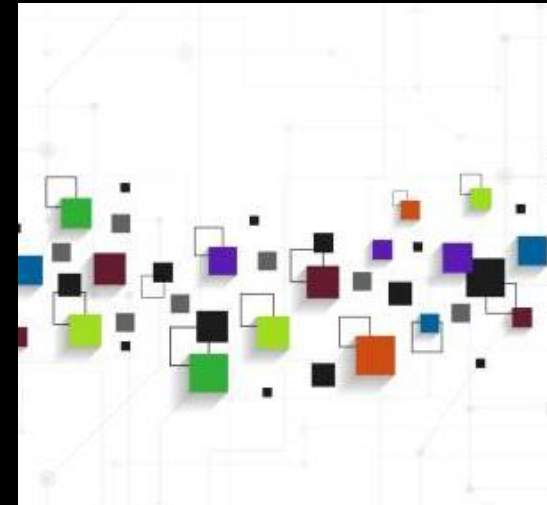


Use of ICT in Policy- Engaged Research

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CLN

Professor of Information and
Library Studies



Senior Executive Course Set 46 Theme

- **Digital Economy, Youth Empowerment and Sustainable Job Creation: Issues, Challenges and Opportunities**

Outline

Conceptual Clarifications

Major Trends and Frameworks

Current Issues and Challenges

Of Interest

Real-Life case Examples on Use of ICT in Policy-Engaged Research

Policy Recommendations

Implementation Strategies

Reflective Questions

References

Presented to Senior Executive Course Participants Set 46,
National Institute for Policy and Strategic Studies Kuru,
March 15, 2024

Some Conceptual Clarifications

ICT

Digital Economy

Youth Empowerment

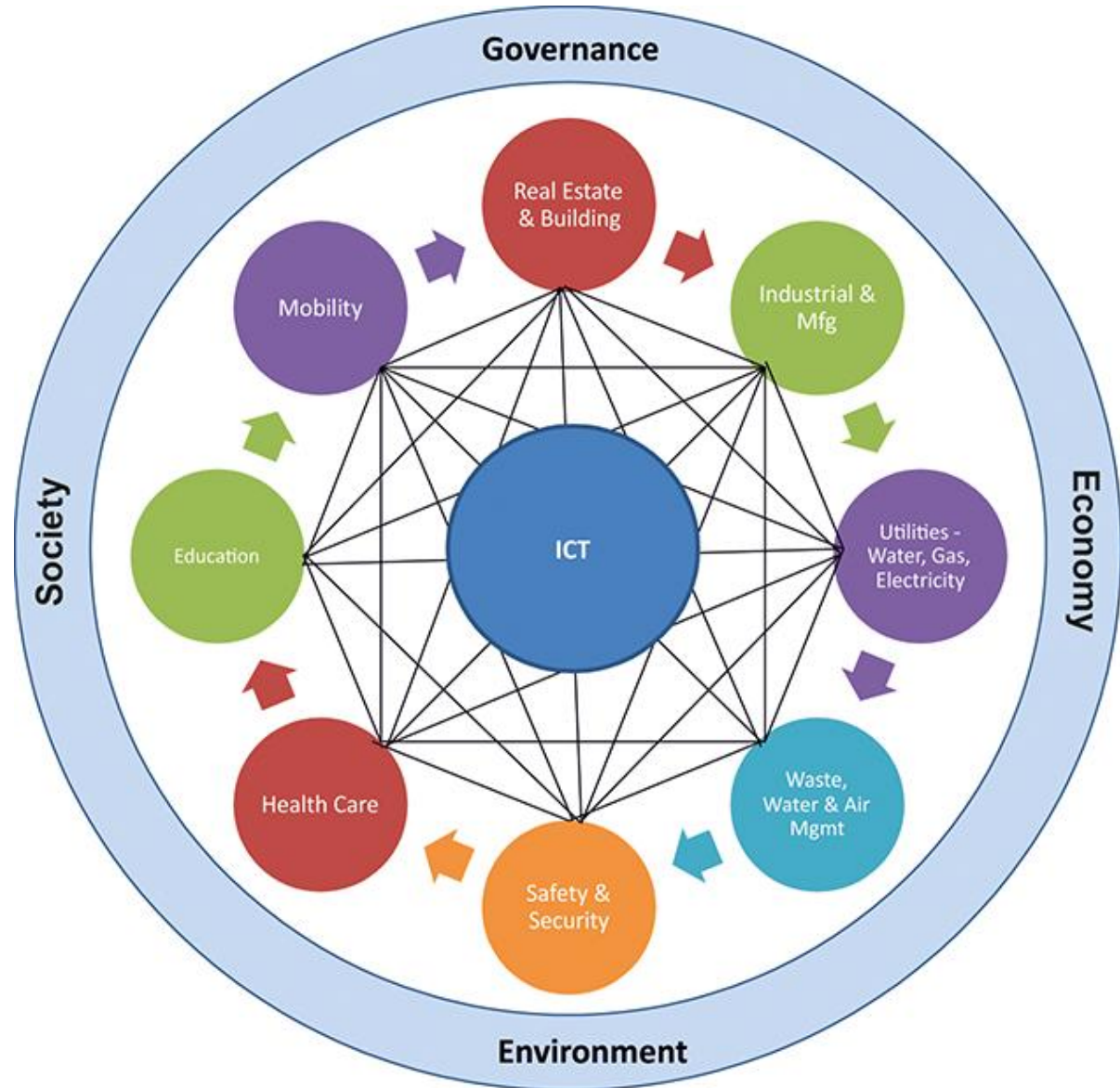
Sustainable Job Creation

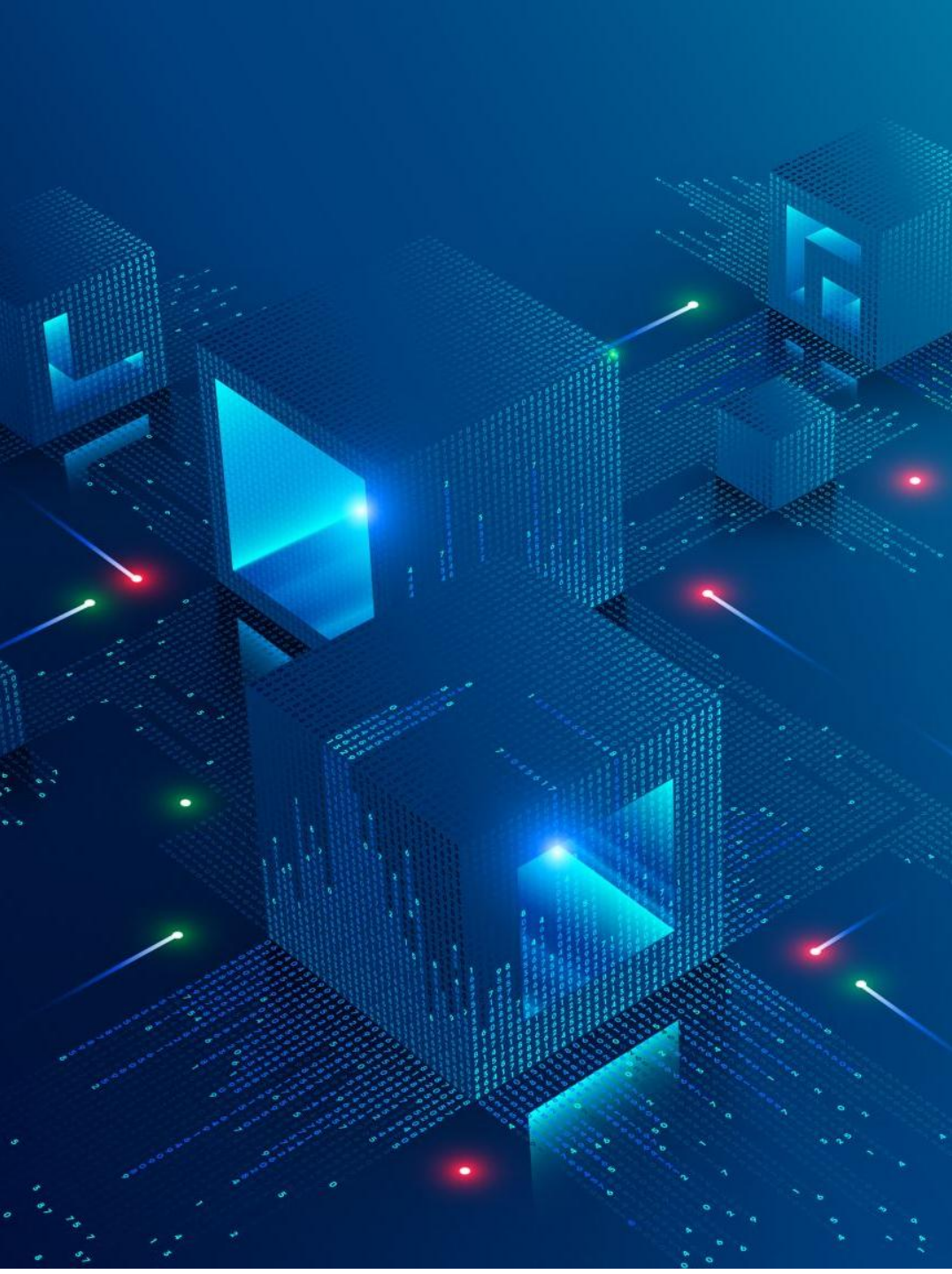
ICT: Information and Communication Technology

- The communication of information with the aid of technology.
 - Involves the use of data
 - Manipulation of data
 - Analysis of data
 - Interpretation of data
 - Transmission of data
 - Packaging of information in preferred format



**ICT is
applicable
in all types
of research**





Issues and Challenges in the Use of ICT

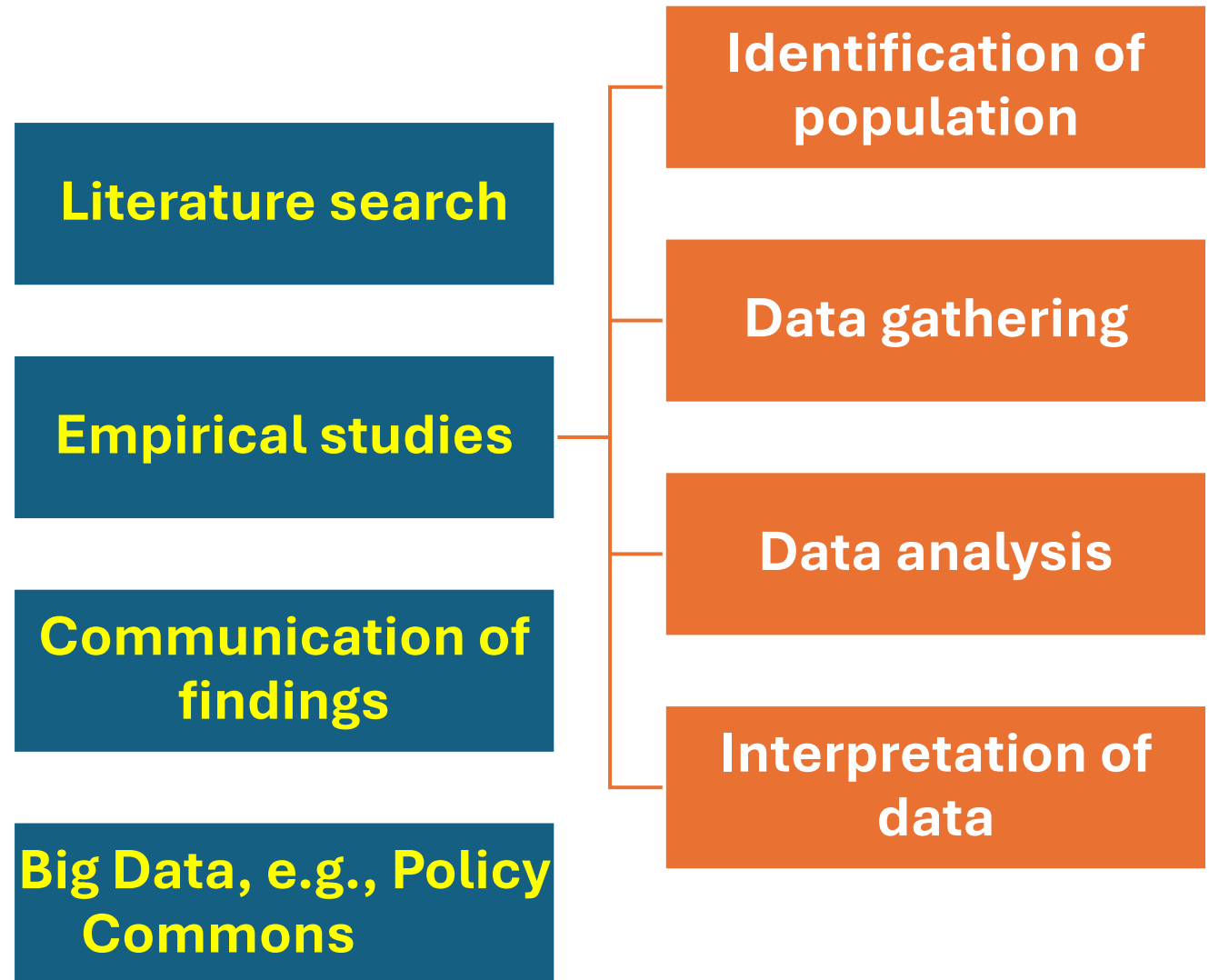
- **Surveillance, medium and long-term**
- **Vulnerability for hacking**
- **Customization**
- **Aggregation of data, e.g., databases and Big Data**
- **Analysis of data, including extrapolation**
- **Digitisation of records**
- **Flux**
- **Disruptive, e.g. Artificial Intelligence (AI)**



Research Companions

- Notebook
- Pen
- Camera
- Computer
- Voice Recorder
- Video Recorder

Use of ICT



Benefits of ICT in Policy-Engaged Research

- Research and learning made easy
- Saves *time*
- All-in-One environment
 - Ease of access to information in one place
 - *Comparative* studies made easy
 - Citations made easy
 - Helps in developing *references* and building *bibliographies*
 - Computation made easy
 - Illustration made easy
 - Images, graphics, etc.





Research and Writing

- **Documentation**
 - **Writing**
 - **Speech and Video recordings for Interview researches**
 - **File creation**
 - **Folder creation**
 - **File sharing for**
 - **group work or supervision**
 - **Organisation of documents**
 - **Storage devices: hard disks, flash drives, cloud storage: one drive, google drive, etc.**



Digital Economy

- An economy that is moderated essentially by ICT in:
 - Conceptions
 - Transactions
 - Communications
 - Investments

Youth Empowerment

- Youth empowerment results is positive preparation and engagement of young people for critical thinking, innovations and creativity towards the development of the society, and in the process, achieving self-development.





Sustainable Job Creation

- The entrenchment of a cycle of job opportunities and uptake for the development of a community and nation
 - Entrenchment means integration, inseparable, ongoing action.
 - The community might be defined by age, education, vocation, culture, etc.
 - Development here is conceptualized as a need satisfaction for the improvement of the lives of citizens.
 - Therefore, the job creation is an orientation towards a particular identified need of a community, once triggered, is in continuous motion.

Major Trends and Frameworks



ICT has become a catalyst for all-round development globally



In Nigeria, several policy documents

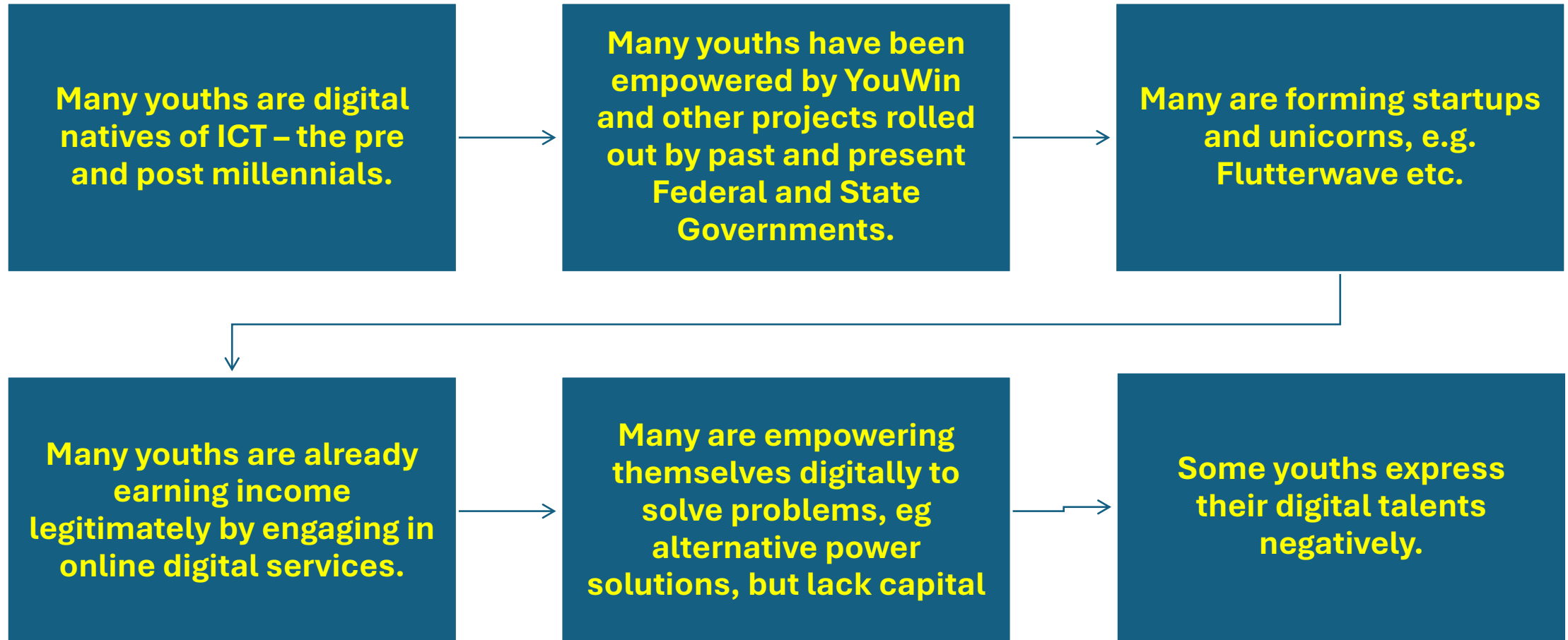


Legislative Acts on several aspects of ICT are multiplying



There is a need to research into a possible synchronization of the regulatory and policy frameworks in Nigeria

Current Issues and Challenges



Of Interest

- Number of Nigeria startups: 3,360 as at end of 2022
 - [Accelerating Startup Growth: Nigeria's Incubators - Forbes Africa](#)
 - 64th globally
 - Emphasis on fintech sector
 - Concentrated in Lagos and four other major cities
- *“Nigeria’s dynamic entrepreneurial ecosystem ensures that young talents are consistently innovating, however, entrepreneurs often contend with challenges such as a lack of funding.”*
 - [Accelerating Startup Growth: Nigeria's Incubators - Forbes Africa](#)

Real-Life Case Examples on Use of ICT in Policy- Engaged Research

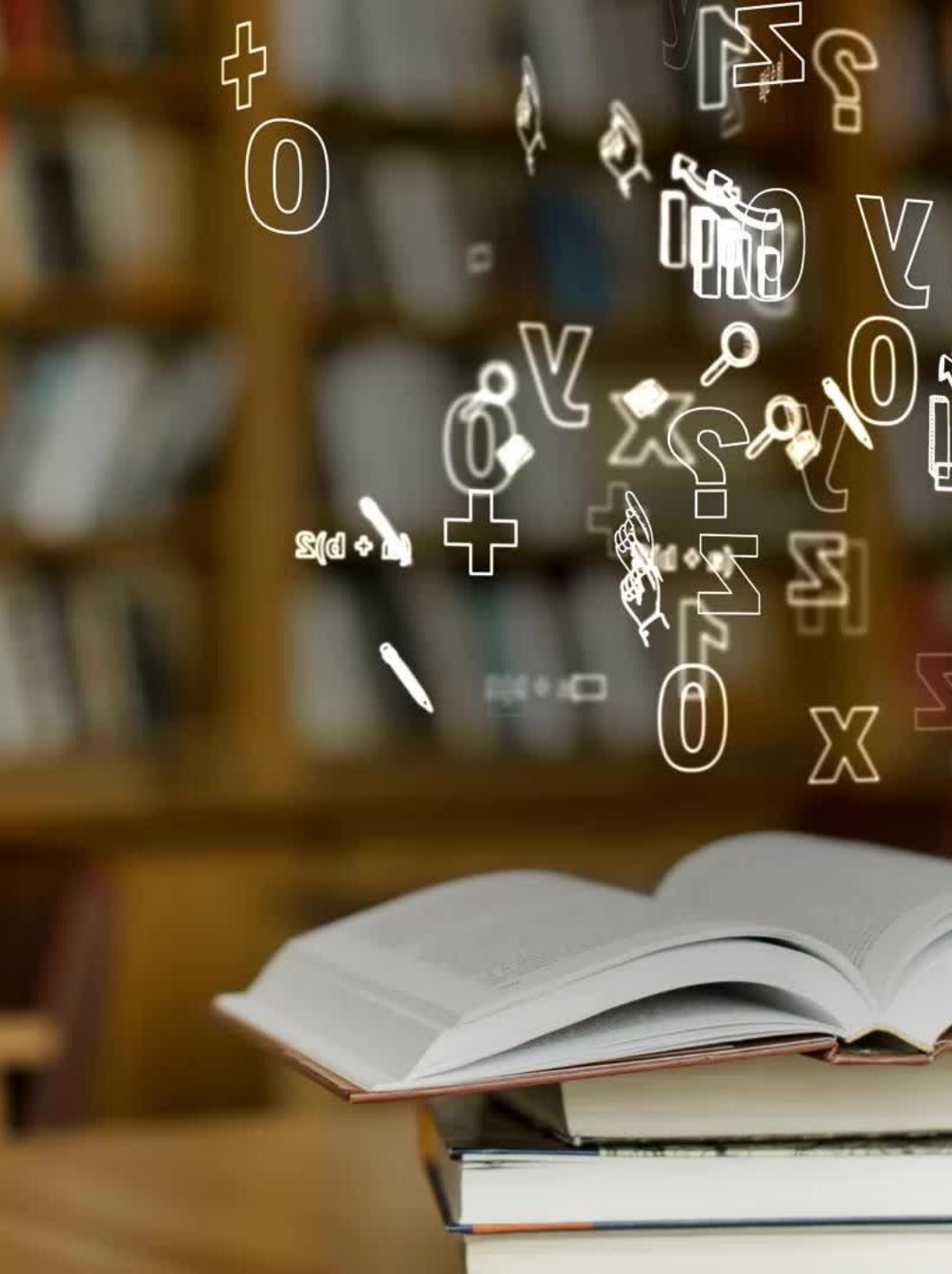


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Literature and Content Search

- Check databases, e.g.
 - NIPSS Library website www.nipsskuru.gov.ng
- On the top horizontal bar, click on the Library: [The Library – National Institute for Policy and Strategic Studies – Kuru \(nipsskuru.gov.ng\)](http://www.nipsskuru.gov.ng)
- Scroll down and click on: [Research4Life R4L](http://www.nipsskuru.gov.ng)



Check Other Databases on the NIPSS Library Page

- Click and click and click . . .
- Search and search and search . . .
 - until you find all the literature you need for your research

Policy Commons

The website provides you with “over 11 million reports from think tanks, agencies, governments and cities –with tools to supercharge your research.”

<https://coherentdigital.net/poco>

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https://knowledge.uneca.org

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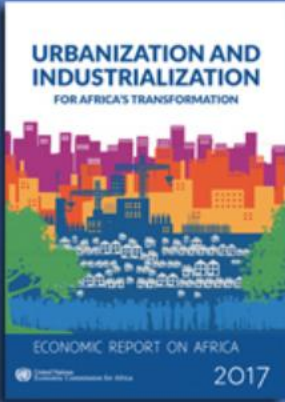
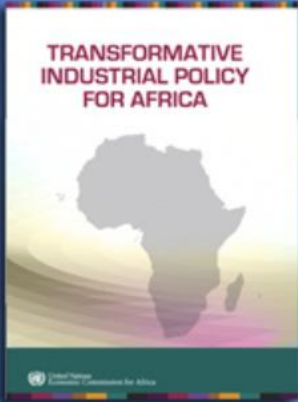
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Consult

ECA's various knowledge resources, statistical databases and journals.

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Navigate ECA Resources

- [ECA Knowledge Hub \(uneeca.org\)](https://uneeca.org)

MENU

Discover

Access the latest information on Africa by querying millions of targeted knowledge bases, databases, web sites, social media sites, blogs, etc. with information on development issues in Africa.

DISCOVER SERVICES



Knowledge Repository

The Knowledge Repository of the Economic Commission for Africa



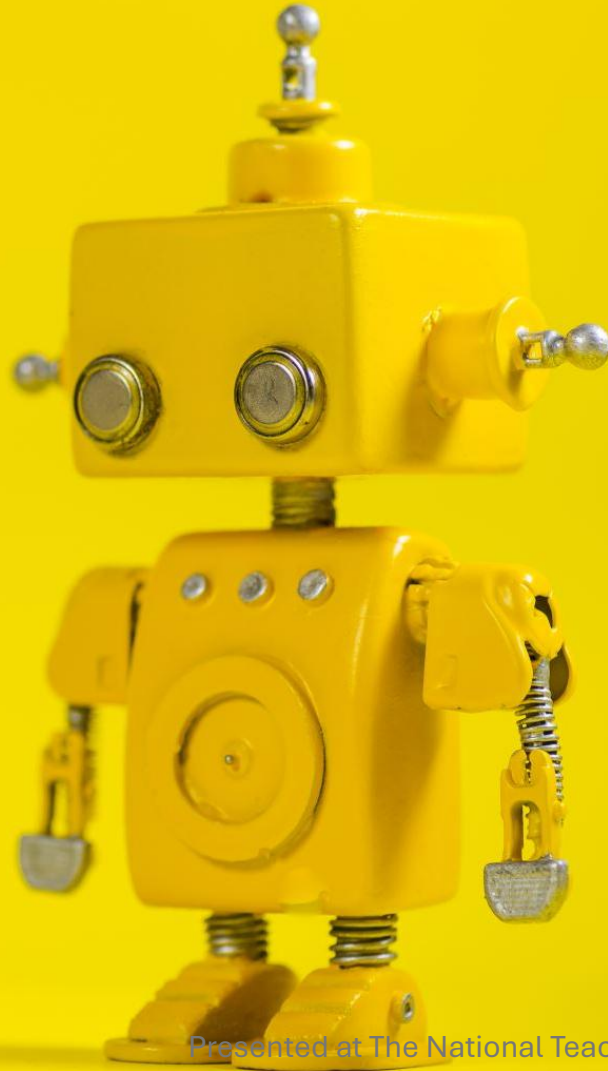
ASKIA

The Access to Scientific and Socio-economic Information in Africa (ASKIA) federated search



ECA Library Catalog

Your one stop-shop for all resources and services available via the ECA Library. The ECA



Artificial Intelligence (AI)

- AI has been described by Merriam-Webster Online Dictionary (2023) as ***“the capability of a machine to imitate intelligent human behavior.”***
- A severely disruptive technology
- You can create an account at:
<https://chat.openai.com/>

Artificial Intelligence (AI) (Contd.)

- AI merely diligently reads what God has created and copies (artificial)
- AI comes in the form of robots, simulators, etc.
- Can be used in teaching, medicine, engineering, social services, space exploration, transportation, etc.
- Imitates human behaviour, including gesticulations





Artificial Intelligence (AI) (Contd.)

- Watch out for ChatGPT (Chat Generative Pre-Trained Transformer)
- Can tailor suit writings, vocabulary, etc.
- Launched November 30, 2022
- Explore AI for preliminary idea on a subject

Literature Tracking

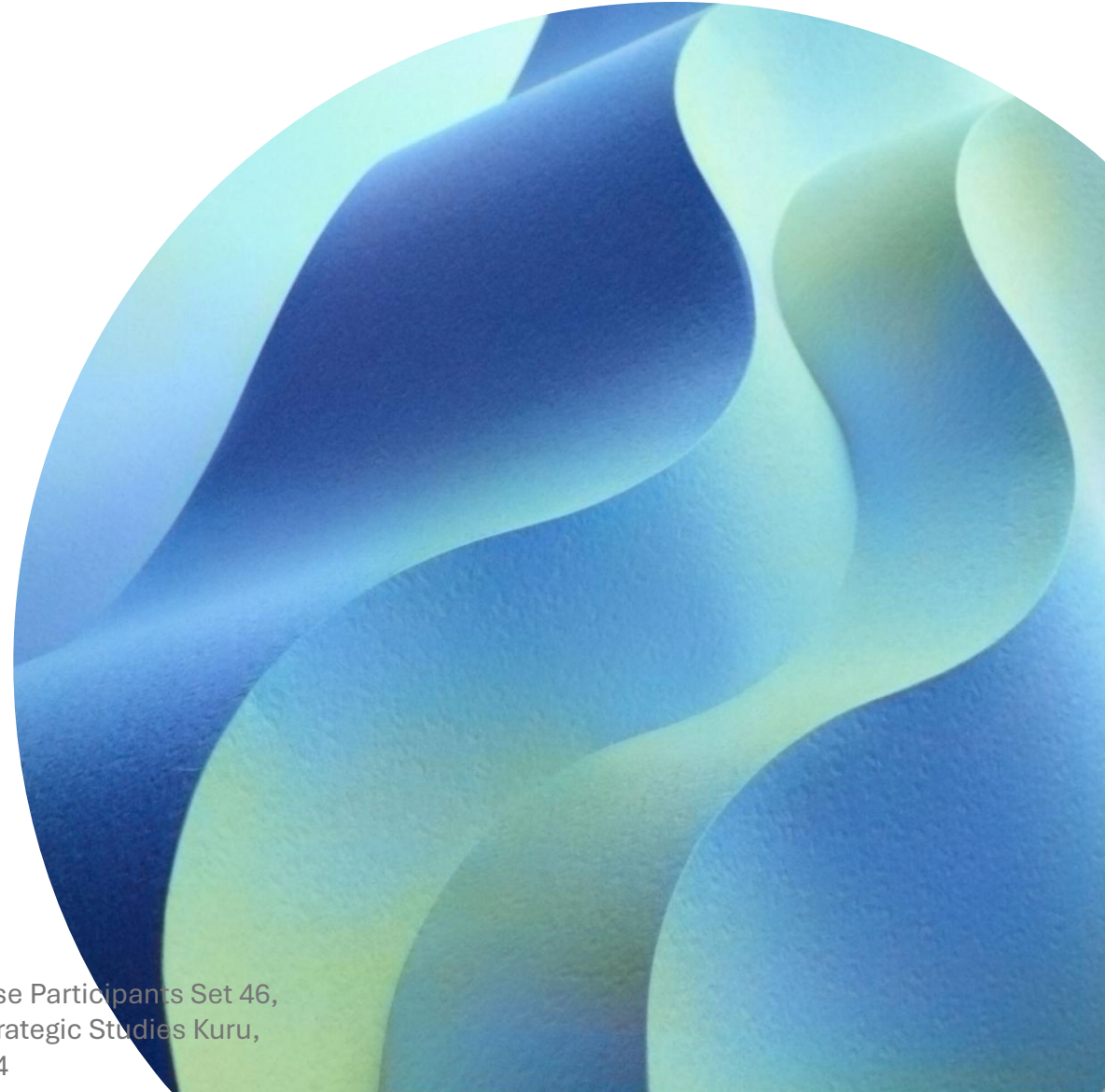
- Try
 - Mendeley (<https://mendeley.com>)
 - End Note (www.endnote.com)
 - Zotero (www.zotero.org)

Data Collection

**Common data
collection
applications:**

Google Forms
(Google Forms:
Free Online
Surveys for
Personal Use)

Survey Monkey
(SurveyMonkey:
The World's Most
Popular Free
Online Survey Tool)



Data Analysis

- Tools for quantitative data analysis:
 - Microsoft Excel (Microsoft Office)
 - Statistical Package for Social Sciences (SPSS)
(www.ibm.com/analytics/spss)
 - MATLAB (The Mathworks)
(www.mathworks.com)

Data Analysis (*Contd.*)



- Tools for Qualitative data analysis
 - Nvivo (www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home)
 - Atlasti (<https://atlasti.com>)
 - Transana (www.transana.org)

Post-data Analysis - References

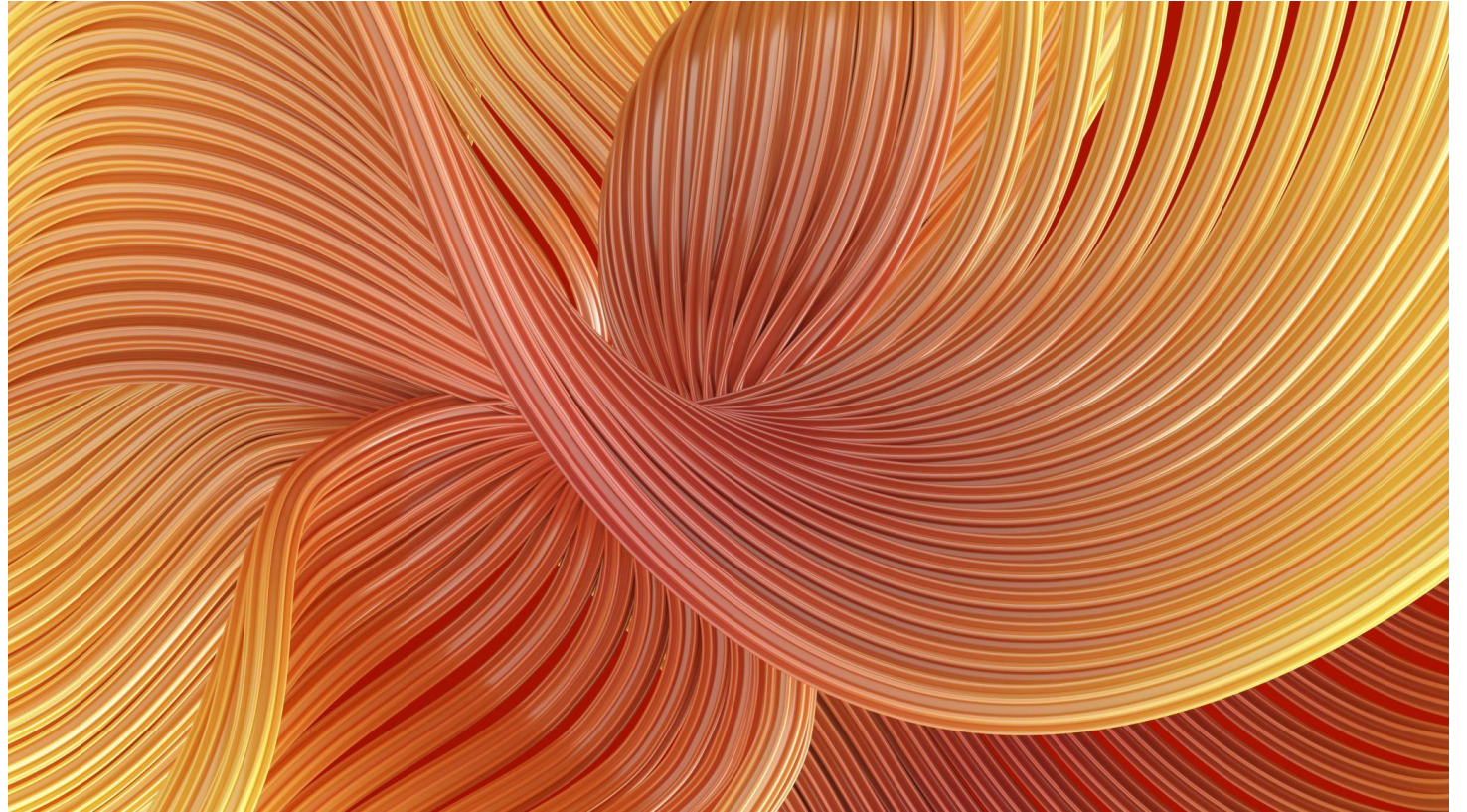
ICT simplifies
compilation of
your references

- in a systematic way

Start with your
Microsoft Office
(Word)

- Check the horizontal features.
You'll see **References**

If you used endnote,
Mendeley or Zotero, it is
time to command the
software to produce the
references.



Post-data Analysis



**REFERENCING AND
BIBLIOGRAPHIC
COMPILATION**



PLAGIARISM DETECTION



MANUSCRIPT SUBMISSION



Policy Recommendations

Harmonize the various policies and regulations on ICT in the country

Provide basic infrastructure for a national digital culture

Implementation Strategies

- An inter-agency committee of experts on ICT, ICT professionals, and lawyers should be identified and resolve the apparent policy and regulation overlaps.
 - Appropriate implementation agencies should be mandated to implement the resolution
 - Necessary review of legislations should be carried out as a fallout of the resolution of the overlaps.



Reflective Questions

- Discuss the effects of multiple data capturing agencies and the appropriateness and benefits of a single sign-on for national security and development:
 - Immigration – National passport
 - National Identity Management
 - Driver's License
 - Bank
 - Independent Electoral Commission

Reflective Questions (*Contd.*)

- Discuss the implications of the current trade of words between China and the United States of America for:
 - Digital Economy
 - Youth Empowerment
 - Sustainable Development

Reflective Questions (*Contd.*)

- **How can the current policies and regulations in Nigeria be effectively implemented?**
 - National ICT Innovation and Entrepreneurship Vision (2021-2030)
 - National Digital Economy Policy and Strategy (2020-2030)
 - Nigeria e-Government Masterplan (2020-2025)
 - National Broadband Plan (2020-2025)
 - National Policy on Information and Communication Technologies (ICT in Education 2019)
 - Nigerian data Protection Regulation (NDPR) (2019)
 - Nigeria ICT Roadmap 2017-2020
 - Education for Change: A ministerial Strategic Plan 2016-2019

Reflective Questions (*Contd.*)

- Cybercrime (Prohibition, Prevention, etc.) Act of 2015
- National Standards for Information Technology (IT) Education 2014
- National Content development ICT Policy (2013)
- National Information and Communication Technology (ICT) Policy 2012
- National Information Technology Education Framework 2010
- Nigeria Cloud Computing Policy
- Federal Competition and Consumer Protection Act
- The Nigerian Communications Act (2003)
- National Broadcasting Commission (NBC) Act
- Wireless Telegraphy Act
- Banks and Other financial Institutions Act 2020
- Open Banking in Nigeria 2023

Two Examples of Policy Documents

FEDERAL REPUBLIC OF NIGERIA



NATIONAL INFORMATION and COMMUNICATION
TECHNOLOGY (ICT) POLICY

By

The Ministry Of Communication Technology

June 2012



Federal Ministry of Education

NATIONAL POLICY ON
INFORMATION AND COMMUNICATION
TECHNOLOGIES (ICT) IN EDUCATION



Conclusion

- ICT enables research data and literature to be generated easily.
- ICT makes the analysis of data to be well executed.
- Empowering youths with the knowledge and skills of ICT can frog lift the economy and development of a nation.
- All overlapping policies and regulations should be harmonized in order to have a clear strategy on digital economy, youth empowerment and sustainable development.

References

- [Accelerating Startup Growth: Nigeria's Incubators - Forbes Africa](#)
- [ICT Policies and Regulations in Nigeria - WebManager.NG](#)
- [Information Technology In Education](#)
- [Nigeria's tech ecosystem scored major policy wins in 2023 \(techcabal.com\)](#)
- [Regulations \(ncc.gov.ng\)](#)
- [Regulations – NITDA](#)
- [Startup Ecosystem of Nigeria | Startupblink](#)
- [Top 10 most funded Nigerian startups as of August 2023 – Nairametrics](#)



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Kuru, March 15, 2024