New Media Technologies & Its adoption in Regional Press: A case study of Kannada Urban and Rural Newspaper.

¹D.S. Shivarudrappa, ²Dr. K. Puttaraju

¹PhD Scholar, Department of Communication, Central College, Bangalore University PK block, Palace Road Bangalore -560 009

²Professor (Retd.), Department of Communication, Central College, Bangalore University PK block, Palace Road Bangalore -560 009

ABSTRACT: That the global print media industry is in a period of dramatic upheaval and the transformation has catapulted umpteen changes in the way which news is processed and circulated. The advent of New media has contributed both positively and negatively to the print media industry. During the past decade, the growth of digital technology has led to the burgeoning of on-line and mobile communication technologies. Traditional definitions of news are challenged by these new and emerging technologies, especially those that demand faster responses or reconstitute traditional work values, practices and processes. This paper examines key discussions occurring in relation to three issues currently affecting the news media both globally and locally they are: apparent disconnection between the media and their public; decline in circulation and readership; and the increasing role and influence of new technologies on print media. These issues were addressed through an examination of the current status of Karnataka regional newspapers in relation to a number of areas including: circulation; the use of information technologies, in particular websites; and how technologies might be used to foster public discussion in the process connecting geographically isolated publics and creating new readerships.]

KEYWORDS: Print media, Digital technology, new media, Circulation, readership, disconnection.

I. INTRODUCTION

Change, or transformation, is the natural order of the world, even when it is slow and over such a long period of time that it is imperceptible to short-lived and impatient human beings. We, of course, are constantly engaged in a process of change, just by living, but also by the exertion of our will and in particular, the imposition of our inventions, our cultures and our economies on the world.

In this issue of Transformations we have focussed on some changes that are occurring in the media, especially on the production of news. During the past decade, the growth of digital technology has led to the burgeoning of on-line and mobile communication technologies. There has also been an associated reduction in the cost and size of equipment available to the media while its capacity and capability has also improved. Moves to dismantle the boundaries between traditional news production areas because of the use of new technologies have begun to transform the way news is produced, received, accessed and interpreted. Traditional definitions of news are challenged by these new and emerging technologies, especially those that demand faster responses or reconstitute traditional work values, practices and processes.

There are many issues to contemplate and assess in relation to this subject, but here we provide a small but effective contribution to the debate on how new technologies are transforming the news media, and how the media then affects us all, wherever we are.

This paper examines key discussions occurring in relation to three issues currently affecting the news media both globally and locally. They are: an apparent disconnection between the media and their public; decline in circulation and readership; and the increasing role and influence of new technologies on print media. While this paper considers these issues at the global level, it applies them to the local. It does so through an exploration of their impact on and consequences for regional newspapers in Karnataka. Specifically, I explore these issues through an examination of the current status of Karnataka regional newspapers in relation to a number of areas including: circulation; the use of information technologies, in particular websites; and how technologies might be used to foster public discussion in the process connecting geographically isolated publics and creating new readerships.

This paper sets the scene by reviewing the latest research and discussion surrounding the key issues of public disconnection with media, declining circulations of newspapers and the Internet's impact on newspapers. In respect to the latter issue, this paper investigates some of the ways in which the Internet is being used as a

method of reinvolving a variety of publics in public discussion and reconnecting them with journalists. I then provide an overview of the current status of Karnataka regional newspapers in relation to circulation and their use of websites. Finally, this paper draws on the recent developments in the use of the web by newspapers, particularly those in the Karnataka, to provide a number of suggestions and ideas about how regional newspapers might improve their use of information technologies. In particular, the web offers these newspapers a method of addressing ongoing circulation declines as well as the disconnection between the news media and public.

II. DISCONNECTIONS

I want to begin with an overview of the discussions occurring about the apparent disconnection between the media and its public. While this debate is not a new one, more than 20 years ago Wald and Lupfer (1978) and Whitson (1980) identified that this was a problem, it is the more recent history of this issue on which I want to focus. In the past ten years or so, a growing body of literature has attested to the continuing disconnection between the news media and their publics 'Marketing surveys reveal a growing disconnection between media and their audience, and younger people in particular are simply shunning the conventional news media en masse'. They stress that members of the public expect the news media to function 'in the public interest' because of their role as agents of democracy. Explain that along with the fragmentation of the links between publics and the news media, there has been a cogent decline in the public's interest in politics. In the Karnataka, one of the key movements developed in response to this has been that of public journalism. The developmental journalism and its proponents describe it as a method of reconnecting the public to the democratic process via the media. It seeks to do so by re-positioning journalism as a key agent in the democratic process and by reinvigorating public debate through the reinvolvement of a variety of publics in such processes. One of the key criticisms of traditional journalism by those involved with public journalism is that the former has moved away from its key purpose of serving the public. By altering the way journalists do their jobs, public journalism seeks to transform the type of journalism being done and subsequently change its outputs. The disconnection between some news media and their publics has been evidenced through declining audiences or readerships. I explore this more fully later in this paper.

In Karnataka, debates about the current status and role of the news media have been somewhat less intense than those in the other state, but certainly just as important. The increasing influence of commercial considerations on the Indian news media has shifted the focus of the news media from serving the public, to making a profit, thus limiting the ability of the media to act as a mechanism through which publics can enter public life and democratic process. Others have also been vocal about the disconnection between the media, the public and political process. Schultz argues that despite the problems which have beset the news media, they are in a position to develop links to communities and reinvigorate social capital.

He said the Karnataka media needed to reconnect with the public and take a 'leadership role' in facilitating and encouraging community debate.

While the disconnection between the news media and their public has been intensely scrutinised in the past decade or so in the Indian other states and to a lesser extent in Karnataka, a school of thought has arisen in tandem with this idea which suggests newspapers should do more than providing information. 'Newspapers used to be an important part of what bound a community together, a common forum for ideas and discussion'. Schultz point is an important one in the context of this paper and it has particular relevance for regional media in Australia. Regional newspapers often play a significant and important role in their communities in facilitating discussion and linking public, although it is arguable that this role has been somewhat eroded through tighter advertising to editorial ratios and shifts in the content of the newspapers. Many regional communities have access to only one local newspaper, often located in a major centre which services a number of satellite towns distributed over a large geographical area. Regional media, in particular newspapers, should provide the spaces and places where issues of importance to the community can be discussed. Indian research indicates these newspapers play a pivotal role in uniting regional communities (Meadows and Ewart 2001; Ewart 2000a). They 'play a central role in constructing and cementing the identity and culture of communities and their publics' (Ewart 2000a, p. 1). Communities form understandings and ideas about themselves and their members through their representation in local media (Ewart 2000a, p.1). Therefore the issue of disconnection between Indian regional newspapers and audiences, and how it might be overcome by using information technologies, warrants further attention. Before exploring how some newspapers in the Karnataka have used information technologies, in particular the web, to address some of these issues, it is important to examine a topic closely related to the disconnection between the media and its publics, that of declining circulations.

III. CIRCULATION AND READERSHIP

Newspapers globally and locally have been battling the problem of declining circulation for some time. Since 1967, when declines in readership and circulation were first noted, newspapers have tried to halt the flow of readers away from their product. A few newspapers have gone against the trend, experiencing small circulation gains, but for the most part reductions in circulation and readership have continued. The World Association of Newspapers (1997, p. 8) summed up the situation: 'By whatever criteria one may choose to measure it – advertising levels, circulation, time spent reading – newspapers are in decline and have been for decades'. Researchers suggest a variety of factors have contributed, including: fewer young readers the death of afternoon newspapers and consequent loss of blue collar readers the threat from online news sources an economic downturn (Garneau, 1992) along with spiralling costs; and reader dissatisfaction with content (World Association of Newspapers, 2000, p. 8). While some believe there are ways of recovering from the various problems facing news media (Bain, 1990) others, including Companie (cited in WAN, 1997, p. 8) are not so positive about the print news media's future. Companie suggests that: 'Newspapers are a mature product that will continue their decline'. Newspapers in India have also experienced declines in readership in the past few decades Clearly, newspapers need, as Strupp (2000) argues, to do more work to develop the Generation X and Y readerships. He reports on a survey of newspaper readers in the India, in which more than half of the respondents indicated they read a newspaper regularly However, newspapers need to create youth readerships, while retaining those readers over 50 years of age. Another marker of declining readerships and advertising profits is the reduction in the number of daily newspapers in the Indian found.

Readership is declining even as new technologies transform or undermine the role newspapers have traditionally played: that of town crier, bulletin board, community troublemaker and trusted interpreter of the outside world. For years newspaper circulation has in general been on an inexorable slide. Between 2000 and 2010 it fell about 6% nationwide, with some major papers taking even bigger hits'.

In the past few years, newspapers in India and overseas have began calling for new ways to measure readership, because of the view that circulation and readership are not always interdependent. While this is an important issue, it has become increasingly clear that Karnataka newspapers are facing the same kinds of problems as their counterparts in the other Stats.

Karnataka newspapers are confronted by the same visceral problem that confronts newspapers around the world–declining circulations. As circulations fail to keep pace with population growth, newspapers everywhere are forced to ask themselves: What are we doing wrong? The answers to that question are manifold and far from unanimous. Reasons proposed for falling circulation range from competition from other media (most recently the Internet), to declining levels of literacy among the population in general, to the proposition that newspapers represent a "mature" industry approaching its sunset.

The World Association of Newspapers reports that, overall, Indian newspapers experienced a decrease in circulation of 1.9 per cent in 2000.

A clearer picture of readership trends amongst Karnataka newspapers is provided by The Karnataka Media supplement. Although the information only covers metropolitan titles and magazines, it is evident that any circulation gains in the past 12 months or so do not make up for significant losses in past years.

Karnataka regional newspapers also continue to struggle with the problem of declining circulations shows that the circulation of regional daily newspapers in Bangalore, Mysore, Tumakur, Kolar, Hubli, Belgaum, Mangalore, declined in the ten-year period from 2000 to 2010. While circulation losses varied between titles, some newspapers lost more than 10 per cent of their circulation in that decade. Significantly, Kirkpatrick identifies that only a few regional daily newspapers have experienced circulation increases including those at Prajavani, Vijay Karnataka. All of these newspapers are in moderate to high population growth areas. Attempts by regional newspapers to reverse the problem of declining readership and circulation have mainly focussed on re-branding and reader surveys, which, while including issues about content, have focussed mainly on advertising and rarely on reader needs. Undoubtedly, regional newspapers in Karnataka need to reverse declining circulations.

IV. IMPACT OF THE INTERNET ON NEWSPAPERS

The introduction of the Internet, and more specifically the web, was heralded by dire warnings to the newspaper industry. Online news was positioned as a significant challenge to the printed newspaper. Media outlets throughout the world, and particularly in the India, have established websites in response to the rapid

uptake, and apparent popularity, of this form of technology by a variety of public. However, the majority of news websites continue to struggle with profitability 4 per cent of online newspapers make a profit. Until this year, Karnataka online newspapers remained unprofitable; Some newspapers, for example the Prajavani and Vijay Karnataka have been successful in raising profits from online subscriptions.

Although more than 6 (six) newspapers in the Karnataka have created websites linked to their print editions, the interactivity, or lack thereof, of many such sites remains a problem. Research (Schultz, 2000, p. 217) has identified that more than 4000 magazines and newspapers throughout the world have established an online presence and newspapers continue to create websites. The World Association of Newspapers reports that between and 2000 in two-thirds of countries for which it could obtain data, the number of daily newspapers with websites increased (http://www.wan-press.org/ce/previous/2001/congress/forum). In the other one-third of countries, the number of newspapers with websites remained constant. Although the establishment of a newspaper website does not necessarily lead to increased circulation, one of the few studies to examine this issue reveals that regional language newspapers with websites have experienced circulation improvements.

Believes the Internet has the potential to reverse the continuing decline of newspapers and suggests (WAN, 1997, p. 9) the 'internet is the technological and economical way out of the spiral of paper, presses and trucks. And newspapers have several reasons to embrace it. Now, wholeheartedly'. Compaine believes that the Internet is an important factor for the survival of newspapers because 'there is evidence that internet users are looking for the same type of content as in the newspaper' (WAN, 1997, p.9).

V. CURRENT KARNATAKA OF QUEENSLAND REGIONAL DAILY NEWSPAPER SITES

In assessing the current status of newspaper websites in Karntaka, I choose to focus on regional daily newspapers because of the important place they hold and the role they fulfil in their communities. I used the Karnataka Library of Bangalore to identify those Karnataka regional newspapers with websites. As well, a research assistant undertook a search using Google to determine whether any of the newspapers had websites which were not listed by the Central Library of Bangalore. Some of the 15 newspapers studied did not have dedicated websites. Those newspapers with websites were examined to determine the type of information and facilities they provided. For ease of analysis I identified several key services which these sites provide including: news; advertising; information; feedback; links; products; subscriptions; and forums.

Table 1: Karnataka regional daily newspaper website contents Circulation and Readership figures of Kannada Newspapers

Kannada Newspapers	Circulation (In Lakhs)	Readership (In Lakhs)	E-newspaper Readership (In Lakhs)
Vijaya Karnataka	6.20	28	4.0
Prajavani	5.85	27.5	5.5
Vijayavani	4.20	13	2.0
Udayavani	3.40	14.5	3.3
Samyukta Karnataka	2.60	8.2	1.2
Kannada Prabha	1.20	4.8	3.8

Source: Audit Bureau of Circulation, India

The Morning Bulletin website was not fully developed or online at the time of submitting this article. Improvements are planned for other sites including the News- Mail which intends to provide additional services including online chat forums about local issues. Some of the newspapers included in this table do not have websites.

VI. WEBSITE CONTENTS – KARNATAKA REGIONAL DAILIES

Of the 15 regional daily newspapers based in Karnataka, only half have dedicated websites. One newspaper, the Morning Bulletin, is currently developing a subscription based website. Of the newspapers which have websites, two are being revised, including the Prajavani and Vijaya Karnataka. The latter paper is revising its online chat section while the former is developing an entire website. The Morning Bulletin's site will contain access to a Portable Document File (PDF) of the front page, full text of news stories, news archives and classified advertisements. A sub-editor from that newspaper explained the site would be aimed at subscribers from geographical locations which traditionally had experienced problems accessing the print version of the newspaper early in the day due to their distance from this newspaper's home base of Vijaya

Karnataka. The content and design of the existing newspaper websites, all of which are owned by APN with the exception of the Prajavani which is owned by Mysore Printers Limited, varies considerably. For the most part, these sites remain under-developed from both a commercial and non-commercial point of view. A common feature of the websites is the presence of online classified advertisements either linked to an individual newspaper's home page, or accessible through a link to a central classified advertisements site for a newspaper group. Some of the daily newspapers based in these areas do not have home pages and their sole presence on the web is through this classified advertisement site. A few of the newspaper websites, Sanjevani, EE Sanje include online advertising, but the majority have not progressed to this stage.

None of the newspapers provide a full version of their print edition through their online sites. This could be explained by the difficulties many online newspapers in Karnataka and elsewhere have had in getting readers to subscribe to online versions and in making money from such subscriptions. The majority of the Karnataka regional newspaper websites provide a selection of the day's headlines complemented by several paragraphs which outline the content of the key news stories. Most provide comprehensive coverage of local news, with a selection of news and sports headlines and summary pars which allow users to link to the full version of these news stories. Live news feeds are provided by one newspaper, the Prajavani & Vijaya Karnataka, which links site users to breaking news stories. Most of the regional newspaper sites provide links to weather sites including the Indian Bureau of Meteorology.

A range of general information is provided on most sites about the newspaper and the region it serves. As well, some sites include details about the newspaper's history and newspaper staff including names and phone numbers and in some cases photographs. Several sites offer facts about the production processes involved in producing the print version of the newspaper.

VII. DISCUSSION

The proliferation of websites, databases and the vast areay of information the Internet offers, has heralded a variety of changes for journalism and journalists. One of the most significant changes being facilitated by the Internet is the redefinition and repositioning of the relationship between the news media and public (Pavlik, 1999, p. 58). While some newspapers are starting to use websites as a means of reconnecting with their public, many have failed to develop their sites beyond standard news and information features. The increasing role of the Internet in journalism prompted a call from Tumber (2001, p. 96) for a 'reassessment of journalism's role in the new media environment'. As a result, he suggests journalists need to spend time reflecting on and reconsidering the role of journalism as a democratic agent. While Tumber (2001, p. 110) believes the advent of new technologies is one of the key factors in bringing about a change to journalism, particularly its public sphere role, he says that journalism will continue to play an important and significant interpretive role for those who get their news from the Internet. Most importantly, Tumber (2001, p. 110) says journalism has a critical role to play in the evolution of the 'political struggle over control of cyberspace'. In this respect journalism should be a facilitator of public discussion on the Internet as well as in other public spheres.

While the Internet is one space in which journalism might contribute to the facilitation of public debate, other information technologies should not be ignored as potential tools of civic engagement (Bimber, 2000, p. 330). This means for those without access to the Internet or the web, information technologies such as the phone, fax and text messaging might help them engage in discussion about issues of community concern. Bimber (2000, p. 330) suggests that information technologies other than the Internet should not be overlooked because of the convergence in the use of them both by the public, government and media, as forms of engaging people in civic life. He believes (2000, p. 330) the boundaries are blurring between activities which happen in cyberspace and those which occur in the places and spaces where people traditionally engage in civic life.

Other developments in the use of websites by news media include combined efforts where a range of news organisations have joined forces in an effort to improve access to information and, ultimately, the quality of journalism. Examples include the establishment of combined media websites as part of a partnership between television, radio stations and newspapers. Some media organisations in Karnataka have, through the provision of websites which combine sound, vision and print, ensured the public can access a range of information that would otherwise not be available (Tomkins 2002: http://www.poynter.org/centerpiece/043002_intro.htm).

As the presence of newspaper web sites has become, at least internationally, less of a curiosity and more prevalent, a new phase in their development appears to be underway. Newspaper executives 'in the USA are planning more aggressive, more creative strategies to link the printed newspaper with its online cousin: to make them more complementary for readers, users, and advertisers' (Casale, 2000, p. 22). However, it appears that many Australian online newspapers, or those newspapers which have websites, have yet to follow this path. Certainly no information is available that indicates regional newspapers in Indian might be following

international trends in creating more interactive online sites which are linked to print editions through the provision of online forums which allow readers to discuss issues covered in the print edition. Clearly, much more could be done by Indian newspapers, particularly regional newspapers, in developing interactive websites, linking them to print editions and using them as a community development tool. Such facilities would be useful as Indian regional communities are often geographically isolated although their members tend to form close ties to each other.

Online newspapers, or newspaper websites, would be well placed to provide forums that could encourage and facilitate the kind of community debate that is required as part of the re-invigoration of democratic process.

In India, the number of newspapers with websites is increasing. The World Association of newspapers indicates that in 2000 there were 172 daily newspapers with websites in India (http://www.wan-press.org/ce/previous/2001/congress/forum). This represents an increase of 50 Indian newspapers with websites on the previous year's survey.

The significant advances in the use of online sites by newspapers such as the development of web logs and community forums being made in the USA would benefit the Karnataka regional newspapers examined in this paper. Such facilities would provide these newspapers with one method of developing connections to the geographically and socially isolated communities and publics they serve. The process of facilitating public discussion and debate about issues of concern to the community would serve to strengthen the place and space they fill in those communities. Web logs, where members of the public can post ideas, suggestions and thoughts about current events or issues of importance to them and their communities, would help regional newspapers and journalists to develop connections with communities and enhance newsgathering opportunities. Those connections may be based on geographical areas or communities of interest, that is, communities of people wanting to discuss a particular issue.

Believes the web has 'broken down traditional deadlines imposed by print newspapers'; more importantly, it can also be used to break down the barriers that exist between journalists and their publics. In combination with a website, regional newspapers could use existing information technologies such as the fax, phone and text messaging to engage members of the public in public discussion. Community members could leave their comments on message banks or fax them to the newspaper and they could be entered into the newspaper's computer system and easily transferred to a community weblog. That way, those without regular access to the Internet would still be able to have a voice within the debates which occur and are posted on the websites. Topics for discussion might focus on issues drawn from stories in the newspaper, another method of gaining readers for the print version. Alternatively, weekly topics or questions might be posted to draw comment and discussion from members of the public.

These newspapers could use their print editions as a kind of cross-promotional platform. Debates and discussions occurring via web logs could be promoted through the print edition while the website could be used to attract readers to the hard copy of the newspaper. The websites could also be used to facilitate conversations between members of the public and journalists. Importantly, Thottam (1999, p. 217) recognises that online newspapers need to do more than merely publishing the email addresses of journalists in order to facilitate 'a real dialogue between the reader and the reporters and editors, something the limited letter-to-the-editor pages could not do'. Indeed, reporters and editors would be able to provide information in addition to that contained in their stories via a web log. Such interactivity between members of various public, geographical communities and communities of interest, editors, reporters and sub-editors via the web, represents one way of addressing the continuing disconnection between media and their public. However, in order for this to occur, a significant change is required as Thottam (1999, p. 219) suggests 'in the content and organizational culture of newspapers'. He continues (1999, p. 219): 'Interactivity with readers should become the major hallmark of the journalistic process. That is possible only if the newspapers are willing to give up some of their control and elitism which comes from being the first to report news. They can no more be sole gatekeepers of news and information'.

VIII. CONCLUSION

This paper has explored some of the potentialities the web offers for regional newspapers struggling with declining or static circulations and for creating connections with the public. With the focus of debate in this area in Karnataka shifting to the disconnection between the media and its public, regional newspapers would be well placed to capitalise on the opportunities, such as those explored here, which the web offers. Issues which require further consideration include the economics of web site creation for regional newspapers. Facilities such as web logs and discussion forums suggested by this paper would require additional work by regional newspaper staff and anecdotal evidence indicates many regional newspooms are under-resourced with limited

staff. However, regional newspapers should also look beyond the immediate costs of creating such online facilities and approach the establishment of interactive web sites as an investment or reinvestment in their region.

This paper has shown that regional daily newspapers in Karnataka could use information technologies such as but not limited to the web to improve their relationships with communities, particularly those geographically or socially isolated communities which they serve. For example, websites could be used in conjunction with other information technologies to facilitate the public's access to public discussion through online forums where issues of concern and interest could be featured. The cost of providing these types of media services to regional communities is an issue which requires further exploration. However, community based organisations such as the one mentioned here, Sanjevani.org, are well placed to assist regional newspapers in this area at little cost. Given that online newspapers have largely failed to make a profit and the economic imperative that drives news media, it seems unlikely that regional newspaper organisations will be able to provide independently the kinds of services suggested in this paper.

Finally, it is important that developments in India are not merely replicated in the Karnataka context. While Karnataka regional media can learn much from the innovative ways in which the Web and Internet are being used by newspapers at an international level, significant attention must be paid to the unique Karnataka media and cultural environment by media organisations adopting technological developments for use in Karnataka. Indeed, the focus should be on adapting the application of information technologies to suit Karnataka conditions. Further exploration of this topic, in particular in relation to how regional newspapers might do this, is needed. For regional newspapers dealing with circulation declines and editorial space restrictions, the establishment of comprehensive, integrated websites, in combination with other information technologies, offers newspapers the chance to facilitate wide-ranging and informed public debate, connect with geographically and socially diverse populations and link journalists with members of a variety of publics. The challenge is for regional newspapers not only to take up but also to capitalise on the opportunities offered by these technologies.

REFERENCES

- [1]. Bain, B. (1990). Why newspapers need to be better. Maclean's, April 23, Vol 103 (17), 60.
- [2]. Bimber, B. (2000). The study of information technology and civic engagement. Political Communication, No 17, 329-333.
- [3]. Hollander, B. (1994). Talk radio, videotext and the information superhighway. Editor and Publisher, July 16, 60.
- [4]. Kirkpatrick, R. (2000). Chronic circulation decline: regional dailies succumb to metropolitan virus. Australian Studies in Journalism, No 9, 75-105.
- [5]. The Media Report, ABC, Journalism for the real world. (August 15, 2002). http://www.abc.net.au/rn/talks/8.30/mediarpt/stories/s647619.htm accessed on August 19, 2002.
- [6]. Thottam, G. (1999). The future of newspapers: Survival or extinction. Media Asia, 26(4), 216-221.
- [7]. Tompkins.A(2002)CaseStudies in Convergence http://www.poynter.org/centerpiece/043002_intro.htm), April 30, 2002, Accessed on May 2, 2002.
- [8]. Tumber, H. (2001). Democracy in the information age: the role of the fourth estate in cyberspace. Information, Communication & Society, Vol 4(1), 95-112
- [9]. Journal of Broadcasting and Electronic Media, Vol 44(4), 569-580.
- [10]. World Association of Newspapers (1997). The Newspaper's Future in Perspective: A report on the 1997 WAN World Forum on Newspaper Strategy, http://www.wan-press.org/, accessed on August 19, 2002. World Association of Newspapers (2000). World press trends: on circulation, http://www.wan-press.org/ce/previous/2001/congress/forum, accessed on August 19, 2002.