

2017-2018 China Digital Newspaper Publishing Industry Annual Report Postprint

Authors: Wan Zhi, Ai Shungang, Sun Xiaocui, Zhuang Ziyun, Tong Pan, Chen Li

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Abstract

In 2017, against the backdrop of government policy support, expanding news and copyright industries, shifting reading habits, and technological upgrades, the digital newspaper industry achieved breakthroughs at all levels and experienced rapid development. Notably, information aggregation platforms have come to dominate online news, and newspaper organizations face intense competition in developing digital newspapers. Therefore, the booming news media industry presents both challenges and opport...

Full Text

Preamble

2017-2018 Annual Report on China's Digital Newspaper Publishing Industry

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In 2017, against the backdrop of government policy support, expanding news and copyright industries, shifting reading habits, and technological upgrades, the digital newspaper industry achieved breakthroughs at all levels and experienced rapid development. Notably, information aggregation platforms have come to dominate online news, and newspaper organizations face intense competition in developing digital newspapers. Therefore, the booming news media industry presents both challenges and opportunities for digital newspapers.

1. Political Environment

In 2017, various 13th Five-Year Plans for press, publication, radio, and television were released, addressing the digital newspaper industry with plans for both

quantity and quality. In September 2017, the former State Administration of Press, Publication, Radio, Film and Television issued the “13th Five-Year Development Plan for Press, Publication, Radio, and Television,” proposing to deepen digital transformation and upgrading of press and publication during the 13th Five-Year Plan period, improve digital product services, break hierarchical and regional restrictions, address issues such as homogenization and low efficiency in newspaper development, accelerate newspaper resource aggregation and industrial integration, and achieve digital newspaper revenue of 1.4 billion yuan by the end of the 13th Five-Year Plan. Simultaneously, the plan called for establishing a national digital supervision system for newspapers and periodicals, building a unified national newspaper and periodical data center and an annual verification information system, creating a complete database of newspaper publication formats and digital content, enabling multi-dimensional mining and analysis of newspaper content, and improving content supervision capabilities.

Additionally, relevant agencies created development opportunities for digital newspapers by purifying the online environment. In May 2017, the Cyberspace Administration of China officially promulgated the “Regulations on Internet News Information Services,” which led to the closure of several entertainment public accounts and the summoning of websites such as Sina Weibo, Toutiao, and Tencent for talks, thereby improving the overall online news environment. In August 2017, the former State Administration of Press, Publication, Radio, Film and Television issued an announcement requiring standardized editorial management for newspaper units and their new media platforms, proposing a content review and gatekeeping system to strengthen oversight of content published across various media including newspapers, websites, Weibo, WeChat, and client applications, thereby improving digital newspaper quality and maintaining authority and credibility.

Furthermore, the government promoted newspaper digital transformation through fiscal policies and other means. In May 2017, the former State Administration of Press, Publication, Radio, Film and Television and the Ministry of Finance jointly issued the “Notice on Deepening Digital Transformation and Upgrading in the Press and Publication Industry,” proposing to improve fiscal investment mechanisms and support key projects in the digital transformation and upgrading of the press and publication industry that meet certain criteria.

2. Economic Environment

For the digital newspaper industry, the overall economic environment also affects its development. As an important component of the cultural industry, the news media industry achieved rapid growth in the Internet era through government policy support, capital investment, and technological innovation. According to the “Statistical Report on China’s Internet Development,” as of December 2017, online news users reached 646.89 million, accounting for 83.8% of Internet users, making online news a major highlight of Internet development.

Notably, information aggregation platforms have come to dominate online news, and newspaper organizations face fierce competition in developing digital newspapers. Therefore, the booming news media industry presents both challenges and opportunities for digital newspapers.

Moreover, the copyright industry has gradually become a new engine for China's economic development. Research results from the "2016 Economic Contribution of China's Copyright Industry" show that the industry's added value reached 5.455146 trillion yuan in 2016, achieving output growth and structural optimization. Meanwhile, the "China Online Copyright Industry Development Report (2018)" indicates that China's online copyright industry market size reached 636.5 billion yuan in 2017. However, digital newspaper copyright protection still faces obstacles. In 2017 alone, the *Beijing News* issued 13 anti-infringement announcements, and at least 15 media outlets engaged in copyright protection through such announcements. To maintain healthy and orderly development of the newspaper industry, the first China Newspaper Copyright Conference in June 2017 adopted the "China Newspaper Copyright Self-Discipline Declaration."

3. Social Environment

The iterative updating of Internet technology, the competitive development of various news platforms, and the transformation of Internet users' reading habits and consumption concepts have created a social environment for digital newspaper development filled with both opportunities and challenges.

First, digital reading has become mainstream, with mobile client applications becoming the primary way for netizens to browse news. According to the CNNIC's "41st Statistical Report on China's Internet Development," as of December 2017, China's netizen population reached 772 million, with 40.74 million new netizens added throughout the year. Internet penetration rate reached 55.8%, up 2.6 percentage points from the end of 2016. In 2017, China's netizen growth stabilized, and the Internet industry continued to develop steadily.

[Figure 1: see original paper]

Source: CNNIC Statistical Survey on China's Internet Development

Second, news communication entities continue to diversify, and digital newspapers face increasingly severe competitive pressure. CNNIC data shows that in the past six months, mobile netizens used an average of more than 10 mobile applications, and the diversification of mobile software promoted diversification of news acquisition channels, intensifying competition among platforms for mobile news clients. Traditional media such as *People's Daily* and *Guangming Daily*, portal websites such as Sina and Sohu, and news aggregation platforms without any news background such as Toutiao and Xianwen have all launched mobile news clients. With the "decentralization" development of the Internet, netizens can become news providers through social platforms like Weibo and WeChat.

The diversification of news sources has weakened the advantages of traditional media's digital newspapers and made competitive pressure more severe.

Third, the era of paid content is approaching, and digital newspapers are expected to benefit. Data from iiMedia Research shows that China's mobile payment user scale grew at a high rate in 2017, expected to reach 560 million people. Meanwhile, China's content payment user scale showed rapid growth in the past two years, potentially reaching 188 million people in 2017. Whether print media can seize this opportunity to achieve breakthroughs in digital technology and enhance user stickiness is crucial for building and maintaining a "paywall" for digital newspapers.

4. Technological Environment

High technology has always been an important support for the development of the news communication industry and has now become the core competitiveness of news information platforms.

In the field of communication technology, the popularization of 4G applications improved netizens' mobile Internet experience. Data from the Ministry of Industry and Information Technology shows that as of November 2017, the total number of mobile broadband users (3G and 4G) reached 1.11 billion, accounting for 78.9% of mobile phone users. In January 2018, the Ministry of Industry and Information Technology's Information and Communication Development Department held a review meeting for the "5G Technology R&D Test Phase III Specifications," laying a solid foundation for operating enterprises to conduct large-scale experiments in the next step.

Artificial intelligence technology is reshaping the news publishing industry. AI has been applied in news topic selection, content writing, editing, proofreading, distribution, and communication, making the publishing process intelligent. With emerging algorithms such as machine learning, deep learning, natural language processing, and text generation, AI can transcribe speech into text in real time and accurately, and can also independently write news reports and edit them, greatly improving news generation and editing speed. Based on big data analysis technology, AI can understand user preferences to achieve personalized content push, delivering content that interests users.

Short videos, live streaming, and VR technology are flourishing in the news field. Statistics from iResearch Consulting show that short videos were popular in 2017, with a market size of 5.73 billion yuan, a year-on-year increase of 183.9%, and the market size is expected to exceed 30 billion yuan by 2020. Domestic news agencies actively deployed in this field in 2017.

[Figure 2: see original paper]

Source: Calculated based on the "China Digital Publishing Industry Annual Report" and other data

[Figure 3: see original paper]

Source: CNNIC Statistical Survey on China's Internet Development

According to iiMedia Research's "2017-2018 China Mobile News Client Market Research Report," by the fourth quarter of 2017, China's mobile news client user scale increased to 636 million people. iiMedia Research believes that the mobile news client industry user scale has reached saturation, but the industry structure still has room for change. As platform construction returns to the essence of news, traditional media mobile news clients have strong development potential.

Current Status of Digital Newspaper Publishing Industry

1. Overall Scale

With the rapid development of Internet technology, the new media industry has emerged and flourished, and the trend of media convergence has continuously strengthened. Various traditional newspapers (party newspapers, professional newspapers, and comprehensive commercial newspapers) continue to explore transformation paths. Under the influence of "Internet +," they have basically formed a digital layout of "two micros, one website, and one client" and continuously integrated with new media.

In recent years, with the vigorous development of emerging business forms such as self-media, traditional media like newspapers have been greatly impacted, and the overall scale of the digital newspaper market has also shown a declining trend year by year. After China's digital newspaper revenue total value and revenue share peaked in 2012, they have been declining slightly in recent years, but the decline has slowed. According to relevant data, China's digital newspaper market size decreased from 900 million yuan to 860 million yuan in 2017 (see Figure 2), a decline of 4.4%. The decline has narrowed compared with previous years, indicating that the digital newspaper market is stabilizing.

2. Sub-sector Status

According to Chen Guoquan's "2017 China Newspaper Industry Development Report," professional newspapers, by focusing on segmented markets with more targeted readership, have experienced a smaller decline in total print numbers and have good market prospects. However, facing the impact of the "Internet +" model, professional newspapers have also integrated into new media, deeply explored reader needs, and sought further development. According to the "2017 Annual Development Report of China's Journalism Industry" completed by Professor Zhang Zhian's team at Sun Yat-sen University, the development and transformation situation of traditional print media in 2017 remained severe. Compared with party newspapers and professional newspapers, comprehensive commercial newspapers face many difficulties in transformation due to lack of policy dividends, relatively single profit models, difficult exploration of

new revenue streams, and services more easily replaced by the Internet, leading to successive cessation of publication. Therefore, comprehensive commercial newspapers must overcome difficulties and continue to integrate with new media in 2017 to find ways for survival and development. Overall, party newspapers achieved remarkable results in integrating with new media in 2017.

According to the “2017 National Party Newspaper Convergence Communication Index Report,” PC websites and mobile new media have become important components of the party newspaper convergence communication matrix. Party newspapers at all levels have achieved certain results in exploring media convergence. The occupancy of new media channels by 367 party newspapers is as follows:

[Figure 4: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

Currently, party newspaper media convergence communication presents the following characteristics:

1. Strong Online Communication Power of Party Newspaper Print Content In terms of newspaper circulation, only *People's Daily*, *Guangzhou Daily*, and *People's Daily Overseas Edition* have exceeded one million copies, while 100,000 copies have become the “ceiling” for most prefecture-level party newspapers. The Internet provides an effective channel for party newspaper content dissemination and influence diffusion, but the dissemination volume of prefecture-level party newspaper content on platforms remains low, and communication power needs further improvement.

[Figure 5: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

2. Party Newspaper Websites Effectively Enhance Communication Power Measured comprehensively by news reporting volume and reprint volume, party newspaper websites' publishing volume and reprint volume are significantly higher than their parent media. Therefore, party newspaper websites effectively enhance communication power. In terms of magnitude, central-level websites > municipal-level websites > other provincial-level websites > prefecture-level websites.

[Figure 6: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

3. Obvious “80/20 Phenomenon” in Party Newspaper Official Weibo Accounts Currently, the opening rate of party newspaper Weibo accounts reaches 73.6%. Official Weibo accounts of *People's Daily*, *Guangzhou Daily*, *Southern Daily*, *Guangming Daily*, and *Xinhua Daily* are relatively active with huge fan bases and significant influence.

[Figure 7: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

From the perspective of Weibo interaction, *People's Daily* official Weibo dominates, with average comments, forwards, and likes per Weibo post reaching 1,597, 3,922, and 6,600 respectively, which are 2.22 times, 3.78 times, and 3.12 times the total of the remaining 269 party newspaper official Weibo accounts.

[Figure 8: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

[Figure 9: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

4. WeChat Official Accounts Become Important Communication Channels for Party Newspapers The opening rate of party newspaper WeChat official accounts is 69.5%, lower than that of Weibo. *People's Daily* official WeChat account ranks first in influence, followed by *Guangzhou Daily*, *Hangzhou Daily*, *Economic Daily*, *Hebei Daily*, and others.

[Figure 10: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

5. Considerable Room for Secondary Dissemination Through Aggregated News Clients Party newspapers' presence in aggregated news clients varies in platform concentration, with different accounts. Some accounts are repeatedly set up, and information is relatively chaotic, easily causing confusion. Currently, party newspaper news clients are mainly concentrated on Sohu News and Toutiao, with few entries on NetEase and Tencent platforms. Client readership is relatively low with little interaction, requiring further improvement in communication capabilities.

[Figure 11: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

[Figure 12: see original paper]

Source: *2017 National Party Newspaper Convergence Communication Index Report*

6. Accelerated Construction of Party Newspapers' Own APPs, Yet Influence Needs Improvement According to statistics, among 378 party newspapers, 247 have their own client applications (APPs), accounting for 67%. *People's Daily* client downloads reached 180 million. Three party newspapers—*Southern Daily*, *Guangming Daily*, and *Hunan Daily*—have downloads in the tens of millions, while 11 party newspapers including *Zhejiang Daily* and

Guangzhou Daily have downloads in the millions. The vast majority of party newspaper clients have low visibility, requiring consideration of whether they are necessary to create.

Analysis of Operational Models

1. Content Provision: Diversified, Visualized, and People-Centric “Central Kitchen”

(1) Diversified Content Production Subjects Under UGC Model In the traditional newspaper era, the PGC (Professionally Generated Content) model, where professionals directly provided content or acted as gatekeepers, was mainstream. With the development of new media, a large number of non-professional news practitioners emerged, and the UGC (User Generated Content) model has become increasingly heated. Although news content quality cannot be fully guaranteed under the UGC model, high-quality UGC content can become an incomparable advantageous resource for newspaper enterprises in competition. In 2017, various newspaper organizations began introducing high-quality UGC through various measures. Toutiao launched the “Thousand People Million Fans Plan,” Yidian Zixun launched the “Hundred Schools Ten Thousand People Plan,” and other initiatives recruited batches of UGC. Platforms such as “The Paper,” “Cover News,” and “Jiupai News,” which rely on traditional newspapers, all adopt a UGC+PGC model, ensuring high-quality professional news content while introducing user feedback on content as a supplement.

(2) Visualized News Content Presentation Under New Technologies In 2017, more new media technologies such as VR/AR were applied to digital newspapers, breaking the traditional picture + text reporting method and integrating video, sound, animation, and other elements into news narrative to optimize visual presentation effects.

Micro-videos and live streaming are among the most widely used communication carriers in current news reporting. In 2017, following current events, various newspaper organizations produced a batch of high-quality video works, such as Xinhua News Agency’s animation “Let’s go Belt and Road World Ensemble” during the Belt and Road Forum for International Cooperation series, Xinhua’s “Great Power Strong Military Dream” released on the 90th anniversary of the founding of the People’s Liberation Army, and Cover News’s live broadcast “Overlooking the ‘First Sichuan-Tibet Bridge’,” which attracted large numbers of users with quality content and innovative forms. In addition to their own attempts in news short videos and live streaming, newspaper organizations also actively expanded news reporting communication channels through cooperation. In July 2017, all original video content under The Paper entered Toutiao.

Although the use of drones, VR/AR, and other technologies in news reporting is not yet widespread, it is gradually increasing. Newspaper organizations use VR and AR technologies to produce “immersive news.” In May 2017, *Southern Daily* used VR technology for the report “Unforgettable Memory—Ninth An-

niversary of Wenchuan Earthquake,” allowing users to experience the scene and enhancing the rendering effect of news reporting. Following the drone technology boom, news reporting uses it for aerial photography, enriching picture and video material libraries. By the end of November 2017, Xinhua had released over 1,150 aerial photography pictures and video works.

(3) People-Centric Promotion Methods Under New Media Traditional news reporting mainly focused on professional and authoritative narrative. To adapt to the new media context, various newspaper organizations’ official Weibo and WeChat accounts have enhanced approachable expression methods. For example, *People’s Daily Overseas Edition*’s WeChat official account “Xiagu Dao” runs the “Uncle Dao” image throughout its texts, personifying official media to narrow the distance with users. From the perspective of newspaper organizations, they have changed their previous stereotype of being high and mighty, expanding their influence with a more humanized image. From the user perspective, this enhances their interactive communication with media and other users, and they actively grasp discourse power in news events.

In addition to daily operations, various official media launch a series of activities based on news reporting to enhance publicity effects. For example, the People’s Daily New Media Center launched the “I Love You China” series of activities during the National Day period.

(4) Media Convergence System of “Central Kitchen” China’s earliest “Central Kitchen” attempt in media should be traced back to 2007 when *Guangzhou Daily* established its “Rolling News Department,” equivalent to the prototype of “Central Kitchen,” while Yantai Daily Media Group’s “All Media” model basically formed the concept and architecture template of the current “Central Kitchen.” In January 2017, Liu Qibao proposed taking the “Central Kitchen,” i.e., the media convergence center, as the leader to build a flat organization and distribution network, marking that Chinese media entered the era of large-scale “Central Kitchen” construction.

“Central Kitchen” includes two types: aggregation type and internal control type. The “Central Kitchen” of *People’s Daily* is a typical aggregation type, and local media such as Dazhong Press Group, Henan Daily Newspaper Group, and Hunan Daily have also established such “Central Kitchens.” Some media have built internal control type “Central Kitchens,” with *Economic Daily*’s “Central Kitchen” being a typical example.

2. Terminal Devices: “Weibo + WeChat + Client” Framework Becoming Increasingly Robust

In addition to opening official Weibo and WeChat accounts, newspaper organizations have also entered aggregated news clients such as Sohu News and Toutiao. According to the CNNIC’s “41st Statistical Report on China’s Internet Development,” as of December 2017, China’s mobile netizen population reached 753

million, accounting for 97.5% of total netizens, making mobile phones the primary terminal for newspaper organizations.

Currently, newspaper organizations gradually emphasize the operation of Weibo and WeChat, with many opening official accounts. Some well-resourced newspaper organizations have launched APPs, and the “Weibo + WeChat + Client” framework is becoming increasingly robust.

Source: Cyberspace Administration of China’s “Network Communication” magazine “Mainstream Media App Ranking December 2017”

3. Profit Models: Advertising Revenue Declining, Payment Model Still Immature

In recent years, newspaper advertising operations have declined sharply, new media profit models are immature, and payment models face difficulties. To break through transformation pain points, digital newspapers continuously change their profit models.

(1) “Cliff-like” Decline in Advertising Revenue According to CTR Media Intelligence research, in 2017, China’s overall advertising market grew by 4.3%, while newspaper advertising spending fell by 32.5% and advertising area decreased by 27.3%, the most severe decline among traditional media. Traditional newspaper advertising revenue faces severe challenges, closely related to changes in readers’ reading habits and the impact of new media.

In terms of digital newspaper advertising, some newspaper enterprises began to seek innovation in form, content, and communication, but most still adopted traditional newspaper advertising methods. Meanwhile, some newspaper enterprises gradually embraced new media, striving to explore suitable transformation paths.

(2) Awkward Situation of Payment Models Early on, Wenzhou Press Group, *Economic Observer*, *Global Times*, *Southern Metropolis Daily*, and other newspaper organizations had adopted digital newspaper paid reading, but the results were unsatisfactory. *People’s Daily*, which officially launched electronic version paid reading services in 2010, also stopped charging from January 1, 2017. However, with the arrival of the paid content era, users’ payment awareness continues to improve, and the payment model remains a worthwhile option to try. On November 6, 2017, Caixin.com officially launched comprehensive charging for financial news, focusing on precise users, transforming business models, and seeking long-term enterprise development.

Problems and Countermeasures in Digital Newspaper Publishing Industry Development

In 2017, China’s digital newspapers made certain progress in exploring transformation and upgrading paths in terms of communication capabilities, content,

marketing methods, and profit models, while still facing some problems.

1. Significant Communication Capability Gaps, Need for Re-layout and Precise Push

Taking party newspaper media convergence communication capabilities as an example: From the development of party media official websites, central-level websites are reprinted about 75 times more news articles per month on average than prefecture-level websites. From the development of party media official Weibo accounts, the fan count of single accounts such as *People's Daily* and *Guangzhou Daily* is about 100 times that of the bottom 50% of other party newspaper single accounts. From the development of party media WeChat accounts, the average single-article read count of *People's Daily* official WeChat account shows an even more pronounced gap compared with 69 other WeChat official accounts, roughly 200-1,000 times higher. This shows that except for central-level media such as *People's Daily* with strong digital communication capabilities, most other newspapers still have considerable room for improvement in digital communication capabilities.

Currently, most newspapers have formed a digital layout of “two micros, one website, and one client.” To achieve common development across different platforms, different content needs to be published according to different communication channel characteristics and user reading habits. Weibo should feature short, timely text and videos focusing on interaction with readers to enhance stickiness; WeChat official platforms should feature in-depth reports with attention to publishing time to gain more readership; official websites should feature real-time reports to meet diverse user reading needs; own APPs should feature exclusive content and value-added services, focusing on the pertinence and timeliness of daily news pushes. Various media platforms can also use hyperlinks to connect, ultimately improving overall digital communication capabilities.

2. Uneven Content Quality, Presentation Methods Need Deeper Levels

Newspaper organizations have introduced the UGC model, making platform users news publishers, making it difficult to fully guarantee news content quality. Therefore, first, platforms should strictly review content before users publish it, prohibiting the spread of low-quality news that is vulgar, illegal, or inconsistent with facts. Second, platforms should cultivate their own professional news teams, absorb excellent news talents, and provide users with professional, authoritative, and high-quality news. Finally, platforms should attract influential self-media and non-professional news practitioners in the journalism field through certain incentive measures, rewarding users who write high-quality news manuscripts with high click rates.

The integration of new technologies and news content only remains at the surface level. Although visualized presentation has become a basic element of

digital newspapers, there is still a lack of deep integration between content and visuals. Therefore, newspaper organizations should consider whether new technologies are conducive to interpreting news content when writing news, rather than simply pursuing visual effects.

Currently, most newspaper organizations conduct content production and marketing publicity on “two micros and one client,” but some institutions still simply copy traditional newspaper content directly to WeChat and Weibo, where users can only passively accept news content without changing their thinking. Therefore, newspaper organizations should cultivate professional new media teams for operation, writing and promoting news in the new media context in more acceptable ways, enhancing interactive experiences with users, and allowing users to participate.

On the other hand, under the “two micros and one client” framework, the communication power and influence of news content have been greatly enhanced. The accompanying problem is that newspaper organizations can easily fall into public opinion whirlpools. For example, in the 2017 “Red Yellow Blue Kindergarten Incident,” a mainstream media published an article on its WeChat official account with only a few hundred words, which aroused public indignation. Therefore, newspaper organizations should remain rational in news events, and practitioners need to improve their professional and ethical qualities, not swaying due to public opinion nor publishing content with improper values for attention.

3. Unclear Profit Models, Payment Models Need Exploration

In 2017, digital newspaper advertising revenue continued to decline. This is an inevitable situation for the newspaper industry under the impact of new media. Newspaper organizations should think from their own perspective about problems in digital newspaper advertising operations, such as single advertising structure, lack of talent, and limited communication reach, deeply exploring the market to find their own irreplaceable advantages in the advertising market. On the other hand, they should change advertising presentation methods, apply new technologies, and improve publicity effects and communication scope.

Meanwhile, most newspapers in China still adopt the “free lunch” model. Facing the arrival of the paid content era, some newspapers should think about how to transition to payment models. Currently, some digital newspaper payment model designs are still relatively crude, simply replicating traditional print newspaper subscription models onto digital newspapers. Therefore, newspaper organizations should design payment models meticulously according to their own newspaper content characteristics, drawing lessons from successful foreign “paywall” models and combining them with reality to explore payment models that suit themselves.

Major Annual Events in Digital Newspaper Industry

1. ***Oriental Morning Post* Ceases Publication, Digital Platform Becomes Work Focus** On January 1, 2017, *Oriental Morning Post* officially ceased publication and no longer continued to be issued in traditional newspaper form. News reporting shifted to The Paper website for online publication. The Paper's originality, communication power, and influence provided *Oriental Morning Post* with conditions for a complete transformation to Internet new media. The change from print to digital and the shift in publishing platform represent a common choice brought by the era and technology for *Oriental Morning Post*.
2. **Remarkable Development of *China Education Daily* WeChat Official Account** In 2017, *China Education Daily*'s WeChat official account launched 350 "100,000+" articles, averaging one "100,000+" article per day, pushing 2-3 times daily, with an original rate of 60%, ranking first in the WeChat communication index for industry media. Compared with comprehensive media, industry media does not have advantages in scale and volume, but can use advantages such as fixed users and strong content targeting to deeply explore reader needs and highlight professional advantages in planning and content.
3. ***Southern Weekly*'s Anti-Infringement Declaration** On August 25, 2017, *Southern Weekly* issued the "Southern Weekly Anti-Infringement Declaration." The article pointed out that with the growing prosperity of mobile Internet, a large number of media, websites, mobile clients, and self-media platforms violated relevant laws and regulations by unauthorizedly reprinting works published in *Southern Weekly* newspaper, official website, and other official self-media platforms, demanding respect for originality. As of August 15, 2017, 3,013 illegally reprinted articles had been processed, and lawsuits were filed against 14 websites including Hexun.com and Investment Community. In July 2017, *Southern Weekly* won lawsuits against two well-known domestic portal websites for illegal infringement and reprinting of its articles.
4. ***Jiangxi Daily* Plans "19th CPC National Congress Report Study Dictionary"** On the opening day of the 19th CPC National Congress, Jiangxi Daily's all-media reporting center planned and China Jiangxi Net produced the H5 work "19th CPC National Congress Report Study Dictionary." The work focused on the Congress, 紧扣 the main line of "a series of new ideas, new judgments, and new requirements" proposed in the report, with rich pictures and texts and strong interactivity, achieving over 10 million total reads in just six days, becoming a rare million-level hit work among national media interpretations of the 19th CPC National Congress report. This represents a beneficial attempt and exploration in media convergence reporting by provincial party newspaper groups before major events.

5. **AI “Xiaoice” Further Upgraded** Microsoft and *Qianjiang Evening News* jointly built China’s first robot reporter “Xiaoice,” which continues to upgrade. In addition to serving as customer service and intelligent writing, Xiaoice has further functions. In August 2017, *Qianjiang Evening News*’s “Zhejiang 24 Hours” APP added personalized recommendation functions in version 4.2. Xiaoice observes and analyzes users’ regular preference selections, dwell time, reading article proportions, whether they collect or forward, whether they have the willingness to comment, collect, or like during reading, completes article feature tagging and user profiling, and then matches content with users. At the end of September 2017, “Zhejiang 24 Hours” version 4.3 was released, adding rich media communication such as voice and pictures to Xiaoice’s dialogue form with users.

Looking at the development of digital newspapers in 2017, against the backdrop of policy support, rapid development of news media and digital copyright industries, and continuous technological innovation, the overall scale of digital newspapers achieved steady growth and made breakthrough progress in various aspects. Although a series of problems remain to be solved in the development process, the future development prospects are optimistic.

1. **Repositioning, Adhering to “Content is King”** In 2017, several newspapers including *Oriental Morning Post*, *Baiyin Evening News*, *Jiuhua Morning Post*, and *Yangzhou Business Daily* ceased publication and turned to developing digital newspapers or new media, seeking to achieve newspaper transformation. Brand, rationality, authority, and depth are inherent advantages that newspapers have when developing digital newspapers. In the early development stage, to cater to new media development, digital newspapers blindly pursued click rates, resulting in uneven news quality, which made some newspapers become low-end media and lose credibility. In the new media era, only by finding the right positioning, adhering to the principle of “content is king,” and re-capturing the unique value of digital newspapers can they break through the siege.

In the new media environment, the logic of “content is king” has been impacted, and high-quality content does not necessarily mean higher returns. However, for newspapers, “content is king” still cannot be abandoned. Therefore, many digital newspapers have adopted the PGC+UGC model, using PGC to guarantee news content quality and UGC to attract traffic. To ensure UGC quality, platforms encourage high-quality authors to create through copyright protection and incentive measures, while relevant policies and platforms are also rectifying content with improper values and pornographic edges, making digital newspaper content on platforms higher in quality and more connotative, thus precisely matching newspaper brand positioning.

2. **Deep Integration of Digital Newspapers and Technology** In 2017, new media technologies such as drones, VR/AR, live streaming, and AI were more widely used in digital newspapers. On the one hand, through

new technologies, digital newspaper content is visually presented in more vivid, interesting, concise, and understandable ways to display and interpret news content, enhancing interactive communication with readers and making it easier for readers to understand news content. On the other hand, new technologies will also penetrate digital newspaper content writing. In rapid reporting of some emergencies, robot writing will gradually replace journalists' message writing. Additionally, through new technologies, news hotspots can be monitored in real time, audience feedback can be obtained instantly, and information technology means can be applied to news content editing.

The deep integration of digital newspapers and technology involves not only content presentation but also content distribution. Through new technologies such as algorithms, data mining, and machine learning, reader needs are better understood to meet users' differentiated and personalized needs. Toutiao's establishment of people-centered content distribution allows readers to exercise their right to choose, enabling users to step directly into a buffet era that emphasizes personal preferences, with small frequent meals plus passive push.

3. Focus on “Two Micros and One Client” Operation to Fill Advertising Revenue Gaps Currently, most newspaper organizations have established WeChat official accounts and official Weibo accounts. Some newspaper organizations have even canceled print newspapers and directly use Weibo and WeChat as publishing platforms for digital newspapers, restarting through new media communication forms and breaking down barriers between traditional and new media.

At the same time, digital newspapers are gradually showing a platform trend. Various newspaper organizations have built their own news platforms, investing capital, technology, and talent into news platforms to build content platform brands. In 2017, *Yangzi Evening News* launched “Purple Bull News,” pursuing “original, exclusive, and in-depth” news, distributing content across the all-media matrix platforms including *Yangzi Evening News* print, official Weibo, WeChat, and news client, striving to build an influential news platform.

In 2017, digital newspaper advertising operation revenue continued to decline, while the operation of “two micros and one client” greatly filled the advertising revenue gap. Newspaper organizations have built all-media matrices, greatly enhancing their communication influence and breaking through the limitations of traditional newspaper advertising, regaining competitive advantages in the advertising market.

Although traditional media digital newspaper charging has encountered awkward situations and digital newspaper payment models have not yet found suitable development models, with the arrival of the paid content era, knowledge payment is expected to become a new channel for content profit. Digital newspapers should continuously explore payment models suitable for their own characteristics and strive to reverse the unfavorable development situation.

Author Affiliations: Wan Zhi, Wuhan University; Ai Shungang, Sun Xiaocui, Zhuang Ziyun, Pan Tong, Chen Li, Shanghai Ruitai Enterprise Management Group Co., Ltd.

Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv — Machine translation. Verify with original.