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A R T I C L E

Critical discourse analysis of perspectives on knowledge and the knowledge society within the Sustainable Development Goals

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Abstract

Critical discourse analysis (CDA) is employed to analyze discourses of knowledge and the knowledge society in the Sustainable Development Goals (SDGs). Discourse analysis is a collective name for a number of scientific methodologies for analyzing semiosis, namely how meaning is created and communicated though written, vocal or sign language. Employing a genealogical approach which locates discourses in the field of prior discourses, two prior discourses of the knowledge society are identified in the key document of the SDGs. The concepts knowledge and knowledge society are found to have a marginal position within the main policy document "Transforming our world," adopted by the United Nations in September 2015. The techno-scientific-economic discourse is found to be dominant at the level of implementation and of goals, while there is some evidence of the pluralist-participatory discourse at the level of vision and strategy. Analysis of some of the policy advice provided by international organizations and civil society indicates that more pluralist-participatory discourses on knowledge were represented when the SDGs were being formulated. Developed countries and the corporate sector were very influential in

determining the final text and were probably instrumental in excluding more transformational discourses and maintaining the status quo.

1 | INTRODUCTION

In September 2015, the member states of the United Nations (UN) General Assembly agreed on Agenda 2030 and the Sustainable Development Goals (SDGs), a transformational agenda to address the problems facing the global community, including poverty, gender inequality and climate change (UN, 2015). The SDGs will set the framework of the international development agenda up to the year 2030 (UN, 2015). The international organizations, such as the UN Food and Agriculture Organisation (FAO) and the World Bank, and the world's largest aid donor—the European Union and its member states—have embraced the new agenda, reframing their development efforts in the light of the SDGs (FAO, 2015; European Commission, 2015). For the first time, global development efforts in the economic, social and environmental spheres for both developed and developing countries are being integrated (Cummings, 2015). This represents a great step forward, reducing the fragmentation of efforts to address global problems. To achieve this ambitious agenda, global efforts to address the complex challenges identified in the SDGs will need to make the most of new developments in the field of knowledge.

The way in which knowledge is perceived in the SDGs has, however, not yet received concerted attention. To date, criticisms relating to knowledge are themselves rather fragmented. They focus on the model of knowledge transfer (Ramalingam, 2015), the lack of reference to local knowledge (ICSU & ISSC, 2015) and the failure to recognize that development needs to be based on developing country experiences and realities (Leach, 2013). Ramalingam (2015), for example, argues that "the overriding mentality [in the SDGs] is still that developing countries are vessels to be filled with knowledge and ideas." Cummings has also further argued that "the SDGs are fundamentally flawed because they are not based on local realities and local knowledge. Although they present the first universal development agenda and present a transformational vision, they cannot work if they do not harness the transformational role of knowledge" (Cummings, 2017, p. 22).

To consider how the SDGs focus on knowledge, this article investigates the discourse on knowledge and knowledge societies in "Transforming our world: The 2030 agenda for sustainable development" (UN, 2015), the final text of the SDGs approved by the UN. This is an important issue for at least two reasons. First, as described above, the SDGs set the framework for international co-operation and development up to 2030, and will probably have an impact on shaping all aspects of human life, including the development of knowledge societies. Second, in the words of UNESCO, "reflection upon knowledge societies and how to build them makes it possible to rethink development itself" (UNESCO, 2005, p. 19). We aim to answer the following two-part research question: which discourses on knowledge and knowledge society are evident in the SDGs and whose discourses are they? To answer this question, we adapt Fairclough's "transdisciplinary" CDA. First, this article provides an overview of discourses of knowledge and knowledge societies. Next, the methodology is presented. This is followed by an analysis of the discourses of knowledge in the SDGs. Finally, we discuss whether the discourses evident in the SDGs will be sufficient to address the existing development challenge.

2 | DISCOURSES OF KNOWLEDGE AND KNOWLEDGE SOCIETY

According to Fairclough (2012), knowledge society (although he uses the terms knowledge-based economy and the information society) is both a strategy and a discourse. Fairclough also uses CDA to consider notions of the knowledge-based economy. We argue that knowledge society and the SDGs are both what Fairclough (2012) calls "nodal discourses" because they subsume and reflect many other discourses. Like the knowledge-based economy and information societies, knowledge society subsumes and expresses technological discourses relating to information and communication technologies (ICTs), the discourse of intellectual property, the discourse of science, discourses of economic development and discourses related to the network society. The SDGs also both subsume and reflect the discourse of the knowledge society.

The notion of the knowledge society first emerged as the knowledge economy in the late 1960s and early 1970s. Drucker (1969) popularized the term "knowledge economy," attributing it to Machlup (1962). Bell (1975) is credited with investigating the role of predominantly theoretical knowledge as the emerging "axial principle" of society. Hornidge (2011) has reviewed the conceptual and political emergence of the term "knowledge society" from the 1960s onwards. She argues that knowledge society started as an academic concept, developed by Drucker and others, but that more recently it has been used by governments to create a vision of an emerging future society often linked to technologies, particularly ICTs and economic development (Hornidge, 2011). Similarly, Fairclough defines knowledge societies as "a qualitative change in economies and societies such that economic and social processes are knowledge-driven and change comes about, at an increasingly rapid pace, through the generation, circulation, and operationalisation of knowledges in economic and social processes" (Fairclough, 2012, p. 3). As Felt and colleagues note, such terminologies prioritize "the instrumental use of scientific knowledge for competitive economic advantage" (Felt et al., 2009, p. 14). Given this characteristic emphasis on the technological and the economic, we identify this approach to knowledge societies as the techno-scientific-economic discourse. UNESCO uses the term "techno-scientific model" (UNESCO, 2005, p. 5). We consider that the economic imperative is also a key element which is why we add "economic" to its title. The "economic" in this discourse of the knowledge society refers to neoliberalism which emphasizes the monetary value of knowledge and private ownership.

The techno-scientific-economic discourse is dominant in government policies of the USA, Japan, the EU and Singapore, and has a number of common characteristics (Hornidge, 2011). First, it is based on a form of technological determinism in which ICTs play an important role in shaping the socioeconomic development of society. Second, conceptions of knowledge society recognize the primacy of scientific knowledge. Third, the definition of the knowledge society is often based on linear and instrumental conceptions of how knowledge generates economic growth. Mansell, for example, reports that speakers at the international conference WSIS +10 generally argued that "knowledge societies are fostered by the diffusion of technologies and market competition which automatically (or at least relatively unproblematically) stimulates innovation, encourages collaboration and promotes the production of content" (Mansell, 2016, p. 631).

Another very different discourse on the knowledge society has been championed by the UN Educational, Scientific and Cultural Organisation (UNESCO) and researchers such as Castells, Mansell and Stehr (UNESCO, 2005). Mansell calls this "a plural and strongly participatory vision of knowledge societies" (Mansell, 2016, p. 631) and we identify this approach as the pluralist-participatory discourse. The pluralist-participatory discourse gives the term "knowledge society" a

different provenance, linking it to the notion of "learning societies" and "lifelong education for all" that emerged in the 1960s and 1970s (Mansell, 2016). It favours a discourse that features freedom of expression, universal access to knowledge and respect for linguistic and cultural diversity (Mansell, 2016). It is also linked to the notion of network society, as described by Castells (2010), which involves new forms of organization in which traditional vertical hierarchies are being replaced by horizontal relationships that are able to transcend social and national borders.

The approach to problem solving within the pluralist-participatory discourse involves critical questions about the role of knowledge in human development, and also the combination of practical experimentation with theoretical knowledge. The hierarchy of knowledge is based on principles of pluralism with an emphasis on endogenous local knowledge, as in the following quote:

> All societies possess a rich range of knowledge and make use, in their daily lives, of various levels and types of knowledge that they produce and pass on using a wide variety of means, practices and tools. They are a base on which the capacities necessary for their development can sooner or later be built. (UNESCO, 2005, p. 188)

The economic aspect in this discourse focuses on knowledge sharing and collaborative and communal knowledge rather than individual ownership. In terms of ownership, UNESCO sees knowledge as a non-rivalrous public good because "knowledge, in the strict sense, cannot then be treated as exclusive intellectual property" (UNESCO, 2005, p. 170). The attitude to technology is very different than in the techno-scientific-economic discourse because of the emphasis on digital solidarity rather than on technological determinism. Digital solidarity involves the creation of innovative partnerships, bringing together representatives of states, regions, cities and of relevant international governmental and non-governmental organizations, the private sector and civil society (UNESCO, 2005). The pluralist-participatory discourse emphasizes the internet as a medium while also including books, radio and terrestrial television. In this discourse, old and new ICTs are complementary (UNESCO, 2005).

In Table 1, we compare the two discourses on the knowledge society from a number of perspectives; these characteristics have been identified in the studies cited above. The techno-scientific-economic model is very much business as usual, while the pluralist-participatory model harnesses the transformational power of knowledge. Given its approach to problem solving, the pluralist-participatory model appears in a far better position to resolve some of the global problems that the SDGs are designed to combat.

3 | METHODOLOGY

Discourse analysis is a collective name for a number of scientific methodologies for analyzing semiosis, namely how meaning is created and communicated though written, vocal or sign language. Discourse analysis is used in many disciplines in the social sciences, each with its own assumptions and methodologies—a fuller definition can be found in the Wikipedia entry ("Discourse analysis," n.d.). CDA is one type of discourse analysis which aims to "understand, expose, and ultimately resist social inequality" (van Dijk, 2005, p. 352). CDA focuses on the dialectical relationships between discourse and other elements of social practices. According to Fairclough (2012), social practices networked in a particular way constitute a social order, such as the emergent neoliberal global order. As Fairclough argues "one aspect of this ordering is dominance: some ways of making meaning are dominant or mainstream in a particular order of discourse, others are marginal, or oppositional, or alternative" (Fairclough, 2012, p. 2).

TABLE 1 Comparison of discourses on the knowledge society

Techno-scientific-economic discourse	Pluralist-participatory discourse
Main proponents	
Policies of, for example, US, Japan, EU, Singapore, Slovenia	UNESCO, Mansell, Stehr, Castells
National governments	International organizations, academics, development practitioners
Conceptual provenance	
Knowledge-based economy	Learning societies
	Lifelong education for all
Symbolic value	
Symbolic power of socioeconomic development based on knowledge	Universal access to knowledge
	Knowledge societies as a source of development
	Humanization of the process of globalization
	Transformational value of knowledge
Types of partnerships	
Predominantly a partnership between national governments and private sector	Global information societies
	Network societies
Approach to problem solving	
Linear approach to technical problems	Awareness of the existence of complex problems
Emphasis on scientific knowledge	Combination of practical experimentation with scientific knowledge
	Need for collective thinking
	Multiple knowledges are needed to solve complex problems
Hierarchy of knowledge	
Primacy of scientific and technological knowledge	Pluralism
Lack of cultural and linguistic diversity	Cultural and linguistic diversity
Failure to recognize the value of local knowledge	Recognizing the value of local knowledge
Approach to development	
Exogenous development	Endogenous development
Ownership of knowledge	
Primacy of monetary value of knowledge	Knowledge as a public good
Current models governing ownership of knowledge are needed for wealth creation	Knowledge should not only be subject to economic exchange
Strict copyright rules	Open access
Economic instrumentalism of knowledge	Knowledge also has a cultural and social value
Role of technology	
Technological determinism	Absence of technological determinism
Focus on ICTs	ICTs, internet, and also books, radio and terrestrial television
Focus on new technologies	Old and new ICTs are complementary
Digital divide	Digital solidarity

This study employs an adapted version of transdisciplinary CDA (Fairclough, 2012), comprising a four-phase research process (see Textbox 1). The first phase involves the selection of a research topic that relates to a social question that can be productively approached by a focus on semiosis. The second phase involves the identification of obstacles to addressing the social question based on the analysis of dialectical relations between semiosis and other social elements. This involves the identification of a suitable text as well as information on how the text was created. Once an appropriate text has been identified, the text is analyzed. The third phase considers whether the social order "needs" the social question, namely whether it is inherent to the social order, whether it can be addressed within it or whether it can only be addressed by changing the social order. The fourth phase is based on the identification of possible ways past the obstacles with a semiotic point of entry by the use of discourses, narratives and arguments. In short, it uses words in texts and speech to identify social questions and then considers how words in texts and speech could be employed to contest these questions.

The methodology has been adapted to make it more suited to the analysis of a key policy document and to make the methodology clearer for readers who are not necessarily experts in discourse analysis. It also places much greater explicit emphasis on the genealogy of past discourses, which now receives a full step in its own right and which provided the motivation for the literature review in the previous section. Although Fairclough refers to the genealogy of past discourses as an important issue, it is not explicitly included in the original methodology. We consider that making his stage explicit is an important amendment to the methodology, making it particularly effective for identifying sub-discourses, our purpose here.

4 | KNOWLEDGE AND THE SDGS

To examine discourses of knowledge within the SDGs, this article analyzes "Transforming our world: The 2030 agenda for sustainable development" (UN, 2015), the "outcome document" of the negotiations around the post-2015 development agenda. This document, like other political documents discussed by Fairclough has been "formed, disseminated and legitimised within complex chains and networks of events (committee meetings, reports, parliamentary debates, press statements and press conferences etc.)" (Fairclough, 2013, pp. 244–245).

In this step, the text is analyzed to identify vision, strategy, means of implementation and goals at the level of individual words and phrases, how the words and phrases relate to each other in the text, and the priority given to different themes. We first look at the references to knowledge and knowledge societies, and the context within which they appear. Given that there are very few explicit references to knowledge within the SDGs, we will also search for characteristics of the knowledge discourses, identified in Table 1 above.

Which discourses?

The vision of the SDGs is presented on pages 5–14 of the text. It comprises "a supremely ambitious and transformational vision" which aims for "a world free of poverty, hunger, disease and want" (UN, 2015, p. 3), and with a commitment to making "fundamental changes in the way that our societies produce and consume goods and services" (p. 8). It is an inclusive agenda as demonstrated by the following quote: "accepted by all countries and is applicable to all, taking into account different national realities, capacities and levels of development and respecting national policies and priorities"

Textbox 1 Methodology for analysis of key policy documents, adapted from Fairclough's transdisciplinary CDA (2012)

Phase 1: Selection of research topic and providing an overview of past discourses

    Step 1: Select a research topic that relates to a social question that can be productively approached with a particular focus on the dialectic relations between semiotic and other elements.

    Step 2: Undertake a genealogical study of past discourses in which the current discourse can be located.

Phase 2: Selection and analysis of texts

    Step 1: Select texts appropriate to the object of research

    Step 2: Describe how the text was created

    Step 3: Analysis of texts in terms of vision, strategy, means of implementation, goals and targets at the level of:

    -individual words and phrases

    -how the words and phrases relate to each other in the text

    -the priority given to different themes

    Step 4: Identify discourses in the text, based on the prior discourses identified in Phase 1.

Phase 3: Consider whether social order "needs" the social question, namely whether it is inherent to the social order, whether it can be addressed within it or whether it can only be addressed by changing the social order.

Phase 4: Possible semiotic solutions: identify possible ways past the obstacles, involving developing a semiotic point of entry into the contesting of obstacles by the use of "discourses, narratives and arguments."

(UN, 2015, p. 3). In addition, it appears to recognize the integrated nature of the problems facing the world: "reflecting the integrated approach that we have decided on, there are deep interconnections and many cross-cutting elements across the new goals and targets" (UN, 2015, p. 6). The vision also refers to the symbolic value of knowledge societies: "The spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as does scientific and technological innovation across areas as diverse as medicine and energy" (UN, 2015, p. 5).

In the SDGs' document, strategy is based on "a revitalized Global Partnership … bringing together Governments, the private sector, civil society, the UN system and other actors" (p. 14). The means of implementation has its own short section (p. 28), while Goal 17 is also focused on implementation. The means of implementation is based on finance, technology, capacity building, trade and systemic issues, such as policy and institutional coherence and multi-stakeholder partnerships.

Under goals and targets, there is specific reference to knowledge in "Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture." Target 2.3 comprises:

> By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment. (UN, 2015, p. 15)

In this target, knowledge is seen as a means of production. In Target 2.5, there is reference to traditional knowledge as a subset of genetic resources:

> By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and do-
> mesticated animals and their related wild species, including through soundly managed
> and diversified seed and plant banks at the national, regional and international levels,
> and promote access to and fair and equitable sharing of benefits arising from the utiliza-
> tion of genetic resources and associated traditional knowledge, as internationally agreed.
> (UN, 2015, pp. 15–16)

Under "Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning oppor-
tunities for all," knowledge is again referred to in Target 4.7 as "knowledge and skills" in the context of
lifelong learning, global citizenship and cultural diversity:

> By 2030, ensure that all learners acquire the knowledge and skills needed to promote sus-
> tainable development, including, among others, through education for sustainable devel-
> opment and sustainable lifestyles, human rights, gender equality, promotion of a culture
> of peace and non-violence, global citizenship and appreciation of cultural diversity and
> of culture's contribution to sustainable development.   (UN, 2015, p. 17)

In "Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable de-
velopment," "scientific knowledge" is referred to in conjunction with research capacity and technology
transfer under Target 14a:

> Increase scientific knowledge, develop research capacity and transfer marine technol-
> ogy, taking into account the Intergovernmental Oceanographic Commission Criteria and
> Guidelines on the Transfer of Marine Technology, in order to improve ocean health and
> to enhance the contribution of marine biodiversity to the development of developing
> countries, in particular small island developing States and least developed countries.
> (UN, 2015, p. 24)

Knowledge also receives three mentions in "Goal 17: Strengthen the means of implementation
and revitalize the global partnership for sustainable development." One of these can be found in the
sub-section "Technology" which comprises Targets 17.6–17.8. Under 17.6, "knowledge sharing"
in a context of science, technology and innovation and international co-operation is referred to as
follows:

> Enhance North-South, South-South and triangular regional and international coopera-
> tion on and access to science, technology and innovation and enhance knowledge shar-
> ing on mutually agreed terms, including through improved coordination among existing
> mechanisms, particularly at the UN level, and through a global technology facilitation
> mechanism.   (UN, 2015, p. 26)

In the section "Multi-stakeholder partnerships," knowledge appears again under Target 17.16 as "mo-
bilization and sharing knowledge," linked to expertise, technology and financial resources:

> Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnership that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries. (UN, 2015, p. 27)

Knowledge appears again near the end of the document under the section "Means of implementation and the Global Partnership" under Point 63:

> At the same time, national development efforts need to be supported by an enabling international economic environment, including coherent and mutually supporting world trade, monetary and financial systems, and strengthened and enhanced global economic governance. Processes to develop and facilitate the availability of appropriate knowledge and technologies globally, as well as capacity building, are also critical. (UN, 2015, p. 28)

In this same section, knowledge receives a mention under Point 70, which concerns the launch of a Technology Facilitation Mechanism and its associated online platform:

> The online platform will facilitate access to information, knowledge and experience, as well as best practices and lessons learned, on science, technology and innovation facilitation initiatives and policies. (UN, 2015, p. 30)

At the level of vision, the SDGs appear to be inclusive and transformational, aiming to eradicate poverty and change the economic system, while recognizing the interlinked nature of the problems facing the global community. In this way, the SDGs appear to be linked to the pluralist-participatory discourse. However, the vision of the knowledge society which is presented is much more strongly linked to the techno-scientific-economic discourse. In terms of strategy, the emphasis on global partnerships and multi-stakeholder partnerships also seems to place the SDGs within the pluralist-participatory discourse. The means of implementation, however, appears to reflect the techno-scientific-economic discourse with its emphasis on finance and trade. At the level of goals and targets, the SDGs seem to be squarely in the techno-scientific-economic discourse. Despite the one reference to knowledge and skills in lifelong learning, all other references to knowledge relate to, respectively, knowledge as a means of production, traditional knowledge as a subset of genetic resources, and the emphasis on scientific knowledge and science, technology and innovation. In this way, despite the presence of the pluralist-participatory discourse in vision and strategy, at the level of implementation and goals and targets, the techno-scientific-economic is dominant.

Once we have reached the conclusion that the techno-scientific-economic discourse is the dominant discourse, particularly at the level of implementation and goals, we can see further evidence of this dominance, related to themes that are given prominence. Prominent themes within the SDGs, related to knowledge, include technology (and technologies and technological) which is referred to 45 times while science (and scientific) receives 30 references. Information (18 references) receives more references than knowledge (11 references) but five times this is with respect to ICTs. Fairclough argues that "dominant construals of the 'new global order' have certain predictable linguistic categories" (Fairclough, 2013, p. 247), namely that processes of change are divorced from social actors, history, time and place; that statements are presented as truths; and that they are normative. These characteristics are evident in many of the references to knowledge.

Whose discourses?

To understand whose discourses are represented in the SDGs, we will first consider the way in which the document was developed as a political document.

The SDG document was put forward by the UN to replace the Millennium Development Goals (MDGs), based on a widespread process of consultation. In 2012, the Rio +20 summit mandated the creation of an Open Ended Working Group (OEWG) to develop a draft agenda for sustainable development from 2015. The OEWG, with representatives from 70 countries, had its first meeting in March 2013 and published its final draft with the current 17 suggestions for the SDGs in July 2014. This draft was presented to the UN General Assembly in September 2014. Member state negotiations followed, and the final wording was agreed in August 2015. At the same time as the OEWG discussions, the UN conducted a series of "global conversations," including 11 thematic consultations, 83 national consultations, door-to-door surveys and an online "My World" survey. This was a complex process and, even in the final stages, priorities and agendas differed between countries as reported in the *New York Times*:

> "The tent is very large, and everyone is in it," a diplomat from a rich developed country told me, speaking on the condition of anonymity to discuss a touchy diplomatic issue. "Priorities differ, agendas differ. The willingness to take on commitments differs."
>
> (Porter, 2014)

According to Briant Carant, "Both the MDGs and SDGs are branded as agreed-upon documents representative of the UN as a whole. Yet the UN approach to poverty abatement is one programme among many possible. Alternative programmes also exist but critics allege that they are under-represented as a result of particular power configurations and voting patterns within the organisation" (Briant Carant, 2016, p. 1). In addition, it appears that the negotiations around the SDGs were rife with mistrust, especially in terms of conflicts in perspective between developed and developing countries:

> The tense climate in the discussions revealed scepticism and suspicion on both sides of the fence, with most developing countries expecting the developed countries to not commit to goal specific [Means of Implementation] and with diluted commitments on the combined Goal 17, given the history of unfulfilled aid and UN treaty financing commitments from most developed countries.
>
> (Muchhala, 2014)

In this contested process, there is evidence that some of the original technical advice provided to the OEWG represented a more pluralist-participatory discourse than was found in the document. The UN Technical Support Team (TST), which supported the OEWG in the elaboration of the SDGs, produced a series of Issues Briefs in 2014 in which the pluralist-participatory discourse is evident. For example, "Issues Brief 4: Sustainable Agriculture" called for the recognition of "indigenous and local knowledge in the design and implementation of national and regional agricultural policies" (UN TST, 2014, p. 24), while "Issues Brief 5 Desertification, land degradation and drought," argued that "In many low and middle-income countries, traditional knowledge and practices related to sustainable agriculture, livestock, and agroforestry management can make significant contributions to rebuilding ecological infrastructure and reversing land degradation" (UN TST, 2014, p. 33). Issues Brief 9 ("Education and Culture") refers to "culture as knowledge capital" (UN TST, 2014, p 65) while "Issues Brief 16: Science, technology and innovation, knowledge-sharing and capacity-building," developed by the TST and led by UNESCO, considered that "The integration of scientific with indigenous and local knowledge is increasingly considered

an important element of policies and programmes to manage natural resources in an environmentally and economically sustainable and culturally appropriate manner" (UN TST, 2014, p. 115) and highlighted "explicit linkages between each of these priority areas and STI [science, technology and innovation] including the importance of the generation and sharing of scientific knowledge, the strengthening of the science-policy-society interface as well as the contribution of local and indigenous knowledge systems" (UN TST, 2014, p. 117). This Issues Brief also proposed the development of a stand-alone SDG on science, technology and innovation (STI), "Harnessing STI for Sustainable Development" (2014, p. 120).

In addition to the technical advice being provided to the OEWG, there were diverse civil society actors calling for more pluralist-participatory approaches to knowledge. For example, the Indigenous Peoples' Major Group made a claim for "The recognition of indigenous and traditional knowledge on an equal footing with science and other knowledge systems for 21st century solutions to contemporary crises" (Indigenous Peoples' Major Group, p. 3) while the Farmers Major Group called for "a peasant farmer-centred approach [to development] which understands, analyses, and recognizes the knowledge of farmers at the local level. In attempting to assess the needs of peasant and farmers, research must take place in a participatory process that involves farmers. This is key in re-discovering and recognizing the practices that can be solutions to poverty, hunger and climate change" (Farmers Major Group, 2014, p. 2). As we have observed in the preceding section, these discourses were virtually abandoned by the time that the SDGs were approved. If the SDGs do not fully represent knowledge discourses championed by technical advisers and civil society, whose discourses do they represent?

The development of the SDGs followed three tracks: consultations with policy experts, national consultations of citizens' priorities and private sector consultation, managed by the UN Global Compact (Atal, 2015). The emphasis on private sector engagement reflected a growing trend, evident over the past 20 years, towards the adoption of "partnerships" between the UN, governments and public and private actors, as an extension or spin-off of non-core financing strategies (Adams & Martens, 2015). These multi-stakeholder partnerships are based on the preconception that corporations are the main driver of economic development, while governments are not able to solve global problems by themselves. The UN Global Compact, for example, urged governments to ensure that the post-2015 Agenda should facilitate business (Adams & Martens, 2015). This emphasis on the private sector in the SDGs is a response to pressure from international organizations, such as the World Bank, which have argued that "The private sector can become a financier, shifting trillions of dollars of capital towards developing economies. And it can play an important role as an implementer, translating profits into sustained economic growth, social inclusion, and environmental protection" (Mohieldin & Klimenko, 2017).

Against this background, it is also apparent that the discourse on knowledge within the SDGs is very much the one espoused by national governments of developed countries. National governments were the main negotiators of the SDGs, with many other actors being marginalized. As argued by the G77 of developing countries: "On the one hand developing countries don't get the structural, financial and technological support that they need to carry out the SDGs; on the other hand, they don't receive adequate policy space to carry out their development plans" (Muchhala, 2014). In this way, the SDGs crystallize a powerful and continuing conflict. The dominance of developed country and private actors was identified by the Civil Society Mechanism (CSM) of the Committee on World Food Security (CFS) which noted "the significant frustration by many constituencies for the strong and at times abusive power play of developed countries, the uneven space provided to like-minded voices rather than dissenting ones, the limited consultations with those primarily affected by development challenges, and the pervasive influence of the corporate sector and corporate philanthropies at all levels of the process" (CSM & CFS, n.d., p. 1). Indeed, the CFS also warns of the problems of a "business as usual" approach to development:

> The implementation of the SDGs risks to promote a conventional model of development without addressing the root and structural causes of hunger and malnutrition, resulting in a "doing more of the same" rather than promoting real political change and deep transformation of the currently unsustainable and hegemonic form of economic globalization. Indeed, the new agenda is profoundly biased in favour of the unchecked action of the corporate sector, without advancing any concrete attempt to redirect the currently unsustainable business model and address issues of conflict of interest within public policy spaces. (CSM & CSF, n.d., p. 3)

In addition, the CSM and CFS also warn of the focus on data collection at the expense of attention to local realities: "The process is indeed driven by a strong belief that data offers the main path to knowledge, disregarding the information and knowledge possessed by those primarily affected by development challenges" (CSM & CFS, n.d., p. 3).

5 | DISCUSSION

In the preceding section, we reached the conclusion that there is a mismatch between the transformative vision and strategy within the SDGs and the non-transformative nature of the means of implementation and the goals and targets. In keeping with the techno-scientific-economic discourse, at the level of means of implementation and goals and targets the SDGs pay no attention to the fact that development is an endogenous process, and that it represents "synergy among millions of innovative initiatives people take every day in their local societies, generating new and more effective ways of producing, trading, and managing their resources and their institutions" (Mendonça Ferreira, 2009, p. 99). Consequently, the SDGs almost totally ignore local knowledge, with one reference to "traditional knowledge," but only as it is associated with genetic resources. In a joint publication, the International Council for Science (ICSU) and International Social Science Council (ISSC) also miss mention of indigenous local knowledge in the SDGs, and argue that there needs to be a new target on "the role of indigenous, local and traditional knowledge in biodiversity use and management" (ICSU & ISSC, 2015, p. 74). However, in the pluralist-participatory discourse, indigenous, local and traditional knowledge has a far wider application than biodiversity use and management because local knowledge is at the basis of all local development (Cummings & Hoebink, 2016). If one accepts that development needs to be based on local development, almost completely ignoring local knowledge and local development in the SDGs undermines the transformative agenda.

By generally ignoring the pluralist-participatory discourse, the SDGs also seem to ignore the transformational potential of knowledge to be found in new approaches to knowledge, such as transdisciplinary research, which are able to solve complex problems, better able to take emergence and other non-linear processes into account, and co-create knowledge. There are three possible explanations for the absence at the level of implementation. The first is that the actors involved in the SDGs did not know of these new possibilities. The second is that they knew of them but did not give them sufficient priority to include them in the text. The third is that they know of them but did not want to include them because of the effect they might have in disrupting the status quo. Given the previous section on "whose discourses," we reach the conclusion that interests related to the developed countries, the corporate sector and the corporate philanthropies were, given their recognized influence in the process, probably responsible for maintaining the status quo at the level of implementation. This is consistent with Hornidge's assertion that "the vision of a self-emerging knowledge society therefore acted as basis for legitimising government programmes and activities" (Hornidge, 2011, p. 4). We argue that

the inspirational vision of the knowledge society and of the SDG agenda as a whole is being used to gain support for a strategy which will not be able to solve the complex problems facing the global community, but will rather preserve the status quo. As we have argued above, the purpose of this study is based on a normative premise, namely that the transformational potential of knowledge for development should be recognized and should be reflected in the SDGs, and that this lack of recognition represents, in very broad terms, a social question which needs to be addressed. Given that this social question appears to be inherent to the current social order, can it be addressed within the social order or by changing it? We consider that discussions of changing the social order are outside the scope of this article, but that there are a number of opportunities for addressing this social question within the social order at the level of discourse, narratives and arguments. Greater emphasis on the transformational role of knowledge might have the potential to start some of the transformation systemic shifts necessary for sustainable development more generally.

Many of the sub-discourses on the knowledge society to be found within the pluralist-participatory discourse are transformative when compared to the dominant techno-scientific-economic discourse. In addition, recognition that poverty and climate change are complex problems could lead to the development of new types of solutions, currently largely lacking. All actors, including organizations and networks, with a perspective on the transformational role of knowledge for development should make their voices heard with different discourses, narratives and arguments, influencing the future development agenda and the way in which the SDGs are implemented. One such opportunity for advocacy is the development of the Agenda Knowledge for Development, an international initiative started by Knowledge Management Austria and now being led by the Knowledge for Development Partnership (K4DP). The Agenda Knowledge for Development (Brandner & Cummings, 2017) comprises 13 Knowledge Development Goals (KDGs), designed to complement the SDGs and promote the development of pluralistic, diverse and inclusive knowledge societies (see Figure 1). It is based on "statements" on the future of knowledge and knowledge societies from 73 individuals, including senior academics, development practitioners, UN staff, policy-makers and students. The Agenda Knowledge for Development was formally launched at the Palais des Nations in Geneva on 3 April 2017 and is developing traction in its efforts to develop a new vision of knowledge and knowledge societies.

6 | CONCLUSIONS

From the perspective of national governments of both developed and developing countries, the document "Transforming our world," incorporating the 17 SDGs, has set the international development agenda until 2030. The SDGs represent a nodal discourse under which many other discourses, such as the discourse of the knowledge society, are subsumed. The nodal discourse of the SDGs is politically powerful, representing an imaginary which is already being enacted on a global scale.

In this article, we have used CDA to analyze the extent to which discourses around knowledge and knowledge society can be identified in the SDGs, employing a genealogical approach which locates discourses on the knowledge society in the field of prior discourses. We established that knowledge and knowledge societies are very marginal to the SDGs, but that the techno-scientific-economic discourse is the dominant discourse at the level of implementation and goals, while there is some evidence of the pluralist-participatory discourse at the level of vision and strategy. In this way, there is a mismatch between vision and strategy, and implementation and goals. The vision and strategy are, on the whole, transformational while the implementation and goals and targets appear to represent business as usual.

Goal 1: **Pluralistic, diverse and inclusive knowledge societies**
Responsible and transparent knowledge ecosystems, also for those who are excluded because of gender, migration status, disability, and other vulnerabilities.

Goal 2: **People-focused knowledge societies**
Self-determination of the individual, founded on education for all, freedom of expression, universal access to information and knowledge, and respect for cultural and linguistic diversity.

Goal 3: **Strengthening local knowledge ecosystems**
Collaboration and context-based communication, based on local realities and local knowledge.

Goal 4: **Knowledge partnerships**
Multi-stakeholder knowledge partnerships crossing sectoral and disciplinary boundaries to facilitate creative and rich solutions.

Goal 5: **Knowledge cities and rural-urban linkages**
Profiled, internationally well connected knowledge cities recognising and embracing their knowledge function so that rural areas can also be part of knowledge societies.

Goal 6: **Improved knowledge strategies in development organisations**
Advanced knowledge management strategies with a recognition of these organisations' role in knowledge ecosystems and in strengthening local knowledge.

Goal 7: **Capture, preservation and democratisation of knowledge**
Protection of intellectual heritages, including digital heritage, in libraries, museums and archives. Equal opportunities to easily access and use knowledge.

Goal 8: **Fair and dynamic knowledge markets**
Private sector playing an active and relevant role in local knowledge markets based on fair market conditions for private knowledge services.

Goal 9: **Safety, security and sustainability**
Evolving knowledge societies mitigating uncertainties and negative impacts.

Goal 10: **Legal knowledge**
Legal frameworks based on transdisciplinary knowledge addressing the real needs of the people; citizens knowing their rights and being able to invoke them.

Goal 11: **Improved knowledge competences and knowledge work**
High competence in all kinds of individual knowledge work and organisational knowledge management. High quality of knowledge service professionals; protection of knowledge workers.

Goal 12: **Institutions of higher education to play an active role**
Universities and other institutions of higher education deploying new, inclusive models to solve real world problems.

Goal 13: **Information and communication technologies (ICTs) for all**
ICTs being utilized to access knowledge and facilitate communication and dialogue without hampering alternative or traditional methods of knowledge transmission.

FIGURE 1 The Knowledge for Development Goals (Brandner & Cummings, 2017). [Colour figure can be viewed at wileyonlinelibrary.com]

There is evidence that the pluralist-participatory discourse which had been present in some of the policy advice provided by representatives of civil society and international organizations was excluded in a powerplay by the developed countries and corporate interests in the final elaboration of the SDGs. In the political battle around the formulation of the SDGs, civil society activists, technical experts, academics and policy-makers from developing countries were arguing for new approaches to development, while the developed countries and powerful corporations were doing their best to maintain the status

quo and avoid any redistribution of power and resources. This is evident in the battleground surrounding the role of knowledge and knowledge societies, as has been demonstrated in this article, but this is indicative of the approaches within the SDGs more broadly. Unless the implementation and goals are able to harness the transformational power of knowledge, expressed in the pluralist-participatory discourse, efforts at achieving the ambitious agenda will be unsuccessful. There are, however, opportunities for those actors who are convinced of the transformational potential of knowledge to raise their voices in terms of discourses, narratives and arguments, and also to take an active role in the implementation of the SDGs. There is evidence that this rearguard action is already taking place, although whether it will be strong enough to change approaches to development on a larger scale is yet to be seen.

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