

The IfraNewsplex Initiative

Lessons in Convergence

Executive Summary



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Newsplex Directorate

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Imprint

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1.3 Executive Summary

As the world's media companies march into the new century, hundreds of them are marching to a different drum – a new rhythm with multiple media operating and publishing in harmony – with the goal to be in better synch with their audience members' needs.

The revolution from monomedia to multiple media publishing has created vast requirements for training, consulting and research. Media companies need to know about the best practices and best investments in convergence in order to construct their own convergence strategies. Ifra has been a leader in the areas of research, consulting and training for cross-media integration from the beginning of the convergence revolution.

Upon identifying the industry media trend, Ifra set out on a sophisticated, 14-month research study to understand the future media marketplace and its many plausible futures. It employed scenario planning research, and from that research, Newsplex was born.

The \$2.5 million IfraNewsplex at the University of South Carolina in the United States is a prototype micro-newsroom for demonstration, training and research in next-generation newshandling tools and techniques. It was completed in November 2002 and began operation the following February. The Newsplex is located at and operated in cooperation with the University of South Carolina College of Journalism and Mass Communication in Columbia, S.C.

The Newsplex model environment for a cross-media newsroom was developed by starting not from the newsrooms and the news businesses as they exist today, but rather from evaluations of the kinds of media marketplaces in which journalism and publishing could operate in the future. Scenario planning is all about imagining multiple futures rather than extrapolating just one. After analyzing the range of these multiple futures, scenario planners make high-level plans to be best positioned for the gamut of possibilities.

The plethora of multiple media scenarios identified in the early scenario research pointed to the need for a training facility for convergent newshandling – a model environment such as the Newsplex.

The Newsplex is backed by a directorate of the world's most forward-thinking media organizations and media technology developers, who helped to fund its construction. It is also supported by an international affiliation of leading consultants, and media education and training institutions.



The Newsplex' dynamic training programs provide small groups of trainees with the tools, the mentoring, the techniques and the news scenario exercises to take back and apply to their own news operations. The small-group, hands-on training for converging media companies sets Newsplex training apart from any other media training experience. The training gives participants first-hand experience with the tools, skills and management processes necessary to advance individual convergence strategies.

Through its first 18 months, the Newsplex has been a living, breathing research project on converging newsrooms and media company processes. During this period, more than 1,500 visitors and training participants – including hundreds of professional journalists, students, academics, managers and executives – have been challenged, enriched and energized by their Newsplex interactions.

Newsplex Legates, as training graduates are called, leave prepared to face current requirements of their workplace but also with a game plan for the future. Newsplex programs mix practical experience with strategic thinking.

A project on the scale of the \$2.5 million Newsplex cannot be relevant and illuminating without a constant influx of the best research, both theoretical and empirical, consisting of data that is both qualitative and quantitative.

Ifra's Newsplex staff members stay abreast of the most powerful examples of convergence, and relay best practices and tailor-made strategies based on tried-and-true convergence practices. They visit and evaluate more than 25 converging operations in Asia, South America, North America and Europe per year, and bring those experiences and best practices into the training courses.

Newsplex' Year One has been an unqualified success. The groups of trainees went on to implement their convergence strategies and continue down the path of cross-media integration. We welcome you to experience IfraNewsplex for yourself.

1.4 The Case for Convergence

IfraNewsplex would not exist if not for multimedia convergence. But what is the phenomenon?

There is no single definition of what constitutes convergence, because convergence is defined by each media marketplace. In the broadest sense, convergence is the process whereby media companies break out of their traditional, "siloeed" formats to deliver richer news and information services more in tune with what consumers want and when they want it. It is a change brought on by technology and the burgeoning information economy. Once implemented internally, convergence will most often be reflected through integration of print, video, online and mobile journalists, and the joining of their formerly separate departments, organizational structures and newsflow processes.

Part of defining convergence is defining what it is not. Convergence is not simply collaboration, such as the trading of content between a TV station and a newspaper that in the final analysis produces nothing extra for the news consumer. Convergence is not simply swapping cross-promotional capabilities in hopes of driving traffic from one medium to the other. True convergence is much richer, deeper and more permanent than that. It is a mindset change – a seamless integration where journalists are cross-trained and learn to think in terms of multiple media. It is a companywide reorganization, from monomedia to multiple media.

Inevitably, Newsplex training participants ask, "Why convergence? Why do we need it? What's the big fuss? Why should we uproot the way we do things, in favour of a much more complicated, communication-intensive way of working?"

The answer is outside the newsroom's windows, outside our media organizations, in the media marketplace itself. That marketplace has changed. Consumers have many more choices for satisfying their need to know, and they are exercising their options to such a great degree that many traditional media are losing significant market share. Without becoming more relevant and useful to the audience, across media, the news organizations stand to wither, and indeed may die.

As recently as the 1980s, the consumption of news was highly predictable: Newspapers were read in the morning and evening at home, news radio was listened to on the way to and from work, and network and local TV news was watched during prime time in the evening. But for the past decade, the media marketplace has been fueled by the new news consumer who accesses information when he wants it, where she wants it, any time, any place and on any platform. The media marketplace is no longer driven by media companies. The media marketplace is driven by the audience.

Statistics bear the proof of the seismic shift from the media-driven to audience-driven media economy. While more media are being consumed, according to market research firm Veronis Suhler Stevenson, traditional media such as newspapers and television are losing ground. An increasing amount of entertainment media is being consumed, now and projected for the future. Media consumers are multitasking at an unprecedented level – reading the newspaper while listening to the radio, watching TV while reading a magazine, using the internet while listening to music or talk radio, etc.

Meanwhile, leaders of dozens of online sites with multimedia content are reporting that integrated media content is being accessed more than ever, and the rate is rising roughly at the same pace as the increase in broadband adoption of the Internet. More people are accessing video segments, multimedia packages built in Macromedia Flash, audio and music files, photo galleries with or without audio, animated graphics and more.

Newsplex training is designed to help companies understand this colossal change.

Converged journalism is an opportunity to develop a broader, multiple-media news judgment that involves not just whether a story is important enough to be published or broadcast, but also, how and when the story will be published across various distribution options. This three-dimensional news judgment requires great skill and a keen awareness of the audience the journalists are trying to reach with their cross-format coverage.

IfraNewsplex also helps media companies meet the new challenges of the converging media world through editorial reorganization. Tomorrow's newsroom must be different than today's. It must work across multiple media simultaneously and in real-time. It must be the hub of an information-based service company, more content-driven and less product-limited that is today's typical editorial activity. It will be in a constant race for the latest publishing technologies, skills and methods, in a constant state of



change and innovation. In this newsroom, the tenets of journalism must be stronger than ever. The manner in which they are practiced, however, must adapt to a new generation of journalists with new capabilities to serve the public's ever-increasing need to know in ways both more effective and more accessible.

Convergence is also a business decision, and in many cases, convergence operations have their genesis in the business department, not the news department. Newspaper publishers and TV general managers often see convergence as an opportunity for cost-cutting and redundancy reduction. However, while convergence presents many opportunities for vibrant revenue-making and cost efficiencies, it is fundamentally an expansion strategy that in all likelihood requires additional resources. As explained by Gil Thelen, publisher and former editor of the convergent Tampa Tribune in Florida (USA), "It's not about doing more with less, or even the same with less. It's about doing more with more, but also making more in the process and thereby securing the future of our company."

Plenty of opportunities exist for fee-based mobile, TV and online download services, multimedia advertising campaigns and targeted advertising, to name a few. But the focus on the audience alone is a gargantuan opportunity to stabilize and grow market share. New services on new devices such as mobile phones and PDAs, internet-based multimedia and interactivity appeal to a younger, more affluent audience that has not been reached by newspapers, for example.

For many multiple-media companies, there may be only 10 to 30 percent crossover usership among media, according to Newsplex case studies. That means that huge audiences are using common brands, and huge audiences, particularly for online, are new to the brand. New audiences present major opportunities for media companies if they choose to exploit their multiple-media capabilities.

Hundreds of media companies worldwide have embarked on integration strategies for their media channels.



Each of those companies has approached convergence at its own speed, with various degrees of commitment and various amounts of human and technological resources. So far, no one media company has achieved 360-degree multimedia convergence – the wholesale integration of all four points of the convergence compass: print, broadcast, online and mobile.

However, the ones shining most brightly in this constellation are those implementing convergence from the outside in as the Newsplex advises instead of inside out.

The mistake of inside-out convergence is that media companies define their new organization and workflow by what they already do. They start by looking at the media they own and the content those media produce. Then they look for ways to spread that content around among those various outlets and to consolidate the various editorial staffs that produce it. Rarely do they undertake to recast themselves from manufacturers of information projects into deliverers of news and information services, which the Information Economy demands. Rarely do they attack the internal financial boundaries between existing business units that tend to limit cross-media enterprise.

Journalistically and financially successful convergence happens the other way around – outside in.

First a publisher must understand how the local audience is using news and information, all kinds and in all media. There is a critical need for market research that profiles communities in terms of what kinds of news they depend upon from wake to sleep, how they access different topics, to what depth, at what times, in what environments, over what devices, via what formats. The various personality groups among local media consumers need to be mapped.

One key finding in such market research is that people do not conveniently break up their news and information use based on media formats or based on our internal corporate divisions between media units – print, Web, whatever.

When news happens, contemporary news consumers might get their first alert over a mobile phone or other wireless device, via a text or multimedia message, or through email or some other personalized real-time service to which they subscribe. They will tune into a TV network for visual satisfaction, use online media to find additional and specific details, and seek out print newspapers and magazines for immersive explanation and understanding. Despite the mix of media employed, invariably these contemporary consumers regard it as all one story that they are simply accessing in different ways and to different degrees depending on their interests, requirements and convenience at any point in time.

All this argues that successful convergence must be organized internally around topics and stories, around geography or consumer personality, but not around individual media business units. That is key to making it an outside-in process, putting the emphasis on audience and service instead of on product. <

2.1 Newsplex Convergence Guides

The Newsplex Convergence Guides summarize findings, analyses, experience and insights derived through Ifra's involvement with and support of media organizations worldwide that are reacting to the converging marketplace of print, broadcast, online and mobile media. They embody Ifra's Newsplex philosophy and highlight issues that converging publishing companies should consider.

Guides were developed and added to this list in no particular order. Ifra adds to and edits the list as experience with convergent news operations and the results of Newsplex training dictate. As a reference aid, at the end of the list is a general grouping of the Guides based on their application to issues of strategy/marketplace, journalism/newsroom, management, technology, organization/staffing, content/media and business.

- 1 There is no single definition of what constitutes convergence because convergence is defined by the media marketplace, and marketplace conditions are different from one location and to another. In the broadest sense, convergence is a process whereby media companies break out of their traditional forms and formats to deliver richer news and information services more in concert with the way that consumers are choosing to access and use such resources. It is a response to changes in the media environment brought on by technology and the information economy.
- 2 Cooperation is not convergence. Convergence of any consequence worth the effort is measured by whether it gives news consumers something more than was available to them before the media combined, by whether it results in some added value for the local news and information marketplace. If not, it is just an internal workflow exercise that will not significantly reposition the media company.
- 3 Journalists should view the varied formats and media through which they can communicate a news story as a continuum and should build into their cross-format content a natural integration that leads consumers from one presentation to another so that the audience is made to realize the full depth and breadth of what is being provided. On a simplistic level this can be done with promos, links and referrals from one medium to another. At a more advanced level, however, story integration across media can be so seamless that the audience naturally follows the content across formats without perceiving overt cross-promotion. Cross-promotion by itself cannot be substituted for real convergence. Simply referring news consumers from one medium to another, such as listing tomorrow's newspaper headlines during tonight's newscast, or making a general statement that more information on this and other stories is available on the website, does not add appreciable value to the newsflow between provider and consumer.
- 4 Co-location is the fastest, most painless, most efficient way to improve communication, cooperation and coordination between news staff from different media formats and different media organizations. In particular, key editorial managers from converging news organizations benefit from sitting and working together at a "superdesk" that can serve as a central and concentrated newshandling resource for the entire cross-media enterprise.
- 5 Convergence requires more resources. It is not a cost-cutting strategy but rather a growth strategy. Convergence is about doing more with multiple media than those media did each by themselves. While there are efficiencies to be realized from coordinated cross-media operations, doing more usually requires more. Expanding into convergence while cutting resources is unrealistic.
- 6 Convergence is not about technology. It is about the story that reaches consumers by way of the technologies that consumers adopt as part of their media mix. Digital technologies enable convergence and are vital for it to work. But technology cannot be allowed to get in the way of the story.
- 7 The management complexity of handling stories in multiple media for integrated distribution across an array of channels to an increasingly fragmented audience is quantum levels greater than what most newsrooms and news managers are experienced with today. It is relatively easy to find and train journalists to work cross-media, compared to preparing their editors to work non-linear in same environment.



- 8** Cultural issues, stereotypes and mindset are the most difficult and essential concerns to deal with in converging newsrooms and practitioners from normally competing media.
- 9** Integration, not duplication, of content in different media formats is the goal of converged newshandling.
- 10** Converged newsrooms require some editorial roles not usually practiced in mono-media organizations. These include newsflow coordination across all media formats, news resourcing that applies information tools editorial knowledge management to enhance the depth and context of content, storybuilding to manage and integrate the varied resources and components of the cross-media process, and multiskilled journalism promoting competence in the strengths, weaknesses and capabilities of all available and applicable content formats.
- 11** Not all journalists will be multiskilled, perhaps only a minority. However, all must be multiple-media minded. All journalists in a multiple-media news organization must understand the strengths, weaknesses and capabilities of all the formats through which their stories can be presented if they are to be able to create the most effective telling of those stories.
- 12** The fundamental shift in the news and information marketplace – from mass audience to aggregate audience. Overall news and information consumption is increasing an average 1.5 percent a year, plus more people are tending to use multiple media at the same time. Yet market share for most individual media is flat or declining. To tap the growth market, therefore, media companies must expand convergently.
- 13** The fundamental shift in media business strategy: Evolving from a content production and distribution industry to an information service industry. In this expanding Information Economy, news is a commodity but value is placed on services that inform, explain and evaluate. Convenience is the primary attribute of a service. Convenience in a news and information service dictates that it operate in whatever medium a customer favours.
- 14** The fundamental shift in newsrooms: Focusing more on content and information management than on traditional production management. This is essential to support the service-oriented multiple-media company.
- 15** A news story cycle has four stages: breaking, developing, following and resulting. No single news medium is ideal for presenting all stages for the entire gamut of news consumers. The competitive advantage of convergent journalism is that it can apply the most effective, appropriate medium or combination of media to the story at each stage rather than be confined to the strengths and weaknesses of just one format.
- 16** Print, video, online and mobile are the four points of the convergence compass and complement one another's strengths and weaknesses, creating a comprehensive multi-medium.
- 17** "QPFI" is a general framework for successful cross-media news planning: a) Identify what questions (Q) news consumers are asking about this story, what they want to know and what they need to know now and later, considering the variety of consumer profiles; b) Decide the highest purpose (P) of each available medium at this stage of the story and at each future stage of the story, considering the ways in which news consumers mix newspaper, television, web and mobile use to satisfy their need to know; c) Determine which aspects of the story are most effectively conveyed in which format (F), considering the relative strengths and weaknesses of text, video, audio, pictures, graphics and animation; d) Provide interactivity (I) in the story package since this is the new currency in today's information marketplace.
- 18** Interactivity works best when it is graduated and appropriate to the stage of the story. When a story is first breaking, news consumers have questions they might want to input into the information-gathering process of their journalists. As more becomes known, some will want to start expressing their own comments and insights. As the ramifications come to be understood, many will want to discuss these with authors, experts and peers. Promoting too high a level of interactivity too early comes across as contrived and wastes resources. Too little opportunity for interactivity later may be frustrating to consumers and demonstrate unresponsiveness.





- 19** Mobile phones and the evolution of the always-on, always-connected news consumers are redefining the nature of newsgathering and news delivery even more than the wired Internet has. Only mobile is arriving with built-in revenue streams unlike the initial Internet rollout.
- 20** News consumers are leading the way in convergence. News media have to catch up. To consumers, a story they read and watch and surf is all one story, just accessed in different ways at different times on different technology depending on what is convenient, what is required to satisfy the need to know, what fits with their media personalities. Media organizations that can serve only part of a consumer's media mix are marginalizing themselves.
- 21** Implementing convergence outside-in requires a news organization to study its market to understand the varied personality groups among its news consumers. Then it can change its editorial processes and integrate formats to best match the way people are actually using news media in the community. The alternative is trying to do convergence inside-out, without market focus, mostly as an effort at internal harmonization between various media units, and with less likelihood of achieving significant results.
- 22** Video on the web is not TV. News and information consumers generally are not looking to watch television on their computers or mobiles. Effective online video content therefore should not simply replicate TV-style presentation but instead should adopt a style particular to itself and to the environment in which it is being accessed.
- 23** Print-format newspapers are diversifying into stables of various more tailored, targeted, personality editions that are more relevant to the diverse audiences that are replacing the traditional mass audience. Editions for commuters, youth, business and sports personalities are just the start of this evolution. Development of tabloid editions by traditionally broadsheet publications is another aspect of this process. It is adaptive media convergence, and among other things it significantly increases the management and production complexities facing news and information providers.
- 24** Storyboarding techniques are useful in planning and executing the multifaceted cross-media story. Storyboarding helps editorial managers work non-linear to divide the story into its logical parts, figure out which medium to use for each part, and build the various elements into an integrated whole.
- 25** A core technology for the convergent newsroom is support for cross-media news management, a tool and process to coordinate the various facets of the multiple-media story.
- 26** Photographers can be trained and equipped to produce both still and video images in support of multiple-media newsgathering.
- 27** The websites even of print-oriented media must incorporate video and audio content or they forfeit the full capability and value of the online environment. It would be like printing a newspaper without pictures.
- 28** Create microsites, also called web shells, focused on particular topics of interest – major stories, ongoing issues, etc. Microsites are a more direct and effective response to the news consumers' need to know about such topics and are more likely to be incorporated into the mix of media with which they choose to surround themselves.
- 29** In building relationships between newspapers and broadcast operations, the web serves as very effective mortar.
- 30** A properly structured newspaper/TV interaction benefits both players although in different ways. TV gets depth and reach. The newspaper gets immediacy and validation.
- 31** Newspaper's greatest asset in a cross-media partnership is its reporting resources, particularly its staff size.
- 32** TV's greatest asset in a cross-media partnership is its emotional connection to news consumers.
- 33** Web's greatest assets in a cross-media activity are its capacity and interactivity.
- 34** Mobile's greatest asset in a cross-media activity is its intimacy with the news consumers.
- 35** A boardroom mandate is required for any serious convergence conversion of a media operation, but grassroots adoption is the only successful approach to implementation.
- 36** To generate grassroots adoption in the newsroom, seed the operation with change agents trained in the skills and mindset of multiple media.

- 37** Train the newsroom in convergence, not individual journalists and editors. It is a process, not a skill set. At the same time, individuals need training in special cross-media skills – such as talkbacks for print reporters and still photography for TV camera crews – if they are to contribute effectively to the new process.
- 38** Have a measure of convergent accomplishment, a metric. The newsroom staff needs a tangible indication that progress is being made. For instance, count the number of stories handled in a converged way; give recognition to the most innovatively cross-media news effort; track news consumer response to particular stories by combining readership ratings, Web page hits, and the number of emails/letters/phone calls received about the story in some formula that gives an index for the story's overall impact.
- 39** Design the newsroom to match and support the convergent mission and newsflow. For instance, anticipate the need for a talkback location for video shoots; mobile phones and wireless computers for staff flexibility; and a newswall as a focus point for editorial interaction.
- 40** Editors must cross boundaries between content formats to most effectively manage the intersection and integration of different media. Creating a convergence or multimedia editor with responsibilities and authority over more than one medium is a common start and can eventually lead to, for instance, a sport editor who manages all sports coverage in print, online and on the air.
- 41** There is value in mixing the tempos of newspaper and TV in terms of energy level and pace, such as in how they respond to breaking news.
- 42** Breaking news is the easiest to handle in a converged way, but requires the most advance planning between media partners. Enterprise stories are the hardest to converge but are easier to manage in integrating coverage from different media and adapting to available resources.
- 43** TV gets the biggest initial boost from convergence with a newspaper, gaining in perceived authority and market share. Newspaper benefits are over the longer term in circulation stability and brand reinforcement.
- 44** Converging media companies gain greater and faster benefit from their efforts by marketing their expanded abilities to pique news consumer awareness.
- 45** Print newspapers can evolve into a more premium news product, an up-sell from web and TV. This is because print remains a preferred medium among consumers for knowledge transfer in contrast to information transfer. For a comprehensive media company, this requires that print newspapers be operated as a component of a mix of media offerings rather than trying to function as a standalone time-delayed format within the multiple-media marketplace.
- 46** Revenue gains from converged media operations are real and significant, as experience is already showing. They are realized through an aggregate and integrated media business model rather than through a traditional financial focus that tries to segregate income exclusively by media type.
- 47** The advertising model that successfully taps into the power of media convergence emphasizes reach rather than product. Whereas a traditional rate card promotes position in a particular format or combination of formats, a reach card promotes access to a specific audience or combination of audiences through the mix of media with which those audiences surround themselves.
- 48** Convergent journalism is more powerful because it reaches more people at more levels, in more ways.
- 49** Convergence is an established industry trend, no longer just an experiment or fad. For the most part, the more successful media companies are also the more converging media companies.
- 50** Not all of today's journalists and editors will make the transition to working for converged media companies, to thinking in terms of multiple media rather than just their format of specialization. Media managers should be prepared for how they will deal with those who cannot adapt.
- 51** Convergence should be integrated into hiring, job descriptions, performance evaluations and career incentives, including salary. Media companies should decide up front what their remuneration policies are for cross-media performance in order to forestall deadlock on this issue.
- 52** Newsrooms are no more resistant to change than other departments of a news organization. However, it should be remembered that journalists were hired for their skeptical and questioning natures. So it should be expected that they will be skeptical about any change in their own environment that is not well explained and well implemented.



- 53** In designing the technological infrastructure for a convergent media organization, put the story, the content management, the information processes at the center rather than the production processes. Databases become a core corporate asset as they are in other information-based companies.
- 54** As a simple measure of the sufficiency of a convergent news organization's core systems, ask: Is there a place to record, develop, communicate and track a story idea? And when the story is done, is there anything to show for it other than what was finally published and aired?
- 55** Go digital – with cameras, voice recorders, fax servers, PDF scanners, etc. News resources that are not digital are of much less value in a convergent newsflow. Using a digital voice recorder rather than a cassette tape recorder, for instance, instantly opens up possibilities for providing audio to a website or broadcast partner.
- 56** Embed cross-media newshandling in the newsroom structurally. "Superdesks" were some of the first embodiments, sitting media heads together to cause interaction. Continuous news desks are a evolution, serving a liaison function between media. Cross-media starts to become integral in the form of full-media topic managers, such as a sports editor over all sport news regardless of format. Eventually, this leads to pervasive multiple-media newshandling and the likes of story-builders.
- 57** Cross-media starts in the newsroom. Other departments of the organization follow.
- 58** Scenario-planning techniques are useful and effective in developing a concrete strategy and vision for the converging news organization.
- 59** Incremental storybuilding and news delivery is one of the defining attributes of journalism relevant in today's news marketplace. Incremental storybuilding recognizes that for today's increasingly real-time news consumers, while any significant news deserves an appropriately comprehensive telling and explanation once the story has developed, there are also elements of the story that should be reported as they develop; that this incremental coverage can accumulate and combine into a particularly valuable element of the eventually comprehensive report; that different content and distribution formats will be appropriate for different stages of the story and tempos of coverage and audience needs; but that there is value in having the coverage be a continuum across the media, building on itself while displaying common journalistic standards for quality and credibility.
- 60** Newsrooms need to develop a replacement for their existing product-driven news-decision structures as they shift from a product to a service focus and those old structures no longer support the process. They need a new sieve through which to strain the newsflow and decide how to handle stories.
- 61** Recognize and take advantage of the increasing blending of news and entertainment in this media generation. If a vehicle for presenting a news story accurately conveys the facts and context, and successfully equips the consumer to make more intelligent decisions about personal and community issues, the fact that the presentation engages that consumer on an emotional or enjoyable level is not necessarily inappropriate or undesirable. Interactive content online tends to be a good medium for this kind of presentation.
- 62** The mobile phone is developing into an ideal real-time companion to the newspaper. This is because news over mobile – immediate, multimedia, but limited by bandwidth and screen size – tends to be the exact opposite of news from a newspaper, which is static and seriously time-delayed but relatively expansive in content detail. In combination they seem to cover the spectrum and share a key attribute in today's media marketplace: the convenience of portability.

Guides categories reference

Strategy/marketplace

1, 2, 3, 12, 13, 14, 16, 19, 44, 49, 58

Journalism/newsroom

4, 9, 11, 15, 17, 18, 24, 39, 41, 42, 48, 59, 60, 61

Management

5, 7, 8, 21, 29, 30, 31, 35, 38, 51, 57

Technology

6, 25, 53, 54, 55

Organization/staffing

10, 26, 36, 37, 40, 50, 56

Content/media

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2.2 New Roles in a Converging Newsroom

Despite all the impressive technology and architecture in the US\$ 2.5 million IfraNewsplex at the University of South Carolina, the most sophisticated and essential items in the facility, from the standpoint of a newsroom trying to figure out convergence, are a couple dozen cheap plastic name tags.

Printed in blue, red, green and yellow to make them stand out, they display the titles “newsflow editor,” “story-builder,” “newsresourcer” and “multiskilled journalist.” Newsplex participants wear the tags during scenario training to identify the roles they are assigned to fill while simulating the planning and management of different types of news situations across different mixes of media.

Before they are given the tags to wear, however, trainees go through a detailed briefing and discussion about what these new newsroom functions entail. It often turns out to be the most difficult lesson for them to master. Some will struggle through the rest of their time at the Newsplex to fully understand the changes in newsroom organization, editorial process, journalistic mindset and media business model embodied in these Ifra-identified roles for convergent newshandling.

When they get back to their own newsrooms after training ends, they will struggle even more with how to adapt these roles to their own companies, and how to adapt their companies to the essential requirements of these roles. They come to realize that, when Ifra’s Newsplex marketing material declares “Tomorrow’s newsroom must be different than today’s,” that difference is embodied in these roles more than anything else.

Newsroom research

Development of what would come to be called the Newsplex roles for a converging newsroom began in 1995 when Ifra launched extensive international research and consulting in editorial processes beyond just the technology used. The mid-’90s was the period in which news organizations, particularly newspapers, were coming to realize that effective integration of online publishing into their extremely optimized print workflows required more than simply grafting HTML editors and content management databases into their infrastructures.

Over more than 10 years, Ifra has conducted detailed evaluations of newsrooms at newspapers and other media operations in Thailand, Denmark, India, the United States, Britain, France, Germany, Australia, Malaysia, Japan, Brazil, Switzerland, Iceland, Belgium, Spain, Italy, Slovenia, the United Arab Emirates, Sweden, China and Portugal. These evaluations have documented the newsrooms’ organizational structures, communications patterns, story assignment and management processes, job descriptions, staffing levels, skill sufficiency, editorial training programs, daily and long-term news planning methods, news meetings, seating/desk arrangements, workplace environment, remote bureau and correspondent interactions, use of existing and available technology, handling of digital and non-digital news resources, technical infrastructures



and databases, and strategic visions for their changing media marketplaces.

The research has found a remarkable commonality in how newsrooms operate worldwide. This seems to be because most newsrooms processes have increasingly been designed around the newsroom’s production technology, and news production technology is more or less similar from one country to another.

The research also revealed an almost global similarity in the issues confounding newsrooms trying to adapt to the internet and other new media, with an explanation apparently grounded in the first finding. Newsroom organizational structures and newshandling processes have become so closely tied to the production technology for a specific medium that they are difficult to adapt to alternative media requirements such as those of the internet. In other words, a newsroom so carefully and highly optimized for creating a print newspaper on a daily schedule is usually not optimal at all for the efficient production of any other news product including a Web site. Further, the highly optimized nature of a medium-specific newsroom tends to extend into the mindset of the people who work in that newsroom, making their adaptation to working with and in other media difficult as well.

This situation is a primary reason why the first years of internet efforts among newspapers have been characterized by lots of going back and forth between integrated and separate print-online activities. First the conflicts and inefficiencies of operating the two media together overcome a joint initiative and force the staffs apart. Then the expense and inefficiency of operating them independently lead managers to put them back together. Media companies worldwide have been observed going through this together-apart-together-apart cycle for years now.

The situation is further aggravated as media companies seek to expand convergence by integrating broadcast/video and mobile/wireless with their print and online editorial processes and staffs.

It becomes apparent that key aspects of the editorial process in a multiple-media news organization would better operate at a level more independent of or above the technology-driven production processes than has become the norm. The core news management and content organization activities ideally should be focused more on the story rather than on the media or products in which the story will eventually be distributed. To a certain extent, this applies as well to content generation processes – such as writing and image capture – although these cannot and should not be so cleanly isolated from production demands since they are dependent on technical aspects of the end product and that product's consumers.

In each of the newsroom evaluations conducted by Ifra, recommendations were generated to the media companies for advancing their cross-media operations. It turned out that these recommendations usually dealt foremost with restructuring the newsroom's editorial organization and redefining newsroom jobs, rather than with technological upgrades. As the news industry has started to acquire more familiarity in convergent newshandling, its experience has mirrored Ifra results by showing that non-technical issues of organization, mindset and media cultural are the most critical to success of such initiatives.

In its reorganization recommendations for converging newsrooms, Ifra has consistently identified four functions or activities essential to an effective multiple-media workflow but lacking in traditional newsroom structures and job definitions. These are the functions that have come to form the basis for Newsplex roles training.

They are:

- > **Newsflow coordination** of a story across all available and appropriate media formats.
- > **Storybuilding** to manage and integrate the varied resources and components of the cross-media process.
- > **News resourcing** that applies information tools and editorial knowledge management to enhance the depth and context of story content.
- > **Multiskilled journalism** to integrate the strengths, weaknesses and capabilities of all available and applicable content formats for a given story.

It is important to understand that these are identified by Newsplex research as roles or functions in a convergent newsroom. They are not necessarily standalone jobs or positions, even though they are performed as such in Newsplex scenario training for clarity.

In an established newsroom, the activities of newsflow coordination, storybuilding, news resourcing and multi-skilled journalism very well could – and perhaps to some degree should – be integrated into the skills and responsibilities of existing staff and therefore not require additional personnel.

At the same time, these new Newsplex-identified roles do not necessarily do away with the need for all the current functions in a newsroom. Plus, it will be recognized that these roles require skill sets and particularly thinking processes not usually present and perhaps not compatible with legacy newsroom jobs.

Another caveat is that this list of Newsplex-identified roles for a converging newsroom is not necessarily fixed or exhaustive. As the media marketplace and the habits of news consumers continue to change, as new forms of media and new technologies for accessing news and information continue to be introduced, it is possible that additional new roles will be required in a comprehensive media organization.

However, these four roles seem to form the essential core of an efficient multiple-media operation.

The full version of this Special Report contains additional description of each of the four roles. In addition, first-hand perspectives on each of these roles are presented from several members of the Newsplex staff and of the journalism faculty at the University of South Carolina, where the IfraNewsplex is located. These individuals have started to acquire considerable insight into the roles through their participation in Newsplex training and research programs, and therefore add another dimension to this report. These perspectives were originally published in the University of South Carolina's electronic Convergence Newsletter over the course of 2004.



3.1 Newsplex Training Methods

Most on-site and off-site journalism training today is “classroom style,” that is, a trainer at the head of the class lecturing about a training topic. Most delegates in off-site training are sent to a center for a week, and come back with ideas to implement, with little or no follow-up. The media company’s short-term expectation for training is that the delegate or delegates bring back ideas to implement, with no real expectations of major changes in the news organization after they return.

Ifra takes a decidedly different approach. Instead of classroom-style training, the Newsplex creates a hands-on experience, complemented by appropriate theory, discussion, and small-group sessions. Each day, participants get a taste of each training approach to ensure a fast pace and a deep understanding of the training material.

Hands-on training is conducive to internalizing the training messages about media integration. Meanwhile, theory provides a foundation for philosophies and case studies on convergence. Discussion and small-group sessions provide a way for participants to apply the theory and hands-on experience to their own situations in their newsrooms.

Most Newsplex training is designed for cohesive groups of journalists and/or managers from one newsroom or a group of related newsrooms. The Newsplex’ ultimate goal is to provide training that will assist media company management in achieving a move from monomedia news-handling to a multimedia strategy.

When media companies send delegates to the Newsplex, usually their goal is to implement a convergence strategy or a portion of that strategy. For example, a media company may have just built a TV studio in its print newsroom and now want journalists to be competent speaking in front of the camera and writing TV scripts. The company may also want these journalists, previously unaware of how TV works, to feel more comfortable with the culture and the demands of this new form of storytelling. Management may further want journalists from individual media to return from the Newsplex as competent multimedia storytellers.

IfraNewsplex intends to create “change agents” for such media companies. Newsplex legates, as graduates are termed, are armed with new skills and evangelism for convergence. They are the perfect conduit to make changes in the media company. The companies are encouraged to establish the team of trained journalists as a convergence committee when they return, using them to lead brainstorming sessions, to conduct meetings to talk about successful and failed exercises in convergence, to make plans for the future, and to serve as a sounding board for the newsroom on convergence topics.

Newsplex convergence support projects are tailored to the needs of individual companies through in a three-step process:

- > An on-site editorial assessment and interaction with top executive managers
- > The in-Newsplex training program custom designed based on the on-site visit
- > Follow-up implementation support

During the initial assessment and recommendations phase, an Ifra analyst will spend two to three days at the media company to assess human and technology resources for convergence, plans for multiple media integration, and the opinions of journalists, managers and executives about present and future plans for the changes being considered.

This assessment is parlayed into a roadmap for the media company’s integrated future. A written report provides specific, detailed recommendations for training, new roles in the newsroom, new organizational structures, physical integration of newsrooms, plans for culture management, and necessary technology.

Then a detailed training program, usually based on five intensive days in the IfraNewsplex environment, is proposed to address the recommendations in the assessment and to help the company achieve its convergence objectives.

Each Newsplex training program is tailor-made for the media company, based on its assessment results and its stage in the convergence cycle. While courses will be tailored to the training goals of the home newsroom, the emphasis underlying all such instruction is on expanding the journalists’ skill sets and mindsets. They should return to their home newsrooms with greater potential to contribute to an evolving news organization and enhanced career opportunities.

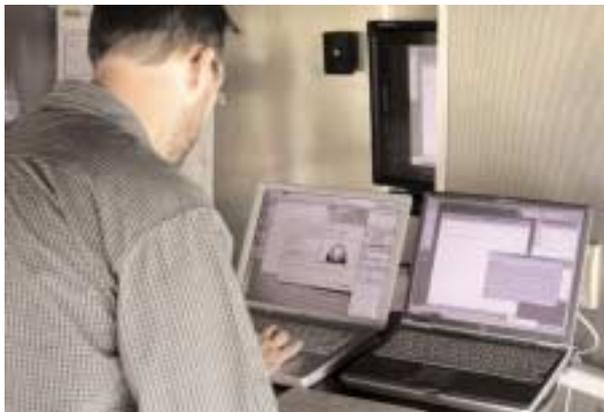


The most often requested program is the Newsplex' signature training event, called Roles Training for a Converging Newsroom. It provides hands-on, realistic news scenarios that engage participants in practicing the new roles required in a cross-media editorial operations. For example, delegates may work together on a train wreck scenario, in which their task as a team is to create a multi-media breaking news package on the crash.

Each participant would play a role in each scenario, variously responsible for newsflow coordination across all media formats, news resourcing that applies information tools to enhance the depth and context of content, story-building to manage and integrate the varied resources and components of the cross-media process, and multitasked journalism promoting competence in the strengths, weaknesses and capabilities of all available and applicable content formats.

Other modules of the Newsplex Roles Training event address the following issues:

- > Organizational structure – Newsplex delegates work in teams to build better organizational structures for their integrated operations, and analyze case studies about evolved integrated media company organizations around the world.
- > Culture clash – All experience with the implementation of convergence in media houses shows that the No. 1 issue to be overcome relates to the people involved rather than technology or organization. In a changing editorial environment, news staff members tend to be adverse to change and often have difficulties adjusting to new technologies, new cross-media colleagues, new workflows and 24/7 news cycles. A part of every convergence strategy should be plans to manage cultural issues. Constant communication from top management about the convergence strategy and clear expectations for individual performance are essential. Newsplex training identifies key areas of culture clashes in the delegates' newsrooms and explores ways to assuage those problems over time.



- > Understanding audience – News consumers are driving convergence with increasing demands for more news and information content accessed over a plethora of media – wireless, TV, radio, online, and even combinations of these while multitasking. Through interactive sessions, Newsplex participants discuss the users of their media in their marketplaces are challenged to devise better ways to reach them.
- > Media integration – Newsplex training sessions encourage journalists to view the varied formats and media through which they can communicate a news story as a continuum rather than a duplication of content, and to build into their cross-format content a natural integration that leads consumers from one presentation to another so that the audience is made to realize the full depth and breadth of what is being provided. On a simplistic level this can be done with promos, links and referrals from one medium to another. At a more advanced level, however, story integration across media can be made so seamless that the audience naturally follows the content across formats without perceiving overt cross-promotion.
- > Enabling technology – Newsplex delegates are given first-hand experience with the latest in portable multiple-media newsgathering tools such as would be used by an advanced backpack journalists; with evolving mobile communications and wireless networking technologies; with sophisticated yet simple software for creating video and audio news content for broadcast or web; with content and editorial knowledge management applications that aid editors in managing their increasingly varied resources; and with systems for improving coordination and collaboration among an increasingly diverse editorial staff.
- > Investment and revenue – Convergence is an expansion strategy, and as such, Newsplex training helps delegates to focus on the research and development of better organizational structures, more training, investment in technologies, and in the end, better journalism. There is also a component of the program for understanding the business implications, which are significant and more than justify the investments.

The third phase of a Newsplex convergence support project is the follow-up to training and ongoing assistance in meeting the company's convergence objectives. Newsplex staff members make themselves available to answer questions by phone, email or site visits to assist media companies in achieving a successful transition from monomedia to multiple-media operations. Some media companies have also found it valuable to send more than one team for in-Newsplex training, in order to develop a critical mass of legates in their staffs and better ensure dissemination and adoption of their cross-media strategy.

4.1 The Newsplex Model Environment

A 14-month-long research and development effort in 2001-2002 focused on advanced newsroom architecture, technology and workflow and culminated in specifications for the Newsplex model environment for convergent editorial spaces.

This is the model on which construction was based for the 530 square meter, 5,700 square foot, IfraNewsplex at the University of South Carolina, Columbia, USA. After construction was completed in November 2003, the facility was donated to the university's College of Mass Communications and Information Studies under an agreement in which Ifra uses it for training professional news managers and their staffs from around the world who are trying to adapt their newsrooms to a rapidly changing media environment, and for evaluation of innovative methods and technologies for the convergent marketplace of print, broadcast, online and wireless news media.

The Newsplex model environment was developed starting not from the newsrooms and the news businesses the industry has today but rather from scenarios describing the kinds of media marketplaces in which journalism and publishing could operate in the future. "Publishing" is being used here in the broadest sense of the word, referring to any distribution of journalism regardless of medium.

The scenarios were created with planning techniques known as the Shell Method because oil industry giant Royal Dutch Shell was largely responsible for developing them in the 1970s. Peter Senge later popularized scenario planning techniques in his management book "The Fifth Discipline."

What characterizes scenario planning is that it focuses on imagining the future rather than extrapolating from the past. Actually it stresses imaging multiple futures, and then making high level plans for all of them. In this regard, scenario planning is distinguished from traditional strategic planning, which tries to divine just a single most-probable future based on current trends. Through scenario planning, Shell anticipated the oil embargo of the 1970s as one of many possible future scenarios, which allowed the company to jump ahead at a time when most of its competition was suffering and trying to regroup.

An especially effective, and fun, implementation of scenario planning is called story building, in which participants create very detailed, intricate stories describing the world at some date in the future. Each story is woven around assumptions about possible technological breakthroughs, natural disasters, political or economic surprises, industrial accidents or social disruptions that typically would not show up in routine industry forecasts and 10-year business plans.

Anyone who has viewed Ifra's future-newsroom concept video "Tomorrow's News" has seen the results of some of the Newsplex scenario planning. The video can be seen online at the <http://www.newsplex.org/video.shtml>.



Dusk view of the northwest exterior of the Newsplex looking through its high-tech glass façade at the lit Newsflow Deck. This view illustrates well one of the key design goals of the Newsplex in terms of allowing a free flow of light and communications within the facility.



From the Light Lane looking south at the administrative assistant's alcove and stairs up to the Multimedia Mezzanine. This view again illustrates the transparency of the "soft eggcrate" wall panels. At far right is an informal seating and waiting area. Seen at left are wooden chairs designed by Newsplex architect Saf Fahim, and a glass sculpture created for the facility.

A number of scenarios was developed in the Newsplex research, a variety of visions of news media landscapes that could be. For instance, there is:

- > The pervasive internet scenario that imagines a world so thoroughly wired and wireless that virtually everyone is always on and always connected to a news and information source through one gadget or another.
- > The media backlash scenario in which people get fed up with being bombarded with endless information streams and so decide to turn most of it off.
- > The free newspaper scenario in which a breakthrough in digital ink technology leads to an explosion of new papers in every market when publishing in "hard copy" becomes as easy and inexpensive as creating a Web site – resulting in a collapse of cover prices for all newspaper.



The Newsflow Deck, looking south toward the Editorial Alcove and, above it, the Multimedia Mezzanine. The configuration of all furniture is entirely flexible, with a minimal number of wires due to wireless networking and mobile communications. Like all "offices" in the Newsplex, the Editorial Alcove, for an editorial manager, is contiguous to the main editorial areas.



This view of the Newsflow Deck encompasses the Newswall and shows how the "soft eggcrate" wall panels filter direct light so as to create an effective viewing environment for computers and video screens. The Newswall serves as a focal point for editorial management in a multiple-media environment with many more factors to manage than in traditional newsrooms. The trench matrix on the floor allows cable and power runs wherever needed.

- > A number of consolidation and cross-ownership scenarios, such as one in which print-TV-online-wireless combines become the norm in almost every significant community and start competing against one another for regional markets.

The research perhaps even imagined the aftermath of the 9/11 attacks in a scenario about a stupendous series of news events that leads to a surge of interest in all forms of news access and to people becoming afraid of not being able to find out quickly enough when the next big thing happens.

With such scenarios from which to work, Newsplex research analyzed what kind of news organizations might perform best in such future media environments. Some patterns emerged. It appears they would be news organizations that:

- > Can fluidly emphasize and configure any one or combination of distribution media.
- > Have a service relationship rather than a commodity relationship with news consumers/markets.
- > Place the highest priority on brand credibility and reliability.
- > Are highly technologically endowed in information management, communications and collaboration – production technology is less distinguishing, but dissemination capacity is critical.
- > Develop small, tight staffs for the highest value editorial functions, outsourcing other activities – as news-handling processes become more sophisticated, it becomes less feasible to maintain expertise in a huge newsroom.

Finally the Newsplex project explored what kind of newshandling environment, what kind of newsroom, exists at the core of this kind of news organization. The result is the Newsplex model environment.

Following are the model's key attributes:

Flexibility

Most newsrooms in the world are designed around a particular editorial organizational model. The most common model is to concentrate the editorial staff in one big room. Within this large room, to one degree or another, the staff will usually be segregated into distinct areas based on topic or function. The second most common organizational model, practiced in far fewer locations, is much more explicit in this segregation, breaking the editorial staff up into separate offices of just a few individuals each.

In almost all cases, a staff member is expected to work at an assigned desk in his or her assigned location whenever in the newsroom building. It is the rare news company that makes it efficient or even possible for editorial staff members to continue working in the building away from their assigned desks, such as in a lounge, meeting room or project space.

Ifra's study of how news organizations perform different types of news coverage efforts at different stages in the newshandling process found such a one-layout-fits-all approach to be inappropriate. There are times when the newsroom benefits from a large concentration of editorial staff, in order to achieve a confluence of editorial expertise and news judgment. But there are also times at which smaller selected teams of journalists and editors should be able to assemble and work together segregated to one degree or another from the rest of the staff. And finally there are appropriate times when individual journalists will perform best if allowed to work in a more or less isolated location.

The Newsplex model environment provides for all variations of staff association and the flexibility for staff members to shift from one situation to another without loss of efficiency.

The central newshandling area of the Newsplex is the Newsflow Deck. It represents a space where the majority of newsroom staff can work side by side and experience the maximum journalistic group-think.

Just off the Newsflow Deck but still, to a greater or lesser extent as required, within sight and sound of this primary news management location are a number of different seating areas where smaller teams of reporters and editors can assemble. One of these areas is separated from the Newsflow Deck only by a large glass table, but has special seating for computer-toting mobile staff. Another area is located on a slightly more removed mezzanine overlooking the Newsflow Deck and is equipped with an innovated touch-screen plasma display for collaboration. Still another such area was created with very informal seating off in a more isolated corner of the room, but still within earshot of any breaking developments, to have more of a lounge atmosphere.

For more isolated work, there are four Media Docks along the north side of the facility in which journalists can essentially shut themselves off while still being within just steps of returning to the main Newsflow Deck.

Finally, just inside the Newsplex' front door are two stand-up workstations, called Touchdown Stations, where fast moving reporters can rush in, touch down, log on, update, download, sign off and be gone without ever having to enter the main Newsflow Deck.

Connectivity

Perhaps the most innovative feature of the Newsplex' physical outfitting is the "soft eggcrate" used to create the walls separating most of the different work areas. These panels consist of an open matrix of material that breaks up sight lines and muffles sound, but that simultaneously preserves an awareness of people and activities on the other side. They are in essence walls that are not walls, and they serve the end of keeping a journalist in the Newsplex in some level of association with all his other colleagues no matter where he moves to work.



A view north along the News Resource Gallery and News Analysis Area toward the MediaDocks in the background.

Work desks are able to be moved, ganged or broken up easily to create whatever groupings of personnel are desired.

Technologically, this flexibility with connectivity is supported through extensive wireless computer networking and the exclusive use of mobile phones. No journalist is tied to a desk by a wired network or telephone. Only electrical connections for the wirelessly networked laptops impede complete freedom to rearrange staff whenever and however is most productive.

The layout of the Newsplex also ensures that what "offices" are provided are contiguous to the rest of the newshandling spaces rather than being isolating. Traditional managers might find this undesirable since it eliminates their ability to shut themselves off from the rest of the staff by closing the door and shading the windows. But that is the idea.

There are three office spaces in the Newsplex. The editorial alcove and news resourcing alcove are on opposite sides of the Newsflow Deck. Because of their continuity to the Newsflow Deck, managers sitting in these spaces are fully engaged in the newshandling at all times. Their spaces can even become impromptu news meeting and work locations as necessary.

The third office space, the administration alcove, is set slightly off but is still contiguous to Newsflow Deck. And surrounded as it is with “soft eggcrate” the administrative manager working there remains in complete contact with everything going on in the rest of the facility.

Light and Sound

The “soft eggcrate” panels combine with an extensive variety of computer-controlled direct and indirect lighting, and the careful selection of materials and colorings through the Newsplex, to create a very light and airy environment without seeming cavernous or industrially warehouse-like.

In particular, the open-matrix panels allow direct sunlight to filter into the main Newsflow Deck, which is extremely unusual for a high-tech newsroom featuring many computer monitors and plasma and LCD screens. The “soft eggcrate,” originally designed for use in front of large spot lamps on movie and photographic sets, diffuses the sunlight to acceptable levels and preserves the physical and psychological health benefits associated with exposure to natural full-spectrum sunlight.

The system continues to be evaluated and refined to deal with the sometime bright backlighting that can come through the “soft eggcrate” at certain times of the day at certain times of the year.

Acoustics in the Newsplex are similarly fine-tuned so that casual conversations do not interfere with unassociated work, but with the slightest increase in volume a manager can get the attention of and communicate with any or all staff no matter where they are in the facility.

The “soft eggcrate” serves this end by baffling and channeling sound, just as it does light. It is also facilitated by museum-quality wall fabric, acoustically absorbent granite-flaked flooring tile, and a fabric scrim mounted overhead.

Foundation

The floor of the Newsplex is specially designed to serve the functions of both a print newsroom environment and a broadcast studio.

A newspaper newsroom typically requires a lot of network and power access points scattered across the floor so that computers, phones and other equipment can be plugged in wherever desks are located. Although the Newsplex, as already described, makes use mostly of wireless networking and communications, it still needs to allow for the occasional wired connection and particular for convenient access to electrical outlets. Therefore, a network of power plugs had to be provided in the floor. A common approach for this is to use a raised floor allowing wire runs in the inches of space under removable floor panels.

On the other hand, a broadcast studio’s floor needs to be very solid, stable and acoustically mute so that cameras can roll across it and people can walk around without introducing either vibration or background noise into video and audio recordings. For this purpose, the raised floor is unacceptable.

The Newsplex developed an innovative system to satisfy the needs for both connectivity and stability. Steel trenches were anchored to a concrete pad in a computer-designed pattern to provide maximum flexibility for wire runs and power outlets. Then concrete was poured in the voids between and around the trenches, flush to their top. A granite-based tile was applied on top of the concrete and made flush with the steel covers of the trenches to complete the installation.

Now, whatever wires are necessary can be run through the network of trenches, and even up and across a steel framework of beams that meet up with the trenches as strategic points and rise 20 feet to the ceiling. Outlets are accessible through ports in the trench covers. But cameras dollies and any other broadcast style equipment can easily and solidly roll over the floor just like in a broadcast studio.

Therefore, the Newsplex can meet its goal of being both a newspaper newsroom and a broadcast studio at the same time.



The Editorial Alcove, home to the primary editorial manager, doubles as a meeting and planning area and task location.

Collaboration

A Newswall audio-video information display at one side of the Newsflow Deck provides the managerial focal point for multiple-media newshandling in the Newsplex.

The wall serves as a location where every journalist can simultaneously view pages in production, video B-roll, photos under consideration, web pages, videoconference sessions and broadcast feeds. In this way, the newswall serves not only to keep the entire staff informed on the status of stories but also to generate the valuable journalistic group think.

At any time, anyone working on one of the specially configured wireless laptops in the Newsplex can take control of the wall through a Web-browser Java interface to change TV channels being watched on the plasma monitors, shift an audio or video source to the main display, start or stop a VCR or DVD player, raise or lower the volume, or direct material to a digital capture connection. Also, any of the laptops, with the push of a button, can display their own screens on the Newswall's central composite 2048-by-1536 resolution LCD monitor to share with the rest of the staff whatever the individual is working on or has found online.

The goal is to make collaboration among the staff as easy and seamless as possible.

Part of this specially designed AV suite is the digital hub assembled in the news resourcing alcove. The alcove contains the widest possible array of devices for accessing content regardless of the form in which it arrives at the Newsplex – whether as hard copy documents and images or on any type of digital storage medium such as DVD, CD, VHS, MO, CF, SM, MS, MMC, SD and the rest of the alphabet soup. The Newsplex infrastructure allows for very flexible cross-connections between equipment to facilitate transfers, captures and recordings as needed. And an array of software utilities is available to open and transform virtually any data or multimedia format. The result is to remove any roadblocks to using or viewing any content resource the staff might acquire.

Resources

Rather than sequestering hard-copy resources such as book and documents into an inaccessible morgue away from the main newsroom, the Newsplex model environment surrounds the main Newsflow Deck with special shelving to make these vital materials readily available to the entire staff.

Developments in radio-frequency identification (RFID) technology are being monitored so that eventually the facility can employ coin-sized tags to eliminate the need to carefully reshelve such resources in order to be able to find them again or in a hurry on deadline.

As for digital resources, they are stored on one of three servers tied together in the Newsplex' network by a completely automated network server appliance that monitors and manages most aspects of the facility's IP addressing, firewall, file access, user ID, email, Web and ftp services.



A view across the Newsflow Deck to the News Resourcer Alcove, the digital hub of the Newsplex, where there is equipment to enable access to any data or content file regardless of format. On desks in the Newsflow Deck, wirelessly networked laptops are made ergonomic with angled stands raising the screens 3.5 inches, wireless mice and oversized wrist rests.

Ergonomics

Ifra's Newsplex research spent a great deal of effort developing standards for ergonomic use of laptop workstations.

Most of the regulations on safe computing environments for workers are based on the presumption of a separate keyboard, monitor and CPU. The Newsplex, however, standardized on laptop computers for their flexibility. This required studying how to meet ergonomic standards with a linked monitor and keyboard that do not allow for separate desk heights.

The results of this research are reflected in special seating, carefully set desk heights, and a custom-designed angled computer pedestal and wrist pad. The pedestal was a key development, raising the LCD screen 3.5 inches for proper viewing height while also angling the keyboard for proper wrist and finger placement.

The images on these pages were produced by architectural photographer Bob Zucker of Corporate Photographics, New York, USA, working on behalf of AKF Engineers, one of the primary subcontractors in the design and construction of the Newsplex. These images are copyright 2004 AKF and Corporate Photographics, used by Ifra with permission.

4.4 Enabling Technology for Advanced Newshandling

A successful convergent newsroom is about much more than just technology.

It is about the mindset of an editorial organization that must learn to work in multiple media simultaneously and in real-time, 24/7, if it wants to be relevant and valuable to consumers in the expanding news and information marketplace. It is about new skills, workflows, resources, organization and environments necessary to turn a traditionally labored newsroom into the hub of a reinvented information-based service company. It is about journalists and managers who can preserve their ethics while adapting to the increasingly numbing pace of media change and innovation.

However, technology is certainly involved. It is impossible to be an effective news organization today without technology. And the media company that applies the best technology most appropriately will have a major advantage, will break the stories first, will find the exclusives, will differentiate itself.

The technologies of most value in this regard, then, are those that enable journalists to report and produce an effective news story with multiple media facets, to tap into and make the best use of available information assets, to work more independently of a desk and a phone in some central location, and to communicate and coordinate with other members of a news staff that is more mobile and dynamic.

The Newsplex has been designed in part to serve as a research and evaluation facility for just such news technologies. Following are explanations of key elements of the center's suite of hardware and software tools.

The Newsplex remains active in seeking new technologies for trial and use. The goal is to keep the facility at least six months ahead of the world's news industry in regard to implementing and developing experience with emerging newshandling technologies.

Collaboration enhancement

One of the underlying precepts of the Newsplex model environment for advanced newshandling is that editorial organizations can benefit from better use of the collective knowledge and expertise in their newsrooms. It seems that traditional newsrooms almost go out of their way to keep individual staff members isolated from one another in terms of their awareness of what stories are being pursued and of the status of those efforts.

The Newsplex challenges this norm with a large multi-screen display system serving as an audio-video management focal point for all news staff. The newswall is used to electronically post, among other things, photos, video feeds, workflow status summaries and various works in progress for the staff's collective awareness and response.

Besides this large main monitor at the front of the central newshandling space, additional collaborative displays of information and news resources are scattered throughout the facility. The system can also be used for videoconferencing and as an electronic whiteboard for editorial planning sessions.

Resource visualization

Contemporary news managers are expected to stay on top of an increasing array of information sources, far more than the one or two newswires with which traditional newsrooms have had to contend. In place of tedious text lists that require constant scrolling and monitoring, the Newsplex employs sophisticated data visualization systems to provide the editorial staff with more intuitive presentations of its information environments.

For example, newswires can be displayed on a topographic newsmap that shows major news as tall mountains and smaller stories as lower hills or valleys, based on the amount of text, photos and other material available for each. Related stories are grouped together on the newsmap, like neighboring mountains, while disparate topics are more widely separated. In real-time, an editor can observe and respond to a story starting out as an isolated event and growing into a major coverage effort.

This visual analysis system can also be applied to a database of all incoming emails, phone messages, scanned correspondence and faxes from members of the public, producing a map of what topics are currently of most concern to those news consumers.

The newsmap and other data visualization techniques can be incorporated into a central content management system that is able to catalog and manage as wide a range of media format types as the newsroom might encounter.

Wireless connectivity

Flexibility is one of the primary watchwords of the contemporary newsroom, emphasizing the ability to apply people, their expertise and their tools in whatever size and location of newshandling group or team is required. Such flexibility mandates that editorial staff members be able to move about the newsrooms freely with their computers and communications equipment.

To that end, the Newsplex deploys wireless networking systems including medium- and long-range Wi-Fi 802.11 as well as short-range Bluetooth, even as high-speed wired networking is also available throughout the facility.

The Newsplex functions as a microcell of mobile phone service integrated into the newsroom's systems so that the staff's mobile handsets become primary tools not only for communication but also for audio, video and data information access and distribution.

Even wireless webcams serve as part of the overall environment for keeping the staff in touch.

News resource "awareness"

In the fast-paced and highly resourced environment of an information-age newsroom, it is not practical for all incoming material to be incorporated into digital databases. Therefore the Newsplex is studying ways for books, reports, tapes and other documents maintained in hard-copy format to be integrated into the facility's "news resource gallery" by virtue of imbedded RF-ID (radio frequency identification) tags.

These tags are about the size of a coin, almost as thin as a sheet of paper and contain a microchip that can record 64kb of information about the tagged item. Sensors planned for installation throughout the Newsplex, particularly next to shelves and under desktops, can then continuously read these tags and keep a central resource management database informed about what the material is and where in the facility it is currently located.

Quickly need the newsroom's copy of the city's codes and laws? This system would be able to pinpoint that it is currently sitting on the editor's desk. Finished using that video from the state's business development office? Place it on any shelf surrounding the newsroom – no need to put it back in a particular place – and the system can tell the next person who needs it where to find it.

A reporter rushing out of the newsroom to cover a breaking news story can log out a digital camera, audio recorder and computer for the assignment just by walking out of the room with the equipment in hand. Sensors at the door will automatically record that the staff member and the equipment left together by reading tags installed in the equipment and in the reporter's ID badge.

Once a newsroom starts becoming "aware" of the equipment, material and people inside it, other support services can also be envisioned that help to streamline the news staff's activities.

Search and "agent" systems

It is likely that a key technological distinction between competing news organizations will be the sophistication of the search systems at their disposal.

These systems will constantly be surfing both internal databases and the wider internet to identify leads on stories of local interest, trends that might prompt enterprise coverage, and material supporting an already engaged assignment. More capable systems will have a type of artificial intelligence so that they can learn and react to topics of greatest concern to the news staff.

Highly prized will be the ability for systems to differentiate, almost like a human, news from just general information. A great deal of effort is going into development of such systems and the Newsplex seeks to incorporate the latest techniques in this area in order to evaluate them for the news industry.

One such system can monitor incoming and outgoing emails in a newsroom to discern which staff members are pursuing what news topics, based on contextual analysis of the email text. The system can then automatically begin searching for and delivering to the various staff members material that might support their particular reporting interests.

Another system can automatically compile and update a database of potential news sources by analyzing news content, press releases and other material to identify the names of people and their associated areas of expertise.

Editorial knowledge capture

The typical newsroom today captures only the final product from a newsgathering effort, the story the way it appeared in print, online or on the air. Tomorrow's newsroom as demonstrated by the Newsplex must seek to retain a much larger portion of the expertise and lessons learned in prosecuting a story, so that this additional information can serve to improve editorial performance on subsequent reporting efforts.

Story ideas, additional potential angles, editors' after-action critiques, discovered information resources and even reader responses can provide a news staff with a much more advanced starting point on related news topics in the future. Such an editorial knowledgebase could easily become a primary competitive and quality asset for a newsroom.

Process automation

Expectations are that news staffs will tend to become smaller in number than they are today as news organizations seek to assemble more highly capable and highly trained reporters and editors. This will necessitate that as many routine and repetitive tasks as possible be handed off to automation systems.

This trend is already in evidence through an increasing number of systems programmed to perform basic page layout and using scripts or macros to manage file movement. The Newsplex is configured to be able to evaluate and demonstrate some of the more innovative automation technologies in order to promote their expanded use by the news industry.

News management

Online, networked management of all the various issues associated with an active news assignment contributes to better staff coordination as well as the capture of editorial expertise as cited earlier.

Such news assignment management systems are starting to appear from industry vendors. The Newsplex incorporates and seek to advance the state of the art in such systems to include data such as rights management, freelance contracting, newsroom financial budgeting and staff scheduling.

Multipurpose newsgathering

Building on Ifra's long-running NewsGear™ initiative to identify and integrate the latest in mobile and multiple-media newsgathering tools, the Newsplex was initially outfitted with customized sets of equipment drawn from NewsGear 2003 and 2004, and is periodically updated based on new NewsGear selections.

Professional and student convergent journalists in training at the Newsplex have this available as their primary newshandling equipment.

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