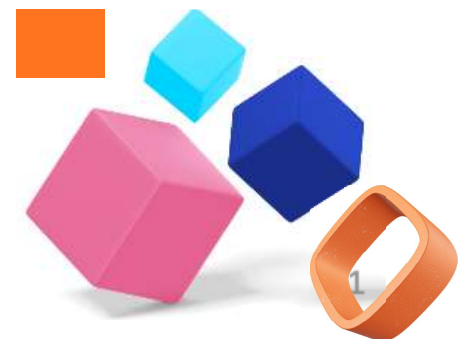




UNIVERSITI  
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MARA



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FAKULTI SAINS KOMPUTER DAN MATEMATIK  
UNIVERSITI TEKNOLOGI MARA  
CAWANGAN JOHOR



Terbitan Edisi 2025

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# PREFACE

Praise be to Allah SWT, with His will, this eBook, ICT Trends that Matter, has been successfully compiled to capture some of the most relevant and transformative discussions in the world of Information and Communication Technology (ICT).

The work is a compilation of various views of the different practitioners, scholars, and professionals who have contributed their ideas and thoughts regarding the emerging technologies and their influence. The chapters provide just a few examples of how cybersecurity, big data harmonisation, artificial intelligence, novel learning tools, and social media analytics demonstrate the extent to which ICT has permeated our everyday worlds, our classrooms, workplaces, and communities.

ICT Trends that Matter offers readers a comprehensive exploration of 14 contemporary ICT themes that are shaping education, industry, and society. The eBook covers a wide spectrum of topics such as Big Data & AI, Digital Learning & Tools, Practical ICT Applications, Social Media & Communication and Smart Campus Initiatives highlighting UiTM Johor's experience in developing a data-driven digital ecosystem.

This eBook is informative and inspirational, with contributions that combine theory, research, and practical work. It makes the readers consider the existing ICT issues and opportunities and provides practical knowledge on personal, educational, and professional development. I would like to say that I am very grateful as the chief editor to all the contributors whose commitment, professionalism, and innovativeness have added value to the contents of this eBook. I believe ICT Trends that Matter will be useful to academicians and students, as well as any industry professional, policymaker and those who are keen to learn more about the dynamic ICT environment.

Whether you are an academic, student, or industry professional, ICT Trends that Matter provides valuable insights into the technologies that are redefining our world today. May this work inspire further dialogue, innovation, and collaboration toward building a smarter and more sustainable digital future.

Dr. Shamsatun Nahar Ahmad  
Chief Editor  
Brain Hub: ICT Trends that Matter

# SYNOPSIS

ICT Trends that Matter is a compilation of 14 thought-provoking chapters, which discuss the most significant trends in Information and Communication Technology (ICT) and their implications on education, industry, and society.

The elements cut across essential areas of the digital world. Discussions about the harmonisation of big data and artificial intelligence to fight cybersecurity and comparative studies concerning popular AI tools will be available to the readers. The eBook also highlights innovative approaches to teaching and learning, such as Easymath2U and V-CCMPedia, to improve conceptual learning in calculus, and AI-assisted tools to improve student engagement.

The useful experience is presented with the help of the following topics: computer tips and tricks, free e-learning applications used by children, and the successful utilisation of social media analytics tools. The role of contemporary communication mediums such as Telegram and the global presence of TikTok are also discussed in the chapters, as well as reflections on institutional work towards data-driven digital ecosystems, such as the UiTM Johor RSP16 experience.

This eBook contains the work of numerous scholars and researchers and offers both theoretical insights and practical solutions, which is why it can be of interest to academics, students, practitioners in the industry, or policymakers. ICT Trends that Matter is not merely an anthology of articles but rather is a convenient way to learn about the latest trends in ICT and predict what to expect and what to take advantage of in the digital age.

# ACKNOWLEDGEMENT

The Editorial Board of ICT Trends that Matter would like to thank everyone whose assistance and commitment enabled us to make this publication possible.

We would like to thank the Department of Linkage Industry and Alumni, UiTM Johor, Segamat Campus, for enabling the acquisition of eISBN and subsequent guidance throughout the publication process.

A special mention of gratitude belongs to all contributors, whose skills, knowledge and dedication have been instrumental in the content of this eBook. Every chapter is an embodiment of how well, creatively, and committed our writers were to delivering substantial discussions on the current issues in ICT.

We also recognise the unwearying efforts on the part of the Editorial Board, which have been tireless from the very beginning of the conception to the final production of this eBook, which makes it and guarantees its success.

We are most thankful to all who have assisted this undertaking either directly or indirectly. May Allah SWT bless this endeavour and enable it to do good for the readers and the community at large.

# TIKTOK GOES GLOBAL

NOR DIANA ABD RAHMAN

**T**ikTok is a social media application that can be downloaded for free by users of any age. It allows its users to create content, watch, and share videos with others at no cost. TikTok was first launched in 2016 by the Chinese tech company ByteDance. Remarkably, by the end of 2017, TikTok was already being downloaded more actively than its competitors, such as Instagram (which took six years to gain popularity) and Facebook (which took four years).

Today, TikTok has offices in cities such as Beijing, Los Angeles, Moscow, India, South Korea, and Japan. Despite having faced bans in countries such as Bangladesh and United States of America, TikTok remains one of the most popular and widely used applications. The following statistics were gathered as of February 2025.

A global report in February 2025 ranked TikTok as the fourth most-used platform, after Facebook, WhatsApp, YouTube, and Instagram, with 1.59 billion users aged 18 and above. The gender distribution was nearly balanced, with 30.8% male users and 24.3% female users. Data from March 2025 indicated that TikTok had 2.28 billion visits globally per month, with 65% of access coming from mobile devices.

The five countries with the highest number of TikTok visits as of January 2025 were:

COUNTRY	MONTHLY VISITS
United States of America	409.5 million
Brazil	144.4 million
Indonesia	83.5 million
Mexico	62.6 million
German	57.3 million

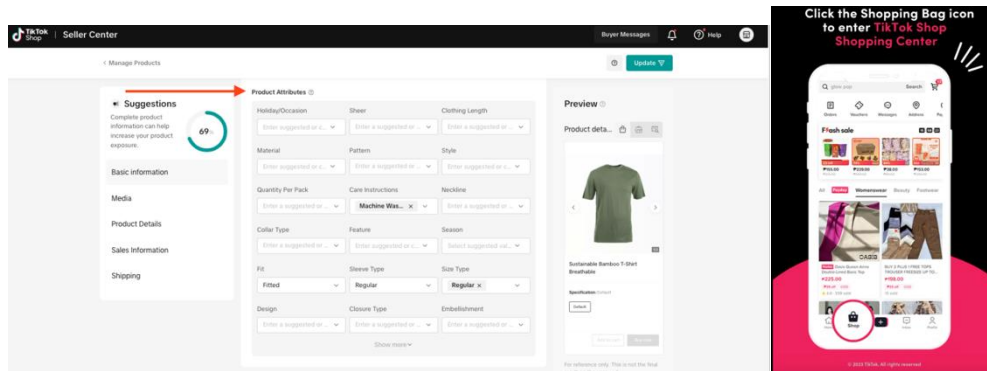
Among these, the United States of America recorded the highest usage with 409.5 million visits, followed by Brazil with 144.4 million, and Indonesia with 83.5 million visits.

The average time spent on TikTok also varies by country. Finland has the highest average usage time per user, with 54 hours and 37 minutes per month, followed by Bulgaria and Croatia. In Asia, Indonesia ranks highest with an average of 44 hours and 54 minutes monthly, followed by Malaysia at 42 hours and 42 minutes, Vietnam at 40 hours and 45 minutes, and the Philippines at 40 hours and 39 minutes. Detailed usage statistics by country are illustrated in the graph below.

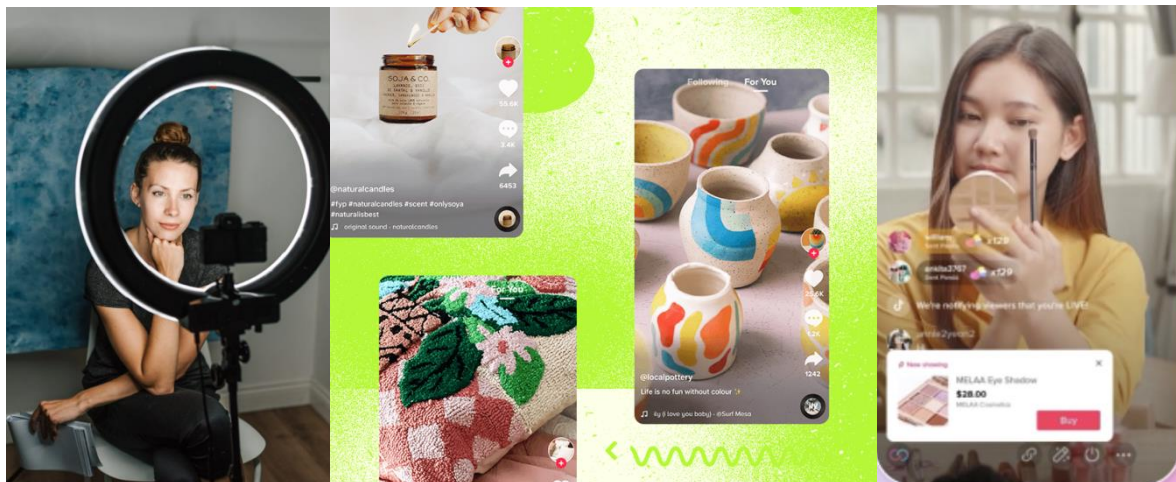
In Malaysia, TikTok's popularity continues to grow annually. Early 2025 data revealed that over 17 million Malaysians were active TikTok users. Similar to global trends, users are predominantly aged 18 and above. However, when broken down by gender, 50.7% of Malaysian users are female and 49.3% are male.

Research has identified several factors driving the increased usage of TikTok in Malaysia and globally:

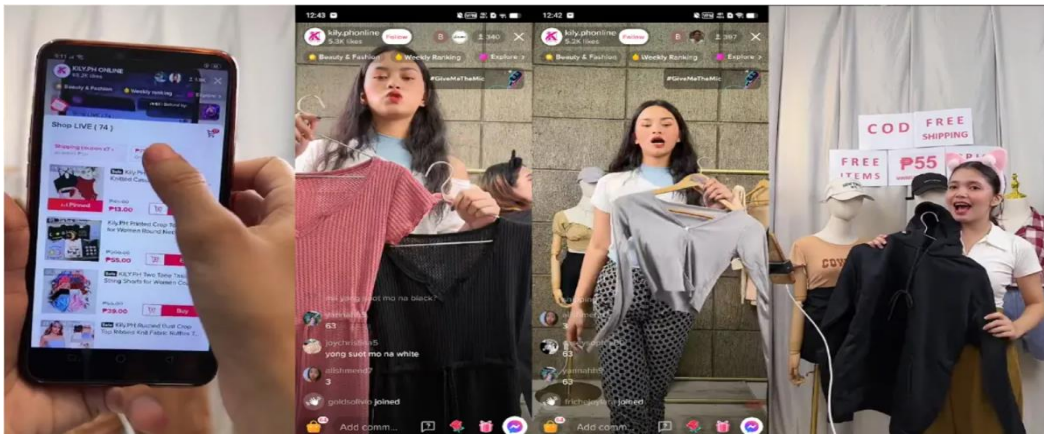
1. **In-App Shopping Features** - TikTok Shop allow users to make purchases directly within the app, improving user experience and streamlining the shopping process.



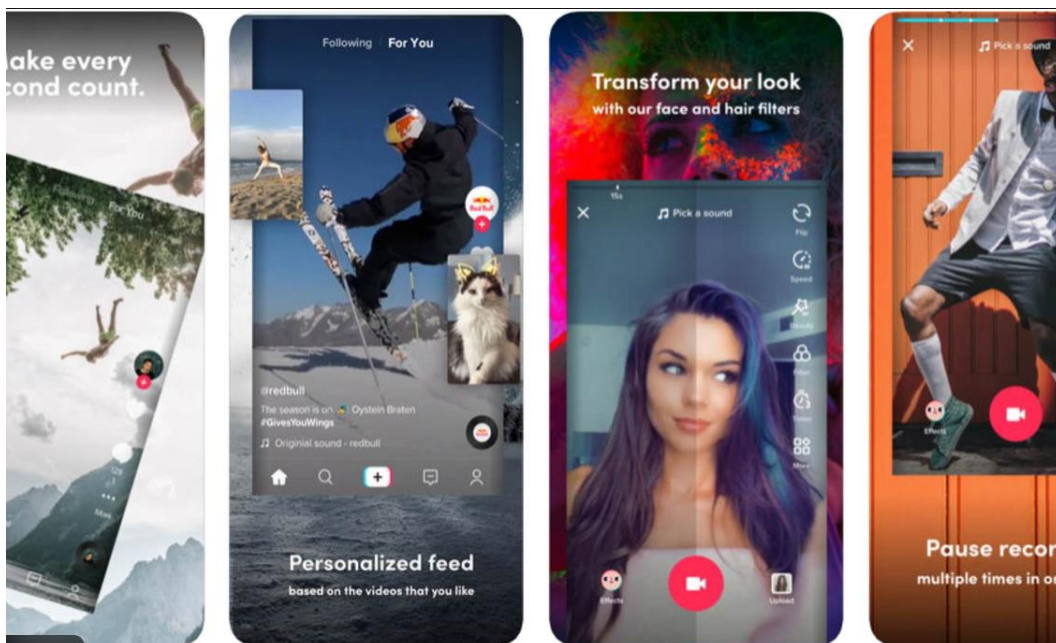
2. **Influencers and Content Creators** – Significantly influence buying behaviour through authentic reviews and product demonstrations.



3. **Live Shopping Phenomenon** - Enable real-time interaction between sellers and buyers, allowing questions to be answered and exclusive discounts to be offered.



4. **Ease of Use & Personalisation** - TikTok's algorithm suggests products based on user interests. Integrated digital payment options and e-commerce systems facilitate smooth transactions.



These factors enable users to express their creativity and talents through short videos, dance challenges, health advice, political commentary, religious content, beauty tips, comedy skits, and educational material. TikTok is also the platform of choice for online sellers, especially with the TikTok LIVE feature that enables real-time interaction. This allows prospective buyers to view a product's size, colour, and functionality before making a purchase. Products on TikTok are often cheaper, with lower or even free delivery charges, which adds to its appeal.

As the popularity grows, more users including content creators, influencers, artists, and individuals are switching to the platform, as it offers opportunities to earn income through views and gifts (tokens) from followers. Below are some of Malaysia's top influencers by follower count and total likes:

1. Angel Lowee (@angelloweee) – 10.3 million followers, 227.5 million likes
2. Roshan Jeet (@roshannn) – 7.7 million followers, 188.5 million likes
3. Rozyana Roslan (@rozyanaroslan2) – 5.7 million followers

4. Baby Shima (@babyshimaofficial) – 5.1 million followers, 51.5 million likes
5. Dr Ben Gee (@drbengee) – 4.3 million followers, 49 million likes

In conclusion, TikTok is a platform that empowers its users to craft and share content freely. Nevertheless, users must remain responsible for the content they post. In the first six months of 2024 alone, the Malaysian government ordered the removal of 2,606 TikTok posts due to violations. This underscores the importance of being discerning and responsible in our digital choices.

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