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The digital future of assessing risks & collecting data, are the days of traditional underwriting over ?
- Integrated claims Management Processes

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Presentation Format

- **Digitisation, Digitalisation & impact**
- **Historical purview of technology adoption in insurance**
- **Importance of emerging technologies**
- **Blockchain Technology – Distributed Ledger Technology**
- **Internet of things (IoTs)**
- **Data Analytics, Increased Personalisation**
- **Artificial Intelligence (AI)**
- **Cybersecurity issues**
- **Other Technology trends**
- **Reasons why technology impacting insurance**
- **Lessons From Impact of Technology on insurance**
- **Future of Underwriting – the issues**
- **Implementing an integrated Claims Management System**
- **The Emeritus Re (ZimRe) CASE STUDY**

DIGITISATIONAND DIGITILISATION

- **Digitization refers to the process of converting analog information into digital form, which can be stored, processed, and transmitted using electronic devices and computer systems. This process involves capturing data, images, sounds, or other types of information and transforming them into a binary code that can be interpreted by digital devices.**
- **In summary , Digitization refers to the process of converting physical information into digital formats, while digitalization refers to the use of digital technologies to improve business operations and create new value for customers.IT INVOLVES AUTOMATION OF BUSINESS PROCESS**
- **Digitilization has become increasingly important in today's world due to the widespread use of computers and the internet. It enables organizations to store and access large amounts of data quickly and easily, as well as to share information with others around the world. DATA IS NOW THE NEW GOLD.**
- **Digitization transformed the way business is done, the market, and the skills that will be needed in the future.**
- **THE IMPACT ON EMPLOYMENT: (EG U Tube, Udemy – free education)**

1. **Digitalization has created new jobs & eliminated some traditional jobs. Automation and artificial intelligence will continue to disrupt the labor market, and technology will transform or replace many jobs.**

DIGITILISATION – IMPACT ON EMPLOYMENT

2. The skills needed for the future of work: There are several skills that will be in demand in the future, including digital literacy, technical skills, and social and emotional skills such as creativity, critical thinking, and adaptability. Workers will need to continually update their skills to remain competitive in the job market

3. The role of education and training: Education and training in preparing workers for the future of work is critical. Schools and training programs should focus on developing the skills that will be in demand, such as digital literacy and problem-solving.

4. The potential for new job creation: New jobs to be created in the future, particularly in areas such as healthcare, education, finance, insurance and environmental sustainability. The policymakers should focus on creating an environment that encourages innovation and entrepreneurship.

5. The need for social safety nets: The shift towards a digital economy may exacerbate income inequality and create new forms of economic insecurity. Policymakers should consider implementing social safety nets to support workers who are displaced by automation and other technological changes. Eg Robots are now delivering pizza in Florida, USA.

6. Increasing & maintaining data integrity

7. Enhancing efficiency & productivity

8. Reduction in human intervention and human errors

HISTORICAL PERSPECTIVE TO TECHNOLOGY ADOPTION IN INSURANCE

- **1837 - insurance sector utilised the telegraph for the first time to send information about ships and cargo. As a result, insurers could instantly learn the state of the ships and modify their insurance as necessary.**
- **1867 - The invention of the typewriter in 1867, making it possible to swiftly and precisely generate insurance policies. As a result, the industry became more efficient, and it became simpler to issue policies for more clients.**
- **1876 – invention of telephone ensuring real-time communication between insurance agents and clients. This significantly enhanced customer service and made it easier for employees to react rapidly to client requests.**
- **1940 - The computers came & were first used in the insurance sector. As a result, insurers were able to analyse massive volumes of data more precisely and quickly.**
- **1990s: the coming of the internet, bringing substantial transformation. It made it simpler for clients to submit claims online, gave customers access to information about coverage, and helped insurers reach a wider audience.**
- **2000s – era of Big Data and Analytics, again bringing substantial transformation. Insurers may now more effectively assess risk, set policy prices, and spot possible fraud using data from a number of sources.**
- **2010s – era of Artificial Intelligence (AI) – automation of a variety of procedures, including underwriting, claims processing, and customer support, enhance efficiency, fraud detection & prevention, march towards improved effectiveness, accuracy, and customer service. It is expected that the sector will continue to adjust and enhance its procedures as technology develops. EG Self drive cars in SA which automatically send doctors/ambulance & replacement car after an accident**

IMPORTANCE OF EMERGING TECHNOLOGIES IN INSURANCE

The need for insurance as well as the exposures towards risks all existed dating back to the existence of the human race itself, but people started to feel the need for insuring against the risks that they are exposed to only when they started to sense loss.

1. automating underwriting procedures

2. strengthening fraud detection EG ICZ Claims Bureau

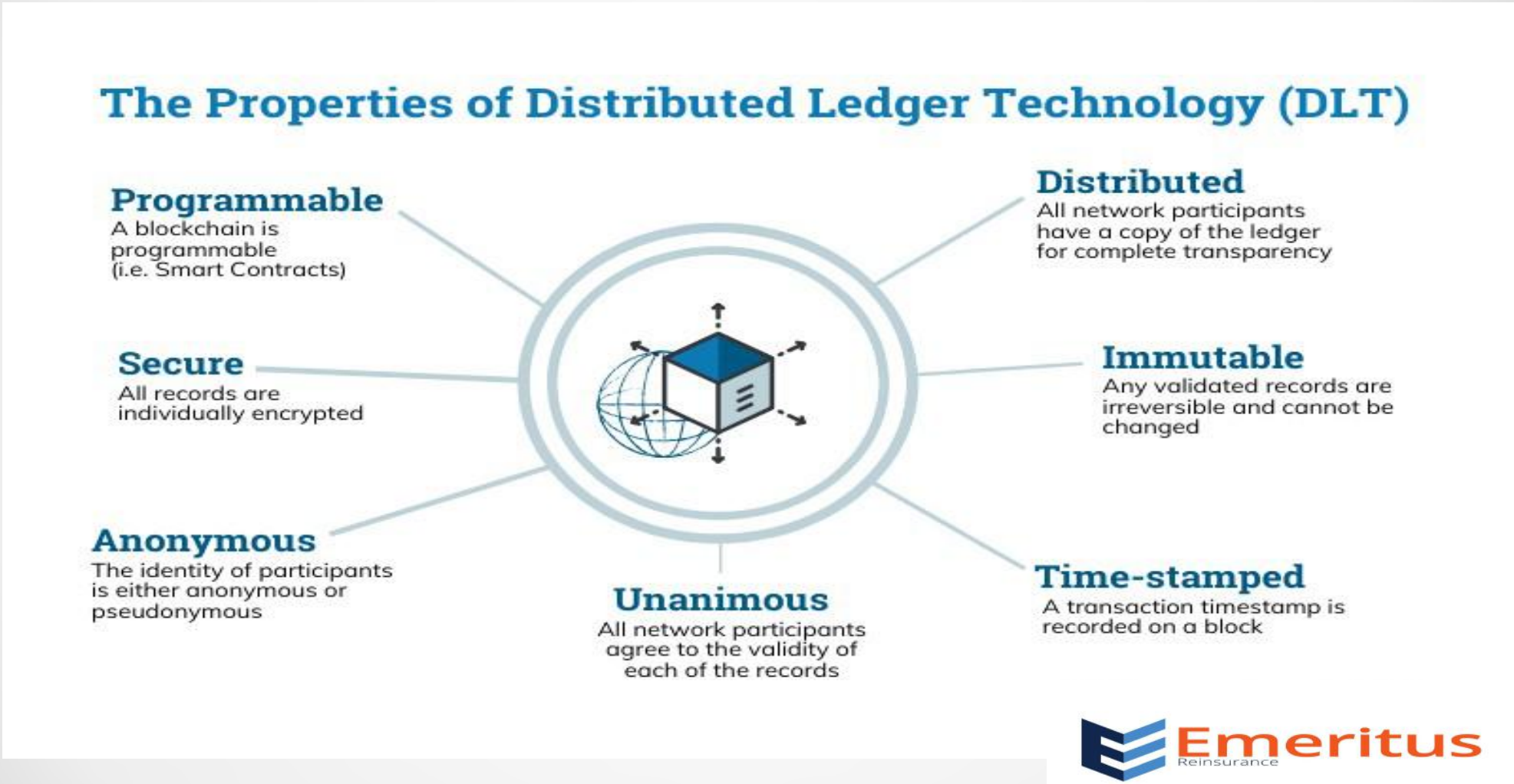
3. improving consumer experience through individualised insurance and simple claim processing. The business sector has historically relied on a convoluted network of manual procedures, including a significant amount of paperwork and manual data input.

4. enhanced client satisfaction and boosted efficiency. The utilisation of big data and analytics - data can now be gathered, analysed from a variety of sources, such as social media, weather trends, and IoT devices. To identify possible hazards, forecast customer behaviour, and create individualised insurance plans, use this data. The way insurance firms evaluate risks and create policies has changed as a result of the use of data analytics, improving accuracy and improving risk management.

BLOCKCHAIN TECHNOLOGIES IN INSURANCE

- **A game changer for detecting fraud in insurance**
- **a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system. A blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain e.g. stationed at ICZ or LOA Offices.**
- **Each block in the chain contains a number of transactions, and every time a new transaction occurs on the blockchain, a record of that transaction is added to every participant's ledger. The decentralized database managed by multiple participants is known as Distributed Ledger Technology (DLT).**
- **Blockchain is a type of DLT in which transactions are recorded with an immutable cryptographic signature called a hash.**
- **This means if one block in one chain was changed, it would be immediately apparent it had been tampered with. If hackers wanted to corrupt a blockchain system, they would have to change every block in the chain, across all of the distributed versions of the chain.**
- **Blockchains such as Bitcoin and Ethereum are constantly and continually growing as blocks are being added to the chain, which significantly adds to the security of the ledger.**

Distributed Ledger Technology (form of Block chain)



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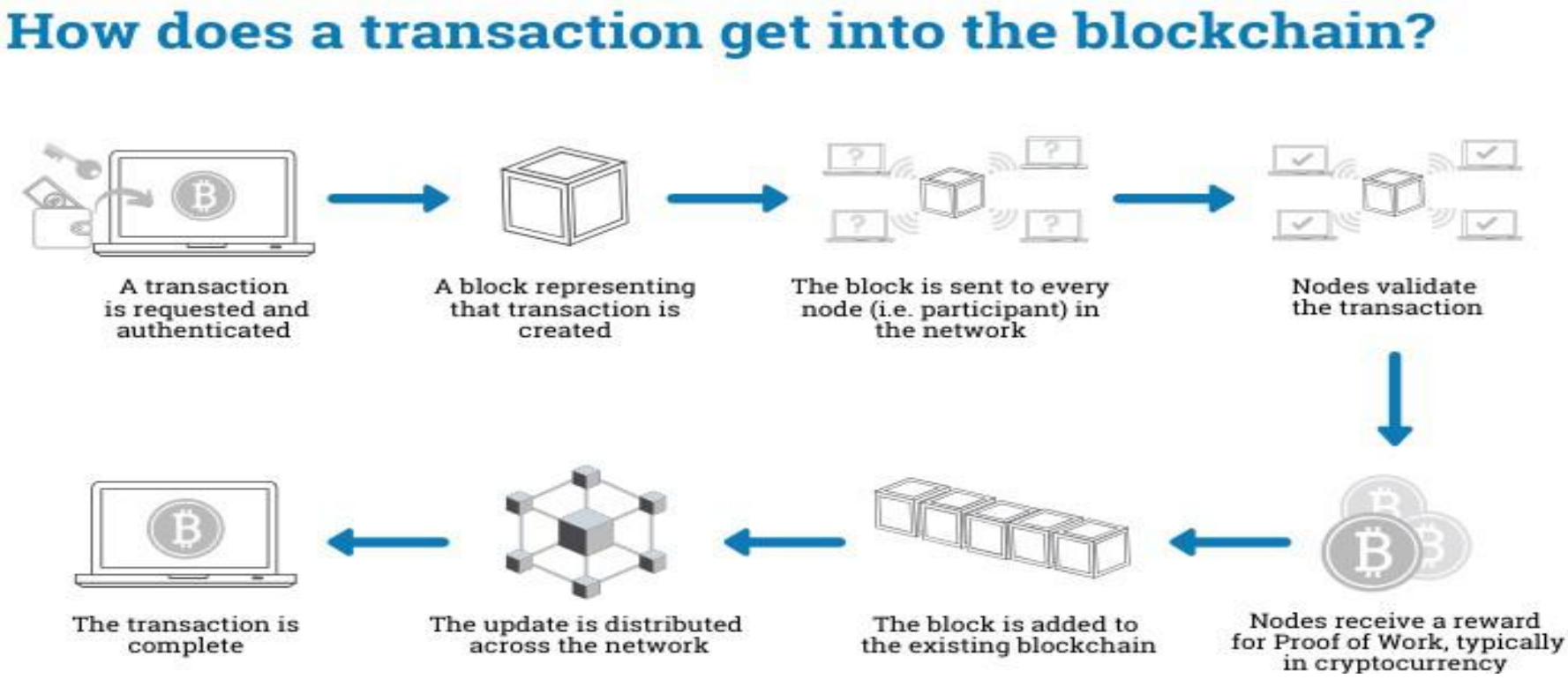
BLOCKCHAIN TECHNOLOGY



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BLOCKCHAIN TECHNOLOGY

- **Authentication – this is done using a password, cryptographic keys or wallet of value on the system. Each user has got own private key and a public key with both creating a secure digital identity to authenticate the user via digital signatures and to unlock the transaction they want to perform.**

- **Authorisation – once agreed between users' transactions are approved or authorised before it is added to a block in the chain. For a public block chain transactions are added by consensus meaning the majority of computers/nodes (on the network) must agree transaction is valid. People who own computers on the network are incentivised to verify the transactions through rewards, process called proof of work.**

- **Proof of work – This requires people who own the computers in the network to be able solve a complex mathematical problem to be able to add to the blockchain. Solving the problem is known as mining and miners are usually rewarded for their work in cryptocurrency.**

- **Proof of stake – here participants must have a stake in the blockchain usually by owning some of the cryptocurrency. This saves substantial computing power resources because no mining is required.**

BLOCKCHAIN TECHNOLOGY & INSURANCE INDUSTRY –Benefits

Fraud reduction – a distributed record of all policies and claims can easily be accessible and accessed by all parties. Through this it is simpler to identify and stop fraudulent claims since insurers are able to follow claims in real time. Further blockchain can guarantee that only parties with permission access the sensitive data lowering the possibility of data breaches.

Increased productivity in insurance – use of block chain technology to build a shared database to all parties reduces the current laborious, complicated process which entails several parties, papers and procedures. This increases speed of the processes, saves money while increasing accountability and transparency.

Development of previously impractical new products and services – for instance smart contracts that are automatically activated in response to particular occurrences like onset of natural disasters. Additionally, peer to peer insurance may be developed allowing people to pool their risks and insure themselves instead of depending on traditional insurers.

Contributes to enhanced client trust and loyalty – as insurers offer more safer and more transparent service which might boost consumer trust in the sector. Using consumer data to customise goods and services assist insurers in taking a more customer centric approach to insurance.

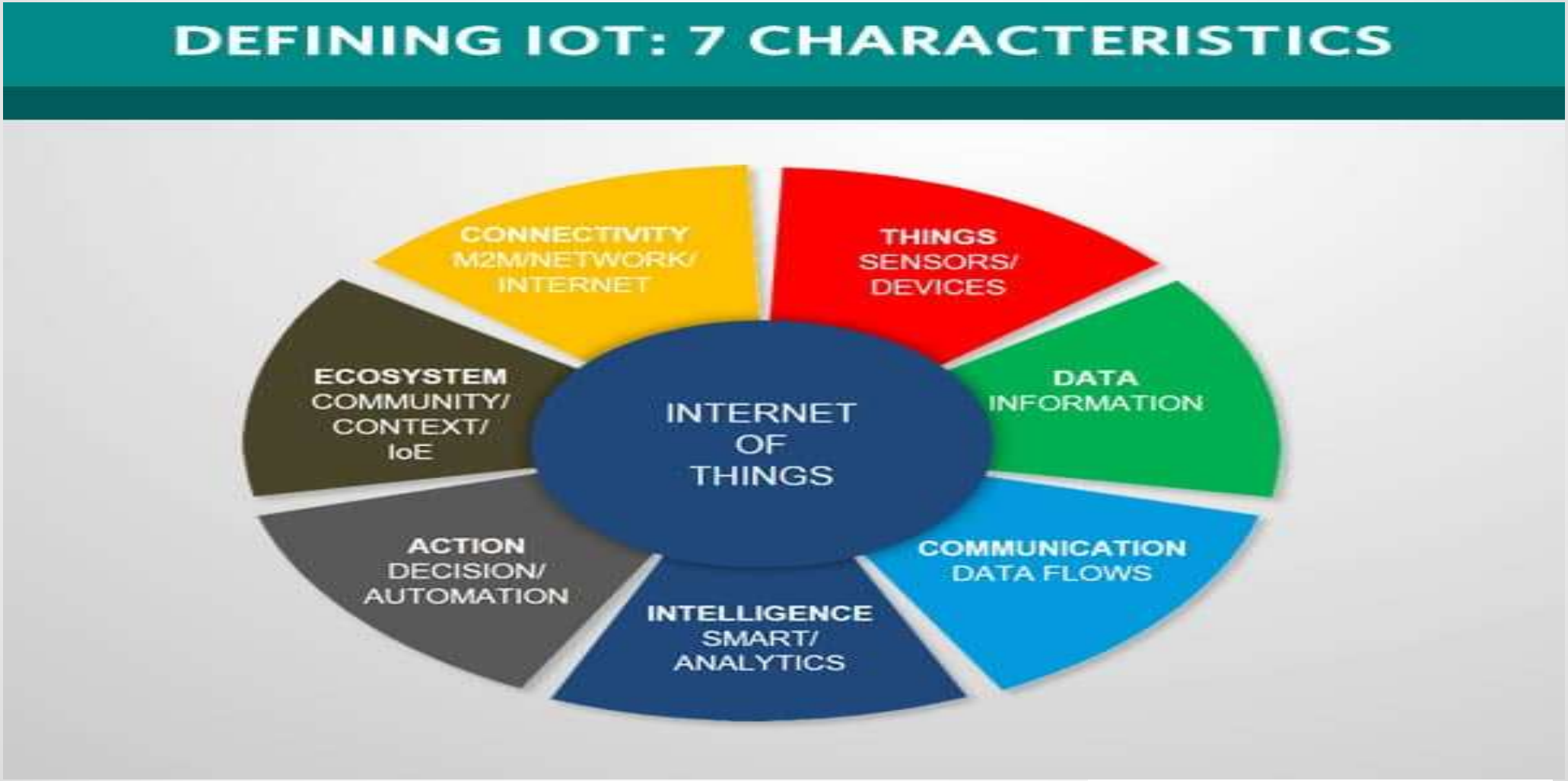
Reduction in costs - increasing efficiency

LIKELY CHALLENGES: Issues of scalability, interoperability and regulatory concerns needs to be resolved with this technology.

INTERNET OF THINGS (IoT)

- **This is a network of interconnected gadgets that can interact via the internet. These gadgets are capable of gathering data, analysing it and acting on the results of the analysis.**
- **(IoT) describes physical objects embedded with sensors and actuators that communicate with computing systems via wired or wireless networks—allowing the physical world to be digitally monitored or even controlled.**
- **The IoT refers to the network of physical devices, vehicles, and other objects that are embedded with sensors, software, and connectivity to enable them to exchange data and interact with each other. The IoT is already being used in applications such as smart homes and cities and is expected to be increasingly important in a wide range of industries.**
- **an umbrella term for a broad range of technologies, applications and use cases, It just depends on how you look at it: the application perspective, the technological perspective, the industry context, the benefits, etc.**
- **a network of connected devices with 1) unique identifiers in the form of an IP address which 2) have embedded technologies or are equipped with technologies that enable them to sense, gather data and communicate about the environment in which they reside and/or themselves. Examples are fitness tracker, smart thermostat fitted to a house to monitor temperature, golf voice caddy, car fitted with sensors used to track and monitor its speed and driving habits, black box in an aero plane etc**

INTERNET OF THINGS(IoTs)



INTERNET OF THINGS (IoTs) – APPLICATIONS

- Industry converging with IT (Technology) and IT taking over things from anything
- Various devices that when you pay you can interact remotely without visiting offices
- Monitoring underwriting processes from anywhere, 24/7/365
- Monitoring your house from the office
- Human Health– devices can be attached or inserted inside human body to monitor health & wellness, assist in managing diabetes. This has the ability to reduce health insurance claims as users are constantly checking themselves and adopt health life styles
- Home – Install home voice assistants, security systems that help reduce thefts
- Retail – devices installed in stores, banks, restaurants, to facilitate shelf checkout
- Offices – devices installed to facilitate energy management or security of building
- Standardized production environments eg mining, construction, aim being to gain operating efficiencies
- Vehicles – helping with condition-based maintenance, usage- based design
- Managing and monitoring farm operations from anywhere, switching on or off your irrigation system from anywhere
- Tracking farm animals in the process significantly reducing theft and minimising claims to insurance operations

INTERNET OF THINGS (IoTs) – IMPACT ON INSURANCE

- **DATA IS ARGUABLY THE NEW GOLD, we need to make value out of it**
- **Data Gathering – on customer behaviour & risks which can then be used to create more specialised policies and reduce risks**
- **Data Analysis/ Telematics – by delivering real time information on say a person's behaviour, location, and activities IoT assists insurers in effectively assessing risks. Eg monitoring a driver actions, such as speed, braking, and acceleration – risk of accident can be determined using the data and insurance price can be changed appropriately. Likewise, IoTs can be used to keep track of a person's lifestyle & health including eating habits, exercise routines, sleeping patterns, information utilised to modify health insurance rates.**
- **Risk Management – sensors can be used to identify changes in building temperatures or humidity levels which could signal a fire or water damage danger. Through this insurance companies may proactively warn their clients about potential hazards and provide precautions.**
- **Processing claims Quickly – by use of IoT devices to gather data about an accident or house burglary allowing insurers to properly analyse the damage and handle the claims more swiftly**
- **Developing new goods & services – through use of IoTs insurance underwriters may discover new areas of risk and create solutions that address those risks by analysing the data gathered from IoT devices. For example based on a person's lifestyle, insurance firms can provide customised insurance solutions, such as a pay-as-you-go insurance policy for people who normally tends to drive occasionally**

DATA ANALYTICS

- **Using technology to analyse large amounts of data accordingly deriving insights from the data. We are talking about being able to swiftly and effectively evaluate massive volumes of data through use of machine learning and artificial intelligence. Through this we are able to discover new patterns, trends, and hazards, which may help us design products, set prices, and build risk management procedures.**
- **Digital Claims processing - many claims' procedures may be automated with the use of digital technology. Due to faster and more effective claim resolution, this can enhance the customer experience. EG use of drones in agriculture claims assessments**
- **Development of cutting- edge new goods and services -use of technologies like block chain & Internet of Things (IoTs). Eg IoTs is being used by some companies to monitor client's homes and offer customized insurance plans based on particular risks. Others are utilizing block chain technology to build more efficient & transparent claims procedures which will cut down on fraud and increase accuracy of claims settlement.**
- **Enhancement of communication with customers – customers may now communicate with insurers around the clock and receive prompt answers to queries and worries.**

INCREASED PERSONALISATION OF INSURANCE

- **Using technology to come up with specific tailor made products and services. Based on real time data gathered through sensors, and other connected devices insurance plans can be personalised to a person's particular risks. Ability to provide individualised products and services allows insurers to better fulfil their requirements and expectations.**
- **Through data analytics insurers can examine large quantities of data about their clients including financial and personal details as well as habits & preferences, have a deeper knowledge of the requirements and preferences of their clients and to personalise their services. Eg provision of vehicle usage-based insurance that considers unique driving habits of each client allowing customers to pay premiums based on the number of miles they actually log on the road as well as their driving habits, such as speeding, accelerating, and braking. Similar to this, health insurers may now give customised plans that include a person's medical background, way of life, and other aspects, enabling them to offer more focused and efficient coverage. Through Artificial intelligence & machine learning insurers can immediately spot trends and patterns in client behaviour by analyzing massive volumes of data in real-time thereby assisting insurers in developing more individualised and targeted goods and services as well as more accurate risk assessments. Life insurers can utilise AI to examine client data and forecast the probability of specific health outcomes, like cancer or heart disease and give customised plans that take the person's risk characteristics into account, enabling them to offer more comprehensive and cost-effective coverage.**

ARTIFICIAL INTELLIGENCE (AI)

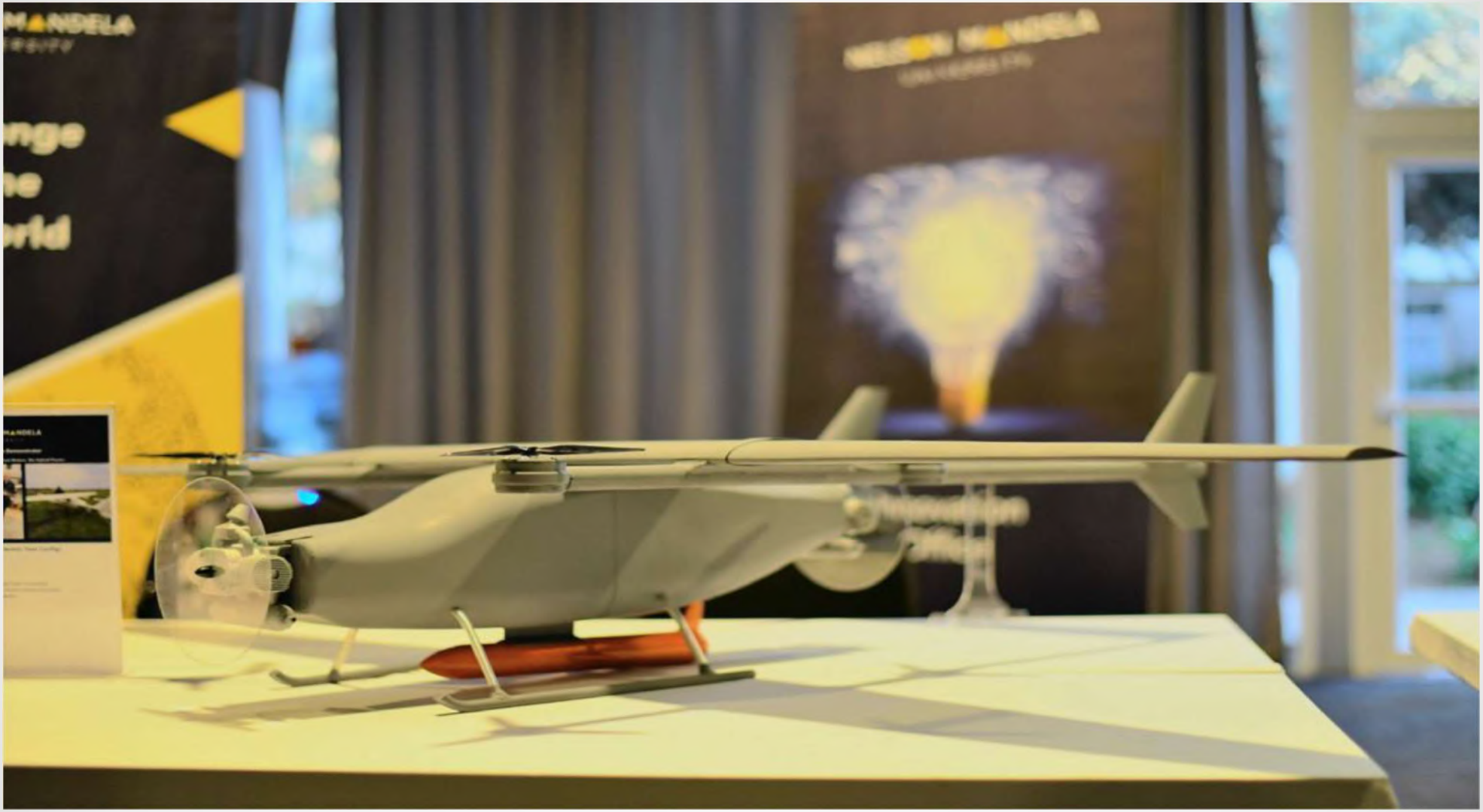
- **The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.**
- **AI is a field, which combines computer science and robust datasets, to enable problem-solving. It also encompasses sub-fields of machine learning and deep learning, which are frequently mentioned in conjunction with artificial intelligence.**
- **Artificial Intelligence leverages computers and machines to mimic the problem solving and decision- making capabilities of the humankind.**
- **According to John McCarthy (2004) AI is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable." At its simplest form, artificial intelligence is a field, which combines computer science and robust datasets, to enable problem-solving. It also encompasses sub-fields of machine learning and deep learning, which are frequently mentioned in conjunction with artificial intelligence. These disciplines are comprised of AI algorithms which seek to create expert systems which make predictions or classifications based on input data**

ARTIFICIAL INTELLIGENCE (AI) IN INSURANCE

- **Used to automate tasks that were previously carried out manually & to evaluate huge amounts of data e.g., risk assessment associated with various types of insurance to evaluate data from multiple sources including social media. Through this underwriters can precisely price risks and make more informed underwriting decisions**
- **Automation of the claims process helps in verifying legitimacy and reducing fraud. Virtual assistants and chatbots are also used to manage claims related questions and give clients timely, precise information about their claims**
- **AI is used to spot new risks and trends through finding patterns and anomalies that people would ordinarily overlook by examining large amounts of data. This helps insurers in modifying their underwriting and pricing methods to take account of shifting risks and remain current.**
- **Enhanced Customer service - through the use of chatbots and virtual assistants which offers immediate assistance to queries, greatly enhancing customer happiness and overall customer experience**
- **Increased speed & accuracy of insurance operations, simplifying and streamlining processes**
- **LIKELY CHALLENGES: Security and privacy of data remains the main difficulties. Customers' data must be safeguarded and utilised responsibly.**

ARTIFICIAL INTELLIGENCE (AI) IN INSURANCE

- **DRONE TECHNOLOGY as a form of AI**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ARTIFICIAL INTELLIGENCE (AI) IN INSURANCE

DRONE TECHNOLOGY as a form of AI: IMPACT OF DRONE TECHNOLOGY

- **Farm surveys, mine inspections/surveys going as deep as 120 meters underground - reduce cost of surveys**
- **Inspecting large structures**
- **Improved turnaround times**
- **Tailings – ability to tell water levels**
- **renewable energy – inspecting wind turbines, measure amount of energy produced and detection of defects in solar systems**
- **concrete inspections – ability to detect defects**

- **Used in disaster management and emergency response. The superpowers of drones are speed, accuracy, xray vision and shape shifting. Some of the emergency issues that drones are being used for include the following; to extinguish veld fires, delivering medication in inaccessible areas like war torn countries, search and rescue operations, damage assessment and mapping, Wildlife monitoring, flood monitoring and assessment amongst other areas.**

It is estimated that the drone industry is worth USD43billion worldwide

DIGITAL CUSTOMER EXPERIENCE – BENEFITS TO INSURANCE

- Examples are chatbots, digital assistants, self- driving cars, facial recognition etc
- Increased seamlessness & convenience of customer experience
- Cost savings in terms of time and effort
- Greater convenience & flexibility – customers can now buy policies, make claims, and pay bills using a computer or mobile device saving on time and effort
- Reduction of manual involvement by automating procedures including claims processing and policy renewals – Significant cost savings which could pass to clients through reduction of rates or improved coverage
- Increased customer satisfaction and engagement thereby increasing customer loyalty and retention by providing individualised and pertinent services. Through digitisation customers can have immediate access to their insurance details empowering them to choose their covers wisely
- Increased relevance & competitiveness of firms in the face of the growth of insur tech firms, with digitisation firms able to set themselves apart from rivals and draw in new clients by providing flawless digital experience

TECHNOLOGY & CYBERSECURITY

- **CYBERSECURITY - now a growing concern as more data and applications are moved online, there is need for cybersecurity professionals and technologies to protect against cyber threats.**
- **The increased risk of cyberattacks and data breaches has the potential to erode client confidence and for insurance firms to suffer large financial losses. Cybercriminals are very interested in the large amount of sensitive client data held by the sector e.g., personal data in this data set contains names, addresses, social security numbers, and payment card information. These details can be used by cybercriminals for financial fraud, identity theft, and other bad deeds. If the wrong people obtain this information, it might have disastrous repercussions for both the clients and the insurance provider. Due to the nature of its business, the insurance sector is a top target for cyberattacks. Due to the volume of financial transactions that insurance firms handle, they are a desirable target for hackers attempting to steal money. Additionally, insurance firms use a lot of technology, which can lead to security holes that hackers can exploit. A variety of laws, rules, and compliance specifications pertaining to cybersecurity and data protection are applicable to the insurance sector. Significant fines and harm to the insurance company's image might follow from breaking these rules. Insurance providers must thus make sure they have the necessary security measures in place to safeguard client data and adhere to all applicable laws.**

- **Growing demand for cyber-insurance, global cyber insurance premiums are valued at US$11.9 Billion in 2021 and could reach US$29.2 Billion at 20% growth per year.**

CYBER SECURITY & INSURANCE

- **Although there is a scarcity of cybersecurity experts, this might make it challenging for insurance businesses to find and keep skilled personnel. Insurance firms are required to safeguard sensitive client information, financial transactions, and policy details from hackers. They must also adhere to a number of cybersecurity-related laws and compliance standards. Insurance firms also have to cope with the rising risk of cyberattacks and data breaches. In order to preserve their operations and protect their clients, insurance firms must prioritise cybersecurity and make the appropriate investments. At the same time, the conventional insurance sector has been challenged by the growth of insurtech firms and digital platforms, which has forced insurers to adopt new business models and technological advancements. The insurance sector has benefited greatly from technology, but it has also faced new difficulties, notably in the field of cybersecurity. In order to safeguard their sensitive data and avoid cyberattacks, insurance firms must prioritise digital security measures. The insurance sector must be on guard and adapt to new technologies as they are developed due to the rapid speed of technological development.**

OTHER TECHNOLOGICAL TRENDS – BENEFITS TO INSURANCE

- **CLOUD COMPUTING - a major trend in recent years, with many organizations moving their data and applications to cloud-based platforms. This trend is expected to continue as more companies seek to leverage the scalability, flexibility, and cost savings of cloud computing.**
- **EDGE COMPUTING - Edge computing involves processing data and running applications at the edge of the network, closer to where the data is generated, rather than in centralized data centers. This trend is expected to become increasingly important as more data is generated by IoT devices and other edge devices.**
- **QUANTUM COMPUTING- a new type of computing that uses quantum-mechanical phenomena, such as superposition and entanglement, to perform operations on data. While still in its infancy, quantum computing has the potential to revolutionize fields such as cryptography, drug discovery, and optimization.**
- **5G NETWORKING - the next generation of wireless networking technology, offering faster speeds, lower latency, and greater capacity than previous generations. 5G is expected to enable new applications such as autonomous vehicles, remote surgery, and virtual and augmented reality.**

REASONS FOR TECHNOLOGY IMPACTING INSURANCE

- **Globalization – industry's quickening globalization, emergence of multinational mega corporations, increased corporate restructuring, many global shifts, and many revolutionary shifts. Increased technological advancement as evidenced by the size and quality of Internet infrastructures, connection opportunities, and usable applications, and customer attitude change, - entry of the generation of "digital natives" & increasing preference for online shopping.**
- **- Conjunctural variables have been diminishing insurers' profits and pushing them to look for ways to cut costs, including by turning to digitised processes, whether they be productive or distributive. The insurance sector is becoming more digitalized, which poses questions regarding strategy, risk, market and organisational structure, workforce, and culture. These questions ultimately call for the complete board's careful consideration. Insurers' perceptions of the effects of digitization are rapidly changing, just like the technology itself, and are destined to significantly alter the entire financial and insurance ecosystem. Impacting all points along the insurance value chain, from underwriting and risk management to distribution and claims, digitization will change the competitive environment and customer relationships. Devices for information technology are necessary for organisational structure and decision-making processes as well as for the production and distribution of goods and services.**
- **Globalization of many insurance businesses and its connection to economic growth**
- **Increased interplay between markets and organizational development**

REASONS FOR TECHNOLOGY IMPACTING INSURANCE

- **Data Collection & Analysis - Technology advancements has made it possible for insurers to gather and analyze enormous volumes of data. This information may be utilised to evaluate risk, understand consumer behavior and preferences, and make better decisions.**
- **Automation resulting in efficiency & cost savings: From underwriting to claims administration, automation has made it feasible to simplify a number of the insurance-related procedures. Costs have gone down, productivity has gone up, and customer service has improved through use of chatbots to process claims.**
- **Better underwriting of risks and more accurate pricing and less fraud.**
- **Improved Customer Experience: Because to technological developments, insurers can now offer a more individualised and responsive client experience. This includes having the capacity to provide digital self-service alternatives like online claim and policy administration. Need for a lot of investment in digital tools and platforms including mobile applications and online self-service portals. Client expectations are evolving and increasing due to increase in digital platforms – clients now want quick responses and more convenience from insurance companies**
- **Risk Mitigation & possibility of preventing fraud : Technology has improved risk assessment and mitigation for insurers, notably in the areas of cyber risk and natural catastrophes. For instance, insurers can utilise data analytics to pinpoint specific risk management plans and identify possible dangers. Fraud – using technology to identify anomalous patterns or behavior in order to avoid fraud. Through this companies are able to save a lot of money as fraud has cost the industry billions of dollars.**

REASONS FOR TECHNOLOGY IMPACTING INSURANCE

- **Emergence of Insurtech & competition:** The emergence of insur-tech businesses has upended the traditional insurance sector by introducing cutting-edge new goods and services. These businesses frequently employ cutting-edge technology, including blockchain and artificial intelligence, to offer insurance solutions that are more effective and affordable. Overall, technological improvements have had a huge influence on the insurance business, resulting in enhanced productivity, a better client experience, and the creation of fresh, cutting-edge insurance products and services. As new companies & digital platforms challenge established business models' technology has increased competition in the insurance sector.
- Regulators are finding it difficult to keep up with the rate of change as technology continues to disrupt the sector. Companies must traverse a maze of rules and data privacy requirements to maintain compliance while utilizing modern technology.
- Customers may transact more effectively and easily on their own due to decrease in human middlemen. To the insurance brokers technology has given them new chances to specialise in fields where tailored advice and direction are still highly desired, such as intricate commercial insurance plans or specialist goods.

- DISADVANTAGE: Possible loss of human employment due use of technology in u/w

LESSONS FROM THE IMPACT OF TECHNOLOGY ON INSURANCE

- **The insurance companies should keep up with the latest technological advancements and trends so as to remain among the top competitors and to stay relevant.**

- **In order to simplify operations, enhance client experiences, and boost profitability, insurance businesses should make an effort to invest in cutting-edge technology and create creative solutions.**

- **Businesses should make an effort to emphasise the potential advantages of utilising technologies like blockchain, machine learning, and artificial intelligence to improve underwriting accuracy, streamline the processing of claims, and lower fraud.**

- **To guarantee that private data is always secured, insurance firms should put a high priority on data security and privacy.**

- **Insurance businesses should constantly assess the effects of technology on their operational processes and revise their strategy as necessary. The insurance sector will continue to be shaped by technology, and businesses will need to change to survive.**

FUTURE OF UNDERWRITING

- **Digital Underwriting is the future in insurance companies – helping in improving efficiency, enhancing service and expanding markets. This is against traditional underwriting which is time consuming, inefficient, slowing the whole policy issuing process. Factors that make digital underwriting more beneficial are:**
  - **emergence of new technologies – increased digitisation & modernisation allowing insurers to automate processes, effective decision making & analytics**
  - **shift from judgement derived decision making to some science-based decision making**
  - **availability of alternative data & artificial intelligence tools**
  - **ability to automate repetitive & unproductive tasks eg data compilation & entry allowing underwriters to take advantage of speed & depth information provided by digital tools to make quicker & informed decisions**

According to Mckinsey – digitisation may reduce or eliminate expenses associated with an insurer's top 20 to 30 core end processes

Personal information is now more easily accessible neccesited by the advent of social media, consumer technology (smartwatches, etc). Underwriters are allowed to easily analyze raw data in near real time to determine

- **if Risk conditions have changed beyond acceptance tolerance**

FUTURE OF UNDERWRITING

- - if pricing is accurate for a given risk tier
- - parts of an insurer portfolio require attention
- - insurers are begging to take on too much risk

Underwriters can now easily judge whether to accept or decline risks. Result is increased accuracy in classification, rating and adherence to company's risk appetite.

Digital u/w improves efficiency - as many underwriters become data scientists, reduction in repetitive manual tasks which consume time. Use of AI, automation & machine learning to pull information from multiple sources, screen applicants, analyse demand, match customer demand with available product offerings, classify assets, price & rate policies, generate useful reports to aid decision making.

Digital u/w alters the value chain (KPMG) - disruption of the underwriting value chain resulting in underwriters acting more like custodians of the overall underwriting process and less like task performers. Significant improvement in cost effectiveness & profitability through preventive methods to warn insureds of pending dangers and effectively mitigating risks like claims

Digital u/w helps in enhancing or improving the customer experience leading to improved customer retention and growth

FUTURE OF UNDERWRITING

Digital u/w is more scalable - it is flexible enough adapt to customer expectations e.g. improved convenience, on demand self- service & simplified ease of use.

Digital u/w helps agents and brokers to grow – by partnering with insure-tech firms and analytics firms enabling insurers to integrate technologies, new systems, and tools without taking on the cost of risk management and risk of development

Digital u/w simplifies the insurance buying process and reduces costs and time of investment of unproductive and repetitive tasks.

Digital u/w has helped increased personalisation of the underwriting function – insurers leveraging personal wearable technology to assess say fitness of clients and adjust life & health insurance premiums,

Underwriting has moved from spreadsheet based manual one to one fully automated with AI decision support

Digital u/w helps in streamlining of new cases

Triaging times can be drastically reduced

Risk assessment processes are made more effective

IMPLEMENTING INTEGRATED CLAIMS SYSTEMS – CLAIMS DATA MGT

- At its core, a claims management system is a transaction-enabled system of record that an adjuster or claims handler (or an automated process) uses to: Gather and process information regarding the underlying policy and coverages, the claim, and the claimant. Evaluate and analyze the circumstances of the claim.
- This is a transformative system that integrates or combines workflow automation tools with all the functionality needed for end-to-end user claims adjusting
- System has all pertinent data in one spot to reduce and or eliminate need for data thus helping adjusters need to switch between multiple software systems
- System provides adjusters with claims managers with direct centralised access to pertinent claims information
- Integration of data into a single source opens potential for automation of manual processes and workarounds that negatively impact adjuster's productivity
- Transition to an integrated database claims management system accommodates "a younger, less experienced adjuster workforce with automation that eliminates more of their decision making (Risk & Insurance, 2000)
- System improves the claims handling process by driving productivity and informing decisions that contribute to swift cost-effective closure of claims

KEY CONSIDERATIONS FOR AN INTEGRATED CLAIMS SYSTEMS –

- **Experience of vendor in converting data from legacy claims systems**
- **adaptability of platform to specific, client unique requests as well as expansion into new lines of business**
- **Responsiveness of vendor to requests for support**
- **Availability of security measures & continuous update that will adequately protect the data in the system and during transition**

In short, the vendor must be able to demonstrate capacity to provide flexibility, scalability and stellar customer service

KEY FEATURES OF AN INTEGRATED CLAIMS MANAGEMENT SOLUTION

1. **Platform Flexibility – system should be able to accommodate client specific requests, making system Adjustments and adopting new functionality as client base expands and business evolves**

2. **Legacy systems conversion – consolidating claims data from legacy systems**

3. **Multiple system integration options – system should be able to seamlessly integrate internal systems with a 3RD party systems e.g underwriting, legal, HR, accounting etc**

4. **Powerful workflow automation - system should be able to automate from claim inception to final payment, should streamline processes, standardize procedures and increase efficiency.**

THE EMERITUS RE/ZIMRE CASE STUDY

- **Emeritus Re/ZimRe is a 100% owned subsidiary of the ZHL group. The Emeritus Re group has subsidiaries in Malawi, Mozambique, Zambia, Botswana and Zimbabwe.**
- **As part of our IT infrastructure & investment we adopted a uniform IT platform across the group**
- **Unform platform allows the group to speak the same language in terms of standardization of data & reports across all the units and or subsidiaries in Zimbabwe, Malawi, Mozambique, Zambia and Botswana**
- **Standardization helps in cross pollination of skills and experiences across the group, eases the standard production of accounts, consolidation and reporting**
- **Our technical or core system is called SICsnt, an international Reinsurance Software system also used by leading reinsurers like Partner Re, Zep Re, Swiss Re, Ghana Re**
- **Siscnst, the core technical system is seamlessly integrated to another International accounting system, SUN System (General Ledger) and to a filing system called IDMS (Integrated Document Management System)**
- **We also have an internal intranet system running on share-point for internal collaboration, sharing of news and events across the group – all this allows us to speak the same language, have same culture amongst other aspects .**
- **All the above systems are cloud based meaning they are accessible 24 hours/7days/365 days a year.**
- **Our response time is accordingly very high or fast considering our users have MIFI gadgets allowing access systems on the go**

Questions

MAZVIITA, THANK YOU