sap • *noun* 1 the fluid, chiefly water with nutrients, circulating in the vascular system of a plant. **2** vigour or energy.

– From the Compact Oxford English Dictionary

Dear Reader,

This month has seen a flood of exciting news. Adobe especially has been high on the agenda: Creative Suite 3 and the first graphic arts workflow system based on Adobe PDF Print Engine (APPE) hit the streets at a healthy sprint. Fujifilm/FFEI's impressive joint effort is the first of several new workflow systems we expect to see over the coming months.

And it's not just highend workflow technologies that are starting to simmer. There is an energetic atmosphere throughout the industry, that's about more than just the start of Spring. Business isn't easy, but innovations in technology and business models are coming thick and fast. Interestingly there is a lot of technology coming out for which there is no specific market need, technologies that are clever and unprecedented rather than desperately needed.

And this is great because it provides clever users with tools that they can use imaginatively and in unexpected ways. For example the 3D proofing tool in Fujifilm/FFEI's XMF workflow can do full-on digital prototyping. It's a proofing tool that checks everything from screening, through to creep (it's what occurs when a thick bundle of pages is folded), but users won't just do this with it. The same is true of Quark's tools for creating dynamic content with conventional page layout software. Users will go far beyond using XPress just to build Flash web pages.

Advances in front end tools, stunningly fast workflow management, combined with Web-based tools to manage powerful digital output devices, are the cornerstones of next generation information systems. The Spring sap is indeed rising.

Enjoy!

Laurel, Nessan, Paul and Todd

In This Issue

Greyhounds never ran so fast

Most of us have had a flutter on a horse, or a match (though probably safest not to bet on the England football team winning anything for a while), but as Laurel Brunner finds, online gambling firms are major users of transactional printing systems, and are looking for ways to better use variable data marketing.

see page 9

Print-on-demand for newspapers

Paul Lindstrom reviews the digital printing market for newspapers and finds that the biggest problem in the past, namely the cost, has largely been overcome. There are now a number of active companies in this field, and the market appears to be growing steadily.

see page 13

Adverts on tap

Advertising is the life blood of the newspaper industry, so systems that deliver ads to papers are absolutely crucial. Fortunately this sector is once again alive and well, as Laurel Brunner discovered in this article on one of the major players, the technology they use, and the services they offer.

see page 18

Regular Columns

News Focus

Fujifilm and FFEI (which now stands for Fast, Flexible, Effective Imaging instead of Fuji Film Electronic Imaging) have launched the first graphic arts workflow system based on Adobe's PDF Print Engine (APPE). It is called XMF (Cross, spelled with an X, Media Flow) and appears to live up to the performance promises made at Ipex (see Spindrift volume 4, issue 2). Using APPE means that this RIP and workflow system can process native PDF files in the RIP, without having to revert to Postscript commands at any stage. And there is so much more besides. XMF is written entirely in JDF and is available in three versions, depending on its role in a production configuration. Pricing depends on the details, however individual modules start at €10,000. More on XMF next month.

Agfa Graphics has sold Xitron, which came along as an additional extra with the Autologic acquisition at the end of 2001, to Vanguard Graphics International. Xitron provides RIPs and workflow systems based on Global Graphics technology, for small and medium sized printers. Vanguard specialises "in acquiring and managing graphic arts companies. It was established to acquire and consolidate a best of class group of companies to serve the small to medium sized printer". Vanguard also acquired CTP developers, Highwater Designs, last year.

ECRM's new Workmates technology is an automated PDF workflow system designed for small-to-medium sized printers. It includes five production tools: PDF Mate, Impose Mate, RIP Mate, Proof Mate, and Print Mate for creating PDFs, imposing, RIPing, proofing, and outputting them. This is a modular system with additional tools for advanced screening, trapping, colour management, and JDF support.

Adobe's Creative Suite 3.0 is finally available. Dreamweaver replaces GoLive for web authoring, ImageReady has been dropped from Photoshop, and there's a new Extended edition of Photoshop, as well as the standard version.

There are now six versions coving print, video and web design. The Design Standard edition includes InDesign, Photoshop, Illustrator and Acrobat. The Design Premium edition includes all these with Photoshop Extended, plus Flash and Dreamweaver.

The Web Standard edition is made up of Flash, Dreamweaver, Fireworks and Contribute. The Web Premium edition includes all these, plus Photoshop Extended, Illustrator and Acrobat.

The Production Premium edition has After Effects, Premiere Pro, Flash, Photoshop Extended, Illustrator, Soundbooth and Encore. On top of all these there's also a master collection, which includes all of these various programs. However, neither the Production nor the Master collections are likely to be available much before autumn.

Quark has announced a free download for its Xpert Tools Pro XTensions package for XPress 7.0. They are now on the Quark website for designers who want additional functionality such as scaling tools, text linking and guides.

Quark is also posting a free download for XPress 7.0 users who want to run the software under Windows Vista. The download will be available by the 8th April.

Lucid Dream Software has introduced its new I-Tone Hybrid Screening, combining the benefits of AM (Amplitude Modulated) screening in the midtones, and minimum dot size with FM placement in the highlights and shadows. This cross modulated technology is based

on Agfa's Balanced Screening (ABS) for AM screens in the midtones and smoothly transitions to frequency modulated dot dispersion, based on the AM angle and the minimum dot size, for the highlights and shadows. It works with Harlequin and Delta RIPs.

Agfa Graphics and **Epson** are strengthening their co-operation for colour proofing systems. The two are co-marketing and co-branding the Epson Stylus Pro range of large format printers and Ultrachrome K3 inks, with Agfa's Sherpaproof label. Agfa will continue to develop and manufacture its own UV curable and other inks for the industrial printing market.

Flowman has a new version of its Flowman Ink Optimiser software with two significant new features: Super GCR and Black is Black. A new colour separation algorithm apparently improves quality and reduces ink consumption. This technology is used for more accurate CMYK to CMYK colour conversions and for black channel control, so that black separation-only tones in an image, do not get converted to CMY.

The Super GCR option generates achromatic undercolour removal in CMYK to CMYK conversions, for separations that consume the lowest possible ink volumes without compromising colours. Both options will be available in the second quarter of 2007.

Hamillroad Software, developers of prepress, soft proofing and workflow products for Harlequin and TIFF based RIPs, has released version 4.0 of Firstproof. Working in conjunction with a Harlequin or TIFF RIP, it provides softproofing and specialist tools for additional checking. These include deleting blank or incorrect separations, rotating and merging separations, printing hard copy proofs and outputting the job. Softproofing tools include a duplex view tool for viewing the front and back of a page together to check front-to-back registration, an alert for jobs that are ready to proof, page thumbnail views, user-definable default zoom, improved progress reporting and display of overall ink density (TAC) for each separation.

Compose Systems has released Express Workflow 3.0 for all pre-press output management to plate and press. The scaleable system, based on the Founder RIP, supports both PDF and PostScript workflows with enhanced Java-based job submission, job monitoring and tracking. Features include job ticket and template creation, and dynamic job logging.

EFI has launched Version 3.1 of Colorproof XF for proofing and large-format print production running on the new XF Server with Macintosh OS X. There is also an enhanced dot creator option for screening contone data, and a superior Fiery Option, for integrating Fiery-driven devices into the Colorproof XF workflow.

The **Newspaper Licensing Agency** (NLA) has seen market acceptance of its Eclips database reach over 80% since introduction last summer. The Eclips service delivers clippings via press cuttings agencies from a central database to end users. Using Mimotek's Structuriser technology, cuttings are generated from PDF pages coming directly from newspapers' editorial systems, and they are delivered as high-quality PDF files. Mimotek's software segments PDF pages according to different content elements such as headlines, bylines, body text, images and so on, creating PDFs and extracting text from newspaper pages for use in a reference database. Branded A4 clippings can be generated with added metadata, branding elements and page thumbnails.

MAN Roland Druckmaschinen AG saw sales exceed €2bn in 2006, with an impressive profit of €118m versus its 2005 profit of €65m. This is the best operating result in the company's history and according to MAN Roland shows "how well the press manufacturer has mastered its first year of independence since it left the MAN Group".

More importantly MAN Roland expects newspapers, packaging, magazines and commercial printing products to grow by 4 to 5% between now and 2010 and that it will have a moderate increase in sales for 2007.

Kodak is seeing continued growth in sales of its Insite Web portal software suite for remote job submission and approval, within Prinergy. In 2006, 50% of Kodak Prinergy workflow systems in Europe were sold with the software, rising from 38% in 2005 and 22% in 2004.

Agfa Graphics has launched an entry level version of its Acento thermal platesetter. The Acento LF is designed for offset printers looking to convert to digital platemaking, especially in emerging markets. It has a new 84-channel laser diode imaging head and a simplified mechanical design. It images up to 11 plates per hour for plate sizes ranging from 450 x 370mm to 1060 x 820mm (B1 or 8-up format), with semi-automatic plate loading and manual unloading.

Océ has won the International Forum Product Design Gold Award, for its TDS700 printing system. Not surprisingly, Océ says this is one of the world's most important annual international awards for product design. The award, referred to by many as the 'Design Oscar', was presented at the CeBIT European trade fair in Germany and is reserved for products that exemplify contemporary design standards. This year's International Forum (or iF) Product Design Awards attracted 2,293 entries from 35 countries, competing in 12 categories. Well done Océ!

HP says that HP Indigo customers produced more than seven million photo books and calendars, totaling approximately 440m digital photo pages, during 2006. Over 240 HP Indigo presses are installed around the world at customer sites to produce photo specialty products.

DTI is introducing more tools for its Mediaplus Circulation technology, to help marketers better define targeted areas for newspaper deliveries. Advertisers and businesses can select addresses within a certain range, for example, new retailers or restaurants, to receive direct mail or other collateral print. DTI is also introducing a paperless subscription renewal notice, which newspapers can send to subscribers via e–mail.

DTI is also the first newspaper system developer to have integrated Adobe Creative Suite 3 into its editorial system.

Kodak has introduced an updated controller for its Versamark V-Series Printing Systems. The Versamark CS300c system controller improves performance, colour, flexibility and productivity for data centres, service bureaux, and other producers of transactional documents.

EFI has launched Sendme Version 3.5 for digital colour document capture, editing, and distribution in high volume office environments such as financial services, insurance, healthcare, higher education and legal services. Sendme integrates scanning, workflow, and optical character recognition (OCR) technologies with Microsoft Office scanning documents to Microsoft Word retaining page layout information. EFI has added nearly 65 connectivity modules for interoperability with top third-party document management, cost recovery, and fax-imaging software packages, for printing directly from a Blackberry, cell phone or other mobile device such as an iPod, to an MFP (multi-function peripheral).

Also, EFI and **Kornit Digital** have announced a joint partnership to tackle the printed textile industry as it migrates from analogue to digital technologies. EFI has made a strategic investment of $3.5m in Kornit, which develops and sells high-end industrial digital inkjet printers and inks for the textile industry, primarily for the finished garment and apparel printing markets.

Pictopia, a leading supplier of photos to the world's top media and entertainment companies, announced today the launch of the National Geographic Photo Store. Subscribers to the marvellous National Geographic magazine and all fans of nature, cultural, and expedition photography, can now purchase selections from over 25,000 images from the earliest days of National Geographic Magazine to the latest edition.
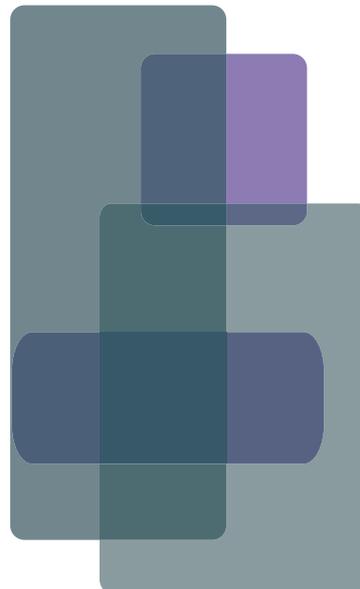
Say What?

(Iffy Writing Award Presented in the Ether for Obfuscation, Confusion, Misinformation or All Out Pretentiousness)

By a unanimous vote, this month's Say What award goes to Adobe for the half dozen or so press releases sent out to announce variously the unveiling, releasing, mobilising, debuting, unleashing and introduction of the Creative Suite 3.0. This is what comes of letting the junior members of staff loose on a thesaurus.

The releases themselves are a mixture of hyperbole and dubious statements, such as: 'Creative professionals are currently spending more than half their budget and time on testing mobile content on multiple handsets and mobile devices'. *We particularly liked the description of CS3 as being* 'a customer-inspired release' *– shouldn't all software try to satisfy customer demands, or are other Adobe product launches just to placate the shareholders?*

And another thing, we are tired of having conversations with other journalists about how bad Adobe's PR is. It appears that Adobe has now achieved the near-impossible distinction of having worse PR than HP – and given the cost of PR firms these days that's really not funny.

Expandocs

(In this section, we aim to cast some extra light on a particular recent news story.)

Adstream & Quickcut

When Adstream bought Quickcut last summer it was with a view to expanding both operations' digital delivery models. We recently had a chance to learn more about how this is going, and although it isn't moving with the speed of light, or even sound, it is progressing.

Adstream is responsible for the distribution of over 400,000 television ads per year and some 2.2m print ads. It considers itself to be a company in the business of "global media exchange", according to group business development director, Joe Jarrett. Adstream's Ad-

bank technology is used for media asset storage, tracking and distribution. The company was founded in Australia in 2001, establishing a UK subsidiary in 2002 and acquiring Quickcut in 2006. Both companies intention has been to "provide advanced intelligence across the whole supply chain", and both have been very successful, so the fit between the two is a logical one. The Adstream product range now delivers and manages ad files for pay and free television, radio, publishing and print, both above and below the line. Adstream has as yet no strong presence online, however online versions of its technologies are under development.

Adstream now has a presence in 42 countries, including offices in 11 of them, and has an aggressive expansion plan underway. This includes technological cooperations and partnerings, and further acquisitions. The customer base is "tens of thousands" worldwide and there are some 6,000 registered company customers sending ads with around 13,000 companies regularly receiving ads via Quickcut technologies.

For the printing and publishing community, Quickprint, the original Quickcut technology for checking and fixing content files against a publisher's output specification, is still Adstream's most important product. Quickprint also manages information that can be used upstream from production and beyond, using job tickets based either on Quickprint's own format or in some cases, XML which ensures that the technology is JDF compatible. Quickprint also includes ICC colour profile management, so it is rather more sophisticated than a simple file delivery technology, such as the UK Newspaper Society's Adfast.

Version 5.1 is due for imminent release and runs under Mac OSX and Windows 2000 and XP. It works with QuarkXPress (up to 7.0) and Indesign files (up to CS3). It incorporates Adobe's Distiller engine to go straight to PDF output without recourse to Acrobat. It also includes Adobe's colour libraries and overprint engine. Adstream has added ICS Remote Director for soft proofing, and XMP is there too for appending metadata to approved files and working in conjunction with Adstream's own job ticketing tools.

Quickcut's advanced preflighting technology is now fully automated, so that users no longer need to do their own set-up specification and there is a new optimisation tool for fixing borderline files. This works on files that trigger a warning, but not a fail message, in preflight so that they can be corrected, or optimised, for output. These corrections can be set to specific tolerances and are fully automated. For example, if the ink weights in a file are too high, say 340% on the page, they can be fixed to comply to the publisher's specification for the press, which might be 320%. The user can toggle between optimised and unoptimised versions of a file view and these files carry with them complete logs of all actions and decisions. Users can also view individual separations, although not yet progressive proofs. This is coming in a future version.

Version 5.1 also has tools for vectorising fonts and an eyedropper tool for measuring CMYK density values and colours can be automatically converted to monochrome output for a different output path, such as a monochrome line printer. This version also keeps track of subsidiary files names, such as those of source images in an ad, and there is a new compression engine for reduced file sizes. Altogether Quickprint 5.1 is a very sophisticated package, and these additional tools, particularly the job ticketing, take it far beyond preflight checking, proofing and file delivery. It provides an infrastructure for digital data file management and is one of the key reasons for Adstream's interest in Quickcut.

Acrobites
(Something to get your teeth into)

TFTP

The Trivial File Transfer Protocol is one of the simplest protocols around, which is why it is so popular with digital hooligans. TFTP is just perfect for spreading computer worms because it is extremely easy to implement and uses hardly any memory at all.

Legitimate uses for TFTP include baby tasks such as transferring small files between networked computers, and booting devices that don't have their own storage, such

as routers. It originally had a file size limit of 32MB but today there are no limits and TFTP now allows larger data block sizes.

This protocol has been around since the early days of TCP/IP and was often used with new hosts, because of its simplicity.

OSPFIGP

This has to be one of the silliest acronyms ever. Apart from being unpronounceable, it's meaningless even when it's got its full complement of letters. In case you ever need to know, the Open Shortest-Path First Internal Gateway Protocol is an Internet routing protocol. Next time you reach an awkward pause in the conversation with new friends, just try slipping in this little gem. It will either bind you together for life, or you'll have one less birthday to remember, probably more than one as word gets around. OSPFIGP is used for finding servers on the Internet and for group membership reporting. Who says the Internet isn't exciting?

Spindocs
(Where the spinner gets spun!)

Our thanks to Xerox for refusing to believe that not having any news to announce should in any way prevent sending out a constant stream of press releases. We particularly enjoyed this recent statement:

"Xerox today launched a multi-million pound pan-European campaign to promote its market-leading range of colour multifunction products. This new advertising initiative includes Xerox's first ever viral film."

It goes on, much like an interminable awards ceremony:

"The integrated campaign, created by ad agency RKCR/Y&R comprises press, radio and viral advertising as well as online creative by Vibrant Creative. Media strategy, planning and buying was undertaken by Mediaedge:cia. The viral film was directed by award-winning director Owen Harris."

Yada yada yada…you have to wonder if a company is starting to lose the plot when it has to market its own marketing collateral.

Boomerangs
(Your feedback fed back)

This email relates to the International Graphic Arts Editors Forum (**www.igaef.org** *), however it includes some interesting ideas. We want to share them with you and invite your feedback.*

We especially like the idea of sending smoking messages to the Gods every day!

From: Joseph Staszak [mailto:director@exLibris.com.mx]
Sent: 22 March 2007 16:16
To: Todd Brunner
Subject: congratulations well done, Invitation to Ponder

March 22, 2007

Todd Brunner

My hat is off to you: Finally someone who respects the power of the Internet and Communication Opportunities it offers. Would like to suggest a couple of possible projects to enhance your already demonstrated mastery of Internet use.

-International Poster Contest: Digital training opportunity with a Creative Mask and a prize for trying to DO YOUR BEST in digital (coupled with a Digital Print Proof Color Bar)

-International Meeting Invitation (Mexico 2008 possibly): Expand your horizons and help build the Western Hemisphere Educational Alliance; Visit the first print shop in the Americas - Juan Pablos 1531 Mexico City - and learn how to make hand-made AMATE paper (Aztec origin) which was mystical [a] delivery system for messages to the Gods - they burned a piece with a message every morning to start the day. As the eternal student, it would be an opportunity to learn what IGAEF is doing up North, and your opportunity to expand with stronger international links from Central and South America.

Congrats, will sign up soon - am buried with programs now (many education related) as the GRACoL Latin America director and editor of several GATF books in Spanish. My days are pretty busy and I like it that way.

Saludos,
Joseph

Something to ponder indeed. If any readers have ideas about how we could contribute to the Latin American market, please contact us.

Driftwood
(Useful stuff washin' up on our shores)

Yahoo has recently filed a patent in the US (number 7,197,544) that could have interesting ramifications for the advertising industry and elsewhere.

The inventors have designed their patent to enhance Web-based classified advertising using appended audio and video data. The technology makes it possible to add a personal greeting to a Web-based advertisement, either video or audio or both. It includes a user client running a web browser with a connected input device such as a webcam or digital camera, plus a communications link to a remote server. The server holds the database of advertisements and a voice and video greeting system. The greeting system works with the database to link ads and greeting data, so that users can access and add a personal greeting to their advertisement. There are security controls as well, plus an approvals and acceptance mechanism.

The patent is for a technology designed to work via browser or mobile telephone and consists of several elements. The most important of these is an API (Application Programming Interface) that enables access to ads in a

database and to associate the ad with a specific user. The API also includes several communications links so that the user can choose their preferred means of communication. This could be via a website or a mobile phone and allows the user to make their enhanced content available to one or many users, depending on who they want to receive it and their preferred communications channel. This is envisaged to work in a broadcast manner rather than on a selection basis however, for advertisers, it is additionally interesting for a number of reasons.

Advertising has always been a tough business, but the sheer volume of advertising messages hitting consumers these days makes it very difficult for companies' messages to be heard, let alone heeded. A technology that allows advertising to be enhanced and selectively delivered could be a means of providing highly targeted ads to pre-determined audiences. It could help us move away from the carpet bomb approach to advertising to one that is a lot more sophisticated in terms of its message, and in terms of who receives it.

Yahoo's patent assumes a network-based system, using Web 2.0 technologies (databases, high capacity storage and mobile computing) and the browser to access additional information associated with an advertisement. Yahoo's patent focuses on personal advertisements on the Web for access via the Internet to anyone who is interested.

However, enhancing advertisements in this way could pave the way for a whole new approach to advertising design and indeed to all forms of Web-based commerce. Print customers could add a video to their requests for quotation, for example, and sellers of used equipment could show machines for sale in operation.

Probably the most likely uptake of this technology will be as Yahoo envisages, in Web-based matchmaking and dating services. However, it won't be long before more applications materialise. Clever stuff indeed, but what would be really interesting would be a technology that embeds video and audio signals into paper, rendering 3D video holographically from the page and sound using state of

the art audio technology. Paper, the ultimate multimedia device: cheap, sustainable and no format constraints at all!
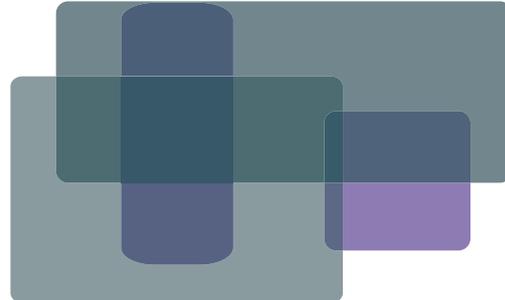
Greyhounds Never Ran So Fleet

What do digital data, racehorses and greyhounds have in common? More than you might think because all three have to be capable of extreme speeds, and be utterly fit for purpose. They must also behave predictably and consistently which isn't always the case with any of them. Naturally it's much easier to get data to behave itself than it is horses or dogs, and serious money has been earned by effectively combining the reliability of one with the unreliability of the others.

As any gambler, successful or otherwise will tell you, it's the bookmakers that are doing most of the earning. Some of the most impressive mental arithmetic you will ever see, is done at the racetrack as bookmakers calculate their potential liabilities with each bet they take. And some of the most impressive transactional data management you'll ever see is done at Coral Eurobet, where the process of getting data into print is almost exciting. That high speed transaction printing could be as thrilling as horse or dog racing, is hard to believe because it really isn't. However what is at least compelling, is how Coral Eurobet is using transaction data management to manage its customers.

Arshid Mahmud is a senior business system analyst at Coral Eurobet, based in the UK. Coral Eurobet is part of the Gala Coral Group, Europe's largest integrated betting

Arshid Mahmud, senior business system analyst for Corel Eurobet

and gaming group. Gala Coral Group employs over 17,000 people generating earnings of over €625m on a turnover of almost €7bn. The group owns more than 170 clubs as well as 31 casinos and over 1,550 betting shops in Britain, plus gaming outlets of various sorts throughout Europe. There is also a substantial and highly profitable online business. It all adds up to a lot of transactions, not to say revenues, and some highly complex data interactions.

The Gala Group has its origins in a 1997 venture-funded management buy-in of 130 UK Bingo halls. The company then merged with Coral Eurobet in October 2005 to create the international operation. The range of this company's transactions is enormous. In the UK, over 100,000

transaction statements are printed and distributed to telephone betting customers every month.

If you're not much of a gambler it may come as a bit of a surprise to learn that people have betting accounts. Just as they receive monthly telephone or utility bills, these grown-up gamblers also receive a statement of their betting transactions, summarising their bets, the odds, the stake and of course the return, if any. Many of these bets get placed over the telephone or online.

The operation in the UK sends out statements purely for telephone betting customers, and combines databases plus process workflow management technologies to add extra data to the monthly statements. The work Mahmud and his team have done allows the company to leverage data about customers for a variety of purposes, and is a few steps further along the line of carrying advertising on a monthly transaction summary. They are using the IT infrastructure's efficiency and flexibility to help the company respond to changing market needs. The idea is to provide a more intimate communication for customers including personalisation complete with extra content according to a customer's betting patterns and their usage profiles.

The transaction statements provide a vehicle for cross channel marketing, for example, to encourage customers to use the online services as well as the telephone to place their bets. They can also be encouraged to use shops, or take advantage of special promotions, all using the IT that drives production and output of their monthly transaction statements. Coral Eurobet uses two databases to manage its customer and account data. One tracks each customer's betting activities and relates that back to the printing system's front end. The sort of information that would be included from this database is data relating to loyalty programmes or data that can help regain lapsed accounts. For example people who are interested in horse racing in the UK would get advanced notice of special events such as the Grand National or Royal Ascot.

Rather more cleverly, but perhaps unsurprisingly, Coral Eurobet is also using the laws of probability as part of its data management. Based on usage patterns in their accounts the system can anticipate those customers who are likely to lapse. They can then use the relevant data to trigger specific content to be output on the transaction statement such as a reminder to bet on an upcoming race.

Coral Eurobet uses SQL Server 2000 database technology and has developed its own internal database technology, based on scripting and stored procedures to action data, using its own business rules. There are two databases: one for straight transaction management and one for marketing activities. This second database includes sophisticated data modelling capabilities that use probability and statistical analysis, to calculate a

The transaction statements provide a vehicle for cross channel marketing, for example, to encourage customers to use the online services as well as the telephone to place their bets.

customer's likely behaviour. It's not a particularly far cry from studying a horse's form and comparing it to the other runners in a race, before deciding if it's worth a punt. The difference is that in Coral Eurobet's case, it's the customers' form that is being followed. Coral Eurobet is applying the principles of chance to their own business! As Mahmud explains, this gives the company considerable scope to develop the business: "We can give a return on investment with our technologies and improve our services as well … we can broaden our horizons with technology."

The partner that is helping Coral Eurobet to broaden its horizons is Canon, although not in the way one might expect. Through its digital print consultants programme and its Canadian software suppliers, Objectif Lune, Canon is supporting variable data management and the data interactions between the Coral Eurobet databases and the printing engines' front end systems. Objectif Lune's Planetpress suite is a transactional variable data printing software suite for creating, printing and distributing transactional documents. It also has advanced automated workflow management capabilities so that documents created with the Planetpress suite can be printed, archived and emailed.

Canon uses it to print variable data documents and forms on networked Canon Imagerunner devices, and it is helping Coral Eurobet achieve its business goals. Coral Eurobet however doesn't use Canon print engines. Instead Canon is running the middleware in order to drive HP monochrome engines printing onto preprinted statements.

Coral Eurobet chose to work with Canon because of the flexibility it offers for managing a range of different technologies. Mahmud explains: "Objectif Lune complements the business. [They] have a lot of experience with software. Canon work with us to produce statements and get more intelligence onto paper." At the moment that intelligence is confined to monochrome output but colour is definitely a possibility. For Mahmud, its use in the future "depends on what benefit it can bring because everything is driven by cost and the intangible benefits, we've yet to identify". So this is what Canon will need to demonstrate. Coral Eurobet is not yet planning any colour trials but that will change.

The next step is to use the databases to manage collateral material that gets sent out with the statements. Mahmud explains: "We are doing intelligent inserts with a barcode that the database generates onto the statement to manage supplements for our statements". The database generates the bar code to be printed on the statement, and this trial is almost complete. The plan is to go live in two months time in the UK. Colour will be a consideration, once this phase has been completed.

Coral Eurobet's idea with this project was to leverage their IT system to make it more effective for marketing purposes. However the response Mahmud got from the suppliers in the traditional graphic arts industry

> **It's not a particularly far cry from studying a horse's form, comparing it to the other runners in a race, before deciding if it's worth a punt. The difference is that in Coral Eurobet's case, it's the customers' form that is being followed.**

was not quite what one might have hoped for. Mahmud's preliminary research inevitably led him to industry trade shows to talk to graphic arts industry suppliers. However he found that: "They found it difficult to understand our requirements when I went to trade shows with the market research into vendor selection. I went to a number of exhibitions looking for a variable data printing technology provider [but] when I asked it wasn't offered to me and the sales people didn't have a clue. It was at Ipex and it wasn't Canon. That's partly why we work with them. They were showing Objectif Lune and I saw it and I knew it was exactly what I need".

It's very difficult at a trade show to make yourself heard and understood. We've had the same problem plenty of times, but journalists can always find some other company to write about. People buying technology don't have the same options and as the transactional print business creeps ever more into the realm of professional printing and publishing, we as an industry need to make sure we know how to have a conversation with people unfamiliar with our industry. As Mahmud says: "Selling a solution is a lot more complicated. My concern is that the technology is maturing a lot quicker than peoples' minds, so the commercial guys don't understand what it can do".

All those companies at Ipex who left the show with meagre leads into the transactional market should keep this in mind. The betting industry is huge and throughout Europe deregulation is underway. Along with Ladbrokes and William Hill, Gala Coral is one of several mighty enterprises offering online and interactive betting and gaming services, with everything from simple betting and casinos, through to multi-player online poker. They process over one billion transactions a year and have customers in one hundred countries, all of whom are targets for print.

As Mahmud told us: "In a knowledge-based industry we have to learn not to think like we used to, and by capturing, manipulating customer data to drive that business forward a closed data loop is established".

– **Laurel Brunner**

Print-On-Demand for Newspapers

In 2002 Digital Dots conducted an extensive survey of European newspaper publishers' plans for using digital newsprint for newspaper production. Over 60% thought that digital printing technology would be part of the production model for newspaper publishing by the year 2007. We are now well into 2007, and although the 60% figure appears to have been an over-ambitious expectation, to a limited extent this prediction has been borne out.

The use of digital printing presses for newspaper production is starting to pick up, largely because of substantial improvements over the last five years in speed, quality, and colour capacity. No less important factors are price per copy, timelines for on-demand copies, and the cost of training operators. All of these have come down somewhat in the last few years, due to more robust hardware and software, and better user interfaces.

Still the uptake of digital printing technology for newspapers is quite modest and the reason for this lies not so much in technology restrictions, but the lack of really good business models. And there's no getting away from the economics: conventional newspaper presses are highly efficient and for runs of even modest length, they can't be beaten. It all points to the need for business innovations.

We have spoken to the two most active vendors within the digital newsprint business, as well as some of the companies with successful implementations. We asked them which business models they believe have the highest potential for development, and what lies ahead for them. We've also seen samples of creative thinking amongst individual newspaper publishers for implementing digital printing technology.

One of the companies that have made digital print integral to newspaper production is Océ, which in the autumn of 2001 started the Digital Newspaper Network (DNN). The project has been consistently resourced and supported, and today there are six digital print centres around the world connected to the DNN network.

Another company that can show substantial success is Newspaper Direct with about 480 newspapers signed up to print short runs worldwide at some of the 90 print partners in the Newspaper Direct network. Few newspaper publishers have chosen to go it alone, preferring instead to work with partners such as Newspaper Direct, Océ or kiosk-based digital newsprint providers.

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The Magic Three

There are three main business models, or technical usage, for digital newsprint, which has many attractions for newspapers facing reduced circulations. This includes the relatively low start up costs for short run printing devices, compared to conventional newspaper presses. The first and most common business model is print-on-demand, with a print kiosk at an airport or large hotel so that people can order their favourite newspaper to be printed out that instant.

This business has been tried by several companies such as Satellite Newspapers (formerly PEPC), but there are serious challenges. A print kiosk needs to have a fast and big enough digital press, requiring space, regular support and service. Even with a reasonably fast digital press, it takes a while before the stressed business man (or woman) gets the paper, so although this business model is quite straightforward, it has proved to be hard to implement successfully. Publishers are interested in volumes and so far people have not been overly wowed by the monochrome output from these kiosks.

The second main business model is centralised printing of shorter print runs, combined with conventional distribution. The printing can either happen in-house, if the publisher decides to invest in digital printing equipment and capacity, or it can be outsourced to print providers serving several publishers or titles. This seems to be the preferred model so far. If tight integration is necessary with the conventionally printed parts of the newspaper, for example when doing micro zoning (localised sections), it's probably better to have the digital press in-house, in order to merge editions efficiently in the mailroom. The Océ Digital Printing Network and Newspaper Direct are examples of this business model, and the Swiss Post Office has a print-on-demand service, including distribution, along similar lines.

A digital press's unique differentiator is its capacity for variable data printing, so the third main business model for digital newsprint is a highly customised version of a section of the newspaper, or even the entire newspaper, where all components reflect the reader's specific interests. While it's questionable if anyone actually wants a totally personalised newspaper (what's there to discuss at the coffee machine?), there are obvious benefits, such as more targeted marketing and premium ad sales in sections of the newspaper for specific subscribers. However the degree of customisation and personalisation depends heavily on how well the subscriber database is maintained and expanded, if at all. It also depends on systems that can accurately match reader profiles to advertisements, something that is still not particularly well advanced.

The drive for closer interaction with customers to build brand loyalty is of course not unique to newspapers: any brand owner constantly works on this. But it's perhaps here that digital newsprint has its highest commercial potential. Individual newspapers, like for example the Charlotte Observer in Charlotte, USA, have started a pilot project with a person-

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alised newspaper called 'My Observer'. A test group of subscribers gets one additional page wrapped around their normal copy of the home delivered morning newspaper. 'My Observer' contains feature articles around topics the subscriber has chosen him- or herself.

Océ – real action

While several vendors of digital print equipment talk of the possibilities of digital newsprint, Océ has gone from talk to real action. The Digital Newspaper Network has production sites in London and Zurich in Europe, and in New York and Los Angeles in North America, as well as Sydney, Australia and Singapore. The DNN network is mainly used to support the business model of localised and centralised printing of relatively small numbers of copies, typically from 10-5000 copies, using Océ continuous feed technology with inline and offline finishing equipment from their strategic partner Hunkeler.

Océ also prints around 20,000 copies per day of the Handelsblatt News am Abend at 26 different print sites in Germany for Air Berlin flights and for Deutsche Bahn first class passengers. Editorial closes at 14hrs, at 15:30hrs people can read the special Handelsblatt paper. Newspaper Direct also uses Océ cutsheet printers such as the VarioPrint 6000 under license at printer sites worldwide.

The flagship in the Océ digital press armada is the roll fed VarioStream 9000-series printer with black and white plus spot colour capacity. What's been missing is a dedicated high volume full colour machine, but Océ will eventually to fill this gap with the recently announced VarioStream 9240. Michaela Frisch is responsible for the newspaper market segment at Océ, and we asked her what the main challenges are for digital print in newspaper production. "Obviously speed is one factor, but also the need and quality of colour reproduction. Last, but not least, cost is an important factor. We work hard at Océ to make progress on all of these three areas, and think we have come quite some way by now.

"We have a project with a newspaper publisher for such a business model. The readers can select from a huge database the content they would like to have in their individual section. This is an additional section to the normal newspaper so does not replace the traditional print product. Apart from the benefits to readers this enables targeted advertising, in fact 1:1 marketing. This has a very high value and will provide an additional revenue stream to publishers."

We asked Michaela if the DNN network was still growing, or if Web-based editions and other electronic means of distributing news have undermined the need for digitally printed newspapers. She says that: "There is a growing use and interest in different electronic distribution methods, like pod-casting, online publishing and PDF distribution. But digitally printed copies complement this, as well as complementing the conventionally web offset printed edition. We see a continued growth in volume within the DNN, and a continued interest from newspaper publishers to

Michaela Frisch, Océ, notices that microzoning, short run printing of localised sections, is of interest to many publishers. Here Michaela is standing by the new full colour VarioStream 9240.

2nd April, 2007

use digital printing. Besides short run printing there is also interest for partly personalised sections of the newspaper."

Kodak Versamark – everything in place

Another vendor keen to break into the newspaper market is Kodak, with the Kodak Versamark VX5000 Printing System. At Ifra Expo Kodak demonstrated how finished newspapers could be printed in full colour at full speed with the VX5000, thanks to the newly developed inline finishing equipment from Hunkeler with over 2.5m/s in full colour.

We asked Jack Knadjian, Vice President Market Segment, Publishing at Kodak's Graphics Communications Group, when and why he thinks that digital printing will really take off in newspaper production. "I have this personal seven-year theory – this is often how long it takes for new technologies to break through with full force. While digital printing is older than that, it's only recently that both speed and quality for digital printing systems have reached a level that newspapers expect. It also takes time to explore new distribution and business models. Basically we can satisfy the two main business models for digital print within newspaper production; short run printing and variable data production.

"For short run printing the challenge lies most of all in efficient distribution models, both of data and the printed material. And then price of course comes into play, as always. Until now publishers had to pay more than €1 per digitally printed newspaper for a B/W copy. Our customers will be able to print colour newspapers for less than €1. This will be a big improvement on current systems and price per copy will not be the biggest issue any more.

"It's a little ironic that up until recently it was in fact the finishing equipment that was the bottleneck for digital newsprint with the VX5000. But the new Hunkeler DC6 Drum Collator, together with other specialised binding equipment, makes it possible to print at full speed in the VX5000, without the finishing lagging behind."

The business model we think may prove especially successful in the longer term involves some degree of personalisation of the newspaper – although perhaps not the entire newspaper, but some section or part of the newspaper. Supposedly the ads in a personalised section are of higher value, since they are likely to give a higher response rate for the advertiser. But if those sections are to be produced digitally in parallel to the web offset printed main edition, the digital press needs to be fast, very fast. For this we think continuous inkjet is the only viable technology, since it's 2-3 times faster than drop-on-demand, and will always be faster than the xerographic process. But it isn't just printing and inserting technologies that have to be in place for this to succeed. Newspapers will have to change their entire publishing paradigm and will have to do it profitably.

Jack Knadjian, Kodak's Graphics Communications Group, believes that the business model which may prove especially successful in the longer term for digital newsprint involves some degree of personalisation of the newspaper.

Newspaper Direct – at your service

The company that probably can claim the longest involvement in digital newspaper production is Newspaper Direct, with a daily production of around 10,000 copies per day, worldwide, at its 90 partner sites. It also proves Jack Knadjian's seven-year theory – this is how long it has been active in this segment, and it has a more or less steady 100% growth rate.

We asked David Owen, SVP for Publishing, what digital presses they use at Newspaper Direct. "Actually we don't own any printers ourselves – all partners work according to a franchising model, and decide themselves what equipment is relevant for the production. We place our workstation at their site, and check so that the printer works well with the document formats. The workstation also registers number of copies so we can track royalty issues. Each month we pay out royalty for the newspapers, depending on how many copies have been produced at the different sites. We also prevent output at sites in countries where the newspaper doesn't want distribution, for some reason or another. For the newspaper there is little risk involved, or even work. We prepare the data, and organise the distribution. The newspaper basically then just collects the royalty each month.

This all sounds well enough, but surely other digital media and electronic distribution are eating away at this segment? According to Owen: "Actually we also have what we call e-editions to offer. Subscribers access the different newspapers through our portal. Last year the e-editions passed the digitally printed editions in sales and distribution numbers, but both categories grew at around 100%, e-editions slightly faster. It seems as if both digitally printed newspapers and electronic editions complement the conventional newspaper very well. In both cases the digital version reaches new markets, new readers. We are conducting a survey at the moment to learn more about who those roaming readers really are. This research isn't ready yet, but the results will be very interesting to analyse, in order to develop those kinds of services even better. We are open to new distribution and production models all the time. On our website, pressdisplay.com, we experiment with the user interface to offer some of the touch and feel of a paper version of a newspaper while being online at your fingertips instantly. But the printed version of a newspaper, in our case digitally printed, will be a core part of our business model for the foreseeable time, well into the future."

David Owen, Newspaper Direct, finds that both digitally printed newspapers and electronic editions complement the conventional newspaper very well.

Next five year forecast

Will digital newsprint grow faster over the next five years, now that cost is not the main issue? Yes, we think so because there is quite considerable activity in this area. The number of roaming readers will continue to grow, while electronic distribution of news and newspaper content will grow in parallel to digital printing of newspapers. The two alternative publishing methods complement the conventionally printed newspaper very well, but they do not replace it.

– **Paul Lindstrom**

Adverts on Tap – Delivering the Goods

Everyone knows that one of the best ways to get customers to buy your products and know your name is to advertise it. This simple truth is the foundation of pretty much any form of commercial media, but it is especially pertinent for newspapers and magazines where advertising has long kept their publishers fat and happy. After too many bleak years for print advertising, several organisations are predicting decent growth including our favourite, Zenith Optimedia.

According to Zenith, global advertising expenditure will grow by 3.9% in 2007. Despite the popularity of electronic media, newspapers and magazines will account for over 40% of ad spending and 7% will go to the Internet. For the time being, print media advertising is holding its own and in order to make sure things stay that way, publishers are doing their best to make life simple, convenient and cost effective for advertisers and agencies. Ad delivery services providing highly automated quality control, ad delivery and data management technologies help them achieve this and are now big business.

Richard Horwood, executive chairman of Vio

The Ad Portal & Digital Workflow Suite

This is why Vio is starting to expand its operations. It now employs 70 people, 20% of whom are in development, and has recently acquired the US-based Adsend.

Over the years Vio has become well known for its digital supply chain management services based on its Digital Workflow Suite. This includes Vio Certified Soft Proofing based on a range of technologies such as ICS Remote Director for remote colour managed softproofing, and Enfocus Pitstop for certified preflight checking, with Vio providing the glue in between. Enfocus and Markzware also provide the preflighting tools used in Vio's Ad Portals. Publishers such as the Telegraph Group, Associated Newspapers and Time Inc use Ad Portal to provide digital ad management services for their customers. Time Inc now has 1500 ad senders using Vio's Ad Portal and rarely receives physical hard copies of ads.

Time Inc is a vital customer for Vio's US developments. Richard Horwood, Vio's executive chairman, says: "In terms of defining what Vio does in the United States, Time is driving the development because they are so far ahead of everyone else in terms both of using technology to reduce costs, as well as the sheer amount of ads they sell. Time Inc. accounts for some 23% of all US magazine advertising spending".

The Ad Portal supports both up- and downloading of ads and automatic file collection and routing. This is not dissimilar from Quickcut's services however, according to Horwood, Ad Portal differs because it offers customers a "range of sophisticated and customisable automation solutions for the way in which it collects ads and preflight checks them, as well as enabling them to enforce other rules such as ad size management and colour-managed soft proofing on remotely calibrated monitors for true digital contract proofs. It ensures that the incoming ad is built correctly, has been signed off as being the file the advertiser wants to reproduce against the precise profile of the press, and the substrate on which the ad will be printed, and it auto-routes it and the metadata about the ad into wherever the publisher wants it, including AdsML booking information as well as JDF data."

Adsend Technology

Vio's interest in Adsend is multifaceted. The technology was developed by the Associated Press, the American news gathering organisation, to manage ad delivery alongside its news delivery services to American newspapers. Adsend works in a similar way to Vio's technology. Both are send and retrieve models versus point-to-point, collecting insertion and artwork metadata, and managing file transfers.

Adsend has much in common with a similar service, Adfast, which is widely used in the UK regional newspaper business. Both are PDF delivery systems and indeed many of Adfast's ads are going through Vio portals. However although Adsend and Adfast are both parochial technologies and share some functionality, they differ technically. Adfast provides uploading and downloading tools, using Vio's Ad Express to manage preflight checking with preflight profiles based on participating publishers' rules and specifications. Recently, somewhat curiously, Adfast changed its business model to require that advertisers and publishers share the cost of submitting ads (€0.75 a time per ad) from July onwards. Hopefully this won't be too serious a deterrent to print media advertising for clients of Adfast's 1400 newspaper and magazine customers.

Unlike Adfast, Adsend is a workflow management tool, which is one reason why it was so attractive to Vio. It provides ad project management and web-based ad services for smaller ad senders, but it has no preflighting tools so Vio is adding its own preflighting and other capabilities to it.

Adsend is also attractive to Vio because of its US market penetration: it is the standard process in the US for ad delivery with 3600 publishing and 500 plus advertising customers. Richard Horwood sees Adsend's strong US presence as especially important for European advertisers, calling it the "ideal combination for delivering correct materials to key destinations in the US".

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According to Horwood, Vio already has "thousands of ad sending and publishing customers" sending "hundreds of thousands" of ads per month. With PDF ads averaging around 20MB per ad, overall data volumes are in the realm of terabytes per month. Vio's Digital Workflow Suite technology is also suitable for editorial and collateral management because it is format agnostic, so it can also be used to manage generic content distribution and for collaborative work. Vio actively supports both AdsML and JDF which will both be increasingly relevant as the company develops its technology to support a broader range of workflows.

AdsML versus JDF

Getting publishers to use JDF and AdsML is no easy task because basically people won't do something unless they have to, no matter how good an idea it is. So far there hasn't been much reason to implement JDF or AdsML in publishing workflows, but recent US legislation could provide an excellent reason to do so. Following the Enron fiasco the US introduced the Sarbanes-Oxley Act. Among other things this states that managers must keep an "adequate internal control structure and procedures for financial reporting". Companies now have to document all aspects of their commercial activities, including advertising bookings and insertion details which will be especially important for media buyers.

AdsML fits the bill for this wonderfully. It is designed to capture and manage commercial data and production details, reducing errors, ensuring regulatory compliance and improving efficiency. It is intended to help publishers avoid additional overhead costs and making processes unnecessarily complicated in order to comply with Sarbanes-Oxley. But isn't there another way?

One might question the merit of developing AdsML, when so much investment and effort has been made into developing the JDF specification. As we see it, JDF has the scope to provide the kind of job management services outlined in the original AdsML mission statement. According to Vio, which sits on committees for both, this has not gone unnoticed and there has been a gradual move within each camp to develop mutually exclusive strengths.

AdsML is designed to provide a bridge between systems, and although there are comparable functions in JDF these tend to focus on production data and how it is fulfilled. AdsML development focuses on commercial data and it is this emphasis that marks the dividing line between the two specifications. AdsML also supports lower level, application specific languages such as Ifra's Ad Connexion used throughout Europe for newspaper ad delivery and SPACE XML (Specification for Publisher-Agency Communication Exchange) widely used in the US.

Both of these formats have been absorbed into the AdsML framework and the AdsML Consortium is working on collaborations with other

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established formats. This work includes the TVB specification used for TV, radio, cable and similar advertising workflows in the US. The AAAA (American Association of Advertising Agencies), which created the TVB specification, has now launched a major initiative called Ebiz for media, based on AdsML.

Sarbanes-Oxley and AdsML is only a small part of why advertising agencies and their customers are having to change the way they do business. Costs have to come out of media supply chains to maximise content delivery and access opportunities for customers and consumers. As Horwood says: " "It's no longer optional with ad revenues for print coming down in the web world, you have no choice but to take costs out and that is what Vio does".

This isn't just about print media. Media fragmentation creates an amazing multi-channel environment for delivering information to consumers. Advertisers are demanding hard return data and accountability in order to help provide ads to target consumers using the channel most likely to generate the best returns. Europe is substantially ahead of the US on this, however initiatives such as E-biz could help it catch up.

This nondescript sounding project involves seven companies including Donavan Data Systems, a major media buying system provider, and five other suppliers to media buyers providing ad delivery gateways. Vio provides the publishing gateway, as part of the AAAA 'founding gateways' project. The idea is that bookings and insertion orders for ads are managed automatically online without anyone having to know anything at all about AdsML, as long as their systems can accept and process the XML metadata. Richard Horwood explains: "This starts with 'digital insertion orders', getting the booking and insertion information automatically exchanged between the buying and selling systems – today this happens through faxes and phone calls – but the ultimate objective is for AdsML to accurately reconcile ad booking and production metadata for all print and online ads in associated digital job tickets, and do so before the artwork for the ad is received by the publisher."

What More?

The digital send and retrieve model's scope gives advertisers a huge range of media options. Automating response tracking, reconciling booking and production data all help with accountability, so its technology could put Vio and competitors such as Quickcut/Adstream in a strong position for the future. Richard Horwood believes that "Vio is uniquely on both sides of that equation so we can make streamlined ad delivery work. Publishers can reduce reconciliation costs and copy chasing costs through automated job tracking and automated chasing."

Vio is also piloting standards for national advertising delivery portals for publishers in their home markets. This activity is especially vibrant in

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Asia where Vio is working with "the largest and fastest growing economies". Richard Horwood says: "Vio is quite a well known brand amongst the publishers in certain Asian countries. We've now become the default for how you send advertising in the UK and the United States. Publishers are absolutely delighted with this initiative and media buyers and advertising agencies have a reason to support it as it enables them to streamline their ad fulfilment processes. This leading position in US ad distribution is one of the reasons we bought Adsend. The next step for us is to take the Adsend model and see how it might be deployed in other markets". Could this mean another purchase is in the offing?

In addition to these intiatives Vio is starting to sell its technology on an OEM basis to third parties. Not much can be disclosed, but these services are in "other languages, not in English and in other European countries."

Over the Horizon

Successful media companies are news and information providers across multiple channels, exploiting the digital communications environment in many ways, rather than becoming its victim. As newspapers and magazines rejuvenate their business models for these digital times, the ad business is also changing. Digital channels offer more opportunities and it is generally acknowledged that when a brand or product appears in many places, the likelihood of a positive response rises. It's why advertising agencies build ad campaigns for their clients: billboards, posters, TV, radio, newspapers and direct mail brochures all serve to reinforce a message. The same principle works for digital media, so getting into the digital delivery and logistics business makes more than good sense. For Vio it could also make a great deal of money.

– **Laurel Brunner**

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