

Post-print of Reporting Planning and News Services Centered on Standards-Supporting Events

Authors: Zhang Peng

Date: 2023-10-08T00:00:00+00:00

Abstract

(statistical analysis of management information) and event archiving (processing event information into comprehensive, mature knowledge base entries).

Full Text

Preamble

Standardization serves as a critical foundation in China's news and information sector, functioning as technical regulations that effectively balance stakeholder interests while reducing coordination overhead and eliminating redundant development. The New Standards Committee bears the honorable responsibility of advancing the national standardization system for news and information. In 2018, beyond routine tasks of optimizing the news information standards framework, the committee prioritized the promotion of three new national standards through training and workshops, encouraging news organizations to adopt unified technical standards amid the comprehensive development of emerging media. This initiative aims to elevate practitioners' understanding and technical proficiency, unlock the potential for standard application across news organizations, and facilitate greater integration between traditional and new media while advancing media informatization.

Effective application is essential for standards to realize their value. Unified news information technology standards strengthen the industrial attributes of news information and provide direction for industrial upgrading, enhance production and dissemination support while enabling new business expansion, and improve media convergence capabilities, data linking capacity, and semantic description abilities—ultimately boosting system interoperability, news reporting efficiency, and user experience. The successful development of these three national standards significantly contributes to refining the news information standards system, promoting technological, operational, and data convergence

in the news domain, and enhancing news workflow management, information processing, and utilization capabilities.

Current news business development urgently requires event-centered reporting management and manuscript organization, yet existing domestic news standards and editorial systems fail to adequately address this need at the system design level. Meanwhile, the development of multimedia operations demands more diversified presentation methods for news products and resources. Compared with traditional chronological news displays, topic-based and event-centered organization is gaining traction. For instance, structuring reporting and editorial processing around news events, producing news products guided by market demands, and providing personalized, topic-based content for emerging media users all require news information management platforms to support event-centered organization and presentation. International news agencies such as Deutsche Presse-Agentur and the Associated Press have already established corresponding technical systems, with IPTC's NewsML G2 standard representing a notable achievement in this area.

Consequently, developing and applying Chinese news event standards has become imperative. The Reporting Planning and News Event Markup Language (REML) standard precisely addresses these needs for news data standards, providing a solid foundation for implementing event-centered news manuscript organization, reporting management, and news product distribution models tailored to news business characteristics and development requirements, while filling a domestic gap in this field.

1 Business Process

Based on news event reporting workflows, events can be categorized into planned events and unexpected events, which follow slightly different reporting processes.

1.1 Planned Event Reporting Process

The planned event reporting workflow is illustrated in Figure 1 [Figure 1: see original paper]. As shown, the entire process comprises three stages: preparation, execution, and conclusion.

The preparation stage occurs before reporting begins and involves three key steps: event initiation (determining general content and timeline), reporting preparation (identifying required human and equipment resources), and reporting organization (developing detailed plans based on the event schedule and available resources).

The execution stage begins when reporting starts, involving the continuous publication and updating of event-related information based on feedback generated during the reporting process. The primary task is adjusting event data and reporting organization data according to various feedback signals and promptly distributing updates to all stakeholders.

The conclusion stage commences when reporting ends, focusing on post-reporting summarization, consolidation, and organization. This stage involves two main steps: reporting summary (statistical analysis of management information) and event archiving (processing event information into comprehensive, mature knowledge base entries).

1.2 Unexpected Event Reporting Process

Due to their unique nature, unexpected events differ from planned events primarily in the absence of a preparation stage, while the execution and conclusion stages remain largely similar. The unexpected event reporting workflow is illustrated in Figure 2 [Figure 2: see original paper].

A critical distinction is that when initially publishing an unexpected event, time constraints and lack of preparation result in only basic event descriptions. Reporting organization data—such as required personnel and equipment, or assignment arrangements—are often severely limited or completely absent. This missing information must be continuously updated during the execution stage and potentially supplemented after the conclusion stage as circumstances warrant.

2 Metadata

The REML standard encompasses two primary metadata categories: event metadata and reporting metadata.

Event metadata describes the objective attributes of news events themselves, comprising a generic property set and event-specific properties within a complete structural wrapper. Generic properties include event name, definition, annotations, and relationships with other events or topics. Specific properties encompass temporal information, occurrence status, access status, participation conditions, thematic information, location details, participant information, organizer information, contact details, language information, and additional data.

Reporting metadata comprises management data generated before or during news event reporting, including reporting personnel, equipment resources, assignment tasks, and custom structures with non-standard information that providers may add according to their needs.

2.1 Development Process

REML standard development officially launched in June 2012. Following nearly ten months of research, analysis, drafting, validation, and revision, the standard was essentially completed in March 2013. After public comment solicitation and extensive revision based on feedback from news industry experts and technical professionals, the final version was submitted for national standard approval in 2017 and officially released by the Standardization Administration at the end of December 2017.

The drafting involved leading organizations from academia, media, and technology enterprises, including Xinhua News Agency, Tsinghua University, Beijing Zhongke Dayout Technology Development Company, New Auto (Beijing) Video Technology Company, People's Daily, Beijing Daily Newspaper Group, PLA Daily, Beijing Founder Electronics Company, and China Media University. The drafting team comprised media experts, scholars, computer technology specialists, and frontline media practitioners, ensuring the standard maintained theoretical rigor while reflecting industry realities.

The development process included requirements collection and analysis, standard design and drafting, public comment solicitation and revision, and application testing. During requirements collection, the team extensively surveyed relevant domestic and international standards and gathered domestic news industry needs. Among relevant standards, IPTC's EventsML-G2 within NewsML-G2 proved most relevant, while the national standard GB/T 20092-2013 Chinese News Markup Language (CNML) represented the authoritative standard in Chinese news information. These provided valuable foundations and references for REML development.

Requirements analysis revealed that new needs primarily concentrated on support for reporting management systems. Compared with EventsML-G2, REML addresses both event data representation for news consumers and event-centered reporting management workflows for news producers. Based on these requirements, the drafting team integrated markup language and semantic network technologies, absorbed advantages from EventsML-G2 and CNML, and completed the initial REML draft, ensuring compatibility while extending metadata and business models for domestic professional needs.

Over the subsequent two-plus years, the development team simultaneously solicited expert feedback and actively collaborated with technology companies to apply REML in actual news industry systems, obtaining direct and authentic feedback through practical software development and usage. Through careful analysis of expert opinions and application testing results, the team continuously upgraded and revised REML through nearly ten iterations, ultimately forming a stable and practical version.

2.2 Technical Advantages

The REML development process represented both technological innovation and conceptual transformation, positioning the standard as a leader in its field while ensuring long-term vitality and application value. REML's technical advantages manifest in several key aspects:

First, REML's data model covers the entire lifecycle of news event data, including planning, production, exchange, and management. This comprehensive coverage distinguishes it from more limited standards and enables end-to-end support for modern news workflows.

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

Source: ChinaXiv — Machine translation. Verify with original.