IGF 2017 Reporting

Session Title: IGF 2017 WS #303 Artificial Intelligence in Asia: What's Similar, What's Different? Findings from our AI workshops

Date: 20th December, 2017 (Day 3 - Room XXVI)
Time: 11:50 am

Session Organizer: Digital Asia Hub
Chair/Moderator: Malavika Jayaram, Digital Asia Hub

Rapporteur/Notetaker: Malavika Jayaram (in Julianne Chan's absence)

List of Speakers and their institutional affiliations:

- Speaker: Vidushi Marda, Article 19 (formerly Centre for Internet and Society, Bangalore at the time of submission of the session proposal)
- Speaker: KS Park, Open Net Korea
- Speaker: Danit Gal, Peking University
- Speaker: Ellonai Hickock, Centre for Internet and Society
- Speaker: Jake Lucci, Google APAC
- Speaker: Jac SM Kee, APC

Key Issues raised (1 sentence per issue):

- There are problems of representation in the training data on which machine learning is developed, especially due to certain marginalised or other populations not engaging as actively in acts of data production.
- There are also problems of data sitting in silos, controlled by a small number of actors.
- Effects on labour might be very different due to the nature of labour markets in Asia, making some jobs and workers redundant, and creating and modifying other jobs.

- There is no guarantee that transparency leads to accountability and fairness; even if we understand the algorithm we also need to have access to the data, because machine learning changes the rules dynamically based on the data.
- The use of terminology like “AI arms race”, that assumes a zero-sum mindset, is dangerous but increasingly being adopted.
- Discussing AI in a US vs. China binary may seem efficient, but often leads to inaccurate answers as there is a lot of diversity in AI applications and approaches to data even within countries.
- Western narratives and tropes often don't fit in Asia yet they dominate the discussion; e.g. in India and Malaysia, exclusion from data sets is a larger concern for people than potential illegitimate use of data.
- Quality and access to data sets is a major challenge for machine learning startups in countries like India: startups are forced to use data from US or UK which don't work in local environments and contexts
- In the context of healthcare, adoption of AI is hampered by the lack of “clinical trials” or other standardised measures by which doctors and hospitals are used to evaluate the safety and efficacy of drugs and medical devices.
- There is a knowledge gap between developers of AI solutions and potential users, limiting their ability to truly benefit from the technology.
- The deployment of AI in Asian contexts is not as critical and skeptical as in the West, as the potential to leapfrog developmental gaps through new technology drives hasty adoption.
- The seduction of AI as an efficient way for governments to govern large populations often trumps problems like imperfect data sets and their potential consequences.
- The discourse on AI in South Korea, Malaysia and other Asian countries is heavily focussed on AI as a vehicle for economic rather than social development.
- The task of engineering fairness and tackling bias is very difficult (especially from engineer’s perspective) - questions around being neutral to bias or proactive in combating it have no easy answers or solutions, due to differing notions of fairness.
- In Malaysia, there is a lack of checks and balances in terms of norms, policies, and privacy standards.

- There is no clear framework and narrative that is driving the development and application of the technology, in terms of continuity, power, and decision making.
- The enthusiastic deployment of economic development as a framework to talk about technology is often shorthand for “let's not talk about human rights, let’s remove them from the discussion”.

- **If there were presentations during the session, please provide a 1-paragraph summary for each presentation**:
- ***Malavika Jayaram from Digital Asia Hub, Hong Kong**,* reported on the Hub’s work on artificial intelligence in Asia, implemented through a series of workshops in Hong Kong, Seoul, and Tokyo, which looked at AI in the Asian context from a number of angles, including ethics and safety, and AI for good. She emphasised how western tropes and narratives on AI are often superimposed on the region, which is problematic, and that there is a need to build and grow more local narratives. She outlined a number of the key takeaway, ideas, and learnings gained from bringing together diverse stakeholders from across Asia, and the positive use cases, especially in care giving and healthcare, and the different perspectives people have towards robots and artificial intelligence informed by Asia’s cultural history.

- ***Elonnai Hickok from the Centre for Internet and Society, Bangalore,*** reported on the research that CIS is doing on the adoption of AI in 4 key sectors in India, particularly their findings and learnings in the healthcare industry. She noted that the challenges facing startups in India include lack of access to relevant datasets, as a result of which many prototypes tend to be developed based on data from the US or UK. She explained that there was consensus among the stakeholders engaged that new health oriented tools and services are assisting doctors, citing findings from a case study on the use chatbots for people with mental health issues that had positive outcomes for both patients and doctors. She clarified that they see it as augmentation of medical expertise, rather than substitution by automation.

- ***Vidushi Marda from Article 19*** spoke about how western narratives and approaches do not fit well with in the Indian context (or Asia in general). She offered an example of how data protection and data privacy narratives in the West are cantered on how people's data may be used and exploited, whereas in India people are more concerned about their data NOT being included. She also identified several problems in the discourse around AI and transparency, chiefly that transparency will not directly lead to fairness and accountability. And that it is difficult to articulate fairness in legal terms, let alone expect to codify it into algorithms.

- ***KS Park from Open Net Korea, Seoul***, outlined his concern that in Asia, AI is being talked about in terms of its economic potential rather than its social potential as a great equaliser and liberator. This is a cause for concern because social welfare in Asia is not as well developed as Europe, so if AI is being sought as vehicle for national economic development, it may not help combat inequality. He also described the opportunity available from emerging data governance in Asia; as data protection laws are either new or underdeveloped, or are being adopted right now, we have the privilege of reviewing and sharpening them so that they don't contribute to the buildup of data silos, but instead facilitate putting more information into the social reservoir of open data, which can then be fed into whatever AI software that people have access to.

- ***Danit Gal from Peking University, Beijing*****,** presented the latest trends and developments from China. She emphasised that China is a huge country with a fragmented market, yet there are some common threads, noting the work being done by companies in areas such as autonomous driving and Smart Cities, and the important direction from the government outlined in the next generation AI plan. Danit raised concerns over the use of terminology like "AI arms race" and viewing AI development as a dichotomy between the US and China. One key future trend is that AI technology will be used differently in China (but also Asia) compared to the West, which will translate into technology that is written in the same code but different at the design level.

- ***Jake Lucchi from Google*** spoke about the ways in which Google is trying to boost access to AI technologies: through products like Google Translate and Tensor Flow, by opening up datasets to the public, as well as by bringing together a diverse community through its People Plus AI Research Initiative (PAIR) to try and find answers to tough questions around machine learning. Jake described the dilemmas engineers face when thinking of bias and fairness in the design of algorithms, and the potential of a tool that Google has built called 'Facets' to help visualise how algorithms interact with datasets in making decisions.

- ***Jac Sm Kee from APC*** spoke about the basic problems of access to AI, and how it is fundamentally changing power structures. She shared research done by APC which revealed problems around data in the region. She also spoke of the specific challenges and problems that Malaysia faces on the question of fairness, but also data protection and data collection. She also stressed the need to examine the structures of power around who owns the technology, what is the framework and narrative that is driving its development and application, and everything else in between in terms of continuity, power and decision making. In addition, it needs to intersect with the actual bodies that are going to be affected, and their relationship to the new technology. (*Her contributions on gender are set out below.*)

Please describe the Discussions that took place during the workshop session (3 paragraphs):

- Speakers from a number of regions in Asia, including Hong Kong, India, China, South Korea, Malaysia, and Thailand, shared their imaginations of utopian/dystopian ideas of AI, presented findings from their research and highlighted the key challenges unique to their countries and the region as a whole.
- The discussion exposed the fact that, in China, of the advances made in healthcare, building infrastructure behind Smart Cities, and in autonomous vehicles, most of them have been made by companies that are powered by large data sets and computing power. Meanwhile, the State Council Next Generational AI plan gives a sense of where AI is headed from a government perspective. There was a sense that we will

reach a point where there are serious divergences in technologies in China (but also other parts of Asia) when compared to the West. As humans shape technology which then influences (human) behaviour and will result in different technology, the technology may “look the same” i.e. is written in the same code, but will be used differently, which is going to translate to technology that is very different on the design level.

Please describe any Participant suggestions regarding the way forward/ potential next steps /key takeaways (3 paragraphs):

- When asked by the moderator what an AI utopia might look like, participants offered some solutions such as data sets that have an expiry date and will just erase at some point (self-destructing data) and “data socialism”, where people have more or less equal access to data that that is driving the future development of AI, so that our future is not replaced by a smaller number of players. Suggestions to facilitate control, decentralisation and democratisation of AI featured heavily in the discussion.

- There are positive use cases of AI in the healthcare industry in India. The use of chatbots to treat patients with mental health issues (such as depression) was received very positively by patients and doctors. Patients felt that the chatbots displayed empathy and found it easier to open up to chatbots than close family members. Doctors found that monitoring through chatbots also created more accountability. If there were ways to objectively evaluate and rate such AI-driven innovations, it could facilitate greater adoption by the healthcare system.

- Asia is at a point where there is a lot of talent and countries willing to take up leadership positions to discuss how AI can be developed with positive goals and how challenges, like ethics, can be confronted. There is a very vibrant activist community that intersects with communities around culture, urban planning, design, and technology, that is full of imagination and a growing awareness around deterritorialisation and decolonisation, that will hopefully come up with new responses to the difficult questions.

Gender Reporting

- Estimate the overall number of the participants present at the session: Did not count exactly, **approximately 50-60**
- Estimate the overall number of women present at the session: **about 50%**
- **5 out of 7 speakers were women**

To what extent did the session discuss gender equality and/or women's empowerment?

This issue largely came up in the context of reservation in datasets: challenges of certain people not being counted in datasets, due to access issues (disproportionately affecting women), or due to systems not accepting certain categories and classifications that respect gender diversity, such as trans people. There was also the opposite problem to not being counted or visible, which stemmed from gender and sexuality rendering people "deviant and outside of the norm", leading to "your shadow being bigger than who you are".

If the session addressed issues related to gender equality and/or women's empowerment, please provide a brief summary of the discussion:

- Jac sm Kee from APC spoke about gender in the context of data collection and biometric national ID schemes, and how they pose threats to individuals who identify with groups either not recognised or actively discriminated against, sometimes facing serious threats to their security. Jake from Google also talked about machine learning as a tool to examine bias in the offline space. He shared the example of a Google.org-funded project with the Gina Davis Institute, which used an automated method to quantify the percentage of speaking roles that men and women have in movies. The 200 top grossing box office movies of the previous two years were plugged in, and they found that men have twice the speaking time that women have on screen. While this was no surprise, another useful result from the study was that it debunked the myth that movies with men in leading roles make more money. It showed that movies

with women as the leads actually made more money, and that it's in Hollywood's interest to cast more women in higher profile roles and to give them more speaking time. He explained that this kind of discovery wouldn't have really been possible without this technology, and was a good use case of how technology can be applied to challenging offline environments towards reducing discrimination in the "real world", not just online.

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