ICT4D Research: The Lame Duck of the Brazilian Academy of Management

Pesquisa em TIC para Desenvolvimento: O Patinho Feio da Comunidade Acadêmica Brasileira em Gestão

ABSTRACT

Objectives: nearly 50% of people in developing countries suffer from extreme poverty. Consequently, a debate has emerged about the potential of ICT to improve socio-economic conditions prevailing in impoverished nations. This discussion has given rise to a burgeoning field of research known as ICT4D. However, most academics in the ICT4D arena do not come from developing countries, nor do they reside in these regions — the main beneficiaries of ICT4D initiatives. This is the case of Brazil, a country characterized by significant socioeconomic disparities, where this field of study has aroused little interest among the scientific community and thus continues to be largely under-researched. Thus, the objective of this paper is to make sense of that phenomenon. Provocations: as most of the ICT4D knowledge base has been generated either by academics who are not originally from developing countries or by academics native to developing countries who currently reside in developed countries, a provocation can be made, namely, considering that ICT4D initiatives can improve the quality of life of people, why haven’t Brazilian scholars prioritized research in this area? Conclusion: as a provocative paper, our main objective is to debate on the aforementioned issue. For this, we should listen to the Brazilian Academy of Management — mainly the academics of the ANPAD’s Information Management division — to address and solve this puzzle, so that ICT4D research in Brazil can be encouraged with a view to causing a real impact on our society.

Keywords: information and communication technology; development; ICT4D; emerging markets; management education.
THE CONTEXT

Recent surveys show that developing countries are home to approximately 80% of the world population. This datum alone should be enough to justify the importance of this region. However, nearly 50% of the inhabitants of developing countries live in dire poverty, without access to clean water, adequate housing, and good education. In other words, they are unable to satisfy their basic human needs and, worse still, they do not even have the opportunity and freedom to make choices in their own lives (Prados de la Escosura, 2022; Sen, 1999).

Brazil, as a developing country — now promoted to an emerging market and a member of the BRICS (Van Agtmael, 2012) —, is no exception to what has been said above. In 2021, considering the poverty lines proposed by the World Bank1, around 62.5 million Brazilians (or 29.4% of the country’s population) were in poverty. Among these, 17.9 million (or 8.4% of the population) were in extreme poverty. In addition, between 2020 and 2021 there was a record increase in these two groups: the contingent below the poverty line grew by 22.7% (or another 11.6 million people) and that of people in extreme poverty increased by 48.2% (or plus 5.8 million)².

In that backdrop, Brazilian dominant groups — those exercising their autonomy — face not only an economic and political challenge, but also an ethical dilemma. Indeed, leaving ideologies aside, in an increasingly globalized and interconnected world, where companies operate internationally and delegate tasks to areas with extremely low labor costs, it becomes a challenge to imagine that governments, institutions, business leaders and others can remain oblivious to those substantial social problems and economic disparities without being impacted by them (Böhm et al. 2022).

On the other hand, several studies have revealed the impact of information and communication technology (ICT) in improving the quality of life of people, and especially of the poorest and most excluded groups (Alhassan & Adam, 2021; Avgerou, 2003; Nga Ndjobo & Ngah Otabela, 2023; Unwin & Unwin, 2017). Indeed, the main question to date is not whether ICT should be put into action, but rather, which ICT initiatives should be selected to foster development. Thus, there is no longer any uncertainty about the potential of ICT to drive regional development (Aziz et al., 2023; Bankole & Mimbi, 2017; Niebel, 2018; Palvia et al., 2018; Walshaw et al., 2007).

Based on that scenario, it is not difficult to understand why the research field broadly described as ‘ICT for development’ (a.k.a. ICT4D) has garnered growing attention from both scholars and policymakers. In this vein, various outlets (see, for instance, the Electronic Journal of Information Systems in Developing Countries and the Information Technology for Development [https://www.tandfonline.com/journals/titd20], working groups (such as the WG 9.4 of the IFIP — “The Implications of Information and Digital Technologies for Development” [http://ifiptc9.org/wg94/]) and even special editions of leading information systems (IS) journals, such as MIS Quarterly (https://misq.umn.edu/) (e.g., the June 2007 special issue on ‘Information Systems in Developing Countries’ and the June 2016 edition on ‘ICT and Societal Challenges’) have addressed this theme.

However, there is an intriguing aspect related to this area of knowledge, since most academics who carry out research in ICT4D are not native to developing countries or, if so, no longer reside in that region (Joia et al., 2011). In fact, most of the ICT4D knowledge base is produced by academics residing in developed countries (Schelenz & Pawelec 2022). In other words, ICT4D is a research area little addressed by its main beneficiaries — the developing countries. This is the situation observed in Latin America and especially in Brazil (Jimenez et al., 2022; Joia et al., 2012).

I can quote, as an example, the very fact that the Electronic Journal of Information Systems in Developing Countries — as of December 2023 — has just one Latin American scholar on its senior editorial board, although this region is home to approximately 10% of the world population and possesses nearly 10% of its wealth. In line with this, the editorial board of the MISQ special edition on ‘IT for Development’ included no scholar based in Latin America (Walsham et al., 2007). Likewise, the IT for Development journal has no academics based in Latin America in its senior editorial and just one scholar from Brazil² (among 37 scholars in total) in its editorial board.

Those facts deserve reflection.

PROVOCATIONS

While recognizing the undeniable academic contribution of ICT4D research carried out by insightful scholars working in universities located in developed countries, based on what has been presented I am led to ask: Why is research related to ICT4D mostly conducted by academics based in developed countries? Or to be more specific: Why do few management scholars in Brazil⁴ invest time in investigating how ICT can alleviate the various socioeconomic problems faced by the country?

Of course, this should not be interpreted as a justification for a ‘territory war’ or for the monopoly of a research area — that is to say, ICT4D research could only be carried out by native academics living in developing countries. However, one must investigate whether there is a difference between living (and working) in a developing...
country and a developed country, when it comes to investigating the role of ICT in promoting development in the poorest countries, both now and in the near future. That is, how can scholars living in developed countries discern and effectively address relevant issues related to the role of ICT in promoting development in developing countries? In other words, why are academics in developing countries not taking the lead in answering those questions? Furthermore, is the Brazilian management education system at odds with the reality faced by the country? And finally, as educators, are we adequately equipping our graduate students to minimize that gap?

These are provocations worth making and still needing to be answered.

**QUESTIONS WE DON’T ASK**

ICT4D is a research area very much dependent on the context (Andoh-Baidoo, 2017; Agerou & Walsham, 2000; Davison & Martinsons, 2016) as it is not easy to define what the construct ‘development’ means for different countries, as argued by Escobar (1995) and Sen (1999), among others. That way, ICT4D is very much linked to the production of local knowledge, which is in line with the ideas of Bertero et al. (1999), who state that to improve the quality of the Brazilian academic production in management, “we need to guide ourselves to develop local knowledge, which foreigners could hardly produce, reproduce, or emulate” (p. 174, our translation). As an example, I can mention the work of Joia and Giarelli, 2023, which investigates how different criminal factions in Complexo da Maré in Rio de Janeiro have impacted the outcomes accrued from the implementation and operation of Banco Digital Maré in the region — a mobile bank startup aiming at the financial inclusion of the residents. I can also cite the work developed by Diniz, et al. (2012) on the positive and negative consequences related to the introduction of ICT-based financial inclusion mechanisms — namely, a branchless banking model known as correspondent banking — in the municipality of Autazes, in the state of Amazonas, Brazil, as well as the investigation carried out by Joia and Santos (2019) on the impact of Agência Barco (a Caixa Econômica Federal’s bank boat equipped with ICT) on the financial inclusion of the riverine population of the distant Marajó Island in the Brazilian Amazon. In fact, how is it possible for foreign scholars to develop such research without deeply knowing the local context and properly choosing a theoretical framework that dully tallies with that reality? Indeed, even for Brazilian scholars, such investigations require a deep understanding of a backdrop that is usually unknown to them.

Therefore, it seems to be easier (and cheaper) for Brazilian scholars in the management information systems (MIS) (this knowledge area corresponds to the Information Management division [ADI] at ANPAD [Brazilian Academy of Management]) area to bet on more predictable (and easy to publish) research, based on established theories from the Global North, to analyze the implementation of ICT in organizations and society, such as TAM, TAM2, TTF, UTAUT, IDT, to name just a few. In this way, I only confirm the ‘mimetic isomorphism’ phenomenon typical of the MIS area (Tingling & Parent, 2002), which is even stronger in developing countries (Young, 2019).

Regrettably, I have no answers to that apparent dystopia, only some questions formulated according to what I discussed, namely:

What are the ‘right questions’ to be identified and asked by Brazilian academics, in relation to ICT4D initiatives in the country?

What does the term ‘development’ mean for the Brazilian reality (Escobar, 1995)?

How can Brazilian academics take advantage of insights gained from cross-cultural studies on ICT4D in developing countries (Stahl, 2006)?

And lastly and most importantly, what has prevented Brazilian MIS scholars from carrying out rigorous and relevant research in the area of ICT4D?

**DARING TO SPECULATE**

Although the objective of this work is to raise provocations, I dare to present below some speculations about the reasons for the Brazilian MIS community’s little interest in the ICT4D area, when, paradoxically, research in this area has the potential to mitigate socioeconomic gaps in the country.

(a) Lack of expertise and experience among Brazilian academics about alternative theories focused on ICT4D research.

Indeed, research in ICT4D depends heavily on interdisciplinary theoretical approaches that are not part of the academic mainstream, since several areas of knowledge must be interconnected to explain and solve problems in this field. This means that the application of long-established (and well-known) IS theories, such as technology acceptance model (TAM), innovation diffusion theory (IDT), and task-technology fit theory (TTF), to name just a few, may be meaningless for such investigations. In fact, I might cite the use of the capability approach developed by Amartya Sen (Andersson et al., 2012; Agerou et al., 2016; Kleine, 2009; Sen, 1999) as well as the 4As framework (Anderson, 2006; Angmo et al., 2023; Prahalad, 2004) as alternative theoretical perspectives applied in ICT4D research. That way, Brazilian scholars may be hindered by not mastering such approaches. Thus, dependence on theories, standards,
and norms developed elsewhere (namely in developed countries) can be an obstacle for Brazilian scholars to conduct research on ICT4D.

For example, when writing about the Chinese context, Tsui (2006) suggests that researchers should make much more effort to write about topics related to Chinese organizations and people. This necessarily requires the development of China-specific theories that take into account the important details of Chinese culture and organizational behavior — see Huang et al. (2011), Jia et al. (2012), and Davison et al. (2018), to name just a few. Lee (2010) takes a similar view, calling on researchers in general to pay more attention to the specific contextual conditions of their environment. These findings are highly applicable to the Brazilian context. I believe that there are unique aspects of the Brazilian culture and context that are worth exploring, modeling, and using as a basis for theory development. These theories may expand pre-existing theories from the Global North or be completely new theories needed to explain organizational or social phenomena in the Brazilian (and Global South) context.

(b) Lack of financial resources to conduct ICT4D research

It is very difficult to carry out ICT4D research without going into the field, observing and talking to people, collecting material and so on. In a continental country like Brazil, this means spending on air tickets, accommodation, materials, etc. In other words, it is almost impossible to develop research in ICT4D just through surveys and statistics. Thus, in a country where financial support for research is quite limited, it is to be expected that Brazilian academics prefer to develop research that does not require so much expense.

(c) Difficulty on publishing ICT4D research in top-tier journals

Brazilian ICT4D academics often face a challenge, namely making their research relevant and interesting to a wide range of readers, in order to have a chance of being accepted and published in top-tier journals. However, often, the reviewers of these journals (often from developed countries) criticize an article for not providing mainstream value — perhaps without realizing (or caring) that this was never the author’s intention. Authors, in turn, learn that they need to find that relevance or value — and adjust their research accordingly. In this case, the authors develop articles completely devoid of context (Davison & Martinsons, 2016). That is, they assume that context is irrelevant — or worse, all contexts are the same, so they don’t matter. With this, it is easy to understand why the ICT4D area is left aside — it is viscerally contextual.

(d) Lack of critical perspective in management graduate courses programs

Finally, I can speculate that a utilitarian and uncritical approach found in many graduate management courses in Brazil (Patrus & Lima, 2014; Rodrigues & Ludmer, 2005), is another reason why Brazilian academics have so little interest in the area of ICT4D. ICT is covered in these courses mainly as a tool to increase business results (Souza, 2011). Therefore, the lack of a critical management education (Grey, 2007) makes it difficult for doctoral students (future researchers) to realize the potential of ICT to reduce the socioeconomic gaps found in the Brazilian society. For example, it is important to analyze how emerging technologies can enable digital transformation in companies (Dionisio, 2022); however, it is also important to understand how these same technologies can improve financial inclusion, public health services, basic education, and so on in Brazil (Tavares et al., 2023).

FINAL WORDS

I have been in the ICT4D field for a long time. Thus, unless the aforementioned issues are properly addressed and answered, as well as a critical management education is actually implemented in our country, we will continue to ignore the enormous potential that ICT has to mitigate the serious socio-economic problems of our country.

In a nutshell, we must develop academically rigorous management research (as advocated by Bertero et al., 1999), but we cannot forget our own need to produce management research that is relevant and that positively impacts Brazilian society. This is the challenge that all of us at the Brazilian Academy of Management (and especially MIS scholars) face today. I do hope, therefore, that this provocation can help us with that.

NOTES

1. The World Bank adopts per capita income of US$ 5.50 PPC as a poverty line, equivalent to nearly R$ 486 per month per capita. The extreme poverty line is US$ 1.90 PPC, or R$ 168 monthly per capita.

2. For more information on that, see https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/35687-em-2021-pobreza-tem-aumento-recorde-e-atinge-62-5-milhoes-de-pessoas-maior-nivel-de-se-2012.


4. To support this claim, see Ferreira and Baidya (2015). In...
addition, EnANPAD’s Information Management division has only one subdivision, Information Systems and Technologies in Society and Public Management, related to ICT4D, which, in 2022, had no article accepted and presented in this arena (https://anpad.com.br/pt_br/event/details/120/1873). Finally, a search on SPELL returned very few articles on that topic.


REFERENCES


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