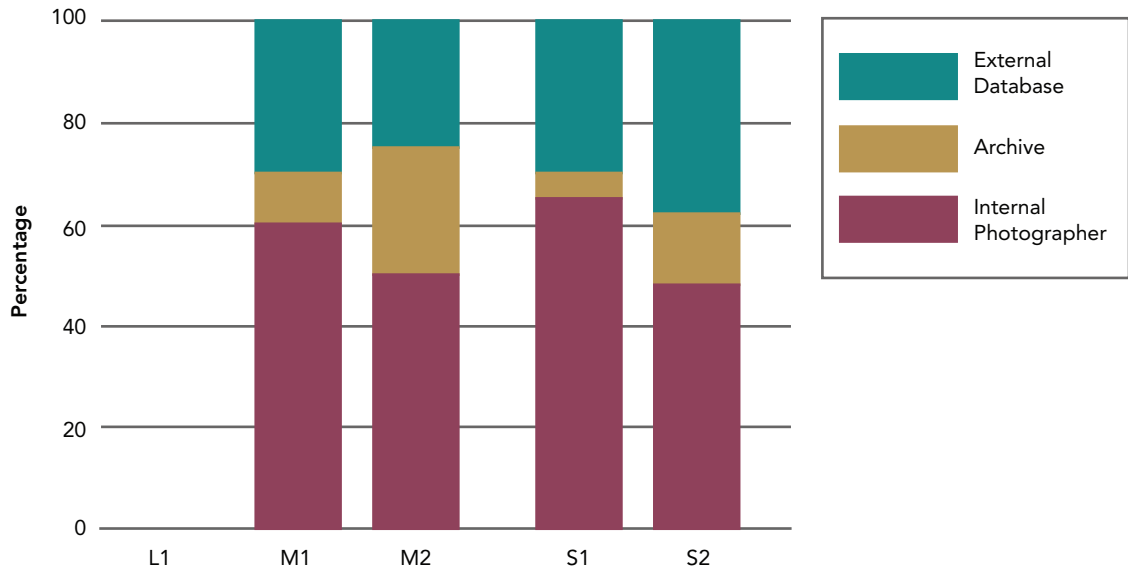


Figure 5. Source of photographs used on a daily basis

The most used source of photographs was internal photographers, with 48% to 65%. The next most popular source of photos was external databases, with 25% to 38%. Only 5% to 25% of the photographs used come from archives.

### Standards

Respondents were asked about which standards had been implemented or were going to be implemented within the next three years (see Table 14). Only three of the respondents answered this question.

Table 14. Standards that have been or will be implemented<sup>3</sup>

Standard	Large		Medium		Small	
	L1	M1	M2	S1	S2	
ISO 12647-3						Now
IPTC		Now				Now
PDF X	Now					Now
ISO 9000						Future
ISO 14000						
ICC Profiles	Now					Now

Overall, few standards were incorporated into newspapers’ workflows. One of the small newspapers (S2) uses three sets of standards: ISO 12467-3, IPTC, and ICC Profiles. The large newspaper uses two (PDF-X and ICC Profiles), while one of the medium newspapers (M1) uses only one (IPTC). Additionally, only newspaper S2 indicated that they were considering using a new standard in the future: ISO 9000.

Interestingly enough, newspaper M1 receives more than 81% of their external files as PDF, and they stated that this number was increasing. However, they have not implemented the PDF-X standard, and did not indicate that they were planning to do so within the next three years.

### Types of Products Produced

Respondents were asked if they designed or produced content for flyers, brochures, magazines, posters, inserts, or other newspapers. The responses can be seen in Figure 6.

<sup>3</sup> - Definitions of the standards:

- ISO 12647-3 is an ISO standard specifying processes to be used when preparing color separations for newspaper printing.
- IPTC is an XML-based metadata standard describing editorial, advertising and photo content to facilitate the exchange of information.
- PDF X is a series of PDF standards that define parameters for PDF files intended for print reproduction.
- ISO 9000 is a world-recognized group of quality management standards used by businesses.
- ISO 14000 is a series of standards that establish procedures to reduce environmental impact.
- ICC Profiles are data attached to image files that describes the image’s color space, independent of device, for the purpose of consistent image exchange between devices.



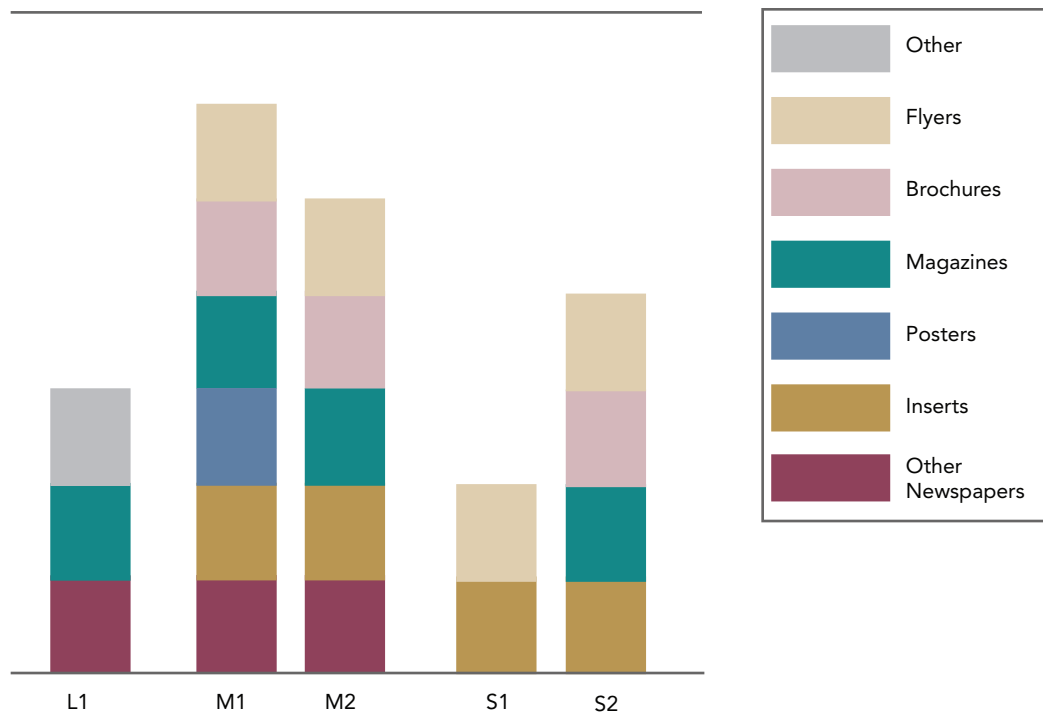


Figure 6. Products published in prepress department

Medium newspapers produced content for the widest variety of products. Newspaper M1 produces all of the products listed, while newspaper M2 prints all of the products listed except posters. Newspaper S2 produces content for four products (flyers, brochures, magazines, and inserts), while newspaper S1 produces content for only two (flyers and inserts). The large newspaper produces content for magazines, other newspapers, and other products. However, only the large newspaper uses a different workflow and different resources for these products than for the newspaper, while the other four newspapers use the same workflow and the same resources.

### Production Workflow

The research team attempted to understand the production workflow used by newspaper publishers. This section of the survey contained questions about the production technologies used, the degree of automation, bottlenecks, quality control procedures, data collection, opportunities to improve the current workflow, types of commercial jobs produced, and outsourcing.

### Production Technologies Used

The large newspaper and one of the small newspapers (S1) currently use film (CTF) to process plates, while both medium newspapers and the other small newspaper (S2) use Computer to Plate (CTP) technology. All participants use web offset coldset presses.

Inserting is the only finishing process used by all companies. Trimming, poly-bagging, and stacking are rarely or never used by the participants. The data indicates no impor-

tant investment plans for upgrading equipment in the near future. Table 15 provides a summary of this data.

Table 15. Production technologies currently utilized and future equipment investment plans

Production Technologies		Large	Medium		Small	
		L1	M1	M2	S1	S2
Plate Technology	CTF	Use now			Use now	
	CTP Thermal					
	CTP Violet	Will use in the future	Use now	Use now		Use now
	Chemistry free			Will use in the future		
Press Technology	Coldset	Use now	Use now	Use now	Use now	Use now
	Heatset					Will use in the future
	Flexography					
	Digital Printing					
Press Configuration	2/1		Use now			
	2/2				Use now	Use now
	4/1		Use now			
	4/2	Use now	Use now	Use now		
	6/2					
	Other					
Kind of Ink	Oil based		Use now	Use now	Use now	Use now
	Alcohol free					
	UV					
Finishing	Inserting	Use now	Use now	Use now	Use now	Use now
	Trimming					Use now
	Stacking		Use now	Use now		

Legend:

- Use now
- Will use in the future


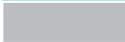

### Degree of Automation

The large newspaper shows the greatest degree of automation, with a high proportion of processes totally automated (see Table 16). The small newspapers use mostly manual processes.

Table 16. Degree of automation in production

Production Process	Large	Medium		Small	
	L1	M1	M2	S1	S2
Plate punching	Totally automated	Totally automated	Totally automated	Partially automated	Not automated
Plate bending	Totally automated	Totally automated	Totally automated	Not automated	Not automated
Paper feeding	Totally automated	Partially automated	Totally automated	Not automated	Not automated
Color register	Totally automated	Partially automated	Totally automated	Not automated	Partially automated
Page register	Totally automated	Partially automated	Partially automated	Not automated	Partially automated
Density control	Partially automated	Not automated	Totally automated	Not automated	Not automated
Press setting	Totally automated	Not automated	Not automated	Not automated	Not automated
Blanket cleaning	Not automated	Not automated	Not automated	Not automated	Not automated
Page reception	Totally automated	Not automated	Totally automated	Not automated	Partially automated
Ink/water supply	Totally automated	Totally automated	Totally automated	Partially automated	Not automated
Chemical replace	Totally automated	Totally automated	Totally automated	Partially automated	Not automated
Plate feeding	Not automated	Not automated	Not automated	Not automated	Not automated
Web tension	Totally automated	Not automated	Partially automated	Totally automated	Partially automated
Cutoff	Partially automated	Totally automated	Partially automated	Not automated	Not automated

Legend:

Totally automated	
Partially automated	
Not automated	

### Bottlenecks in Production

Respondents were asked about areas where bottlenecks occur in the production process (see Table 17). On average, the finishing processes are the most likely to become a bottleneck. Makeready is rarely considered a bottleneck; however, this part of the workflow depends on the editorial workflow rather than on the production workflow itself.

Table 17. Ranking of production bottlenecks<sup>4</sup>

Subprocess	Large	Medium		Small		Average
	L1	M1	M2	S1	S2	
Platemaking	1	5	3	3	4	3.2
Makeready	4	3	5	5	5	4.4
Press Run	2	4	5	4	2	3.4
Finishing	3	3	1	2	3	2.4

<sup>4</sup> - Processes were ranked from 1 to 5, with 1 indicating where bottlenecks most often occur and 5 indicating where bottlenecks least often or never occur.

## Quality Control

Respondents were asked about the quality control procedures used in production (see Table 18). None of the small companies have quality assurance procedures in place, while the large and the two medium newspapers have implemented quality procedures.

Table 18. Quality control procedures used in production

Quality Control Procedures	Large	Medium		Small	
	L1	M1	M2	S1	S2
Used	X	X	X		
Not used				X	X




## Data Collection

One medium newspaper (M2) had all processes for data collection automated, while the other medium newspaper (M1) obtained all data manually. Neither of the small newspapers had any data collection process fully automated. The large newspaper had makeready data collection fully automated, but the rest of the data collection processes were partially or not automated. Table 19 illustrates this information.

Table 19. Types of information collected for each production phase

Production Phase	Large	Medium		Small	
	L1	M1	M2	S1	S2
Platemaking	Daily Plate Report	Time, Percentage	Number of plates, Time, Errors	Inventory, Last plate out	Time, Waste
Make ready	Imposition	Waste, Time, Quality	Time, Waste	Time	Time
Press Run	Daily Press Report	Waste, Time, Quality	Time, Copies, Waste, Operators, Pastors, Waste	Start, Stop, Waste	Time, Waste
Finishing	Daily Inserting Report			Truck-out Times	Time

Legend:

Totally automated	
Partially automated	
Not automated	

### Opportunities to Improve Current Workflow

In an open-ended question, participants were asked about the opportunities to improve their current workflow. One of the medium (M2) and one of the small newspapers (S1) answered that the inserting process could be improved. The other small newspaper (S2) answered that the implementation of quality and waste control systems was an opportunity for improvement. The other medium company (M1) responded that it is important to pay more attention to industry trends and follow them. The large newspaper did not answer this question.

### Types of Commercial Jobs Produced

One medium (M2) and one small (S2) newspaper offer a great variety of commercial jobs while the other three print only a few currently (see Figure 7). All of the participants produced at least one other newspaper, and they all said that their commercial business is growing. Three of the newspapers use the same workflow for commercial jobs and newspaper production.

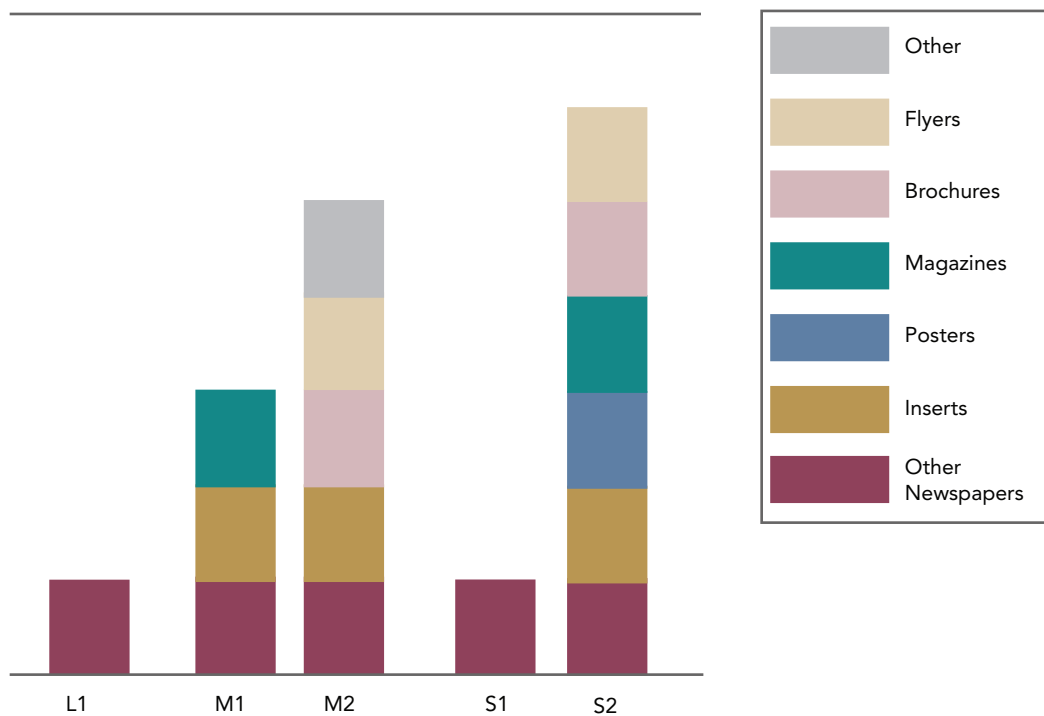


Figure 7. Commercial jobs printed in production

### Outsourcing

Both of the medium newspapers have considered outsourcing several of the production tasks, including ad processing, photo toning, archiving backups, and delivery (see Table 20). At the time of the interviews, one of the small newspapers (S2) was considering outsourcing delivery and finishing. The rest of the participants were not considering outsourcing, at least for the near future.

Table 20. Production tasks considered for outsourcing

Production Tasks	Large	Medium		Small	
	L1	M1	M2	S1	S2
Ads processing		X	X		
Photo toning		X	X		
Archiving and backups			X		
Delivery		X	X		X
Plate making					
Printing					
Finishing					X
Other		X			

## Discussion of Findings

Although there were only five participating newspapers in this study, the researchers were able to achieve useful information relative to the objectives set forth in this research project.

As previously stated, the primary objectives of this research were:

1. To acquire a unified understanding of the traditional and emerging newspaper publishing business models for large, medium, and small newspapers, and to assess what newspapers are doing to change their business strategies.
2. To understand the prepress and production workflows for newspapers, to evaluate how they compliment and interfere with each other, and to determine if there are differences based on size of the newspaper.
3. To review audience analysis for the various print and on-line newspaper products.

## Traditional Newspaper Model

### Traditional Models

The traditional business model for newspaper publishers is focused on the printed newspaper. Prior to today’s highly advanced technological age, news was primarily distributed via newsprint, television, radio, and, of course, word of mouth. The printed newspaper was considered to be a very reliable source of information, and was a common vehicle for businesses and individuals to advertise via page and classified ads.

As seen in Figure 1, newspaper circulation has been steadily declining since the mid-1990s. This trend has been attributed to several factors, including the advent of the



## Discussion of Findings

Internet and other electronic media distribution methods. While electronic transmission is a major factor, lifestyle changes and generational issues cannot be ignored. As people began getting their news from other sources, advertisers began looking to other media to get their message out to the widest audiences. Additionally, entities such as Monster.com and Craigslist have almost eliminated the need for want ads (employment) and classifieds in the printed newspaper, although some companies still do publish them in both places. In fact, websites such as Cars.com allow sellers to post listings online and in print editions of local newspapers such as the Rochester, NY *Democrat and Chronicle*.

It is difficult to draw any conclusions about circulation trends from the newspaper companies that were interviewed for this research, as the participants were not questioned about historical circulation numbers. However, the circulation numbers from the five companies interviewed are consistent with current circulation levels for small, medium and large U.S. newspapers.

A traditional model of a newspaper publisher can be observed from Figure 8, which depicts an earlier model of the Rochester, NY *Democrat and Chronicle* (*D&C*). Previously, the *D&C* followed the model where the newspaper was the central focus with a few other smaller products circling around. This model did not yield the revenue needed to stay competitive with other news sources, and did not effectively keep the non-core audiences engaged.

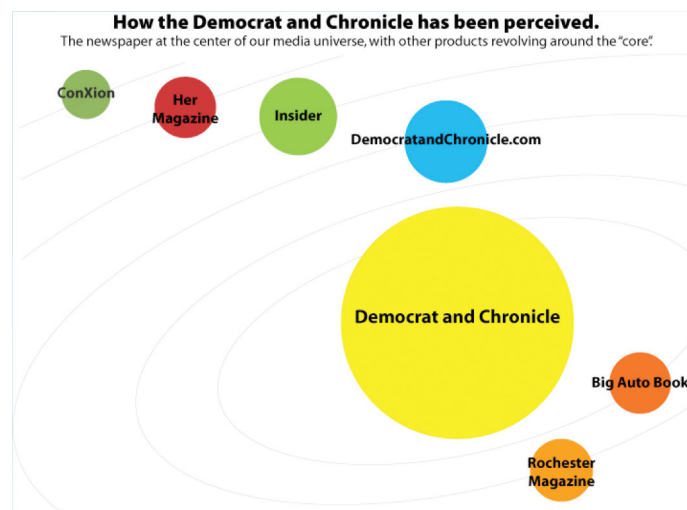


Figure 8. Traditional product model for the *Democrat and Chronicle* (Kane, 2008)

### New and Emerging Models

Today, newspaper companies are viewed as news media companies. This is indicative of the fact that they no longer focus exclusively on the printed newspaper. The current business model is diverse in nature. The purpose is to reach the widest audience. Newspapers no longer think only of subscribers, but of audiences. They are working to produce products for a cross-section or wide variety of audiences in order to interest potential subscribers in what they have to offer.

The revenue streams from this business model are circulation, advertising, inserting, and providing other products and services as follows:

- Circulation of printed and on-line news content,
- Print and on-line advertising,
- Inserts printed by other printers and inserted into the newspaper,
- Other products include magazines, other newspapers, inserts, flyers, and
- Other services such as mailing and the distribution of other newspapers.

This new business model has resulted in a new product model. Figure 9 shows a much different structure for the *D&C*, where the focus has shifted from product to audience.

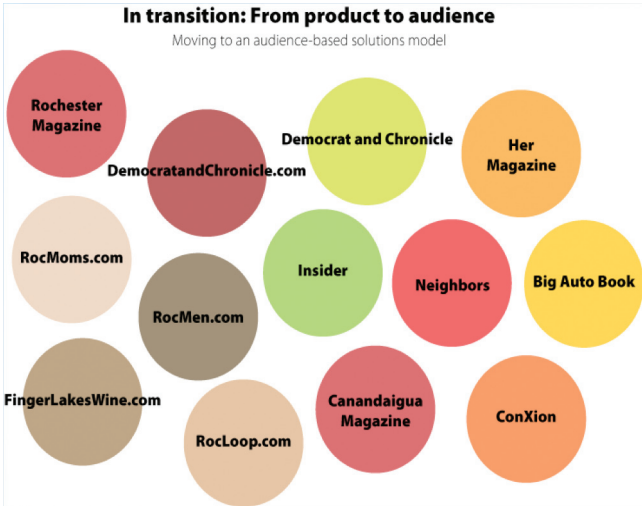


Figure 9. The traditional news model in transition (Kane, 2008)

### New/Future Business Strategies

The participants in this research seem to support a diversification strategy to maximize profitability from print and on-line products. This response was consistent across every paper size.

From the interviews with these companies, it appears that the following changes to the physical paper are most common for the medium and small newspapers:

- Reduced web width,
- Reduced page count,
- Increased use of color, and
- Elimination and addition of sections.

The researchers suspect that the large paper did not respond to the question about future business strategy as it was presented because these are trends that large newspapers have been facing for some time. This is also consistent with what is being reported in industry reports and in presentations at industry conferences such as Nexpo and ING (International Newspaper Group).

Minimal information was gained from the participants on strategic changes in newspaper production. However, consolidation of printing and off-site printing of specialty products seemed most prevalent.

As far as equipment purchases are concerned, only four of the papers responded to this question. There appear to be limited plans to purchase major equipment over the next five years. However, software upgrades and incorporation of processes such as CTP are more likely.

### Analysis of the Audience for the Various Print and On-line Newspaper Products

#### Core Audience

Primary research indicated that the core audience of most newspapers ranged between 30-49 years old. An examination of the average reader age based on an analysis of 131 newspapers in the Audience-Fax database provides a different picture. Based on this data, the majority of readers are in the 50-64 age group. Table 21 shows the average age of readers for publications in the Audience-Fax database (2008a).

Table 21. Average Reader Age of Newspaper Readers within Audience-Fax Database

Age Group	18-24	25-34	35-44	45-54	55+
Percent	8.07%	10.98%	16.05%	21.01%	43.89%

However, an examination of individual publications in the database indicates a wide range in readership age based on publication. For example, the Sun-Sentinel in West Palm Beach has the highest 55+ readership (68.6%), while the Philadelphia Daily News has the lowest 55+ readership at 27.4% (Audience-Fax database, 2008). Therefore, it is possible that the newspapers surveyed do have core audiences in the 30-49 age group.

All organizations (with the exception of the large newspaper) indicated that their core audience was diminishing. In some organizations, decreases in core audience population, or population in general, were blamed for the reduction in audience. While regional differences for the reduction in core audience may hold true in specific markets, the long-term overall decline in newspaper circulation indicated that this was the exception rather than the rule.

All newspapers responding to the survey indicated a desire to establish a leadership role with their core audience. There was a strong indication that the primary reason for this

strategy was to optimize cash flow. Additionally, respondents looked to identify and develop profitable segments within their core audience. Numerous sources of audience data have shown that the marketplace is not homogeneous. Audiences are composed of individuals who differ in age, gender, ethnicity, education, and income. These subgroups can be profitably targeted through the modification of editorial content and the strategic placement of advertising.

**Readership**

Since print is a physical entity, many people can read one newspaper. Therefore, the total readership of a newspaper can be described by total print circulation multiplied by the number of readers. Since the number of individuals that read a single newspaper is dependent on factors such as demographics and quality of the publication, readers per copy vary by designated market areas DMA. In addition to readership, it is important to know the percentage of readers, or reach, of the publication in the DMA. Table 22 compares the average daily circulation, readership, and reach of two newspapers of similar size.

Table 22. Comparison of Circulation, Readership, and Reach

Newspaper	Average Daily Circulation*	Average Daily Readership**	Readers per Copy	Reach
<i>Democrat and Chronicle, Rochester, NY</i>	145,193	379,913	2.604	48.6%
<i>Times-Dispatch, Richmond, VA</i>	175,265	403,820	2.304	38.9%

\*Audit Bureau of Circulations, 2008      \*\*Audience-Fax, 2008a

**Integrated Audience**

Responses to the extent of each newspaper’s online audience were too limited to draw any conclusions, but it is important to discuss the integration of the online and print audiences. As audience preference for media changes, print readership has been declining and online readership has been increasing. To capitalize on this trend, newspaper organizations are seeking to combine print and online readership to demonstrate to advertisers the total impact of their product.

To this end, the NAA (in conjunction with the Audit Bureau of Circulations and Scarborough Research) has launched the Audience-Fax audience initiative. Audience-Fax provides a comprehensive database of 131 newspapers that shows print and online newspaper readership over different time periods as well as the integrated print and online audience for a seven-day period. In addition to combined print and web audience, Audience-Fax allows enables the user to break down audience by age, household income, and education.

Scarborough Research defines Integrated Newspaper Audience as “Adults in the market who have read the printed newspaper or visited the newspaper’s website(s), or did

## Discussion of Findings

both during the past seven days” (Scarborough Research, 2007, p. 2). According to Scarborough Research, readership figures are derived from the number of people who have “read or looked into” the print edition of the daily or Sunday edition of the newspaper in the past week in a specific DMA (Scarborough Research, 2007, p. 2). Table 23 shows the print, web, and integrated newspaper audience comparison for two newspapers of similar size.

Table 23. Comparison of Print, Web, and Integrated Newspaper Audience (Audience-Fax, 2008b)

Newspaper	Weekly Print Audience	Weekly Web Audience	Integrated Newspaper Audience	Total Reach
<i>Democrat and Chronicle</i> , Rochester, NY	618,668	111,360	628,898	80.5%
<i>Times-Dispatch</i> , Richmond, VA	687,615	146,367	711,758	68.6%

By integrating online and print audiences, newspaper organizations are attempting to show that readership is shifting to another form of media instead of diminishing. Although they are making considerable efforts to integrate their online and print audiences, it remains to be seen how advertisers will view this combination of media.

### Prepress and Production Workflows

The goal for this portion of the research study was to get a clear understanding of the prepress and production workflows for newspapers and evaluate how they compliment and interfere with each other. An additional goal was to determine if there are differences based on newspaper size. The answers obtained from the survey provided some insights about the workflows used in newspaper production. Although the sample size is small, some conclusions can be drawn.

#### Prepress Workflow

It is evident that PDF has become a de facto standard as a file format used to receive information from external sources. It is broadly used in many newspapers and usage of this format is increasing across newspapers of all sizes. Another key finding is that the majority of photographs come from internal photographers, while few photographs come from archives.

The data obtained about sources of information contrasts with the data obtained about process automation. The responses from Table 10 indicate that four of the newspapers use totally automatic archiving systems, while at the same time they are rarely using pictures from the archives (Figure 5). Although the percentage of pictures used from archives was relatively low, archiving was the most automated process.

There is more automation in the prepress workflow of the medium size newspapers. (The number of newspapers interviewed is too small to draw significant difference

according to size.) Greater prepress automation in medium sized newspapers contrasts with lower level of automation on the production side. In production, automation diminishes as the newspaper becomes smaller. This could be related to the investment needed for automating processes on the production side, which is much more expensive than it is to automate processes on the prepress side. Most of the pictures come from internal photographers, which mean a great deal of work on retouching images. However, photo retouching is the process that least often presents a bottleneck. This could be due to the fact that this process is often automated.

### Content Created

In the creation of the newspaper, the same workflow is used for the editorial and the advertising workflows. The researchers did not obtain information on how space is distributed, who can change space distribution and when, and where the content is finally assembled. Having this information would be helpful in understanding the workflows.

The data show that newspapers are producing content for other products differently from the content produced for the newspaper. This trend is significantly clear in the medium size newspapers, which are producing a broad variety of other products. Newspapers print some of these products; however, the number of products created in the prepress department is greater than the products printed. These different products are often completed using the same resources and workflow that is used for the printed newspaper (main product).

### Standards

There are few standards used, and no plans appear to be in place to implement more standards. It is interesting to see how the PDF-X standard is rarely used (with no plans for future implementation) even though the use of PDF files is extensive and growing. The automation in the process is not being achieved through the use of standards but by independent solutions.

### Production Workflow

According to the answers obtained from the survey, there are no major investment plans for upgrading or changing technology in the near future. Only two newspapers are planning to install CTP devices, and only one newspaper is considering the implementation of heat-set technology. It seems that the decrease in circulation and the uncertainty about what business model to follow in the next years are delaying these investments, which represent a very expensive decision in production workflow.

There is a total uniformity in the core process: cold-set web offset using oil-based inks. This structure is not appropriate to produce many commercial jobs, since some of them would need heat-set processes or UV inks for optimal production. This is reflected in the fact that the only product printed by all the newspapers in addition to their

own newspaper is other newspapers. This seems to confirm the trend seen in secondary research of the consolidation of different newspapers into one location. However, another trend described in secondary research—hybrid production—cannot be supported by the data obtained in the interviews.

Film is still used by two of the research study newspapers, and one newspaper has no plans to incorporate CTP into their workflow. Large newspapers may be reluctant to invest in this technology because of the lack of ROI, and small newspapers may not be able to sufficiently reduce staff to justify the expenditure. It seems that medium size newspapers have more readily embraced CTP.

### Automation and Quality Control

Results seem to show a correlation between the size of the newspaper and the level of automation; the larger the operation, the more automation present. There is almost no automation in small newspaper workflows, but processes are more automated in the medium and large newspapers.

Quality control seems to follow a pattern similar to automation. Small newspapers do not have formal quality control procedures in place, while medium and large newspapers do.

### Graphical Representation of Newspaper Publishing Workflow

Figure 10 shows a graphical representation of the newspaper publishing workflow based on the responses to the questionnaire. Some of the concepts shown in the graphical representation are:

- **Source of images used in the workflow:** Most photos come from internal photographers rather than from archives.
- **Use of PDF:** The PDF file format is growing in use, and has become a de facto standard for receiving files from external sources.
- **Other products:** Products were generated in addition to the core product in both the prepress and production workflows. Newspaper prepress departments are generating a variety of products that are different from those printed in production.
- **Degree of automation:** There is almost no process that is fully automated. Most of the processes are partially automated, and some are still done manually.

This graphical representation is an extension of a model developed by Claudia Cristina Alvarez Casanova (2008). It has been enhanced to include data from this research study.

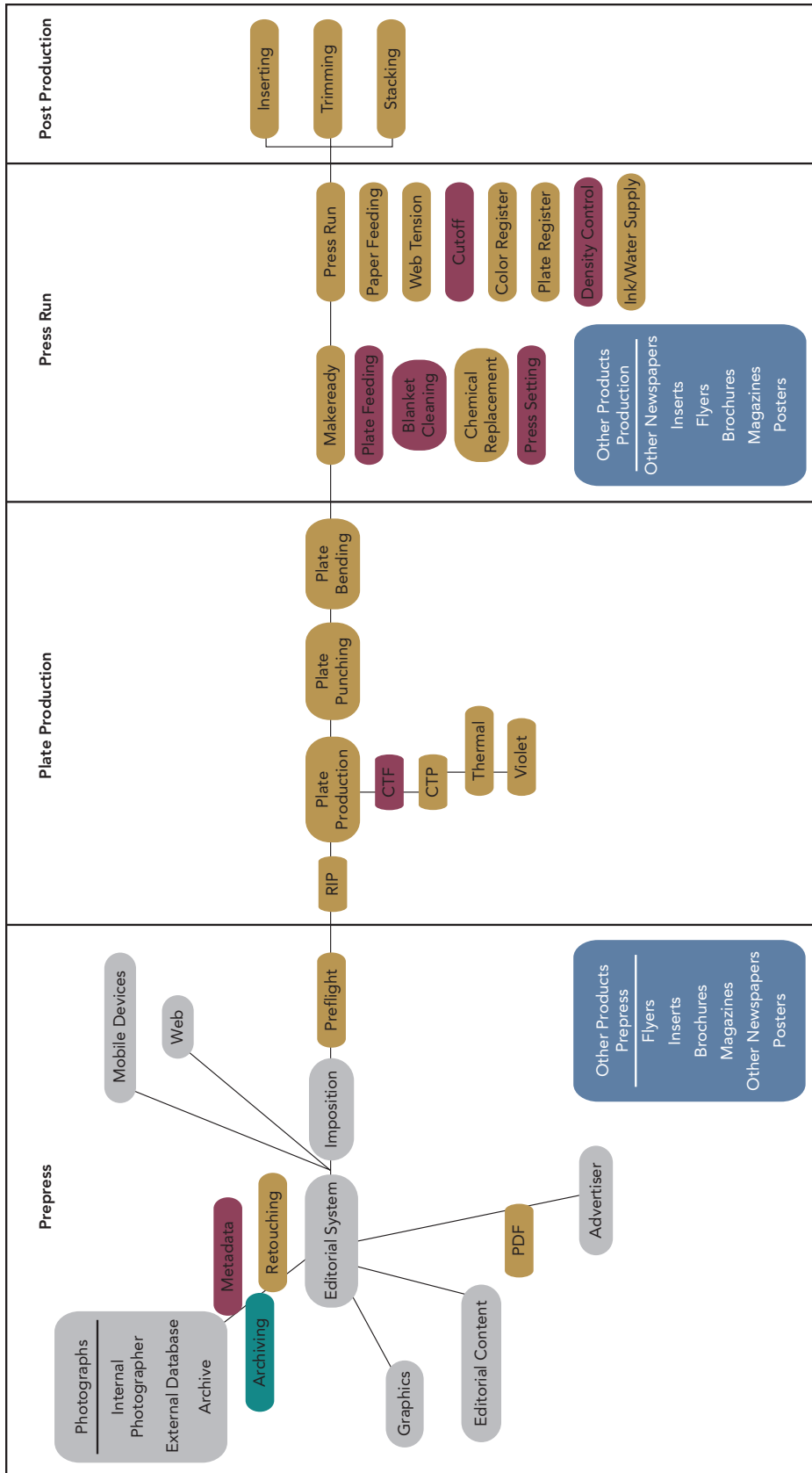


Figure 10. Graphical representation of newspaper workflow (Adapted from Alvarez Casanova, 2008)



### Other Findings

#### Outsourcing

Medium newspapers appear to be strongly considering the outsourcing of prepress services. It may be that medium newspapers have the optimum size for the outsourcing of this digital process. In large newspapers, prepress is a customized process that may be difficult to outsource, and small newspapers may not have enough resources involved solely in prepress to justify outsourcing.

None of the newspapers in this study are considering the outsourcing of the printing process because it is still seen as a core business in their business models.

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## Conclusions and Implications

### Business Strategy

Newspaper publishers realize that they can't be 'married to the newspaper' if they are going to remain viable businesses. Successful companies are beginning to look very different from the traditional model discussed earlier. To quote Michael Kane, former President and Publisher of the *Democrat and Chronicle* in Rochester, New York: "Newspapers are still labeled by SIC as a manufacturing sector, and that needs to change. ...while print is not dead, it's growing in different ways" (M. Kane, personal communication, April 30, 2008).

A review of the 2008 *Newspaper Next* report further substantiates this point. According to the report, today's newspapers are working very hard to create new products and revenue streams. The majority of these innovations support the existing business model. The report emphasizes that the innovations must take place more quickly in order to offset the rapid decline in traditional revenue streams (American Press Institute & Innosight LLC, 2008).

An appropriate and successful model for newspapers involves a diverse mix of product offerings. The *Democrat and Chronicle* has taken this approach, which is illustrated in Figure 11.

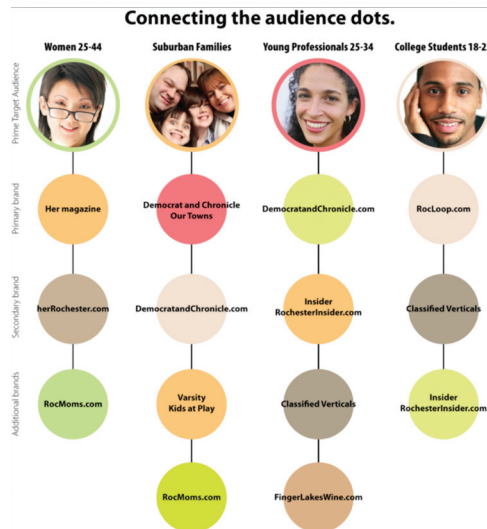


Figure 11. Diversified newspaper product offerings (Kane, 2008)

## Audience

Newspapers have accepted that their core audiences are composed of middle-aged and older readers. They have also accepted that younger readers will read the printed newspaper far less. To deal with diminishing readership, newspapers have developed several approaches. These approaches fall into one or more of three broad categories. The first approach is to increase online readership to compensate for the loss of print readership. The second is to increase relevance in the local media market, and the third is to maximize the present value of the core audience. Typically, these broad approaches are combined into a total strategy for the marketplace.

The success of increasing online audience to compensate for the loss of print audience depends on how success is viewed. Current non-readers as well as print readers need to be directed to the organization's website. The challenge is to convince advertisers that the editorial and advertising relationship that has held true for so long in print is of equal value for an integrated print and online audience.

An obvious way to increase relevance in the local market is to provide high-quality local news and event coverage. Since readers have almost unlimited sources of national and world news, this type of news has become a commodity that readers can obtain on demand for little or no cost. By focusing more on local events, newspapers are able to maintain relevance in their markets. Newspapers are well suited to in-depth coverage of local news because of their proximity to the marketplace and long-standing knowledge of important local issues.

The challenge to increasing local relevance is existing competition. For decades, free local newspapers and total market coverage products have served the local market. Also, the emergence of free local content through online sources such as Wikis undermines the ability of newspapers to compete in the hyper-local market. With the existence of

these small flexible competitors, it remains to be seen whether newspapers can acquire a significant percentage of this market.

Perhaps the greatest strength of any newspaper is the knowledge of its own readership. Detailed knowledge of readers allows newspapers to mine and exploit valuable segments of the audience. This knowledge has led many newspapers to create niche products targeted to high-value and underserved areas of their audience.

The idea of 'cherry picking' profitable segments of the market is not new. However, unlike other businesses, newspapers already have the majority of local market share. Therefore, carving out profitable segments of a market it already dominates may prove to be detrimental by creating a series of disconnected pieces that no longer represent the entire community.

### Workflow Trends

Newspapers are doing more types of commercial jobs in the prepress department, using the same people and workflow through automation in the process without the use of standards. Most of the images used come from in-house photographers, while very few come from archives. The medium size newspapers produce a wider variety of jobs and are using more automation. Additionally, PDF is gaining acceptance as a format for interchange files.

All newspapers in this study are using cold-set technology with oil-based inks without plans for future investments. There is a clear trend for consolidating printing plants and printing different newspapers in the same facilities, but newspapers are not embracing heat-set or UV technologies in order to produce a broader variety of products.

Another trend that was observed among the research respondents was the relationship of newspaper size and automation; the larger the newspaper, the greater the level of automation in the production process.

# Agenda for Further Research

The outcomes derived from this research study suggest opportunities for research in additional focus areas. Some of the key areas identified were:

- A comparative study of U.S. versus international news publishing companies.
- A more in-depth study of print and on-line audiences, with a specific focus on how they are used in combination.
- A study of skill sets (prepress, press and editorial) for future employees in the current and future news media industry. A study such as this should take into account the new business model.
- An in-depth look at the personalized newspaper: How does the workflow have to change and automate to accommodate this (and in particular if the same content is repurposed for different media)?
- An investigation into what the core audience of newspapers will look like in the future. Will the new audience be too diverse to have a single core?
- What are advertisers' attitudes toward the integrated newspaper audience measure compared to the measures of total paid circulation, readership, and reach?
- Due to the growing importance of user-generated content, it would be interesting to obtain historic data about the source of photographs to evaluate if the trend toward more local content and citizen journalism is affecting the way in which photographs are used.
- Examine the effect of production efficiencies such as:
  - Not publishing every day,
  - Reducing page count, and
  - Larger ratio of advertising to editorial.

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## Appendix: Survey Questions

### RIT Printing Industry Center Newspaper Research Study - Interview Questions

The newspaper industry is being redefined by changes of historic proportions in news content and delivery. One reason for this declaration is the reduction in circulation and the transference of audience attention to non-print media. Subsequently, the printed newspaper is no longer the primary “news” information source for most people.

The objectives of this research study are:

1. To get a unified understanding of the traditional and emerging newspaper publishing business models for large, medium and small newspapers.
2. To get a clear understanding of the print editorial and advertising workflows and how they compliment and interfere with each other.
3. To review an analysis of the audience for the various print and on-line newspaper products.

It is hoped that the outcome of this research study will have implications for newspaper publishers, commercial printing companies, print service providers (trade binders, mailing and fulfillment companies), equipment manufacturers and industry associations.

As a newspaper professional you are being asked to provide information which will assist the researchers in achieving the objectives outlined above. Your name and the name of the company will not be published without consent.

#### A. Demographic Information

Name and location(s) of company \_\_\_\_\_

# of employees (all locations) \_\_\_\_\_

Parent organization \_\_\_\_\_

Location of Parent organization \_\_\_\_\_

DMA(s) (designated market area) \_\_\_\_\_

Chief competitors in DMA for audience and advertising \_\_\_\_\_

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Person (s) interviewed \_\_\_\_\_

Position/job responsibility \_\_\_\_\_

**B. Market Information**

**Print Circulation**

Please provide print circulation #s for the core product (main printed newspaper) and other products. If designated differently, please explain.

Product	Circulation Data			
	Daily	Weekly	Weekend	Other
Main Newspaper				
Specialty Products				

**Business Model Information**

Revenues for content and advertising products sold/offered (e.g. daily paper, local/community papers/other publications, etc.)

Service	Category	Revenues, \$ Current	% Tot Rev Current	% Tot Rev Past 5 yrs	% Tot Rev Next 5 yrs
Advertising-Print	Classifieds				
	Other				
Advertising	Online				
Advertising	Other				
Circulation	Subscriber				
	Retail				
	Bulk				
Inserting					
Other Products	Commercial Print				
	Specialty Products				
	Other				
Other Services	Distribution				
	Addressing				
	Other				



Future Business Strategy and Newspaper Trends

1. What is the business strategy to maximize profitability and circulation for both print and on-line? Do you anticipate any of the following changes to your current business strategy?

Diversification	
Mergers, acquisitions, joint ventures, partnerships, etc.	
Divestitures	
Service diversification	
Other strategy (please explain)	

2. Are any major equipment investments or process changes planned for the next five years?

Purchase of new press	
Incorporation of CTP	
New software systems (MIS, Color management, Quality, etc)	
Other strategy (please explain)	

3. What physical changes in the printed newspaper do you foresee in the future?

Reduced web width	
Reduced page count	
Increased use of color	
Decreased use of color	
Addition of sections and/or features	
Elimination of sections and/or features	
Other strategy (please explain)	

4. Do you foresee any strategic changes in newspaper production?

Consolidation of printing facilities	
Outsourcing printing of all or part of the newspaper	
Off site printing of specialty publications	
Other strategy (please explain)	

**C. Audience Questions**

**Print Audience**

- 1. What is the average age of your core audience (Core audience is defined as the single largest group of readers)?

18-29	30-49	50-64	65+

- 2. Average age of core audience ten years ago

18-29	30-49	50-64	65+

- 3. Size of core audience compared to ten years ago

Larger	Same	Smaller

If size of audience has changed, what do you attribute the change to?

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- 4. Describe your organization’s business strategy regarding core audience?

Identify and invest in a profitable segment of the core audience	
Increase value added services to the core audience	
Establish a leadership role serving the core audience	
Optimize cash flow derived from core audience	
Divest from core audience	
Other strategy (please explain)	

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**Online Audience**

- 5. Size of online audience as a percentage of the printed newspaper

Less than 10%	10-25%	26-50%	51-75%	76-100%	More than 100%

- 6. What metrics are used to measure online audience? (For example, Scarborough Research, The Media Audit, Nielsen//NetRatings, etc.)

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## Appendix: Survey Questions

7. Does your organization combine online audience with print audience when presenting your newspaper's value proposition to advertisers?

Yes \_\_\_ No \_\_\_

If yes, how is this presented to advertisers?

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8. How do your readers compare the online and printed newspaper? Please indicate your preference using the letter "B" (Better) or if there is no perceived difference by using the letter "S" (Same).

Metric	Online	Printed
Ease of use		
In-depth news coverage		
Up to date news		
Perceived credibility		
Time spent reading		
Measured response to advertising		
Overall satisfaction		
Other (please explain)		

### D. Workflow

#### Prepress/Content Workflow

1. Do editorial and advertising use the same workflow? Yes \_\_\_ No \_\_\_

What software is used each process?

Editorial \_\_\_\_\_

Advertising \_\_\_\_\_

2. Which of these processes in your workflows have been automated?

Process	No	Partially	Totally
Preflight			
Photo retouching			
Embedding metadata			
Archiving			
Other			

3. Describe the steps used to create the content for non-print media (e.g. Internet, mobile devices, podcasts, etc).

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4. How much of the content used for the printed edition is used for other media (the Internet, mobile devices, podcasts, etc)?

Content Type	0% - 20%	21% - 40%	41% - 60%	61% - 80%	81% - 100%
Text					
Photographs					

Is this process automatic?

Content Type	No	Partially	Totally
Text			
Photographs			

5. What is the percentage of the external files received in a PDF format?

0% - 20%	21% - 40%	41% - 60%	61% - 80%	81% - 100%

Is that percentage growing? Yes \_\_\_ No \_\_\_

What other formats do your customers use to submit files?

- Quark
- Photoshop
- Illustrator
- Other \_\_\_\_\_
- Freehand
- CorelDraw
- Word

6. Order the processes below from 1 to 5. One is the process that more often becomes a bottleneck and 5 the process that is less often or never is a bottleneck.

- Processing of Ads
- Creation of editorial content
- Other \_\_\_\_\_
- Photo retouching
- Pagination

7. What percentage of the photographs used daily come from:

Source	Percentage
Internal photographer	
Archive	
External database or News services	
Total	100%

What software do you use to archive the photos? \_\_\_\_\_

## Appendix: Survey Questions

8. Which of the following standards have you implemented or plan to implement within the next three years?

Standard	Now	Future
ISO 12647-3		
IPTC		
PDF X		
ISO 9000		
ISO 14000		
ICC Profiles		
Other		

9. Do you design or produce content for:

Flyers                       Posters  
 Brochures                       Inserts  
 Magazines                       Other newspapers  
 Other \_\_\_\_\_

Do you use the same workflow as with the newspaper? Yes  No

Do you use the same people as with the newspaper? Yes  No

### Production (Printing) Workflow

10. Which of the processes below have you implemented or plan to implement within the next five years?

Process		Now	Future
Plate Technology	CTF		
	CTP Thermal		
	CTP Violet		
	Chemistry free		
Press Technology	Coldset		
	Heat set		
	Flexography		
	Digital Printing		
Press Configuration	2/1		
	2/2		
	4/1		
	4/2		
	6/2		
	Other		

Kind of Ink	Oil based		
	Alcohol free		
	UV		
Finishing	Inserting		
	Trimming		
	Poly bagging		
	Stacking		

11. Which of these processes in your production workflow have been automated?

Process	N	P	T	Process	N	P	T
Plate punching				Blanket cleaning			
Plate bending				Page reception			
Paper feeding				Ink and water supply			
Color register				Chemical replacement			
Page register				Plate feeding			
Density control				Web tension			
Press setting				Cutoff			
Other:							

N = Not automated  
 P = partially automated  
 T = totally automated

12. Order the processes below from the 1 to 5. One being the process that more often becomes a bottleneck and 5 the process that less often or never is a bottleneck:

- Plate Making
- Press Run
- Make ready
- Finishing
- Other

13. Do you have a procedure for quality control in the production process? Yes \_\_\_ No \_\_\_

14. What kind of information is collected in each process (e.g. time, waste, defects), how is it collected (software, manually, etc), and what reports are generated?

Process	Information Collected	A	M	Reports Generated
Platemaking				
Make ready				
Press Run				
Finishing				

A = Automatic  
 M = Manual

15. What kind of commercial jobs (if any) are printed in your plant?

- Flyers                       Posters  
 Brochures                       Inserts  
 Magazines                       Other newspapers  
 Other \_\_\_\_\_

Is that business growing? Yes  No

Do you use the same resources as with the newspaper? Yes  No

If no,

Stage	Description	Equipment	Comments
Platemaking			
Press Run			
Finishing			
Other			

16. Where do you see opportunity to improve your current production process?

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17. Have you considered outsourcing any of the following? Check all that apply.

- Ads processing                       Plate making  
 Photo toning                       Printing  
 Archiving and backups                       Finishing  
 Delivery                       Other \_\_\_\_\_

### Distribution Workflow

18. Describe the workflow steps used to distribute the newspaper after it is printed and finished. Provide details for the main stages to include the technology employed (kind of process, degree of automation and capabilities) and software that supports the operations.

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19. What are the bottlenecks and main constraints in the distribution process?

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20. Do you provide distribution services for other companies (e.g. newspapers, printers, etc.)? If yes, explain.

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