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On the Application of Mini Programs in Media: Postprint

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Abstract

WeChat Mini Programs were officially launched in the early morning of January 9, 2017. From the initial public praise at their release to the gradual emergence of skeptical voices now, Mini Programs, as the “Crown Prince of WeChat,” are destined to become a public focus. What exactly are Mini Programs? What can they do? For traditional media, do suitable application scenarios exist? This article attempts to provide some preliminary insights.

Full Text

A Brief Discussion on the Application of Mini Programs in Media

Abstract: WeChat Mini Programs were officially launched in the early morning of January 9, 2017. From the initial public acclaim to the gradual emergence of skeptical voices, Mini Programs—hailed as the “crown prince of WeChat”—are destined to remain in the public spotlight. What exactly are Mini Programs? What can they do? And do suitable application scenarios exist for traditional media? This article attempts to provide some preliminary insights.

Keywords: WeChat; Mini Programs; Traditional Media

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1. The Arrival of WeChat Mini Programs

On January 9, 2017, WeChat Mini Programs officially launched, immediately sparking widespread discussion among internet professionals. What exactly are these Mini Programs, and how could they generate such tremendous attention? Zhang Xiaolong, the “father of WeChat,” explained that Mini Programs represent a form more flexible and accessible than any existing APP. We can conceptualize them as mobile applications that run on top of WeChat. Zhang deliberately contrasted Mini Programs with native APPs to highlight their unique application form, emphasizing four key characteristics: no installation required, instant accessibility, immediate departure after use, and no need for uninstallation—features that fundamentally differentiate them from conventional applications. If we view WeChat as a browser for the mobile internet era, then Mini Programs function like websites within that browser, though notably without an address bar. Accessing a Mini Program requires searching within WeChat, scanning a QR code, or receiving a share from a group member, rather than entering a URL.

From a product development perspective, backend development for Mini Programs differs little from other platforms; the primary distinctions lie in frontend development. Mini Programs utilize WeChat’s custom development language, composed of WXML (WeChat Markup Language), WXSS (WeChat Style Sheets), and JavaScript. H5 applications primarily employ HTML5, CSS, and JavaScript, while native APP development is bifurcated between Android (using Java) and iOS (using Objective-C). In terms of development costs, native APPs demand the highest investment, particularly in addressing cross-platform compatibility issues. H5 applications solve the cross-platform problem but remain moderately expensive. Despite being a nascent technology, Mini Programs benefit from WeChat’s developer tools and standardized frontend development frameworks, enabling rapid developer onboarding and relatively lower development costs.

2. Mini Programs, H5, and Native Apps: A Comparative Analysis

Examining product usage, Mini Programs must be accessed through WeChat (though Android users can open them directly), H5 applications can be accessed through any browser supporting the HTML5 protocol, and native APPs require download and installation. From an acquisition standpoint, Mini Programs are obtained by searching within WeChat, scanning QR codes, or receiving group shares; H5 applications are essentially web links that can be embedded in official account menus, websites, or shared across social platforms including WeChat Moments and groups; APPs must be downloaded from application stores. Regarding user experience, native APPs undoubtedly offer the best performance—convenient to open, fast loading, responsive, capable of supporting most functional requirements, and enabling offline use for specific modules. H5 applica-

tions struggle with complex business logic or rich page interactions, resulting in inferior overall experience compared to native APPs. Mini Programs, leveraging WeChat’s parser and gaining access to additional system and hardware-level permissions through WeChat’s APIs (such as camera and microphone), deliver better experience than H5 but still fall short of native APPs. From a platform perspective, Mini Programs operate exclusively on WeChat, limiting their use to WeChat-installed devices. H5 applications are cross-platform, accessible through any HTML5-compatible browser, which comes pre-installed on most mobile devices. Native APPs run directly on operating systems, though developers must account for multiple OS versions.

3. Usage Scenarios for Mini Programs

Mini Programs support several primary usage scenarios. First, users can search for them within WeChat’s interface. First-time use requires searching from the main WeChat screen; after initial use, a Mini Programs submenu appears under the “Discover” tab, enabling subsequent searches from the programs list. Notably, searches require exact name matching and do not support fuzzy keyword search, making it essential to remember the full Mini Program name. Second, users can pin frequently used Mini Programs to the top of chat interfaces, significantly benefiting high-frequency applications. Android users can even create desktop shortcuts for Mini Programs, launching them directly from the home screen just like native APPs, independent of WeChat and allowing seamless switching. However, this desktop shortcut functionality remains unavailable on iOS devices, where Mini Programs can only be launched from within WeChat. Third, users can open Mini Programs directly from share pages in WeChat groups, similar to sharing official account articles, though Mini Programs can only be shared to groups, not to WeChat Moments. Fourth, and most importantly, users can open Mini Programs by scanning offline QR codes—WeChat’s most recommended usage scenario.

These characteristics reveal that Mini Programs’ most important and optimal application scenarios are not online but offline. As Zhang Xiaolong stated in his WeChat 公开课 address, “We hope Mini Programs are a way for users to reach services when they need them, rather than having them recommended when they don’t.” His examples predominantly involved scanning QR codes in physical locations—such as bus stations where passengers scan codes to launch ticket-purchasing Mini Programs, eliminating queuing frustrations. For media content consumption, consider scenarios like commuting, waiting at airports or stations. Before Mini Programs, users needing information in these contexts had to either open mobile browsers or download and install APPs. Now, they can simply scan QR codes placed on bus seats, at bus stops, or in airport terminals to access the latest information. Media organizations can also use Mini Programs as promotional channels: users scan QR codes, enter the Mini Program to obtain information, and are then guided to download the full native APP—a potentially effective application scenario.

4. Mini Programs in Media Applications

As a new “endpoint” on the internet, Mini Programs’ optimal offline positioning raises several questions for traditional media: Can Mini Programs replace traditional media APPs? Where can media organizations effectively deploy them? And can they facilitate media transformation?

4.1 Can Mini Programs Replace Traditional Media Apps?

WeChat fundamentally serves as a social tool. Prolonged use of Mini Programs would inevitably diminish its social attributes, contradicting WeChat’s core purpose. In practice, returning to WeChat’s social functions from a Mini Program on iOS requires closing the Mini Program first, creating user experience friction. Therefore, high-frequency applications demanding extended user engagement are unsuitable for Mini Programs. WeChat’s product philosophy of “instant accessibility and immediate departure” further indicates that Mini Programs are better suited for low-frequency utility applications.

Traditional media APPs primarily focus on news reading—applications users open almost daily. Using Mini Programs for this purpose proves cumbersome. On iOS, accessing a Mini Program from the home screen requires at least two taps (open WeChat, open pinned Mini Program) or four taps for unpinned ones (open WeChat, “Discover” menu, “Mini Programs” menu, select application). Opening a native APP requires only a single tap. Even though WeChat is China’s highest-frequency mobile application, switching from any WeChat interface to a Mini Program is rarely more convenient than pressing the home button and opening a native APP. While Android users can mitigate this through desktop shortcuts, iOS users lack this solution, making Mini Programs offer limited value to existing users.

Furthermore, WeChat imposes a 1MB limit on Mini Program code packages and restricts single data requests and image downloads to 1MB, severely constraining the implementation of relatively complex interactive functions and making it even more difficult for Mini Programs to match native APPs in sophisticated functionality. Claims that Mini Programs can replace native APPs remain premature.

4.2 Potential Applications of Mini Programs in Media

If Mini Programs cannot yet replace native APPs, where can traditional media effectively utilize them? The answer lies in embedding QR codes within traditional media content. When readers finish an article and desire more related information or wish to comment, they can scan a code. When they read a product introduction and want to purchase immediately, they can scan a code. After reading a public welfare report and wanting to contribute, they can scan a code. When reviewing a listed company’s research report and wanting to check its stock price, they can scan a code. Mini Programs can even provide content excerpts, requiring payment for full access. Providing quality services when

users need them creates compelling value propositions that users are unlikely to reject. These application scenarios were feasible before Mini Programs, but their emergence offers a more convenient, easier-to-implement, and richer-form alternative.

5. Conclusion

Ultimately, for traditional media, Mini Programs represent just one of many distribution channels. The decisive factors remain brand and product (content). Media organizations can leverage Mini Programs to enrich service channels and expand service radius, or to enhance their utility product offerings. However, expecting Mini Programs to drive disruptive transformation appears unrealistic. WeChat has exercised remarkable restraint in Mini Program development—prohibiting push notifications, maintaining no centralized Mini Program store, disallowing Moments sharing, forbidding games, permitting only exact-match search, and keeping them independent from official accounts. Fortunately, traditional media have also approached Mini Programs with caution, avoiding a rush to adoption. As of now, only a handful of traditional media organizations have launched Mini Programs. In navigating internet-era transformations, calmness and patience prove essential.

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