

100 Years of Progress

by Clark Robinson

On June 22, 1958, Richard E. Lewis, then manager of the American Newspaper Publishers Association's Mechanical Department, addressed a group of production executives in Atlantic City, N.J. ANPA's Mechanical Department is now NAA's Technology Department, and the production executives were assembled for the Thirtieth Mechanical Conference, which we now call NEXPO®.

"Over the Declaration Day Weekend, we moved our New York home office into shiny new quarters," said Lewis. "In getting ready for the move...one of the things that I ran across was the transcript of the first Mechanical Conference in Harrisburg. It was with a great deal of interest that I read through that piece of history and read names that all of you know and talk about as the 'old-timers.' I noted the problems that these 87 gentlemen in Harrisburg were facing then are pretty much the same problems we are facing today."

Forty-two years have passed since Lewis' speech and 72 since that first Mechanical Conference. And believe it or not, we are still facing the same problems: improving the printed quality of newspapers, reducing costs, and reducing the time a story takes to get from editor to reader. These are the same issues, in fact, that our predecessors faced in 1900. They are timeless.

The technological tools we use to solve them, however, are constantly improving. In 1900, reporters wrote stories by hand or on a typewriter; today they write them on a personal or laptop computer.

In 1900, platemakers used hot metal to cast letterpress plates; today they expose lithographic plates on a plate burner or platesetter. In 1900, distribution people carried stacks of newspapers by horse-drawn carts; today they send them via truck—or the Internet.

Throughout the past 100 years, ANPA/NAA has published information to help its members grapple with these technological changes. In 1900, this information was presented along with business concerns in the ANPA Bulletin. By 1927, technical information was published separately in the ANPA Mechanical Bulletin. That publication gave way to the ANPA Research Institute Bulletin in 1959. Twenty years later, the ANPA RI Bulletin was folded into a brand-new magazine called *Presstime*.

By 1990, however, members again wanted a separate vehicle for technology news, and ANPA's Technology Department began printing a newspaper called ANPA tech news. In 1995, tech news became *TechNews*, the NAA magazine of newspaper operations.

All of these publications are archived in NAA's Information Resource Center, providing an unbroken chain of technology news and information covering the past 100 years. What follows is a series of excerpts from these publications. They are not meant to constitute a complete record. Rather, they were chosen to show how technologies have changed during the 20th century, while the timeless issues of print quality, cost reduction and time to market have not.

Clark Robinson is the editor of *TechNews*. E-mail, robic@naa.org; (703) 902-1686; fax, (703) 902-1690.

All photographs courtesy of the National Archives.

CCI and NITF

I have read some of your articles about NITF and its growing support. I am glad to see that you help us and others within the news community in holding the torch for NITF.

Reading your articles "XML and NITF Take NEXPO" [July/August 1999, p. S11] and "Learning the (Meta) Language" [NEXPO'99 World Wide Web coverage, www.naa.org/conferences/nexpo99/thursday.html], I find a misunderstanding that I would like to correct. CCI Europe is not—as stated in your articles—merely "planning" support for NITF, but we were, together with another esteemed member of the IPTC, the first vendor to adopt NITF in early 1998.

We probably were the first company in the world to use NITF for coding of regular text stories and advanced tabular matter (e.g., sports and financial agate). All CCI NewsDesk Editorial installations since mid-1998 use NITF in production, including USA Today, The Washington Post, Chicago Tribune, the Sun-Sentinel in Fort Lauderdale, Fla., and many more.

The decision to use NITF as a format for interchange of news content from wires was made because the CCI NewsDesk Editorial and Pagination Systems have been based since 1994 on an internal SGML structure for text, with separation of content and presentation.

I believe that this separation of content and presentation in both the database and all surrounding applications, combined with an ability to create

large-scale solutions with advanced work-flow management, has been the main reason for these and other high-end newspapers selecting CCI Europe as a vendor.

Christian Ratenburg
Product Manager
CCI Europe
Højbjerg, Denmark

Fiber Separation

I read with interest your article on the proposed kenaf processing facility for Texas [September/October 1999, p. 33]. I have presented our fiber-separation technology to Kafus. Through another contact, I am about to approach Enron. I am pleased to learn that Enron may be involved with this project as well.

Unfortunately we do not seem to be making progress with Kafus, and I am puzzled as to why. The Tilby cane-separation technology was invented, tested and perfected for the sugar-cane industry. We subsequently found we can also efficiently separate kenaf, sweet sorghum and hemp into their fiber components. We are able to do this mechanically and can achieve separation rates of close to 100 percent. No one has done more work in the field of fiber separation than we have.

Rick Tilby
President
Tilby Systems Ltd.
Victoria, B.C.

Calibrating Color

I would like to respond to an article on your World Wide Web site concerning calibration of color instruments for use in the newsprint industry.

It is important to note that two specific international standards, TAPPI Official Test Method T525 and ISO Standard 2469, describe the instrumentation and procedures for measuring diffuse brightness. The associated color and opacity standards can also be referenced, but these two standards are the basis for all diffuse methods within the paper industry. Special care is given to take newsprint into account.

Also, in terms of calibration laboratories, ISO has a very specific hierarchy for the issuance and transfer of calibration standards. According to ISO conventions, there can only be one authorized laboratory in a given country. Technidyne Corp. is the U.S. representative. We are very proud of this honor since we were nominated by ANSI and accepted as the U.S. representative by completing the requirements set forth by ISO TC6, the paper-industry technical committee. Through this association, Technidyne has solidified its position among the leading paper-industry research institutions for optical measurement.

M. Todd Popson
Vice President
Technidyne Corp.
New Albany, Ind.

Poster Pays Off

Thank you for your assistance enabling us to put together a work-flow poster for our Y2K contingency planning [based on the TechNews "Less is More" poster, November/December 1996].

We printed out about a dozen copies for our contingency-planning meeting and got so many comments that we printed the chart—along with an explanation of our contingency-planning process—in our internal newsletter to employees.

Even with your template and artwork, it took weeks of gathering information and reconfiguring to fit our work flow. Without your help, it would not have been possible to do this sort of informational graphic.

Anthony J. Simollardes
Advertising Operations Manager
Worcester (Mass.) Telegram & Gazette

TechNews Statement of Ownership

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (Act of August 12, 1970; Section 3685, Title 39 United States Code).

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B. Paid and/or Requested Circulation		
1. Sales through dealers and carriers, street vendors and counter sales	0	0
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C. Total Paid and/or Requested Circulation	10,531	10,477
D. Free Distribution by Mail	465	433
E. Free Distribution Outside the Mail	272	1,439
F. Total Free Distribution	1,439	715
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H. Copies Not Distributed		
1. Office use, Leftovers, Spoiled	633	473
2. Return from News Agents	0	0
I. TOTAL	12,603	11,665
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- This Statement of Ownership will be printed in the November/December 1999 issue of this publication.
- I certify that all information furnished on this form is true and complete.

Clark Robinson, Editor

Advertising

BATTLING THE AGENCY MEN

I think about a year after the Mechanical Committee was appointed, Tim Beacom, who is the production manager of the Hearst newspapers, commented at one of our meetings that the Mechanical Committee should interest itself in the better printing of advertising.

The Mechanical Committee asked for permission to set up a committee with the AAAA to go into this matter. In working this out a joint committee resulted, consisting of representatives of the two associations.

I shall never forget the initial meeting of that committee. We had been battling all day long on how unfair the newspapers were to the national advertisers' copy when they got it; how little they cared about how it appeared; all they wanted to do was to give them a hunk of paper, smear it with ink, and let it go. The newspaper men naturally countered with the reverse of that, and said that the newspapers do a good job but the advertising agencies seem to think we are not entitled to any kind of a fair break.

The newspaper men complained that materials for national advertising were not received in good condition. The agency men countered, "When you get our stuff you don't take good care of it. You unpack it and put it in a pile. By the time it is ready to be printed it is all scratched up, and you say that the scratches were there when you got it."

Another complaint the agency men made was that newspapers would get a batch of cuts, illustrations for advertising, some of which would not be scheduled for use in six months, and they would remain in the newspaper office stacked up. The day before the insertion, six months hence, they would get a telegram from the newspaper saying they were shy such-and-such a mat or cut. They said, "You want to get your houses in order. You don't handle our stuff right. What are you complaining to us about?"

— F. H. Keefe
Publisher, Newburgh News
ANPA Mechanical Bulletin No. 44
Oct. 3, 1930



Printers assemble columns of metal type into page frames in 1948.

WE NEED BETTER COLOR!

Chairman Mintun: I want to bring before this meeting an article that appeared in Advertising Age dated June 23, 1958: "It was the apparent consensus at the American Association of Newspaper Representatives' Annual Meeting yesterday that the group should urge greater activity in improving ROP color upon the ANPA Mechanical Committee. The move followed complaints that newspapers are losing much business because of poor and varied reproduction.

"J.H. 'Jake' Sawyer, Vice President of Sawyer, Ferguson, Walker Co., proposed that the Bureau of Advertising of the ANPA hire a full time color consultant to work with newspapers, advertisers, and agencies to improve the quality of ROP color reproduction. He pointed out that last year 60 to 65 per cent of all magazine ad lineage was in color; 50 per cent of all advertising in newspaper supplements was color; and only 3 percent of all newspaper ad space was ROP color. We will never get the amount of color business that we are entitled to until we make more progress, Mr. Sawyer said. We have made some gains, but we still have a long way to go."

— ANPA Mechanical Bulletin No. 652
July 23, 1958

CONCERNS ABOUT QUALITY

Recently, a major national advertiser asked ANPA to come to their home office

to discuss concerns about newspaper print quality. After detailed discussion about screen rulings, halftones and quality standards, it was agreed that the advertiser would obtain a sample newspaper in each of the areas in which it planned to advertise. ANPA would then evaluate the quality of these newspapers using the proven ANPA Rapid Review criteria.

Looking at the results of the Rapid Review evaluation, none of the newspapers were judged very good, and only one was judged in the good category. Fifteen newspapers were considered average, 13 were fair, five were poor and one was judged very poor. Fifty-four percent of the newspapers were judged in the below average category.

What will ANPA tell this major advertiser, the one that did not think newspapers could print better quality? We will tell him that newspapers have improved their quality 100 percent since 1982, but we recognize more work needs to be done, and we will improve another 100 percent if that is what it takes to earn back their ROP business.

— Ed Eybers, ANPA
ANPA tech news
December 1990

NNN'S DILEMMA

What's black and white and read all over? A newspaper, you say? Not anymore. And because many of them have learned to print in color, newspapers are beginning to tap a new opportunity—national advertisers. The Newspaper National Network was created to persuade national advertisers in six under-represented categories to devote ever-larger portions of their budgets to newspapers. [Advertisers'] complaints include poor registration, muddy color, blemished plates, show-through and simply printing the wrong color.

NNN and NAA are responding with an umbrella called the Newspaper Color Reproduction Quality Initiative. NAA Senior Vice President of Technology Eric Wolferman says NNN's dilemma has forced the issue, already a priority, to the top of his list.

— TechNews, Volume 2, Number 5
September/October 1996

MONOTYPE MACHINE • LETTERPRESS • TYPESETTING

Editorial

TYPEWRITER DISCOUNTS

Members are reminded of the fact that this Association has a "special agreement" whereby it supplies its members with the following typewriters: on the basis of 10 per cent discount, 50 per cent cash and the balance in advertising space on namely: the Densmore, Yost, Caligraph, Remington and Smith Premier.

— ANPA Bulletin No. 744
June 18, 1900

TURN OF THE CENTURY TOPICS

The following were among the topics discussed at the ANPA Annual Meeting held in the Waldorf-Astoria Hotel, New York, Feb. 21, 22 and 23, 1900.

1. What action should the Association take in regard to the linotype machinists becoming members of the Typographical Union?
2. Which is the best plan of paying linotype operators—by the time or the piece scale?
3. About what proportion of difference should there be in the prices paid for composition on morning and evening papers?
4. When will type setting machines sell for \$500 or \$1000?
5. New devices for Stereotyping. The Auto-Plate.
6. Is it feasible to use linotype slugs in the melting pots on the machines instead of casting into ingots?
7. Cannot some general arrangement be made by district for the use of some automatic sealing device on papers?
8. Shall the ANPA establish a school for the instruction of Stereotypers, Linotype operators, Pressmen, etc.?
9. Counting Room Methods.
10. What are the prospects for cheaper newspaper? To what extent is the so called paper trust responsible for the advance in the price of newspaper?

THE AFTERNOON WIRE

Morning newspapers since 1953 have had the stock lists available on Teletypesetter. The morning newspaper wire is ideal for newspapers which are not particularly pressed for time, and where only the closing lists are required. More than 60 newspapers now use this wire.

Following the successful launching of a market wire for morning newspapers, many afternoon newspapers became interested in the possibility of establishing a Teletypesetter wire to meet their requirements. Here, two difficult problems were encountered. First were deadlines occurring soon after the stock exchange close; and second were requirements of newspapers which print editions while the market is open and prices changing.

Several years of intensive study were devoted to overcoming these problems. A practical, high-speed system finally was developed, and the first successful market wire for afternoon newspapers was inaugurated less than a year ago.

— Blanton Kembell, Associated Press
ANPA Mechanical Bulletin No. 719
July 19, 1960

NEWSROOM OF THE FUTURE

Each reporter will have an electronic typewriter console with a cathode ray tube (CRT) screen. As the reporter types his story, it will be either recorded directly into the storage memory of the computer, or displayed on the CRT screen for corrections and changes and then sent to computer storage. Reporters covering stories away from the office will use a portable transmission unit and transmit their stories via an acoustical coupler connected to an ordinary telephone. State and wire copy will be recorded on magnetic tape, run through a tape reader, and put into the computer's storage unit.

A group of editing consoles will take the place of the copy desk. These consoles will be equipped with cathode ray tube display terminals, light pens, and keyboards. Using his keyboard, the editor



Editors direct coverage in this 1942 newsroom scene at The New York Times.

will call up any story he wants from storage. He will also be able to call for other information displayed on his console screen. Using the light pen and keyboard, the editor will edit stories. When finished the editor will press a button and send the edited story back into storage.

When all editing is completed, the computer will prepare the tape, either punched paper or magnetic, used to run the automatic photocomposing machines.

— ANPA Research Institute Bulletin
No. 1008
Jan. 26, 1970

VISIONS OF DIGITAL CAMERAS AND PHOTOSHOP

The newspaper graphics of the future will be produced entirely in an electronic darkroom. The reporter-photographer will use an electronic still camera to capture a digital image in a bubble memory or charge-couple device. The camera will have an adapter to compress and transmit the photos over a communications line to the central newspaper office. Photography carried back to the office will be input directly to the system.

Stored image information will be processed electronically at high-resolution graphics display terminals. The system will process the finished graphics and, based on gray scales, will electronically transform the image information to the halftone data required for the press, all without a loss of quality.

A more complex and high-resolution terminal will be necessary for color work. This terminal will support color separation, color correction, electronic

air brushing and adjustments to minimize moiré pattern interference.

— Dr. Joseph E. Rowe
Vice President of Technology
Harris Corp.
ANPA Research Institute Bulletin
No. 1330
Sept. 24, 1979

PUNCH'S PROGRESS

Just eleven months ago at The New York Times you could hear echoes of Gutenberg and Ottmar Mergenthaler. We still had a few dozen linecasting machines—down from 130 in the heyday of hot metal. In fact, as recently as five years ago, the Times was still paying over 800 printers to put its pages together in the time-honored way!

Today, there is no significant area of the Times that isn't in the forefront of either using or planning for new technology. The Times is completely converted to cold type, full-page laser scanners and radio transmission to its offset satellite plant in New Jersey.

The technological possibilities seem boundless. I even have a terminal in my office, on which I regularly exchange ideas with our editorial page editor, in what is, no doubt, a forerunner of electronic mail. At first, I inadvertently caused a problem by signing my notes with my nickname "Punch." Apparently, that word triggered the system downstairs to spew out paper tape—no one could figure out who wanted all that tape!

— Arthur Ochs Sulzberger
Chairman of the Board and Chief
Executive Officer
The New York Times Co.
ANPA Research Institute Bulletin
No. 1331
September 26, 1979

WAITING FOR PAGINATION

Pagination—that's the exciting new development that always seems to be just around the corner, and it's staying just around the corner. My guess is that full pagination is still several years away. Perhaps we shouldn't be surprised, con-

sidering the problems of graphics.

What is surprising, is that text-only pagination has been so slow in coming. Layout terminals have been around for more than five years, but I can't find a single major newsroom that has one.

— Rodger Adams
Assistant to the Editor
Minneapolis Star
ANPA Research Institute Bulletin
No. 1336
October 10, 1979

EARLY ATEX

The Providence (R.I.) Journal and Bulletin uses an Atex system with four computers and 64 terminals, soon to be expanded to 72. In spite of a determined effort to police the situation, we ran out of computer storage. We are now in the process of adding significantly to our storage capacity, because we do not want to curb staffers' legitimate use of the system.

It does not make sense to tell reporters they may not use the system to take notes. Nor does it make sense to tell columnists that they can't store chunks of 20 columns if they are accustomed to juggling many different columns at once.

— Charles Hauser
Vice President and Executive Editor
Providence (R.I.) Journal and Bulletin
ANPA Research Institute Bulletin
No. 1337
Oct. 24, 1979

BEYOND PAGINATION

It's a given today that traditional pagination—the electronic compilation of all page components, including type, graphics, photos and logos for final output to a completed page—has been achieved, at least by some. However, newspapers are already redefining pagination as new software makes it possible for pagination solutions to be just parts of even larger, enterprise-wide, information-management systems.

— TechNews, Volume 5, Number 3
May/June 1999

THE FIRST NEXPO

The first ANPA Mechanical Conference (now called NEXPO®) was held in Harrisburg, Pa., June 8 and 9, 1927. The following is an edited excerpt from the opening address by Charles F. Hart, mechanical superintendent of The New York Times.

So far I have gotten a wonderful kick out of this conference, even if nothing else happens. When I can get a couple days off to chat with people in sympathy with me and who understand my language, that is all the pleasure I need to come to Harrisburg.

A lot of publishers have come to see me from time to time on mechanical matters, and I would tell them how sorry I was that so many came. I would say that some day publishers are going to realize they are spending an enormous amount of money for machinery, materials and labor.

They need a clearing house. They need a mechanical department with a manager who will gather and disseminate mechanical information and offer advice to the publisher who doesn't have expert services.

There were over 200 delegates at the last publishers' convention, and there were a lot of very fine discussions. But it was lame in some respects, because the men were not in possession of facts and mechanical knowledge.

Finally it became quite controversial, and a friend of mine up on the platform said, "Mr. Hart is here, mechanical superintendent of The New York Times. He can straighten us out on this. Won't you come and talk to us, Mr. Hart?"

I did and advocated a mechanical department. Mr. Wiley, our business manager, was there, and he motioned that a committee be appointed to work out a plan for a new ANPA mechanical department. This was carried. So that was really the start of this movement.

There are all kinds of possibilities ahead of us, provided we get into the spirit of the thing. I may take off my coat and throw myself into any argument. But the whole success of this conference is up to you pioneers gathered at this initial meeting, and I think you are making history in the mechanical end of the newspaper.

PHOTOCOMPOSITION • OFFSET PRINTING

Pre-Press

EMS PER HOUR

Will members of the Association who intend to be present at the annual meeting come prepared to furnish information as to the average number of ems per hour of composition they secure in their respective composing rooms, and, also, the method of measuring to arrive at the result? If this information can be turned over in writing, together with the average wages paid, it is thought that the information would be valuable and interesting to the Association at large.

— ANPA Bulletin No. 698
New York, Feb. 3, 1900

A GROWING EVIL

Dear Sir:

Permit me to call the attention of your Association to a growing evil in connection with Linotype plants, one which unless corrected will eventually lead to much trouble and expense. I refer to the increasing practice of putting the machines in charge of men who are not skilled mechanics, men who have not received the shop training necessary to fully appreciate the reasons for and the action of the more delicate and accurate parts of the machine.

Thoroughly trained, skillful mechanics will, at small expense to the owner, keep the machines in first-class running condition year after year. On the other hand, men who have "picked up" their trade about the printing office as assistants, will permit a gradual depreciation of the machines, leading to a reduced output, an inferior product, and ultimately to large expense for rebuilding.

No large plant of machines should be entrusted to any man who has not graduated from a first-class machine shop. If entrusted to others, they should be inspected at reasonable intervals by a high-class mechanic.

Yours very truly,
P.T. Dodge
Pres. Mergenthaler Linotype Co.

— ANPA Bulletin No. 2142
New York, February 21, 1910

INTRODUCING COLD TYPE

The Fotosetter developed by Intertype Corp. has an assembling unit, a camera, which exposes the matrix, characters on film or photographic paper, and a transfer distributing unit which returns the line of matrices to the magazine.

The matrices are delivered to the assembling elevator by keyboard operation. All succeeding operations are entirely automatic. The line is delivered to the camera and the justifier sets itself for the required amount of expansion. Matrices are then elevated to the camera aperture, one-by-one in a continuous stream, and each character is individually exposed on the film.

— Reg Tranter
Mechanical Superintendent
Boston Herald and Traveler
ANPA Mechanical Bulletin No. 414
July 14, 1950

EARLY PAGE FAXING

To obtain the economies promised by photocomposition and offset printing and to deliver the newspaper to subscribers throughout the country more quickly and cheaply during a period of rising postal rates and declining railroad service, the remote printing of all editions of The Christian Science Monitor, Boston, Mass., was established during 1970.

It was soon found that flying negatives to the remote locations was subject to weather conditions in Boston as well as at the remote sites, and these deliveries were further jeopardized by labor disputes and all normal airline operating difficulties.

Using the Litcom Pressfax 501 transmitter at 400 rpm and 600 lines per inch, the page is sent over the AT&T 48 kHz lines in approximately 22 minutes.

— ANPA Research Institute Bulletin
No. 1040
Dec. 30, 1970

CTP PREDICTIONS

Once the total page can be put into the computer, the logical extension is to eliminate phototypesetting, the camera



As they typed, Linotype operators released brass molds; when a line was assembled, it was cast with molten metal.

room and the negative, and go directly from the computer to the plate.

Laser platemakers are here—they now operate from paste-up. The software interface between the computer and the platemaker must still be developed.

By 1990, newspapers should be able to go directly from their computer systems to plates. Beyond that, I refuse to predict; but the logical extension is to go directly to an ink-jet press.

— Joseph M. Ungaro
Vice President and Executive Editor
Westchester Rockland Newspapers Inc.
White Plains, N.Y.
ANPA Research Bulletin No. 1336
Oct. 10, 1979

CTP ARRIVES

These days, more and more newspapers are calling on computers to cut out the analog film stage. Though not the ideal solution for every paper, the benefits of computer-to-plate technology are unmistakable. Newspapers can take more control over work flow, improve reproduction quality, and save time and money—a little money, that is, and only in the long run. But going from film to CTP is neither a simple step nor easy to justify.

"We were skeptical," says David Stone, vice president of operations at the Lexington (Ky.) Herald-Leader. "But we learned firsthand that it works, and we learned what we had to look out for."

— TechNews, Volume 5, Number 2
March/April 1999



JUST WHEN YOU THOUGHT YOU WERE SAFE FROM THE COMPETITION...

These days you face a variety of online predators who are seeking a piece of your classified and display advertising market share. To fend off competition and retain your turf, you need an Internet strategy that leverages both your advertising content and your long-standing tradition as the first source of information in your community.

By empowering your customers with web-based classified ad entry and ad searching capabilities, Enterprise™ Online Services can help you realize the tremendous advantage your brand gives you over other online classified sites.

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NEWSPRINT WASTE IN 1900

The publisher of a New York City morning newspaper states that in printing ten million copies of the paper, the dark waste—the difference between the number of papers the press registered as printed and what the books of the office accounted for—was 2.51 per cent. And that the average of white waste—the paper that was returned to the paper mill as stripped from the roll before printing and attached to the core—was 2.92 per cent. Thus showing a waste of 5.43 per cent, of the paper invoiced. The publisher desires to inquire whether both of these items are not excessive.

—ANPA Bulletin No. 692
Jan. 15, 1900

EARLY COLOR LITHOGRAPHY

Members will watch with interest the developments as to the new multi-color lithographic press of the American Lithographic Company, which is now stated to be in practical operation. The machine prints from the web in six or more colors and completes the work at one operation at a speed of 3,000 to 5,000 sheets per hour, and requires no make-ready.

—ANPA Bulletin No. 730
New York, May 11, 1900

WASTE VARIES WIDELY

Reports of pressroom waste as made by publishers disclose extraordinary variations under almost every heading.

In one instance the total for white and printed waste and wrappers exceeds 8 per cent. In another office, it barely exceeds 3 per cent. Some report over 2 per cent damage in transit. Many report no damage. Some have excessive white waste in the pressroom. Some report no waste. Some run the paper down to the core. Some papers utilize all the white waste for office purposes. Some do not bother with it. Some find that the white waste is insufficient for



Made out of curved lead castings, plates were locked onto letterpress cylinders.

their office needs and use some of the printable paper for office purposes.

Some charge the railroad companies with all damage. Some charge that loss to the paper maker. Some charge the carrier for the deficiency between the paper maker's price and that for which they can dispose of the waste to junk men.

—ANPA Bulletin No. 2179
April 20, 1910

SELLING OFFSET

When thoroughly understood and properly operated by competent workmen, there is no questioning the fact that offset lithography is in the majority of cases the simplest and cheapest method of putting ink on paper.

As most or all of you know, there has been installed in Trenton a massive, well built, four-color, web, perfecting, offset newspaper press, full size, capable of printing two 8-page or one 16-page signature, in any combination of from one to four colors, simultaneously on both sides of the web. This press has a speed of 12,500 cylinder revolutions per hour, will take a 68 1/4-in. web, and has a 23 9/16-in. cut off.

This is the largest and fastest web, perfecting, offset press on the North American continent. It is the trail blazer for the injection of the offset process into the newspaper field.

—Clarence W. Dickinson
Manager, Offset Press Dept.
R. Hoe & Co.
ANPA Mechanical Bulletin No. 241
Oct. 16, 1940

OFFSET TAKES OVER

Of the 1,758 U.S. daily newspapers, 580 or 33 per cent, were printed by the offset process.

—ANPA Research Institute Bulletin
No. 1021
Easton, Pa.; July 29, 1970

Of the 1,778 U.S. daily newspapers, 1,283 or 72.2 percent of the total, were printed by the offset process.

—ANPA Research Institute Bulletin
No. 1315
Easton, Pa.; April 18, 1979

DIGITAL PRESS PREDICTION

For years the newspaper business has searched for a way to modify a litho image while the presses are turning. Currently, we're learning how to mark materials with lasers at very high speeds. We're confident that one day advances will be made to provide a new way to change copy while the presses are moving.

—Dr. Peter Cannon
Staff Vice President/Research
Rockwell International
ANPA Research Institute Bulletin
No. 1330
Sept. 24, 1979

HOTBED OF INNOVATION

There stand the presses, tons of metal webbed with newsprint standing three stories high, immutable as mountains. Right? Actually, no. Press technology has become a hotbed of innovation. The people who make presses—and the people who use them—are excited. Keyless. Shaftless. Single-fluid lithography. Digital. Listen:

"We think single fluid is going to be the greatest thing since sliced bread," says Al Sheng of Goss Graphic Systems. Sliced bread? Now that's excitement.

—TechNews, Volume 4, Number 6
November/December 1998



**"In the last year,
SITMA's technology
has allowed us to
go from 500,000
pieces a week to
1,200,000."**

Doyle Evans — Houston Chronicle

Let your advertising work harder.

Right now, most newspapers' preprints and circulars reach the random masses. But imagine the profit potential in delivering ads particularly targeted to each household.

This is one of the many capabilities of SITMA's technology.

Just ask the Houston Chronicle with their four SITMA lines. "In the last year, SITMA's technology has allowed us to go from 500,000 pieces a week to 1,200,000," says Doyle Evans, Director of Packaging and Distribution.

Jack Stanley, Vice-President of Operations, adds, "This phenomenal

growth is possible because advertisers immediately see the benefits. It allows the advertiser to come in and reach highly-targeted subscribers through the newspaper. And for the targeted non-subscriber, their package comes in the mail. We reach virtually 100% of the market."

The technology? SITMA's state-of-the-art compiling, collating, polywrapping and address-inkjetting equipment makes it possible to target demographic audiences with pin-point precision.

SITMA, the leader in high-tech automation equipment, provides the expertise in electronics, servo technology and proven mechanical

operation to pull off this feat with ease. We back all our equipment with solid service and 24-hour support. And the modular design of SITMA equipment allows you to grow with your operation, so it's effective now and in the future.



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MAILROOM INVENTION

Mr. Lee Agnew, the Eastern representative of the Chicago Times Herald, has been at work for some years in perfecting a wrapping and mailing machine invented by him. The machine will prove to be a great money-saver to newspapers that have a large circulation, and it will wrap and address between 7,000 and 10,000 papers per hour.

— ANPA Bulletin No. 694
Jan. 26, 1900

THE "MODERN" MAILROOM

The story of the development of a modern mailing room might read very much like a play. In Act I, the curtain rises on a scene showing a typical mailing room of the 1930s. Many details and sounds are immediately familiar.

The noise of the conveyors which conduct the papers from the press room would be the first thing to attract one's attention; then the commotion, fly-boys carrying the heavy bundles, first to one table and then to another.

Next our attention is drawn to the mailers—continuously toiling, lifting bundles, counting, pasting, wrapping and tying with twine. Always, however, the bundles of papers in the room grow higher and higher.

If we were to skip now to Act 3 of this play, we would be surprised and probably amazed at the complete transformation. In this scene the papers flow in a continuous straight line from the conveyors through bundling machines and down chutes. There is little moving of stacks, the mailers are not moving bundles, everything looks easy and efficient. Even more striking is the fact that there is no accumulation of papers, because just as soon as the papers come off the conveyor they pass at the same rate right through the room.

— Dr. Burnett M. Thall
Production Engineer, Toronto Star
ANPA Mechanical Bulletin No. 413
July 7, 1950

BUNDLERS' BIRTH

The Wallstar Bundler was the first development which permitted improvement in the mailing procedure. This machine was developed and built in the Toronto Star Research and Engineering Department.

Its electrically controlled brain automatically performs the bundling operation which consists of subjecting a bundle to a thrust of approximately 4,300 pounds; and while in this compressed position, a wire of the appropriate length for the bundle is cut, wrapped about the bundle and the ends welded together. After this operation the bundle is automatically ejected toward the delivery platform.

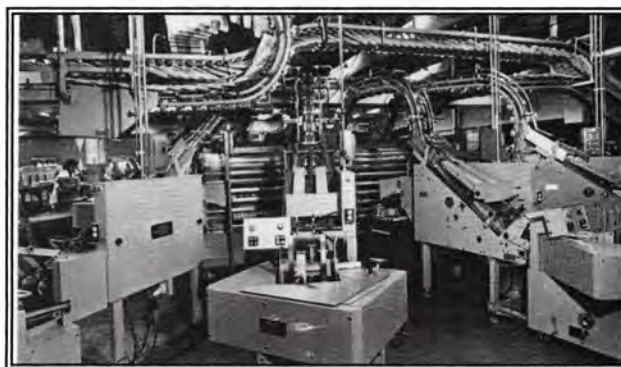
— Dr. Burnett M. Thall
Production Engineer, Toronto Star
ANPA Mechanical Bulletin No. 413
July 7, 1950

THE SHERIDAN STUFFER

It was during one of my visits to Philadelphia that the birth of the stuffing machine took place. To the best of my recollection this was during the year 1943. The first order was placed in June 1944.

The Sheridan stuffing machine is a circular, rotating machine driven by a 5-hp main drive motor. The machine can be furnished with eight automatic feeding stations, capable of handling standard size newspapers with open or closed head fold. The maximum machine operating speed is 12,000 per hour. Paper conditions, occasional misses in taking the section from the hopper feed, and the present lack of know-how on the part of mailroom employees, slow this maximum operating speed down to approximately 7,500 to 9,500 seven-section newspapers per hour.

— H.S. Young
T.W. & C.B. Sheridan Co.
ANPA Mechanical Bulletin No. 413
July 7, 1950



The State Journal-Register of Springfield, Ill., was among the first to move to online inserting in 1980.

GOING ONLINE

The State Journal-Register of Springfield, Ill., a Copley newspaper, is the first daily in the United States to install a Ferag on-line inserting system. Development of this system began in 1973. The first installation at a European newspaper took place in 1976. Manning requirements have been exceptionally favorable, because the newspapers coming off the press and out of the inserting drum are handled automatically. One person is required to feed the hoppers, a relatively simple task.

— Presstime, Volume 2, Number 5
May 1980

PREPRINT PLOT TWIST

Run-of-paper advertising, previously the unchallenged hero of our newspaper-revenue plot, has declined in importance. Preprints, formerly a minor character, have grown into a major revenue source, as newspaper sales reps compete with direct-mail counterparts.

But wait, there's a twist: Preprints have become a complex and sometimes uncertain factor, with part-run distribution soaring and full run slowly declining. And while preprint advertisers like some of what newspapers are doing, they are also demanding more zoning, greater flexibility and better reliability.

— TechNews, Volume 4, Number 4
July/August 1998

New Media

OLD NEW MEDIA

In the late 1930s and 1940s, there were those who were certain that in-the-home newspaper facsimile would replace the conventional newspaper. In 1948, a fairly extensive test of quality home facsimile was made in Miami via FM radio transmission. Although there were no technical problems, and the editions were well done and frequently updated, the idea failed in the marketplace. The public still preferred the conventional newspaper.

— Presstime, Volume 2, Number 6
June 1980

MULTIPUBLISHING FUTURE

Ten years from now your product will most likely be distributed in more than one format. You may have one edition for the newsstands, and another transmitted for home delivery. An edition may even be available for display on television sets of customers who can also order a hardcopy printout. These varied needs will be handled through an optimized page layout approach.

— Paul M. Schmitz
Vice President, Hendrix Electronics Inc.
ANPA Research Institute Bulletin
No. 1338
Oct. 31, 1979

ONLINE NEWS, EARLY ON

The AP will begin an experiment with 11 member papers and CompuServe to offer computer information services. Cost will be \$5 per hour. "We're trying to find out what a person with a home system would really dial up and spend their money on," said AP's Keith Fuller.

— Presstime, Volume 2, Number 7
July 1980

ONLINE CLASSIFIEDS

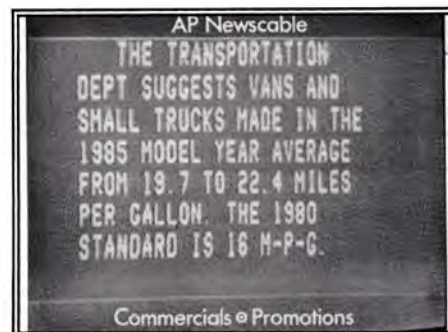
Classified advertising has been suggested as a starting point for video

display. But a person looking for a job, or a home, or an automobile, needs time before making such an important decision. Only newspapers provide this advantage.

— Richard C. Steele, Publisher
Worcester (Mass.) Telegram
& Evening Gazette
Presstime, Volume 2, Number 6
June 1980

THE FIVE CS

Much as the traditional newspaper is more than the sum of its parts, an online paper builds on traditional components, then diverges into emerging opportunities. To illustrate how these opportunities are becoming interconnected, we explore



Early videotex experiments fused news with local cable networks.

the "5 Cs" of newspaper strategy: classifieds, commerce, content, community and convergence.

— TechNews, Volume 5, Number 5
September/October 1999

WAITING FOR A REPRIEVE?



For some systems, Jan. 1, 2000, means the end of a long stay on death row. Baseview customers don't need a call from the warden, because they're ready to roll into the next century. Not only is Baseview prepared for the year 2000, but we've always been prepared, thanks to some of the best Circulation, Advertising and Editorial software developers in the business. So if you don't already have Baseview software, there's still time . . .

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The First 100 Days

A TechNews fax poll asking production executives their top three operational priorities for the first 100 days of the new millennium revealed both the expected and the unexpected. Below are selected excerpts.

1. Survive Y2K
2. Finish our press expansion project, albeit months late
3. Launch our readership initiative and capture new (or lost) readers.

— Ralph Imhof, Operations Director
San Diego Union-Tribune

1. Maintain integrity of physical facility necessary to publish in event of extended utility problems
2. Make Y2K a nonevent to staff who

don't want to know how it works, so they can cover events unique to this event

3. Provide work-arounds and replace equipment and software that causes problems.

— Roger A. Casselman
Systems Manager
Norfolk (Neb.) Daily News

1. Choose a path to pagination
2. Develop a better preprint packaging solution for single-copy and home delivery
3. Continue to find breakthrough tools to enhance color reproduction.

— Ron Kregel, Production Director

The Tennessean, Nashville

1. Successfully print/publish on 1/1/2000 and beyond (Y2K)
2. Successfully convert The Seattle Times to a morning newspaper
3. Improve newsprint runability (i.e., rolls per break).

— Dana Reed, Assistant Plant Manager
The Seattle Times

1. Y2K
2. Pagination
3. Vacation.

— Kelly Perine
Production Systems Manager
The Columbus (Ohio) Dispatch

Tired of Paying More for the Same Old Technology?

The DGM 435-3 offers more technology for your press dollar, delivering cleaner halftones and consistent solid densities.

DGM 435-3 Features:

- 35,000 IMPRESSIONS PER HOUR
- 3 INK FORM ROLLERS
- 3 OSCILLATORS
- MOTORIZED INK FOUNTAIN ROLLERS
- CONFORMS TO CE STANDARDS
- H-13 BLANKET CYLINDER BEARERS
- MOTORIZED REGISTER



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