

# TRAINING MANUAL

## UNDERSTANDING THE DIGITAL ECONOMY



Prepared by [Lyla Latif](#) for AFRODAD 2019 Summer School on Illicit Financial Flows and Domestic Resource Mobilisation in the Era of Digital Economies in Africa: Opportunities and Challenges

# Contents

## What is it?

- Online activities? Offline activities? Mobile money based system? FinTech? 7

## How does it function/operate?

- Internet, ICT, digitalisation, digital business models, payment/lending system, AI, machine learning, blockchains, big data, mobile networks, sensors, WiFi 11

## Who/how is it controlled?

- Governments, private companies, individuals, data centers 13

## Legal issues

- Data privacy, digital identity, data theft, human rights concerns, informed consent, tax 15

## Group Project Work

# Let's start with some Prompt Questions

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'Economy' what does it mean?

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What is the 'digital economy'?

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How is the digital economy different from traditional economy?

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Can you identify specific features of the digital economy?



# Further Queries

## WHO ARE THE PEOPLE/ENTITIES INVOLVED IN THE DIGITAL ECONOMY?

Thinking tips:  
Political institutions: 3 arms of government, regulators  
Society: end user  
Market: industry, private companies, government, donors, investors, innovators

## WHAT KIND OF RELATIONSHIP EMERGES/POWER (IM)BALANCES?

Thinking tips:  
Legal – liberal market, capitalistic, society centred, inclusive, facilitative, Transfer of Technology/knowledge  
Tax – defined? is it based on bilateral treaty arrangements, national approaches?  
Political – cooperation and collaboration, inequality, disparity/divide?

## LIST DOWN THE BESPOKE LANGUAGE USED IN DIGITALISATION?

Thinking tips:  
Dematerialisation, disintermediation, disruption, convergence, blockchain, big data, value creation, user participation

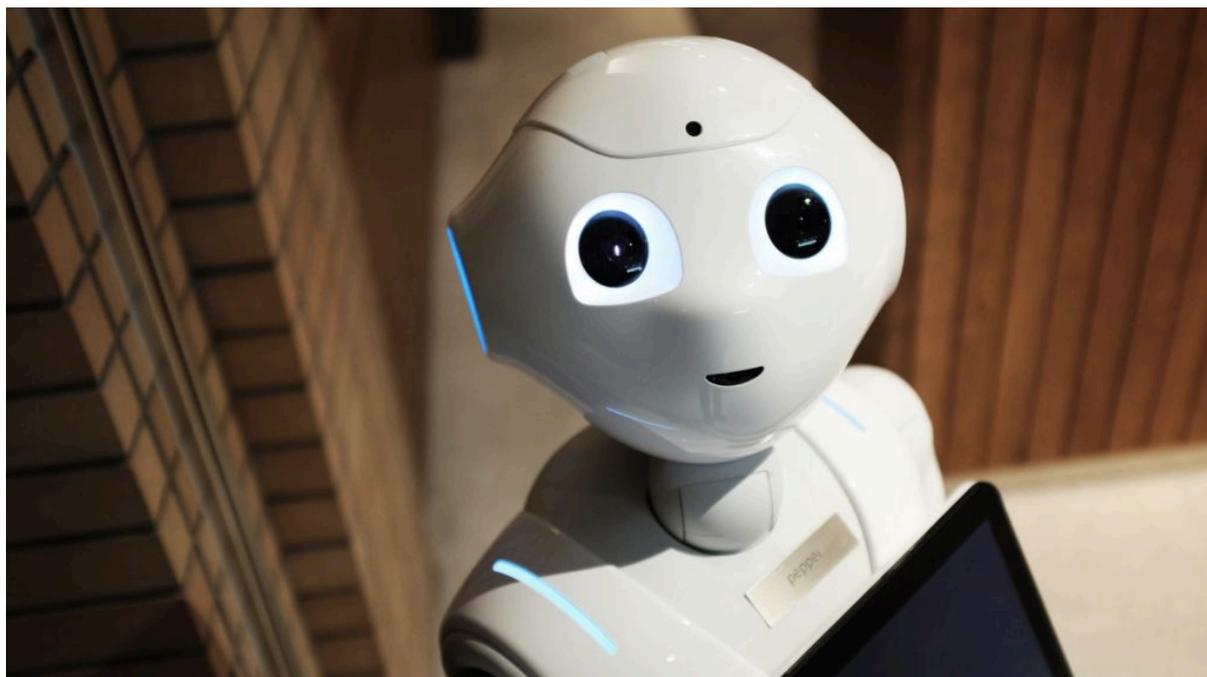
## HOW DOES THE LAW RESPOND TO THIS EMERGING LANGUAGE?

Thinking tips:  
Amendments, reform, new legislation, what are the approaches taken? Fragmented, wait and see, regulatory sandboxes?

What Salient Features of the Digital Economy Can You Identify from These Pictures?

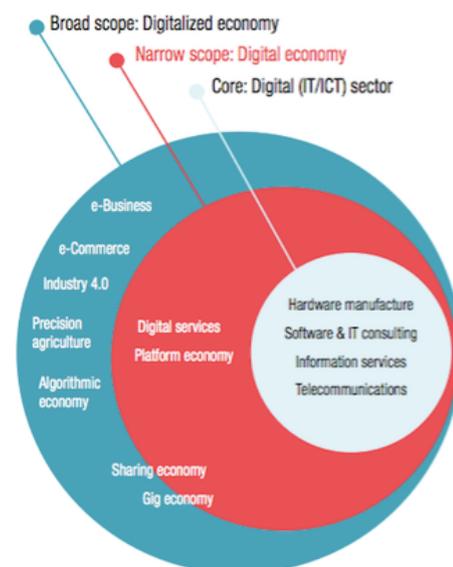






# How is the Digital Economy Defined?

- IMF (2018): The digitalisation of the economic activity can be broadly defined as the incorporation of data and the Internet into production processes and products, new forms of household and government consumption, fixed capital formation, cross-border flows, and finance.
  - Narrow definition: online platforms, and activities that owe their existence to such platforms
  - Broad definition: all activities that use digitised data are part of the digital economy
- UNCTAD (2019) using the definition provided by Bukht and Heeks 2017: That part of economic output derived solely or primarily from digital technologies with a business model based on digital goods or services.
- UNECA (n.d): The global flow of goods, services and finance through the means of digital computing technologies that are unbound by national borders.
- The OECD (2017) defines the digital economy, known also as internet economy, as part of an economy that enables and conducts the trade of goods and services through electronic commerce on the Internet.
- The global network of economic and social activities that are enabled by platforms such as the Internet, mobile and sensor networks.



Source: Bukht and Heeks, 2017: 13.

# No!

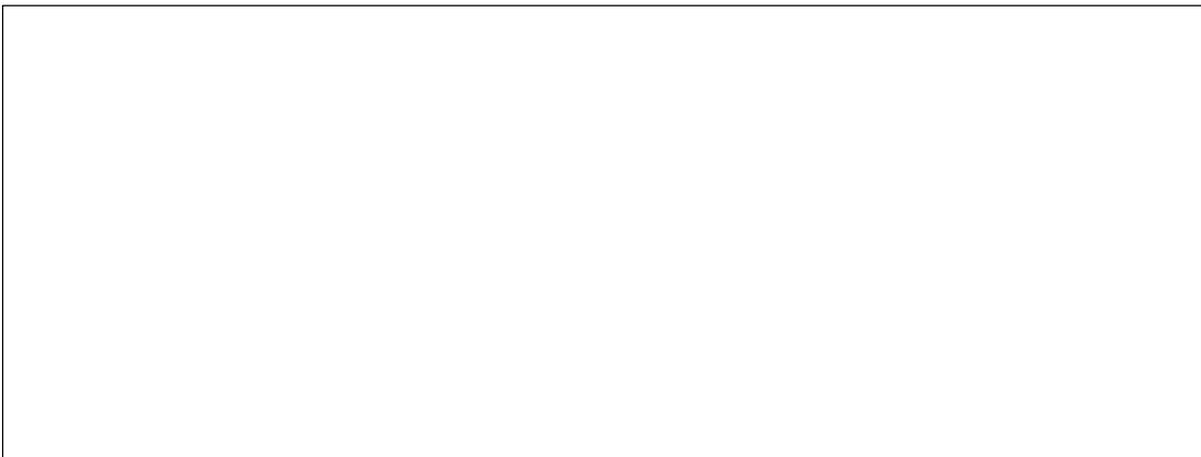
There are no agreed definitions on the digital economy.

# Reflective Exercise

How Would You Define the Digital Economy?



What Key Words Would You Use/Choose to Identify the Digital Economy?



# Features of the Digital Economy

Dematerialisation

Disintermediation

Disruption

- Cross border
- Scale without mass
- User value creation
- Intangible assets

Convergence

Blockchain

## Reflective Exercise

**Sector** - Think of a sector in your country that has been disrupted by digitalisation.

**Digital impact** - How has digitalisation affected/impacted that sector?

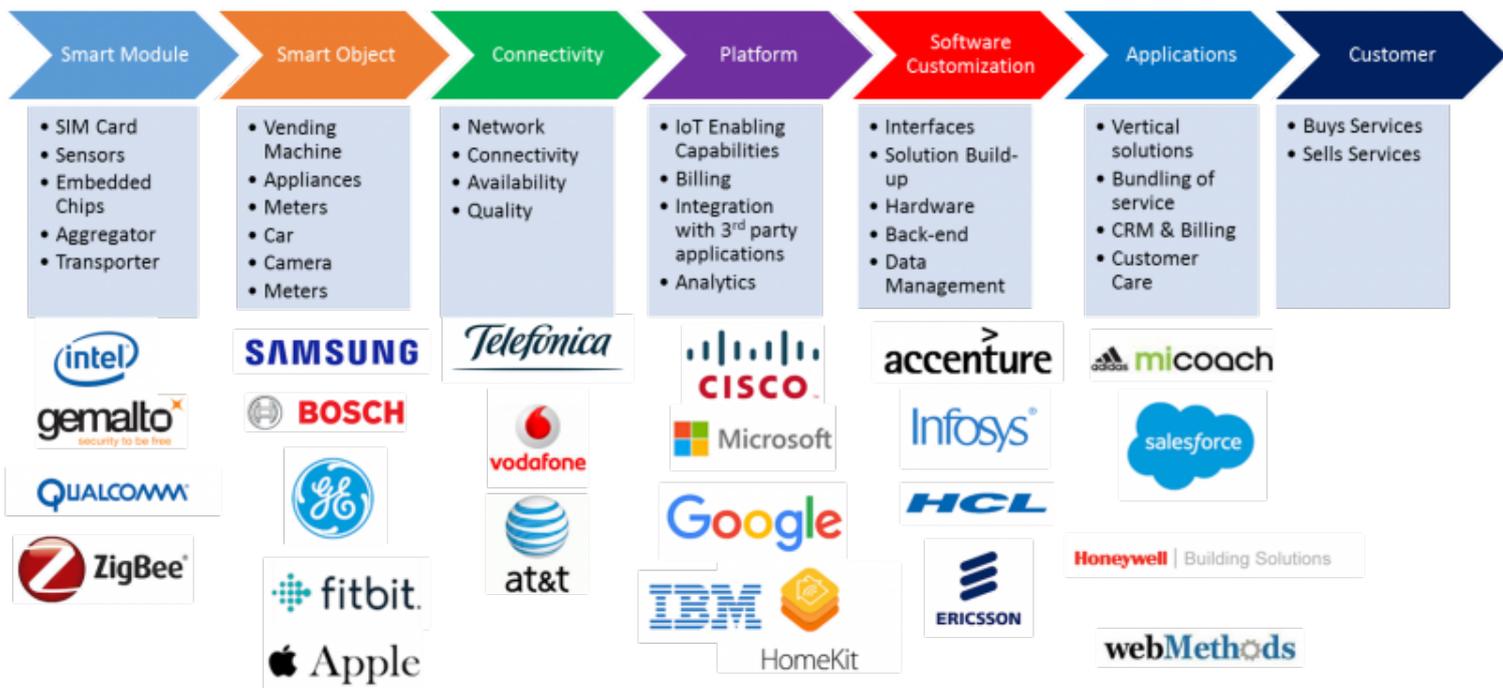
**Legal response** - How has the state responded to this disruption?

**Market response** - What is the market response?

Legal issues? Tax challenges? Is it inclusive – can everyone access, infrastructure readiness, digital literacy level?

# An Example of How the Digital Economy Work?

## Internet of Things Value Chain



Note, the above is not an exhaustive list of companies and any company may have play in more than one component of value chain  
 Copyright: Telecomcircle.com

## Notes

# The Different Types of Digital Business Models

Subscription model - users pay a subscription fee to have access to a service or content on a website such as Amazon

Advertisement model - end users generate revenue by being exposed to advertising in platforms provided by companies such as YouTube or Yahoo

Access model - content and app developers (internet service providers, data analysts) pay to have access to end users' data such as App store

B2C

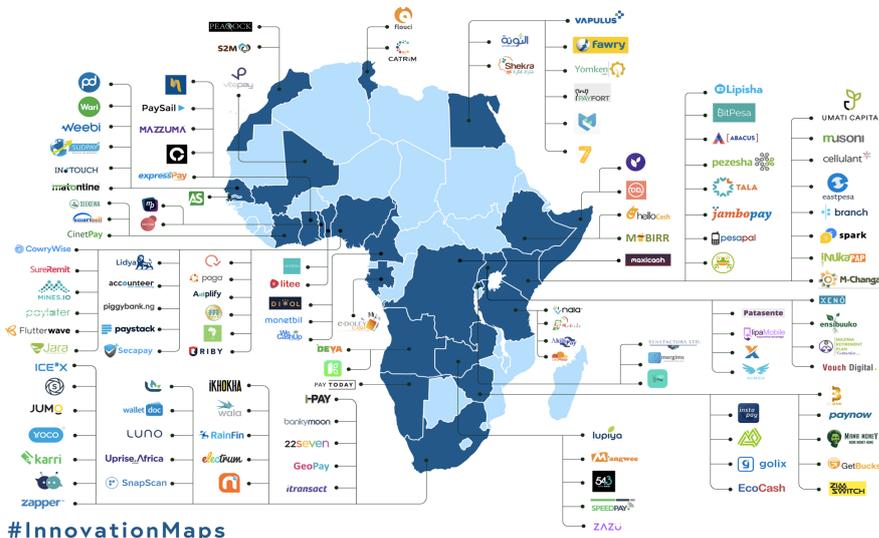
B2B

P2P

FinTech

## Hot Fintech Ventures

Q4 - 2018



#InnovationMaps

**\$195m** raised by African fintech ventures > in 2017

Top 10 African fintech companies raised

**\$300m** in funding > in 2018

Sub-sectors

Areas addressed by fintech ventures



Main MNOs offering Mobile Money services across Africa



brinterbridges.com

# How is the Digital Economy Controlled?

The following actors have a role to play in controlling the digital economy. Can you explain how using the pictures below as your frame of references.

## Government

- Executive
- Legislature
- Judiciary

## Digital companies

- FinTech
- E-commerce

## Individuals

## Cybersecurity

## Dark web



Government



Digital Companies



Figure 1: Non-banks leading innovation in mobile payments



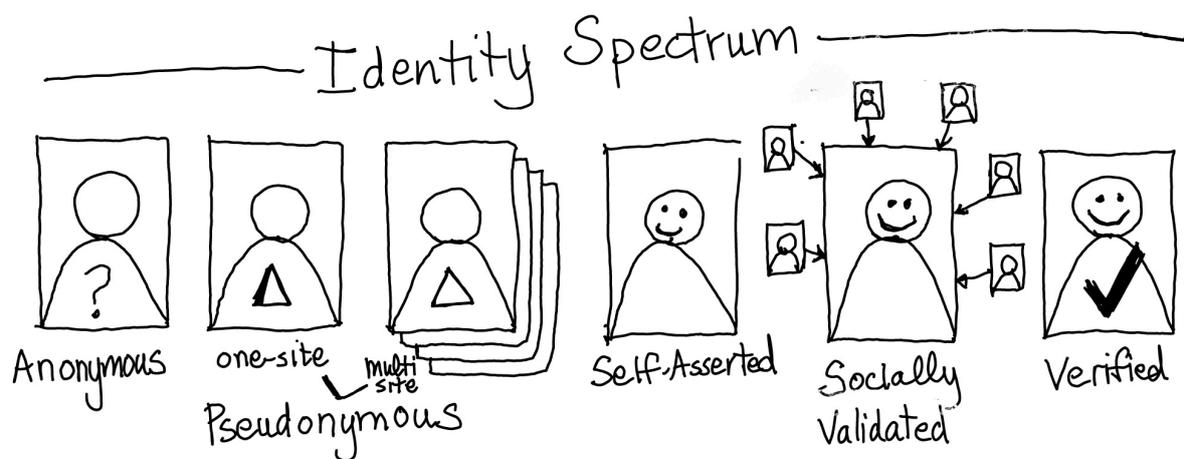
Individuals, Dark Web and Cybersecurity

# Legal Issues

## Data Privacy Issues



## Digital Identity



by @identitywoman

# Data Theft



Garmin SA's shopping portal, `shop[.]garmin[.]co[.]za`, was infiltrated by cybercriminals to steal personal data of customers.

- Only the South African site of the shopping portal was compromised, and the affected users were notified.
- The stolen data includes payment card number, payment card expiration date, payment card CVV number, first name, last name, email address, phone number, and physical address. This can enable hackers to make purchases with the victims' card details.
- The cause of the breach is not disclosed by Garmin SA

# Human Rights Concerns



What HR challenges can you think of that are brought about by digitalisation?

**GLOBAL INEQUALITY.** This is caused by the lack of access to technology, rather than technology itself. Globally, nearly six out of ten people are not connected to the Internet. Even more stark is the fact that roughly 65 percent of people in the developing world do not yet use the Internet. And women generally have less access to the Internet (another expression of gender inequality), as do people living in rural areas.

**REPRESSION.** Authoritarian governments have enhanced capacities to censor expression, block or filter access to information, monitor online activity, and more effectively and efficiently control populations than they did in the pre-digital world.

Human rights violations committed in the name of **NATIONAL SECURITY AND COUNTERTERRORISM.** New generations of digital technology have brought many significant changes to government capacities in law enforcement, counterterrorism, and foreign surveillance.

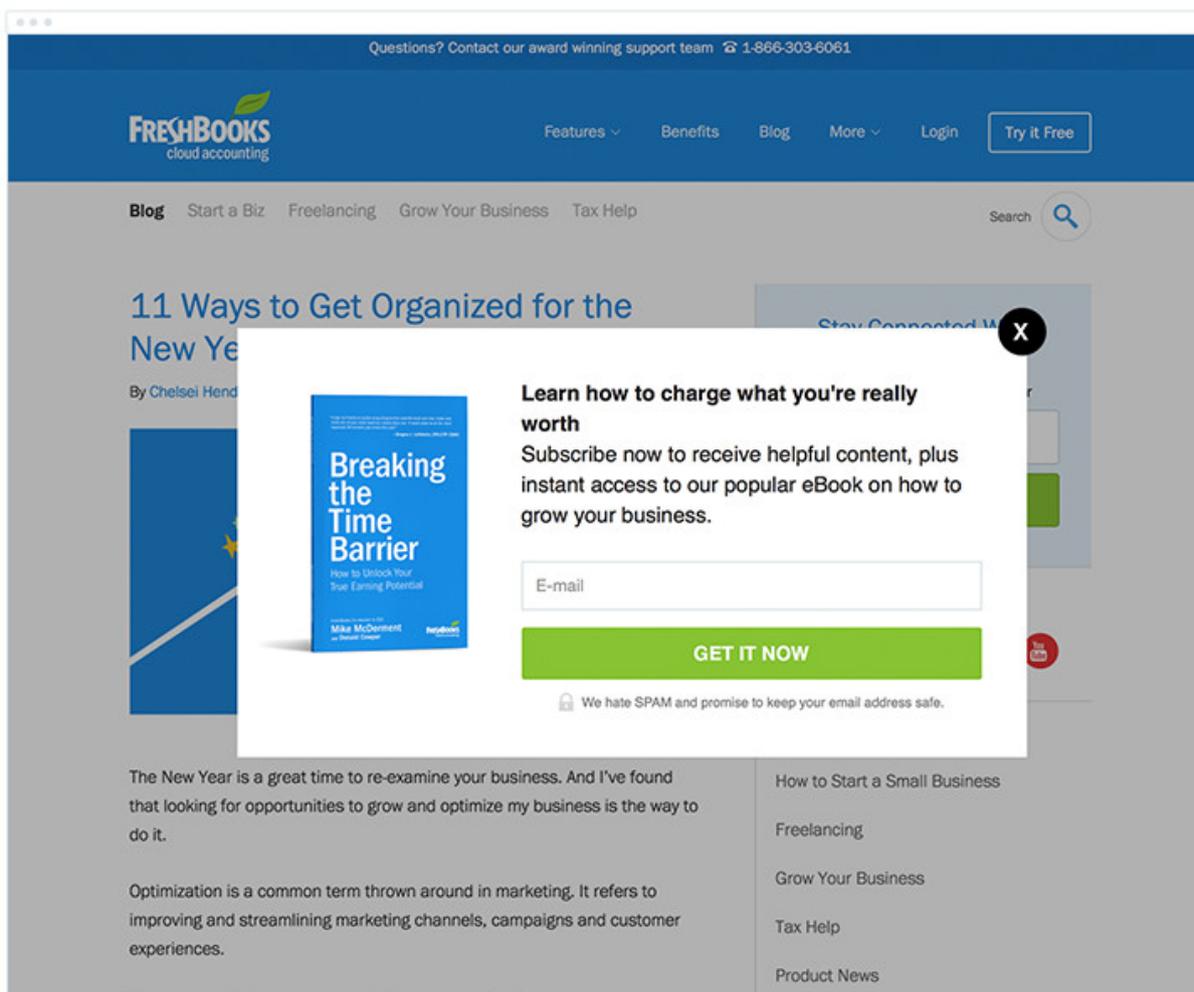
# Informed consent

All consent should be informed. Broadly this means that a person must understand what they are signing up to. This compels the supplier to use clear and understandable language.

## So how does one give consent?

### Implied consent

Here, participation with a service is in itself proof of consent. For example, an individual might sign up for an online competition. He gives his email and accepts he will be contacted. But he does not sign anything to say explicitly “I agree to the processing of my personal data”. This is implicit in his participation. With enactment of GDPR implied consent is no longer acceptable.



## Explicit, express or active consent

With explicit consent, a participant must give clear and documentable consent to the terms of the agreement. This will usually take the form of ticking a box or signing a form that clearly describes the data to be shared. In extremely sensitive instances (personal medical data collection, say), the user might even need to sign a document or send an email.

### Personal Data Consent Required

As you use Conferences i/o, the information you submit (your data) will be stored in our web service.

Conferences i/o will only share your data with Example Organization. We will never share your data with any other third party.

You can learn more about how Conferences i/o handles your data in our Privacy Policy: <https://www.conferences.io/privacy>

I consent to allow Conferences i/o to collect and process my data

**Submit**

## Opt-out consent

Here, if the user does not clearly decline consent, permission is granted. Most readers will be familiar with sites that share personal information unless a pre-ticked box is unticked.

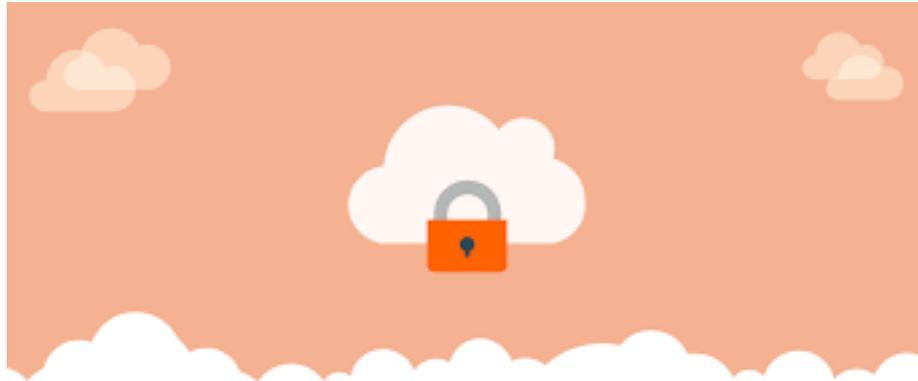
\*I've read and accepted the [Terms & Conditions](#)

\*I am over 18 years old

We'd love to keep in touch with exclusive offers and the latest info from ASDA. You can ask us to stop any time, but if you **don't want** to hear from us, please tick the box. You can find out about your rights and choices, and how we use your information in our [Privacy Policy](#)

**Cancel** **Register**

# Data Protection Models



- Comprehensive model

Based on an omnibus approach that provides an overarching statute to protect personal data, irrespective of the sector, industry or type of data, and with a data protection authority (or commissioner or ombudsman) to monitor and enforce the application of the regulation. The best examples for this approach are the EU and Latin American countries.

- Co-regulatory model

Combines both legislation and self-regulatory instruments in support of the regulation. It means that government and industry share responsibility for drafting and enforcing regulation. The best examples for this approach are Canada and Australia.

- Sectoral model

Based on an approach that aims to set data protection or data privacy rules applicable to specific issues, taking account the features of each industry (e.g. financial or health services, credit reports, etc.) or the type of data collected. The different regulatory agencies are responsible for the implementation and enforcement of regulations within its sector, for instance, the Consumer Financial Protection Bureau or the U.S. Department of Health and Human Services. The best example for this approach is the U.S.

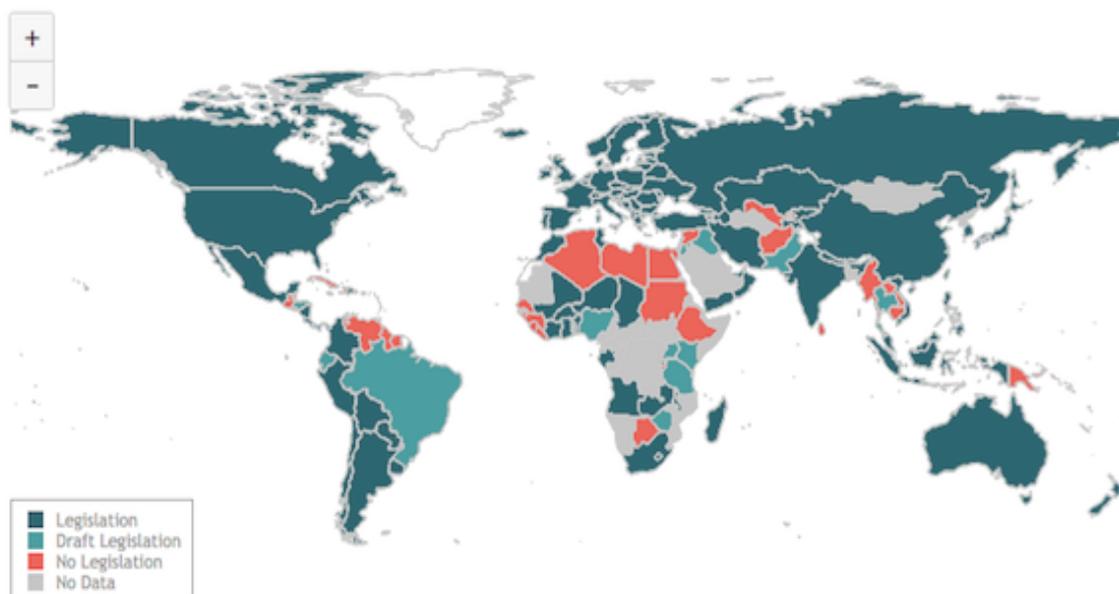
- Self-regulatory model

Is a binding system by which participating organizations feel compelled to comply with guidelines or codes of practice set by third parties, such as the Singapore Code of Advertising Practice or the Children’s Advertising Review Unit guidelines. This model is non-legislative. However, its compliance is compulsory. In addition, the self-regulatory model is administered and monitored by non-governmental associations or bodies representing categories of organizations.

# Facts

- In 2010, the Economic Community of West African States (ECOWAS) adopted a Supplementary Act on Personal Data Protection followed, a year later, by a Supplementary Act on Cybercrime. So far, two thirds of the ECOWAS member states have passed data protection laws, except Togo, the Gambia, Guinea Bissau, Sierra Leone and Liberia.
- In 2013, the Southern African Development Community (SADC) published a Model Data Protection Act. Since then, only two countries have enacted data protection laws. Counting the five SADC member states which already had privacy laws in place, seven out of 16 member states have a data protection legal framework today.
- In 2014, the African Union adopted the Convention on Cyber Security and Personal Data Protection (the Malabo Convention). It is a comprehensive document covering electronic transactions, privacy and cybersecurity. To date, the Malabo Convention has been signed by 14 states and ratified by five countries out of 55 member states (Western Sahara being part of the African Union).

Data Protection and Privacy Legislation Worldwide



Source: UNCTAD,27/03/2019

# Brainstorming Session: Tax Challenges

- What to tax?
- How to tax?
- Who to tax?
- When to tax?
- Why tax?
- Where to tax?



**Nexus:** The possibility to conduct business without physical presence thanks to technological advancements.

**Data:** The difficulty to attribute value to data generated by using personal information of end-users.

**Characterisation:** The creation of new products and new ways of delivery, which make the characterisation of payments uncertain in new digital business models, such as cloud computing, which facilitates storage of data and programmes at external services, and thus saves space on the consumer's own computer.

# Group Project Work

Group 1 – EAC

Group 2 – ECOWAS

Group 3 – ECCAS

Group 4 – CEN-SAD

You have been appointed to a regional task force to [prepare a policy](#) on digitalising the regional economy. What would go into the content of your policy? Prepare your outline.

To guide your work, consider the following:

- a. What facts are peculiar to your regional bloc that may impact upon digitalisation?
- b. What is the level of economic development in your regional bloc?
- c. Does your regional bloc have a common approach towards directing the path digitalisation takes?
- d. What is the level of internet penetration and mobile use within your regional bloc?
- e. Does your regional bloc have adequate infrastructure to push forward digitalisation?
- f. What is the level of digital literacy and skill of the population within your regional bloc?
- g. To what extent has e-commerce penetrated the market of your regional bloc?
- h. Are the laws in your regional bloc reflective of the changing economy?



This training manual has been prepared exclusively for the 2019 AFRODAD Summer School in Pretoria, South Africa (25-29 November). For any questions, discussions or suggestions for improvement do write to: [latif@uonbi.ac.ke](mailto:latif@uonbi.ac.ke) or find me on Twitter @LylaALatif