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Postprint: Experiences with News Field Reporting Command Systems

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Abstract

In news field dispatch and command, the author discusses design solutions based on practical construction experience, addressing how to better implement functions such as map-based command, front-rear interaction, and real-time reminders, realize the dispatch of resources including personnel and equipment, and complete entire interview missions with the command center as the core.

Full Text

Preamble

Title: Experience with News Field Reporting Command Systems

Abstract: In news field dispatch and command operations, achieving effective map-based command, front-headquarters interaction, real-time alerts, and resource scheduling (personnel and equipment) centered around the command center to complete reporting tasks is critical. Drawing from practical implementation experience, this paper discusses the design solutions.

Keywords: dispatch command; news field; geographic information; WeChat; field connection; National Digital Composite Publishing System Project; Media Collaborative Work System

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In recent years, with the development of science and technology, particularly communication technology, ordinary people can now accomplish tasks previously requiring professional interview teams using only mobile terminals. This has significantly reduced the difficulty of interaction between news field reporting and headquarters. The real-time demands of news reporting have become more intense, and the reporting command system has become one of the core technologies in the “central kitchen” construction model. The author participated in the construction of the National Digital Composite Publishing System Project—Media Collaborative Work System and will discuss the technical implementation of field-headquarters interaction from several perspectives.

1. Requirements for Field Command in Reporting Command Systems

During news coverage of large-scale sports events and important conferences, numerous journalists are involved, and interview locations and personnel are distributed across various areas. The uncertainty of timing increases the difficulty of interview planning. Typically, a commander and command team at headquarters monitor site dynamics, interact with field personnel, and coordinate operations using large screens in the dispatch command center. Key considerations for a field command and dispatch platform include: how to quickly dispatch field personnel and equipment, how to conveniently interact with field personnel and send instructions, and how to rapidly transmit text, images, and audio-video materials from the field.

1.1 Positioning Issues

The dispatch command center at headquarters needs real-time geographic location information of field journalists, logistics staff, and interview equipment to facilitate the dispatch of nearby resources during emergencies. This enables seizing the optimal interview angle and transmitting news content first, while also providing field personnel with emergency interview and evacuation routes. Geographic information is increasingly important in field command.

Modern mobile terminals such as smartphones universally feature positioning capabilities, making APP-based location transmission straightforward without requiring additional equipment. While WeChat is widely used in actual reporting and provides location information, it cannot achieve real-time location transmission—information is only obtained when entering WeChat’s internal web pages. However, for low real-time requirements, such as reporters checking in upon arrival at a location, WeChat meets the requirements. To achieve real-time positioning, dedicated APP development is necessary, with positioning functionality integrated as a module within other APPs, ideally maintaining data transmission even when the APP switches to background mode. For breaking news leads, marking geographic information enables better identification of nearby journalists and equipment resources through map applications, allowing

rapid response to complete reporting.

1.2 Alert Issues

Field personnel are often busy with their tasks and need to receive headquarters instructions promptly to adjust interview angles, subjects, or even locations. In current real-time news live streaming scenarios, interview strategies frequently require adjustment based on news event developments, editorial requirements, or even reader feedback. Ensuring that journalists and other field staff can receive headquarters instructions in a timely manner while focusing on their tasks is a critical component.

1.3 Text and Image Interaction Issues

Online communication is essential for interaction between reporting teams and virtual editorial departments. It serves as the transmission channel for short news updates and on-site photo transmission from the field. The preservation of interaction history also provides important journalistic evidence for in-depth reporting.

1.4 Live Audio/Video Transmission Issues

Video live streaming is a crucial reporting format for real-time news coverage. Currently, websites and news clients have attracted traditional TV live broadcast audiences through video streaming, which has gained wide acceptance among readers. Most news websites and clients now feature live streaming channels. News live streaming also provides excellent source material for later video playback and short video production. Direct video connection between the command center and the front line represents a more interactive approach.

2. Design of News Field Dispatch Command System

Based on an understanding of current technologies combined with reporting requirements and practical usage experience, the news field dispatch command system has been designed from several perspectives. After trial implementation, the design has proven highly suitable for actual needs.

2.1 Positioning Design

Modern smartphones and other mobile terminals universally feature positioning capabilities, making ordinary mobile APP location transmission straightforward without requiring field personnel to carry additional equipment—highly convenient. WeChat is widely used in actual reporting and provides location information, but cannot achieve real-time location transmission, as information is only obtained when entering WeChat's internal web pages. However, for low real-time requirements, such as reporters checking in upon arrival at a location, WeChat meets the requirements. To achieve real-time positioning, dedicated

APP development is required, with positioning functionality integrated as an additional feature within other APPs, ideally maintaining data transmission even when the APP switches to background mode. For breaking news clues, marking geographic information enables better identification of nearby journalists and equipment resources through map applications, seizing critical time to complete reporting.

2.2 Alert Design

Leveraging WeChat's push notification functionality can achieve alerts without requiring dedicated APPs. This approach meets the requirements for receiving new notifications and task alerts. As long as WeChat notifications are not deliberately disabled, this channel remains economical and practical, suitable for large-volume, lower-priority alerts. Important alerts can be supplemented with SMS messages to ensure real-time reception without being blocked.

2.3 Text and Image Interaction Design

As chat tools, few software applications are more comprehensive than QQ and WeChat. WeChat Enterprise Sessions are particularly suitable for internal communication among authenticated enterprise personnel. Establishing chat groups within WeChat Enterprise Sessions and integrating these chats with the system enables text communication and the transmission of short news updates and photos. Journalists are generally familiar with WeChat, and it is already widely used in actual reporting. For interviews with high security requirements where information must not be leaked, secure channels combined with dedicated APPs are recommended.

Mobile video streaming push technology is now widely used on smartphones. Compared with previous dedicated recording equipment, this approach is much more convenient and can transmit video sources to the command center in real time while providing feeds for websites and news clients. In the design, the mobile streaming APP incorporates background location transmission functionality, enabling the command system to track real-time positions. Additionally, when the APP switches to background mode, it can continuously play audio from the command center's microphone, achieving two-way voice interaction. This video streaming design also facilitates undercover reporting tasks for journalists and can prevent the forced deletion of footage during interviews—an effective tool for investigative journalists.

3. Summary of Dispatch Command System Content

The above analysis and design address several specific issues, while a complete dispatch command system encompasses far more functionality. A comprehensive dispatch command platform should fulfill the following dispatch contents.

4. Conclusion

Drawing from practical design experience, this paper briefly discusses the design of news field dispatch platforms from several specific perspectives. Based on actual usage, current technological capabilities can effectively facilitate front-headquarters interaction and successfully complete field dispatch and interview tasks. Naturally, dispatch command platforms are not limited to the points discussed above—they require more functions, scenario considerations, and dispatch tasks, necessitating continuous improvement and refinement.

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