

Efforts to a belief and decolonize global health

Abstract

The truth is always one: no matter the interpretations, versions, perceptions or perspectives. Supported by the majority of scientific or historical evidence the science of medicine existed an eon back and was trusted to heal and revert illnesses in addition to saving lives. The amount of finances consumed in the business aside, so much time has been and is being invested in trying to come up with better and improved diagnostic and therapeutic advances globally. Surprisingly even the rich do not trust conventional medicine a great deal, the bourgeois have the majority of their population believing in the concept and this was attributed to the fact that the majority of the bourgeois work so hard and some even imposter the rich. For better healthcare services, LMICs need to embrace and implement their data driven decisions and be the efficient leaders and managers in their own countries as they know and have an insight of their countries best. Evaluations, audits and case studies can be done by external expertise to lend hand in the strategies towards achieving the objective.

Keywords : Disinformation, misinformation, aristocrat, hoipolloi,

Introduction

The universal healthcare concept aims to strike an equilibrium among the nations and consequently quality healthcare for all. But is this more of fiction than reality or misinformation and not disinformation? Often quoted interchangeably, disinformation and misinformation are different. Disinformation is false or misleading information that is spread with malice and intent to mislead whereas on the other hand, misinformation is false or misleading information that is spread without malice or intent to mislead and those who share it genuinely believe it to be true. The persons who share it are aware the information is false or misleading. Disinformation is

mostly associated with being utilized in social movements, political influence or financial gain (WAEON, 2021). In fact, most effective disinformation has a kernel of truth to it.

In their editorial (M. Khan et al., 2021) confess that there will be a ruffling of feathers in conveying out the uncomfortable honesty that is needed. The aristocrats who call the shots and have likely benefited from the current systems may be cramped about systemic change, be it overtly or covertly. This cognizance is essential for moving forward to more impactful and meaningful discussions. Decolonizing global health is and should be seen as a movement that battles against ingrained systems of dominance and power in the work to improve the health of populations. Although well chronicled and understood global health is often overlooked since it was a concept that evolved from colonial and tropical medicine, which were ‘designed to control colonized populations and make political and economic exploitation by European and North American powers easier’. Many organizations’ operations that are active in global health thus perpetuate the very power imbalances they claim to rectify, through colonial and extractive attitudes, and policies and practices that concentrate resources, expertise, data and branding within high- income country (HIC) institutions. The study further fully acknowledges that the colonial systems and mindsets behind the perpetuation of power imbalances in global health are not confined by geographical boundaries, they are actually found in organizations based in low/ middle- income countries (LMICs) too.

Global healthcare systems

As a society we need to move from rhetoric to reforms, across the globe healthcare systems face a variety of colossal challenges. Majority of wealthy and developed countries are staring at complications and illnesses concomitant on their ageing populations. Lifetime risk for cancer has reached up to 50% and lifetime risk for stroke is 25%. Health bills are increasing vastly as a consequence of the increasing incidence of these costly diseases along with broadening access to healthcare and major advances in pharmaceutical and technological disease treatments. Consequently, there is an urgent need to deliver better quality healthcare while simultaneously lowering costs to keep our healthcare systems sustainable. Many publications advocate for foresight that AI in healthcare will achieve the aforementioned goals to keep our healthcare systems sustainable. However, the majority of overwhelmingly reported positive studies to date

are retrospective in nature and the presented solutions, more often than not, provide mere proofs of concept (PoC) as evidenced by systematic reviews. Applicable in the clinical setting AI/ML-based tools which are with medical device certification, clinical validation, and routine clinical use are still scarce. Despite a rapidly increasing number of scientific publications describing potential applications, products benefiting patients and our healthcare systems are not deployed at the rates necessary. One of the most promising technologies of recent years is not reaching the patients and healthcare systems in need (Higgins & Madai, 2020). This translational gap constitutes a major public health challenge.

Medical challenges

AI in the medical field poses challenges to developers, medical professionals, and legislators as it requires a reconsideration of roles and responsibilities. Healthcare costs are skyrocketing globally. Soaring rates of chronic diseases, an increasing life expectancy and the continuous development of new therapies that are costly contribute to this trend. Therefore, it is no surprise when scholars predict a grim future for the sustainability of healthcare systems globally. There is hope in that AI promises to alleviate the impact of such challenges by improving healthcare and making it more cost-effective (Higgins D and Madai VI, 2020). In the practice of clinical medicine, AI usually comes in the configuration of clinical decision support systems(CDSS), whereby it assists clinicians in the diagnosis of conditions and their treatments. Where conventional CDSS match the attributes of individual patients to an existing knowledge base, AI-based CDSSs implement AI models trained on data derived out of patients matching the specified case at hand. Nonetheless, despite its undeniable potential, AI is not yet a universal nostrum. Maybe if AI was universally distributed and the discrepancy between first-world and third-world countries mitigated AI would actually achieve its potential just like the surge of mobile phones worldwide. Just as history has indicated, technological progress many times than often goes hand in hand with novel questions and significant challenges. A few of these challenges are tied to the technical aspects of AI, others relate to litigation, patient and medical perspectives, making it very necessary to adopt a multidisciplinary approach. AI case studies should be carried out with scrupulous attention to detail.

Opportunity in healthcare

It is the Responsibility of Intellectuals to speak the truth and to expose lies and what an opportunity in healthcare to overtly embrace this chance and gain trust from the world. As (S. A. Khan, 2022) states, a good place to commence the decolonization of global health is the decolonization of academic publishing areas, in particular expanses where dissemination of ‘acceptable’ information and knowledge is enabled and ‘epistemic privilege’ addressed and sanctioned.

In his publication (Ghebreyesus et al., 2022) stated that the pandemic Covid-19 brought to light the weaknesses in health, social and economic systems worldwide, countries experienced significant economic losses and massive disruptions due to the pandemic and the response efforts to counter the pandemic. No single country was unaffected and even wealth did very little to insulate the wealthy countries against the detrimental repercussions of the pandemic. As always, the brunt was borne by the most vulnerable populations, with the inclusion of the countries under protracted conflict. The pandemic exemplified that health is to all intents and purposes wealth and is basically the foundation of socioeconomic development. In addition, we are only as safe as the most vulnerable among us. All other sectors are at risk when health is at risk thus the saying “a healthy nation is a wealthy nation”. Health systems are a vital first line of defense not only against epidemics and pandemics but against the endemic physical and mental health issues that inhibit us from achieving our full potential, both individually and collectively. This is a good justification that for the world to achieve better health all parties must be respected and involved in subject. The gains can only be arrived at if and when the global health partners work interdependently.

The uncontroverted gains to health technology should not be patronized by feigned unethical organizations and individuals. A study by (Sahoo & Chakraverty, 2022) indicated that different types of MI and a variety of artificial neural network (ANN) methods among any related learning algorithm applications can be an incentive to a new area of research involving dynamical systems and will help in developing best performing models. In his study Bhattacharyya et al. (2022) brought forward for consideration a novel approach for covid-19 X-ray CT image categorization with the aim of coming up with an efficient tool based on the conditional generative adversarial network (C-GAN). It is used to get lung pictures and input them into a new pipeline that creates key point extraction techniques and trained DNN for dis- criminating

feature extraction. Using the VGG-19 model and the binary robust invariant scalable key-points (BRISK) approach, authors were able to obtain the most incredible testing classification accuracy of 96.6%. For the diagnosis and spread of COVID-19 and pneumonia, by using chest X-ray images, the suggested technique outperformed the other technologies.

According to Tammam, A. (2020), in the past decades it is known that colonialism has metamorphosed dramatically. In the present world and society, soldiers with guns and bayonets do not orchestrate colonialism or Neocolonialism, it is orchestrated by people in sharp suits who are well-connected, have the backgrounds and resources to lord it over the fates of others. Even with the best intentions, frequently, actors in health can unwittingly be complacent in that colonial episteme. There is a thin line between being a defender of people's right to health and being a colonial tool that throws them crumbs to silence them up as they continue to be exploited. In addition to the economic and nationalistic inequalities, there is a major power imbalance between those trying to tackle the problem genuinely and those who are reaping from the situation. Those most affected have always and are usually bypassed in their own rush for their solutions. 'Nothing about us, without us' is the clarion call of civil societies everywhere for meaningful inclusion and participation in developing solutions to issues that primarily affect them, but this seems like fiction.

A truth can never be destroyed. One should not be afraid of doing good. The bourgeois need to trust the medical fraternity for their services, not because they are in a desperate situation but because they trust their well informed decisions that are truly solutions. As (Abimbola & Pai, 2020) states, To decolonize global health we need to get rid of all forms of supremacy within any ranges of global health practice at the global level, between countries and within countries. Supremacy is not restricted to White supremacy or male domination. It concerns what happens not only between people from HICs and LMICs but also what happens between groups and individuals within HICs and within LMICs. Supremacy is a reality that is glaring at and in how global health organizations operate, who runs them, where are they located, who sets the agenda, who holds the purse strings and whose views, histories, knowledge and episteme are taken seriously.

The curve for global health demand is at a saturation stage as evidenced or supported by the pandemics. This article demonstrates all this is not coincidental and that as the turnaround for the

huge increase in interest towards quality healthcare begins to permeate, interest towards evidence based decisions and manifested solutions with clear proven records are inevitable. The reason there is a lot going on in scientific laboratories and studies trying to gear up to address open research and acceptability questions. As indicated by (Angelov et al., 2021) Explainable Artificial Intelligence (XAI) XAI is inevitably a paradigm on how to bridge machine intelligence and human intelligence with the aim being to enable and widen the acceptance of AI systems by human subjects globally, consequently, XAI aims to help humans to understand why a machine decision has been reached and whether or not it is trustworthy. In this sense, XAI can be interpreted as “AI for people. Since machines are taking over the decision process in many daily situations, user rights have to be protected. Intelligent machines still mostly cannot process abstract information or real-world knowledge unless it is converted to a form understandable by the algorithm (features, outputs, and labels). The terms transparency, Interpretability and Explain-ability will be critical in convincing the masses.

The silent war needs to stop because everyone and not someone will be the victims, just as evidenced by the pandemic Covid-19. If the war persists in whichever multifaceted manner, then obviously the truth is the first casualty. Healthcare Organizations, teams and individuals need to overtly give authentic health information to the people contrary to the majority of healthcare providers who have always held information and thrived on people’s ignorance. Educate people and they will definitely trust the process consequently, the organizations can easily offer their specified healthcare services.

Conclusions and recommendations

For reforms to be a reality, there is a need to recognize and prioritize that global health practitioners must play a major starring role in the cultural transformations needed to shift away from the dominant colonialist culture that has constantly attempted to assimilate other cultures within a western, ethno-centrist and neoliberal approach to global health practice and instead embrace the influx of new cultural elements and values that unite and perceive the world as one huge society. There should be more equitable geographical concentration of resources including health human resources and decision making power should reflect the geographical focus of the organization, country or society. Decision making panels and the majority of powerful positions on governing bodies of global health organizations should also be held by people with the

relevant regional(in-country) expertise or at least lived experience of the main health challenges, contexts, and geographical issues that the organization focuses on. Governing bodies should have diversity in thought, gender, social, geographical and ethnic backgrounds.(M. Khan et al., 2021)

Whenever there is a low-income and middle-income countries(LMICs) health researchers' collaboration with academics in high-income countries (HICs) partnership, the results are often disproportionate benefits for the HICs researchers who gain more opportunities for authorship, more prominent authorship positions, more opportunities to present at conferences and more funding for administrative and student support for LMICs colleagues. How and what LMICs researchers and authors are perceived, handled and subjected to is nothing similar or close to what HICs researchers and authors undergo. This inequity gap persists despite existing guidelines for good collaborative practice and repeated calls to improve global health research partnerships(Hedt-Gauthier et al., 2018) . Just like case control studies are appropriate for rare diseases/conditions or outcomes but are inefficient for rare exposures which can be done better using cohort studies: LMICs researchers should be given more funds and opportunities because teachings are mere references, the true experience is what happens in their countries. For better healthcare services, LMICs need to embrace and implement their data driven decisions and be the efficient leaders and managers in their own countries as they know and have an insight of their countries best. Evaluations, audits and case studies can be done by external expertise to lend hand in the strategies towards achieving the objective.

Patient consent for publication Not applicable.

Ethics approval This study does not involve human participants.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement: Data sharing not applicable as no datasets generated and/or analyzed for this study.

References

1. Abimbola, S., & Pai, M. (2020). Will global health survive its decolonisation? *The Lancet*, 396(10263), 1627–1628. [https://doi.org/10.1016/S0140-6736\(20\)32417-X](https://doi.org/10.1016/S0140-6736(20)32417-X)

2. Angelov, P. P., Soares, E. A., Jiang, R., Arnold, N. I., & Atkinson, P. M. (2021). Explainable artificial intelligence: an analytical review. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 11(5), 1–13. <https://doi.org/10.1002/widm.1424>
3. Bhattacharyya, A., Bhaik, D., Kumar, S., Thakur, P., Sharma, R., & Pachori, R. B. (2022). A deep learning based approach for automatic detection of COVID-19 cases using chest X-ray images. *Biomedical Signal Processing and Control*, 71, 103182. <https://doi.org/10.1016/j.bspc.2021.103182>
4. Ghebreyesus, T. A., Jakab, Z., Ryan, M. J., Mahjour, J., Dalil, S., Chungong, S., Schmets, G., McDarby, G., Seifeldin, R., & Saikat, S. (2022). WHO recommendations for resilient health systems. *Bulletin of the World Health Organization*, 100(4), 240-240A. <https://doi.org/10.2471/BLT.22.287843>
5. Hedt-Gauthier, B., Airhihenbuwa, C. O., Bawah, A. A., Burke, K. S., Cherian, T., Connelly, M. T., Hibberd, P. L., Ivers, L. C., Jerome, J. G., Kateera, F., Manabe, Y. C., Maru, D., Murray, M., Shankar, A. H., Shuchman, M., & Volmink, J. (2018). Academic promotion policies and equity in global health collaborations. *The Lancet*, 392(10158), 1607–1609. [https://doi.org/10.1016/S0140-6736\(18\)32345-6](https://doi.org/10.1016/S0140-6736(18)32345-6)
6. Higgins, D., & Madai, V. I. (2020). From Bit to Bedside: A Practical Framework for Artificial Intelligence Product Development in Healthcare. *Advanced Intelligent Systems*, 2(10), 2000052. <https://doi.org/10.1002/aisy.202000052>
7. Khan, M., Abimbola, S., Aloudat, T., Capobianco, E., Hawkes, S., & Rahman-Shepherd, A. (2021). Decolonising global health in 2021: A roadmap to move from rhetoric to reform. *BMJ Global Health*, 6(3), 6–8. <https://doi.org/10.1136/bmjgh-2021-005604>
8. Khan, S. A. (2022). Decolonising global health by decolonising academic publishing. *BMJ Global Health*, 7(3), 1–6. <https://doi.org/10.1136/bmjgh-2021-007811>
9. Sahoo, A. K., & Chakraverty, S. (2022). Machine intelligence in dynamical systems: A state-of-art review. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 12(4), 1–27. <https://doi.org/10.1002/widm.1461>
10. Tammam, A. (2020). Decolonising Medicines and global health: We need genuine and lasting reforms that put patients in... Medium. MSF Access Campaign — *Medicines Are Not a Luxury*, . Retrieved December 22, 2022, from <https://msf-access.medium.com/decolonising-medicines-and-global-health-we-need-genuine-and-lasting-reforms-that-put-patients-in-9786dea3c956>
11. West Africa Election Observers Network. (2021). *Dealing with disinformation and misinformation during elections: A toolkit to guide WAEON members*.