

The future of Innovation and Development studies research in Africa – Webinar Series

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BACKGROUND

Innovation and development studies in Africa is an emerging field, and since early 2000, the field has been developing steadily. Innovation and Development (I & D) studies research is key to understanding the way science, technology, innovation and society interact. Such studies are key to enhancing the knowledge base available for policy makers and practitioners as they make decisions concerning future development paths in African countries. The establishment of AfricaLics in 2012 was a key part of efforts by African scholars and others to enhance innovation studies and the broader field of innovation and development studies on the continent. This webinar was the second in a series of webinars scheduled in 2021 to discuss the overarching topic "the development of I & D field in Africa". It was a follow up to the first webinar held on 4th February 2021 to discuss the origin of AfricaLics and the history of the field of I & D studies in Africa. The webinar aimed at providing an opportunity for members of the AfricaLics community and interested partners to come together and discuss the future of I & D field in Africa. It attracted 93 participants from within and outside Africa. It was designed to be interactive and engaging such that the participants freely expressed opinion about the topic of discussion. This was achieved with the combination of plenary presentations, as well as the use of chat box and padlet during breakout sessions.

SPEAKER AND FACILITATION

The welcoming remarks were delivered Dr. Ann Kingiri (AfricaLics Secretariat), who connected this webinar to the previous one (https://www.africalics.org/event/webi nar-series-africalics-origin-id-studiesresearch-africa/). She gave the highlights of the previous webinar, notwithstanding the importance of the field in Africa and the fact that it is still underdeveloped. She also underlined that there are a lot of challenges facing continent with regards developing the I & D field especially in capabilities development.

Prof. Erika Kraemer-Mbula (University of Johannesburg), moderated the webinar. She also introduced the results of the first AfricaLics baseline survey looking at I&D field in Africa in 2012 and referred to the evolution of the field since then. More specifically, she pointed to the dispersed and narrow academic community on the I&D field that existed a decade ago in Africa. She noted that there were many obstacles such as the few number of interaction and exchange of ideas platforms and the limited orientation to address African problems, mainly because of external funding. This background informed the pilot survey in 2012, which was followed by two mapping exercises in 2014 and 2016. The entire survey and mapping aimed to map the profiles and research interests of the AfricaLics network within the field. The results were very informative, and they gave a good overview of the academic profiles in Africa. Prof. Kraemer-Mbula concluded by reflecting on the academic landscape that has changed a lot through the last 15 years. (2005-2020). The results show that the research outputs have grown, and new topics have been emerging. However, more needs to be done to attract more female representation. Rebecca Hanlin (AfricaLics secretariat) presented preliminary data from an ongoing study of the development of the field conducted by the AfricaLics secretariat. The study combines a number of data sources which include previous results from the 2012 survey that recognizes a number of research gaps that required particular attention. Another source is the ongoing study that incorporates data from the AfricaLics conferences in Rwanda, Oran and Dar es Salaam and Globelics conferences in Africa. The final source is the broader bibliometric survey being done by Technopolis company, as part of the wider AfricaLics evaluation exercise. Dr. Hanlin commented that the preliminary ongoing study focuses on among other things what is missing, like methodological approaches. The overall

results will be presented in the form of a

journal article being authored by Dr.

Ann Kingiri, Prof. Kraemer-Mbula, Dr.

Margrethe Holm Andersen and Dr.

Rebecca Hanlin.

After the setting the scene presentations, participants were given the opportunity to discuss what they think I&D as a field should looks like today and where it should be going, in the African context. Members of the AfricaLics Scientific Board (ASB) moderated the breakout sessions. Two breakout rooms were held in English and one breakout room was held in French, in order to ensure good communication among the participants. The participants were divided into three breakout rooms and were introduced to the interactive online tool Padlet (e.g., Figure 1). The tool created the opportunity to map the different perspectives and opinions of the participants; as well as discuss interesting aspects around I&D studies

research in Africa. Although the tool was a first-time experience for the majority of the participants, it shaped a unique space for interaction, which helped to identify key topics. Participants enthusiastically participated by adding comments and discussing other posts on Padlet.



Figure 1- Posts on Padlet

BREAK OUT SESSIONS AND DISCUSSIONS

There were two breakout sessions. The first one focused on: "how do members of the network understand I&D studies research in Africa?" Members were urged to reflect on the questions from the following guiding point of view:

- Conceptual and theoretical view
- Methodologically
- In terms of sectors and topics

In terms of concepts and theories, the discussion focused on the system-

oriented theories. Systems thinking is popular among scholars possibly because Africa is on the transitioning pathway from agriculture productivity to industrialization. Hence, some participants problematized whether the AfricaLics network is more systemsoriented in academic research, or also policy oriented.

Another interesting discussion dwelt on the perspective that theories are predominantly Western. Minimal awareness, access and use of African political theories and philosophies to science and innovation has been noted in literature. For instance, participants argued that the functional indicators in the Technological Innovation System theory could be adopted for developing countries especially in Africa. However, most of these functional indicators in the literature are based on the global North.

In terms of methods used in I&D studies, there was a consensus that quantitative methods have dominated the field. Furthermore, the way surveys are conducted was also discussed. It was noted that most of the surveys are currently happening at national levels, however devolved research that assumes the bottom-up structure should be encouraged. The fact that multiple actors are involved in the innovation processes sparked the discussion around multidisciplinarity. actors include the technologies, and the I&D studies must address these in view of their role in the public.

Lastly, digitalization and agriculture were mentioned as important topics for the I&D studies in Africa across all three breakout sessions. Agriculture particularly was referred to as "the key for Africa's development" and "the mother of Africa."

The session concluded with the overall debate within the breakout rooms on "how can we explore areas that are no data yet?"

The **second breakout session** focused on: "What do you think should be the future priorities of I&D as a research field in Africa?" Members were urged to reflect on the questions from the following guiding points of view:

- Conceptually and theoretically
- Methodologically
- In terms of sectors and topics

During the second session, a number of interesting discussions points were advanced. While discussing the future concepts related to I&D studies in Africa, the development of a grounded theory in Africa as a critical idea for the future was addressed. More specifically, some participants argued that there is a significant need to develop grounded theoretical frameworks relevant to Africa. In addition, scholars should engage with the grounded theory approach to improve concepts and theories. One opinion was that innovation studies to a very large extent has been an application of existing theories that have not been developed in Africa but elsewhere. One participant commented "How can we bring more perspectives from the African network to the global network?" which is a reversal of what has been happening.

Further, I&D scholars need to work less with the application of concepts developed in radically different contexts, and in doing so they also need to re-focus on the local level in order to re-define innovation trajectories in Africa. New current developments that are happening in the world and in Africa in particular are also a topic that some of the participants pointed as an important parameter for the future of

I&D studies. The new technologies, blockchain, artificial intelligence (AI) and science, technology system (STS) thinking, are some of the parameters discussed. These factors need to be applied across all the basic sectors, such as agriculture and sanitation, but also in innovation thinking, gender dimensions and entrepreneurship.

Methodologically, the I&D scholars in the future need data to develop and engage with the above-mentioned concepts, which can only be generated through research. The participants agreed that most African higher education systems concentrate on theory and less on practical research, and therefore additional funding should be allocated to address this gap. Methods used in research are very much connected to the educational structures, so in order to change and methodologically, innovate these structures need to be changed, either with more education or with funding. Some participants suggested platforms such as the World Bank and Global Economics as useful sources of data.

The breakout sessions addressed future topics and sectors related to I&D studies in Africa. As mentioned above, new and frontier technologies, the 4IR, and their effects on lower and older technologies were at the core of these discussions. However, health and the COVID-19 impacts on innovation was also a key area of debate. One participant commented on Padlet that "I think we are in a crossroad where there are important technological changes that we cannot ignore and that they will determine the way we produce. Of course, it doesn't mean there will be a rupture, but then the question is if you want to keep behind or integrate".

Another heated debate concerned the gender and women's participation in I&D research. Participants pointed out that women researchers are not represented well enough according to literature and that this must be addressed in the local context. One solution suggested is to target gender relevant research and focus on women participation rather than representation, including motivation to engage with innovation studies.

The breakout sessions concluded with the overall debate that innovation should be a topic in development as opposed to innovation for development when future research topics are discussed. In addition, acknowledged by the participants that AfricaLics as a network should celebrate the 20-year anniversary of the important landmark book "putting Africa first: the making of African innovation systems" by M. Muchie, P. Gammeltoft, and B. Lundvall. A suggested way of doing this was a publication under the title "putting Africa first in theory making", which was welcomed by both the AfricaLics members and the other participants. Another suggestion was to focus on practical developments in Africa in a way that includes policy makers too.

After the collective discussions in the breakout rooms, Prof. Abdelkader Djeflat, University of Lille in France and member of AfricaLics Scientific Board (ASB) concluded the webinar by giving his thoughts on how the field could develop. He started his reflections by addressing the fact that "knowledge is not migrating from powerful sectors to the rest." There is therefore a broader need for wider application of knowledge. He noted that it is unclear what exactly is happening in the I&D studies when key actors are excluded from the research activities. This

notwithstanding, in the field of agriculture, there has been progress, but areas like the political economy and the informal sector have been left behind. Along the lines with what was mentioned during the breakout discussions, he pointed out that the AfricaLics network needs to be more exposed to a larger research context and to the policy makers in Africa.

Prof. Djeflat also reflected on some of the debates that started during the breakout sessions in connection with the setting the scene presentations made earlier. He mentioned that although it was expected, it is still quite surprising the extent to which low female representation within the AfricaLics network persists. He addressed the problem regarding publishing with external publishers outside of the African continent, which limits the opportunities of the readers to solid literature.

As a proposed way forward, he underlined that training and education are very important aspects of capacity building and this is something to celebrate about as a network. However, he confirmed an earlier observation by Dr. Hanlin that there should be a balance between capacity building and research, but not one in the expense of the other. Drawing on the reflections from the Padlets, he emphasized that future I&D studies should focus on the need to adapt new frameworks. In this regard, the use of grounded theory and contextualization is important for the future development of theories on I&D that are relevant for Africa and the local context.

On historical perspectives and connections of the AfricaLics network, Prof. Djeflat acknowledged the fact that the book "Putting Africa first: the making of African innovation systems" by M.

Muchie, P. Gammeltoft, and B. Lundvall will soon celebrate its 20 year anniversary since its publication (2003-2023). However, he also pointed to another important landmark that should not be forgotten. This is the Dakar conference in 2009 that refocused on ideas for Africa and opened a window for catching up on discussions on inequality, poverty reduction among other topics.

This was the first time that a Globelics conference was held in a developing country. Moreover, he argued that although the Globelics network started as a homogenous group, in the process, the group split, which he characterized as a positive development for the network. The split led to those whose interest is in the informal sector and those in private groups. This division was also methodologically evident. Some used the universal tools from the North and thought that these were not appropriate and there is a need to find new tools on the local ground. The network scholars also had different opinions when it came to the use of national innovation systems, since there are those "who want to use and adapt within and those who want to run away".

Lastly, he sees an expansion within the system thinking, as the triple helix group is emerging within the community.

He concluded with some important remarks regarding the future of I & D field that enriched the overall dialogue of the webinar:

- Expand the understanding about African innovation system's strategy and dynamics, which requires more training and more systematic investigation in relevant sectors.
- Focus on the question of financing at macro level and firm level, since
 Africa needs to find the right support in order to progress.
- Renewable energy and building capabilities, inclusive growth and the role of the state are only some of the key topics that need to be discussed in the future.

His final remarks included a reflection that "Africa has tremendous youth potential. The youth is the new engine of growth. We need to build capabilities amongst the young people of Africa".

AfricaLics Briefing Notes are a series of documents that focus on key messages related to Innovation and Development in Africa - a multi- disciplinary social science research area that includes elements of innovation studies and development studies. The Briefing Notes aim to provide insights useful for policymakers, research, private sector actors and civil society on how science, technology and innovation can help solve real-life problems and promote long-term development in Africa.

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