GHANA FINTECH AND INNOVATION REPORT

Q1 2024 EDITION - ANNIVERSARY EDITION

A SUSTINERI ATTORNEYS QUARTERLY FINTECH AND INNOVATION REPORT

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Richard Nunekpeku
The Editor

Dear **Esteemed Readers,**

We are happy to publish our anniversary edition of this report. Given the growing influences of technology and innovation on all spheres of our lives and work, we have expanded the scope of this report and renamed it "**the Ghana Fintech and Innovation Report**".

The expansion in scope enabled us to document, track, and report on trends, events, and insights shaping service and product designs, business management practices, business models, regulatory interventions, customer service, and consumer behaviors across multiple industries.

In achieving this, we have in this edition looked at how technology is shaping service offerings in industries such as financial services (Fintech), insurance (InsurTech), education (EdTech), agriculture (AgriTech), legal (LegalTech) and food chain (FoodTech) among others.

In our inclusive technology spotlight, we have reviewed the role of the Data Protection Commission in safeguarding data and addressing data protection and privacy concerns in the ever-changing technological evolution.

As Artificial Intelligence (AI) continues to dominate technology's best impact for business improvement and increased productivity, we have delved into its use cases as a productivity tool and shared insights on the question of its regulation in Ghana.

Among other exciting subjects covered in this edition are the 10-point checklist for securing online shopping consumer experience, an industry spotlight on the Bank of Ghana, past and upcoming industry events such as the 3i Summit.

We extend our sincerest gratitude for your continued support, feedback, and engagement – they remain the source of motivation for us as we continue to explore and document the evolving Fintech and Technology/Innovation landscape in Ghana through this Report.

We trust that the insights and knowledge shared in this edition will prove invaluable in navigating the exciting and transformative developments within the innovation ecosystem in Ghana.

PUBLISHERS AND CONTRIBUTORS

SUSTINERI ATTORNEYS PRUC is Ghana's foremost Technology, Fintech, and Start-up law firm, committed to providing differentiated legal services by leveraging our experience as proven entrepreneurs, business managers, and business lawyers which allows us to think and act like entrepreneurs, business owners, and managers we work with at all times.

As a team of expert legal practitioners, SUSTINERI ATTORNEYS PRUC takes pride in acting with integrity, avoiding conflicts, and working with clients to design innovative legal solutions that meet their specific needs.

At SUSTINERI ATTORNEYS PRUC, we consider every client's brief as an opportunity to use our sound understanding of Ghana's business, commercial and legal environment, professional experi-ence, and sound commercial knowledge to provide solutions that do not only address immediate legal needs but also anticipate future challenges and opportunities.

Our pride as the foremost Fintech and Start-up focused law firm stems not only from our understanding of the potentials of emerging technologies and our belief in the ideas of many young people but also from the difference our network of resources and experience can make when working closely with founders and entrepreneurs. To this end, we operate a 24-hour policy urging our clients to reach out to us at any time and on any issue.

We strive for excellence, ensuring that our solutions provide sustainable paths for our clients' businesses by adopting a common-sense and practical approach in our value-added legal service delivery – and employing our problem-solving skills.

Our goal is to help businesses to become commercially sound and viable, as well as regulatory compliant, by engaging in legal and beneficial transactions to promote their business competitiveness for sustained operations and investments.

And as our name implies, our priority is to always leverage legal means to promote the sustainability (long-term viability) of our clients' businesses.

We are different, and the preferred partner for growth.

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THE INFLUENCE OF TECHNOLOGY ON LIFE AND WORK

03

THE INFLUENCE OF TECHNOLOGY ON LIFE AND WORK

It is quite a memory if you remember how some decades ago, we used to communicate with family and friends, home and abroad. It was an era of one-sided recorded conversations on cassettes, long queues at phone booths, or letters posted at expensive prices.

Interestingly, such memories abound across many aspects of our lives and work.

The transition to instant real-time communications, digital financial services, access to new educational tools, work productivity tools, advanced health care, and innovations in agriculture, transportation, hospitality, and leisure among others have been enabled by and accelerated by new technological advancements.

Despite the exposure to risks such as data protection and privacy concerns, fraud, identity theft, deep fakes, cyber security, etc associated with the deployment of emerging disruptive innovations across all industries, the influence of these innovations has generally been positive in many regards.

Below are some examples of how technology is changing how we

FINANCIAL TECHNOLOGY (FINTECH)

Financial service innovations are probably the biggest use cases of technology in our lives. In simple terms, Fintech is considered the use of technology to design and deliver digital financial services hitherto only possible through in-person service offerings provided by traditional banks.

With advances in technologies such as supercomputers, blockchain, machine learning, artificial intelligence, etc, the innovative power to design, pilot, deploy, and upgrade new ways of financial services delivery has been enabled and accelerated by factors such as increasing internet connectivity, availability of connected devices, regulations and to some extent by the Covid-19 pandemic.

Today, several licensed and unlicensed digital tools are available for payment, money/fund transfers, remittance, credit and lending, investments, and saving services. Fintech companies and traditional banks are leveraging permissions of regulatory frameworks to independently or collaboratively roll out new financial services which have been acknowledged as contributing immensely to the achievement of Ghana's financial inclusion goals.

The common examples of fintech innovations are mobile money, payment apps, embedded digital platforms for nano credit/lending, investments and savings, payment of utility bills, and other services.

Although most of the innovations are front-end and targeted at

retail financial services, we are equally witnessing innovations which are driving enhanced back-end infrastructures, improving security, and reporting systems, supporting compliance efforts, and enabling financial service providers to deal with risks such as money laundering, fraud, etc.

At the level of regulators, these technologies are being used to improve their oversight and supervisory responsibilities, support the testing and piloting of new unlicensed innovations, and design and deploy central bank digital currencies and their use cases.

Largely, these emerging technologies can be credited for the increased levels of efficiency, convenience, security, and flexibility associated with financial service delivery today.

Going forward, financial service offerings will further be democratized with new digital tools, possible new currency forms, more power in the hands of financial service users, and robust regulatory oversight.

In Ghana, the Bank of Ghana has the primary regulatory responsibility.

Equally, technology is disrupting the insurance industry in a form known as "INSURTECH". With the increasing adoption of InsurTech tools, traditional insurance service delivery is transforming. The design of insurance products, customer sign-up processes, broker/agent relationship management, claims processing, verification and payments, and customer service delivery among others are being digitalized and offered via apps and other online portals.

Additionally, new technology tools are being deployed to support the back-end infrastructure of insurance companies and to enable them to deliver responsive customer services at the front end.

The National Insurance Commission has instituted a licensing regime supporting the commercial deployment of such innovations in Ghana and continues to exercise supervisory oversight.

vest management, processing, and other auxiliary services such as input provision, technical assistance, market linkages, production support and financing among others.

These technologies termed "Agri-Tech" are helping modernize farming, improve yields, and increase the commercial value of agriculture across the continent.

Although agriculture is generally not a regulated activity, the deployment of some of the emerging innovations may have regulatory implications due to their influence on some already established regulatory demands relating to food and drugs, standards, and certifications among others.

LEGAL TECHNOLOGIES (LEGALTECH)

LegalTech involves the use of technology and other software to support the delivery of legal services. Despite the legal profession being a highly regulated industry, we are witnessing an evolving adoption of technology and its use cases to drive efficient, responsive, and timely legal services.

AGRICULTURE TECHNOLOGY (AGRITECH)

We are witnessing an unprecedented deployment of technology in agriculture ranging from new farming technologies to farm management tools, crop yield improvement tools, irrigation, pest and weed control, fertilization, harvesting, and post-har-

On both ends, the courts and law firms are digitalizing and allowing tech tools to be used to improve service delivery. Now, while technology devices are permitted for use during court

INSURANCE TECHNOLOGY (INSURTECH

sessions, some court sessions are also being held virtually.

Further, law firms are investing heavily in on-demand tech tools for case management, research, drafting and reviews, staff management, billing, and client management.

Also emerging are dedicated tech platforms either as apps or websites to enable the procurement of specialized legal services by businesses.

HEALTH TECHNOLOGY (HEALTHTECH)

Healthtech is the fusion of technology with healthcare with a promise to revolutionize how we perceive and receive medical care. It is enabling medical attention with a click, tracking one's health history on smartphones, and digitizing medical records for seamless access.

One component of HealthTech is Telemedicine which enables access using AI-powered remote patient monitoring systems, especially for those with chronic diseases. Its benefits are efficiency, convenience, and healthcare accessibility.

Mobile health platforms are also offering holistic digital wellness for patients. From virtual consults to medication subscriptions, they

make healthcare more convenient.

Further, tech tools are in use for digitizing healthcare management, streamlining appointment scheduling, and patient records providing virtual assistance for medical practices which are efficient, reliable, and secure.

We are also witnessing the design of wearable devices which monitor health conditions 24/7, ensuring consistent, coordinated care across clinics through seamless data sharing.

Additionally, innovative digital stethoscopes are being deployed to provide healthcare professionals with industry-leading tools for accurate diagnoses and effective treatment management, like having superhuman hearing for healthcare. Equally, health analytics and big data are unlocking insights, guiding evidence-based decision-making, and improving patient outcomes, like a crystal ball predicting and preventing health issues.

In Ghana, these strides in digital health are driven by the Ghana Health Services Policy and Strategy on Digital Health (2023 – 2027). However, a critical gap exists in regulating HealthTech companies providing digital health interventions.

REGULATORY TECHNOLOGY (REGTECH)

In the intricate world of financial rules and regulations, RegTech is like a high-tech assistant, using the power of technology to make compliance easier.

Here's a simple breakdown of what RegTech is all about:

What's RegTech? - RegTech, short for Regulatory Technology, is all about using technology to handle the complex tasks involved in following financial rules. It's like having a digital helper to keep everything in check.

How Does It Work? - RegTech uses fancy tools and automation to help with tasks like keeping an eye on regulations, reporting, and making sure everything is compliant. Think of it as having a robot sidekick to handle the paperwork.

Keeping the Bad Guys Out - In today's digital world, there are lots of risks like cyber threats and fraud. RegTech uses smart algorithms and technology to detect and prevent these risks, protecting financial institutions from harm.

The Cloud Connection - RegTech also makes use of cloud computing, which is a super-fast and secure way to share data. It helps financial companies work together with regulators more easily and safely.

Covering All Bases - From keeping an eye on employees to stopping fraud, RegTech covers a lot of ground. It's like having a whole team of superheroes dedicated to making sure everything is done right.

Sorting RegTech Solutions - RegTech comes in different types, like tools for monitoring regulations, managing compliance tasks, and executing plans. Each type of RegTech tool has its own special job to do.

The BOG's Regulatory Sandbox Adventure – The regulatory sand-

box is like a safe playground where financial companies can test out new ideas and innovations without breaking any rules.

In a nutshell, RegTech is like having a tech-savvy friend who makes sure everything in the financial world runs smoothly. It's about using technology to simplify compliance and pave the way for a brighter future.

EDUCATION TECHNOLOGY (EDTECH)

The digital revolution is transforming the education sector. Instead of textbooks, students are using online platforms for learning. And instead of attending a class when they want to study a new language, they are downloading an app.

Global education technology (edtech) is one of the fastest growing sectors, expected to be worth $340 billion by 2024, according to EdTechXGlobal, with a diverse population of startups disrupting traditional education, as we know it.
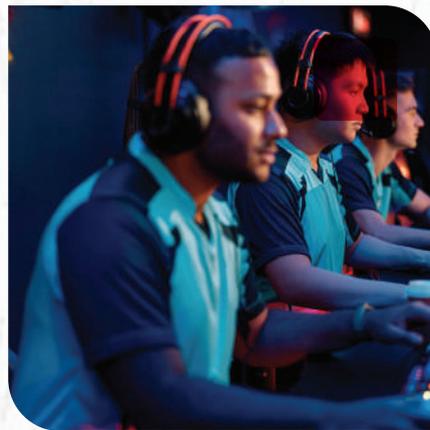
Edtech, short for education technology, is an approach that taps into technology to increase the performance and outcomes of educating students.

By leveraging digital tools such as online learning platforms, interactive software, and educational apps, EdTech has expanded access to education, allowing students to learn anytime, anywhere. This accessibility is particularly crucial for individuals in remote areas or those with limited access to traditional educational institutions.

Furthermore, EdTech offers personalized learning experiences tailored to individual student needs and learning styles, fostering a more inclusive and engaging learning environment. It also provides educators with innovative teaching resources and tools to enhance their instructional methods and streamline administrative tasks.

Overall, EdTech has revolutionized the delivery of educational services, making learning more accessible, engaging, and effective for learners of all ages and backgrounds.

ELECTRONIC SPORTS (ESPORTS)

In the past several years, there has been a meteoric rise in a new kind of athletic competition. Its largest events have seen tens of millions of live viewers, its participants endure hours of daily training, and it has even been broadcast numerous times on ESPN.

Instead of being contests of brute strength or traditional athletic ability, these competitions center on reaction time, strategic understanding, and often collaboration, as they are conducted through video games – earning the name esports.

The industry, having seen consistent growth since the turn of the millennium, was further boosted closer to the mainstream sports during the recent Covid-19 pandemic, and could one day come to rival the cultural and economic behemoth that is traditional sports entertainment.

Esports represent a portion of the video game industry in which players compete in different video games, such as League of Legends, Fortnite or Call of Duty, to achieve world rankings and prize money. Some competitions are held remotely, but the biggest competitions are held on grand stages, such as at the Barclays Center in New York.

The growth is largely driven by the increasing popularity of competitive gaming, advancements in gaming technology, the expansion of online platforms for streaming, and rising global viewership which solidify eSports as a significant part of the entertainment sector, especially in the U.S eSports scene.

Esports has only grown bigger with the 2020 Covid-19 pandemic. With people being confined to their homes and the usual sports tournaments not happening, they turned to virtual game tournaments increasingly for entertainment. Across European countries, 38 percent to 67 percent of esports consumers stated that they watched esports for the first time after COVID-19-related restrictions were imposed.

The potential to earn from gaming has become increasingly tantalizing as there are several ways to do so. Most obvious is the prize money from tournaments, but esports athletes can also make millions of dollars from streaming their live gameplay, signing contracts with big organizations like TSM, 100 Thieves, Team Liquid, and the like, engag-

ing on social media, and sponsorship deals with entities both within and outside the gaming sphere such as Redbull, Corsair, and AimLabs.

The eSport industry is a rapidly emerging cultural phenomenon that has grown out of a newer generation's combined love for video games and watching great competition. It offers a fresh form of entertainment that appeals to an increasingly global audience and has the potential to generate significant revenue over the coming years.

As it continues to attract more investors, new innovations will shape the future of esports and live entertainment. And while the industry still stands in the shadow of traditional sports entertainment, it holds immense potential to someday rival it.

ELECTRONIC COMMERCE (E-COMMERCE)

The progression of commerce in Africa has undergone a significant transformation, transitioning from the traditional barter system to the contemporary era of e-commerce. This shift was propelled by the widespread adoption of consumer internet and electronic payment methods, leading to a global rise of e-commerce in the 1990s.

While global e-commerce giants like eBay and Amazon emerged

in 1995, Africa experienced its own e-commerce revolution nearly two decades later, during the early 2010s. This period saw the emergence of African e-commerce startups, including Jumia, Konga, and Takealot.com. These startups capitalized on a surge in venture capital investments and predominantly adopted Western business models as their framework for growth.

Likewise, the late 2000-2010s witnessed a mobile revolution and the advent of digital payments in Africa. In 2007, the launch of M-PESA in Kenya by Vodafone and Safaricom revolutionized mobile money, making secure and convenient digital transactions possible. E-commerce platforms quickly adopted services like Lipa Na M-PESA, also introduced by Safaricom in 2012, to facilitate secure online payments and easy integration with business systems and other financial systems. Flutterwave, a Nigerian fintech company, also played a significant role in enabling seamless cross-border payments for African e-commerce businesses starting in 2016. In recent times, a new wave of e-commerce startups has emerged, focusing on digitizing traditional offline commerce for businesses such as restaurants and small local shops. These startups offer tools and solutions that enable these businesses to establish an online presence and expand their operations. Notably, in 2020, Flutterwave, Interswitch, and Paystack introduced their e-commerce solutions, while relatively new startups like Orda, Kippa, and Sabi, established within the past three years, also contribute to the ecosystem by providing enabling tools for e-commerce.

The growth of e-commerce has coincided with a significant increase in the adoption of financial technology (FinTech). FinTech plays a crucial role in enabling seamless payment processes for e-commerce transactions and

facilitating global payment receipts. Previously, African businesses had to convert their currency to widely accepted currencies such as the Dollar or Pound and possess international bank accounts to engage in e-commerce. However, the emergence of cryptocurrencies and electronic payment systems has provided a solution by allowing for instant currency exchange, enabling African currencies to be readily accepted in the global marketplace.

Mobile money payment platforms, for instance, have gained widespread popularity, allowing consumers to make secure transactions using their smartphones. This has not only increased convenience but has also provided access to financial services for the unbanked population, driving financial inclusion and expanding the potential customer base for consumer goods providers.

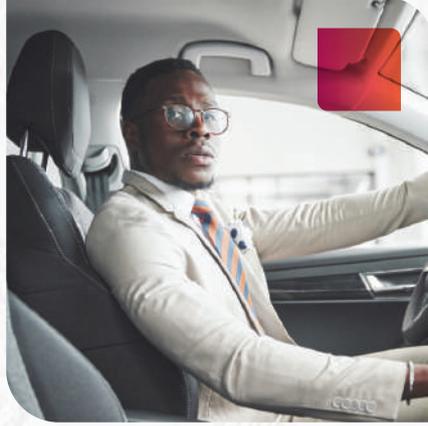
FOOD TECHNOLOGY (FOODTECH)

The global industry landscape has been significantly changed by the convergence of technology and services, particularly in the food sector. Food technology or FoodTech refers to a variety of technical advancements spanning the food supply chain from the point of production to the point of consumption. In food production, various technologies

have been introduced that facilitate the sourcing of healthy food crops.

In the field of food delivery services, in order to meet the evolving needs of consumers, cutting-edge algorithms in mobile applications are used to offer convenient delivery choices and services. These applications include Uber Eats, Deliveroo, Bolt Food, Doordash, among others. Customers are able to tailor their food preferences and receive personalized recommendations while restaurants are able to update their menus in real-time using technology like QR codes and tablet-based menus reducing waste and enhancing efficiency.

The introduction of three-dimensional printed food (3D food printing) has further revolutionized the food industry. The 3D printers dispense edible food layer by layer based on uploaded artwork and ingredients allowing for personalized food creations catering to individual tastes, dietary restrictions, and nutritional needs.

Overall, FoodTech innovations have transformed the industry by enhancing service delivery, streamlining operations, and improving client interaction with restaurants from any location. Food production and service have become more convenient and efficient thanks to these advancements.

MOBILITY

Mobility technology in services has brought about significant changes. Ride-hailing applications such as Uber, Lyft, and Bolt have transformed movement by providing transportation services. These platforms have contributed to economic growth for individuals while enhancing accessibility for customers. The introduction of shared mobility services such as "Uber Share" allows customers to share rides with other individuals.

The transportation industry is gearing towards Electric Mobility for various reasons including its sustainability advantages over fossil fuels. With the development of fast-charging stations, battery-swapping technologies, and smart grid integration, electric mobility is spurring innovation in infrastructure and charging solutions. These devel-

opments alleviate range anxiety and charging accessibility issues, promoting the broader adoption of electric vehicles and aiding in the shift to a more environmentally friendly transportation system.

Another significant advancement in mobility technology is the development of autonomous cars, also known as self-driving cars, which require no driver assistance. These vehicles offer convenience, particularly to individuals incapable of driving due to disabilities while being efficient and are cost-saving for companies.

The influence of mobility technology on services has transformed the way people and goods are transported by offering more environmentally friendly, sustainable options that improve mobility while lessening their impact on the environment.

INCLUSIVE TECHNOLOGY

04

A SPOTLIGHT ON THE DATA PROTECTION COMMISSION

Established under the Data Protection Act, 2012 (Act 843), the Data Protection Commission (DPC) serves as a guardian of privacy and personal data in Ghana. The DPC, an independent statutory body, plays a critical role in regulating the processing of personal information, thus ensuring the protection of privacy rights, and fostering accountability in data handling. This commission, led by Commissioner Ms. Patricia Adusei-Poku and supported by a dedicated Board and Management, is committed to adhering to Ghana's data protection laws and the General Data Protection Regulation (GDPR) standards.

In its quest to build a culture of data protection, the DPC offers an array of resources such as news, newsletters, and access to a comprehensive registration process for data handlers, underscoring its proactive approach to safeguarding personal data. The commission's strategic operations, guided by the principles outlined in the Data Protection Act, 2012 (Act 843), aim to provide robust data protection for both organizations and individuals in Ghana. By encouraging feedback through comments and suggestions on its platform, the DPC ensures constant improvement and alignment with the evolving data protection needs.

HISTORICAL BACKGROUND OF DATA PROTECTION COMMISSION GHANA

The Data Protection Commission (DPC) of Ghana, established under the Data Protection Act, 2012 (Act 843), signifies an advancement in the country's commitment to safeguarding personal data and privacy rights. This legislative framework outlines the DPC's inception and its mandate to regulate the processing of personal information, ensuring the protection of individuals' privacy across various sectors.

The Data Protection Act, 2012 (Act 843) was assented to in May 2012 and became effective on 16th October 2012, marking the formal establishment of the DPC as an independent statutory body. This Act delineates the rules and principles governing the collection, use, disclosure, and care for personal data, emphasizing the necessity for data controllers and processors to adhere to these guidelines.

Ghana's ratification of the Malabo Convention on Cyber Security and Data Protection, positions it among the first four African countries to take a significant step towards enhancing data protection and cybersecurity on the continent.

The formal registration of Data Controllers and Data Processors, initiated on 1st January 2015, represents a crucial operational milestone in the DPC's efforts to enforce compliance and promote accountability in data processing practices.

KEY RESPONSIBILITIES AND POWERS OF THE COMMISSION

The Data Protection Commission (DPC) of Ghana is vested with a wide range of responsibilities and powers, aimed at safeguarding personal data and ensuring compliance with data protection legislation. These are outlined as follows:

Regulatory and Compliance Functions:

1. Implementation and monitoring of compliance with the Data Protection Act provisions.
2. Examination of complaints regarding alleged infringements of the data protection law and conducting investigations into such complaints.
3. Keeping and maintaining an up-to-date Data Protection Register of Data Controllers.

Support and Awareness:

1. Raising awareness about data protection as a fundamental human right among the public.
2. Providing support to Data Controllers to help them comply with data protection legislation through the implementation of appropriate policies, procedures, and processes.
3. Delivering Privacy Practitioner training and supporting the establishment and operationalization of the National Privacy Practitioner Association.

Enforcement and Cooperation:

1. Taking enforcement action where necessary, following investigations into complaints under the Act.
2. Providing thought leadership, African representation, and cooperation with the international data protection community.
3. The DPC has the authority to acquire property under specific acts to facilitate its operations.

These responsibilities and powers underscore the DPC's role in ensuring responsible and accountable processing of personal data in Ghana, in compliance with statutory requirements and international standards.

MAJOR ACHIEVEMENTS AND IMPACT

As of December 31, 2015, the Data Protection Commission Ghana achieved a significant milestone by registering all 23 commercial banks operating within the country. Additionally, 13 out of 25 public sector institutions were also registered, demonstrating the DPC's commitment to ensuring widespread compliance with data protection regulations.

The DPC has also been proactive in raising awareness and fostering a culture of privacy and data protection. This was highlighted during the celebration of Data Protection and Privacy Day on 6th February 2019, under the theme "A New Chapter in Enforcing Privacy Accountability and Empowering Data Subjects". Furthermore, the launch of a new Registration and Compliance Software on 8th October 2020, themed "Enabling Transparency towards Trustworthy Transformation", marked a significant step towards enhancing transparency and trust in data handling.

Collaborative efforts with the Internal Audit Agency to train Internal Auditors nationwide further expand the scope of audit to include the requirements of Act 843, showcasing the DPC's dedication to comprehensive data protection training and compliance.

Additionally, the DPC offers Data Protection Practitioner training, which is recognized as the first of its kind in Africa. This innovative training program underscores the commission's leadership in data protection education and its commitment to building capacity among data protection practitioners across the continent.

CHALLENGES AND CONTROVERSIES

The Data Protection Commission (DPC) of Ghana navigates through a landscape marked by several challenges and controversies, impacting its operational efficiency and enforcement capabilities:

Challenges Faced by the DPC:

1. A significant portion of the Ghanaian population remains unaware of data security issues, compounded by inadequate infrastructure to support data protection initiatives.
2. Financial challenges and a scarcity of in-country data protection expertise hinder the DPC's ability to enforce data protection laws effectively.
3. The lack of commitment from the government and public sector entities further exacerbates the DPC's challenges, making regulatory compliance a daunting task.

Noteworthy Controversies:

1. Enforcement Actions: The DPC's questioning of officials from Quick Credit and Investment Micro Credit Limited, Hisense Ghana Limited, and Marwako Fast Food over alleged data protection law violations highlights the commission's proactive stance in enforcement despite the obstacles.
2. Fintech Sector Scrutiny: The scrutiny of Dash, a Ghanaian fintech startup, underscores the complexities and potential controversies surrounding data protection and privacy in the rapidly evolving fintech sector.

These challenges and controversies mark the imperative for enhanced awareness, infrastructure, and support to bolster the DPC's efforts in safeguarding personal data within Ghana.

COMPARATIVE ANALYSIS WITH OTHER DATA PROTECTION ENTITIES

When comparing the Data Protection Commission (DPC) Ghana with other data protection entities, particularly under the scope of the General Data Protection Regulation (GDPR), several key differences emerge:

1. Approach to Data Protection:
DPC Ghana employs a risk-based approach, aligning with the GDPR and Data Protection Directive principles.

2. Legal Basis and Specificity:
GDPR articulates a more detailed legal basis for processing personal data compared to the Ghanaian Act, highlighting the need for specificity in data protection legislation.

3. Obligations and Rights:
The obligations imposed on data controllers and processors by the GDPR are more detailed than those in the Ghanaian Act. Significant disparities exist in areas such as data transfers, data processing records, and the appointment of a data protection officer.

GDPR also provides more comprehensive details regarding individuals' rights, including the right to erasure and data portability, where inconsistencies with the Ghanaian Act are noted.

4. Enforcement Mechanisms:
The enforcement mechanisms under the GDPR, including monetary penalties and supervisory authority, are more detailed com-

By encouraging feedback through comments and suggestions on its platform, the DPC ensures constant improvement and alignment with the evolving data protection needs.

pared to the Ghanaian Act.

In contrast, data protection laws in Kenya and Uganda feature broad exemptions, potentially leading to rights violations. Moreover, the independence of Data Protection Authorities (DPAs) in the African region is often compromised, affecting the enforcement of data protection laws. Strengthening these laws, including ensuring DPAs' independence, is crucial for protecting individuals' rights and preventing exploitative practices by foreign companies.

THE FUTURE OF DATA PROTECTION IN GHANA

The future of data protection in Ghana, guided by the Data Protection Commission (DPC), focuses on several strategic directions aimed at enhancing privacy and data security within the country.

The Data Protection Act, 2012 (Act 843) serves as the cornerstone of data protection in Ghana, applying to both paper-based and electronic records and excluding purely transitory data. It mandates data controllers to process personal data in a manner that respects privacy rights, is lawful, and reasonable, ensuring data is collected directly from the subject unless specified otherwise.

Also, the DPC's vision to protect privacy and personal data through regulating people, processes, and technology is pivotal. Its mission which emphasizes the importance of responsible and accountable processing of personal data, aligning with statutory requirements both locally and internationally is a step in the right direction. Some strategic strides and goals of the DPC are as follows:

Strategic Goals
1.   Protecting the privacy of individuals and their personal data in compliance with statutory requirements.

2.   Providing excellent public service by regulating people, processes, and technology.
3.   Developing and maintaining influence within the global data protection regulatory community, highlighting the DPC's commitment to international standards.

These strategic orientations signify Ghana's commitment to advancing data protection measures, ensuring that the DPC remains at the forefront of safeguarding personal data and privacy rights in an increasingly digital world.

The Data Protection Commission of Ghana plays a vital role in ensuring the protection of personal data, promoting trust in digital services, and enhancing privacy rights for individuals in Ghana. By upholding data protection principles, enforcing regulations, and collaborating with stakeholders, the Commission contributes to building a secure and privacy-conscious environment for data processing

EMERGING BUSINESS MODELS AND PRODUCTS

05

MARKETPLACE AS A SERVICE (MaaS)

Marketplace as a Service (MaaS) refers to a business model in which a company provides a platform or infrastructure for other businesses to create and operate their own marketplaces. The platform typically includes features such as payment processing, inventory management, and customer relationship management. MaaS providers typically charge a fee for access to the platform and may also take a percentage of sales made through the marketplace.

The goal of MaaS is to make it easy for businesses of all sizes to create and operate their own marketplaces, without the need for significant upfront investments in technology or infrastructure. MaaS platforms allow businesses to focus on their core operations and offerings while leveraging the marketplace model to connect buyers and sellers, facilitating transactions, and generating revenue through commissions or fees.

HISTORY AND EVOLUTION

The history and evolution of MaaS date back to the emergence of e-commerce and the growing need for efficient and scalable platforms to facilitate online transactions.

In the early 2000s, with the rise of the internet and e-commerce, businesses started to recognize the potential of online marketplaces to reach a broader audience and expand their customer base. Companies like eBay and Amazon played significant roles in popularizing the concept of online marketplaces, providing platforms for individuals and businesses to buy and sell goods.

As e-commerce continued to grow, businesses faced challenges in building and maintaining their own marketplace platforms. These challenges included high development costs, technical complexities, and the need for ongoing maintenance and updates. In response to these challenges, the concept of MaaS began to emerge.

One of the earliest examples of MaaS can be traced back to the mid-2000s when companies like Shopify and Magento started offering e-commerce platforms as a service. These platforms provided businesses with the tools and infrastructure needed to create their online stores, including website templates, payment processing, and inventory management systems.

Over time, the MaaS model evolved to encompass not just e-commerce platforms but also various types of online marketplaces catering to different industries and verticals. Companies like Airbnb, Uber, and TaskRabbit disrupted traditional industries by providing platforms that connect users with service providers, such as accommodations, transportation, and freelance services.

The increasing demand for MaaS solutions led to the emergence of specialized MaaS providers offering customizable and scalable marketplace platforms tailored to specific industries and use cases. These platforms often come with a range of features and functionalities, including user authentication, payment processing, search and discovery tools, and analytics dashboards.

In recent years, the MaaS market has continued to expand rapidly, driven by factors such as the growing popularity of the sharing economy, the rise of on-demand services, and the increasing adoption of digital marketplaces by businesses of all sizes.

Today, MaaS solutions are powering a wide range of online marketplaces across various industries, from e-commerce and hospitality to transportation and professional services, revolutionizing the way businesses connect with customers and generate revenue in the digital age.

HOW IT WORKS

Marketplace as a Service (MaaS) in essence enables businesses to create, manage, and scale their own online marketplaces without having to build them from scratch. It is a solution that provides the infrastructure and tools necessary for companies to launch and operate their digital marketplaces.

One of the key features of MaaS is its flexibility and customization options, allowing businesses to tailor their marketplaces to their specific needs and branding requirements. This includes features like customizable storefronts, payment processing integrations, user management tools, and product listing capabilities.

One of the key features of MaaS is its flexibility and customization options, allowing businesses to tailor their marketplaces to their specific needs and branding requirements.

Moreover, MaaS typically offers a range of built-in functionalities designed to streamline operations and enhance user experience. These may include search and filtering options to help customers find products more easily, rating and review systems to build trust and credibility, and analytics tools to track performance and gather valuable insights.

Additionally, MaaS platforms often provide security features to protect sensitive data and prevent fraud, as well as customer support services to assist both buyers and sellers with any issues they may encounter.

In terms of how MaaS works, businesses can sign up for a MaaS platform and gain access to its suite of tools and resources. They can then customize their marketplace according to their branding guidelines and business requirements, adding products, setting pricing, and configuring other settings as needed.

Once the marketplace is set up, businesses can invite sellers to list their products or services on the platform, and customers can browse, purchase, and review these offerings.

The MaaS provider typically handles the technical aspects of hosting, security, and maintenance, allowing businesses to focus on growing their marketplace and serving their customers.

BENEFITS OF MARKETPLACE-AS-A-SERVICE TO AFRICAN BUSINESSES

Employing Marketplace as a Service (MaaS) can bring a plethora of benefits to businesses, ranging from increased efficiency to expanded market reach. One significant advantage is the reduced time and resources required for building and maintaining an online marketplace.

By leveraging MaaS providers like Shopify, Magento, or WooCommerce, businesses can quickly set up their marketplace without the need for extensive technical expertise or infrastructure investment. For example, a small artisanal craft business may lack the resources to develop its e-commerce platform from scratch. But by using a MaaS provider like Etsy, the business gains access to a ready-made marketplace, com-

plete with payment processing, customer support, and marketing tools.

Furthermore, MaaS platforms often offer scalability, allowing businesses to easily adjust their marketplace operations as demand fluctuates. For instance, during peak seasons or promotional events, an online retailer can quickly ramp up server capacity and add new product listings without disrupting the user experience.

This scalability is particularly advantageous for businesses experiencing rapid growth or seasonal sales fluctuations.

Another benefit of MaaS is the access to a built-in customer base and marketing channels. Many MaaS providers have established user communities and integrated marketing tools that businesses can leverage to promote their products or services. Amazon Marketplace provides sellers with access to millions of active shoppers and offers advertising solutions to increase product visibility. This built-in audience can significantly reduce customer acquisition costs and accelerate business growth.

Additionally, MaaS platforms often offer robust analytics and insights, allowing businesses to track key performance metrics and make data-driven decisions.

For instance, a clothing retailer using Shopify can analyze customer behavior, monitor sales trends, and optimize marketing campaigns based on real-time data. These insights enable businesses to refine their marketplace strategies, improve product offerings, and enhance the overall customer experience.

Moreover, MaaS providers typically handle essential backend functions such as payment processing, security, and compliance, freeing businesses from the burden of managing these aspects themselves. This allows businesses to focus on their core competencies, such as product development, customer service, and brand building. A software company using Stripe Connect for payment processing can securely accept payments from customers worldwide without worrying about PCI compliance or fraud prevention.

Employing Marketplace as a Service (MaaS) offers businesses a myriad of benefits, including

rapid deployment, scalability, access to a built-in customer base, robust analytics, and simplified backend operations. By leveraging MaaS platforms, businesses can streamline their marketplace operations, accelerate growth, and stay competitive in today's digital economy.

CONCLUSION

In a world where e-commerce reigns supreme, Marketplace as a Service (MaaS) stands as a beacon of opportunity for businesses of all shapes and sizes. From the bustling streets of local artisans to the virtual shelves of global retailers, MaaS has revolutionized the way we buy and sell online.

With its seamless integration, scalability, and access to vast customer networks, MaaS empowers businesses to navigate the digital marketplace with ease. As we continue to embrace the ever-evolving landscape of online commerce, MaaS serves as a reminder that innovation knows no bounds.

TRENDS AND INNOVATION

06

The State of the Industry Report on Mobile Money 2024

HIGHLIGHTS FROM "THE STATE OF THE INDUSTRY REPORT ON MOBILE MONEY 2024" BY GSMA

Impact on GDP:

$600B
GDP Growth

Between 2013 and 2022, countries with mobile money services experienced a $600 billion increase in GDP, equivalent to a 1.5% rise. Mobile money adoption contributed to higher GDP, especially in East and West Africa.

Global Growth Trends:

1.75B
Mobile Money Accounts

In 2023, registered mobile money accounts reached 1.75 billion, with a 12% increase from 2022. Despite slower growth rates, active accounts grew by 9% annually, with Sub-Saharan Africa leading the expansion.

Overall Transaction Trends:

$1.40T
Transaction Values

Transaction values reached $1.40 trillion in 2023, growing by 14%—a slower rate than in previous years. Despite slower growth, transaction volumes expanded faster than values, leading to increased usage.

Agent Network Expansion:

18.6M
Registered Agents

Agent networks expanded, with registered agents reaching 18.6 million in 2023, a 22% increase. These agents played a crucial role, digitizing over two-thirds of all money entering the mobile money ecosystem.

Regional Dynamics:

West Africa emerged as a mobile money powerhouse, driving growth with Nigeria, Ghana, and Senegal leading. The region's ecosystem evolved differently from East Africa, with more non-mobile-network-operator-led services.

Interoperability and Use Cases:

$210B
Interoperable Transactions

Interoperable transactions grew by 15% to $210 billion in 2023, despite a slowdown. Some use cases, like bill payments and bulk disbursements, experienced a decline due to regulatory changes in Kenya.

Expansion of Adjacent Financial Services:

More mobile money providers offered credit, savings, and insurance services in 2023. Responsible credit offerings increased, while savings and microinsurance witnessed substantial growth.

Gender Inclusion and Financial Access:

Mobile money enabled more women to save money compared to traditional financial services. In countries like Senegal, mobile money surpassed traditional banking for female savers.

Revenue and Profitability:

$3.2
Average Revenue per user

Average revenue per user increased from $2.2 in 2022 to $3.2 in 2023, leading to higher profitability for mobile money providers. Over three-quarters of survey respondents reported positive earnings by 2023.

Taxation Challenges and Policy Changes:

Taxation remained a regulatory challenge, but some countries began abolishing mobile money taxes. Tanzania and Ghana eliminated or reduced levies, aiming to stimulate mobile money usage and preserve tax revenue.

Expansion of Mobile Money Savings Products:

The supply of mobile money savings products grew to meet demand, with innovative models emerging to digitize semi-formal savings groups and introduce features like interest-bearing accounts.

Transaction Value and Volume Growth:

In 2023, transaction values grew by 14%, a slower rate than in previous years, while volumes expanded faster. This led to the average value of mobile money transactions falling, indicating increased usage for smaller transactions.

SUMMARY OF ECONOMIC AND FINANCIAL DATA ON THE FINTECH SECTOR BY THE BANK OF GHANA

Mobile money transactions have over the past year soared to unprecedented levels, surpassing previous records, and underlining the nation's evolving fintech landscape.

According to the Bank of Ghana's March 2024 Summary of Economic and Financial Data, the total value of mobile money transactions surged to an impressive GH₵2trillion in 2023, marking a substantial increase from the GH₵1.07trillion recorded in 2022.

Throughout the year 2023, monthly transaction volumes showcased remarkable consistency and growth, with each month boasting figures exceeding the GH₵100 billion mark. Notably, December 2023 emerged as the pinnacle, witnessing the highest transaction value of GH₵199.3 billion.

The number of registered mobile money accounts steadily increased from 56.7 million to 66.9 million, while active accounts rose from 20.5 million to 23.1 million during the same period of February 2023 to February 2024.

Additionally, the number of registered agents grew from 729,000 to 830,000, with active agents reaching 616,000.

In terms of transaction volumes and values, the mobile money sector demonstrated remarkable activity and resilience. Total transactions surged to 657 million by February 2024, underscoring the growing reliance on mobile money for a wide range of financial activities.
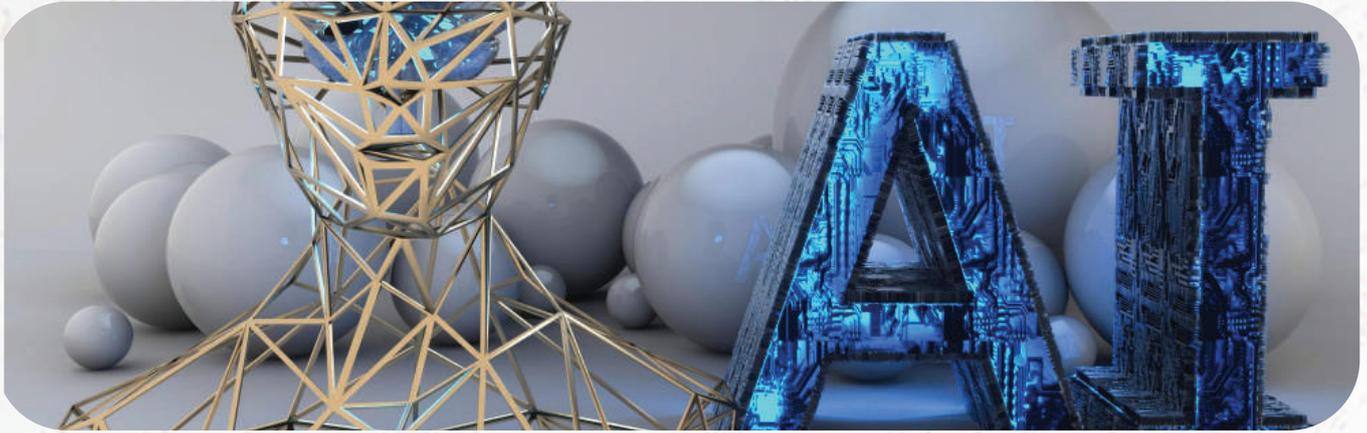
The total value of transactions also exhibited a significant increase, reaching GH₵195.8 billion during the same period, highlighting the substantial monetary flows facilitated through mobile money channels.

Furthermore, the interoperability of mobile money systems has contributed to financial inclusivity, with transactions reaching 15.8 million and peaking a total value of GH₵2 billion as of December 2023.

Additionally, other alternative payment methods, such as cheques cleared and ACH (Automated Clearing House) direct debit and credit, also demonstrated notable activity during this period, further diversifying the financial landscape and providing consumers with a range of options for conducting transactions.

Moreover, complementary financial services, including E-zwich, Gh-link, and GhIPSS Instant Pay, experienced significant growth in transaction volume and value, reflecting the increasing sophistication and maturity of Ghana's financial ecosystem. These services play a crucial role in expanding access to financial services, facilitating electronic payments, and driving financial inclusion initiatives nationwide.

EMERGING WORKPLACE PRODUCTIVITY TOOL – GENERATIVE AI

Workplace productivity was at commendable levels until the advent of Artificial Intelligence (AI). Long-held productivity tools such as connected tech devices and software such as Microsoft Office suite, search engines (predominantly Google), emails (Gmail, Yahoo, and other private accounts), and other proprietary software for task performance and reviews, system security, service delivery, produce design and production, etc have delivered incredible results and helped build great companies, products, and services globally.

Simply, work could only be performed using these pre-AI tools. No task could be performed without them and gradually, they became the foundation of any economic activity and technological advancements.

To power the next level of productivity, the power of Generative AI is being integrated into these foundational work tools. The integration of Generative AI, the ability of artificial intelligence (generative computer mo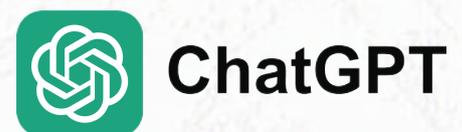dels) based on prompts to create content such as text, audio, images, etc achieving human-level performance (sometimes, outputs are beyond human abilities) is increasingly gaining ground and becoming a critical component of work tools.

Although relatively new, Generative AI has shown the potential to drive increased productivity, improve efficiency and quality of work, enhance the performance of mundane tasks, and ignite creativity.

For works related to content creation in the form of text, image, audio, video, and code, Generative AI has an impressive capability to upscale productivity and save time. Therefore, its use cases are relevant for industries such as high-tech, media and entertainment, insurance and banking, telecommunication, and education among others.

Intellectual property concerns of copyright and ownership of Generative AI outputs remain unresolved and have resulted in some raging court actions, particularly in the United States.

Some leading Generative AI tools with wide usage are OpenAI's ChatGPT-3.5 and ChatGPT-4, Microsoft's Co-pilot, Google's Gemini (formerly Bard), Grok (by Elon Musk), IBM's Watsonx, Deep-Dream, StyleGAN, AlphaFold, GitHub Co-pilot, PaLM 2, etc.

REMOTE SELLING AND VIRTUAL EVENTS

In today's fast-paced world, remote selling and virtual events have emerged as transformative trends reshaping the landscape of business.

As technological advancements continue to blur the lines between physical and digital realms, businesses are embracing these innovative approaches to connect with customers, foster engagement, and drive sales.

Remote selling, facilitated by tools like video conferencing and online collaboration platforms, allows sales teams to reach customers across geographical boundaries without the need for face-to-face interactions. This shift has not only revolutionized the traditional sales process but has also opened up new avenues for businesses to engage with prospects and clients on a more personal level.

Furthermore, virtual events have become increasingly popular as organizations seek alternative ways to host conferences, trade shows, and product launches in the wake of global disruptions. By leveraging virtual event platforms, businesses can create immersive and interactive experiences that rival their in-person counterparts.

These events offer attendees the flexibility to participate from anywhere in the world, eliminating the constraints of travel and accommodation. From keynote speeches and panel discussions to networking sessions and virtual exhibitions, the possibilities for engagement are limitless.

REMOTE SELLING AS AN EMERGING TREND

The landscape of sales has undergone a dramatic transformation in the digital age, marked by the transition from traditional methods to advanced, virtual techniques.

Historically, sales largely revolved around in-person interactions. Face-to-face meetings, handshakes, and physical product demonstrations were the norm, with relationships built through direct, personal contact. This approach relied heavily on physi-

cal presence, tangible materials, and local market focus.

The rise of the internet and digital technologies has ushered in the era of remote sales, where physical barriers are broken down. Digital platforms have enabled sales professionals to reach a broader audience, transcending geographical limitations. The transition to remote sales represents not just a change in tools and channels, but a fundamental shift in sales strategies and customer engagement.

The transition from in-person to virtual sales interactions has been rapid and, for many, challenging. It requires a different skill set, including proficiency in digital communication tools, the ability to build rapport remotely, and new strategies for engaging and persuading customers through digital channels.

Businesses have had to adapt quickly, training their sales teams to navigate these digital platforms effectively and to employ new methods for creating engaging and persuasive virtual sales presentations. The

challenge has been to replicate the personal touch of traditional sales in a virtual environment, maintaining the human element crucial to building trust and relationships.

Digital technology has been the driving force behind this transformative shift. The advent of Customer Relationship Management (CRM) software, social media, email marketing, and video conferencing tools has revolutionized sales processes.

These technologies enable more efficient lead generation, customer tracking, and data analysis, providing sales teams with valuable insights and a greater ability to personalize their approach.

With these tools, sales professionals can now engage with prospects and clients more frequently and meaningfully, without the need for physical travel. Digital technology has also facilitated faster and more convenient ways for customers to access information and make purchasing decisions, significantly speeding up the sales cycle.

VIRTUAL EVENTS MARKET OVERVIEW

The virtual events market refers to the industry that provides digital platforms and services for hosting conferences, meetings, trade shows, and other events remotely. It encompasses virtual event platforms, video conferencing tools, live streaming services, and related technologies.

The virtual events market has witnessed rapid growth, driven by advancements in technology, increasing internet penetration, and the need for remote collaboration and engagement. The Virtual Event Market size is expected to be worth around USD 1,066 Billion by 2032 from USD 198.8 Billion in 2022, growing at a CAGR of 18.8% during the forecast period from 2022 to 2032. Virtual events have gained significant traction, especially in the wake of the COVID-19 pandemic, which limited in-person gatherings. They provide an alternative to physical events and offer numerous advantages such as cost-effectiveness, scalability, and global reach.

Virtual events play a larger role in enabling organizations to connect with their audiences, expand their reach, and deliver immersive and interactive experiences. The market is characterized by a wide range of solutions, including virtual event platforms, video conferencing software, virtual trade show platforms, and augmented reality/virtual reality (AR/VR) solutions.

POTENTIAL ADVANTAGES AND DRAWBACKS OF REMOTE SELLING

Today, remote selling stands out as a beacon of opportunity, responding to market demand while shaping current trends in innovative ways.

With the world undergoing a digital transformation at an unprecedented pace, remote selling has emerged as a powerful tool for businesses to navigate this shifting landscape and capitalize on new opportunities.

At the heart of remote selling lies a wealth of potential waiting to be

unlocked. One of its most significant advantages is its ability to transcend geographical barriers, allowing businesses to reach customers far and wide with just a few clicks. Whether it's a small startup looking to break into international markets or a large corporation seeking to expand its customer base, remote selling offers a level playing field where businesses of all sizes can compete and thrive.

Moreover, remote selling caters to the evolving needs and preferences of today's consumers, who increasingly value convenience, flexibility, and personalized experiences. In a world where time is of the essence and convenience reigns supreme, the ability to browse, compare, and purchase products from the comfort of one's home has become more than just a luxury—it is an expectation. By embracing remote selling, businesses can meet these expectations head-on, providing customers with seamless online experiences that keep them coming back for more.

Yet, as with any trend, remote selling isn't without its challenges and complexities. In an age where digital interactions are the norm, standing out from the crowd and making meaningful connections with customers can be a daunting task.

However, businesses that succeed in remote selling are those that prioritize authenticity, empathy, and human connection in their interactions. By going the extra mile to understand their customers' needs and preferences and offering personalized solutions tailored to their unique circumstances, businesses can foster loyalty and trust in an increasingly crowded marketplace.

Furthermore, remote selling isn't just about making sales—it's about building relationships that last. In an era where brand loyalty is fickler than ever, businesses must focus on creating meaningful connections with their customers that extend beyond the transactional. By leveraging digital tools and platforms to engage with customers on a deeper level, whether through virtual events, interactive content, or personalized communication, businesses can turn one-time buyers into lifelong advocates for their brand.

POTENTIAL OPPORTUNITIES, MARKET DEMAND, AND TRENDS IN THE VIRTUAL EVENT MARKET

Hybrid event models: The future of virtual events lies in hybrid event models that combine both in-person and virtual components. This approach allows for broader audience engagement and caters to varying preferences and circumstances.

Customization and personalization: Virtual events will increasingly focus on providing personalized experiences for attendees, incorporating interactive features, personalized agendas, and tailored content to enhance engagement.

Integration of virtual event platforms with other digital tools: Virtual event platforms will integrate with customer relationship management (CRM) systems, marketing automation

tools, and analytics platforms to provide a seamless end-to-end event management experience.

Enhanced networking and engagement: Virtual events will continue to evolve by offering more robust networking opportunities, facilitating interactions among attendees, exhibitors, and sponsors through virtual chat, video meetings, and AI-driven matchmaking algorithms.

Adoption of AR/VR technology: Augmented reality and virtual reality technologies will be integrated into virtual events to provide immersive experiences, virtual booths, product demos, and virtual environments, creating a more engaging and interactive event atmosphere.

CONCLUSION

Remote selling and virtual events represent a transformative shift in the world of business, offering new opportunities for growth, engagement, and efficiency. By leveraging digital technologies and embracing innovative approaches, businesses can overcome geographical barriers, connect with customers on a deeper level, and drive sustainable success in an increasingly interconnected world.

CONSUMER INSIGHTS – WHAT CONSUMERS NEED TO KNOW

07

ONLINE PURCHASE CHECKLIST

In today's digital world, online shopping offers convenience but also risks. To shop safely and protect yourself from fraud, it's vital to know the right steps. Below are some 10 key checklists every online shopper should follow to shop securely and confidently.

1. Research on the Seller

a. Check reviews and ratings on the seller's website or other trusted review platforms.
b. Look for any red flags such as poor customer feedback or complaints about non-delivery.

2. Verify Website Security

a. Ensure the website has a secure connection (look for "https://" in the URL and a padlock icon).
b. Avoid entering personal information on unsecured sites.

3. Read Product Descriptions Carefully

a. Pay attention to product specifications, dimensions, and materials.
b. Check for any hidden costs like shipping fees or taxes.

4. Compare Prices

a. Shop around and compare prices from different websites to ensure you're getting a fair deal.
b. Beware of prices that seem too good to be true, as they might indicate a scam.

5. Check Return and Refund Policies

a. Make sure the store offers a clear return and refund policy.
b. Understand the terms and conditions for returning items, including who pays for return shipping.

6. Use Secure Payment Methods

a. Use secure payment methods like credit or debit cards, PayPal, ApplePay, GooglePay, or Momo, or other localized payment methods.
b. Avoid making payments through wire transfers or cryptocurrency, as these can be difficult to trace.

7. Look for Contact Information

a. Ensure the website provides a valid contact email, phone number, and physical address.
b. Reach out to customer support with any questions or concerns before making a purchase.

8. Check for Trust Seals and Certifications

a. Look for trust seals from reputable organizations depending on the region you are making your purchase from.
b. Verify certifications for authenticity, especially for products like electronics or cosmetics.

9. Review Shipping Details

a. Confirm estimated delivery times and shipping costs before finalizing your order.
b. Check if the seller provides tracking information for your shipment.

10. Trust Your Instincts

a. If something feels off or too good to be true, trust your instincts and consider shopping elsewhere.
b. Remember, it's better to be safe than sorry when it comes to online purchases.

By following this checklist, customers can ensure a safe and enjoyable online shopping experience while minimizing the risk of fraud or scams. Happy shopping!

In today's digital world, online shopping offers convenience but also risks. To shop safely and protect yourself from fraud, it's vital to know the right steps.

INSIGHTS

08

ARTIFICIAL INTELLIGENCE (AI): TIME TO REGULATE IN GHANA?

Remarkably, we are unanimous in our assessment of the benefits and opportunities of Artificial Intelligence (AI) to optimize business processes, drive operational competitiveness, and increase productivity across several industries.

At its early stages of adoption, AI has already made verifiable impacts and shown great potential to become one of the most impactful tech tools developed in the last decade with universal and tailored business case use applications and relevance. At the MTN CTIO Roundtable Africa event, speakers, panelists, and participants were convinced by its usefulness and agreed on the need for its accelerated adoption by every business seeking to drive value despite its associated risks.

However, one unresolved concern not only from the roundtable event but generally about the use of AI has been whether we need to regulate it now or in the future. On this question of when to regulate, two schools of thought have emerged strongly - regulate it now versus regulate it in the future.

This article seeks to illustrate why there is strong support the latter school of thought and demonstrate how existing legal frameworks provide regulatory safeguards and remedies for the concerns with AI adoption.

ARTIFICIAL INTELLIGENCE (AI), ITS USE CASES AND CONCERNS

In simple terms, "Artificial Intelligence" (AI) connotes the demonstration of "intelligence" by computers or machines in the delivery of assigned tasks.
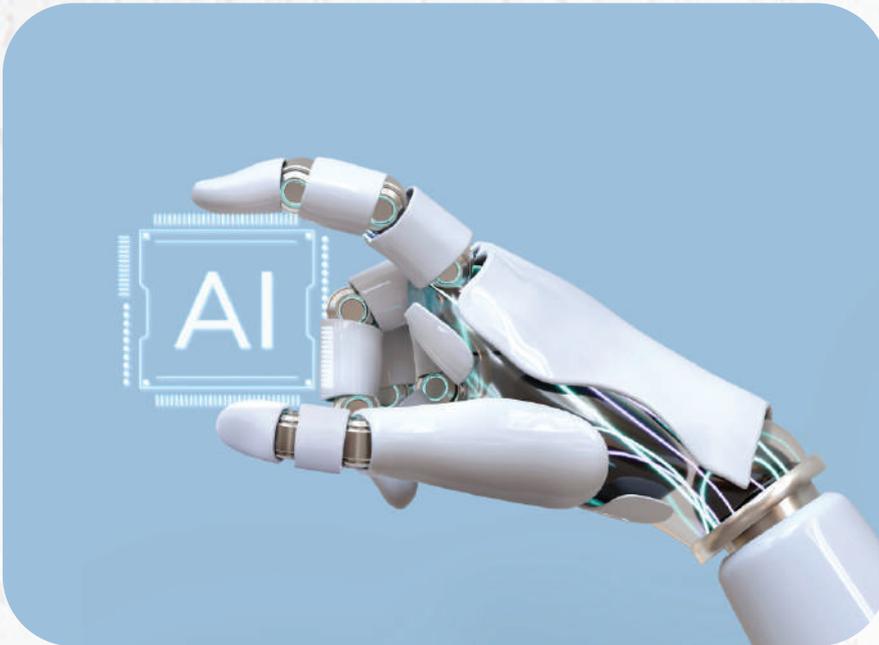
By design, human beings are the primary creatures gifted with the cognitive power to think, act, and produce outcomes in rational and logical forms. Over time, the exhibition of such powers has proven human beings as intelligent creatures - and such display of intelligence has accounted for all human inventions, innovations, and developments including the making of computers.

Comparably, human beings have remained superior to any creation or creature on the question of intelligence. Nonetheless, human ingenuity has also led to the development of advanced computing devices with competitive and superior power to iterate outcomes closer, sometimes, surpassing human intelligence, outputs, and capacities.

The use of these supercomputers and their underlying technologies, algorithms, and training on datasets is producing outputs, only capable of human intelligence. And because it is computers or machines exhibiting these human comparable levels of intelligence, the use of such technological tools to deliver incredible outputs is credited as "Artificial Intelligence" (AI).

In less than a decade, we have witnessed transformational advances in AI-related tech tools across almost every industry – the fastest-evolving technology. In the process, innovative ways of performing tasks, designing new products and services, manufacturing, delivering healthcare, agriculture, financial services, telecommunications, and customer service, among others are upon us. Countless use cases are being demonstrated in ways to improve efficiency, ensure quality of work, and enhance productivity.

The overall impact of AI on businesses going forward will be comparable to the effects of the invention of the internet on business today (remember the effects of the internet downtime on Thursday 14th March 2024?). AI will become to businesses what oxygen is to humans. The relevance of its subcategories such as Generative AI to everyday life and work is even more immensely compelling. With AI, the cognitive powers of computers and machines have been unlocked to simplify work and life.

These benefits notwithstanding, there are raging concerns with its adoption and use. According to Forbes, 15 of such concerns include the lack of transparency, bias and discrimination, privacy concerns, ethical dilemmas, security risks, the concentration of power, dependence on AI, job displacement, economic inequality, legal and regulatory challenges, AI arms war, loss of human connection, misinformation and manipulation, unintended consequences, and existential risks.

It is these concerns that are heightening the calls for the immediate regulation of AI.

THE CALLS FOR ITS IMMEDIATE REGULATION

It is instructive to note that, the full potential of AI has not yet been realized. At best, we are just beginning to experience its experimental use cases and are not able to fully understand its real scope, potential, and limitations.

Its rate of application spanning several industries, remarkable outputs, and our inability to predict its full scope and limitations have resulted in some of the concerns listed above. The fear particularly of its potential to develop AI systems that do not align with human values and priorities has increased the call for its regulation.

However, such calls have only resulted in limited legislative initiatives in Europe (the European Union (EU) AI Act), the United States (the National Artificial Intelligence Initiative Act of 2020 (H.R. 6216)), and the United Nations (the recent 1st General Assembly adopted Resolution on AI) despite its widespread usage.

While these legislative or regulatory interventions seek to ensure ethical and responsible development and use of AI systems to advance human development, the biggest challenge remains the lack of opportunity to fully understand and appreciate how AI technologies work – the black box syndrome.

It is practically impossible to regulate what one does not know or understand. By legislative designs, we regulate what we know and understand and largely prohibit those we do not know. However, the risk of legislating to prohibit AI because we do not understand its workings is undoubtedly impossible due to its demonstrated usefulness so far – society stands to lose in any attempt at prohibition.

Therefore, the legislative approaches so far have been to set up a legal framework that ensures safe, secure, and trustworthy AI systems. For example, according to the EU, the aim of its AI Act is to provide AI developers and deployers with clear requirements and obligations regarding specific uses of AI. Additionally, the Act seeks to "foster trustworthy AI in Europe and beyond, by ensuring that AI systems respect fundamental rights,

In simple terms, "Artificial Intelligence" (AI) connotes the demonstration of "intelligence" by computers or machines in the delivery of assigned tasks.

safety, and ethical principles and by addressing the risks of very powerful and impactful AI models."

These objectives have been set from the standpoint of some appreciable understanding of how AI systems work. The definition of 4 levels of risks namely unacceptable risk, high risk, limited risk, and minimal or no risk associated with AI systems has helped the EU to design a regulatory framework which provides clear guidelines for addressing the various levels of risk.

The collective power of the EU, its technological resources, and expertise in terms of AI developers, researchers, and innovators justifies its regulatory response or approach. Many developing countries do not have such resources to respond boldly to the risks of AI systems. There is limited capacity to understand, regulate, and enforce compliance for AI systems. These limitations have compelled other governments instead of legislating to regulate AI to consider National AI Strategy Frameworks – providing comprehensive outlines of how AI use cases can be integrated and adopted in a transparent, ethical,

and responsible manner.

EXISTING REGULATORY FRAMEWORKS AND AI RISK MANAGEMENT

Certainly, one form or another of AI is in use in many businesses in Ghana today. Equally, some government institutions may be relying on AI to optimize their service offerings, particularly in the areas of customer service and data analysis. These use cases are increasing across several industries despite the absence of AI regulation in Ghana. One reason we may not immediately be exposed to AI-related risks is the opportunity of inherent provisions in existing legislation and how they deal with such related risks.

We have in place regulations covering intellectual property assets and rights, data protection and privacy, cybersecurity and fraud, electronic transactions, and organized crime among others.

Although these existing regulations may predate the AI revolution, their general and specific

applications can accommodate and deal fairly with some of the concerns with AI systems. Specifically, there exist clear guidelines on asserting intellectual property rights over creations, inventions, and works, among others. The Copyrights Act, the Patent Act, the Industrial Design Act, the Trademarks Act, and the general acceptability of trade secret regimes will offer protections for innovations underlying AI systems. The grey area will be the ascertainment of authorships and ownerships for AI-generated outputs – and in such circumstances, our courts may on a case-by-case basis depending on the degree of contribution by humans and AI systems provide guidance and standards for such determinations.

For concerns related to privacy, data protection, and cybersecurity, there are provisions in the 1992 Constitution, the Data Protection Act, and the Cybersecurity Act respectively to deal with them. Additionally, the registration, certification, and compliance mandates under the Data Protection Act and the Cybersecurity Act for institutions and individuals in areas of data collection, use,

storage, sharing and cybersecurity services provision reinforce the ability of the existing regulatory framework to deal with any immediate AI risks in these areas.

More of such regulatory frameworks exist for civil and criminal remedies for some anticipated risks and their resulting breaches. For instance, through the instrumentality of the established cybercrime unit of the Ghana Police Service, the Economic and Organized Crime Office (EOCO), the powers of specialized regulators such as the Bank of Ghana, Security and Exchange Commission (SEC), National Communication Authority (NCA), etc, institutions and individuals who leverage the power of AI in an unethical manner, misinform and manipulate citizens and for fraudulent purposes could be punished – with imposed civil or criminal sanctions.

Admittedly, existing regulatory frameworks do not fully provide for all AI-related risks. Risks such as biases and discrimination, lack of transparency, ethical dilemmas, etc relative to how AI systems are designed and developed are currently not regulated. Primarily, these risks result from underlying data sets used in training the related AI system and are in the domain of technology itself. To mitigate these, AI systems must be trained on accurate, verifiable, and quality local datasets to reduce the likelihood of biases, discrimination, and misinformation.

THE APPROACH FORWARD

At some point in the future, it will become imperative to regulate AI in Ghana as the EU has done. What will inform this will be a proven stakeholder understanding and appreciation of how AI systems work, the availability of local expertise to develop localized AI systems, strong evidence of collaboration between government and private institutions on AI adoption, and proven implementation and adaption of regional and global AI commitments from institutions such as the UN, among others.

However, we must not adopt a "wait and see" attitude in anticipation of the arrival of such regulation. The immediate first step should be to develop a National AI Strategy Framework based on inputs from all stakeholders on the scope, considerations, and acceptable use cases of AI systems across all industries in Ghana.

Further, we must build the capacities of existing regulatory institutions to respond timely and enforce compliance with regulatory dictates that address some of the AI concerns discussed above. Investments must be channeled into people development, procurement of leading technologies and devices, the establishment of protocols, etc to help build institutional preparedness for dealing with AI risks. The regulatory institutions should also adopt collaborative work plans to

permit knowledge sharing, resource leverage, and proactive remedial responses.

Also, to improve AI adoption by businesses, adoption pioneers must be prepared to share their experiences, lessons, and pitfalls to help build the best-case scenarios for AI adoption by businesses in Ghana. Such practical feedback will provide proven roadmaps for the adoption of relevant AI systems to improve business competitiveness and increase productivity.

CONCLUSION

The demonstrated potential of Artificial Intelligence (AI) to become an imperative tech tool to improve work, optimize operational competitiveness, and deliver accurate tailored services among others is not without concerns. The related risks are informing the calls for the immediate regulation of AI in most countries. But as discussed above, we must hasten slowly towards the ultimate AI regulation and in the meantime adopt a National AI Strategy Framework while strengthening the institutional capacities of existing regulators to deal with some of the associated risks.

EMBRACING FINANCIAL INNOVATIONS IN GHANA: THE ROLE OF REGULATIONS AND THE CENTRAL BANK

At the Ghana Fintech 23 Awards night, the organizers did something novel - organized a debate. It was a debate on the topic "balancing innovation and compliance in creating a digital economy". The "innovation" team went up fiercely against the "compliance" (regulation) team and the audience voted massively in favour of the innovation team (largely expected because it was a night of industry innovators).

And beyond the awards night, this debate will continue among regulators and innovators with each pushing to advance their priorities. Nonetheless, no matter which side of the debate you support, the role of regulators in ensuring a stable, robust, and resilient financial sector cannot be overlooked.

Therefore, the purpose of this article is to highlight and assess the role of regulations and the regulator in leveraging the ends of innovation and compliance in promoting financial inclusion and the achievement of financial sector goals.

FINANCIAL SECTOR REGULATION IN GHANA

The mandate to regulate, supervise, and manage Ghana's financial sector is traceable to the supreme law of the land - the Constitution. By the constitutional establishment of the Central Bank, the Bank of Ghana has been clothed with the primary responsibility for the management of the financial sector in Ghana.

Backed up by specialized Acts of Parliament, guidelines, and directives, the Central Bank continues to carry out its mandate creditably, particularly in regulating, supervising, and managing traditional commercial banks and new financial technology (fintech) entities.

Over the years, the protection of the public interest manifested by the protection of depositors' funds and users of regulated financial services has been the preoccupation of the Bank. In the continued pursuit of this primary goal, the Bank continues to promote the adoption of compli-ance standards in accordance with local laws, global standards, and best practices.

Although this commitment to strict regulatory compliance has not resulted in a proven financial system without risks and exposures, it has historically been the bedrock of a seemingly stable financial system we have in Ghana.

Today, we have a financial system in Ghana because of regulations. The reverse would have been a chaotic financial system, run and controlled by private entities and individuals with the sole aim of exploiting the end-users. Even the most admired financial systems globally have only attained such heights due to "regulations" – the existence of laws on permissible financial services and products, clear reporting, and compliance demands, strong institutional approaches to supervision, regulation, and implementation of sanctions, open, transparent, and accountable financial service procedures among others.

Evidently in Ghana, the Central Bank has responded despite some challenges to changing demands of financial service regulations brought about due to the advances in technology, the design and deployment of new innovations.

The uptake in technological advances such as blockchain, artificial intelligence (AI), machine learning, etc has led to the development of disruptive financial products and services in areas of payments, savings and investments, credit and lending, remittances, etc.

In response to regulating the financial use cases of these new technologies, the Central Bank in the year 2020 established the Fintech and Innovation Office to drive the Bank's cash-lite, electronic payments and digitization agenda. Today, the Fintech and Innovation Office in line with its mandate has rolled out a licensing regime for financial service innovations (with more than 50 companies so far licensed), launched and admitted the first cohort of new innovations with-

out existing license categories into its regulatory sandbox program and recently held an e-cedi hackathon allowing the private sector to showcase use cases of the bank's planned Central Bank Digital Currency (CBDC), e-cedi.

Remarkably, the further commitment by the Bank through policy speeches and statements by its governors of its willingness to consider where possible the regulation and adoption of new digital currency forms such as cryptocurrency is a testament of the Bank's resolve to embrace innovations which advance the financial sector goals and serve the needs of consumers.

WHAT MUST BE THE APPROACH GOING FORWARD?

Despite the challenges of financial service regulation globally and locally, regulation per se has produced some significant results without which we may not be having a financial sector. The ability of the financial sector to

transition to the now widely adopted digital financial services and products form could only be attributable to some entrenched benefits brought about by regulation over time.

Some of these benefits are:

1.   Certainty: Consistent with the primary characteristic of law generally, regulations have provided some level of certainty about financial services. Through regulation, identifiable and verifiable institutions have been established with clearly defined service offerings. The widely accepted concepts of banking, banks as institutions, deposit-taking procedures, withdrawal, and fund transfer procedures, etc have all attained some level of certainty as a result of regulations.

The continuous certainty about financial outcomes will be imperative for the development of any financial system going forward.

2.   Building of Trust: Trust has a significant role in building any financial relationship between service providers and

end-users. The difficult task of building trust is usually accelerated by regulations where consumers prefer to deal with regulated and licensed financial service providers other than unregulated ones.

And as we head into a new era of financial service provision where physical infrastructures such as offices, branches, etc are being replaced with digital tools, the continuous regulation of financial services will offer some seal of approval and endear trust in the licensed and regulated services.

3. Consumer confidence: Closely connected to the weight of regulations on the building of trust in financial services is its effects on consumer confidence. The outcomes of regulations such as approved or licensed institutions, permissible products, and services, established compliant procedures, effective supervisory regimes, and consistent reviews of banking practices, procedures and guidelines among others increase consumer confidence in the financial sector.

The net effect of increased consumer confidence will be the acceleration of the adoption of new financial service offerings going forward. This couldn't be the case without the regulation of financial services.

4. Consumer protection: Globally, regulators of financial sectors have always prioritized one objective – the protection of the end consumers, depositors, and users of regulated financial services. To this end, specialized regulations have been designed to ensure private sector stakeholders such as banks, and fintech companies embed and comply with consumer protection regimes against unjust enrichment, fraud, etc.

Where systematic failures from regulated financial services have resulted in the loss of depositors' funds, regulations have been used to reform financial sectors, sanction defaulters, and save depositors' funds.

These benefits notwithstanding, the regulatory process and approach must be enhanced with regular reviews in tandem with the rate of adoption of new innovations, strong supervisory regime, institutional capacity building on understanding emerging technologies, open and transparent guidelines on new initiatives, strong industry stakeholder collaborations and engagements, and clear policy guidelines on the non-use of innovation licenses among others.

While the use cases of technology are becoming a common phenomenon in financial service delivery, the use of regulations by regulators to create a balance between the promotion of the interest of end-consumers and the adoption of new innovations should not be compromised. Regulators must continue to perform the gatekeeper's role, only permitting innovations which serve the real consumer needs and advance financial sector goals responsively and ethically.

CONCLUSION

Undeniably, we are witnessing many positive use cases of technological advancements across many industries and sectors and financial services are no exception. These innovations such as mobile money have helped accelerate financial inclusion at a much faster rate. Nonetheless, the inherent risks posed to the stability of the whole financial system must be checked with strict regulatory measures and compliance standards. The concerns of instability, risks, and opportunities to exploit an unregulated or liberal financial regulatory landscape reinforce the critical role of regulations and regulators in safeguarding all of us.

LOOKING AHEAD - INTELLECTUAL PROPERTY ASSETS AND THE METAVERSE

The fast-paced progress of technology in our modern era brings up crucial concerns in intellectual property law that need urgent consideration. With the advent of the Metaverse, businesses are now exploring business opportunities in a virtual space that mimics our physical world.

In the Metaverse, the options are boundless – you can engage in activities such as purchasing virtual and real items from virtual malls, playing games, working, buying real estate, traveling, and even attending concerts, all within this expansive virtual environment.

While the Metaverse opens doors to captivating realms beyond the constraints of the physical world, it is essential to recognize that the Metaverse is a human-made construct existing within the bounds of legal reality. Even as users immerse themselves in alternate realities, legal considerations from the real world continue to play a significant role.

Therefore, the purpose of this article is to explore how intellectual property assets can be protected and rights enforced for products and services traded in the Metaverse within the framework of intellectual property law.

UNDERSTANDING THE METAVERSE AND ITS FEATURES

As technology continues to advance at a rapid pace, terms like "metaverse," "virtual reality," and "augmented reality" are becoming increasingly prevalent. However, these concepts are often used interchangeably, leading to confusion.

The "metaverse" refers to a virtual environment facilitated by cutting-edge technology, transcending the physical world's limitations. Within this realm, users can interact with one another as avatars, irrespective of geographical boundaries, while also engaging with software applications in a three-dimensional space.

The metaverse is not just one virtual world – it is a connected network of virtual worlds. Each world can be independently designed, offering users a variety of experiences. In this vast array of universes, users can create, share, and collaborate, making it a highly customizable and interactive environment where both the metaverse and avatars can be modified and enhanced.

Metaverse can be used for a variety of purposes, including social interaction, entertainment, education, and business, and has the potential to revolutionize many industries, including education, healthcare, retail, and more. For example, Metaverse can be used to create virtual reality environments for training or educational purposes. It can also be used to create virtual storefronts for businesses or to create virtual spaces for social interaction.

The metaverse is carefully developed to provide experiences similar to those found in the real world, utilizing a set of technologies known as extended reality (XR). Notably, XR includes various essential technologies such as virtual reality (VR), augmented reality (AR), and mixed reality.

Virtual reality (VR) transforms the digital realm into a lifelike environment, providing users with immersive experiences. Using specialized devices like VR headsets and immersion helmets, virtual reality enhances visual, tactile, auditory, and kinesthetic sensations, fostering a deep interaction between users and the virtual world. In essence, virtual reality acts as a gateway to an artificial domain accessed through specific devices.

Augmented reality (AR) however takes a different approach, allowing the overlay of three-dimensional virtual elements onto the real-world environment. This fusion of the digital and physical worlds occurs effortlessly through AR devices like smartphones, smart glasses, and contact lenses. It is important to note that unlike virtual reality (VR), AR allows users to merge virtual objects with their immediate physical environment.

The main difference between AR, VR, and the Metaverse is that the Metaverse is a user-created online space, virtual reality is a simulated environment, and Augmented Reality overlays digital content in the real world.

INTELLECTUAL PROPERTY IN THE METAVERSE

The Metaverse, a product of human ingenuity and innovation, has ushered in a new era. As its usage surges, safeguarding intellectual property rights within this digital domain becomes paramount. Within the Metaverse, intellectual property rights will play a pivotal role in preserving ownership and control over virtual assets, encompassing designs, characters, music, and more.

The absence of intellectual property rights protection will expose creators to the risk of unauthorized replication or theft, leading to financial setbacks and reputational harm. Thus, intellectual property protection in the Metaverse must be the cornerstone for fostering innovation, nurturing creativity, and encouraging investments in the digital realm, ultimately ensuring a just and inclusive virtual environment for all participants.

Within the vast expanse of the metaverse, every element of the said virtual universe possesses some form of intellectual property associated with it, including:

The "metaverse" refers to a virtual environment facilitated by cutting-edge technology, transcending the physical world's limitations.

1. Copyright: Copyrightable works in the Metaverse include those that are original and fixed in a tangible medium of expression, such as text, images, audio, and video. Copyright laws safeguard original works, granting creators exclusive rights, including reproduction, distribution, performance, and display.

In general, copyright protection is attained automatically the moment the work is created. Since protection does not depend on registration - a creator does not need to register his/her work. However, in certain jurisdictions including Ghana, individuals may register their works for additional copyright protection, such as providing evidence of validity and putting the public on notice that such work is protected by copyright and that you are the copyright owner.

The Metaverse, though still in its early phases, is poised for rapid development. The integration of technologies like virtual reality (VR), augmented reality (AR), artificial intelligence (AI), non-fungible tokens (NFTs), cryptocurrencies, and blockchain may have

copyright implications.

Further, given the potential for infringements in the metaverse, registering works for copyright protection is advisable as it simplifies proving ownership, originality, and other crucial aspects in case of infringement.

2. Trademarks: In the Metaverse, trademarks will continue to function as crucial brand identifiers, extending their role from the physical to the virtual space. This evolution will offer companies with trademarks the opportunity to enhance their brand visibility in the digital space. As a result, brands must actively pursue trademark protection for their virtual assets including submitting applications to officially register their marks in the metaverse.

Many prominent footwear brands, such as Nike and Converse, have recently applied for trademarks with the United States Patent and Trademark Office. It is noteworthy that companies in the fashion, cosmetics, sports, and entertainment sectors are following suit by filing applications for their trademarks in connection with virtual products. While these applications are still awaiting examination, they provide insights into potential strategies for securing trademark registrations for virtual goods.

3. Image Rights: The term 'image rights' is used to refer to an individual's proprietary rights in their personality and the ability to exploit, and prevent unauthorized third parties from making use of, an individual's persona, including their name, nickname, image, likeness, signature, and other indicia that are inextricably connected with that individual.

Modern technology enables users to create lifelike avatars with precise details mirroring real-world physical characteristics. Beyond facial features, hairstyles, colors, eye shapes, and accessories, future advancements may bring variations in voice tone, mannerisms, and behavior, enhancing the realism of these digital representations.
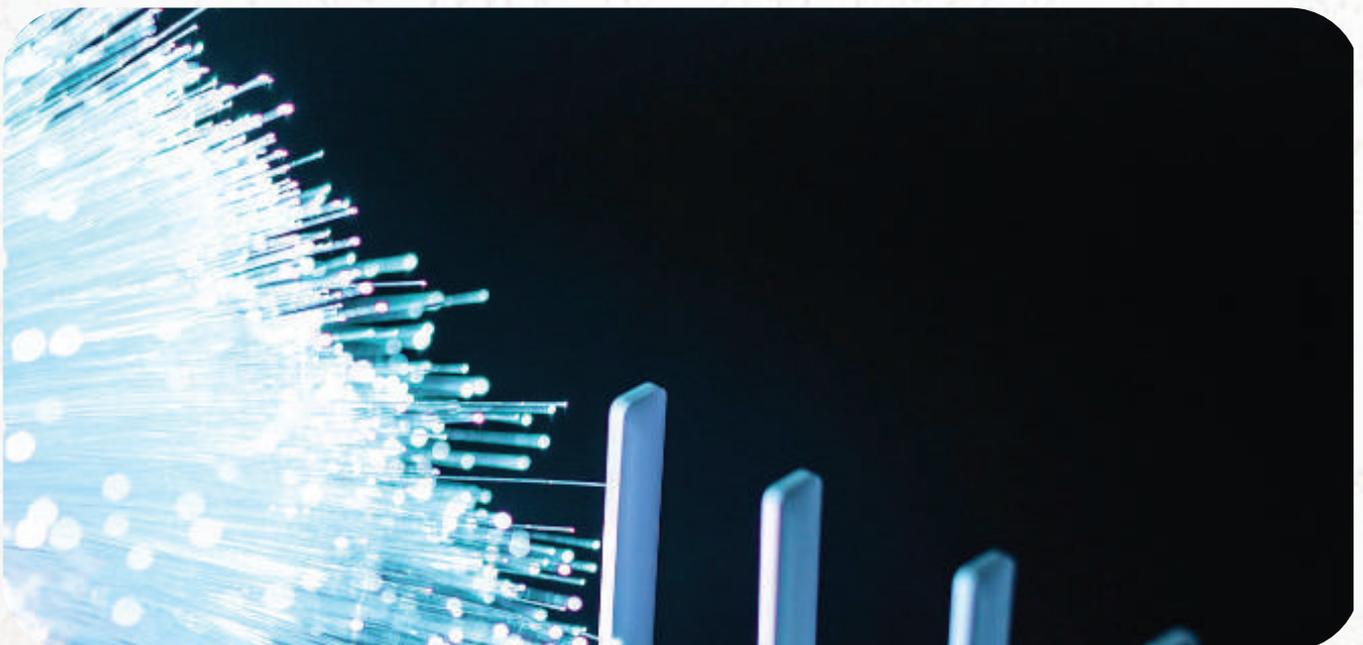
Accordingly, the use of an individual's image in the process of developing and exploiting avatars in the Metaverse is a sensitive issue that requires proper attention.

Interacting through avatars in virtual worlds is not a new concept, but recent technological advancements have led to the creation of remarkably realistic avatars. This advancement raises challenges in safeguarding image rights, especially when these avatars depict individuals other than their creators. Within the expansive virtual landscape, there is a growing concern about potential infringements on image rights and the ensuing legal ramifications.

A significant concern arises when users generate avatars resembling third parties, as this opens the door to activities that could tarnish the honor and reputation of the individuals portrayed. The repercussions of such harm may transcend the virtual space, impacting the real world in tangible ways.

Also, when users interact via avatars, they may commit acts that would violate the law had they occurred in the real world.

Finally, another possible discussion relates to the right of individuals to economically exploit their image – also known as the right of publicity – which is consolidated in common law jurisdictions including Ghana under the Copyright Act, 2005 (Act 690).

ANTICIPATED CHALLENGES FOR THE ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS IN THE METAVERSE

Identifying copyright ownership, evaluating the extent of infringement, and identifying infringers present significant hurdles in the metaverse, largely due to the anonymous nature of user identities and transactions.

This anonymity, intended to address privacy concerns, complicates efforts to hold individuals accountable for trademark or copyright violations, as right holders struggle to uncover the identities of infringers. People are present in the form of avatars and blockchain technology protects the identity of these people.

The main difference between AR, VR, and the Metaverse is that the Metaverse is a user-created online space, virtual reality is a simulated environment, and Augmented Reality overlays digital content in the real world.

Therefore, the presence of Artificial Intelligence (AI) will be needed for the identification of these people.

Further, the virtual landscape of the metaverse has sparked debates among legal experts regarding jurisdiction and the applicability of domestic laws. Moreover, the legal status of the Metaverse itself is still a grey area, making it likely that infringers will exploit loopholes to gain illicit benefits by violating someone else's IP.

Further, within the Metaverse, intellectual property rights laws need to address various factors such as user-generated content, the creation and sharing of virtual assets, utilization of representations from the physical or virtual world, and more.

This challenge is exacerbated by the existence of interconnected or segregated parallel virtual worlds. Enforcing copyright becomes a daunting task for holders, as proper identification and monitoring of infringing content may be hindered, leading to a potential breeding ground for copyright infringement within the Metaverse.

Finally, the biggest obstacle would be the enforceability of the infringement laws due to the cross-border nature of the Metaverse, which includes people from various countries.
Copyright owners pursuing infringement lawsuits in their jurisdictions may face limitations in geographic scope, potentially undermining the effectiveness of their legal actions. It would become difficult to understand the applicability of law, the appropriate authorities, and their jurisdiction.

And even if the infringers are eventually identified, it can be a complex and costly venture to prosecute all those involved in the infringement.

RECOMMENDED PROTECTION AND ENFORCEMENT STRATEGIES

Protecting and enforcing copyright and trademarks in the metaverse must follow proce-

dures similar to those in the physical world. Metaverse platforms, governed by intellectual property terms and conditions, explicitly must forbid content that violates trademarks and copyrights, image rights, and other IP rights, requiring them to be removed upon request.

For instance, visible copyright notices on virtual content will act as an initial warning to potential infringers in the Metaverse, explicitly stating that unauthorized use is prohibited.

Platform operators must also reinforce this by establishing comprehensive Terms of Service (ToS) outlining acceptable copyright usage. These terms must specify penalties for infringement, creating a contractual obligation for users to adhere to copyright rules.

Using Digital Rights Management (DRM) technologies to safeguard copyrighted content in the Metaverse is another effective strategy. Using DRM technologies in the Metaverse, such as encryption and watermarks, effectively prevents unauthorized copying, modification, and distribution of virtual content.
Platforms can also enhance

protection through content moderation measures like automated algorithms or human moderators to swiftly identify and remove infringing content. These proactive approaches will ensure early detection and mitigation of copyright infringement in virtual environments.

In the Metaverse, it will be crucial to secure proper licenses and permissions for using copyrighted content. Content creators may therefore provide licenses for their works, enabling users to use copyrighted material in their virtual creations by obtaining the necessary permissions, ensuring adherence to copyright laws.

Dispute resolution (litigation) remains another viable avenue for enforcing copyright and trademark rights. When individuals discover their intellectual property rights have been violated, they may initiate legal proceedings to seek appropriate remedies. Domestic laws must provide remedies for infringement, empowering affected parties to take legal action and seek redress from the courts.

Finally, promoting awareness and educating users, content creators, and platform operators in the

Metaverse regarding copyright laws and best practices will contribute to fostering a culture of compliance and respect for intellectual property rights.

CONCLUSION

As the Metaverse evolves, predicting its growth and potential legal challenges remains a seemingly daunting task. Lawmakers need to ensure the conformity of its development with legislation and policy guidelines for seamless integration into human reality. Despite being in the development stage, substantial investments from various companies indicate its imminent significance to modern society, just like the internet.

The Metaverse presents both opportunities and challenges for intellectual property (IP) rights. While current copyright laws address expected issues, the global accessibility of the Metaverse raises concerns about the universal applicability of laws and the need for appropriate regulatory bodies in case of disputes or IP rights infringements.

INDUSTRY PLAYERS' SPOTLIGHT

09

BANK OF GHANA AS A FINTECH REGULATOR

Ghana's fintech landscape largely covers the banking and financial services sector, insurance, telecommunications, and non-bank financial services and has become one of the most promising and scalable fintech ecosystems in Africa since the emergence and popularization of the industry sometime in 2008.

The Bank of Ghana is the main regulator of the fintech industry in Ghana. It is mandated to license banks and non-financial institutions engaged in fintech business in Ghana. Pursuant to the aforementioned mandate, the Bank has established the Fintech and Innovation Office specially dedicated to overseeing emerging technologies and business innovations that operate within the fintech space.

There are six categories of fintech business licenses:

1.   Dedicated Electronic Money Issuer License.
2.   Payment Service Provider Scheme License.
3.   Payment Service Provider – Enhanced License.
4.   Payment Service Provider – Medium License.
5.   Payment Service Provider – Standard License and

6.   Payment and Financial Technology Service Provider (PFTSP) License.

The Bank of Ghana mandates that licensed entities must follow global standards like ISO/IEC 27001, which outlines information security management requirements set by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). The Bank of Ghana reports that it has licensed and given approval for the operations of some 52 fintech startups, falling under different license categories out of an estimated number of 100 fintech startups in Ghana.

REGULATORY SANDBOX FRAMEWORK

In February 2021, the Bank of Ghana revealed its plan to introduce a Regulatory Sandbox specifically for the fintech industry. The main goal was to shape regulations to protect the industry, mitigate risks, and encourage innovation and creativity. Essentially, the sandbox was designed to address the influx of new financial innovations and ensure financial inclusion, consumer protec-

tion, and market integrity.

Since the announcement, the industry has eagerly awaited the launch of the sandbox. Responding to this anticipation, in August 2022, the Bank of Ghana unveiled the Regulatory Sandbox Framework, outlining how the sandbox would operate.

The purpose behind establishing this regulatory sandbox is to support responsible innovations and nurture new business models. According to the framework, the sandbox will involve small-scale testing of innovative financial products, services, and business models by eligible financial service providers and fintech startups. This testing will occur in a controlled environment and within a specified timeframe under the supervision of the Bank of Ghana. Essentially, the sandbox allows for the testing of new ideas in a contained environment, minimizing risks and costs before full-scale implementation. Additionally, it aims to foster an active regulatory environment that keeps pace with digitization trends in Ghana.

Under this framework, the Bank of Ghana has invited banks, specialized deposit-taking insti-

tutions, payment service providers, electronic money issuers, financial holding companies, and other non-bank financial institutions to apply for participation in the sandbox. It has been open to a limited range of innovations and emerging technologies, including new digital businesses, immature digital financial service technology, and innovative digital financial products and services aimed at addressing recurring financial challenges in the country.

The sandbox also prioritizes innovations leveraging crowdfunding, remittances, blockchain technology, electronic Know Your Customer (e-KYC) platforms, regulatory technology (RegTech), supervisory technology (SupTech), and digital banking and financial services targeting financial inclusion for women.

Operating on a hybrid model, the sandbox includes the Cohort Model and the Rolling Model, with four main stages: application, evaluation, testing, and exit.

Lastly, the Bank of Ghana, on January 26, 2023, issued a communique inviting eligible banks, specialized deposit-taking institutions, payment service providers, dedicated electronic money issuers, non-bank financial institutions, aspiring fintech start-ups, and other innovators to apply to enter the first session of the regulatory sandbox scheduled to take place from February 13, 2023, to March 14, 2023.

The first-ever regulatory sandbox session in the country aimed to test innovations from the identified priority areas, which included remittances, crowdfunding, and blockchain and distributed ledger technology.

E-CEDI HACKATHON

The Bank of Ghana (BoG) concluded its first central bank digital currency (CBDC) hackathon. The event involved ten teams developing eCedi solutions deployed on Hedera's public DLT, using EMTECH's Beyond Cash digital currency solution. KPMG participated as a service provider on a pro bono basis, establishing the competition criteria and supervising the event. The hackathon participants included developers, banks and fintechs.

The prizes were significant, with the winning team Forward Titans

Operating on a hybrid model, the sandbox includes the Cohort Model and the Rolling Model, with four main stages: application, evaluation, testing, and exit.

walking away with eCedi 500,000 ($41,500). Second and third-placed participants Nokofio and Pay Code received eCedi 300,000 ($25,000) and 200,000 ($16,600) respectively. The organizers didn't share the winners' use cases.

However, the ten finalists launched apps covering agriculture, government payments, business payments, taxation, securities, crowdfunding, interoperability, and credit scoring.
Ghana's hackathon started in October with 88 applications pruned to 68 and eventually to ten finalists.

A hackathon, characterized by its time-bound, collaborative, and high-intensity nature, brings together individuals or teams from diverse backgrounds to collaboratively work on creative and innovative projects, often revolving around technology, software development or problem-solving.

The project is part of the eCedi research project and presents an opportunity for the central bank to explore emerging technologies, foster creativity, and contribute to the advancement of eCedi development.

In June 2021, the Bank of Ghana was one of the first African central banks to declare interest in establishing a CBDC, and two months later it signed a contract with Germany's Giesecke+Devrient (G+D) Currency Technology to commence with the first pilot project.

CROWDFUNDING IN GHANA

In February 2021, the Bank of Ghana (BOG) issued Ghana's first-ever Crowdfunding Policy ("the Policy") in its attempt to regulate crowdfunding in Ghana.

Under the Policy, the Central Bank now permits and provides specific licenses for operating donation and reward-based crowdfunding because the models entail the collection, holding, and disbursement of payments and these are activities which are recognized and fall within the ambit of permitted activities under the Banks and Specialized Deposit-Taking Insti-

tutions Act, 2016 (Act 930).

According to the central bank, holders of the Dedicated Electronic Money Issuers (DEMI) License are also permitted to provide the aforementioned crowdfunding services under their licenses as sanctioned under the Payment Systems and Services Act, 2019 (Act 987). To ensure the protection of consumers and for transparency, the Bank of Ghana requires DEMI License holders to create new and specific merchant accounts dedicated to the collection of donations.

Further, the Enhanced Payment Service Provider (EPSP) License holders are permitted under the Payment Systems and Services Act, 2019 (Act 987) to engage in reward-based crowdfunding. However, where they seek to engage in donation-based crowdfunding, then there would be the need for a partnership with a specialized deposit-taking institution in order to obtain the licensing approval of the Bank of Ghana.

In respect of debt and equity crowdfunding, the Bank of Ghana has stated that it falls outside the ambit of the Payment Systems and Services Act since it largely borders on investment funds and investments fall outside the scope of permissible activities of institutions licensed under Act 987.

In Ghana, investments are regulated by the Securities and Exchange Commission pursuant to the Securities Industry Act, 2016 (Act 929). Therefore, any fintech start-up or technology-related institution desirous of participating in the debt or equity crowdfunding model is required to partner with an entity licensed and regulated by the Securities and Exchange Commission to operate lawfully in the country.

The SEC is however expected to roll out the final version of the Ghana Securities Industry (Crowdfunding) Guidelines which will regulate Equity and Debt crowdfunding in Ghana soon.

PAST INDUSTRY EVENTS

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GHANA'S FINTECH COMMUNITY CELEBRATE INNOVATION AND EXCELLENCE AT PRESTIGIOUS 2023 GHANA FINTECH AWARDS

Thirty-four (34) firms and individuals in Ghana's Fintech industry who distinguished themselves in the year 2023 were rewarded at this year's Ghana Fintech Awards, where prestige, pomp, and splendor converged in a dazzling display of innovation and achievement.

The highly anticipated event organized by Arkel Limited recognized and celebrated the outstanding contributions of fintech companies and individuals in driving financial inclusion, technological advancement, and economic growth in Ghana.

Among the notable winners was Archie Hesse (CEO, GhIPSS), who was awarded the Lifetime Achievement for Financial Inclusion. Broadspectrum Digital Payments won the highest number of awards (eight) on the night for its ground-breaking ideas in the Fintech space in Ghana.

The awards gala, attended by industry leaders, policymakers, investors, and fintech enthusiasts, showcased the remarkable achievements and ground-breaking innovations within Ghana's fintech ecosystem. From disrup-

tive start-ups to established industry players, the event highlighted the diversity and dynamism of the sector.

In addition to honoring exemplary achievements in the fintech sector, the awards gala served as a platform to launch two significant initiatives aimed at promoting diversity and amplifying voices within the industry. The inaugural launch of "Women in Fintech" and "Top Fintech Voices" underscored the commitment of Ghana's Fintech community to foster inclusivity and recognize the diverse talents driving innovation

in the sector.

The event also saw a debate on Balancing Innovation and Compliance in Creating a Digital Economy. The debate underscored the importance of striking a harmonious equilibrium between innovation and compliance to unleash the full potential of Ghana's digital economy.

Panelists deliberated on the challenges posed by evolving regulatory frameworks and consumer protection concerns, emphasizing the need for collaborative efforts to address these issues while nurturing a conducive environment for fintech innovation.

As Ghana continues to position itself as a leading hub for fintech innovation in Africa, events like the Ghana Fintech Awards play a crucial role in spotlighting the achievements of the industry and inspiring future generations of fintech entrepreneurs and innovators.

The full list of award winners are:

1. Mobile Banking App of the Year – CalBank App
2. Digital Bank of the Year – First Atlantic Bank
3. ESG Bank of the Year – CalBank
4. Banking Innovative Product of the Year (Retail) – Stanbic Bank
5. Banking Innovative Product of the Year (SME/Corporate) – First Atlantic Bank's Corporate Pay (Corporate Pay/Atlantic Pay)
6. Fintech & Bank Partnership of the Year – Jumo, Ecobank & MTN
7. Fintech & Non-bank Partnership of the Year – Broadspectrum Digital Payments & Nedco App
8. Agritech of the Year – Agrospectrum Limited (Broadspectrum)
9. Healthtech of the Year – DrugNet
10. Edutech of the Year – AyaHQ
11. Insurtech/Pentech Company of the Year – Hubtel Insurance and Insurerity Digital
12. Regtech Solution of the Year – Bank of Ghana – Orass
13. Fintech Personality of the Year (Male) – Razak Awudulai (Broadspectrum Group)
14. Fintech Personality of the Year (Female) – Mary Boateng-Coleman (Brassica Pay)
15. Fintech CTO/CIO of the Year – Lovestone E. Mamattah (Broadspectrum Group)
16. Young Fintech Leader of the Year – Jeremy Quainoo (Jumo)
17. IT/Tech Firm of the Year – Broadspectrum Limited
18. Leading Payments Technologies Service Provider – eTranzact Ghana Ltd
19. Fintech Discovery of the Year – Broadspectrum Digital Payment
20. Emerging technology of the Year – WeWire Africa
21. Blockchain Company of

the Year – Paybox

22. Leading Fintech Solutions Provider – AppsnMobile

23. Fintech Platform of the Year – Jumo Ghana

24. Fintech Innovation of the Year – Motito Limited

25. UI/UX Fintech Company of the Year – Mobile Money Limited (MTN MoMo)

26. E-Commerce Solution of the Year – Credstore Africa

27. Cybersecurity Company of the Year – Innovare Africa

28. Compliant Fintech Company of the Year – Broadspectrum Digital Payment

29. Regulator of the Year – Bank of Ghana

30. Fintech for Financial Inclusion Firm of the Year – Jumo Ghana

31. Fintech Start-up of the Year – Broadspectrum Digital Payment

32. Fintech Company of the Year – Broadspectrum Digital Payment

33. Female-led Fintech Company of the Year – Mary Boateng-Coleman (Brassica Group)

34. Lifetime Achievement for Financial Inclusion (Honorary Award) – Archie Hesse, CEO – GhIPSS

Individuals honored as Top Fintech Voices are:

1. Mr. Archie Hesse – CEO, Ghana Interbank Payment and Settlement Systems (GhiPSS) Limited

2. Mr. Kwame Oppong – Director of Fintech and Innovation, Bank of Ghana.

3. Mr. Romeo Bugyei – CEO, IT Consortium Ltd

4. Mr. Jeremy Quainoo – General Manager, Africa Operations & Partnership, Jumo

5. Mr. Ernest Apenteng - Director of Sales and Co-Founder, Hubtel

6. Mr. Isaac Tetteh – Founder and CEO, BigPay Ghana Ltd

7. Mr. Abioye Oyentunji – Founder, FXKudi

8. Mr. Darryl K. Mawutor Abraham – Business Development for Africa, TapTap Send

9. Mr. Alex Bram –CEO and Co-Founder, Hubtel

10. Mr. Ebenezer Ghanney – Growth Lead, Wewire Africa

11. Mr. Richard Nunekpeku – Managing Partner, Sustineri Attorneys PRUC

12. Mr. George Babafemi – Executive Director, eTranzact

13. Mr. John Apea – CEO, eTrazact

14. Mr. Martin Kwame Awagah – President, Ghana Fintech and Payment Association

15. Mr. Sebastian Quansah – Managing Director, Fido Ghana.

16. Mrs Nancy Arhinfuwaa Imadi – Head, Licensing and Product Approvals, Bank of Ghana

17. Mr. Charles Kollo – Senior Partner for Brand, Go-To-Market and Strategic Partnerships, PMK

18. Mr. Paul Jacquaye – Group Chief Executive Office and Acting Chairman, Clydestone

19. Mr. Richard Bansah – CEO, appsNmobile Solutions

20. Mr. Tenu Awoonor – Founder and CEO, The Blue Penguin Company Limited

21. Mr Frank Anwelle – Fintech Executive

22. Mr. Louis Amenyo – CEO, Eganow & Teksol

23. Mr. Norbert Dziwornu – Managing Partner, StarOA

24. Mrs Mary Boateng- Coleman – Co-founder, Brassica Pay Limited and Brassica Capital Limited

25. Mr. Thomas Akwasi Baafi – Founder and CEO, Bsystems Limited

26. Mr. Abdul-Jaleel Hussein – CEO, Affinity Ghana

27. Mr. Razak Awudulai – Founder and CEO, Broadspectrum Limited

28. Mr. Jones Amegbor – Founder and CEO, PayAngel

MTN BUSINESS HOLD 2024 EDITION OF CTIO ROUNDTABLE AFRICA FORUM, FOSTERING TECH INNOVATION ACROSS THE CONTINENT
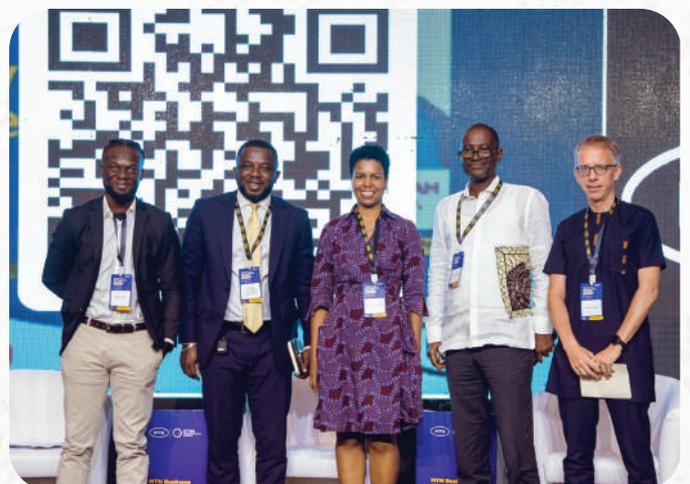
The eagerly anticipated 2024 edition of MTN CTIO Roundtable Africa Forum came off on 27th March 2024 at the Labadi Beach Hotel with some of the brightest minds in technology, telecommunications, and innovation for insightful discussions on the topic: "Driving business value through data and AI".

The Roundtable discussion underscored the relevance of AI adoption as a tech tool for business transformation and building more resilient business models.

Speakers at the event included Bernard Acquah - Chief Information Officer, MTN Ghana, Dario Bianchi - Chief Digital Officer, MTN Ghana, Miishe Addy - Co-Founder & CEO Of Jetstream Africa, Richard Nunekpeku - Managing Partner, Sustineri Attorneys PRUC, and Richard Osei-Anim - Managing Partner, Hatchery & Coral Reef Innovation Hub.

One of the forum's highlights was showcasing homegrown African innovations and startups.

The "Innovation Spotlight" segment featured presentations from emerging tech company "Chenosis"- a cross-industry API marketplace that enables developers, entrepreneurs, and businesses to integrate into the fastest-growing library of open APIs, by providing access to a broad market of API products and services across telecommunications, health, government, financial services, entertainment, and more.

AFRICA TECH SUMMIT NAIROBI 2024 CONNECTS INDUSTRY LEADERS FOR INVESTMENT AND INNOVATION

The 2024 Africa Tech Summit, a leading African tech event, providing insight and networking with the African tech ecosystem took place on February 14-15, 2024, at the Sarit Centre Expo in Nairobi, connecting over 1,000 African and international industry leaders, investors, and startups from across the African tech ecosystem.

Following a sellout in 2023, the sixth edition of the Summit sought to connect tech leaders from the African ecosystem and international players under one roof. Attendees networked with key stakeholders including tech corporates, mobile operators, fintechs, DeFi & crypto ventures, investors, leading start-ups, regulators, and industry stakeholders driving business and investment forward.

The Summit featured multiple sessions delivering a cross-sectional view of technology advances and opportunities from across the continent. An array of keynotes, fireside chats, panels, and breakout sessions from tech leaders, corporates, entrepreneurs, and investors were complemented with quality networking time.

UPCOMING EVENTS

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THE INAUGURAL 3I AFRICA SUMMIT COMES OFF IN ACCRA IN MAY

The Bank of Ghana (BoG) in collaboration with the Monetary Authority of Singapore, and Development Bank Ghana (DBG) and organized by Elevandi will host the maiden edition of the "3i Africa Summit" from 13th to 15th May 2024 in Accra, Ghana.

The theme for this year's summit is "From Innovation to Impact: Investing in Africa's Financial Sector to drive Africa's Transformation".

It promises to be a Fintech festival with high-level conversations on "Innovation, Investment and Impact" for Africa's FinTech and Financial Services sectors. Additionally, it aims to spearhead transformative discussions, address key growth and investment opportunities, explore how market players in the financial ecosystem are leapfrogging in digital transformation, and pioneer the much-needed dialogues and actions to drive Africa's FinTech growth.

The summit will feature a lab crawl to connect startups with investors, 15 keynote speakers, over 100 global investors and tech executives, and sessions to discuss innovation and policy.

For more information,

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www.sustineriattorneys.com

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