STRENGTHENING CYBER POLICY RESEARCH CENTRES IN THE GLOBAL SOUTH

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IDRC Grant / Subvention du CRDI: 109109-001-Strengthening cyber policy research centres in the Global South – Centre for Intellectual Property and Information Technology Law

Project Title: STRENGTHENING CYBER POLICY RESEARCH CENTRES IN

THE GLOBAL SOUTH

IDRC Project Number: 109109-001

Subtitle: CYBER POLICY CENTRE

Research Institution: CENTRE FOR INTELLECTUAL PROPERTY AND

INFORMATION TECHNOLOGY LAW

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Report Type and Number: FINAL TECHNICAL REPORT

Time Period: JUNE 2020 TO NOVEMBER 2021

Date of Presentation: 11 FEBRUARY 2022

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Executive Summary:

The Cyber Policy Center Grant has allowed CIPIT to maintain its core activities within the information communication technology (ICT) space in the region. When embarking on this grant, CIPIT's aim was to embody an ICT sector with robust institutions collecting reliable data and generating useful analysis while respecting privacy, the rule of law, and accessibility of ICT resources and data.

Advances in information communication technology (ICT) are dramatically improving real-time communication and information sharing. The Internet and networked technologies are forming the cornerstones of economic growth in Sub Saharan Africa (SSA). The most effective of these have been the widespread availability of lower cost GSM cell phone devices and associated services, in addition to the proliferation of Internet access to previously underserved markets. Information technology has a growing role in re-defining interactions across society, and ICTs are expected to accelerate progress on education, employment, and poverty reduction. Significant challenges accompany the significant benefits from developments in ICT.

CIPIT is centered on two main principles: first, that information and information channels should be freely available, reliable, and accessible; and second, achieving the first principle requires a network of robust institutions capable of supporting and scrutinizing one another and the activities carried out in the ICT sector. These two principles lead to the essential goal of being a world-class centre supporting and seeding the ICT research and policy activities relevant to the region. During the first year of this Grant, CIPIT has gained independence from the Law School at the Strathmore University and is now recognized as an independent center under the Research and Innovation Department of the University.

With regard to the first principle, we at CIPIT believe that the ICT sector needs more institutions and individuals with advanced skills in research and sector support to produce reliable information in this sector and information that is regionally specific and applicable. Accordingly, we focus our efforts on training individuals; such individuals will ultimately form the foundation of a robust and vibrant network throughout Kenya, East Africa, and beyond. We have begun to achieve this by employing this first "at home". This entailed involving our Research Fellows and Research Assistants in relevant training and learning opportunities in areas that lead to robust research activities. Further, we have engaged in the expansion of our academic output. These expansions have involved the traditional methods of academic writing as well as non-traditional aspects such as a deliberate focus on deepening our network with experts in the field through roundtable discussions, which in turn enriches our resources through accessibility to experts, policy makers and likely advisors. These interactions also positioned our team members to learn more about these aspects.

With regard to the second principle, our research uptake strategy focuses on two audiences: the academic community, and the broader ICT community. Regarding the academic community, and to complement our academic activities, under this grant we have successfully published a first issue of an academic, open access, peer-reviewed journal – the Journal of Intellectual Property and Information Technology (JIPIT) under the Strathmore University Press. We have also developed a podcast, The Friendly Troll, with observations of the global tech industry from the perspective of the Global South. Our trolling is meant to enlighten listeners and explore interesting topics from a new point of view. Regarding the broader ICT community, which includes governmental policy makers, practitioners, and average citizens, a primary point of engagement for CIPIT is our database for ICT laws and policies in Africa (www.ictpolicy.org). We are well on our way in expanding the functionality and scope of this

database, eventually converting it to a "wiki" format allowing non-CIPIT users to post moderated content. We envision this database becoming a trusted source for ICT-related laws, policies, etc. for every country in Africa. We have also increased our public participation arm and have been involved in commenting on a range of regulations and laws in the ICT field locally and also at the international level. The aim of these activities was to engage in a more robust policy influencing by engaging Government during these public participation calls.

The research problem:

We describe below challenges in three areas relevant to our research work in the ICT sector.

Digital Rights

The impact of cyberspace on so-called "illiberal" African governments (and vice-versa) is currently a critical topic to civil society, businesses, human rights and democracy activists. While there is consensus about the enormous potential for advancing development, the control of cyberspace, management of cybercrime and terrorism, and their roles in the democratic process, are still being debated in Africa. Even as this debate continues, there has been a rise in Internet authoritarianism, as governments are proving much more adaptable to digital based repression than expected. Both national-level and regional-level Internet controls are now deeply entrenched.² This control is evidenced, first, by increased technical capabilities at national level, which are meant to deny (e.g, Internet filtering), disrupt (e.g., network shutdowns), and monitor (e.g, network surveillance) online activities. Second, through non-technical legal measures such as an expanded use of defamation and slander laws, governments seek to deter bloggers and independent media from posting material critical of the government or specific government officials, however benign.³ Third, at a regional level, norms are shared during regional Internet governance forums that exemplify pseudo democratic structures. The highly developed surveillance and espionage capabilities in countries such as China and Russia are proving particularly attractive to many regimes that face on-going insurgencies and other security challenges, as well as persistent issues around popular protests and street-level demonstrations. Research by Citizen Lab from 2012-2014 has uncovered numerous cases of civil society groups targeted with advanced digital spyware originating from authoritarian regimes, and the proliferation of mass surveillance capabilities to illiberal countries.⁴ For instance, credible reports state that Zimbabwe has been importing cyber espionage capabilities from Iran. 5 Under a veneer of efficiency and an ICT sector

¹ By illiberal, we mean governance systems that, in spite of elections taking place, are minimally affected or unaffected due to lack of civil liberties to institutionalize popular will. Fareed Zakaria (November–December 1997). "The Rise of Illiberal Democracy". Foreign Affairs.

² "Freedom on the Net", a project by Freedom House, analyses Internet freedom around the world. Their 2015 report found internet freedom in decline for a fifth consecutive year as more governments censored information of public interest while also expanding surveillance and cracking down on privacy tools. African countries were among the worst performers in the index ranking. See https://freedomhouse.org/report/freedom-net-freedom-net-2015

³ For example an amendment to the Information Communication Act (ICA) in the Gambia introduced very stiff penalties for "spreading false news online". In Zimbabwe, Sections 31 and 33 of the Criminal Law (Codification and Reform) Act criminalize "publishing or communicating false statements prejudicial to the state" and "[u]ndermining authority of or insulting [the] President." In 2010, the Angolan parliament passed a new state security law to replace a 1978 law, known as Article 26, which the government often used to imprison opposition journalists and activists.

⁴ Views shared by Christopher Walker (International Forum for Democratic Studies) and Ronald Deibert (Citizen Lab) at the International Forum for Democratic Studies Roundtable Series, December 10, 2014.

⁵ Sibusiso Ngwenya, Zimbabwean Journalist. Blog Post on New Zimbabwe Vision page. January 2015. Also confirmed on the same day by the Zimbabwe NewsDay.

considered well advanced, Rwanda's biometric big data regime is particularly troubling in a state known for mendacity and self-censorship.

Compounding the above challenges is a lack of rigorous and reliable research and analysis on issues of digital rights in Africa. Although vast amounts of data are generated by government and private entities throughout the Continent, the reliability of this data is a major challenge; the data suffer from bias, unreliability, a lack of transparency and explanations of assumptions, a lack of disaggregation based on gender and other factors, and a lack of harmonization across the African region. For example, two different sources (the Kenyan Government and the International Telecommunications Union) have drastically different estimates on Internet penetration in Kenya (85% and 46%, respectively),⁶ apparently due to differing assumptions. There is a clear need for consistent, unbiased, and reliable collection and analysis of data to inform policy debates within the ICT sector.

Economic Innovation

An astonishing number of locations in Africa are competing to be recognized as the next Silicon Valley. From Yaba, Nigeria to Nairobi, Kenya, and from Cape Town, South Africa to Taghazout, Morocco, tech hubs are proliferating in virtually every corner of the continent. An accurate inference from this phenomenon is that much of the continent is investing time and money on ICT-based startups, with innovation expected to play a key role. The ICT sector supports a growing culture of innovation with platforms that offer startups with minimal barriers to entry. The success of mobile money as a financial transaction and banking platform preceded and arguably contributed to a plethora of activity around mobile-based innovations.⁷ It is no coincidence and no surprise that technology incubation hubs and startup accelerator hubs have been proliferating across the continent in this environment.⁸ Challenges facing economic innovation and innovators in the ICT sector include: burdensome government regulations; high tax rates and confusing tax systems; corruption; a lack of awareness in utilizing Intellectual Property; and volatility within the political and regulatory environments. Human and other resources for helping innovators to navigate these issues are inadequate to serve the growing need.

Cybersecurity

Globally, the need for cybersecurity and the desire for digital rights are often two competing sides of the same discussion. Whereas ICT policy ought to be a negotiated middle ground between these two camps, in much of Africa this discussion is skewed by the power of the government advocating for cybersecurity and the weakness of advocates for human rights. Nevertheless, the threats to society from breaches of cybersecurity are real and cannot be dismissed based simply on the distastefulness of those seeking stronger authority. For much of the 1990s and early 2000s, the lack of Internet connectivity isolated Africa from the scourge of cybersecurity challenges affecting developed nations. With the recent and rapid introduction of mobile and broadband Internet in sub-Sahara Africa, this isolation no longer exists. Unfortunately, improvements in connectivity occurred more rapidly than current governments and businesses in Africa could adapt and learn to deal with modern hackers and

http://ca.go.ke/images/downloads/STATISTICS/Sector%20Statistics%20Report%20Q2%20FY%202016-17.pdf. See also Chapter 5 of 2016 Measuring the Information Society Report (http://www.itu.int/en/ITUD/Statistics/Pages/publications/mis2016.aspx)

⁶Communications Authority Statistics Report 2016-2017.

⁷ See iCow (http://www.icow.co.ke/) and M-Farm (https://www.mfarm.co.ke/) as examples of mobile based innovations in Kenya. See iCow (http://www.icow.co.ke/) and M-Farm (https://www.mfarm.co.ke/) as examples of mobile based innovations in Kenya.

⁸ De Beer et al, "A Framework for Assessing Technology Hubs in Africa." New York University Journal of Intellectual Property and Entertainment Law (JIPEL), (2017) 6(2).

cybercriminals. Adoption of policies, laws, and treaties have been slow in the region. These factors have left much of Africa particularly vulnerable to cybercrime. Another factor affecting cybersecurity in Africa is the recent expansion of SINO-Africa political and economic cooperation to include Internet governance policies. Chinese influence legitimizes a new political order based on the "China Model" or "Beijing Consensus" which advocates for "Internet Sovereignty" – seemingly a drastic departure from the Western liberal democratic idea of "Borderless Internet". Such ideas are gaining traction in countries such as Zimbabwe and Angola as a competing model to the "Washington Consensus" that China considers hostile to its national interest. Furthermore, Edward Snowden's 2013 riveting disclosures had the effect of weakening U.S. leadership on Internet freedom and emboldening repressive governments, including those in Africa. The threats to African society from breaches in cybersecurity and from government overreach to prevent such breaches are unique to the local, regional, and Continental contexts. As noted above, however, there is a distinct lack of credible research currently carried out in SSA, and this gap severely and negatively impacts policy discussions around cybersecurity.

A retrospective on our theory of change and what we achieved through the CPC Grant

The theory of change for this project has two clear goals: build up and contribute to the conversation of cyber policy in Africa; and build the capacity of the African academic sector to conduct research in areas of cyber policy. The outcomes and impact described in the theory of change contribute to and embody these goals, and it is notable that these goals have remained substantially consistent at CIPIT over the period of this project and grant. Our most recent expression of a theory of change looks remarkably similar, with essentially the same outcomes and impacts. We believe that this supports the validity of our goals and our work: even as the African ICT sector evolves in new and unexpected ways, with previously unforeseen societal, governmental, and economic impacts, we are strongly convicted that our desired outcomes and impacts are worth significant investments of time and resources.

It is also notable that, despite the grandeur of our desired impacts as stated in the theory of change, we have made noticeable and measurable progress toward achieving those impacts. This is demonstrated by the activities described throughout this report. For example, through hiring of staff, programs such as our African ICT Policy fellowship, and engagements with stakeholders, we have measurably expanded the human capacity in the African academic sector. Not only is the number of researchers in the sector greater, but the skills of those researchers are improved and poised to develop even further. In fact, staff and fellows that have engaged with CIPIT are increasingly active in the global dialog of cyber policy, providing an African perspective to issues that are truly globally important. Through our journal, website, podcast, and other outreach activities, we have also significantly contributed to the infrastructure supporting research in the African academic sector. This outcome has the potential for long term impact on the development of the African ICT sector, and the ability of the sector to contribute to the global conversation.

⁹ For example, in SSA, only Mauritius has signed and ratified the Budapest Convention on Cybercrime, and the African Union treaty on Cybersecurity has yet to go into effect for lack of sufficient signatories.

¹⁰ A good example is recent statements by the Zimbabwean government to learn from China how to shut down the Internet, an extension to its 'Look East' Economic Policy.

¹¹ However, critics of U.S Internet policy call for caution in demonizing China at the expense of the West. The US monitors internally at an excessive level, and other governments, including allegedly Angola, have sent security officials to the US to be trained by private companies on how to implement information controls measures.

¹² Eades M. in Foreign Policy Association. 'China and Russia Join Hands for Internet Censorship'. 7 May 2016.

Although our work is ongoing, and the need for further work and development is great, we are confident that a wide range of stakeholders in the African ICT sector have benefited from our participation as a Cyber Policy Centre. The activities, outcomes, and impact described in this report support this conclusion.

Key Summative Outcomes

- We published the first issue of the Journal of Intellectual Property and Intellectual Property, (JIPIT) which evolved as part of our engaging with African researchers. This lays the foundation for further issues, and enhances our engagement with the global academic community. It also gives a medium for the generation/dissemination of evidence and analysis by researchers from a wide range of interests.
- We continued our work around internet shutdowns and information controls through our
 work for the Governance and Peace Directive of the Commonwealth to write a report on the
 use of social-media (Twitter) influence before <u>Ghana's 2020 General Election</u>. This
 engagement was a first for both the Commonwealth Secretariat and for ourselves, and
 furthered our goal of engaging the global discussion in the area of information controls.
- We had our first cohort of <u>CPC Fellows</u>, which took place in the six months of April to October, 2021. This outcome further widened our networks to include other African countries, and helped to enhance our reputation as a destination for cyber policy research.
- We grounded our work in cyber policy pertaining to artificial intelligence by newly engaging the World Intellectual Property Organization (WIPO), helping us to establish a voice in the international discussion of the topic.
- We expanded our outreach activities to include a podcast entitled <u>The Friendly Troll</u>.
 In this medium, we disseminate information on digital rights, innovation, and trade related aspects of intellectual property in an accessible manner to an audience that expanded beyond the rigorous academic circles.
- We began our work on <u>translating our research outputs into Kiswahili</u> to promote wider access to this knowledge.
- We began thinking about how researchers engage with the research, by examining our work through a <u>reflective practice</u> lens through the guidance of our <u>Gender At Work</u> project.

Accomplished milestones:

Academic output expansion

We submitted our comments, convening webinars in some instances, in the forming of policy with regard to the following regulations:

	NAME	SUBMISSION DATE	NOTABLE COMMENTS
1	WIPO Response: Impact of AI on IP Policy (B) WIPO Conversation on Intellectual Property (IP) and Artificial Intelligence (AI) Response from a Global South Perspective (Second Session)	24/07/2020	This was a response to a call by WIPO for an open conversation on IP and AI with an aim of developing a policy paper. Our responses were based on a global south perspective.
2	Draft Digital Economy Strategy for Kenya	20/08/2020	We noted that there ought to be more consideration with regard to how digital technologies affect society. In particular, the inclusion of requirements for human rights assessments and methodologies around mitigation of any infringement or risk to such rights by entities that are in a position of power. Further, we recommended discourse around a monitoring and evaluation framework within the strategy to balance interests of parties and ensure fairness.
3	WIPO Response: Interventions on the WIPO Conversation on Intellectual Property (IP) and Artificial Intelligence (AI): Third Session	21/10/2020	This was further contribution to the conversation and call by WIPO on IP and AI. We provided further written interventions specific to issues 15 and 16: Capacity Building for IPOs and Accountability for Decisions in IP Administration. Our interventions in this session were included in the notes of the meeting held on 4 November 2020 (please see attached Annex).

1			
4	Draft National Spectrum Policy	16/11/2020	In our comments here we noted that the interpretation of GSR's recommended best practices to our local realities and commended the intention to promote non-commercial uses for spectrum. We also welcomed the inclusion of R&D among the non-commercial uses. We urged that the zoning aspects which serve as an affirmative action for rural and underserved areas together with the release of spectrum with potential to increase internet access in rural areas be carried forward into the proposed Policy.
5	The Draft National Film Policy and Draft Kenya Film Bill, 2020	21/12/2020	In this instance we focused our contribution in five areas: devolution (in particular regional capacity building), informality in the Academy, licensing, record keeping and membership to the Boards.
6	The Draft Guidelines on Access to Personal Data During COVID-19 Pandemic	01/02/2021	We made recommendations on the following vital clauses within the proposed Guidance Note that dealt with the role of the Data Protection Commissioner, the Data Request Form, the provision for data protection impact assessments given the sensitivity of personal data to be used. We submitted these in collaboration with Development Gateway.
7	The ICT Practitioners' Bill	10/03/2021	We recommended that the ICT Practitioners Bill be withdrawn. As an alternative, we suggested that the government pursue a system of voluntary certifications — thereby allowing ICT practitioners of a wide variety of backgrounds to improve their skills and demonstrate their proficiency by attaining standardized certificates.
8	The Central Bank of Kenya (Amendment) Bill	09/03/2021	We supported the purpose of the amendment to bring digital lending apps under regulation by the Central Bank of Kenya (CBK); However, we found that some parts of the

			amendment could be insufficient for the intended purpose as it did not provide for all the regulatory roles applicable to other licencees of CBK inter alia. We therefore recommended a more holistic amendment that incorporated issues raised in our memorandum.
9	The Draft Data Protection Regulations, 2021	10/05/2021	We noted in our comments to the Data Protection Commissioner that we were encouraged by the development of this legislative and regulatory framework relating to the right to privacy and regulation of personal data. We are closely following the implementation of the Act, and will curate gaps we have come across for purposes of sharing with the Taskforce at a later stage. We submitted these in collaboration with Development Gateway.
10	Draft Buyer Power Guidelines 2021	12/05/2021	Our comments included our observation on Regulation 13 which we found to be undesirably vague, since there was no clear standard by which Buyer Power is established. (The characteristics of Buyer Power described in Regulations 24-45 exist on a continuous gradient, and it is therefore unclear when an undertaking has moved into a position on that gradient that represents Buyer Power.) We recommended the amendment of Regulation 13. We also made comments with regard to Section 17, Guideline 21, and Question 39.

Fellowship training

In this activity we had envisioned 6- and 12-month fellowships, during which fellows will be trained to carry out rigorous research, to engage with the ICT community, and to disseminate such research via strong written and visual output. We had converted this to short-term visits from eminent academic researchers, and had arranged the first two visits. These visits were intended as training sessions to build the skills of CIPIT researchers, but have been placed on hold due to COVID-19. In the latter part of 2020 and first half of 2021 we held two training sessions for CIPIT researchers with various scholars. We initially held Academic Writing Sessions with Cecil Abungu that was attended online between 22 August 2020 to 27 October 2020 by a total of 18 of our staff members. We then invited Prof Eric

Goldman, on 25 February 2021 and 4 March 2021, to hold a training session on 'Building a Scholarly Identify" which was attended by all the Research Fellows and Research Assistants at the Centre. We also invited Prof Caroline Ncube on June 8 2021 for a one-hour presentation on her current role as the SA NRF Research Chair in Intellectual Property at UCT. She spoke about her academic journey and how she handles her various roles as a Graduate Student Supervisor, Researcher and Mentor. All these sessions were held virtually due to the ongoing pandemic.

We also initiated a call for CPC Fellows in 2021 which begun in April 2021 for a total period of 6 months. This cohort includes:

NO	NAME	NATIONALITY	TITLE OF RESEARCH
1	Elvis Ogah	Nigerian	Title of proposal: Digital Identification in the
			Absence of Data Protection Law in Nigeria:
			Perils and Way forward.
2	Felix Atandi	Kenyan	Privacy by design using Privacy enhancing
			Technologies
3	John O. Oredo	Kenyan	A Critical Review of the Impact of Public
			Service Automation Initiatives: From
			Tokenism to Citizen Empowerment Oriented
			Policies
4	Oscar Okwero	Kenyan	Policy controls for Information Warfare
5	Faith O. Amatika	Kenyan	Regulation of Emerging Technology
6	Louis A. Gitinywa	Rwandese	Mass surveillance and spying on Dissent;
			How the N.I.S.S. can "grab" your cell phone
			and you.
7	Nanjala H. Nyabola	Kenyan	Language policy and digital rights

Ictpolicy.org

Part of our movement from under the wing of the Strathmore Law School into being a fully-fledged independent centre under the Research and innovation wing of the University entailed ensuring our website and other online assets aligned fully with the Communications Department of the University. To this end, we have been revamping our website to meet the branding standards of the University and aligning our back-office access as well. Phase one of this revamping is complete. We are now concentrating our efforts onto expanding the functionality and scope of the ictpolicy.org database, converting it to a "wiki" format allowing non-CIPIT users to post moderated content. We envision this database becoming a trusted source for ICT-related laws, policies, etc. for every country in Africa.

Administration by the research organization; human resources (staffing, turnover, etc.)

During this reporting period, CIPIT has hired three full time Research Assistants: Rachel Adhiambo, Peacela Atim, and Amrit Labhuram. Amrit is assigned to the DECI program where he is a key participant in the data collection phase of the M&E exercise and he also assists with monitoring the podcast. Peacela and Rachel are both part of our Data Governance Centre and play key roles in our Public Participation Comments exercises. We also recruited three student Research Assistants, Joanna Kahumbu, Milcah Kerubo and Margaret Zalo who have supported our research efforts in 2020 to 2021.

We also recruited a student intern cohort between July 2020 and June 2021 who greatly assisted our Researchers in their duties.

With regard to Research Fellows, we welcomed Dr. Olayinka Adebola to the team in March 2021. Dr. Ola will support our AI Research by bringing to the team her wealth of knowledge in academic writing and in particular help strengthen the Gender aspects of our research. She also serves as a mentor to our Research Assistants and junior Research Fellows.

We continue to use the Airtable Database as a project management tool, which was introduced in May 2020. We use Airtable to better monitor research outputs as a project tracker, project calendar, personnel tracker and events log we are also using it to track our public participation comment submissions. Populating the records in the database occurs on a rolling basis and to maintain the integrity of the database we will restrict editing functions to a team assigned to the upkeep of the database. There is a quarterly presentation of the contents of the database to the wider CIPIT team.

Budget expenditure

Budget for June 2019 – December 2021						
Budget Line	Budgeted	Expenditure	Remaining Budget	Notes/Explanations		
Personnel	22,884,600	24,001,100	-	Additional costs incurred for the additional months on project up to December 2021		
Consultants		1,250,000 -	-	Consultants engaged for the ICT work and engagement of project coordinator for the fellowship program.		
Evaluation	980,000	200,000	-	Expenditure was incurred in the first year of the project. No payments were applicable in the second year. Funds were repurposed to research activities to cater for the Wiki Page development and podcast.		
Equipment		-	-			
International Travel	3,001,250	958,647	-	The funds were repurposed to engage a number of consultants and research activities		
Training	3,801,250.00	3,801,350	-			
Research	9,110,000	9,640,964				
Indirect Costs	5,171,023	5,177,314		Expenditure allocated to support staff and work stations, prorated at 13% overhead rate.		
Total	44,948,123	45,029,375				

Amount received to date: Kes 42,972,176

Project Outputs

The Project Schedule is as presented below. Noting that a number of the activities have been delayed due to the advent of COVID 19.

No.	Project Milestone	Timeline	Comment
1.	Training of Fellows: We have begun recruiting Scholars who will attend the training of our Research Fellows and Assistants online as we pivot towards the new	Confirmation of Sessions: End of July 2020	On a rolling basis.
	normal now that COVID19 is our new reality.	Cecil Abungu Writing Sessions	Completed.
		Prof Eric Goldman	Completed.
		Prof Caroline Ncube	Completed.
		Prof Jeremy DeBeer	Unable to complete due to his sabbatical.
2	Data Protection Act Materials: We are in the process of developing various materials that would be used by small and medium enterprises in understanding and implementing the requirements of the Data Protection Act 2019.	Data Protection Pamphlets for SMEs: Publication 1 August 2020 Guidebook on Data Protection Impact Assessments for SMEs and NGOs:	Completed. https://cipit.strathmore .edu/data-protection- pamphlet/ Completed
		Role of the Data Protection Officer: First Draft 15 August 2020; Publication 30 August 2020.	In the final stages of developing a Data Protection Officer training course that would be better placed to answer the question of the role of the Data Protection Officer. This will be an online training course. The course began registration in February 2022.

3	DECI	UFE Design Completion: July 2020-August 2020	Completed
		Simulation of Use: September 2020- October 2020	Completed
		Data Collection: October 2020– November 2020	Completed
		Data Analysis: December 2020- early February 2020.	Internal analysis completed. Finalizing the second phase with mentors through to June 2022.
4	JIPIT	First Issue	Completed. Please see attached.
		Call for Second Edition	June 2021.
5	ICTPOLICY.ORG	We update the database as and when new legislation and regulations become available.	Updates are ongoing. There are ongoing Quality Assurance exercises on the content. To be completed by March 2022.
		Transforming site to a "Wiki": September 2020 to December 2020.	This has been delayed due to the Quality Assurance Exercise above.

Technical and other support and administration by IDRC:

1. DECI

CIPIT signed an MOU with the "Designing Evaluation & Communication for the CPC Program Project Impact" DECI4 and is currently working towards utilizing the mentoring in Utilization Focused Evaluation, Research Communication, and facilitation of learning/adaptation. We are currently in the process of developing evaluation uses and key evaluation questions. The deadline for this design was July-August 2020 due to the COVID19 outbreak. We completed the design of the evaluation uses and key evaluation questions as well as completed the internal data collection. We conducted internal data analysis of the internal data collected. Our next step in this exercise is to share the KEQs with our stakeholders for external data collection and analysis of that data which will be conducted beginning the first quarter of 2022

2. G@W - GENDER AT WORK

CIPIT had an initial meeting with the Mentor on this aspect in May 2019. During this meeting initial steps were made with regard to the direction CIPIT would take in this initiative. In December 2019 CIPIT held a reflection meeting to determine the way forward with the initiative. In the initial visit the core framing question was identified as: "What will it take for CIPIT to use the IDRC/GAL process to strengthen its gender/feminist research practice?" There is also the idea that a full implementation of a revised organisational culture would be more appropriate. In this vein, we settled after our February meeting with our Mentor on the following framing question: "What will it take to create a Research Practice that Is both inclusive of Researchers and Stakeholders and is most Meaningful, Impactful and Effective?". Following this question, we have reworked our project update meetings to include a personal check in at the beginning to understand the circumstances our Researchers are working under and that inform their work especially during this pandemic. Further we have refocused the meetings to be more attune to presentations by researchers on each project and not just team leaders following feedback we received from our mentor on this aspect. We also begun research in the field of AI that implements a feminist lens to investigate the use of AI and how it affects women in banking services.

Following below is a table that further details actual project outcomes and further actual outcomes.

No.	Project Proposal Outcome	Project Actual Outcomes	Further Actual Outcomes
1.	Fellowship Training: During 6- and 12-month fellowships, fellows will be trained to carry out rigorous research, to engage with the ICT community, and to disseminate such research via strong written and visual output.	We had converted this to short- term visits from eminent academic researchers, and had arranged the first two visits. These visits have been placed on hold due to COVID-19.	We have virtual meetings with Scholars and also continued to start the fellowships virtually as has been explained in the project schedule above.
2.	Academic Output expansion:	Public Participation Comments We submitted our comments, convened roundtables in some instances in enhancing our participation in the forming of policy with regard to the following regulations: i)Data Protection Civil Registration Regulations 2020 ii)The Registration of Persons (National Integrated Identity Management) Regulations 2020 iii)Intellectual Property Bill 2020 iv)WIPO Response Impact of Al on IP Policy 2020	participation comments and have been sought after directly to comment on a Bill: National Communications Secretariat wrote to us in June 2021 asking that we make comments on and review the draft Naming and Addressing System of Kenya

		v) Public Consultation on Strategies for Increasing the Uptake of ICT Devices in Kenya vi) Data Protection Bill 2019 vii) Public comments on Principle on Identification for Sustainable Development to ID4D World Bank 2020 viii) Draft Civil Registration Regulations 2020	
	jipit: i) to seek personnel for managing and editing submissions, and ii) ensure at least four issues of the journal are released by end 2019	JIPIT -Appointed Dr. Ambani as editorConstituted an Advisory Editorial Board -Received submissions for the first edition -Currently reviewing these submissions	Completed the first issue of JIPIT and have made a call for the second issue.
	i) we will expand the functionality and scope of this database, converting it to a "wiki" format allowing non-CIPIT users to post moderated content. ii) We envision this database becoming a trusted source for ICT-related laws, policies, etc. for every country in Africa.	We have kept this website up to date and added documents as they have become known to us. Conversion of the website to a "wiki" is under review, considering our involvement in the Cyrilla project that is creating an open access database of global ICT laws.	We are currently carrying out a Quality Assurance exercise on the information obtained. We are seeking assistance from the Portuguese and Arabic networks to assist with the resources on the website that are from the regions that speak this language before we can complete this. We are also awaiting feedback with regard to the Cyrilla Project which is on hold as we await the confirmation the continuation of the project. If it does continue, we would be the primary organization involved.
3	Expand on Collaborations: Our network of collaborators includes Open Technology Fund (OTF), and Open Observatory of Network Interference (OONI). These collaborations are of great value to CIPIT, and we	Feminist AI Research Network (F <ai>R) involves CIPIT, AUC (American University of Cairo), RIA (Research ICT Africa), and many others. Our Director, Isaac Rutenberg attended and participated in all meetings.</ai>	We recently joined the Digital Trade Alliance led by Public Citizen that involves a few organizations in the Global South including Derechos Digitales, EDRI and consumer organizations such as the European Consumer Organisation (BEUC).

4	intend to continue to cultivate these and other partnerships. Practical and theoretical training courses for CIPIT researchers in any of the following topics: ethical hacking; cloud computing; database security; ICT security in financial services; and others.	CIPIT individuals have attended various conferences to upskill and network and source for further opportunities with regard to training as is explained below in the conferences attended section.	We continued to encourage CIPIT individuals to attend various conferences and events.
5	We will also endeavor to recruit one or more researchers (either in the Fellowship or as full-time staff) with a deep technical background as well as an interest in cyber policy.	We have recruited Dr. Angeline Wairegi, a Research Fellow with substantial technical background and research experience (albeit in another field of study). We continue to engage our ICT consultants as needed.	We engaged an ICT consultant to assist with computer programing and website infrastructure for our various projects. Kevin Muchwat has proved to be a valuable member of the team.

Information sharing and dissemination (reports, publications, conferences, websites, CD-ROMs etc.)

- Publications (Papers Published and Submitted)
 - 1. "Regulation of the Social Media in Electoral Democracies: A Case of Kenya" -Dr. Isaac Rutenberg and Abdulmalik Sugow Soas Law Journal 303 7(1) Vol. VII(I) 2020 available at https://www.cipit.strathmore.edu/wp-content/uploads/2020/06/Journal-7.pdf.
 - "The use and impact of artificial intelligence on climate change adaptation in Africa" Dr. Rutenberg, Arthur Gwagwa and Dr. Melissa Omino published in the African Handbook of Climate Change Adaptation, November 2020. https://link.springer.com/chapter/10.1007/978-3-030-45106-6 80
 - 3. "Admission of Electronic Evidence: Contradictions in the Kenyan Evidence Act" by Dr. Rutenberg Stephen Kiptinness and Abdulmalik Sugow. Digital Evidence and Electronic Signature Law Review 18 (2021). https://journals.sas.ac.uk/deeslr/article/view/5280
 - **4.** "Al in Africa: Framing Al through an African Lens" by Dr. Angeline Wairegi, Dr. Melissa Omino and Dr. Isaac Rutenberg in Communication, technologies et développement [En ligne], 10 | 2021, mis en ligne le 20 mai 2020, consulté le 21 juin 2021 available at https://doi.org/10.4000/ctd.4775.
 - 5. A critical review of intellectual property rights in the Kenyan tea sector by Isaac Rutenberg Journal of Intellectual Property Law & Practice, Volume 16, Issue 3, March 2021, Pages 226–235 available at https://doi.org/10.1093/jiplp/jpab055.

Translations

- 1. **Usanii Na Sanaa: Jinsi Ya Kulinda Sanaa Yako** Kiswahili Translation on How to Protect Intellectual Property Rights. This can be found on our blog at https://cipit.strathmore.edu/usanii-na-sanaa-jinsi-ya-kulinda-sanaa-yako/.
- 2. **Ulinzi Wa Alama Za Biashara** Kiswahili Translation on Trademarks. This can be found on our blog at https://cipit.strathmore.edu/ulinzi-wa-alama-za-biashara/.

3. **Ulinzi Wa Uvumbuzi Wa Vyombo Na Michakato Buni** – Kiswahili Translation on Industrial Property Rights. This can be found on our blog at https://cipit.strathmore.edu/ulinzi-wa-uvumbuzi-wa-vyombo-na-michakato-buni/.

Conferences

CIPIT Research Fellows, Research Assistants, Research Manager and Director were all involved in a number of conferences during this reporting period (See Annexure attached) These crossed the gambit of global, regional, national and local levels. Attendance also was diverse as trainers, attendees, speakers, and panelists. The participation in these conferences assisted in meeting our aims of expansion of our research networks, expanding our research outputs through our participation in these conferences.

New Knowledge Project Outcomes

The Friendly Troll Podcast

The Friendly Troll is a podcast with observations of the global tech industry from the perspective of the Global South. Our trolling is meant to enlighten listeners and explore interesting topics from a new point of view. There are currently 14 episodes of the podcast that have garnered 1,920 downloads. The episodes are available at: https://podcasts.apple.com/ke/podcast/the-friendly-troll/id1488573883.

The podcast was also named as one of the top 20 intellectual property podcasts by Welp Magazine and that information can be found here: https://welpmagazine.com/20-best-intellectual-property-podcasts-of-2021/.

How Does AI Work -Video

Our IP team took part in the World Intellectual Property Organization (WIPO) "How does Al work?" competition in November 2020 where participants were asked to send in short videos explaining AI in a fun, engaging, and easily accessible way. We are pleased to announce that we were selected as one of the winners and our video was displayed on the WIPO AI Exhibition page and can be found on our website here: https://cipit.strathmore.edu/ and on YouTube here: https://youtu.be/iQZwlab6iBU.

Data Protection Impact Assessment Manual

The Kenyan Parliament passed the Data Protection Act of 2019 to give effect to the Right to Privacy for all individuals as provided for under the Constitution of Kenya 2010. This Act seeks to ensure that the privacy of Kenyan citizens is protected. It is a major development in Kenya that will require significant changes to the operations of private and public entities. We therefore developed a Simplified Data Protection Impact Assessment available here: https://cipit.strathmore.edu/simplified-data-protection-impact-assessment/ to assist small and medium enterprises to understand their obligations under the Act in relation to Impact Assessments as required.

Pitch Fridays at iLab Strathmore University

CIPIT individuals are involved in this opportunity, provided by @iLabAfrica which is part of the Centre of Excellence in ICT Innovation and Development at Strathmore University, for innovators to present their ideas in an elevator pitch closed audience that involves business

mentors, entrepreneurs and investors. We attend to offer our advice with regard to the regulatory and legal aspects of ICT and IP elements of the elevator pitches.

Meeting with the DCO and interactions with Amnesty International

A Data Protection Commissioner was appointed at the tail end of 2020 following the enactment of the Data Protection Act in 2019. We wrote to the Commissioner to welcome her into the role and to pave the way for interactions between our Centre and the Office of the Data Commissioner. This culminated in a virtual meeting with the Commissioner in March 2021. These discussions were concluded with the agreement that we were available to the office to offer any research support or commentary or review of regulations from the Commissioner's office and the relevant Ministry. Since then, we have made our comments on several regulations released in 2021 and also participated in various events as laid out above. These events include being part of the Panel convened by Amnesty International in May 2021 on the State of Awareness on Data Protection and the Right to Privacy in Kenya where Dr. Isaac Rutenberg was a panelist. The Commissioner was also part of the Panel.

Assisting AI4D Masakhane Project on Copyright and Data Protection Matters

We were approached by the Natural Language Project (also known as the Masakhane Project) for assistance with copyright and data protection issues surrounding the collection of data via text mining. We offered a primer on copyright and data protection and developed a copyright request template for their researchers' use in their text mining online. This culminated in an invitation to present at the 2nd AfricaNLP Workshop at the EACL2021, where our Research Manager, Dr. Melissa Omino made a presentation on Copyright and Data Protection Considerations when dealing with text data mining.

Invitation to give the Kenyan Perspective to the WTO via DTA on Al

Due to our membership in the Digital Trade Alliance, we were asked to participate in the presentation by some members of the European Consumer Organisation to the World Trade Organisation on the intersection of the internal debate in the EU on AI transparency and the regulation of AI technologies on the one hand and the EU's proposal on source code in the negotiations on electronic commerce on the other. We gave the global south perspective with regard to AI and trade and the relevant clauses that would affect consumers' rights. The workshop was attended by Dr. Angeline Wairegi as a Panelist together with Dr. Melissa Omino. This enabled us to situate ourselves in the discourse and also represent the global south in such an important discussion relating to our AI work and our new area of international trade intersecting with IP and IT.

Report on Social Media Use during the Ghanian Election

We were also requested by the Governance and Peace Directive of the Commonwealth to write a report on the use of social-media (Twitter) influence before Ghana's 2020 General Election. (See the Report attached). In this report, we identified trending topics on Twitter and collected a sample stream of the Tweets exchanged over the trending topics in relation to the Ghana Election. We used Python and R programming languages for tooling to automate this process. Our main approach distinguished the voters and the political actors. We collected Twitter data in batches, then cleaned and grouped them for analysis. After analyzing these data sets, we recommended that media houses and other researchers investigate these data sets further in order to definitively show that Pro-Mahama campaigners used bots and disinformation to influence the online conversations. We also recommended further motoring of social media conversations during and after the election. This report was delivered directly to the Commonwealth as a proof-of-concept document; it is not publicly available, but will likely influence the way that the Commonwealth monitors future elections.

Banking Index Report

In this report we compared banks' data policy provisions against a data protection standard developed using the provisions of existing national and international data protection regimes, including the Kenya Data Protection Act 2019 (DPA) and the European General Data Protection Regulation (GDPR). This standard comprises three broad indicators: data collection, data sharing, and the rights of data subjects. Compliance with these indicators was measured using tabulated analyses showing the individual and aggregated performance of the banks. The report's conclusions were derived from research conducted in Kenya in 2019 and 2020. A total of 32 policies were identified and analyzed, all of which were in existence prior to the enactment of the Kenya DPA. This report is therefore a baseline study of the policies; the report anticipates that there will be changes in banking policies as the DPA is put into practice. The findings in this report are useful for comparative purposes as the DPA is implemented and enforced. The report is available at: https://cipit.strathmore.edu/data-governance-centre/#1623602583488-103d35c6-f435

Internal Impact of Projects:

This CPC Grant has set CIPIT on the path of nurturing researchers with research and analytical skills that equip them to impact the ICT sectors in the region. The policy responses in particular have been a rich training ground only possible through this grant. All researchers get involved in this process and the nature of the response means that results are "real" when we do get feedback for our interventions. More often than not, we refer to them as baptisms of fire, we are not sure when we would need to respond to regulations and other documents that are made available to the public and they are usually short turnaround times. However, once completed the researchers have a better grasp of what is to come in terms of legislation and regulations which forms an important base for future analysis.

With the ability to hire more interns, retain interns as Graduate Interns and even engage consultants, there is a fostering of knowledge at different levels and a continuity to projects that was not previously possible. In turn, the learning shared can be stretched over a longer period such that research practices are taught, shared and fostered.

This grant has also allowed CIPIT to engage in different dissemination structures depending on the outputs. This is clear in exploring the translation of our research outputs, thinking of different modes of outputs which also informs the type of research that we can do. This in turn means that the reach of our work expanded beyond what we thought previously possible. We managed to produce a video for WIPO on Artificial Intelligence, release sector specific reports and interview industry experts on our podcast.

The Gender at Work sessions and discussions have impacted our organizational culture positively. In particular, our monthly check-in meetings are now a weekly endeavor and we have refocused these meetings to better suit the needs of our Researchers as individuals. With the strategy that people must feel comfortable enough to bring their whole selves to work. These check-ins have evolved into individual project updates to ensure that everyone working on a particular project is heard and has an opportunity to voice out the research they are carrying out with two intentions in mind: to build their confidence as Researchers who can articulate their work via oral presentations and secondly, to obtain feedback from other Researchers in the center who focus on different disciplines which brings new perspectives to each Researcher. We have also included personal check-ins which have served extremely well in dealing with the new realities brought about by COVID19 where our homes have also become work spaces. These personal check-ins, help our team articulate the challenges they face amidst the stay-at-home/stay-in-place orders issued by Government and further better cope with the new realities that have come about in adjusting to this new normal.

External Impact of Projects:

Our public participation comments are a key component of our work as a CPC. We see these are the most direct influence we have on policy. In recent years, during the term of the current government administration, we have had very short notice of, and opportunity to submit our comments on regulations and legislation circulated for public participation. Nevertheless, we have contributed comments to 19 such calls in various areas of law and policy affecting cyber issues. Due to these circumstances, we measure our success in this area as completing a submission by the deadline. However, our "love to see" would be when we receive feedback from the relevant government authority on the comments we have made or an actual invitation for our comments. These acknowledgments serve as proof of our direct impact on policy and actual legislation. Moreover, this has equipped researchers to speak authoritatively about the region in global forums such as the WTO.

These "love to see" scenarios are relatively rare. We have, however, been fortunate to receive direct requests to comment on Bills within this last year of the Grant. This points towards our relevance within the stakeholders concerned and proves to show that our work around public participation is noticed, even though we may not hear back directly in relation to the comments that have been submitted in the past. We have been invited to comment on the Draft Intellectual Property Bill 2020 by the Kenya Copyright Board and to specifically comment on the extension of copyright which comments were to be taken into consideration by the Executive Director in his comments further to the relevant Ministry. Similarly, we were asked to make comments on and review the draft Naming and Addressing System

of Kenya (NASK) Policy and Bill, 2021 by the National Communications Secretariat. We were also specifically requested by the Competition Authority of Kenya to comment on draft Regulations on Buyer Power, an area that will likely have an impact on the ICT industry in Kenya. These invitations are quite rare but are how we hope to directly influence policy and legislation in areas that affect us.

Problems and Challenges

We spent a large amount of time in 2020 adjusting to our new working realities amidst the outbreak of COVID. Nevertheless, due to the nature of work from home, a lot of work has been accomplished through overtime and myriad coping strategies. We are very proud of our team for shifting their perspectives and meeting deadlines albeit a bit late. Following government directives we have had to regroup and adapt to working from home which has entailed ensuring all our Researchers have adequate access to the internet to fulfill their research duties and to ensure that we keep the CIPIT community in contact while are isolated in our homes. In this vein, our project schedule has been disrupted. We did our best to adjust to these circumstances. The Gender At Work project was a great tool in transitioning to working mostly online and working from home and adjusting to those realities. We adopted check-ins to ensure that the team did not feel isolated, that they were encouraged to take better care of their mental health and overall physical health, we were interrogating our reflective research practice during this time and this shift helped us identity what we needed to continue as wholesome researchers.

We have had to make a hard pivot on our vision of collection of data and developing technical quantitative data analysis skills. While we had hoped to have training sessions for our researchers in this area of research, we were thrown off course by inaccessibility to suitable trainers during the 2022 to 2021 period of the Grant. We pivoted by looking to engage consultants who would lead with this part of the research while we prepare the researchers at CIPIT to pick up these skills. The growth in understanding the utility of this type of research has grown as evidenced when we discuss projects internally and highlight how primary data collected would boost the impact of this research. It is apparent that most the researchers at CIPIT shy away from this type of analysis due to their personal experiences with engaging statistics (most researchers at CIPIT have a law background and have been trained in Kenya. This means that they do not engage with statistical methods at university or beyond their high school education. Reintroducing these ideas where many of them made career choices to avoid statistics has meant having conversations around embracing statistics and acknowledging that they do not have to an affinity to mathematics to engage in it. A discussion also around what is considered "scientific" and therefore "impactful and measurable" was also helpful through the Gender At Work Project).

CIPIT also had to internally interrogate how we could drive discussions around ICT within the frame of engaging more in the research and analysis of policy. It has been daunting starting and building relationships with policy makers in order to be part of these policy discussions. Many instances of our seeking to engage with policy makers have not yielded results. This prompted us to seek advice from our Steering Committee. Where we were confronted with rethinking our role in these discussions. Identity is an important part of building relationships and CIPIT occupies an interesting space as being part of an academic institution, while operating as a think tank, and having an interest in advancing

human rights within the ICT space. We had to understand that while we might be called upon by various stakeholders to behave as activists, our role requires us to engage more objectively while still ensuring that we deliver research outputs that stand up as robust academic research with a background in human rights. Navigating this space has been interesting and we are still learning how to be present. We recently debated if we should engage in signing non disclosure agreements in order to be part of a working group with policy makers or not take part. Our decision was not to take part in signing an NDA as we always want to have the ability to disseminate research and insight. The question we ponder now, however, is if we were to sign NDAs what would our bare minimum requirement for our research input be?

At the onset of the grant, the period set out for our research activities was adequate. We do realize that we do seem to have a shorter term due to the global pandemic. Nevertheless, we are extremely proud of our team of researchers and what we managed to achieve in 2020 and 2021. The DECI program that called our attention to monitoring and evaluating our outputs and understanding our communications strategies and impact was a steep learning curve. With the current staff component this meant that many people had to double up roles to engage in this project that was a new concept to many of them. While the mentors definitely played a great role in simplifying and bringing concepts down to a practical understanding, this part of the Grant required a lot of time and understanding and highlighted to us the need to engage professionals in this area to take up the day-to-day workings of M&E.

Recommendations:

In our view, the CPC Grant provided a cornerstone for CIPIT to engage more with policy analysis and engagement as well as grow as a whole as a research center. The administrative assistance that was provided by this Grant opened up different avenues for us to engage with our power and hierarchy structures and learn how to monitor and evaluate our impact. It would have been beneficial to the Center as a whole if there was a foundational understanding that was first shared with regard to some of these concepts. Having this background information would greatly assist in reducing the uptake time for these projects.

Certain activities such as the production of four editions of the JIPIT journal, have been impaired due to the pandemic, whereas other activities have been more prolific than we originally planned. Accordingly, we would appreciate flexibility on the part of IDRC in assessing our achievements and reporting of original and unplanned goals.

The Center would have greatly gained from a packet with information on the CPC Grant Reporting structure requirements for the final report especially in order to capture all the learnings in a predetermined format. Also, a final workshop with all grantees may also assist in solidifying the strides made between the different regions. This would assist in networking going forward.