

AI in Telecommunications: Insights from HKT

電訊業中的人工智能 (AI) :
來自香港電訊的見解

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The recent commercial success of Generative AI chatbots, particularly ChatGPT, has brought artificial intelligence (AI) into the spotlight. While technology companies have been using AI to streamline daily business operations for years, its recent surge in popularity has prompted business leaders to explore ways of improving their AI capabilities. Investors, too, are keen to capitalize on the immense growth potential offered by these technologies.

As Hong Kong's technology, media and telecommunications leader, HKT has embraced AI since the last decade to broaden and enhance their services and operations. In this interview, Ms. Susanna Hui, Group Managing Director of HKT, shares her optimistic view on AI's future and discusses how HKT is leveraging the latest technologies to support cross-industry growth.

Optimizing Daily Operations with AI

Hui points out that HKT, an early adopter of AI technology, has consistently paid close attention to its evolution to identify and implement the most effective AI applications in its businesses. The company deploys robotic process automation (RPA) to boost efficiency and minimize errors in repetitive tasks, while machine learning (ML) provides predictive insights for informed business decisions.

The strategic combination of technologies has empowered process optimization and complemented workforce capabilities, positioning the organization for greater agility and innovation in a rapidly evolving landscape. HKT takes a distinct bottom-up and human-centric approach, with its dedicated AI incubation task force and IT team working collaboratively to implement AI solutions across various functions, including human resources and legal. This approach involves carefully identifying pain points within respective departments to ensure that AI solutions address real needs and deliver salient benefits and impact that resonate with staff at all levels.

In its business-to-consumer (B2C) operations, HKT has made significant advancements in customer services by implementing AI chatbots and voice bots. They efficiently handle a large volume of repetitive customer enquiries, resulting in enhanced accuracy, faster response and shorter wait time, thereby improving overall customer satisfaction. The ability of these AI systems to learn and adapt over time ensures continuous improvement in performance, providing increasingly efficient service to HKT's extensive customer base.

HKT has also deployed generative AI in marketing to create diverse promotional materials and video clips with a leap-frog improvement in cost efficiency that cannot be realized through traditional approaches, resulting in significant enhancements in productivity and creativity. By streamlining content creation processes, the company has been able to free up manpower for higher-level strategic tasks, allowing human problem-solving skills to thrive in areas where they have the most impact.

Hui notes that AI provides deep insights into customer behavior, empowering organizations to greatly enhance customization efforts based on individual preferences. For instance, AI has played a pivotal role in HKT's ability to identify potential customers for effective cross-selling across its quadruple-play services, which encompass mobile, broadband, fixed-line and TV entertainment. In the retail sector, AI's predictive capabilities enable merchants to project trends from shopping history, allowing them to anticipate customer needs and deliver a more personalized experience that fosters loyalty.

生成式人工智能 (Gen AI) 聊天機械人，尤其是 ChatGPT，近期取得的商業成功，令人工智能 (AI) 成為大眾焦點。雖然科技公司多年來一直利用 AI 優化日常業務運作，但隨著其越趨流行，推動商業領袖探索方法改善自身的 AI 能力。同時，投資者也熱衷於捕捉這些科技所帶來的巨大增長潛力。

作為香港科技、媒體和電訊領導者，香港電訊自十年前已開始利用 AI 擴展和提升其服務和營運。在這次訪問中，香港電訊集團董事總經理許漢卿女士分享了她對 AI 未來的樂觀看法，以及香港電訊如何利用最新科技來支持跨行業增長。

以 AI 優化日常營運

許女士指出，香港電訊作為 AI 科技的早期採用者，一直密切關注其演進，務求在業務中識別及實踐最有效的 AI 應用。公司不但實踐機械人流程自動化 (Robotic Process Automation, RPA) 以提高效率及減少重複工作的錯誤，同時透過機器學習 (Machine Learning, ML) 獲取預測性的見解，令商業決策更為明智。

這些科技的戰略組成不僅優化流程，還補足了員工的能力，令公司能夠在快速變化的環境中更靈活和創新。香港電訊採取了明確的「由下而上」和「以人為本」方法，由 AI 孵化專案小組及資訊科技部門合作，在各個不同部門，包括人力資源和法律事務部，推動 AI 方案的應用。這種方式包括仔細識別各部門的痛點，以確保 AI 解決方案能滿足實際需求，並為各級員工帶來顯著的益處和影響。

在其企業對消費者 (B2C) 業務中，香港電訊通過應用 AI 聊天機械人和語音機械人以大幅提升客戶服務水平。這些機械人可有效地處理大量重複的客戶查詢，提高回覆的準確性和回應速度，縮短客戶等待時間，從而提高整體客戶滿意度。這些 AI 系統能隨著時間不斷學習和適應，確保表現持續提升，為香港電訊龐大的客戶群提供越趨高效的服務。

香港電訊還在市場推廣中利用 Gen AI，以傳統方法難以媲美的高成本效益方式，創作多元化的推廣材料和視像短片，顯著提升生產力和創意。通過精簡內容創作流程，公司能夠釋放人手處理更高層次的策略工作，讓解決問題的個人技能在最具影響力的領域中得以充份發揮。

許女士認為，AI 為客戶行為提供深入見解，讓公司能夠根據個人喜好大幅提升度身訂造的服務。例如，AI 應用在香港電訊內發揮關鍵作用，在集團的流動、寬頻、固網和電視娛樂四網合一服務中識別潛在客戶，從而進行有效的交叉銷售。在零售行業，AI 的預測能力有助商戶能透過用戶購買紀錄中預估趨勢，從而預測客戶需求，使能提供更加個性化的體驗，提升客戶忠誠度。

Extending AI benefits beyond its own businesses, HKT leverages its learning and experience to provide AI solutions to enterprises and the public sector via business-to-business (B2B) and business-to-government (B2G) services respectively. For instance, HKT deploys automation in healthcare to augment human expertise, helping to alleviate the pressure caused by labor shortage. AI-powered analysis also generates insights for diagnosis, optimizing treatment plans and providing better medical services for patients. For the construction industry, HKT combines connectivity solutions such as 5G, cloud and IoT with AI to coordinate machinery movements and monitor workers in confined spaces. This integration enhances safety measures while improving work efficiency.

Hui believes that these cross-industry deployments present significant opportunities for the telecom industry. By driving cost-effectiveness, they encourage reinvestment in technological advancements, promoting greater innovation across different sectors. This virtuous cycle of improvement and innovation positions companies like HKT as key enablers of digital transformation across the economy.

Recognizing the rapid pace of AI advancement, Hui emphasizes HKT's commitment to understanding and meeting the needs of potential customers with practical sector-specific solutions that support businesses alongside Hong Kong's smart city development.

Empowering Employees and Upholding Integrity

While HKT assumes a proactive stance in promoting the adoption of enterprise AI, Hui points out that the key is to embrace the technology. To ensure a smooth transition and widespread acceptance of AI tools, she emphasizes the need for people-centric communications that effectively dispel misconceptions and build trust in AI technology as a tool to enhance, rather than substitute, human capabilities.

Hui also underscores the critical importance of comprehensive training to equip staff with a deep understanding of both the tools and guidelines that enable them to apply AI effectively and safely. She believes that management-level buy-in is essential before resources can be allocated to upskill employees. By fostering a culture of continuous learning and adaptation, organizations can introduce staff to the benefits of AI-driven productivity gains, enhancing the quality of their work, customer service, and job satisfaction.

In terms of implementation, Hui advocates for a cautious approach. HKT adopts AI as an auxiliary tool to be used only under human guidance. All AI-generated content is verified by employees to ensure quality, accuracy and alignment with company standards before it is applied. Employees also receive extensive training to enhance their awareness and understanding of cybersecurity and data privacy concerns. Hui notes that this is especially crucial for telecommunications operators which frequently handle customer information.

HKT prioritizes integrity through a two-step approach. Firstly, the company has established a comprehensive data governance framework through its cross-departmental risk management and compliance committee. It includes clear guidelines and protocols for employees to guard against potential privacy concerns while promoting best practices in data handling and AI usage. Secondly, HKT operates its AI systems in a closed production environment using only in-house data. This allows for the creation of company-specific and customized solutions that not only protect sensitive material but also generate highly accurate and relevant insights for its businesses.

香港電訊亦將 AI 的優勢擴展到自身業務以外，利用自身學習和實施 AI 的經驗，透過商業對商業 (B2B) 和商業對政府 (B2G) 的服務模式，為企業和政府/公共部門提供 AI 解決方案。例如，在醫療保健領域，香港電訊部署自動化技術來增強人類專業知識，幫助緩解勞動力短缺的壓力。AI 支援的分析亦能為診斷提供意見，優化治療方案，提升患者的醫療服務質量。在建築行業，香港電訊將 5G、雲端和物聯網等網絡方案與 AI 結合，協調機器活動及監察密閉空間的工人。這種整合不僅提升安全措施，同時改善工作效率。

許女士相信，這些跨行業部署能透過提高成本效益，鼓勵科技進步的再投資，促進不同領域的進一步創新，為電訊行業帶來重大機遇。這種不斷改進和創新的良性循環，將使香港電訊等公司成為各個經濟領域數碼轉型的關鍵推動者。

許女士強調，鑒於 AI 的快速發展，香港電訊致力於了解並滿足潛在客戶需求，提供支持香港智慧城市發展的實用行業特定解決方案。

賦予員工力量並堅守誠信

許女士指出，香港電訊積極提倡 AI 在企業中使用時，重點在於擁抱這項技術。她強調需要以人為本的溝通，以消除誤解及建立對 AI 科技的信任，並將其視為增強而非取代人類能力的工具，確保 AI 工具的順利過渡和廣泛接受。

許女士同時強調全面培訓的關鍵性，讓員工能深入了解 AI 工具和指引，使他們能夠有效且安全地應用。她認為，在分配資源給員工提升技能之前，管理層的參與至關重要。透過培養持續學習和適應文化，公司可向員工介紹 AI 的好處，如促進生產力、提高工作質素、客戶服務水平以及工作滿意度。

而在實施方面，許女士主張採取謹慎方式。香港電訊將 AI 視作需要在人工指導下才能使用的一種輔助工具。所有由 AI 生成的內容均需由員工驗證，以確保其質素、準確性和符合公司標準後方可應用。員工還要接受廣泛的培訓，以提高他們對資訊安全和數據私隱問題的意識和理解。許女士指出，這對於經常處理客戶訊息的電訊營運商尤其重要。

香港電訊透過雙步走的方式，將誠信放在首位。首先，公司通過跨部門風險管理和合規委員會，建立了全面的數據治理框架，當中包括清晰的員工指引和程序，以防範潛在的私隱問題，同時推廣最佳的數據處理和 AI 使用方式。其次，香港電訊在一個外封閉的系統中，使用內部數據運行其 AI，不僅能為公司創造出特定和度身訂造的解決方案，亦能同時保護敏感資料，以及為其業務提供高度準確及關聯的見解。

By adhering to these stringent data privacy guardrails and deploying proactive security measures, HKT demonstrates its dedication to responsible technology use. This commitment fosters trust and confidence among stakeholders while reinforcing HKT's position as a responsible leader in the telecommunications industry.

Conclusion

Hui firmly believes in the immense potential of AI to simplify, unify and streamline daily operations in the telecommunications industry, benefiting both companies and their customers. She underscores the importance of protecting customer interests, upskilling employees, and driving innovation for progress. By fostering a culture of collaboration and adopting a personalized approach tailored to their specific needs, Hui believes that organizations can effectively navigate the rapidly evolving landscape and drive growth.

As a technology solutions enabler, HKT positions itself at the forefront of digital advancement in the telecommunications industry. Hui's insights highlight that the progress of both the telecommunication industry and technological innovation is fundamentally driven by people. She expresses confidence that information and communication developments will bring about positive impact that contributes to a human-centric future. 

通過遵守這些嚴格的數據私隱保護規範並部署積極的安全措施，香港電訊展現了負責任科技使用的承諾，有助在各持份者中建立信任和信心，同時強化香港電訊作為電訊行業負責任領導者的地位。

總結

許女士深信 AI 在電訊行業中有著巨大潛力，能夠簡化、統一和精簡日常營運，讓公司和客戶受益。她強調保護客戶利益、提升員工技能及推動創新進步的重要性。通過培養合作文化並採取針對其特定需求的個性化方法，許女士認為公司能有效應對快速變化的環境並推動增長。

作為科技解決方案的推動者，香港電訊將其定位為電訊行業數碼化的先驅。許女士的看法突顯出電訊行業和科技創新，基本上由人推動。她同時對訊息和通訊發展帶來的正面影響投以信心，以實現以人為本的未來。 

