Of Doctors and Wires ICTs, Healthcare, and India's Telemedicine Venture into Africa

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ABSTRACT

The commercial activities of Indian companies in Africa have increased significantly in recent years. Based on anthropological interviews conducted in India, this paper addresses the discursive and commercial dimensions of the contemporary resurgence in Indo-African relations. I first offer a critical examination of discursive strategies inherent to India's engagement with Africa, which desperately strives to differentiate itself from contending approaches, in particular, that of China. As the paper shows, beyond long-standing claims of (post)colonial solidarity, what distinguishes such an engagement is the contention that a rise in Indo-African commercial activities can, in itself, be considered as a pragmatic form of cooperation. The paper then examines the expansion of the Indian ICTs and medical sectors into Africa. It focuses on the emergence of global techno-medical zones in which data, patients, capital, and knowledge circulate, through practices such as medical tourism and telemedicine. ICTs and healthcare occupy a strategic position in both Indo-African discursive practices and the creation of new market opportunities for an Indian industry eager to flex its economic muscle in the global arena. In critically engaging these concomitant processes, this paper touches the core of India's distinctive desire to become a major economic power.

KEY WORDS: Indo-African relations, medical sector, telemedicine, ICTs, globalization.

"The 21st century is often described as the Asian century. India wishes to see the 21st century as the Century of Asia and Africa, with the people of the two continents working together to promote inclusive globalisation."

Prime Minister of India Manmohan Singh

"Caring for the World with World-Class Healthcare"

Apollo Hospitals' slogan

In May of 2011, the Second Africa-India Forum Summit took place in Addis Ababa, Ethiopia. Held under the theme, "Enhancing Partnership: Shared Vision," the event welcomed heads of states from several African countries as well as an important Indian delegation of state officials, and of diverse groups that included some of India's most powerful business people, impatient to tap new markets with high growth potential. Meant "to create a positive ambience for enhanced flows" in trade and investment, the Forum Summit was no one-off happening. Concluding with the adoption of two documents (the Addis Ababa Declaration and the Africa-India Framework for Enhanced Cooperation), it occurred in the context of a resurgent wave of Indo-African cooperation[i]. Most importantly, it pursued the work initiated a few years earlier with the India-Africa Forum Summit held in 2008 in New Delhi. Indisputably a key moment for what may be framed as the revival of Indo-African cooperation, this event was the first such meeting between the heads of state of the government of India and of a significant delegation of African countries. "The time has come to create a new architecture for our engagement in the twenty-first century", had then explained Prime Minister Manmohan Singh. This statement acted to formalize political support for trade and cooperation that had recently become a hallmark of increasing Indo-African economic relations. These two landmark events illustrate a shared eagerness to craft original economic circuits for knowledge, technology, and capital circulation. While recent developments can be traced to the wave of liberalisation that swept across India in 1991, setting the stage for new era where global economic expansion would occupy the forefront of the country's international policy (Bhattacharya 2010), the summits were the first explicit celebrations of the sort of aspirations that drive the current state of affairs. As expressed by the Africa-India Framework for Enhanced Cooperation, the stakes couldn't be made any clearer:

> Both sides agree to further expand cooperation and sharing of experiences to increase trade, investment and financial flows between India and Africa as they provide a common paradigm of cooperation in the true spirit of South-South engagement (Second Africa-India Forum Summit 2011).

And indeed, trade, investment, and financial flows between India and Africa are being tapped. While bilateral India-Africa trade was evaluated at $US 967 million per year in the mid-1960s, it has grown by nearly 32% annually between 2005 (US$ 12 billion) and 2011 (US$63 billion) (CII and WTO 2013). This intensification in trade shows no sign of abating, as analysts suggest it might reach $US 70 billion (Dogbevi 2009) or even US$ 90 billion by 2015 (CII and WTO 2013). Given such commercial effervescence, it is hardly surprising that much has been

written within the last few years about what the renaissance or revival of Indo-African relations (Cheru and Obi 2010; Hawley 2008; Hofmeyr and Williams 2011; Mawdsley and McCann 2011a). However, while significant attention has been given to India's scramble for natural resources (Beri 2005; Lafargue 2006) or political support (Harshe 2002; McCormick 2008), less has been made of the potential of African markets for Indian products and services (Carmody 2011). Indeed even though Africa's trade surplus with India rises rapidly,[ii] Indian exports to Africa grew annually at 23.6% between 2005 and 2011 (CII and WTO 2013) and Indian companies show a readiness to expand their activities into the African market (Cheru and Obi 2011). These expanding commercial horizons are at the heart of this paper.

Based on a review of current literature and on interviews[iii] conducted in India, this paper explores the discursive and practical dimensions of India's engagement with Africa. This paper argues that, from a discursive point of view, such an engagement is premised upon the widespread (and largely unexamined) claim that the expansion of Indian commercial activities in Africa may in itself be considered as a form of cooperation. Accentuating the inherent virtue of the contemporary resurgence in Indo-African relations, such a claim contributes in legitimizing recent economic developments and future ambitions in concrete and effective ways. The first part of the paper critically discusses how Indian discursive strategies are, as far as cooperation with Africa is concerned, shifting emphasis from moral claims based on past South-South solidarity to the commercial opportunities Indian enterprises apparently have to offer their African counterparts. Accordingly, an upsurge in commercial activity is implicitly framed as a "win-win" scenario: while Indian companies expand their presence on relatively untapped markets, African consumers are expected to benefit from reportedly custom-made products and services. Despite the fact that the shortcomings and negatives effects of such an economic development approach have been well documented within India[iv], it is widely celebrated as an appropriate path for African partners to follow. As the second and third sections of this paper will discuss, the ICT and healthcare sectors are cases in point. Standing for the country's ability to compete at a global level, these sectors occupy a strategic position in branding India as the genuine exporter of products and services apparently suitable for an emergent African clientele – therefore not portrayed as mere purchasers of foreign goods, but as participants in a beneficial partnership, a global cooperation framework. Concretely, the expansion of the Indian ICT and medical sectors into Africa tends to generate techno-medical zones in which data, patients, and knowledge circulate through activities such as medical tourism and telemedicine. This paper critically analyses how such zones occupy a strategic

position in both emergent Indo-African discursive practices and the actual creation of new market opportunities for an Indian industry eager to flex its economic muscle in the global arena.

Emergent Discursive Practices: Towards an "Indian Model"?

The last few years have witnessed the emergence of various discursive practices and strategies aimed at promoting what is commonly presented as an "Indian model" of engagement with the African continent (IANS 2013; PTI 2013). This is particularly the case in government, industry, and institutional literature pertaining to the contemporary resurgence in Indo-African relations. While such a "model" is often loosely or not explicitly defined (Xavier 2010), and even though it certainly does not constitute an homogeneous whole, the next few pages introduce some of its key features.

On the one hand, depictions of past struggles and common legacies, are still frequent when times comes to insist on the specificity of Indo-African relations (Singh 2011). Indeed nearly fifty years after Nehru's death, evocations of a solidarity rooted in past colonial struggles are still alive and well in the promises for bright days ahead (Bhatia 2010; Viswanathan 2010). This is a discursive strategy which consists in mobilizing the past as a moral evidence both asserting the distinctiveness of India's African ambitions and foreshadowing the form that nascent partnerships might take. In the first sentences of a book recently published by the Ministry of External Affairs, Indian Prime Minister Manmohan Singh summarizes some of these commended historical traits:

> The India-Africa partnership is based on firm historical foundations. Through the decades it has grown into one of the most productive and durable partnerships, befitting the increased interdependence among nations that characterises the 21st Century. Our similar historical experiences have engendered a common worldview. Understanding and sensitivity to each other's strengths, requirements and constraints gives our partnership lasting strength and resilience. For the people of India, Africa is the land of awakening of the Father of the Nation, Mahatma Gandhi. In the middle of the last century, within a decade of each other, both India and Africa broke through the yoke of colonial domination after a long and painful struggle. (Singh 2011: 4)

Past colonial struggles, common developmental challenges, a Ghandhian moral legacy[v], as well as shared cultural roots are all familiar themes when time comes to explain the distinctiveness of an "Indian way" to cooperate with Africa (Mawdsley 2011; Wade 2008). In this regard, India is particularly concerned with offering an alternative to China's mode of intervention in Africa, hastily associated with self-interested natural resources extraction, cheap labour exportation and exploitative economic practices[vi]. As a senior officer at the Confederation of Indian Industry (CII) explained:

> The difference between the Chinese model and the Indian model is that the Indian model is more sustainable, developing the local capacities. India has been a colony. So we understand those sensitive things better than some other countries. We want an inclusive growth, not an exploitative growth. » (Mr. Kaushlendra Sinha, CII, 16 December 2010, Interview by author)

Or, as the Indian Minister of State for Commerce Jairam Ramesh stated during the India–Africa Forum Summit held in New Delhi in 2008: "The first principle of India's involvement in Africa is unlike that of China. China says 'go out and exploit the natural resources', our strategy is to add value." (Vines 2010: 15) Such statements are not exceptional. In fact, it is now commonplace to hear that while China shows insensitive behaviour in its scramble for African resources, India proposes an alternative approach:

> China's parallel claims to anti-colonial solidarity are dismissed by many within the Indian administration and media as disingenuous and self-serving in the face of its evident ambitions in Africa, while Indian engagement is viewed – sometimes rather uncritically – through a lens coloured by past notions of the Nehruvian moral high ground. (Mawdsley and McCann 2010: 89).

Despite such rhetorical claims, the commercial interests of Indian companies in Africa are evident and neither the Indian state nor the private sector has ever been secretive in this regard. As a matter of fact, while it remains unclear to what extent the Indian state is willing to directly intervene in favour of its own industry, what is becoming obvious is the ambiguity about the role it is expected to play. On the one hand, it is commonly observed that the so called "Indian model" draws its originality from the fact that it is mainly driven by private sector players. As an officer at the Federation of Indian Chambers of Commerce and Industry (FICCI) stated:

> The Indian way is totally different. China has been indifferent to the political situation in the country while extending aid. But India has not been so insensitive like that. Of course,

> we have Lines of Credits. But it's not aid or Lines of Credit. The Indian industry's engagement is driven by the private sector. It is not Government sector while in China it is so. And that is why they have big pockets. Private sector in India cannot afford to give away funds like that. So it is a sounder engagement. (22 December 2010; Interview by author).

What apparently makes India's engagement "sounder" would then be the state's restraint in putting in big money and outbidding competition as it is claimed the Chinese government does. In contrasting with such rhetorical claims, the steady upward path on the Indo-African trade front has largely benefited from an enhanced involvement of the Indian state in promoting the interests of Indian companies in Africa (CII and WTO 2013). Tied aid, economic diplomacy missions, and favourable fiscal incentives are all becoming common practices designed to expand trade and investment with Africa. Eminent examples include the Focus Africa Programme (2002-2007), a US$ 550 million scheme administered by the Exim Bank of India and aimed at securing commercial links between India and African countries by offering export subsidies to Indian companies and Lines of Credits (LOC) to African governments (Kragelund 2010). Providing eight West African countries with LOCs worth US$ 500 million, TEAM-9 (Techno Economic Approach for Africa India Movement) was another landmark intervention made by the Indian state. Funding specific projects in sectors like rural development, telecommunications, or pharmaceuticals, LOCs have become a customary strategy adopted by the Indian state to shore up trade with Africa. The government's contribution to business meetings[vii], trade exhibitions, and regional forums, is also illustrative of a willingness to generate commercial opportunities for an expanding business sector. In other words, it is difficult to assess the actual difference between an apparently soft-Indian-mutually-beneficent cooperation and an allegedly hard-Chinese-self-interested exploitation (Kragelund 2010), as the Indian state's policy remains relatively ill-defined and stretches along a large range of practices. The balance between cherished takes of past solidarities and rising commercial expectations is apparently hard to find.

Against such a commercial background, there has been a significant shift in Indo-African discursive strategies over the last few years. Although past solidarities are still regularly invoked to morally differentiate the "Indian way" to engage with the "sister continent", a whole new set of contentions, emphasizing how Indian companies hold shining promises for mutual welfare and development, are increasingly identified as core features of Indo-African relationship (Second Africa-India Forum Summit 2011; Singh 2008). The Addis Ababa

Declaration that emerged out of the Summit was explicit in this regard: "[...] Africa is determined to partner in India's economic resurgence as India is committed to be a close partner in Africa's renaissance." (Second Africa-India Forum Summit 2011) Leaning on concepts such as capacity-building, inclusive growth, or knowledge and technology transfer, the backdrop for escalating Indo-African relations is thus a commitment to mutual economic resurgence. During the World Economic Forum in 2010, prominent Indian entrepreneurs could thus summarize their country's aspirations in this way: "India's agenda is to promote entrepreneurship and economic growth in Africa." (Chowdhry, et al. 2010) As Mawdsley and McCann suggest: "The vision of development that is articulated by India is unabashedly capitalist and modernist – economic growth equates to development." (Mawdsley and McCann 2011b: 180)

At the core of such a discursive strategy, one finds a moral argument based on the implicit, supposed value of commerce per se: to do business is, in itself, considered a form of cooperation, and thus to promote trade is equated with strengthening capacity-building and development. Hence, while the Indian state overtly acknowledges that its involvement is meant to foster business opportunities for its own, these are generally presented as being *desirable*[viii] for all. The distinction between trade and cooperation thus tends to get blurred and it is precisely from this fuzzy zone of capital flows and state support that Indo-African cooperation draws its originality: "The symbolic claim that emerges from this language of horizontal rather than vertical relations is that of mutual opportunity." (Mawdsley 2011: 176) Nowhere are these figures of horizontality and mutual benefit as prominent as in the ICT and healthcare sectors.

Exporting the ICT Dream, or Branding India Anew

Trade, science and technology play a central role in India's enlarging presence in Africa (Vines 2010: 3). Acknowledging its incapacity to compete with Western countries or with China when it comes to large-scale grants, loans or investments, India's economic cooperation strategy focuses on value-added services such as expertise provision, low-cost technology, human resource development or education (Obi 2010). As noted by Alex Vines, who heads the Africa Programme at Chatham House, the ICT sector China's domi¬nance in several areas in

Africa has prompt¬ed India to move into less saturated eco-nomic areas: "India is competing in niche areas, in which the Chinese are not so in-terested." (Jacobs 2012: 54) One such area is definitively the ICT sector.

Over the last few years, ICT giants such as Tata Consultancy Services (TCS), Nihilent Technologies, Hindustan Computers (HCL), and Wipro have been entering the African market at a decisive pace. For instance, the upsurging Indian presence within the African ICT sector is exemplified by the acquisition of Kuwait-based Zain Group's mobile operations in 15 African countries by ICT giant Bharti Airtel – the fifth largest telecom operator in the world (Ribeiro 2010). This $US 10.7 billion transaction gave a significant push to the Indian ICT breakthrough into African soil. Airtel Africa now has nearly 45 million customers spread across 16 countries. With a presence in more than 40 countries, Telecommunications Consultants India Limited (TCIL), a Government of India company, also embodies this growing footprint in the African ICT sector. Enjoying a global reputation, TCIL is providing training, consultancy, managerial support, and turnkey project implementation in various ICT settings. Once again, such an economic effervescence contributes to shape discursive practices.

Despite the fact that the actual benefits of India's ICT growth story have been the object of heated debates domestically[ix], it is actively branded as a development model to be emulated. A report by KPMG summarizes the sort of discursive strategies at play: "Learning from the success of IT-based economic growth in India could help African countries bridge this digital divide and improve their competitiveness in the global marketplace." (KPMG 2012: 11) Praising the emergent "India-Africa IT corridor", the report insists on the role played by the Indian state in this regard:

> The Government of India, too, has started playing an active role with the 54 nation African continent, with a promise to expand cooperation in technology and knowledge. India's booming economy, the appetite of its public and private sector enterprises for investment overseas, and its leadership in science and technology have collectively shaped its policy toward Africa. (Ibid.: 12)

The Africa-India Framework for Enhanced Cooperation, adopted as an outcome to the 2nd Africa-India Summit in 2011, similarly ascertained the key role played by ICT in triggering economic cooperation:

> Africa has immense regard and admiration for the strides made by India in the development of its information and communications technology. The contribution of the

> Government of India towards developing the infrastructure and the resourcefulness of the private sector and India's scientific and technological manpower in allowing this sector to make important contributions to the growth of GDP in India, are well recognized in Africa. Africa and India recognize the importance of an early introduction of information and communication technologies as key enablers of capacity building for youth and for poverty eradication and accelerated growth. (Africa-India Framework for Enhanced Cooperation 2011:5)

Arguably, the fast-growing ICT sector epitomizes India Inc.'s achievement at successfully competing at a global level. According to the World Bank, India accounts for 54% of the world's IT services: in 2007-08, its total export of IT services and IT enabled services was worth $40.4 billion, about 5.5% of the country's GDP (World Bank 2008). Generally, ICT may be considered as the poster child for India's economic liberalization and booming global trade. As the story goes, due to a mixture of cultural, political, and economic factors, ICT is to propel India as the world's software and services capital (Chopra 2008; Das 2002). It has enabled India to get rid of the infamous image of the "Hindu rate of growth", and to display its ability to compete globally. Success stories like Infosys and Wipro are indeed sources of great national pride, while ICT entrepreneurs such as Dewang Mehta, Azim Premji, or Nandan Nilekani have reached superstar status and are present in several public spheres. In short, ICT attracts attention towards the new image of India in the 21st century, as a major player in technology and commerce (Beri 2003: 228). As former president of NASSCOM Kiran Karnik explains, the plan is "to make India and IT as synonymous as France and wine or Switzerland and watches" (Einhorn 2002). Greenspan summarizes the branding process at play: "The project of branding India works by reconceptualizing those things which are stereotypically Indian in such a way as to show that, no matter how ancient, they were always closely intermeshed with the digital technology of today."[x] (Greenspan 2004: 142) Furthermore, the high profile associated with ICT derives from the conviction that it has the power to "flatten" the world (Friedman 2007), enable capacity building, accelerate economic growth, and combat poverty.[xi] As former Indian President Dr. Abdul Kalam states: "Connectivity is strength. Connectivity is wealth. Connectivity is progress." (Kalam 2007: 172) According to such claims, it would be in ICT's networking nature to stand as a strong social and economic transformative force.

In sum, ICT is celebrated as a sector in which India represents an « ideal partner for Africa », one particularly suitable "for new models of African development given its advantages and

experiences in genuinely 'Triple A technologies', namely appropriate, adaptable and affordable (technology that is not the reinvented bullock cart but genuinely state of the art)" (Modi 2009). The way « Indians glided smoothly into the digital age » (Versi 2012: 57) shall therefore be considered as a crucial component of a « marriage made in heaven » (Ibid: 56) between Indian companies and what is assumed to be « African needs ». As a report co-authored by the World Trade Organization (WTO) and the Confederation of Indian Industry (CII) recently explained : "Investments from India will also bring in technology that is 'Appropriate, Affordable and Adaptable', pitched as the "Triple A" technology transfer mode, during the 8th India Africa Conclave." (CII and WTO 2013: 56) Once again, the report insists : ICT is expected to play a central role in this regard (Ibid.: 47). Another sector which is commonly presented as crucial to the rise in Indian services exports to Africa – and thus to Indo-African economic cooperation – is the healthcare sector. The next section discusses this situation.

Caring for the World with "World-Class Healthcare": Medical Tourism and Telemedicine

As happens every year, it is from the entrance hall of Apollo Hospitals' first and landmark hospital, in Chennai, that Dr. Prathap Reddy was delivering a speech at the occasion of "Founder's Day". The yearly celebration of Dr. Reddy's birthday was taking place in a festive atmosphere, in the presence of several hundred employees and of distinguished guests, including prominent members of the Indian political and business community. For this occasion, the founder and CEO of Apollo Hospitals was giving an impassioned speech. The message couldn't have been clearer: only a healthy India could lead to a wealthy India and Apollo's mission was to make the nation stronger, more prosperous, an example for the world to follow:

> [Dr. Reddy] In the last decade, the five world leaders have all visited India. Because of the promise that we are making! They want to be with us! There were days when you would say: "You're an Indian and 'hahahaha.'" But today, everybody's looking at us. That is what India is today. To keep our momentum, to go on and get on top of everything, we need our healthy, happy people. People understand, they know the momentum coming from Apollo and they say : "Wow, you have done so much for the country." We have made this country proud! By doing this, it's not just about being

> proud, we are building the new India that everybody is dreaming about. We are now helping the country to become a new India. Yes?
>
> [Audience] Yes!
>
> [Dr. Reddy] And to be on the top of the world!
>
> [Audience] Yes!
>
> [Dr. Reddy] Because Indians are capable. Our skills are second to none. This Apollo family is making a tremendous difference for this country. And all over the world. (Founder's Day, Apollo Hospital, Chennai, 5 February 2011)

Dr. Reddy's speech was taking up the major themes of Apollo Hospital's branding strategy. It was reflecting the company's mission statement, as it highlighted the vital role it is expected to play both at a national and a global level: "Our mission is to bring healthcare of international standards within the reach of every individual. We are committed to the achievement of excellence in education, research and healthcare for the benefit of humanity." (Reddy 2012)

Far from being the exception, this ambition to turn India into a global healthcare hub is widespread within the Indian hospital sector. Indeed the Indian healthcare market is experiencing a remarkable expansion, growing at over thirty percent every year and being evaluated at around $30 billion (India Africa Connect 2012). This growth is driven by global trade, as Indian hospital chains are ever more benefiting from a worldwide presence (Lefebvre 2010)[xii]. While the Indian ICT sector claims its ability to connect the world, its hospital sector likes to boast about its capability to offer affordable healthcare to all. Once again, evidence from the domestic transformation of the Indian healthcare sector tends to seriously call such claims into question. For instance, authors have convincingly shown how the privatization of the Indian healthcare sector in the wake of the economic reforms undertaken in the 1990s, has contributed in restraining access of the poor to healthcare services (Kumar 2009; Priya, et al. 2004; Qadeer 2000). Despite such evidence, Indian hospitals insist on their capacity to offer what is framed as "first-class treatment at Third World prices" (Modi 2010: 128). As a COO at Manipal Hospital – a Super-Specialty Hospital (SSH) located in Bangalore – explained: "We are very proud. Because we are able to deliver the quality health care at a price which is 1/10 or 1/20 or the rest of the world." (Dr. Nair, 23 September 2010; Interview by author) The potential patient-base that such hospitals attend to is implicitly global. In a manner reminiscent of Dr. Reddy's speech (and of Apollo's mission statement), Dr. Devi Shetty, eminent Chairman at Narayana Hrudayalaya, explains:

> India is privileged as a nation to have the largest number of medical personnel in the world, who also strive towards the service of humanity so passionately. We are certain that India will be the first country in the world to dissociate healthcare from affluence. (Narayana Hrudayalaya Healthcity 2011: 02)

This ambition relies on the idea that Indian private hospitals are capable of treating a remarkable amount of patients, at a fairly low cost[xiii]. However, while cost-efficiency certainly is an important factor to take into consideration (making it possible to "dissociate healthcare from affluence", to borrow Dr. Shetty's phrasing), it is only one reason among many others why Indian hospitals emerge as global leaders. According to Dr. Prathap Reddy, Chairman and Founder of Apollo Hospitals, low costs should not be the principal trademark of Indian hospitals. Instead, it is their aptitude at providing compassionate, committed, and skillful care that would best delineate what that they can offer the world:

> I think if you say that India is really a global healthcare hub, the anwer is 'no'. Is there a potential for that? Yes. There are two reasons to say 'yes'. Number one, Indian healthcare personnel have their own set of skills, and have shown that they can do what anybody else anywhere in the world is doing. And they did that with great compassion and commitment. And also, it has shown tremendous cost benefits. But I don't want anybody to come to India or Apollo because it's cheap. My liver transplant programme costs $US 55,000. American hospitals charge about $US 550,000. I don't want them to come to me because it is $US 55,000. I want them to come saying 'my results are the same in 90% or plus', which is as good as Mayo Clinic or Pittsburg, or whatever. (Dr. Prathap Reddy, 14 February 2011; Interview by author)

Putting their words into action, within the last few years many Indian hospitals have achieved international accreditations from organizations such as the Joint Commission International (JCI). In 2006, the Quality Council of India also implemented the National Accreditation Board for Hospitals & Healthcare Providers (NABH), to monitor Indian healthcare institutions. Even the Eleventh Five Year Plan of the Indian government notes the crucial importance of such certification in order to turn India into "a world-class destination for medical tourism" (Planning Commission 2008: 275). As Dr. Narottam Puri, president of the NABH and manager at Fortis Healthcare, explains:

> India is moving up the charts as for the quality of healthcare services. And believe me after training abroad, I've visited virtually every countries' healthcare system and the

> sort of care provided in the top quality Indian hospitals is not at all inferior to any of the top institutions in the world. (Dr. Narottam Puri, 3 January 2011; Interview by author)

In practice, the commercial ambition to provide "healthcare for all" is primarily developing through medical tourism. With over 100,000 patients per year coming to India to receive treatments, medical tourism was estimated to be a $US 2,3 billion industry in 2012 – a tenfold growth since 2002 (Pitti 2009). While most patients are coming from neighbouring countries, African patients of Indian origin have been coming to India for several years, and black Africans have been accessing treatment since the late 1990s (Modi 2011). Promotional tours are conducted by Indian hospitals in order to "brand India" as a destination for healthcare while "hospital groups are engaged in setting up promotional and relationship-building exercises through established hospitals and individual doctors who are currently travelling to African countries on a personal basis" (Ibid.: 135). It is thus hardly surprising that healthcare was made – just in front of ICT – the top focus sector of the India Africa Business Partnership Summit, held in Hyderabad in October 2011. Similarly, many Indian healthcare providers were present at the Ethio Health Exhibition that was held in Addis Ababa in May 2011, under the theme of "Health for All".

In addition to treating patients coming from all over the world, Indian healthcare giants have recently started to engage in a whole array of commercial activities on African soil. Among the emerging trends, hospitals are being opened abroad, ventures are set up with local healthcare providers, and consultancy services are offered to African partners. For instance, the Apollo Group recently got involved in the management of the Lagoon Hospitals Group, in Nigeria. As the website of the Apollo Global Projects Consultancy[xiv] explains:

> The hospital group was experiencing stagnant patient and revenue numbers for quite some time. Apollo undertook an evaluation of the existing healthcare system and a review of the local healthcare market. A plan for enhancing service quality, facility expansion, technology upgradation, training and healthcare communication was devised and implemented (Apollo Global Projects Consultancy 2009a)

Apollo's contribution apparently resulted in savings of 40% in budgeted capital cost for equipment purchase, as well as in an 86% increase in the per bed revenue over a two year period. Then, on 28 May 2011 Apollo Hospitals and the Tanzanian health ministry signed Tanzania's first memorandum of understanding (MoU) for a public-private partnership (PPP) in the health sector (Chatterji 2011). Signed in the presence of both the Indian PM Manmohan

Singh and the Tanzanian President Jakaya Mrisho Kikwete, the MoU states that Apollo Hospitals is to provide expertise and machinery for a 350-bed Super Speciality Hospital in Dar es Salaam, while the Tanzanian government will provide the land and bear the construction costs. Tanzania's health secretary Mrs. Blandina S J Nyoni explained that the project would contribute in building capacities, while Apollo Hospitals' CEO publicly expressed the wish to expand the company's presence in Africa. This should most likely be the case, given that President Kikwete announced that he expected five more hospitals to be set up by Apollo in various parts of the country.

The Apollo Group's ambitions in regards to the African continent started to materialize in 2009, when it opened a 220-bed hospital in Mauritius. As Chairman Prathap Reddy then stated, the corporation's "vision is to build hospitals which serve as destination points for the global healthcare traveller in key international markets", with Mauritius serving as a strategic location to "address the patient community in the African continent" (Apollo Global Projects Consultancy 2009b). Mauritius is apparently a targeted destination for Indian investments. Apart from Apollo's venture, Sri Ramachandra Medical Centre (SRMC) – a tertiary multi-specialty university hospital and medical college based in Chennai – was also granted the approval to set up a medical college in Mauritius, the Sri Ramachandra Academy of Health Sciences. Sri Ramachandra Academy Health Sciences is to come up in 50 acres and be a self-contained township (Leena 2009). Similarly, in a move that was clearly stating its interest in Africa's potential in healthcare, Fortis Healthcare acquired - along with local partner Novelife - Clinique Darné in Mauritius in 2009. As a senior officer at Fortis explained:

> We certainly see potential in Africa. Africa is underserved with quality destinations for healthcare. Apollo has made an entry into Mauritius after we did. We actually entered it through a partnership with an existing company which was running the hospital. They were finding it very difficult to run the hospital but are not experienced in handling healthcare. So we not only are majority shareholders in that hospital now, but we also operate it. With Burundi we signed an MoU, we will train their nurses, we will train their doctors. Their super-speciality care patients will be flying down here and we will send our doctors from time to time to go and work with them. We are trying to work on that kind of arrangement with Tanzania, Burundi, and other places. (3 January 2011; Interview by author)

Another way used by Indian hospitals to get involved in the provision of healthcare and expertise in Africa is telemedicine. At the junction of ICT and healthcare, telemedicine consists in services such as the remote provision of medical training, and the delivery of healthcare consultations at a distance. Telemedicine comes with many advantages. For instance, it may contribute in boosting the quantity of patients who will later travel to India to receive treatment – following what has been decided through distant consultations or diagnostic procedures. It may also help building a commercial presence, getting the hospital's existence known at a relatively low cost. Furthermore, doctors do not have to travel. As an MEA officer explained during this research, it is very difficult to get Indian doctors to travel to Africa. They tend to have a poor opinion of the quality of life they will encounter there, and worry about security issues. Telemedicine brings in the best of ICT, namely the possibility to offshore several aspects of the medical training and clinical work. As Dr. Prathap Reddy, Chairman of Apollo Hospitals Group, explains:

> I think India can play a great role as global healthcare provider in a broader [than medical tourism] context. Not only people coming here. I don't see why I can't manage beautifully if the rules don't come in-between. All the aging population in the US, they are suffering for not being able to get a doctor. I have enough doctors and there is technology to give them live advise. On telemedicine. It's no longer in the pipeline. We have demonstrated. (Dr. Reddy, 14 February 2011; Interview by author)

Indeed, within the last few years, Indian hospital chains have considerably expanded their medical activities on African soil resorting to telemedicine. Once again, the Apollo group is a forerunner. On 13 September 2012, Prathap Reddy and the Health Minister of Nigeria inaugurate three telemedicine units, in Lagos, Port Harcourt, and Abuja. Apollo's Chairman also announced that the company had signed an agreement with AfroIndia Medical Services, relating to the installation of over thirty similar units in West and East Africa. With offices across the continent, AfroIndia Medical Services is an integrated medical service provider, specialized in medical tourism. It offers its client "medical tours" to Europe, Israel and, mostly, India. The transnational agency describes its mission this way: "To maintain a healthier and productive Africa by providing accessible and affordable medical care with unparallel quality."[xv] Services provided include all logistics from visa procurement to flight arrangement and private accommodation for patients, adding to medical treatments themselves. But AfroIndia Medical Services is also adding a telemedicine dimensions to its bracket of services. That's where Apollo comes into play. AfroIndia Medical Services is now offering its patients

the opportunity to travel to a particular point of service to directly consult, by appointment, a medical specialist from the Apollo group. This alliance of telemedicine and medical tourism is of course no coincidence. In fact, at a commercial level, telemedicine and medical tourism have very much in common. As a manager at the Apollo Telemedicine Networking Foundation (ATNF) explained:

> What they will do is they will have a tele-consultation with a specialist doctor. Through telemedicine, the patient will be screened, examined, monitored, diagnosed. Everything will be given. And if they want any further medication or any surgery is required, they have to come to India. (Mr. Krishna Murthy, 24 Septembre 2010; Interview by author)

And Apollo is not alone. Telemedicine projects involving Indian hospitals and African partners have indeed been multiplying within the last few years. For instance, for many years now cardiologists at Narayana Hrudayalaya (Bangalore), have been reading and analysing electrocardiogram (ECG) reports from patients in Tanzania. Similarly, over the last year or so, Care Hospital (in Hyderabad) has been reading over 25,000 radiology images from patients in Nigeria. Cases are sent (via broadband internet) by Me Cure Healthcare Limited (MHL), a diagnostic center based in Lagos. Killing two birds with one stone, MHL is also doing in the medical tourism business, and regularly sends patients to India to receive treatments deemed to be unavailable in Nigeria. Once again, telemedicine and medical tourism tend to coalesce. Telemedicine is particularly useful in expanding the patient pool, putting potential patients in contact with a medical specialist with whom a therapeutic relation will develop. As a pioneer of the development of telemedicine in India explained :

> Telemedicine has helped in facilitating this going overseas. Medical tourism has a lot to do with telemedicine. I don't know you but I've seen you before you come to this country for treatment, right? First, there is pre-referral screening. I talk to you, I tell you a problem, my images are seen by you. So I should get their scans and everything before they are coming here. By connecting to this doctor, I get customer satisfaction. I just reached at this stranger and if you need a surgery you want to go see that doctor. This is pre-referral screening. This is what I do day in and day out here. (Prof. S.K. Mishra, SGPGIMS, 5 December 2011)

And again, project managers from tertiary healthcare centres in South India comment:

> We would like to tie up telemedicine and medical tourism. We are getting foreign patients, mostly from the Gulf countries and the African countries. So telemedicine is for follow-up. They'll be here for a week or 10 days, they should come back for the review after a month or two. Just for the review they need not to travel along all the way. So they can go to the nearest centre and connect with us. So they can save their time and money. (Mr. Satheeshkumar, Sri Ramachandra Medical Centre, 24 September 2010; Interview by author)

> It brings them here where we will do that surgery at a minimal cost. Because the other choice left to them would be to either go to Europe or the US which would actually cost them a lot. And they know that a surgery in India would cost maybe 1/20 or 1/10 of the cost in a Western country. [...] You can come here and get you surgeries done and go back. It is all about it. That's how I would define "growth". (Narayana Hrudayalaya Health City, Septembre 2010; Interview by author).

Another similar story is that of Indo-US Healthcare, a Hyderabad-based company which started a few years ago with a mission to extend medical connectivity across India. Through its Pan India Teleradiology Network, Indo-US Healthcare is installing and operating medical imaging facilities at community hospitals in India and networking them to a Central Radiology Centre. Relying on a pool of hired radiologists, it dispenses 24/7 reporting services. Interestingly enough, the company is now making its entry into the African diagnostic solutions market. It has recently signed agreements to install digital X-Ray and ultrasound equipment at 100 second and third tier hospitals in Malawi and link them to Daeyand Luke Hospital (Lilongwe) for reporting. A nationwide insurance system is also being put in place to facilitate patient referrals to Indian hospitals from Daeyand Luke Hospital. Then, Indo-US Healthcare announced its intention to put together a $US 100 million programme to "provide an Indian push to the ongoing healthcare transformation envisioned by Rwandan President Paul Kagame to make Rwanda the Switzerland of African continent" (Indo-US Healthcare 2011). The programme should connect every hospital in the country (70) through an ICT network, aiming to create a "digital eco-system facilitating seamless flow of clinical information from any point of generation to any other point of evaluation" (Ibid.).

Another company which has specialized in the outsourcing of radiology services is Bangalore-based Teleradiology Solutions. Founded in 2002 by Yale-trained Dr. Arjun

Kalyanpur and Dr. Sunita Maheshwari, Teleradiology Solutions initially provided hospitals in the United States with night shift radiology solutions. Ranked the top-rated national teleradiology vendor in the Unites States by KLAS - an independent research and consulting firm –, it is now reporting for more than 100 health centers in 20 countries, most being located in the US, Singapore, and Europe. Interestingly enough, in 2011 the company has signed an agreement with Regency Medical Centre (RMC) in Tanzania, to serve the Hospital Radiology Services sector of Tanzania and Sub-Saharan Africa. A strategic move by Teleradiology Solutions to establish its presence in Sub-Saharan Africa, the partnership is meant to counter the huge shortage of radiologists in East Africa. As Dr. Kanabar, Chairman of RMC, states: "We believe the partnership with TRS will help patients in East Africa get their diagnostic test results in a timely fashion resulting in improved patient care in this part of the world." (PRWEB 2011) In 2012, Teleradiology Solutions was expanding its activities to Nigeria and Djibouti, and recently to Ethiopia and Zimbabwe. As of October 2013, Teleradiology Solutions had reported more than 16 000 scans from Africa.

Given the lack of medical specialists that many African countries have to deal with, it is likely that analogous telemedicine efforts will soon be on the rise. In fact, Teleradiology Solutions' and Indo-US Healthcare's use of ICT to transform healthcare services goes beyond the outsourcing of radiology solutions. It conveys the eagerness of Indian companies to tap into rapidly growing and potentially lucrative markets. As a FICCI officer in charge of developing commercial relations with Africa noted:

> One could also look at the basic facilities like a diagnostic center. They don't have laboratories and diagnostic center. Then, the Indian government can encourage small and medium players to set up there. That would be a great service for Africa! (Ms. Kitta, 22 December 2010; Interview by author).

Such developments herald the emergence of new global techno-medical zones, mostly or entirely private, in which data, knowledge, and patients circulate. In designing such zones, Indian healthcare providers are trying to assert themselves – both rhetorically, and in practice – as holders of world-class technologies and expertise deemed appropriate for the needs and means of potential institutions, doctors, and patients. What is promoted is a vision of healthcare which is mimicking the one already adopted in India: telemedicine services are expected to compensate existing healthcare inequities while providing opportunities to hospital

chains expanding their commercial presence[xvi]. The question remains as to whether such services actually improve the accessibility of healthcare or create a situation of dependence towards foreign investment and expertise.

Conclusion

It is difficult to fully grasp what form the breakthrough of companies such as the Apollo Hospitals Group, Bharti Airtel, or Indo-Us Healthcare into the African market may take in the following years or decades. What is, however, becoming increasingly obvious, is that this unfolding commercial scenario has little in common with the sort of South-South cooperation or solidarity often regarded as a distinctive feature of Indo-African relations. Such a solidarity was best incarnated by the African policy of former Indian President Jawaharlal Nehru, the architect of postcolonial India's foreign relations (Bhattacharya 2010; Sahgal 2010). For Nehru, Indo-African relations were to be built upon a moral commitment to the "cause of humanity". On the eve of India's Independence, he expressed this engagement in his "Tryst with Destiny" speech: "It is fitting that at this solemn moment we take the pledge of dedication to the service of India and her people and to the still larger cause of humanity." (Nehru 1947) Without a doubt, science and technology occupied a central position in the vision Nehru had of such a service to humanity. After all, hadn't Nehru proposed, in The Discovery of India, that humanity should be considered as the God of the modern spirit, and "social service" as its religion (Nehru 2004: 621)? However, this conception of a "common humanity" was uncompromisingly linked to an ideal of political self-determinacy and economic self-reliance (Khalid 2010). From a Nehruvian standpoint, collective self-reliance among the developing countries was meant to contribute to the establishment of a new economic order (Chhabra 1989: 105). And indeed it is following such an ideal of self-reliance that Indo-African relations were traditionally underpinned by a strong version of the nation-state. This was true both of commerce and of cooperation (Duclos 2012). It is only in the aftermath of the liberalization reforms initiated in 1991 that Indo-African relations undertook the "pragmatic" turn described precedently, aimed at encouraging economic activity both in India and abroad (Cheru and Obi 2011). From a political point of view, the question that arises could be framed as follows: what's left of the Nehruvian, postcolonial, conception of "humanity", now that economic self-reliance has given way to global trade and commercial integration?

On the one hand, considering that it is primarily driven by private investment, free trade, and capital flows, the resurgence in Indo-African relations can only half-heartedly claim to honour the legacy of socialistic nation-building efforts. Indeed the ideal of "global integration" and borderlessness around which current Indo-African discursive practices revolve has little in common with the sort of collective self-reliance promoted by generations of Indian politicians. On the other hand, India is clearly not prepared to let go of the "moral" quality of past South-South solidarity. This results in discursive strategies marked by a tension between stated intentions to accelerate economic integration and a desperate attempt to hold on to an ideal of self-reliance. Such an uneasy position is perhaps best represented by the Prime Minister Manmohan Singh himself, when he claims: "Self-reliance means trade, not aid." (Bhushan and Katyal 2004: 27)[xvii] In other words, promoting the global flows of capitals and investments would, in itself, amount to a form of cooperation or, at least, of self-reliance.

As it has been suggested in this paper, such discursive strategies are particularly relevant in the ICT and healthcare sectors. ICT embodies the sort of "horizontal" or "all-inclusive" world image that India seeks to associate its global economic ambitions with. Then, as expressed by the likes of Drs. Reddy and Shetty, the globalization of the Indian healthcare sector would find its ethical expression in a "care for the world", for the "benefit of humanity". However, healthcare providers such as Apollo Hospitals, Fortis Healthcare, or Narayana Hrudayalaya admittedly do not seek to extend their commercial presence out of benevolence. They engage with economic partners, with clients, with patients they claim can benefit from "world-class healthcare" at a minimal cost. A minimal cost which most can't afford, in India or Africa alike. Finally, joining the "economic horizontality" of ICT and the moral posture of healthcare, telemedicine reportedly enables Indian hospitals to reach out and provide "healthcare for all", wherever located. Clearly, the "humanity" Nehru once fought for has thus retained its teleological, prophetic flavour. However, his bottom-up, materially and geographically grounded economic approach has given way to a passionate belief in a flattened, global world. A neutral, romantic, immaterial world in which capital, knowledge, and expertise seamlessly circulate, breaking down barriers to healthy days ahead.

Notes

[i] Throughout this article, the notion of "cooperation" is used in a rather broad sense. For a discussion of Indo-African cooperation per se, see Duclos (2012).

[ii] The fact that Africa meets 20% of India's oil needs plays an important part in setting the trade balance clearly in favour of Africa. This lopsided commercial balance is not expected to change any time soon, as India's demand for African minerals and fuels should remain unabated.

[iii] Industry, government, institutional, as well as academic literature was surveyed. Also, the author conducted some 50 interviews within the Indian business sector as well as within commercial and governmental organizations working specifically on Indo-African relations. The data presented here is thus a mixture of this fieldwork material and of a survey of pertinent literature.

[iv] For a critical examination of top-down development approaches – including neoliberal economic reforms – in India, see Das and Das (2011), or Chandrasekhar and Ghosh (2006).

[v] Interviewed during this research, former President of India, Dr. A P J Abdul Kalam probably best recaps what is framed as a cultural specificity: « What can I give? You can give knowledge. You can remove the pain of the people. If you have money, fantastic. That is also good. Ok? So, that is that type of culture we have. Our aim is to see what we can give. (Dr. A P J Abdul Kalam, 14 March 2011; Interview by author).

[vi] Over the last decade, trade between Africa and China has grown at a breathtaking pace. It was $10.5 billion in 2000, $40 billion in 2005 and $166 billion in 2011 (Ighobor 2013). China is currently Africa's largest trading partner, having surpassed the US in 2009 (Ibid.)

[vii] For instance, the Ministry of Commerce and Industry has supported the organization of FICCI's Namaskar Africa - a series of sub-regional India-Africa business networking forums and exhibitions –, and CII's EXIM Bank conclaves on India-Africa Project Partnership, while both the Ministry of Commerce and Industry and the Ministry of External Affairs provided support for the organization of the India Africa Business Partnership Summit, held in October 2011.

[viii] As per a senior officer at the Ministry of External Affairs: "We had the same problems here so we are in a good position to show them. We want them to understand how we developed!" (16 December 2010; Interview by author).

[ix] India's ICT prowess has proven to be of little help in achieving sustainable, inclusive growth domestically. For original and critical perspectives, see Biao (2007), and Nisbett (2009).

[x] References to Indianness as a chief factor explaining the country's recent successes as a "knowledge economy" abound (Planning Commission Government of India 2004; Varna 2004). These accounts converge on the image of culturally and historically significant Indian traits indicating bright technoeconomic futures. These traits include cultural factors such as a popular propensity toward never-ending argument, the logical structure of the Sanskrit language, a history in mathematics (the invention of the zero being generally given in example), or linkages between scientific thinking and Indian spirituality.

[xi] For a critical discussion of the "world-flattening" qualities often associated with ICT, see Duclos (2013).

[xii] Apollo Hospitals and Fortis Healthcare are the leaders in this regard. Fortis Healthcare operates healthcare services in many countries such as Australia, Canada, Dubai, Hong Kong, New Zealand, Singapore, Sri Lanka and Vietnam. The Indian giant is the owner of 74 hospitals (with more than 12,000 beds combined), 190 diagnostic facilities, 580 primary care clinics and 191 day care centers across 10 countries.

[xiii] It's important to insist: this paper does not intend to defend such an untenable position. It simply seeks to identify major thrusts in Indo-African discursive practices, as formulated from India Inc.'s perspective.

[xiv] Apollo Global Projects Consultancy thus defines its activities: "We provide end to end solutions across the healthcare spectrum. From formulating strategies in the healthcare sector to assisting the set up of entire healthcare facilities and operations management, we do it all." (Apollo Global Projects Consultancy 2009a)

[xv] The excerpt is from the website of the company : http://afroindiamedical.com/. The slogan of the company is also very explicit in this regard : "Good Health is Wealth."

[xvi] Once again, this approach has shown mixed results in India. While telemedicine services offered by companies such as Teleradiology Solutions, Indo-US Healthcare or Apollo Hospitals are beneficial in many ways, their existence must be understood as part of a wider economic context in which healthcare services are centralized in metropolitan cities and accessible only to those who can afford them – leaving behing the vast majority of Indians, living in rural areas.

[xvii] This commercial approach has so far been welcomed by many African leaders. For instance, former Senegalese President Abdoulaye Wade summarized things this way: "The challenges of development that ensued in India's post-colonial era, and the nation's subsequent economic expansion — ranging from an innovative green agricultural revolution to the information technology boom — provide a hopeful model for many African nations." (Wade 2008).

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