

# Format Dynamics Technology to Monetize Internet Printing

Format Dynamics, a Denver, CO-based firm, has come up with new technology that could help two struggling paper-based industries make a little more money: newspapers and computer printer manufacturers.

The technology, called CleanPrint, reformats printed Web pages so that high-quality advertisements can be inserted. As a result, newspapers and other content-driven Web sites will make money by selling ad space on printed Web pages, and the printer industry will make money because Web surfers presumably will print more Web pages if their print experience is better.

## Infinite HTML Universe

The key to CleanPrint, according to Format Dynamics CEO, president, and chairman Ethan Holien, is that it essentially paginates HTML Web pages. "To have a nice print product, you have to paginate HTML, which is not a paginated media," he explains. "You can't put an ad in the lower right-hand corner of every HTML page."

Holien says paginating HTML is easier said than done. "There is an infinite universe of HTML," he explains, so paginating it is "a big technology challenge." Format Dynamics' strategy for attacking the problem was to start with Web pages that have relatively simple content and then move on to more complex pages. "We have learned structured rules for taking HTML and parsing it into

**denverpost.com**  
The Denver Post

**Tech toys**

**A KEYBOARD FOR GAMERS, STRIPPED DOWN TO THE KEYS YOU NEED (JOYSTICK INCLUDED)**

In the lexicon of gaming, few letters are as important as A, W, S and D. These four characters, spaced in an approximate cross on a standard qwerty keyboard, are the standard keys used for movement in first-person shooter games like Counter-Strike and Half-Life.

That is why the Logitech G13 Gameboard puts a simulacrum of those keys front and center with special divots in the keys for quick identification.

The keyboard actually consists of 22 programmable keys — the four in the center can be mapped to the standard four needed by most PC games — and a minijoystick with three action buttons. You can create multiple profiles for different games and map different keys to different actions.

The device works with Windows and Mac computers and will be available next month — just in time for all those post-holiday gaming sessions.

— John Biggs

**AN AUSTRALIAN ENTRY IN THE SMARTPHONE WARS**

The number of iPhone owners is growing by the minute, and T-Mobile's Q1 will, we'd guess, give you any pretty points. If you really want a phone no one has seen yet, it may be time to look Down Under.

— John Biggs

**Advertisement**

**Office Liquidators is Now Offering Office Supplies**

Office Liquidators has been Colorado's low price leader for office furniture for 20 years and we now do the same with Office Supplies!

300 locally owned with the same great service.

**OFFICE LIQUIDATORS**  
Profit from Your Experience

www.OfficeLiquidators.com

303-759-3375 11111 E. Ave. LEMMON  
Denver, CO 80231

Print Powered By **FormatDynamics**

*Format Dynamics' software paginates HTML pages so that advertisements can be placed where publishers (and advertisers...) want.*

print," Holien says. "We have to handle not just text but also headlines and dynamic elements. A lot of this has been a learn-by-doing process." He says that Web pages printed with CleanPrint "look more like a magazine copy than something printed off the Web."

Format Dynamics has been working on the HTML pagination problem for five years, Holien says. Mark Jacobson founded the company and spent two years working on the technology. According to Holien, several patents have been granted to the company for its process. Three years ago, Jacobson brought in Holien to run the company and bring the technology to market.

"I was working for VCs [venture capitalists] screening deals," Holien says. "This idea resonated with me immediately. It's simple, it solves problems for the Web publisher, for the advertiser, who can know an ad will be engaging, and for the user, by eliminating the horrible print experience. It solves problems for all the stakeholders."

## Research Phase

Before bringing CleanPrint to market, Format Dynamics needed to demonstrate to prospective Web publishers that printing was commonplace and therefore a potentially valuable unexploited asset. "Web publishers had no idea how much was being printed off

their property," Holien says. "We went to a Web analytics company, but they could only track printing that used a 'printer-friendly' button. But a lot of printing is not happening that way. So we wrote an analytic tool called PrintTracker that tracks prints either from a print button or from the browser if someone hits control-P or picks print from the menu."

Format Dynamics learned that only about 20 percent of people who print a Web page that has a "printer-friendly" link ever actually use the link when they print. The company went to publishers and explained to them that it could "improve the print experience and monetize it for them," Holien says, and used PrintTracker as a sales tool, installing it for free on a prospect's Web site so they could see for themselves how much printing their site was generating. "Then we come back to them with a proposal," Holien says.

Newspaper online sites were Format Dynamics' first target. "These are mostly text-based, but with multiple columns and photos." Then the firm expanded to a mapping site, and then to a travel site. "Travel itinerary confirmations have complex security stuff," says Holien.

## Printerstitial Ads

According to Holien, different Web publishers understand CleanPrint differently. For newspapers with a print orientation, CleanPrint is perceived as additional print advertising inventory which they can sell along with their traditional print advertising. Online publishers see CleanPrint as "just another ad serve" that extends ad targeting based on geography, behavior, or context to hard copy documents. "Newspapers see a CleanPrint ad as a digitally-targeted very smart print. In the online world, they see it as a very engaged impression," Holien explains.

CleanPrint takes content from a Web page and parses it in real time into a template with space for an ad that has been agreed on with the publisher. Format Dynamics has defined several standard ad formats to simplify life for publishers and advertisers, though Holien says that the technology is "agnostic to ad size." The firm supports several standard IAB (Internet Advertising Bureau) ad sizes and also a unique "Printerstitial" ad size of 600 × 160 pixels, which is the correct size to fit

## Quick Look

### A Boost for Web Printing?

- Denver-based Format Dynamics has developed a new technology for printing Web pages that enables Web publishers to place—and charge for—"magazine-quality" advertisements on prints of the page's content.
- The firm sees a \$2.5 billion market for its "Printerstitial" ads.
- The technology should give at least a little financial boost to Web publishers and to printer vendors, and perhaps will even boost interest in printing among those, especially the young, who disdain it.

on the bottom of an 8-1/2 x 11-inch printed page. (The PrinterStitial name is a play on "interstitial," a type of Web ad that unexpectedly pops up before a Web surfer arrives at a linked page.)

"Newspapers tend to like it [the PrinterStitial]," says Holien. "Online properties with a digital focus, their sales channel tends to understand standard IAB standard digital ad units such as 300 x 250, which also works well on a printed page, even though it is a digital size." He says that Format Dynamics recommends that "the creative going into a PrinterStitial be tailored for the print event" by being provided at a higher resolution than is needed for screen display.

A CleanPrint ad has one advantage that other online ads do not have, Holien points out: both the advertiser and publisher *know* that the customer is highly interested in the content, otherwise they wouldn't have printed it, which raises the value of an adjacent ad. According to Holien, this value is quantifiable. "If there is an onscreen CPM (cost per thousand impressions) for a display ad next to the copy, and a CPM for the PrinterStitial next to the content if you print it, there is a 3x to 10x premium for the PrinterStitial. As you target more finely in any environment, the CPM goes up."

## Buy Side and Sell Side

Format Dynamics has already landed some sizable customers for CleanPrint, including newspapers, mostly in Colorado (the Denver Post, the Denver Rocky Mountain News, the Boulder Camera, the Colorado Springs Gazette), but also the Houston Chronicle and the Orange County Register; other media online sites (Digital Sports, Fox Sports, Sports Illustrated); online publishers (iVillage, CNET.com); and Web commerce sites (Career Builder, Expedia, and Rand McNally).

The firm currently has 15 employees, mostly in Denver. These include both developers and "buy side" and "sell side" sales people. The sell-side team sells to publishers, who then sell ads themselves. But Holien says that some publishers do not have ad sales forces. For these customers, Format Dynamics has a buy-side sales team that can handle ad sales, effectively becoming an ad network that aggregates inventory from Web sites and sells it to advertisers.

Format Dynamics' business model is

simple: the firm gets a share of the revenue generated by every PrinterStitial printed ad. In some cases, Holien says, Format Dynamics also collects an additional license fee. He declines to say if Format Dynamics is profitable, but says that the firm is generating revenue and is seeing strong interest.

"Demand has been good," Holien claims. "Advertisers that have bought have bought again." He says that Format Dynamics is doing little marketing or public relations, but major advertising publications such as *Ad Age* and *Online Media Daily* have covered the firm. "We are being a little more cautious in this environment in understanding what gearing up means to us," Holien explains.

The long-term potential for CleanPrint is huge, Holien believes. He thinks the market for PrinterStitial advertising in the United States is \$2.5 billion, or roughly one-tenth of the total U.S. online advertising market of \$23 billion in 2008. "With today's economic realities, online ads are growing, but at a slower pace. Advertisers want to get higher yields, to reach customers who want what they have to sell."

## Our View

What's it all mean for the printer industry? Holien estimates that \$2.5 billion in potential PrinterStitial advertising revenue translates to just short of 100 billion printed pages. Of course, many if not most of those pages were already being printed before CleanPrint, but if Holien is right, many were not, which means that CleanPrint will generate new revenue for the printer industry.

The significance of CleanPrint for the printer industry may go beyond just the number of printed pages it generates directly. If it has a positive impact on printing habits, particularly those of the depressingly electronic younger generation, it could help forestall the industry's greatest fear, that at some point in the future, printing will disappear onto the ash heap of history.

"I want to drive printing," says Holien. "As there are fewer traditional print media, people are going to print more. That's my feeling." He says that some of Format Dynamics' publishers are "talking about promoting printing, about driving printing from their sites. Now we're talking about drawing attention to the fact that the print product is now superior." ☞

## Web Watch Blog of the Month

Check out [printercomparison.com](http://printercomparison.com)

*Printercomparison.com* is the sixth site offered within the Technology-Guide.com network of Web sites and is designed to meet the information requirements of technology-savvy users. In addition to printer reviews, information, and prices, visitors to this site can discuss and ask questions about laser and ink jet printers. The site also publishes original content including, informative how-to guides, insightful editorials, custom photography, and highly-active user forums including user review sections and peer-to-peer forum communities. ☞

## Spranq Develops an Eco-Friendly Everyday Font

A recent article posted to [news.digitaltrends.com](http://news.digitaltrends.com) describes a new font that its designer claims can cut ink and toner consumption by up to 20 percent, which means less environmental impact from printing. Developed by Spranq, a creative communications agency based in the Netherlands, Ecofont is a version of the Vera sans typeface that has circular areas of the letters removed to save ink (*see photo below*). While the text

After experimenting with different designs, such as using thinner strokes or stripes, Spranq settled on removing circular areas of letters to create its ink- and toner-saving Ecofont

looks like it has little holes punched in it, the shapes of the letters have been preserved and the printed output is still readable.

Businesses will not use Ecofont for outgoing correspondence or marketing materials, but the font is perfectly suitable for printing e-mail, directions, and draft documents. Ecofont is available for Windows Vista, Windows XP, Mac OS X, and Linux and is based on an open source typeface. Spranq plans to develop Hebrew and Arabic versions of the font as well. The Ecofont may be downloaded for free from Spranq's Web site, [www.spranq.eu](http://www.spranq.eu). ☞