

## Refereed Paper

# “Straits Times Interactive and The Age Online : Trends in the online newsroom”

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# **Straits Times Interactive and The Age Online : Trends in the online newsroom**

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## **- ABSTRACT -**

**Communications and Information Technologies (CITs) have impacted strongly on society and the media. This essay critically examines changes the World Wide Web has wrought in newspaper publishing at an Australian and a Singapore newspaper. The paper begins with a brief look at Columbia University academics John Pavlik and Paul Sagan's 3-stage development of online newspapers and the Communications and Information Technology environments of those two countries. It examines aspects of the online versions of the Singapore *Straits Times Interactive* and *The Age* in Melbourne, Australia, and identifies developing trends in the online newsroom. It concludes that the online newspaper environment is evolving rapidly and has yet to achieve its maximum potential.**

## **1. Introduction**

To function in the digital age, we have developed a new digital infrastructure. It's like the human nervous system. Companies need to have that same kind of nervous system - the successful companies of the next decade will be the ones that use digital tools to reinvent the way they work.

(Bill Gates 1999: 30)

The new infrastructure Bill Gates describes is beginning to slowly infiltrate various levels in society. Technology has influenced the way we live and work, today it is possible for employees to work from home and entire societies to be linked to high-speed networks via fibre optics thereby overcoming the tyranny of distance. Bank transactions, purchases and even cinema bookings can be made through the Internet, changing the conventional trading model. The growth in speed and capability of the micro-chip has made it possible for digital tools like the personal digital assistant such as the Palmpilot, Psion and DaVinci (all pocket-sized machines with powerful computing functions) to exist. This portable tool no longer restricts the user to a desktop computer to conduct day-to-day functions such as accessing the Internet, faxing, storing information or performing sophisticated computing functions.

A similar change has occurred in news media, albeit at a slightly slower pace. This paper looks specifically at two newspapers; *The Straits Times* (Singapore) and *The Age*

(Melbourne) and their online counterparts, the result of a four week ethnographic study by the author. It observes the 'state of play' of today's online newspapers and continues with an examination of the Singapore and Australia information technology climate, before identifying trends in the integrated newsroom and its changing environment.

## **2. The World Wide Web (WWW) and three stages of online publishing**

John Katz, First Amendment Centre scholar and *Wired* media critic, aptly described the WWW as “almost a living organism that it is replicating and growing and expanding beyond the range almost of human beings to control it” (Kees 1999).

Though the WWW is very much in its infancy, having only come to mainstream availability in the early 1990s, it has grown tremendously as a medium. It has revolutionised the world of computers and communications. The WWW has grown at a faster rate than any prior communications technology. Radio hit the 50 million mark in listenership 38 years after its introduction and television took 13 years to achieve a similar figure, however the WWW surpassed that in just four years (Aikat 1998: 95).

At the time of writing, there were more than 4,430 (*Editor & Publisher Interactive*) newspapers on the WWW, serving an estimated daily audience of 100 million readers (NetRatings Inc. Online). Media analyst Steve Outing, who has traced the number of WWW-based newspapers, estimates there were fewer than 100 in 1994, growing to 750 in 1995, to 1,587 in 1996. Outing started the original online media directory, *Editor & Publisher Interactive*, which is now maintained by *Editor & Publisher* magazine.

Columbia University scholars John Pavlik and Paul Sagan, argue that most WWW-based publications have been evolving and have developed a descriptive model to classify this development in three stages. At stage one, content is simply transferred from the original publication to the Internet (1997: 30-38). WWW-based publications which loosely fit into this category are Queensland's *The Courier-Mail* and *The New Paper* in Singapore. Their WWW presence is a stripped-down version of their print newspaper. Russell Neuman makes a salient point: “a great deal of what draws serious institutions of journalism to the Internet and the World Wide Web, it would appear, is more of an economic defensiveness than a professional enthusiasm” (1995 : 63).

This lack of a professional enthusiasm towards developing novel content has resulted in some cases as ‘shovelware’, (print stories reproduced wholesale on the WWW), a term commonly used to describe this trend. Carol Pogash in the *American Journalism Review*, says most

online newspapers are producing shovelware, “with few changes other than key words painted with hypertext blue that offers readers links to stories with greater depth” (1996 : 26).

According to Pavlik and Sagan (1997: 30-38), stage two of WWW-based publishing occurs when the journalist creates original content and augments it with attributes such as hyperlinks (where readers can instantly access another website with a click); interactive features such as search engines, which locate material on requested topics; and a degree of customization -- the ability to choose what categories of news and information you receive.

Established WWW-based publications such as *San Jose Mercury News’ Mercury Center* and *The Boston Globe’s Boston.com* are currently in stage three, characterized by original news content coupled with a combination of interactivity, audio and video designed specifically for the Web as a new medium of communication. At stage three, publishers are rethinking and experimenting with new forms of storytelling. “Often this is immersive storytelling, which allows you to enter and navigate through a news report in ways different from just reading it. Sometimes this might be done through new technology” (*ibid* : 30 - 38).

*American Journalism Review* journalist J.D. Lasica (1997 : 48) adds that this new technology may force publishers to abandon their “pulp mindsets” and embrace this new technology and realise that if needs are not gratified on the user’s computer screens, they will be led to products which can deliver real-time, personalised news and information.

Contrary to predictions that the WWW would cause traditional newspapers to go out of print Roger Fidler (1997 : 131-135), Director of Knight-Ridder Information Design Laboratory in USA, says that newspapers are well positioned to emerge stronger than ever. He said that newspapers can regain their position as a key information provider, however they have to evolve and cannot remain as they are. He calls this trend “mediamorphosis” and says that social, economic and environment pressures will force newspapers to rethink their strategy,

To be competitive with other forms of media, digital print media must combine the interactivity of personal computers, and the compelling qualities of television without sacrificing the readability and ease of using paper ..... they must be comfortable and convenient to use while lying in bed, riding on a subway, dining in a restaurant, or sitting in a park bench.

(*ibid* 1994 : 132)

### **3. An overview of the Singapore and Australia CIT Climate**

#### **3.1 CITs, convergence and the ‘information society’**

Any discussion related to the impact of technology on society would be incomplete without addressing the “information society” and communications and information technologies (CITs). There is no dearth of scholarship addressing the digitisation of media, its convergence and the global shift towards an information society. In this case, digitisation is intrinsically linked to convergence and the CIT - the coming together of disparate industries such as telecommunications, information technology/computing, broadcasting, film and video, print and publishing (Fidler 1997 : 25-27; Cunningham and Flew 1997 : 400-404; Lee and Birch 2000 : 10).

This shift towards media *convergence* is a key vision articulated by Nicholas Negroponte, Director of the Massachusetts Institute of Technology’s Media Lab, which accurately depicts the changes we are witnessing in the communications media today. He popularised the idea that diverse technologies and forms of media are coming together as one. Negroponte recognised this in 1979, and predicted that “all communication technologies are suffering a joint metamorphosis, which can only be understood properly if treated as a single subject” (Fidler 1997 : 25).

This process of convergence leads to the definition of what is known as the “information society”. It is generally recognised that the information society is driven by five change factors namely; technological, economic, occupational, spatial and cultural as defined by Webster (1995 : 6-23) and there is a multiplicity of definitions for this term. For the purposes of this paper, information society is defined as:

... new ways of living and working together ... It is a revolution based on information, itself the expression of human knowledge. Technological progress now enables us to process, store, retrieve and communicate information in whatever form it may take - oral, written or visual - unconstrained by distance, time and volume.

- M. Bangemann (Birchall & Lyons, 1995 : 100)

The global transition from post-industrial to the information age, has resulted in varying government policies with a distinct trend towards developing the “educated worker” who is creative, innovative and equipped with lifelong learning skills. Nations have grappled with this switch by forming policies at different priority levels to adapt to this change (Tapsall 1998 : 4-5). This section presents a macro country-level look at Singapore and Australia's innovation, new technology adoption rate and business environment, demonstrating that both the private and government sectors act as crucial catalysts in stimulating a successful information-based economy.

### **3.2 Brief history of Singapore's IT drive**

Technology is advancing not just in the media field. The IT revolution is changing the way people live and work, in other words, altering the way societies are structured. The world including East Asia, is an interesting and challenging period of change as news and information penetrate national frontiers.

Senior Minister Lee Kuan Yew,  
Asian Media Conference, Los Angeles, 29 October 1998  
(*The Straits Times* 2 November 1998)

Singapore's drive to adopt new technologies can be traced and attributed to its geography and political history. Similarly to the three other East Asian Tigers - South Korea, Taiwan and Hong Kong after World War Two, Singapore's economy was devastated by "war and geopolitics, with no domestic market, or natural or energy resources without industrial tradition or technological basis" (Castells 1998 : 244). Singapore's post-war success could be attributed to their ability to "assimilate, use and enhance new information technologies ... focusing on the technological overhaul of the countries' industries, management and labour" (*ibid*). Over the past 35 years, Singapore has transformed itself into a technology leader with a strategic technological infrastructure plan.

### **3.3 Brief history of cyber-Singapore**

Academics at the National University of Singapore were the first to get a taste of the Internet in 1990. By 1993, the National Computer Board, the National University of Singapore and the Ministry of Education introduced the Internet to schools (Tan, Teo & Goh 1997 : 1-2). With the launch of Singnet in 1994 as its first commercial Internet service provider (ISP), Singapore became the second country in South-East Asia to offer public Internet access. In March 1995, Singapore became the first country in the world to have a national Internet website - Singapore Infomap (<http://www.sg>).

Singapore's Internet penetration rate is one of the highest in the world with close to 600,000 Internet users as of February 1999. It is important to note the actual number of local users is much higher as this figure does not include those who access the Internet from schools, offices and other public places making one out of every five Singaporeans an active Net user (Lee and Birch 2000 : 7).

A recent Information Society Index (ISI) study by International Data Corp (IDC) and World Times Inc, which specialises in analysing critical global issues through *The World Paper* publication, Singapore is predicted to be the world's second most dominant information economy by the year 2002. It is predicted to rank first for Internet usage and infrastructure in 2002 (Chellam R. 1999 : 2).

### **3.4 Singapore government's drive towards Information Technology**

The drive towards technological innovation in Singapore has a long history. The government has played a major role in the push and promotion of Internet use and IT development since the early 80s. To boost the use of IT in the economy, the government set up the National Information Technology Plan in 1986 and the IT2000 blueprint in 1991. Since 1992, policies have been set up to encourage the use of the Internet locally. Government departments and institutions were encouraged to create a web presence and ministerial public speeches frequently endorsed and stimulated Internet usage (Tan, Teo & Goh 1997 : 5 - 7).

Part of the IT vision to prepare Singapore for the Information Age was to wire all 75,000 households by cable and to integrate cable television and Internet access by 2000. This task was, however accomplished earlier than projected. It introduced Singapore ONE (One Network for Everyone), a high-speed, high-capacity broadband network that transmits 622 megabits of data per second, making it the first country with the potential to wire every home, school and business. Its high bandwidth infrastructure has the capacity for a heightened level of interactive, multimedia business applications and services and sets the foundation for the next generation of applications to be plugged in immediately (Ng 1999 : 42; Kuo & Ang 1998 : 24-25).

### **3.5 Future Plans**

Prime Minister Goh Chok Tong revealed Singapore's goal to be a "cosmopolis" when he spoke at the World Conference on Model Cities in April 1999, saying that knowledge is the key, and that cities which exploit information technology to reach further in the global market will prosper. Singapore's Economic Development Board has drawn a blueprint *Industry 21*, or *I21* aimed at making Singapore a knowledge-based economy through target industries, which looks destined to change the country's character and fundamentals. Singapore plans to invite top international companies to congregate in Singapore, "to turn it into a hub thriving on cutting-edge technological activities (Ng 1999 : 41-44).

Incentive schemes have been set in place to catalyse high-tech and innovation ventures (*ibid*) and the government's initiative and push has moulded Singapore into a think-tank IT environment and a hotbed of innovation.

#### **4. Australia – A framework for the future**

'A Strategic Framework for the Information Economy', the Australian Federal Government's vision in the information age recognises that the information economy will generate opportunities across all sectors and be a source of employment for regional and city-based Australians (1999 : 1). At the Minter Ellison Nation Builders Awards in Melbourne, Senator Richard Alston, Minister of Communications, Information Technology and the Arts (DCITA) pronounced his support for this 'nervous system' when he said:

The Federal government as a key nation builder, must show leadership and vision – especially in such a nascent sector as IT. We are dealing with many issues, technologies, opportunities and challenges that simply didn't exist 10 or even five years ago. Yet, IT is now one of the most crucial tools in building a robust economic and social national framework. It is the DNA of Australia's future.

- Alston, (DCITA Online 1999)

Australia is often referred to as 'the land of great distances' with a total of 18 million people in 6 states and two territories spanning over 7,692,030 square km (Australian Bureau of Statistics). The Australian Commonwealth Government has identified distance as a possible barrier to Australia's active involvement in trade and commerce with the world's markets. DCITA's framework envisions the country's mission, priorities, and action plan to set a national direction to develop Australia as an information economy. The document cites participation in the information economy as an opportunity to overcome remote and rural Australia's national isolation from the world's markets and the potential to generate significant economic growth (*A Strategic Framework for the Information Economy* : 3).

Statistics show Australians are eager adopters of new technology and Australia has witnessed an explosive growth in Internet use however a May 1999 survey revealed disparity in access across Australia. The 12-month survey estimated that just over 22 per cent of all households (1.5 million) have Internet access at home. Approximately 40 per cent of the total adult (an estimated 5.5 million) population accessed the Internet, the figure quadrupling since 1996. Australia's per capita consumption of recent innovations and its information industries sophistication is second only to USA, (*Department of Industry, Science and Tourism Online* 1999).

Australia's 'open-arms' approach to developing an information-based economy has seen a rapid CIT growth, with the number of companies in the information technology sector growing by 87 per cent to 13, 569 between 1992 - 1993 and between 1995 - 1996. Australia's information industries, worth A\$47 billion. Australia was ranked overall 12th in the 1998 Information Society Index. The index measures 55 countries' progress into the information age and Australia ranked 14th in terms of computer infrastructure (PC Usage) and 15th for social infrastructure (*The National Office for the Information Economy Online* 1999).

#### **4.1 Early beginnings of the Internet in Australia**

In the mid-70s, a few Australians made connections to the Internet through a dial-up service offered by the then Australian Overseas Telecommunications Commission (OTC). Just like ARPANET in America, Australia's Internet beginnings can be traced to the academic and research field. The Australian Computer Science network (ACSnet) was the first network of networks, however it was only in 1990 that Australian Academic & Research Network (AARnet) was expanded into every Australian University and CSIRO (Clarke 1998).

With the arrival of the World Wide Web in 1991, AARnet became attractive to people outside the research and teaching community and saw the introduction of Australia's first Internet Service Provider connect.com.au Pty Ltd in 1992. On 30 June 1995, the AVCC transferred its commercial customers and the management of Interstate and international links to Telstra, which acquired the whole of the Internet infrastructure (*ibid*).

For a society to develop and thrive as a knowledge-based community, it requires a driving force in 4 distinct areas – political, technical, economic and social (Tan, Teo and Goh 1997 : 3). Australia's IT vision though supported by government policy is driven by private enterprise and educational institutions. It is overcoming the distance barrier well and has set in place various schemes to boost innovation. These factors have created a fertile incubator for CIT innovation.

#### **5. General Trends in the Integrated Newsroom**

Both *The Age* (John Fairfax Holdings) and *The Straits Times* (Singapore Press Holdings) online newspapers were launched in 1995 making them pioneers in this new medium at a stage when the WWW was in its infancy and other publishers had yet to produce online news products. *The Age Online* was the first paper in Australia to go online and *The Straits Times Interactive* was one of the first in Southeast Asia. It is important to note here that both online

newspapers were spun from the print versions of *The Straits Times* and *The Age* respectively. Currently both newspapers hover on the border between the second and third stages of Pavlik and Sagan's model and continue to evolve rapidly. A description of their current stage of maturation will be presented later in the paper, but for now it is important to examine their genesis.

### **5.1 Birth and growth of the online newspapers – *The Straits Times Interactive* and *The Age Online***

Both online newspapers were developed by key innovators, defined as one who “plays an important role in the diffusion process: that of launching the new idea in the social system by importing the innovation from outside of the system’s boundaries” (Rogers 1983 : 248). Fairfax library manager, Sybille Norais midwifed the birth of *The Age Online* after discovering the WWW. She connected to CompuServe and America Online before the Internet was widely available, developed a preliminary online paper with help from her peers and presented it to Stuart Simson, the then Fairfax Holdings CEO before it was officially launched in April 1995 (Prayn pers comm, 29 August 1999).

*The Age Online* grew from an initial website on the VicNet (Victorian government) server carrying only leads from *The Age* to a site carrying complete stories from the print edition with regular audio coverage. It currently clocks 200,000 site visits and one million-plus page views per week (Harris 1999).

*The Straits Times Interactive*, part of *AsiaOne* (a gateway to the Singapore Press Holdings publications), was initiated by former online editor Paul Jansen in September 1995. He presented a plan proposing his vision of the online newspaper successfully gaining management approval. The paper was officially launched in November 1995 and in the early days carried regular original content and there were experiments with live audio and video coverage of significant news events. However there was a switch in editorial policy in 1998, reverting to the basic transfer of print content to the WWW and a cut back in resources and the merging of the different newspapers under a single editor. Recently though, there are signs of a ‘rebirth’, with the expansion of the online news team and the growth of original content with the re-launch of *AsiaOne* and its online newspapers earlier this year.

### **5.2 Publishers - Singapore Press Holdings (SPH) and John Fairfax Holdings Pty Ltd**

Both Fairfax and SPH are well-established and major media players in their own right. Both have, or are investing, heavily in new technology and recognise the need to gain a stake in

the emerging lucrative new media pie. SPH has a stake in a Singapore ISP, cable company and mobile telecommunications. Although Fairfax is restricted by Australian law and is unable to invest in telecommunications, it has taken stakes in multi-media and audio-visual production companies. It is an economical means of gaining entry into the technology market as it is cost-effective to develop and “own” rather than rely on third-party firms for technological support. Both publishers have switched its mentality from being “news publishers” to “information content providers”.

Both SPH and Fairfax do not see the WWW as a threat though they have taken different strategies to combat the fear that an online spin-off would affect their print readership and circulation. In the case of *The Age Online*, it carries 60 per cent of the print content, whereas *STI* uploads approximately 90 per cent of its content only at 12 noon, approximately six hours after the print editions are available for purchase on news stands. *The Age* has grown rapidly since its inception, though *AsiaOne* and *STI* have come full circle. SPH entered the WWW abuzz with innovation, however subsequently decided on a conservative approach from 1997 – 1999. It has however, since January 2000 re-modelled its website and decided to aggressively experiment with news customisation, value-added online services and regular news updates. In the seven months since the author’s research study SPH has made a 360-degree turnaround in its management policy from focussing on basic “print to online” transfers, to producing novel content. This re-positioning of its online new product indicates SPH’s keen understanding of this new medium and attempt to mark its foothold on the WWW.

### **5.3 From Journalist to Web Content Manager**

Stage three of online news evolution (novel news content with a combination of interactivity, audio and video features) as described by Pavlik and Sagan will require journalists of the future to be multi-skilled and *au fait* with digital technology, photo manipulation and require basic web skills. These skills will be in addition to the basic writing, editing and interviewing skills required for more traditional journalistic activities.

This is reinforced by SPH and Fairfax's profile of their online journalists. Younger journalists are required to multi-task as dictated by their job scope. Besides writing, they keep abreast of technological innovations and are comfortable with HTML/photo manipulation and sophisticated software.

However as the role of an Internet journalist slowly gains importance, there is an indication of an emerging trend – a re-defined online newsroom role as staff are hired for specific tasks.

New clearly defined roles such as web masters, content managers, web developers are emerging. There is a current boom for content producers as websites realise the importance of fresh and quality online content, however this could be a short-term trend, and may not last. Any prediction in this area, would be premature guesswork.

There is a trend towards hiring younger journalists who possess IT expertise and writing skills. It is common knowledge that the number of entry-level mainstream journalism jobs is decreasing. Once employed neo-journalists still require substantial 'on the job' training and experience to become editorial decision-makers. However, the online media has created a new job market, open to younger, less experienced journalists since most professionals in this field lack such skills.

#### **5.4 Online Journalist's work practices**

There is still subtle resistance to the WWW in the newsroom with some journalists reluctant to embrace this new technology. Editors and journalists within the online newsroom environment recognise the need to think creatively and maximise the potential of the medium. In an interview on 31 Aug 1999, former *The Age Online* Editor, Alan Morison said that some journalists see the Internet as a threat but feels that,

it is a working tool and journalists will need to absorb new skills. They need to become librarians, marketers and provide directory services [in the form of links and background information]. Online writing is different, it needs to be shorter and immediate. Information is more accessible and with tools like e-mail, he/she needs to be more sure of facts.

Jansen indicates that for the online medium journalists need to provide more than traditionally required in print. He/she needs to provide links to additional information, audio or video coverage and sufficient content.

#### **5.5 Automating the production process**

At the moment, both online newspapers devote resources to transferring the print content online. The transfer processes at both papers take between 6 – 8 hours and require manual intervention. In most instances, staff need to physically locate news stories, and photographs for the WWW. Both newspapers are working to automate this process through sophisticated content management software. The implication of this is not yet known. It possibly frees the journalist to concentrate on developing quality content but could result in job losses. On the other hand, the rigidity of a 'template approach' and minimal freeplay during the designing and page production may prove frustrating for journalists.

## **5.6 Portals of information**

Both news organisations have developed a web portal of information. Singapore's *AsiaOne* provides users with links to its various online publications, business and stock exchange information, e-mail, online faxing and ecommerce facilities. *The Age Online* carries links to Fairfax's 'supersites'; *MyCareer* (job listings), *Drive* (automobile site), *Itjobs* (IT industry site), *Trading Room* (corporate finance) and *Money Manager* (personal finance) and its other news publications (Dew 1999).

To adapt to the nature of the WWW, the websites are repackaging and regrouping news stories and information according to categories and themes. Both newspapers recognise the need to enrich the online experience for its users to provide a one-stop information service through the incorporation of web portals.

They strongly believe that quality content beyond news will attract a loyal readership, and with this readership, advertising can be a lucrative source of revenue. Issues such as quality content, dedicated domain names and information design are crucial for both papers to create a substantial online brand identity. SPH and Fairfax are experimenting with developing "virtual communities", by offering free e-mail services, web hosting, live chats, news customisation, e-mail updates, online auctions, weather reports, horoscopes and search engine capabilities. Current industry practice dictates that offering such services goes a long way towards attracting "eyeballs" (online readership), thus developing a loyal consumer base and profits.

## **5.7 Branding and Credibility on the WWW**

Developing a brand and maintaining credibility in the eye of the reader is important in the early stages of a newspaper's transferral to the online environment. This need is recognised by both newspapers. Former *Age Online* editor, Alan Morison explains how it is crucial to form a good impression in the minds of readers and establish their liking for an online product,

Most users go through half a dozen sites, and it is important to understand their needs and capture attention early on while they are forming their online news habits. A reasonable portion of our readers are young and what we provide is a slicker, sports-car style version of our paper with the highlights so that our print readership is not compromised

(pers comm, 31 Aug 1999).

## **5.8 The not too distant future**

For online newspapers to reach their maximum potential, a few factors need to be addressed and rectified. It is essential however to note here that these findings are based on the two newspapers examined and therefore cannot be generalised.

For a complete media convergence to take place, WWW connections (cable, ISDN) need to become low-cost and economical to the end user. The future of online journalism depends very much on the entire WWW revolution and will be shaped by the way audiences adopt technology as part of their lifestyles, with acceptance news organisation can fully venture into developing audio/video coverage of substantial quality in response to the needs of a sophisticated audience.

In turn, for the publisher to be able to produce quality information and provide additional services such as news on demand, email capabilities, live chat forums and coverage, becoming a new media stake holder is a viable option. Both the Singapore Press Holdings and Fairfax Holdings have developed and invested heavily in a multimedia arm to keep pace of technological progress and continue providing their readers with exclusive services at low-cost.

We are just beginning to witness the automation of the online news production process. Once the wheels have been set in motion, online news production may no longer be limited to the new media or online news departments. Individual newsroom sections will be able to perform the task of converting and preparing information for the online newspaper and the lines between an online and traditional journalist will diminish resulting in a fully integrated newsroom.

Despite fears that the WWW will replace traditional news formats, this is unlikely. The WWW may well become the 4th medium of communication and there will be an evolution in the media landscape. The success of both online newspapers has been largely spurred by the positive CIT climate in both countries. Technology's rapidly evolving nature however has forced this study's findings to be dated to the day it is written, it is impossible to predict the nature of future online newspapers.

Gates' 'human nervous system' digital infrastructure is definitely here to stay and if online news, journalistic work practices continue to evolve at this speed, and powerful digital tools continue to be invented, new audiences will be created and the only news product may take

on an entirely new form. His vision of successful companies (news corporations or otherwise) could indeed become reality in less than a decade.

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