Web News in China

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Abstract:

In 1995, the first Internet media ‘Shen Zhou Xue Ren’ (神州学人) was established. Since then, web news has developed rapidly in China. Today, there are hundreds and thousands of online news sites all over mainland China. In the era of big data, network news broke through the traditional concept of dissemination of information so that people can get the most information quickly or even in real time. This paper will give an overview of web news in China including an illustration of the developmental history and current state, as well as the advantages and issues. The paper will also discuss the preservation of born-digital news and the administration of Internet news information services.

Keywords: Internet media, digital newspaper, mobile, born-digital, Omni-media

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Background

In 1987, the first email “Across the Great Wall we can reach every corner in the world” was successfully sent to Germany from China through an “email node”, a rudimentary system in Beijing. At that time, Chinese scientists began attempting to setup an internet connection. However, very few people knew what internet was or how it would completely change our world. With the help of German processor Professor Werner Zorn, Chinese scientist Wang Yunfeng (王运丰) registered the top-level domain “.cn” for China in 1990. The first cable connection to the World Wide Web was built by Chinese Academy of Sciences in 1994. (CNNIC, 2009) The most important feature of Internet is that it can spread news very fast to a vast audience. The Internet brought forth a huge revolution in the field of news media, allowing news
to be shared swiftly to the vast public. China Scholars Abroad (神州学人) was published in January 1995 as the first web publication. In the following 20 years, web media has been developing rapidly. Emerging technologies push the developments of internet media. Like a bud, online media gradually blossomed into the mainstream media. This posed a big threat to traditional media.

**Early Web News in China**

Internet triggered a revolution in news media. In 1995, China Scholars Abroad (神州学人) and China Trade News published electronic versions on the web. Soon after, many newspaper companies, broadcast stations, television stations and news agencies registered their domains, and setup websites, such as People’s Daily and Xinhua News Agency. In 1997, up to 95 newspaper groups started to deliver news on the web. By the end of 1999, more than 700 news agencies had setup their own websites with independent domains. (郭乐天, 2000)

At that time, online newspapers were simply in text with some images, only electronic version of their hard copies. Although the news could be read on the web, it could not be updated. There was also no database so the news was not searchable.

Some companies also spread news via commercial portals such as: SINA (新浪网), SOHU (搜狐), and NetEase (网易). These portals were established between 1996 and 1998. Another major portal, Tencent (腾讯网), was established in 2005. Portals get information from different sources which they then store and present on their own sites. Typically, using a search engine or hyperlinks, users can get the contents they need within the website. Moreover, news can be delivered not only in text, but also other media types such as audio and video. With a vast amount of rich content, commercial portals were much more attractive than traditional media. The news portals grew rapidly and in just a few years, became the new mainstream media. Some news portals allow users to submit their questions and comments via email, as social media was not common at that time.

**Second Generation Web News**

Around 2005, Web 2.0, also called “read-write” web, was introduced in China. New technologies of Web 2.0 included blogs, wikis, social networking, video sharing, hosted services, and web applications. The major features of web news during this time period are the applications of social media and multimedia. By the means of blog and podcast, anyone can collect and report news. They can generate contents on the web, or interact and collaborate with each other in various social media. Audiences were not only “readers”, but also “creators” of web news. "In we-media era, a variety of voices came from all sides, making the voice of ‘mainstream media’ weaker. People no longer accept a 'unified voice' indicating right or wrong. They want to make their own judgment on information they got independently." (Baidu 百科, 2016)
Multimedia applications are also commonly used in the Web 2.0 era. By the end of 2009, around 70% of newspaper groups established their own websites. More than 1/3 of them adopted multimedia news released on the web including text, audio, images, and video. (吕强龙, 2015)

In order to compete with other online media, traditional newspapers had to change. Since 2000 many individual newspaper companies had merged into comprehensive media groups. This kind of media group includes several newspapers, as well as websites and magazines. Some of them also include publishing houses, bookstores, etc. Each group has their own major newspaper, known as a “flagship”, or “dragon head” in Chinese. For example: Yantai Daily (烟台日报) is the major newspaper of Yantai Daily Media Group (烟台日报传媒集团), which has ten newspapers, two magazines, four websites and one publishing house. (Wikipedia, 2016) Jiefang Daily is the major newspaper of the Jiefang Daily Group. They also have ten newspapers, four magazines, one website, one publishing house, as well as an opera troupe.

Third Generation Web News

Since 2010, the emerging technology of Web 3.0 and the status of the Chinese audience have been prompting new developments of news media in China. Web 3.0 technologies include microblogging, WeChat, big data, cloud, and mobile. A huge benefit of Web 3.0 is the capability of allowing people to access data from anywhere via any devices. The new developments of internet media have been driven by heavy usage of smartphones in China.

Internet users have been growing very fast in China over the past 10 years. (See figure 1) By the end of 2015, the total number of internet users in China was 688 million. That is almost 5 times the number of internet users in 2006. Recently, more and more people access the internet via smartphones. According to the annual report of CNNIC (China Internet Network Information Center), by the end of 2015, more than 90% users access Internet via smartphones. (CNNIC, 2016) Compared to desktop, laptop, tablet and TV, smartphones are the top choice of internet users. (See Figure 2)
The ease of accessing media through the web has caused a steep decline in the use of printed newspapers. This is especially prevalent among the younger generation. Reading printed newspaper is slow and tedious to them compared to getting news online through news portals. Going out to purchase a newspaper has been replaced by the simple click of a hyperlink. Instead of reading newspaper, people are reading or watching news on smartphones, desktops, tablets, TVs, and electronic boards. More and more people would like to quickly obtain news anytime, anywhere via their smartphones.

In order to meet the needs of today’s audience, news media have to change their way of dispersing information. This caused rapid decline of printed newspapers in China in the past 4 years. By the statistics of CAN (China Newspaper Association), the total sheets of newspaper printed in 2015 were 114.50 billion. Compared 167.80 billion in 2011, the amount of newspapers printed declined 31.76%. (See Figure 3) (CNA, 2016)
Micro-communication Age

The annual report “Development of News Media in China (2015)” by ACJA (All-China Journalists Association) indicated that the term “micro-communication” refers to a mechanic of news dissemination. It is “represented by Weibo (Microblogging), WeChat and client-end applications, which has gradually become the mainstream means of news dissemination in China.” (ACJA, 2016) It is totally different from the definition of “micro-communication” in Google “…… the type of communication where an individual conveys the message to a small or limited number of people” (Answers.com, 2016) It is a new media communication, a new model of news dissemination started in China around 2014, called “Two Wei and One End”. (See Image 1)

![Image 1. Two Wei and One End](image1.png)

The term “Two Wei and One End” refers to SINA Weibo (新浪微博), Tencent Weixin (腾讯微信), and client-end application Today’s Headline (今日头条).

Weibo (微博) is the Chinese word for “microblog”. In 2007, portals in China started to provide Weibo services, including mini-blogging, social-chat websites and platform sharing. Launched in 2009, SINA Weibo is the most popular Weibo website in China. It has used the domain name weibo.co for its service since 2011. “By December 2015, 624 million accounts had been created for instant messaging applications, meaning 90.7 percent of Chinese netizens had such accounts; and 557 million, or 89.9 percent of all netizens used a smartphone to access the applications.” (ACJA, 2016)

Weixin (微信) means micro message in Chinese. Developed by Tencent in China, it is a cross-platform instant messaging service released in 2011. WeChat is “Weixin” in English, it provides text and voice messaging, sharing of photographs and videos. It also provides one-to-many broadcast messaging. The application is available on Android, iPhone, BlackBerry, Windows Phone and Symbian phones. “As of May 2016, WeChat has over a billion created accounts, 700 million active users.” (Business Insider, 2016)
As broadcast media, both Weibo (微博) and Weixin (微信) can deliver short piece news (up to 140 characters) to a broad audience quickly.

In “Two Wei and One End”, the One End or client-end application, is a kind of news reader installed on mobile device. Commonly used client-end applications include Today’s Headline (今日头条), NetEase News Client-End (网易新闻客户端), Tencent News (腾讯新闻), SOHU News (搜狐新闻), SINA News (新浪新闻), and BAIDU News (百度新闻). The most popular one is Today’s Headline (今日头条), a recommendation engine based on data mining. It has the ability to recommend valuable information to each user. Launched in 2012, Today’s Headline (今日头条) is one of the fastest growing domestic mobile internet products and services. As of May 2016, the cumulative number of Today’s Headline (今日头条) users has reached 480 million, and the number of daily users has been over 47 million. (Qilu Evening News 齐鲁晚报, 2016) Features of this news reader client-end include providing rolling news 24 hours a day, and performing accurate reading content recommendations by user’s interest.

In the past two years, most newspaper media groups, news agencies, news portals, as well as TV and radio stations have adopted the model “Two Wei and One End”. The media organizations include People’s Daily - the biggest newspaper group, Xinhua News Agency - the most influential media outlet, and CCTV (China Central Television) - the national television broadcaster in China.

Omni-media

What is Omni-media? The term “Omni-media” first appeared in 2007, GAPP (General Administration of Press and Publication) started the “Omni-media System” project. Since then, the term “Omni-media” has appeared frequently in newspapers, journal articles, TV and radio broadcasting. Some examples are Omni-media Era, Omni-media Journalist, Omni-media Publishing, and Omni-media Advertising. It most commonly refers to a new communication pattern, which provides information in all kinds of media types including text, graphics and animation, audio and video, and other means of expression. Omni-media is delivered through all different channels: printed newspaper, television, radio, mobile, blog, WeChat, Weibo, etc.

Nanfang Media Group (南方报业传媒集团), Yantai Daily Media Group (烟台日报传媒集团) and China Work Safety News were pilots in trying to publish news with multiple media formats via integrated platforms.

Nanfang Daily (南方日报) is the “flagship” of Nanfang Media Group. Nanfang Daily started back in 1949, and in 2005, Nanfang Media Group was established. It is a leading publisher in southern China with eleven newspapers, six magazines, three websites, and one publishing house. Since 2008, Nanfang Media Group started to transform into Omni-media.
The four steps to transform into Omni-media:

1. Setup individual website for each newspaper allowing interactions between the newspaper and website. Post rolling news with interactive forms of media messages to the whole network expansion.
2. Integrate all individual regional newspaper websites into the main regional website. This allows browsers to easily access any news website they want. (See Image 2 for an example. On the front page of Nanfang Media Group website, all member newspapers or magazines are listed there with hyperlinks.)
3. Produce new media using a marketing perspective.
4. Start media convergence. Send news and information into a unified platform for editing. After processing, select the appropriate format, then publish and distribute on different platforms.

Image 2. Front page of Nanfang Media Group
Output of Omni-media:

1. Publish newspapers in both print and digital.
2. Post news on websites
3. Distribute mobile newspapers
4. Distribute electronic board newspapers

Omnimedia development of People’s Daily

People’s Daily, established in 1948, is the largest newspaper group in China. It “has 30 branches of newspapers and periodicals, 44 websites, 118 Weibo accounts, 31 mobile phone apps and 20,000 electronic reading boards. Its estimated total number of subscribers has surpassed 300 million.” (ACJA, 2016)

In recent years, People’s Daily has been trying to transform itself from a newspaper producer into a next generation mainstream media, an Omni-media group. “Central Kitchen 1.0” is an Omni-media project that People’s Daily tested in 2014-2015 which launched on February 19, 2016.

Central Kitchen 1.0 is constructed with six modules:

1. Intelligent newspaper design system
2. New media content distribution management system
3. Visual products production platform
4. Dissemination of results evaluation system
5. Internal user management system
6. Internet user management system

In the “Kitchen”, there are three teams consisting of coordinating, content-making and marketing. These three teams work cooperatively to provide news in all kinds of media formats like text, image, audio, and video. They provide these media formats through various channels such as Internet, TV, Radio station, publishing house, etc.
Figure 4. Workflow diagram of “Central Kitchen”

Figure 4 illustrates the workflow of Central Kitchen. In the center of the diagram, is the coordinating team. Like an information center, coordinators work closely with the other two teams – content-making and marketing. They report to the chief officer and communicate information among reporters, editors, technicians, marketing, and staff who work at various release platforms.

Since 2015, People’s Daily has successfully run 13 times on the Central Kitchen trial version, within the span of 95 days. 2,200 products by the Kitchen were reproduced 54,000 times by various media all over the world. That means, in average, 600 news media or channels per day adopted news produced by the Central Kitchen.

Born-Digital News Preservation in China

With the popularity of Internet technologies, digital resources are growing up very rapidly. According to the International Data Corporation (IDC) research report, from the beginning of 2010 to the end of 2020, the digital universe will increase 50-fold. IDC estimates that by 2020, the global digital universe will grow to 40,000 exabytes, or 40 trillion gigabytes. Figure 5 illustrates the growth of the digital universe. (Gantz, 2012)

However, while the digital information resources are growing rapidly, they are disappearing quickly at the same time. For example, the average life expectancy is only 44 days for information on the internet, 38.2 days for blog, and 36 hours for news web page. Countless valuable digital information resources are quietly disappearing every minute. There has been a significant loss of digital resources due to damage from natural disasters, updating of storage media, lack of funding for the preservation of digital resources, and other external factors. A key vulnerability is the carrier’s uncertainty of the value of preserving its digital resources for the future.
Digital preservation is very important for the accumulation of knowledge, cultural human civilization memory, economic development, and progress of society.

Two pilot projects of digital preservation in China:

1. “Web InfoMall (中国Web信息博物)” ([www.infomall.cn](http://www.infomall.cn)) by Peiking University
2. “Internet Information Collection and Preservation” by National Library of China

**Web InfoMall**

Web InfoMall is a large-scale repository system for web archiving. This project started in 2002 by the Network and Distributed Systems Laboratory, Computer Department of Peking University. The system had collected and maintained 7.5 billion Web pages, the majority are in Chinese. The collection of Web InfoMall was growing up quickly. Around 45 million historical Web pages had been collected and added to the “Mall” monthly. Unfortunately the project discontinued in 2005. Hopefully the Web InfoMall will re-open soon in the future. Image 3 is a slide, an image of front page of Web InfoMall, from the presentation by Li Xiaoming, who was in charge of the project. (Li, 2007)
In 1998 NLC (National Library of China) started the project “NDLC (National Digital Library of China)”. The first digital library testing system launched in 1999. In the same year, the Digital Resources Center established in the library. In the past 15 years, the library has collected and maintained rich digital collections, including e-books, e-journals, digital newspapers, as well as web information collected from Internet. By the end of 2014, the total of digital resources reached 1024.45 TB, including 856.92 TB internal digital resources, 71 TB external databases, 5.28 external digital newspapers, and 62.4 TB digital resources collected from Internet. (National Library of China, 2015)
The web information collected from Internet is 6% of the total digital resources in NLC. (See Figure 6.) So far, the web information from over 50,000 government websites have been stored in National Digital Library, and updated every half year.

NLC provides a user friendly interface to the public. (See Image 4.) People can get information they need by searching or browsing on the website (http://www.nlc.gov.cn/) of National Digital Library of China.
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References


