

5G

in Reality 2021

活出 5G 世代 真體驗 2021

Dr. Hubert Chan
陳重義博士

2020 marks a new era for the telecommunications industry as we enter the cusp of 5G. Hong Kong launched 5G on April 1st, 2020, and the transition from 4G to 5G has huge ripple effects not only for the telecommunication industry, but also for Hong Kong as a whole. These include 1) increased use of public data to maximize efficiency, 2) new ways of interacting with the world through augmented reality and virtual reality, 3) connecting millions of devices via the Internet of Things, and 4) machines completing human tasks via artificial intelligence. However, some people warned that 5G has done too far as the technology is not yet mature, operating cost is high, and thus use cases are rare. This cover story is intended to reveal the reality of 5G.

To examine the origin and social impacts of 5G, we provide a general overview of the Hong Kong ICT industry from 2006 to 2020 from the advent of 3G to the launch of 5G. Throughout this journey, we highlight significant milestones of various telecom operators to track their accomplishments on how they provide telecom solutions to Hong Kong. To do this, we outline overarching trends behind each telecommunication generation, analyze its accompanying social impacts that include literature drawn from social psychology, and discuss notable initiatives taken from telecom operators.

I must express my sincere gratitude to all the interviewers who are a group of HKU students, Chang Chun-Yat Chris, Leung Tsz-Hei Hazel, Po Wai-Kit Peter, and Tse Hok-Laam Tracy led by Professor Cecilia Cheng, my fellow CAHK EXCO members, Mr. Tony Hau, Mr. Franky Lai, and Mr. Sutton Cheung. Special thanks go to Mrs. Irene Kwok, and Ms. Mia Ng for the coordination work.

隨著我們於 2020 年步入 5G 新世代伊始，電訊業同時標誌著新紀元。香港於 2020 年 4 月 1 日推出 5G，從 4G 過渡到 5G，不僅為電訊業帶來巨變，更是對整個香港有著龐大的連鎖效應。當中包括：1) 增加公共數據使用量以發揮最高效率；2) 運用擴增實境 (AR) 和虛擬實境 (VR) 帶來與世界互動的新方式；3) 透過物聯網 (Internet of Things) 連接數百萬個終端設備；4) 利用人工智能運作的機器完成人們的任務。然而，有些人則提出警告，認為 5G 的技術還未成熟，營運成本高昂，因而實際使用案例很少。本封面故事旨在展示 5G 的真體驗。

為檢視 5G 的起源和對社會的影響，我們就 2006 年至 2020 年，從 3G 出現到 5G 推出之間的香港資訊科技業進行了概述。在整個過程中，我們重點介紹了各個電訊營運商的重要里程碑，以追蹤他們為香港提供電訊解決方案方面取得的成就。為此，我們概括闡述了每一個流動通訊時代背後的趨勢，分析其伴隨的社會影響，包括從社會心理學中汲取的文獻，並討論了電訊商採取的顯著舉措。

在此，我衷心地向所有參與採訪的人士表達的謝意，他們分別是由鄭思雅教授領導，一群來自香港大學的學生：鄭俊逸、梁芷唏、布偉傑、謝學嵐，香港通訊業聯會執行委員會成員：侯東迎先生、賴永雄先生和張悅賓先生。同時，還要特別鳴謝負責協調工作的郭梁桂卿女士和伍玲君女士。

Cover Story – 5G in Reality

封面故事 — 活出 5G 世代真體驗

Dr. Hubert Chan 陳重義博士，Mr. Linus Chan 陳賢諾先生，Professor Cecilia Cheng 鄭思雅教授

Mr. Tony Hau 侯東迎先生，Mr. Franky Lai 賴永雄先生，Mr. Sutton Cheung 張悅寬先生

Industry Leaders Interview

業界權威專訪

- **China Mobile Hong Kong Company Limited 中國移動香港有限公司**

Mr. Sean Lee, Director and Chief Executive Officer 董事兼行政總裁李帆風先生

- **HKT 香港電訊**

Ms. Susanna Hui, Group Managing Director 集團董事總經理許漢卿女士

- **Hong Kong Applied Science and Technology Research Institute (ASTRI) 香港應用科技研究院**

Mr. Hugh Chow, Chief Executive Officer 行政總裁周憲本先生

- **Hong Kong Productivity Council and APAS R&D Centre 香港生產力促進局及汽車科技研發中心及汽車科技研發中心**

Dr. Lawrence Poon, General Manager 總經理潘志健博士

- **Huawei Hong Kong Representative Office 華為香港代表處**

General Manager, Mr. Wilson Wang 總經理王青先生

- **Hutchison Telecommunications Hong Kong Holdings Limited 和記電訊香港控股有限公司**

Mr. Kenny Koo, Executive Director and Chief Executive Officer 執行董事兼行政總裁古星輝先生

- **Smart City Consortium 智慧城市聯盟**

Mr. Gary Yeung, MH, President 會長楊文銳先生，MH

- **SmarTone**

Mr. Stephen Chau, Chief Technology Officer 科技總裁鄒金根先生