CREATIVE ECONOMICS 3G: TECHNOLOGY, BRICS AND THE NEW SHAPE OF CREATIVITY

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ABSTRACT: This paper promotes a tentative discussion on the new challenges of Creative Economics. Without the intention of exhausting the theme, we highlight two main trends that, to our perspective, could be regarded as the most important shifts currently underway: (i) the enhanced digital dimension of creative economics and (ii) the challenges derived from the entrance of new international players from the emerging context. The main idea of this paper is to contribute to the discussions on the new challenges connected from these two parallel trends.

KEY-WORDS: Creative Economics; ICT; BRICs; Developmental Economics; Technologic Economics.

INTRODUCTION

In the last two decades, Culture and Creativity managed to settle as research objects within the sphere of Economic reflection. The maturation of Cultural Economics led to substantial impact not only in terms of academic production, but also in the design of sectoral public policies. Ever since its original conceptualization, in the late 1990's, the so-called Creative Agenda strengthened in a worldwide scale².

After almost 20 years, this agenda starts to demand a structural reshaping. The coming of a brand new global economic reality imposes the need of a radical reflection of the sector throughout the whole globe. The aim of this paper is to present, in a very exploratory manner, some of the major challenges connected to this issue³. Our objective is not to exhaust the theme, but solely to present and to initiate a discussion on two major trends that, in our point of view, are pressing Creative Economics towards a whole new developmental stage:

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² For an historical review of the concept and its transformation in the inaugural years, see Hesmondhalgh and Pratt (2005).

³ This text is a working paper. Quotations and references should be made only with the authorization of the author. The reflection derives, partially, from two texts published at the Economic Research Institute Foundation (FIPE) Monthly Bulletin (Moraes, 2015b e 2015c).

I. The place of Creative Economics in an increasingly digital world: a first question deals with the never-ceasing widening the scope of the creative object. XXI Century Creative Economics is sprawling far beyond the boundaries from its original conceptualization. Particularly noteworthy is the increased allocation of sectors heavily intense in technology – with special emphasis to certain areas of the Information and Communications Technology (ICT) – within the boundaries of the creative sector.

The first theme of our analysis, in this sense, is this increasing juxtaposition of the creative and digital agenda⁴. Given the ubiquity of the discussion, we decided to center our reflections on the arguments presented in a milestone document published by UK Innovation Agency, NESTA: the *Manifesto for Creative Economics*.

II. Creativity in a Multipolar World: a second line of reflection deals with the challenges and particularities connected to the advance of the Creative Agenda within developing economies. To what extend does the entrance of new global players alters theoretical conceptualizations on the theme?

This second research tracks aligns with a broader research perspective, focusing the development of a whole conceptual discussion on Cultural and Creative Economics from a "Global South" Perspective. For the present article, we have gathered preliminary data and arguments from the Brazilian context, but the main idea is to expand it to other regions as well⁵.

CREATIVE ECONOMICS: 20 YEARS AFTER

In July 2015, the city of Sao Paulo, Brazil, hosted the third edition of the *Brazilian Independent Games* (BIG) *Festival*. In addition to activities of business matchmaking, pitching sessions and competitions of Independent Games, the event featured a series of lectures and panels that discussed the main challenges and opportunities of producing and distributing independent games in Brazil and abroad⁶.

In his panel, consultant and IP (Intelectual Propriety) Specialist Alexandre Mandryka made an interesting presentation highlighting the importance of transmedia for the success of audiovisual projects⁷. The defense of the need to design products and services capable of serving multiple screens (PCs, TV, Mobile Devices, etc.) is

⁴ On the theme, see Moraes and Schwarz (2015).

⁵ With especial emphasis on the large scaled economies from the so-called BRIC (Brazil, Russia, India and China) countries.

⁶ The researcher attender the 2015 BIG Festival in São Paulo in the condition of Senior Economic Advisor of Spcine, the cinema and audiovisual enterprise from Sao Paulo that was one of the sponsors of the events.

⁷ Mandryka (2015).

obviously not new. What is, in fact, distinct in the current scenario is the centrality that the concept acquired not only in the universe of games, but in the audiovisual, the creative and technological sector as a whole.

Ten or twenty years ago, terms like "transmedia", "multiplatform content" or "technological ubiquity" circulated narrowly through specialized niches, appearing solely as a distant technological chimera. Today, however, concepts like Internet-of-Things ("IoT"), Cloud Computing or "TV Everywhere" are not only massively disseminated, but are also regarded as some of the key trends in the most diverse areas and economic sectors⁸.

Certainly, this inflection has been perceived by major players both within and outside the academic world. Research Centers, Policy Makers and think tanks from all over the world are focusing their attentions on such themes⁹. Revisiting these documents and considering their heterogeneous contexts of production is a major task to be performed. Given the scope of the present discussion, we will focus attentions on one single report: the *Manifesto for Creative Economy*, a milestone document produced by a group of researchers from NESTA (National Endowment for Science, Technology and the Arts), UK leading innovation agency.

Our interest starts right at the Foreword, signed by Mr. Geoff Mulgan, executive director of the institution. In short, the text presents and criticizes an outdated and somewhat pessimistic rhetoric on the potentialities of the digital universe¹⁰. Molded mainly during the 1990s, this 'scatological narrative' distracted many scholars and policymakers, casting shadows on some of the most fundamental elements of the digital and creative agenda. It is certainly interesting the recognition that the technological euphoria of the first online generation caused little or no influence in the design of sectorial policies or effective public actions¹¹.

What the NESTA document offers us, throughout its more than one hundred pages, is not only a rich review of the institutional trajectory of Culture and Creative

⁸ This situation is evident when regarding the themes of the major events of the area. Perhaps the most expressive case is CES – the Consumer Electronic Show – one of the biggest events in the area. "CES played host to many 'firsts', including celebrated products such as videocassette recorder, CDs and DVD players and, more recently, plasma televisions, high-definition screens and the 3D printer. (...) The overall balance of the 2015 edition, however, was slightly different. Instead of new products, the great protagonist was a concept: Internet of Things (IoT)" (Moraes, 2015a, p.18).

⁹ Just to mention some of the many think tanks and research centers around the world, we can highlight reflections from both sides of the Atlantic, such as: CMF (2015), Alcatel Lucent (2012) or Veugelers (2012).

^{(2012). &}lt;sup>10</sup> "For several decades there has been much talk about digital technologies, about convergence, and about the transformation of old art forms, from the book to the film. Some of the rhetoric was overheated, and some of the predictions were slow to materialise. That led many to make the opposite mistake of concluding that because the revolution didn't materialise immediately, it had been postponed indefinitely. Instead, as this report shows, the digital revolution is now very much underway, and almost certainly accelerating" (Mulgan, 2013, p.6).

¹¹ Bakshi, Hargreaves and Mateos-Garcia (2013, p.19).

Economics in its original context, but an enlarged cartography towards the triumph of the agenda in the coming years. There is, indeed, much to draw from this document. For the present objectives, we should question to what extend does this set of recommendations could also migrate to the discussions regarding the developing regions of the globe. We will go through this discussion later on this text.

The first important point deals with the inaugural ten years of theoretical and political reflections of the Creative Economy. Authors affirm that during this first phase – broadly between mid-1990s and mid-2000s – British (and European) authorities were excessively timid in the consideration of the digital dimension of Creative Economy¹².

This little attention expended by London and Brussels to the digital component of Creative Economy redounded, in the following decade, in a generalized loss of international competitiveness, especially in strategic sectors. In this sense, more than a sheer uncritical review of past policies, this historic landscape is presented in order to stop and ideally rectify a negative trajectory.

As possible antidotes, the authors suggest the implementation of firm and extensive changes. The iconoclastic tone of the NESTA document goes beyond the sheer presentation of errors and omissions of the British Creative Agenda: the list of innovative suggestions covers a differentiated spectrum, looking to impact the most distinct areas of the society. From financial system to basic education, from regional development policies to the reinvention of patent laws, propositions are raised within a wide range of themes, having as a goal the design of an institutional structure capable of meeting new economic (and technological) challenges of the coming decades ¹³.

CREATIVE ECONOMICS AND ICT: A METHODOLOGICAL CONTROVERSY

From the various aspects raised in the document, one is particularly fundamental in our inquiry: the softening of the conceptual barrier between the 'creative' and 'non-creative' sectors. In order to understand the argument, we should revisit another report published by NESTA: *A Dynamic Mapping of the UK's Creative Industries*. In short, this research revisit official data from the British DCMS (Department of Culture, Media and Sports), proposing a brand new methodology towards Creative Economics¹⁴. Its main assumptions are:

¹² The suspicious environment generated by the "dot-com" tech bubble between 1997 and 2000, the fears arising from the millennium bug and the telecom industry lobbies are regarded as key elements (Bakshi, Hargreaves and Mateos-Garcia, 2013, p.19).

¹³ Bakshi, Hargreaves and Mateos-Garcia (2013, p. 21).

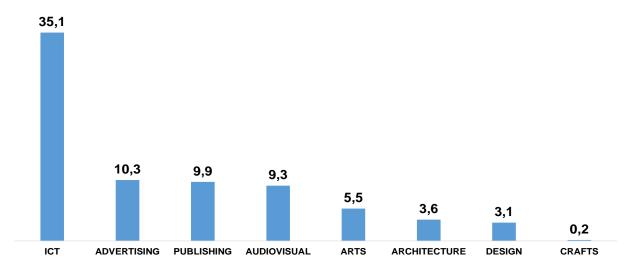
¹⁴ Bahkshi, Freeman and Higgs (2013).

- I. The authors depart from the DCMS concept of Cultural Industries¹⁵. They highlight, then, that not all employees of the official creative industries are effectively allocated in creative occupations. A good example comes from the realm of performing arts: in addition to directors and artists, a theater company also employs support staff (electricians, drivers etc.)
- II. On the other hand, certain sectors outside the official definition of creative industries indeed employ professionals in creative occupations;
- III. The relationship between the amount of creative professionals and support (or non-creative) professionals inside each segment could then be measured and compared. It would be possible to measure economic activities and allocate them along a 'creative-intensity' scale.

Migrating therefore the attention from a rigid (and aprioristic) concept of creative sector towards the concept of creative work (or creative occupation) the authors conclude that many segments originally excluded from the so-called creative core could contribute more to Creative Economics - both in terms of jobs and value generation – than the creative sectors 16. The situation is evident when regarding the Graph 1 below that show the Gross Value Added (GVA) by each of the Creative Industries to the British 2013 GDP:

¹⁵ "Those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (Bahkshi, Freeman and Higgs, 2013, p.6). ¹⁶ DCMS (2014, p.14).

GRAPH 1: GVA OF CREATIVE INDUSTRIES IN THE UK (IN 2013 GBP BILLIONS)¹⁷



SOURCE: Adapted from DCMS (2014)

Little specialized expertise is needed to comprehend the fundamental controversy expressed in the Graph 1: Technology-related activities stand alone as the most expressive segment, responding for 45.6% of the entire Creative GVA. Figures from the sector represent practically the sum of Publishing, Advertising and Marketing, Film, TV, Video, Radio and Photography and Music, Preforming and Visual Arts altogether.

Both the *Manifesto* and the *Dynamic Mapping* do not deny that the equalization of products and services such as "Software Development" or "IT consultancy" alongside with traditional artistic activities such as visual arts, music or performing arts is problematic¹⁸. Of course, on that matter, British policymakers are, by no means, alone. Throughout many national and international discussions, consent is far from reach. Only to indicate some of the discussions related, Table 1 indicate below the position of 7 different methodologies – from developed, multilateral and emerging contexts – when addressing the inclusion and/or exclusion of technology-related subsegments within the scope of Creative Economics:

¹⁷ For visual reasons, we have shortened the terms used by DCMS. Here are the original classification used by DCMS: (i) "IT, Software and Computer Services; (ii) "Advertising and Marketing"; (iii) "Film, TV, Video, Radio and Photography"; (iv) "Publishing"; (v) "Music, Perfoming and Visual Arts"; (vi) "Architecture"; (vii) "Design: product, graphic and fashion design"; (viii) "Crafts".

¹⁸ "A comprehensive study of the role played by ICT, and software in particular, in the transformation of the creative industries deserves to be the subject of further research. It is complicated by the fact that the ICT-based industries are highly developed in other fields too – for example, in commerce and financial service industries, in the automation of manufacture, in science-based industries, engineering and so on. Thus, the mere employment of ICT talent is not always in itself an indicator of creativity. However, ICT labour appears to play a special role within the creative industries, when it is deployed in combination with other types of creative labour" (Bahkshi, Freeman and Higgs, 2013, p.19).

TABLE 1: ICT ACTIVITIES AND CREATIVE ECONOMICS METHODOLOGIES

METHODOLOGY	MULTILATERAL		UK	BRAZIL		ARGENTINA	
	UNESCO	UNCTAD	DCMS	IBGE	FIRJAN	FUNDAP	OIC
ARE ICT ACTIVITIES INSIDE THE CREATIVE INDUSTRIES?	PARTIALLY	YES	YES	PARTIALLY	YES	YES	NO

SOURCE: UNESCO (2013), UNCTAD (2010), DCMS (2010), IBGE (2006), FIRJAN (2008), FUNDAP (2011) and OIC (2009)

It is, however, precisely towards the overcoming of this split between the traditional world of culture and arts and the technological universe that the authors advocate. The alert tone from the text is not simply a stylistic choice and the defense of the merger between the agenda of traditional creative economy and technology agenda is not a simple academic recommendation. What we have here is a survival plan not only for developed regions, but to emerging economies as well.

A DIGITAL CREATIVE AGENDA: CHALLENGES IN THE EMERGING CONTEXT

In 2012, Bell Labs, research branch from the Telecom giant Alcatel-Lucent released an interesting survey with predictions about audiovisual consumption in the coming years. Data presented in the report are certainly impressive: the forecast points not only to an expressive increase in the average daily consumption of audiovisual products and services, but also a radical transformation in the fruition modes. By 2020, 48% of audiovisual consumption should occur through the so-called "Over-The-Top" (OTT) means, 29% through Video-on-Demand (VoD) Services, 11% by content in the Cloud and only 10% through the conventional TV methods 19.

There are, of course, a lot of criticism to the premises of the research. More importantly, we can wonder to what extend can we extend these debates away from the developed context. A series of data and indicators ratify this questioning. An example: while in developed countries Netflix penetration levels reach something like 30%, estimations indicate that the subscriber base in Brazil was in 2015, 2.2 million, a little more than 1% of the population.

Even in the conventional Paid TV, a distribution model in the middle of a shifting process in the international context, has still a large potential in the emerging contexts.

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¹⁹ Alcatel-Lucent (2012).

The latest report from ANCINE, Brazilian National Cinema Agency, indicates that, despite expressive growth in recent years, some 70% of the Brazilian households still lack the service²⁰.

Figures are similar when we analyze other segments related to the digital universe. Table 2 indicate the general figures of access to technological products and services within the so-called E-7 Group (Brazil, China, India, Indonesia, Mexico, Russia and Turkey) and the G-7 Group (Canada, France, Germany, Italy, Japan, United Kingdom and the United States):

TABLE 2: ACCESS TO TECHNOLOGICAL SERVICES²¹

Comileo	E7	,	G7		
Service	2014	2019	2014	2019	
Paid TV	48,9%	55,7%	54,2%	55,7%	
IPTV	2,3%	5,5%	8,4%	10,8%	
Fixed Broadband	36,9%	43,2%	76,0%	78,0%	
Mobile Internet	32,3%	59,2%	65,2%	83,7%	
Smartphone Ownership	27,4%	54,5%	57,2%	81,5%	
Tablet Ownership	5,1%	22,7%	20,5%	58,3%	
Overall	21,5%	33,6%	38,8%	50,6%	

SOURCE: PWC (2015)

With the exception of conventional Paid TV services, where convergence between countries is expected to happen in the coming years, levels of discrepancy between developed and emerging regions are indeed huge. When regarding all the 6 variables together, we could state that, by 2019, the emerging countries would still be behind the actual reality within the developed regions.

There are several ways to address such questions, depending upon the theoretical framework employed. A first approach, in this sense, is to regard at the figures from a sheer orthodox perspective, considering that the full realization of the digital agenda in the country is hampered by elements from the supply or demand side.

From the supply standpoint, the situation is particularly complex due to the high costs of implementation and maintenance of telecommunications infrastructure. Data from a McKinsey report indicate that 57.3 trillion dollars will be needed for global

 $^{^{\}rm 20}$ ANCINE (2015). $^{\rm 21}$ Data is shown in percent of total national households.

infrastructure until 2030. Nothing less than 17% are concentrated in the telecom sector²².

Running this high amount of resources requires not only elevated direct investment contributions (or debt), but also a fine integration between public and private actors.

What worses this situation in emerging contexts is that the business model of the telecommunications sector requires, par excellence, an enlarge and ever growing base of consumers. In this sense, more than just overcoming technical barriers, the expansion of the segment is blocked by structural elements such as the low purchasing power of the major part of the population. Not surprisingly, two of the main programs currently underway in Brazil – the National Broadband Plan (PNBL) and the shift towards the Digital TV – are running with strong participation of the Federal Government.

Although fundamental from the point of view of universalization of basic services, such actions stretch beyond the scope of sheer access policies, aligning with a broader plan to enhance competitiveness within the productive sector. The implementation of Digital Television and the subsequent shutdown of the Analog TV, for instance, releases frequencies for 4G (Fourth Generation) Telephonic Services, which could significantly improve the reach of technology in the country. In the last consolidated report of ANATEL, Brazilian Telecom Agency, indicated that the 4G network reached in December 2014, 147 municipalities in Brazil (2.6% per cent of all municipalities)²³.

Of course, as important as the coverage area is the quality and capacity of connections. Many of the figures presented in the progress reports of the Brazilian National Broadband Plan should be relativized in the face of poor performance of the services offered, especially in remoter areas of the country²⁴.

Once again, we should not restrict our eyes pure and simply to an issue of consumer access to a service (despite the intrinsic merit of this proposal). Several studies recognize the correlation between the spread of broadband and the economic performance of a country or region. We can use here, once again, NESTA's document:

The average impact of broadband on annual GDP growth in the Euro-15 countries between 2002 and 2007 has been estimated at 0.6 per cent, accounting for almost 17 per cent of total growth over this period.15 A ten percentage point increase in

²² Mckinsey (2013, p.14).

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The implementation of the 4G coverage follows a national schedule. The commitment signed by ANATEL and the Telecom operators is that, by December 2017, all municipalities with up to 30.000 inhabitants will be covered by the technology.

²⁴ On the theme, see IDC (2013).

broadband penetration between 1999 and 2007 is judged to have raised annual per capita growth between 0.9 and 1.5 per cent in OECD countries²⁵.

FROM DATA TO THEORY: DIGITAL CREATIVE AGENDA IN A STRUCTURAL **PERSPECTIVE**

Soon we realize that the complete understanding of the discrepancies between the realities of creative economics within developed and emerging regions of the globe demands more than a simples enrollment of data and access indicators. The understanding of the complexity of the digital agenda in the emerging contexts involves considering some deeper socioeconomic aspects, taking into account structural elements, alongside with comprehending their position within the international division of labor.

The hypothesis that we raise is: if the implementation of a digital creative agenda in developed countries faces first order challenges, the emerging condition poses additional elements to this equation. In this sense, although developed and emerging regions share some of the current technological challenges, they divert in terms of capacity and readiness to implement the agenda at the local level²⁶. Again, we should not astray amidst the ubiquity of the digital theme. Despite the complexity of these issues we believe that it would be possible to list some key structural factors that deserve special attention along our analysis.

To understand this point, we should resume the NESTA document. One of the most innovative aspects of the *Manifesto* is its transversal perspective. We see, thus, a defense of the implementation of creative and digital agenda on multiple fronts. Way beyond the restricted sphere of culture or telecommunications, authors suggest recommendations to the most different areas of the economy and society²⁷. It is precisely in this expansive process that some of the conditions from the emerging economies need to be revisited:

²⁵ (Bakhshi, Hargreaves and Mateos-Garcia, 2013, p.11). On the same theme, Flavio Gonçalves state that "broadband access level and ongoing initiatives to enlarge vary significantly in different international experiences. Among the main reasons to expand the access infrastructure is a World Bank report, which states that the increase of ten percentage points in the Internet broadband connections of a country corresponds to an additional increase of 1.3% of its GDP. (...). The same study found that for an investment of \$ 5 billion in telecommunications infrastructure, are created 100-250 thousand direct jobs and somewhere around 2.5 million indirect jobs" (2012, p.115).

Again, this is an exploratory proposal whose effective proof needs to be put to the test of empirical data

over the next reflections of this series of articles.

²⁷ Bakhshi, Hargreaves and Mateos-Garcia (2013, chap. 5).

I. Creative Economy, inequality and educational gap: By its very definition, Creative Economy is based mainly on skilled and skilled labor²⁸. Although certain components – such as music, performing arts or crafts – may dispense higher levels of education or access to formal education, the same does not apply to areas such as the audiovisual or, even more evident, ICT-related services.

Our argument is that the increase in the digital substrate within the creative sector brings an additional difficulty. In contexts of severe inequality and – what is even more serious – of marked educational inequality, the implementation of a creative agenda can not only diminish, but enhance the social gap. It is fundamental to reflect, in this sense, upon the implementation of a sectoral schedule in line with other public policies of inclusion, access and education.

II. Creative and Institutional Ecology Economy: the transposition of the creative agenda from developed to emerging contexts can also be linked to other potentially perverse effects. The fascination towards the alleged positive outcomes of the creative agenda in developed regions often causes myopia in developing countries policymakers. It is a recurring misconception to disregard the fundamental connection between creative industries and the broader business environment and institutional fabric.

The main argument here is that the creative sector depends and is inextricably associated to other productive sectors of a country or region. Such dependency only accentuates as the digital dimension progresses. We can further extend the argument, proposing that the sustainable advancement of the creative agenda depends on a whole constellation of factors that are ultimately external to the creative core. The design of an enlarged national innovation system, flexible and accessible financing structures, without the mention the already discussed infrastructure investments: these are some of the examples of the transversal needs of the creative agenda.

Again, all these challenges are also present within developed countries. The hypothesis to be tested is: to what extent do the particularities from the developing institutional and business ecology hinder the advance of the digital creative agenda?

III. Creative Economy and Economy of Scale: The emerging condition raises one last aspect to be mentioned: the limits on obtaining economies of scale. Despite its recognized differential character, Creative Economics also follows the general rule of

²⁸ DCMS defines the creative industries as "those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (Bahkshi, Freeman and Higgs, 2013, p. 6).

economics of scale. Again, this situation shines more clearly when we think of subsegments such as Audiovisual or ICT.

Although these are the sectors that generate products with higher added value, they are also the ones that incur in bigger costs. In many cases, these costs are so onerous that the economic viability of the activity cannot be sustained solely within domestic markets. If creative activities already face difficulties in performing within local markets, there is no reason to imagine that the situation would be distinct in global markets.

A complete assessment of developmental perspectives from the creative agenda in emerging contexts need, in this sense, to take into account enlarged structural constraints. If the sector's development requires the production on large scale and if this is reachable solely through international expansion, the full maturity of the area involves an unprecedented transformation in international economic landscape.

CONCLUSION

Our paper presented a tentative and inaugural reflection on the current challenges of creative economics. Our attentions were centered in two main elements that, to our point of view, are the most important trends in the current state of art within the field: the increasing digitalization of the sector and the entrance of new international players, with special emphasis to the so-called BRICs countries.

Our inquiry started by revisiting a sectoral milestone document, NESTA's *Manifesto for Creative Economics*. We advance, then, to a conceptual and theoretical discussion on the inclusion of ICT activities inside the creative industries. Our second effort was to contextualize some of these discussions within the emerging context. Data from diverse sources indicate a general handicap in many variables related to the world of technology. Even more important as access figures themselves, we highlight a couple of key structural elements from the developing context that should be highlighted in order to understand the local challenges.

From an individualized reflection on the challenges of the creative economy in an increasingly digital world we reached some of the biggest issues of International Economics. From technology and infrastructure difficulties within emerging contexts, we reached enlarged discussions related to the international division of labor.

More than a simples academic exercise, to reflect upon the difficulties of the creative economy and its digital substrate in the emerging context is to debate enlarged developmental perspectives with the twenty-first century capitalism and its current multipolar dimension. Presented this general panorama, the next step is to advance both in empirical and theoretical discussions on the possibilities of overcoming structuring developmental barriers.

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