



Emerging Tools and Technology for Non-Technical Types

Interactive Newspaper Conference

Howard Finberg

CNI Ventures

Central Newspapers

February 2000

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It's hard to keep up

The technology is changing so quickly

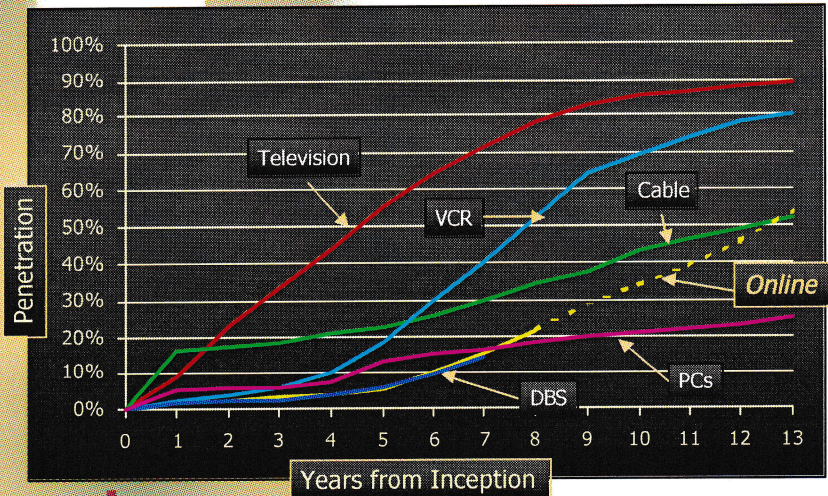
- ✓ Concept to demo to product
in record time

My goal today is to focus on two areas

1. Show things close at hand and some
companies that CNI companies are working
2. Talk some things that are just over the
horizon

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Faster than a speeding bullet



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It's hard to keep up

But keep in mind, it is still early in the "game"

✓ What looks successful today might not make it in the long run

- Anyone remember
 - » PointCast?
 - » General Magic?
 - » NCN?

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Emerging tool: Coupons

Driving people from online to offline

Online coupons

- ✓ Adds “sticky application” to the site
- ✓ Drives feet to the brick & mortar store

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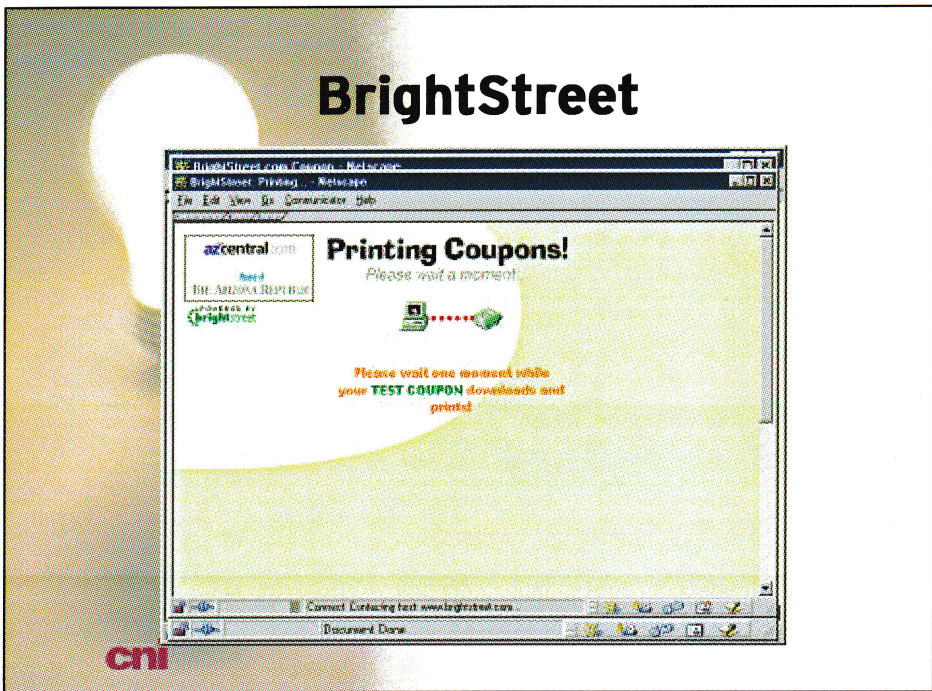
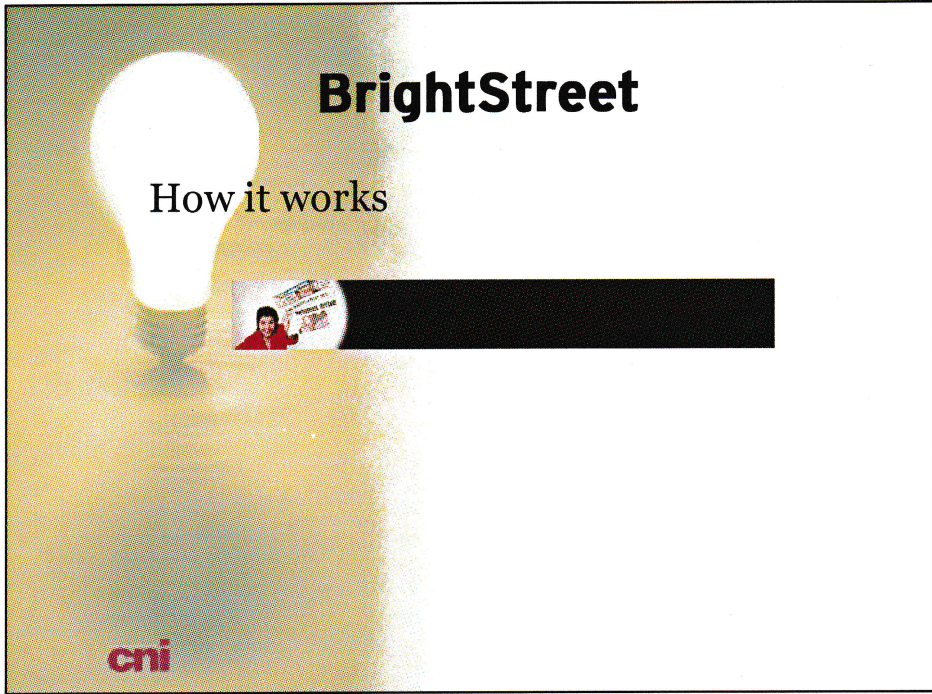


BrightStreet

Technology and processes for
providing *secure* coupons online

- ✓ Customer given limits
- ✓ Merchant set limits

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Emerging tools: New shopping methods

Beyond the auction

Beyond the retail store

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NexTag

Puts the “haggle” back into shopping

- ✓ Compare prices and customer can either buy...
- ✓ The real power is in getting the merchants to bid for your business

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NexTag

2000 Panasonic DVD-A320
[See Product Details](#)
 Product Rating: [Be the first person to review this product](#)

Buy at Negotiated Price
 The prices below show the best offers from each of the sellers. To buy, click the "Buy" button next to the negotiated price.
 We will notify you when new prices arrive as long as the negotiation is open.
 Or Make a New Offer: \$
 Quantity: 1
[Cancel Negotiation](#)

[Save this item for later](#) | [Email this item to a friend](#)

Select	Seller	Update		20% OFF		Total Price	You Offered to Pay	Status
		In Stock	Seller Price	Tax	Shipping			
<input checked="" type="checkbox"/>	PC Mall	Yes	\$346.99 \$312.00	\$0.00	\$11.21	\$323.21 \$397.99 Buy	\$320.00	Package from seller. Thank you for considering PC Mall. Our best offer can be found under the "Buy" Price column.
<input type="checkbox"/>	Newark.com	No	\$324.99	\$0.00	\$9.99	\$334.98 \$419.97 Buy		
<input checked="" type="checkbox"/>	AOL	Yes	\$385.00	\$0.00	\$0.00	\$385.00 \$481.25 Buy	\$320.00	Awaiting seller response
<input type="checkbox"/>	DVD City	No	\$359.00	\$0.00	\$19.00	\$378.00 \$470.00 Buy		
<input checked="" type="checkbox"/>	Consumer Direct Warehouse	Yes	\$406.99 \$200.00	\$0.00	\$19.00	\$425.99 \$521.97 Buy	\$320.00	Package from seller. All products are new, and covered by a 30 Day Money Back Guarantee. With us you are assured to provide the best possible price, combined with an unbeatable level of service. We can ship within 24 hours of purchase.

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What's next for this new medium

Today Internet is mostly news and information medium

That's going to change

- ✓ Entertainment will start to gain traction over the information sites
 - It is what people like and what they like to share

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Emerging tool: Audio

Some statistics

- ✓ 63% of online customers know that you can listen to audio programming
 - Half of those have tried it
 - Online audio audience has increased to 14% today from 6% in August 1998



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Audio opportunities

Internet broadcasting

- ✓ Very much like radio
 - Without the FCC license / regulation

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Audio opportunities

Audio is low in bandwidth

- ✓ Yes, broadband is coming
 - But it is still a “long way” away

We understand writing

- ✓ We would need to learn verbal communication skills

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Everstream

Streaming technology

- ✓ Creates a “radio station” on the desktop
- ✓ Web tuner branded by site
 - Links to site and to e-commerce
- ✓ Uses “standard” technology
 - Microsoft’s Media Player

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Everstream

Unlike radio, Web site controls the “commercials” and/or sponsorships

- ✓ With Real Audio radio stations, sites just provide another delivery method
 - No share in the station’s revenue

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Everstream

Let’s launch a “Tuner” and listen



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Kabango

Marriage of hardware and content

- ✓ We know AM / FM
- ✓ Now there is IM – Internet radio

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Kabango

Hardware tuner that is “always on”

- ✓ Constant connection and serving up content



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Emerging tools: Images everywhere

This is about sharing

- ✓ Building “visual communities”
- ✓ New tools for capturing images
- ✓ New tools for sharing images

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Zing Network

The screenshot shows the Zing Network website. At the top, there is a navigation bar with the Zing logo and a search bar. Below the navigation bar, there are several sections: "My Pictures" with a description of the personal photo gallery, "What is 'My Pictures'?" explaining the storage and sharing features, and a list of features including unlimited storage, photo albums, and social sharing options. The interface is clean and user-friendly, with a focus on visual content.

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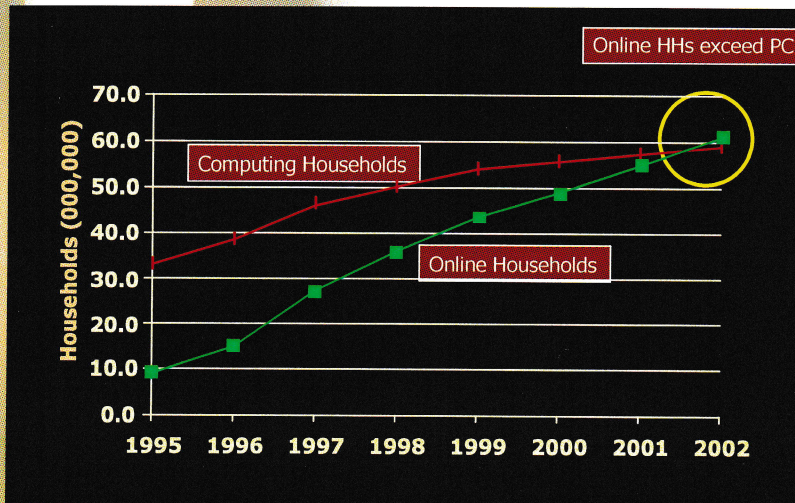
Palm Pics

Kodak partners with Palm Pilot



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By 2002, it will not be about PCs



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Command Audio

Can be described in several ways

- ✓ VCR for radio
- ✓ Radio time-shifting



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Command Audio

Being launched in Phoenix and Denver

- ✓ 1st quarter 2000
 - \$199 for the receiving device
 - Monthly charges [\$11-19] for service
- ✓ Unknowns
 - What will consumers pay for?
 - Cost of another device
 - Cost of content

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Command Audio

Content/Programming from traditional and new sources

- ✓ For example: A playlist for morning commute
 - The latest traffic reports for your trip to work
 - ABC Network News
 - Features from The Wall Street Journal
 - Nightline with Ted Koppel
 - Favorite team report

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Command Audio

Let's listen to what it sounds like



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Webphones

Get ready for the “next big thing”

- ✓ New buzz acronym: WAP
 - Wireless Application Protocol
 - It is what next generation of phones will use
- ✓ 500 million WAP-enabled phones in 2003

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Webphones

Nokia's next generation “phone”

- ✓ Just one more network device
 - Web browsing and IP phone calls



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Webphone

Beyond text: video



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Emerging tool: Electronic ink

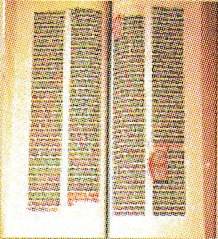
E-Ink is here

- ✓ Sounds a bit like science fiction, but it is real
- Full of opportunities and dangers

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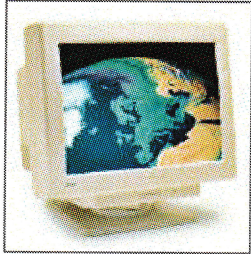
E-Ink opportunity

This is not about replacing paper



The ideal visual medium

\$30 billion industry

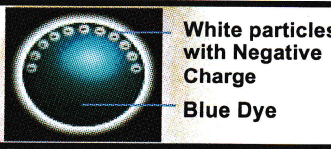


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How E-Ink technology works

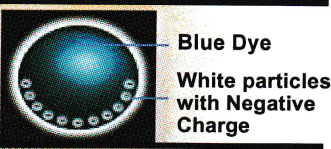
Cross Section of Electronic Ink

Positive Charge



White particles with Negative Charge
Blue Dye

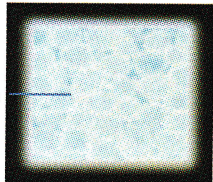
Negative Charge



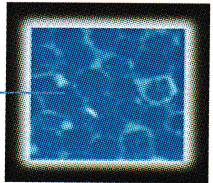
Blue Dye
White particles with Negative Charge

Top View of Electronic Ink

White



Blue



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What does this really look like?

E Ink
presentation
@IFRA
10.99

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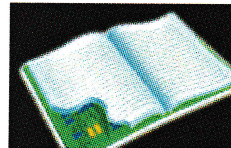
Multiple market opportunities



Large Area Devices



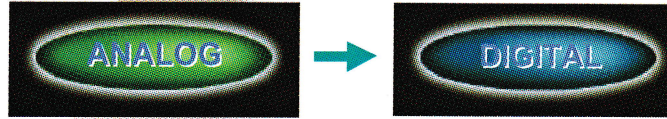
Information Appliances



Publishing

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The promise of digital media



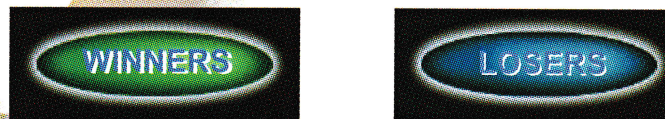
Newspaper
Book, Magazine
Television, Radio

Data
Transmission
Processor
Display

- Expensive to produce
- Costly to distribute
- Restricted by inventory
- Fixed publishing cycle
- Fixed content to broad audience
- Minimal marginal cost
- Anywhere, anytime
- Unlimited variety
- Customize
- Targeted

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Implications for newspapers



- Dramatic economic savings
- Subscriber model maintained
- Targeted content
- Push capability
- Advertising model enhanced
- Captive reader
- Global reader access
- Technology laggards

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IBM's e-newspaper mockup

Only a concept...



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This is a glimpse over the horizon

There are more pieces out there

Our challenge is simple

- ✓ How to thrive in a period of rapid change?

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Thriving during change

Invest in ourselves

- ✓ Research and development
- ✓ Try, fail and learn and try again

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Thank you

Please feel free to contact me

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