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The role of international organisations and non-state actors in the
implementation of the UN Convention on the Rights of Persons
with Disabilities and inclusive education

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Abstract

While inclusive education (IE) has been one of the most controversial issues in education policy for many decades, it has established itself as the preferred form for the education of persons with disabilities. This development has been further advanced not least by the adoption of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in 2006. Despite its legal enforceability and the worldwide diffusion of IE as the general norm, there are still major differences in the implementation status of the CRPD and IE in the member states. To promote implementation, broad networks of various international organisations (IOs) and non-state actors such as non-governmental organisations (NGOs) and businesses are forming across multiple levels. Through the formation of such policy networks, the different actors can take on specific roles to support disability and IE policy in their respective spheres of action. However, a systematic examination of these networks, the actors involved and the roles they play is missing.

The dissertation addresses this research gap by analysing the involvement of IOs and non-state actors in the implementation of the CRPD and IE at multiple levels, with a particular focus on the networks these actors form. The considerations are based on theories of education policy networks and are extended by social network theory. More specifically, two network theoretical approaches (i.e., the network flow and the network architecture model) are combined to capture the networked governance processes underlying the implementation. In this way, it is possible to conceptualise both the flow of information, the actors influencing this flow and the resulting structures, and to take into account the individual qualities of the actors embedded in these structures. Drawing on techniques of social network analysis, the first three studies analyse the global Twitter communication networks surrounding the CRPD and IE to describe the general structure, identify central actors and derive their roles in the implementation process. The fourth study uses a systematic literature review to examine the actors involved and their main forms of participation at the national level.

A synthesis of the findings shows that a heterogenous set of actors – in particular IOs, NGOs, businesses and research actors – has emerged to influence disability and IE policy-making at multiple levels. IOs are primarily involved in the overall promotion of the CRPD and IE, with different focuses depending on the individual interests of the organisations, and in developing capacities to improve implementation in member states. Furthermore, they can be considered as knowledge brokers and boundary spanners, mediating between different sectors as well as actors with different thematic interests. NGOs also focus their efforts on general

advocacy and capacity development, but put more emphasis on building advocacy coalitions with other NGOs and interest groups in creating network structures. Businesses limit their activities mainly to the active dissemination of information (e.g., on their own products), but show differences in terms of the thematic focus in the broader field of the CRPD: while multinational companies can be found in the issue-specific network on new technologies, smaller businesses are central in the network on inclusive education. Furthermore, there is a discrepancy between the engagement of businesses at the global and national level, as these are hardly represented at the national level according to the results. Research actors and experts, the fourth main group, show a broad range of activities, with a focus on policy formulation, monitoring and implementation on the ground.

In summary, the findings contribute to a better understanding of networked governance processes in the context of the CRPD and IE, not only by describing the roles of different IOs and non-state actors involved in these processes, but also by shedding light on the network structures that emerge around these processes. In this way, the results support the theoretical assumptions of the network models employed and highlight the potential of a framework that integrates the models with existing theories of education policy networks. The theoretical framework developed in this dissertation thus opens up possibilities for both theoretical extensions of policy networks in education and for future research on the involvement of different actors in the implementation of the CRPD and IE. Furthermore, implications for the involvement of IOs and non-state actors in education policy and practice are derived from the findings.

Zusammenfassung

Während inklusive Bildung seit vielen Jahrzehnten eines der am kontroversesten diskutierten Themen in der Bildungspolitik ist, hat sie sich in den letzten Jahren als bevorzugte Form für die Bildung von Menschen mit Behinderung etabliert. Diese Entwicklung wurde nicht zuletzt durch die Verabschiedung der Behindertenrechtskonvention (BRK) der Vereinten Nationen im Jahr 2006 weiter vorangetrieben. Trotz der rechtlichen Durchsetzbarkeit und der weltweiten Verbreitung inklusiver Bildung als allgemeiner Norm gibt es noch große Unterschiede hinsichtlich der Umsetzung der BRK und inklusiver Bildung in den Mitgliedsstaaten. Um die Umsetzung zu fördern, bilden sich auf verschiedenen Ebenen breite Netzwerke aus verschiedenen internationalen Organisationen (IO) und nicht-staatlichen Akteur*innen, wie beispielsweise Nichtregierungsorganisationen (NRO) und Unternehmen. Durch die Bildung solcher politischer Netzwerke können die verschiedenen Akteur*innen spezifische Rollen übernehmen, um die Politik in den Bereichen Behindertenrechte und inklusive Bildung in ihren jeweiligen Handlungsbereichen zu unterstützen. Bislang fehlt jedoch eine systematische Untersuchung dieser Netzwerke, der beteiligten Akteur*innen und der Rollen, die sie spielen.

Die Dissertation adressiert diese Forschungslücke, indem sie die Beteiligung von IO und nicht-staatlichen Akteur*innen an der Umsetzung der BRK und inklusiver Bildung auf mehreren Ebenen analysiert, wobei der Schwerpunkt auf den Netzwerken liegt, die diese Akteure bilden. Die Überlegungen stützen sich auf Theorien zu bildungspolitischen Netzwerken und werden durch die soziale Netzwerktheorie erweitert. Genauer gesagt werden zwei netzwerktheoretische Ansätze (nämlich das *network flow model* und das *network architecture model*) kombiniert, um die Governance-Prozesse, die der Umsetzung zugrunde liegen, zu erfassen. Auf diese Weise ist es möglich, sowohl den Informationsfluss, die Akteur*innen, die diesen Fluss beeinflussen und die daraus resultierenden Strukturen zu konzeptualisieren, als auch die individuellen Eigenschaften der in diesen Strukturen eingebetteten Akteur*innen zu berücksichtigen. Die ersten drei Studien analysieren mit Hilfe von Techniken der sozialen Netzwerkanalyse die globalen Twitter-Kommunikationsnetzwerke rund um die BRK und inklusive Bildung, um die allgemeine Struktur zu beschreiben, zentrale Akteur*innen zu identifizieren und daraus ihre Rollen in diesen Prozessen abzuleiten. Die vierte Studie untersucht anhand eines systematischen Literatur-Reviews die beteiligten Akteur*innen und ihre wichtigsten Beteiligungsformen auf nationaler Ebene.

Eine Synthese der Ergebnisse zeigt, dass sich eine heterogene Gruppe von Akteur*innen – insbesondere IO, NRO, Unternehmen und Forschungsakteur*innen – herausgebildet hat, die

auf verschiedenen Ebenen Einfluss auf die Politik in den Bereichen Behinderung und inklusiver Bildung nehmen. IO sind in erster Linie an der allgemeinen Förderung der BRK und inklusiver Bildung beteiligt, mit unterschiedlichen Schwerpunkten je nach den individuellen Interessen der Organisationen, sowie an der Entwicklung von Kapazitäten, die die Umsetzung in den Mitgliedsstaaten verbessern. Darüber hinaus können sie als Wissensvermittler und Boundary-Spanner betrachtet werden, die zwischen verschiedenen Sektoren sowie Akteur*innen mit unterschiedlichen thematischen Interessen vermitteln. NRO konzentrieren sich ebenfalls auf allgemeine Advocacy und die Kapazitätsentwicklung, legen aber in der Schaffung von Netzwerkstrukturen mehr Wert auf den Aufbau homogener Advocacy-Koalitionen mit anderen NRO und Interessensgruppen. Unternehmen beschränken ihre Aktivitäten hauptsächlich auf die aktive Verbreitung von Informationen (bspw. zu eigenen Produkten), zeigen aber Unterschiede in Bezug auf thematische Schwerpunkte im Themenfeld der BRK: Während multinationale Unternehmen im themenspezifischen Netzwerk zu neuen Technologien zu finden sind, sind im Netzwerk zu inklusiver Bildung kleinere Unternehmen zentral. Daneben gibt es außerdem eine Diskrepanz zwischen dem Engagement von Unternehmen auf globaler und nationaler Ebene, da diese den Ergebnissen zufolge auf nationaler Ebene kaum vertreten sind. Forschungsakteur*innen und Expert*innen als vierte Hauptgruppe weisen ein breites Spektrum an Aktivitäten auf, wobei der Schwerpunkt auf der Formulierung und Überwachung politischer Maßnahmen sowie der Umsetzung vor Ort liegt.

Insgesamt tragen die Ergebnisse zu einem besseren Verständnis von Netzwerk-Governance-Prozessen im Kontext der BRK und inklusiver Bildung bei, indem sie nicht nur die Rollen verschiedener IO und nicht-staatlicher Akteur*innen beschreiben, die an diesen Prozessen beteiligt sind, sondern auch die Netzwerkstrukturen beleuchten, die um diese Prozesse herum entstehen. Auf diese Weise stützen die Ergebnisse die theoretischen Annahmen der verwendeten Netzwerkmodelle und zeigen das Potenzial des Rahmens auf, der die Modelle mit bestehenden Theorien zu bildungspolitischen Netzwerken verbindet. Der in dieser Dissertation entwickelte theoretische Rahmen eröffnet somit Möglichkeiten sowohl zu theoretischen Erweiterungen von Politiknetzwerken im Bildungswesen als auch zu künftiger Forschung zur Beteiligung verschiedener Akteur*innen an der Umsetzung der BRK und inklusiver Bildung. Darüber hinaus werden aus den Ergebnisse Implikationen für die Einbindung von IO und nicht-staatlichen Akteur*innen in die Bildungspolitik und -praxis präsentiert.

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List of acronyms and abbreviations

CEDAW: Convention on the Elimination of All Forms of Discrimination Against Women

COSP: Conference of States Parties

CRPD: Convention on the Rights of Persons with Disabilities

DESA: Department of Economic and Social Affairs

DPO: disabled persons organisation

DSPD: Division for Social Policy and Development

ERGM: exponential random graph model

EU: European Union

ICT: information and communication technology

IE: inclusive education

IO: international organisation

ITU: International Telecommunication Union

NGO: non-governmental organisation

OECD: Organisation for Economic Co-operation and Development

PIFS: Pacific Islands Forum Secretariat

PISA: Programme for International Student Assessment

SLR: systematic literature review

SNA: social network analysis

SNT: social network theory

UN: United Nations

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNGEI: United Nations Girls' Education Initiative

UNICEF: United Nations International Children's Emergency Fund

WHO: World Health Organisation

1 Introduction

The education of children with disabilities has been one of the most dominant and controversial issues in education policy for many decades and international comparisons still show wide disparities in this regard. While regions or countries such as Flanders (Belgium) or Germany have rates of five to eight percent of children in special schools, others such as Italy or Portugal are close to zero percent (European Agency for Special Needs and Inclusive Education, 2018; UNESCO, 2020). These disparities are particularly surprising in light of the global diffusion of inclusive education (IE) as a general norm (Köpfer et al., 2021). While IE had been enshrined in several international agreements and statements before (e.g., the Salamanca Statement or the Lisbon Declaration), the adoption of the United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD) in 2006 legally secured the implementation of disability rights and IE (Lord & Stein, 2008).

However, the implementation of the CRPD and IE follows complex rules and mechanisms.¹ Similar to other issue areas of education policy, the implementation of the CRPD and IE is increasingly influenced by the involvement of international organisations (IOs) and non-state actors, such as non-governmental organisations (NGOs) or businesses. Driven by a general shift from government to governance in education (Ball, 2012) and in line with the growing importance of global processes for national education policy (Dale, 1999), these actors take on various roles² to disseminate policy ideas and support the implementation of education reforms on the ground. For instance, they provide financial support, develop capacity, or advocate for specific ideas and concepts (Jakobi, 2009; Verger, Lubienski, & Steiner-Khamsi, 2016).

In contrast to previous hierarchical structures in policy-making, these processes are characterised by heterarchical coordination between different actors who form networks for the exchange of ideas, dissemination of information, or initiation of collaboration (Ball, 2012; Rowe, 2021). This increasing ‘governance through networks’, already observed in other fields of

¹ As the term ‘implementation’ is often used vaguely in the literature and can cover a broad spectrum ranging from all activities related to policy-making processes to the final achievement of predefined outcomes, I draw on a rather broad definition in this dissertation. In line with literature on human rights treaties (e.g., Hathaway, 2002; Lang et al., 2011), the CRPD and IE implementation process described in this dissertation encompasses all stages necessary to meet the requirements of the Convention, from advocacy to formulating specific policies to actual implementation on the ground (i.e., teaching in inclusive classrooms or IE projects).

² While a large body of literature exists that discusses different theories on roles (e.g., Collins 1994; Stryker 2001; Turner 2001), for the purpose of this dissertation I employ a comparatively broad definition of the roles of actors and actor groups in education policy used in other studies (e.g., Aubry and Dorsi, 2016; Kolleck, 2016; Menashy, 2016; Ulleberg, 2009). According to these studies, the role of actor groups can be derived from their influence on policy-making processes (e.g., as inferred from their position in networks; Kolleck, 2016) and from their actions and measures taken.

public policy, is characteristic of the involvement of different intergovernmental and non-state actors at multiple levels of education policy, as it has been the subject of numerous studies in education policy research (e.g., Ball & Junemann, 2012; Kolleck et al., 2017; Williamson, 2016b). These networks can be conceptualised as policy networks, that is, structural arrangements of different policy actors that pool resources and expertise to jointly address policy challenges (Kenis & Schneider, 1991; Rhodes, 2008).

While education policy networks have been analysed in various contexts, such as the ‘learning to code’ campaign in England (Williamson, 2016b) or teacher effectiveness in the United States (Galey-Horn et al., 2020), theoretical explanations on their emergence, their functioning and the roles of actors involved in them are still rare. This dissertation aims to contribute to the knowledge of education policy networks and their actors by examining networks in the context of the CRPD and IE based on social network theory (SNT). SNT has a long history in the social sciences and is often used to approach the structure of networks that emerge from social relations (Borgatti & Lopez-Kidwell, 2011; Wassermann & Faust, 2009). In this sense, networks can be understood as structures of nodes (i.e., individual or collective actors of any kind) and edges (i.e., the relations between these actors) that represent some form of relationality between the actors involved. The structures of social networks can in turn have an influence on the outcomes of these networks. According to Borgatti and Lopez-Kidwell (2011), a social network consists of the backcloth, that is, the general and rather stable structure of a network, and the traffic, that is, the actual flow (of information, collaboration, etc.) that uses this backcloth to spread. Borgatti and Lopez-Kidwell call this theoretical view the ‘network flow model’ and argue that most of the network theoretical phenomena can be explained with this model. In addition, they propose the ‘network architecture model’ to point out the importance of individual features and actions of actors embedded in a network structure that enable these actors to shape network outcomes in different ways (ibid.). Based on these models, the involvement of different actors in networked governance structures is explored with the aim of deriving their specific roles in the implementation of the CRPD and IE. The present dissertation addresses this research desideratum with four empirical studies to answer the overarching research question: *Which actors and actor groups are involved in the CRPD and IE implementation processes and what are their roles?*

In order to take into account the equally important processes at the global and national levels, the dissertation will address both levels with the aim to overcome the traditional clear distinction in these different levels (Ball, 2016). As the CRPD is an international treaty that

member states are obliged to comply with and offers great potential for ongoing debates at the global level, the analysis of IO and non-state actor involvement will take its starting point in the global CRPD and IE policy networks. As it is difficult to empirically observe global policy networks, the different actors involved and the communication exchanged between them, Twitter data is used to capture these network structures. In this way, various actors from different sectors operating at multiple levels can be included and the increasing relevance of new technologies and social media for disability and education policy debates is also accounted for (e.g., Goggin & Newell, 2007; Supovitz et al., 2018). Thus, for the first three studies, the global Twitter communication network in the context of the CRPD is analysed using techniques of social network analysis (SNA) to identify central actors and structural patterns in the online network, with the aim of approximating the policy networks in the offline world (Goritz et al., 2021; McNutt, 2007). The first study examines the entire CRPD Twitter network in order to describe the general landscape of actors in the context of the CRPD. The second study tries to identify issue-specific subnetworks of the CRPD network (including education) to describe the structure of the IE network and the actors involved in comparison to other issue-specific networks. The third study uses inferential techniques of SNA to statistically test assumptions about the structure of the IE network and the role of different actor groups in it. Finally, the fourth study shifts the focus of analysis to the national and lower levels. Complementing the findings of the global level analyses, a systematic literature review (SLR) is conducted to synthesise findings on the involvement of different actors in implementation at these levels and to further define their roles. This SLR can therefore not be considered as a general basis for this dissertation, but rather provides additional information specifically for the national level. Overall, the dissertation aims to contribute to closing the research gap regarding the role of IOs and non-state actors in the implementation of the CRPD and IE, thus offering a theoretical extension of education policy networks based on SNT.

The dissertation is structured as follows. After this introduction, Chapter 2 presents the policy background (i.e., the CRPD and IE). Chapter 3 introduces the conceptual framework and the state of research. Chapter 4 sets out the aims of this dissertation, summarises the main research (sub-)questions and places them in the broader context of the dissertation. Chapter 5 then provides a brief overview of the methodological approach adopted for the study, discussing the use of Twitter data to study policy networks and introducing the techniques of SNA and SLR employed. Chapter 6 presents short summaries of the studies included in this dissertation. The full manuscripts can be found in the Appendices A–D. The final chapter (Chapter 7) comprises the discussion and synthesis of the main results from the studies in light of the current state of

research, discusses limitations and prospects for future research and presents implications for education policy and practice.

2 Policy background: the UN Convention on the Rights of Persons with Disabilities and inclusive education

With the adoption of the CRPD, the long struggle of person with disabilities to raise public awareness and recognition of their rights has achieved a major success (Kayess & French, 2008). As the first human rights treaty of the 21st century and the first legally enforceable instrument to protect the rights of persons with disabilities, the CRPD represents a milestone in the history of disability rights (Beco, 2014; Degener & Begg, 2017; Stein & Lord, 2009). The main driver of this development was a general shift in the perception of disabled persons, moving from the so-called medical model to the social model (Harpur, 2012). The medical model, which had dominated disability discourse for decades, locates the ‘problem’ associated with disability in the disabled person as something that needs to be treated or cured. This entails, among other things, the need for classification and categorisation in order to achieve appropriate treatment, which has led to a climate of social segregation – not least, but also in education. In contrast, the social model emphasises the role of society in providing an accessible environment that enables disabled people to participate in daily life without barriers. The social model thus embraces a paradigm of inclusion in all areas of society (Oliver, 1996; Oliver & Barnes, 1998).

One area where the term ‘inclusion’ has established as one of the keywords and become an important policy issue is the education sector. IE has become the leading policy idea for the schooling of children with disabilities, countering a long history of exclusion and segregation (Powell et al., 2016). In this regard, the education of persons with disabilities can be categorised on a scale ranging from exclusion (i.e., complete exclusion from public education), through segregation (i.e., schooling in separate buildings), separation (i.e., schooling in separate rooms of the same building), integration (i.e., partially comprehensive schooling), to inclusion (i.e., fully comprehensive schooling) (Powell, 2009). As one of the most controversial issues discussed during the development of the CRPD (Beco, 2018; Biermann & Powell, 2014), IE can still be considered one of the main topics in the implementation of the Convention. Although the topic was included in the Convention as the ultimate goal for the education of persons with disabilities – Article 24 requires to “ensure an inclusive education system at all levels” (CRPD, 2006) – member states still vary widely in their compliance with this Article and show different efforts to implement IE (Beco, 2018). Due to differences in definitions of disability, traditional

ways of educating children with disabilities in school systems and discourses, member states often still refuse to fully implement IE on the ground (Powell et al., 2016).

Similar to other human rights treaties, the CRPD lacks the power to legally sanction member states that fail to meet the requirements formulated in the Convention.³ For this reason, scholars argue for collective efforts by intergovernmental and non-state actors to advocate for disability rights (e.g., Harpur, 2012; Lord & Stein, 2008; Priestley, 2007). As Harpur (2012, p. 7) puts it, “disability rights advocates have a powerful opportunity to lobby reforms through their official roles under the CRPD”, referring directly to the roles assigned to IOs and disability rights organisations in the Convention. For instance, Article 32 of the Convention calls for international cooperation “between and among states and [...] in partnership with relevant international and regional organizations and civil society” (CRPD, 2006). This potential power, which disabled persons organisations (DPOs) in particular have already exercised during the drafting process of the convention and in the Ad-Hoc Committee (Degener & Begg, 2017), underlines the special case that disability rights and IE may represent in the understanding of intergovernmental and non-state actor involvement in education policy.

This assertion is further supported by different theoretical frameworks applied to capture the governance processes around the CRPD. For example, Arduin (2019) describes CRPD implementation as ‘metaregulation’, characterised by equal participation of IOs and non-state actors in norm-setting, monitoring and enforcement of the Convention. Similarly, Búrca et al. (2013) summarise CRPD governing processes under the term ‘experimentalist governance’, which refers to modes of governance in which a variety of entities can participate in different phases of implementation, such as framework development or monitoring. In this way, the CRPD represents a policy field open to the involvement of IOs and non-state actors. Moreover, transnational advocacy networks have a long tradition, especially in the field of human rights and education (e.g., Macpherson, 2016; Menashy, 2016). Such networks can in particular support national and local actors who lack capacity for comprehensive action (Torres Hernandez, 2008), but they can also steer discussions and generate political solutions at national and global levels (Koh, 1999). While previous research suggests that different IOs and non-state actors take actions to support the implementation of the CRPD and IE (e.g., Duygun, 2020; Rollan & Somerton, 2021; Srivastava et al., 2015), a systematic analysis of these processes, their involvement and their roles is missing. In particular, little is known about the networks these actors

³ For a detailed and comprehensive discussion of mechanisms leading to compliance or non-compliance with international agreements, see Chayes and Chayes (1993); for a specific focus on human rights treaties, see Koh (1999).

form in order to jointly achieve their goals. This dissertation addresses this research gap by relying on concepts of governance and social network theory, as outlined in the following chapter.

3 Conceptual framework

This chapter describes the conceptual framework in which this dissertation is embedded and presents the state of research. The theoretical considerations take their starting point in the governance discourse in education (Ball, 2012; Ball & Junemann, 2012), with a specific focus on global processes and their entanglement with national policy-making (Dale, 1999; Mundy et al., 2016a). In the corresponding Chapter 3.1, the concepts are outlined with the aim to highlight the governance structures influencing education policy at multiple levels. In particular, the networks formed by actors operating at multiple levels are at the centre of this study. Therefore, the functioning of policy networks as important actor arrangements in education policy are described in Chapter 3.2. To operationalise the emergence, structure and functioning of policy networks influencing IE policy-making, a framework based on SNT is developed in Chapter 3.3. After this conceptual location of the dissertation, Chapter 3.4 presents the current state of research regarding the overarching research question, that is, the role of IOs and non-state actors in education policy in general and IE in particular.

3.1 Governance and globalisation in education

In recent years, researchers in the field of education policy have noticed a shift from ‘government’ to ‘governance’ (Ball & Junemann, 2012) – a development that has already been observed in other policy fields (Rhodes, 1994; Rosenau, 1995). Although the term ‘governance’ can be seen as a complex construct that has been discussed in different ways and encompasses a large number of concepts in public policy research and related fields (Bevir, 2011), there is consensus on some of its main characteristics. As Bevir (2011, p. 2) notes, “[g]overnance draws attention to the complex processes and interactions that constitute patterns of rule. It replaces a focus on the formal institutions of states and governments with recognition of the diverse activities that often blur the boundary of state and society. Governance as theory, practice and dilemma highlights phenomena that are *hybrid* and *multijurisdictional* with *plural stakeholders* who come together in *networks* [italics in original].” Similarly, Jessop (2004, p. 52) emphasises the “mechanisms and strategies of coordination adopted in the face of complex reciprocal interdependence among operationally autonomous actors, organizations and functional systems.” In education policy, too, hierarchical structures of government are increasingly interwoven with heterogenous sets of actors in complex networks (Ball & Junemann, 2012). Given the

importance of non-state actors in the drafting of the CRPD (Lord & Stein, 2008), it can therefore be assumed that an analysis of the implementation processes in the context of the CRPD and IE must take similar structures into account.

This turn towards governance described above has been accompanied by a growing importance of global contexts for national and local policy-making, driven primarily by globalisation. Debates about globalisation and its influence on policy-making have long dominated education policy research (e.g., Dale, 1999; Mundy et al., 2016a; Steiner-Khamsi & Waldow, 2012). To understand developments in education policy, such as the implementation of IE, it is therefore necessary to place them in the context of the globalisation debate – especially given that the CRPD, as an international treaty, can be seen as one of the main drivers of recent IE developments. As Dale and Robertson (2012, p. 23) point out, globalisation can be described as a “historical process involving the uneven development and partial and contingent transformation of political, economic and cultural structures, practices and social relations” characterised by, among other things, “the rise of powerful globalising actors [...] and the denationalisation and transformation of policies, capital, political subjectivities, urban spaces, temporal frameworks”. In education policy – as in other policy fields – this process has led to a decline in the power of nation states with the simultaneous rise of intergovernmental and nongovernmental actors (Mundy et al., 2016a).

Scholars of general public policy as well as education policy research have referred to these global processes of policy-making as ‘global governance’ (Rosenau, 1995; Zürn, 2018). This term is used to describe global politics as an “evolving set of processes and interactions [...] that by definition involves heterogeneous private and public actors at multiple levels or scales of action: local, national, international and transnational” (Mundy, 2007, p. 343). Understanding education policy processes in terms of these multiple levels therefore requires different perspectives. Although a focus on national or local contexts as the main analytical unit is necessary to understand policy processes in specific circumstances (e.g., characteristics of a national education system or different previous reforms), it is imperative to include global-level processes in the broader analysis (Dale & Robertson, 2012; Lingard & Sellar, 2014; Steiner-Khamsi, 2012). To overcome ‘methodological nationalism’ (Ball, 2016), scholars have thus increasingly broadened the focus to include global processes of education policy (e.g., Mundy et al., 2016a; Verger, Lubienski, & Steiner-Khamsi, 2016). In particular, the importance of IOs such as the UN or the Organisation for Economic Co-operation and Development (OECD) and of international agreements (e.g., the UN Framework Convention on Climate Change or the Sustainable

Development Goals) as well as initiatives and programmes launched by IOs (e.g., Education for All or the Programme for International Student Assessment [PISA]) has been highlighted in numerous studies (e.g., Goritz et al., 2019; Mundy, 2007; Rose, 2010; Sellar & Lingard, 2013).

However, while many of these studies still attempt to neatly distinguish between global and national/local processes, these contexts can no longer be clearly separated (Dale & Robertson, 2012; Jakobi, 2009). As Ball (2016, p. 550) calls for, it is important to “escape from the artificialities of ‘levels’ as distinct boundaries of political activity and the global and local as binary and instead emphasise the interdependencies of actors and the movement of ideas in the framing of problems and policy directions and conceptions”. This dissertation therefore aims to consider these interdependencies and the exchange of ideas that transcend national borders and evolve at multiple levels. For this reason, the role of IOs and non-state actors in the implementation of the CRPD and IE is mainly derived from their involvement in networks that emerge around policy processes and their actions within these networks, rather than focusing exclusively on national metrics. By analysing these policy networks, which are not necessarily limited to national borders and therefore allow these processes to be captured beyond traditional boundaries, this dissertation tries to distance itself from the assumption of disability and IE policy processes taking place at the global *or* national level and conceives of them as transnational. Nevertheless, in a first step the different levels are regarded separately and then brought together in the synthesis (Chapter 7.2).

3.2 Governance through networks

Governance processes in education – at both global and national or subnational levels – are characterised by a heterogenous set of public and private as well as national and transnational actors influencing policy processes through networks (Ball, 2012; Ball & Junemann, 2012; Verger, Fontdevila, & Zancajo, 2016). Such networks form around intractable policy issues such as disability rights and IE that need to be addressed with “strategic alliances, joint working arrangements, networks, partnerships and many other forms of collaboration across sectoral and organizational boundaries” (Williams, 2002, p. 103). As outlined in Chapter 2, inter- and non-governmental actors need to establish such structures to improve the implementation of disability rights and IE. Thus, to account for the importance of such networks to these processes at multiple levels, the main empirical body of this dissertation focuses on these networks with the aim to derive the specific role of the actors involved. As the most common form of networks in the study of public policy, the concept of ‘policy networks’ (for an overview of other forms

of networks in policy processes, see Adam & Kriesi, 2007) is used to conceptualise the networks underlying these networked governance processes analysed in this dissertation. Thus, the concept needs to be described in the following to allow for a comprehensive understanding of its functioning.

The leading figure in developing theories of policy networks was Rod Rhodes (see, for instance, Marsh & Rhodes, 1992; Rhodes, 2008), but the concept has been further developed and applied by many others (e.g., Adam & Kriesi, 2007; Bevir & Richards, 2009; Kenis & Schneider, 1991). Although the concept is not always clear-cut and can be framed as a metaphor, method or proper theory (Ball & Junemann, 2012; see also Dowding, 1995), policy networks have been widely analysed to approach networked forms of governance. Kenis and Schneider (1991, p. 41) define policy networks as “specific structural arrangements in policy making” that “deal with policy problems which involve complex political, economic and technical task and resource interdependencies, and therefore presuppose a significant amount of expertise and other specialized and dispersed policy resources”. In this respect, it can be assumed that actors involved in policy networks come from both the public and private sectors and have “capacit[ies] for decision making, program formulation and implementation” (ibid.). In this way, policy networks can have different functions. They can “provide an environment for consensus building” (Ball & Junemann, 2012, p. 6), thereby reducing resistance to the implementation of policies (Marin & Mayntz, 1991), and lead to innovative and more effective measures introduced by actors beyond traditional political bodies (Besussi, 2006). Furthermore, these networks are highly characterised by the flow of ideas. This flow of ideas enables the exchange of information, the influencing of debates and narratives, and thus the shaping of policies (Ball & Junemann, 2012). At the same time, the opportunity to enter education debates and influence policy reforms that these networks offer to a wide range of actors carries the risk of introducing actors with controversial ideas (e.g., an increasing neo-liberalisation of public education). As some scholars have argued, these might run counter to general ideals such as holistic education or support for the disadvantaged (e.g., Ball, 2017; Ball & Junemann, 2012; Koranyi & Kolleck, 2018). Nevertheless, policy networks are an important instrument to carry discourses between various actors and beyond nation states, allowing to also understand their importance for the IE policy processes analysed in the studies for this dissertation.

Policy networks in education can be seen as “a specific form of this type of governance” (Williamson, 2016a, p. 5). This is mainly due to the role of these networks as “social mechanisms that can work across social, governmental, and geographical boundaries” and their

function to “bring together a diverse range of actors, including governments, businesses, and civil society” (McGann & Whelan, 2020, p. 67). In this way, these networks not only form around already established institutions and actors, but are also made up of structurally independent actors such as experts or multilateral agencies (McGann & Whelan, 2020; Williamson, 2016a). Moreover, the diversity of these actors, not only in terms of actor type but also regarding their transnational orientation, is indicative of the aforementioned new policy spaces in which education governance takes place and transcends the traditional boundaries of the nation state (Gulson et al., 2017). The analysis of policy networks therefore allows to map the structures of these networks and identify central actors, which in turn helps to shed light on the ways in which these processes can influence the transfer and (re)shaping of policies and policy ideas.

Given the call for broad networks of actors advocating for disability rights and IE (e.g., Priestley, 2007; Torres Hernandez, 2008), the concept of policy networks serves as a conceptual definition of the networks emerging around these policy processes to understand the ways in which these various actor types exert influence on the implementation of the CRPD and IE and operate at multiple levels. However, to theoretically get hold of the processes underlying the emergence and functioning of policy networks as integral parts of governance processes in education – both at the global and national level – an additional perspective is needed. For this reason, this dissertation aims to contribute to the understanding of educational policy networks by relying on SNT. As will be outlined in the following, this allows to capture the complex entanglements of the actors involved and their exchange of information, while also taking into account the general structure of these networks as well as the individual features and actions by the different actors. Based on these preliminary considerations necessary to describe the networked governance mechanisms at work in the implementation of education policy reforms such as IE in general, an SNT concept by Borgatti and Lopez-Kidwell (2011) will be presented and used to develop the theoretical framework underlying this dissertation.

3.3 Social network theory

The interactions between actors involved in the implementation of disability rights and IE and the structures emerging from these interactions, which allow for the exchange of policy ideas and information, can be conceptualised as social networks. For this reason, concepts of SNT are applied to complement the aforementioned governance perspective that includes governance through networks for the analysis of IO and non-state actor involvement in the implementation of the CRPD and IE. Two models developed by Borgatti and Lopez-Kidwell (2011)

are particularly suitable for capturing these policy processes and help to define the roles of different actors, as will be outlined in this section.

Social networks typically consist of a set of nodes (i.e., actors of different types, such as individuals, organisations, initiatives, etc.) and a set of edges (i.e., the relations between these nodes, such as information flows, collaboration, collegiality) (Borgatti & Halgin, 2011). The social sciences have a long history of studying social networks and network theory in particular. While the analysis of social networks was initially perceived more as a collection of methodological tools to approach social structures (Barnes, 1972), it became theoretically grounded through the integration of instrumental relationalism based on rational choice theories (e.g., Burt, 1982) and relational constructivism (e.g., Emirbayer & Goodwin, 1994; White, 1992). Theories of social networks thus encompass both the behaviour of individuals to build social relations based on rational weighing of different options and the interdependencies between social structures and contexts in their influence on social networks (Jansen & Wald, 2007). In this way, the resulting SNT emphasises the interactions between structure and agency (Kolleck et al., 2017).

Despite the long history of social network theories, there is no single theory that can be considered *the* SNT. Instead, scholars from different fields have developed various perspectives to explain the characteristics and mechanisms of networks (Jansen & Wald, 2007; Salancik & Burt, 1995). Nevertheless, Borgatti and Lopez-Kidwell (2011) have tried to develop a network theory that synthesises the assumptions of the best-known network theoretical approaches. More specifically, their approach attempts to integrate the ideas of Granovetter's (1973) strength of weak ties theory, Burt's (1992) structural holes theory, and Coleman's (1988) social capital theory. Granovetter's theory states that strong ties are often associated with a high number of common contacts, which reduces the likelihood of obtaining novel information through such ties. Hence, the author argues for the importance of weak ties because they are more valuable sources of new information due to the low number of shared contacts with the senders of such information (Granovetter, 1973). For example, if the actors A and B are both connected with actors C, D, and E, A is less likely to receive information from B that they have never heard before. In contrast, if A and B have no contacts in common, A is much more likely to obtain novel information from B. Similarly, Burt (1992) emphasises the importance of having contacts with others who belong to different groups – representing holes in the overall network structure – as this increases the probability of receiving new information from such individuals. In contrast to these two theories, Coleman (1988) claims that high connectivity between an

individual's contacts can increase that individual's social capital, as this enables others to help them collaboratively. To give an example, if an actor A has a connection to actors B, C and D, and they are already connected with each other, then B, C and D can make a concerted effort to support A. So instead of highlighting the quality of a piece of information (which comes from the structure of the environment of the information source), Coleman focuses on the advantage of a well-established structure in which an individual is embedded. Regarding the functioning of education policy networks in the context of disability rights and IE, the three approaches can all be considered suitable to explain the roles of actors involved in these structures. Non-state actors trying to influence the implementation of IE might benefit from receiving information of another actor with whom they share few contacts, but at the same time can take advantage from joint efforts of coalitions with similar partners.

Borgatti and Lopez-Kidwell (2011) address this apparent discrepancy and, while acknowledging the differences in these theoretical approaches, conclude that all three can be considered elaborations of the same theory, which they call the 'network flow model'. According to this model, social networks can be conceptualised as consisting of a 'backcloth', which is the "underlying infrastructure that enables and constrains the traffic" and a 'traffic', which is "what flows through the network" (Borgatti & Lopez-Kidwell, 2011, p. 44; see also Atkin, 1977). This differentiation is important because it distinguishes between the more stable structures between individuals and the actual flow that uses this structure to exchange information or resources, for example (see also Wassermann & Faust, 2009). Figure 1 (left) illustrates this relation. The thin lines represent the backcloth, that is, the connections potentially used for exchange. This can, for instance, be found in stable collaborations between political actors. The arrows represent the flow among the nodes, such as the exchange of policy ideas or IE-related information. In this regard, the network flow model can be seen as the underlying principle of several network theorems related to the flow of information in a network, such as the transitivity theorem (Burt, 1992; Granovetter, 1973), degree or closeness centrality (Borgatti, 2005; Freeman, 1979). What these ideas have in common is that they can be used to explain the general characteristics of a network structure and information flow as well as the specific roles of individuals that result from their embeddedness in this structure. For instance, the transitivity theorem (i.e., the closure of open triangles) indicates that the formation of transitive ties slows down the general flow of information, but can also improve collective action, while centrality states that individuals with more (or more important) connections have a higher probability of receiving something that flows through the network (e.g., information).

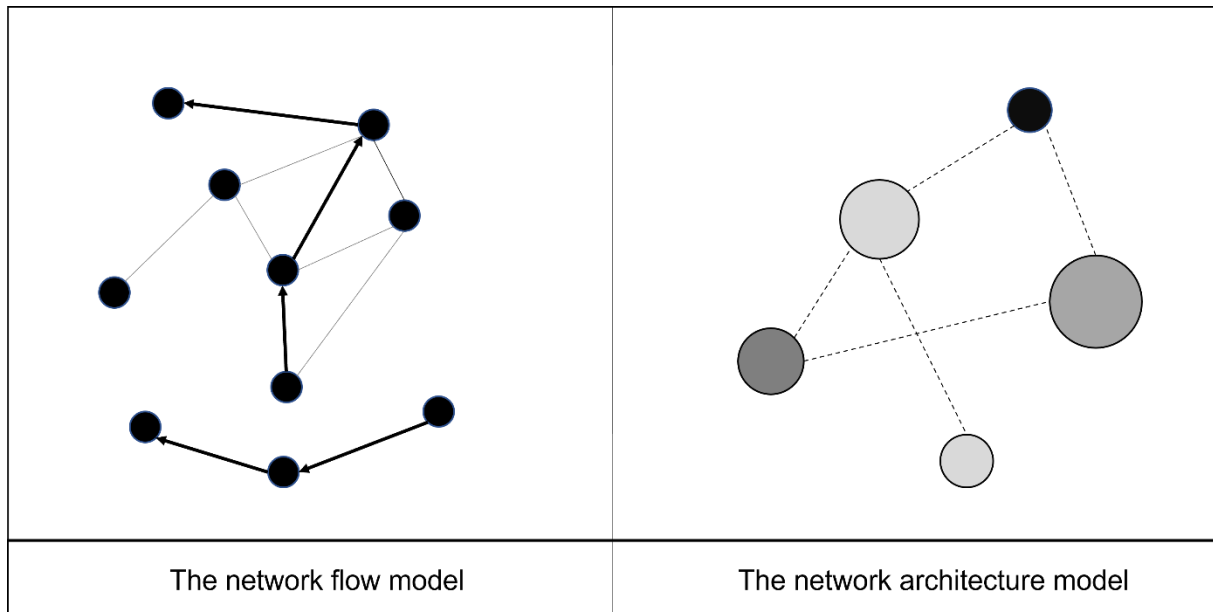


Figure 1. The network flow model (left) and the network architecture model (right) according to Borgatti & Lopez-Kidwell (2011); the nodes represent different actors, the arrows the exchange of information, the lines potential infrastructure and the dashed lines the general network architecture. (Source: own representation.)

In addition to the network flow model, Borgatti and Lopez-Kidwell (2011) propose a second model: the ‘network architecture model’. This conceptualisation considers a network less as a fluid structure consisting of actual exchanges between the actors involved, but sees the structure of a network and the characteristics of the actors as the main features that allow the network to influence outcomes. Thus, the network is not made up of actors with the same resources and background that influence the quantity and quality of what flows through the network to the same extent. Instead, all network members have different knowledge and can therefore contribute to the network’s outcome in different ways. Figure 1 (right) presents an exemplary illustration of such a network architecture, where the nodes encompass different features which enable them to contribute to the outcome in different ways. In other words, while according to the flow model, the connected actors benefit from their connections through the outcomes produced by the exchanged goods, in the architecture model the outcome is the result of the joint efforts of the connected actors. Thus, political actors bring their individual qualities and operations into the work on a political problem and the outcome of these efforts are then reached through the simultaneous involvement of the variety of actors. At the same time, it should be noted that the exchange of information (or whatever flows through a network) is not entirely irrelevant according to the architecture model. However, this flow is not seen as a means to achieve a goal directly, but rather as a means to establish structures that can then enable collaborative actions. In this way, the two models can be assumed to be present

simultaneously and can thus be used as a framework for the study of networked governance processes. While a flow model perspective allows to examine the actual exchange of information within actor constellations, a network architecture perspective also looks at network members as embedded in their structure, but with a particular focus on their individual properties, characteristics, and actions.

From a policy network perspective, the systematic application of the two models developed by Borgatti and Lopez-Kidwell (2011) can be a valuable extension. The network flow model is particularly promising as it allows to approach both the general structure of a network with its characteristics and underlying principles and to derive the role of specific actor groups and actors based on their embeddedness in the network flow. As Borgatti et al. (2009, 893f.) point out, “a node’s outcomes and future characteristics depend in part on its position in the network structure”. Thus, an analysis of the backcloth and flow of a policy network can contribute to a comprehensive picture of policy-making in a given policy area, such as disability policy and IE, and can thus provide insights into the different roles of the actors involved. For the purpose of this dissertation, I argue that an emphasis on the relational features of governance can provide the basis for specifying the actors involved in such network structures. This in turn can contribute to an understanding of governance mechanisms in the implementation of IE, with a focus on intergovernmental and non-state actors.

The network architecture model adds another dimension to governance through networks by focusing on the existing structures that enable individual or collective actors to influence policy-making in one way or another. Instead of assuming a constant exchange among actors, the network architecture perspective considers networked structures as the basis for intergovernmental and non-state actors to influence policy-making. Furthermore, the central role of an actor in a network cannot only be derived from its attempts to position itself as central in the traffic, but can also be the result of broader structural and contextual dependencies (Ingold et al., 2021). Therefore, in addition to the network backcloth and traffic that constitute networked governance, the overall governance structure can be taken as a given to systematically understand the involvement of these actors. Based on this assumption, the actors’ actions can be understood as the result of their embeddedness in network structures, in which the actors influence the implementation of a policy (e.g., IE) within their scope of action and capabilities.

Taken together, the network models by Borgatti and Lopez-Kidwell (2011) provide a framework that allows to comprehensively analyse the role of various actors in the context of IE based on their involvement in the policy networks and implementation processes around the

CRPD and IE at multiple levels. Figure 2 provides a heuristic model of the networked governance processes at global and national levels based on these network theoretical considerations. Within the IE governance space, network structures among various actors (as represented by the different connections) allow for the actual exchange of information (the flow), offer the potential infrastructure for exchange (the backcloth), and enable actors to be part of the implementation process within their scope of action (the architecture). In this regard, the present dissertation uses this framework to examine the role of the inter- and non-governmental actors involved in the IE implementation processes. On the one hand, the overall structure of the policy network at the global level, the general function of certain actor groups therein and the position of specific actors reveal the role of these actors in a transnational policy space and shed light on the way information is disseminated, coalitions are formed and structures are established. For instance, actors who receive a lot of information can be considered to be in a position that allows them to influence the way information is further disseminated. Furthermore, actors who establish stable structures with others might be able to jointly address policy challenges. Hence, this serves the function of policy networks to create space for consensus building, foster the development of innovative solutions and enable the shaping of debates and policies (Ball & Junemann, 2012; Besussi, 2006) that will be analysed in the first three studies.

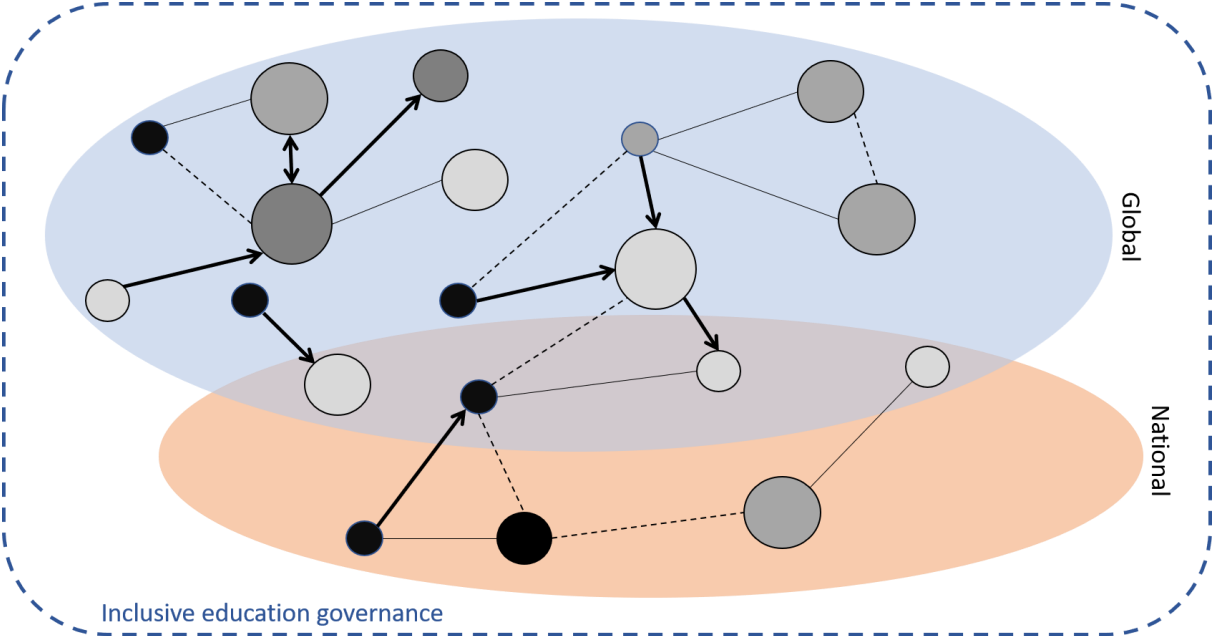


Figure 2. Heuristic model of the networked governance processes in the context of inclusive education; the nodes represent different actors (expressed by size and colour), the arrows the exchange of information, the lines potential infrastructure and the dashed lines the general network architecture. (Source: own representation.)

On the other hand, the qualities and operations of specific actor groups in the implementation on the ground leads to preliminary assumptions about the network architecture at national and lower levels. For example, examining the operations of individual actors in the context of implementing IE may shed light on the opportunities of these actors to be influential members of the IE policy network architecture. This in turn addresses the function of policy networks to combine capacities in the formulation of programs, the development of policies and their implementation (Kenis & Schneider, 1991), which will be the main focus of the fourth study. In this way, the framework is suitable for an overall conceptualisation of the empirical studies included in this dissertation and can be used to answer the overarching research question (see Chapter 4).

3.4 State of research: the role of international organisations and non-state actors in (inclusive) education policy

The governance mechanisms in education that have emerged in recent decades and the growing importance of networks have led to a proliferation of non-state actors (e.g., NGOs, philanthropies, or businesses) and IOs at both global and national levels (e.g., Kolleck, 2019; Kolleck & Yemini, 2019; Verger, Fontdevila, & Zancajo, 2016). While the main locus of governance remains with states, power and authority are continuously shifting to the economic and social spheres (Rosenau, 1995). This changing role of the state has been discussed in many studies (for an overview, see for instance Ball & Junemann, 2012), but they all agree that the state is generally losing power in education policy (Rizvi & Lingard, 2010). Thus, explaining the implementation of policies and reforms in the course of these processes has become increasingly complex, as it requires considerations of the roles, functions and influences of the various actors involved. For this reason, the current state of research on the different actors in education policy in general and disability and IE policy in particular will be briefly outlined below. An overview of the roles of the main actors identified in the literature is set out in Figure 3.

Especially at the global level, but also with far-reaching influence at the national level and below, IOs have established themselves as the main drivers of education policy in recent decades (Niemann & Martens, 2021). IOs are organisations “defined as having (1) three or more states as members, (2) a plenary meeting at least every ten years, (3) and a permanent secretariat and correspondence address” (Rittberger et al., 2019, p. 4). Here, I use the term IO synonymously with the term ‘intergovernmental organisation’, which can be considered more precise as it excludes other international organisations, such as international NGOs, but is less common in current research (Martens et al., 2021). Originally, IOs were established to set certain

agendas, support policy implementation and foster the adoption of binding decisions among member states (Niemann & Martens, 2021). Although mandated to act in the interest of their member states, IOs have developed a considerable degree of autonomy and independence from their member states, which allows them to pursue goals in their own interests to a certain extent (Barnett & Finnemore, 1999). In line with the general rise of education IOs in recent decades, a large and growing body of research has been conducted on IOs in education (e.g., Amiel et al., 2021; Auld & Morris, 2021; Christensen & Ydesen, 2015; Elfert, 2021; Jakobi, 2009; Mundy, 2002; Zapp, 2021). In the course of this long history of research, United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Bank and the OECD have been identified as the most prominent IOs in education policy (Niemann & Martens, 2021).

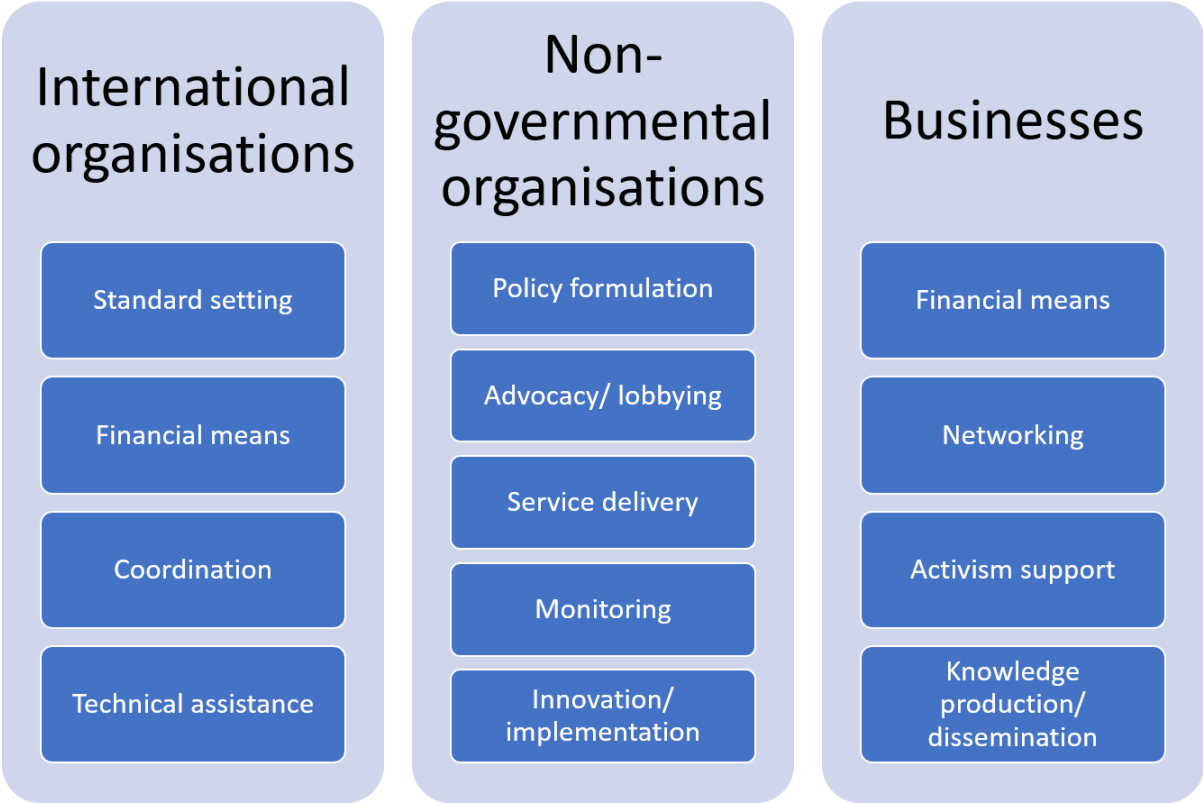


Figure 3. Overview of main actor groups in education policy and their primary forms of involvement. (Source: own representation; mainly based on Jakobi (2009), Ulleberg (2009), Mundy et al. (2010), and Fontdevila et al. (2021).)

In promoting education policy ideas and reforms, IOs can take several roles. In her study of IOs in the context of lifelong learning, Jakobi (2009, p. 476) identifies the following instruments that constitute these roles: the creation of international standards (e.g., conventions, benchmarking, or the formulation of explicit goals and rules) member states are encouraged (or obliged) to comply with (*standard setting*); the provision of financial assistance to support the implementation of a given policy (*financial means*); the monitoring and assessment (formal and

informal) of the implementation of a given policy (*coordinative functions*); and capacity building to support the implementation of a policy beyond the mere provision of financial means (*technical assistance*). These instruments enable IOs to influence global policy discourse and national policy-making.

While the broad literature on IOs in education policy shows that these mechanisms can be found in several areas, there is still little research on the role of IOs in the CRPD policy process beyond drafting and in IE. Most of the academic literature addresses the UN's official monitoring system for human rights treaties (e.g., Arduin, 2019; Búrca et al., 2013; Keller & Ulfstein, 2012). As with other treaties, member states are required to submit a report on the status of implementation every four years, which is then reviewed and assessed by the CRPD Committee. These studies therefore mainly emphasise the role of the UN in these processes. Only a few studies examine other forms of participation, focusing either on specific organisations and their engagement in disability policy and IE, or on country case studies. For instance, Zahnd (2021) describes how the disability discourse at the World Bank has changed over the years – from a medical perspective on disability as an avoidable consequence of other problems such as malnutrition to the acknowledgement of disability as a development issue in its own right – and shows how this has led to an increasing engagement of the organisation in disability policy. Kiuppis (2014) traced the important role of UNESCO in shaping the concepts of IE used in education policy and notes a slight decline in the organisation's engagement. In terms of IO involvement in individual countries, Duygun (2020) analysed the influence of IOs on disability policy in Turkey. The author concludes that the UN and its agencies in particular have been able to exert a compelling influence through agenda setting and monitoring, which in the past led to national policies aligned with UN regulations, but could not identify any direct influence on the actual implementation of disability policies.

A second large group of actors that have an influence on education policy-making can be summarised under the term NGO. NGOs show a wide range of motives for their engagement in education policy. Inter alia, they become involved in the education sector with the aim of providing quality education, but also to shape education discourses in their own interest (Verger, 2019). While characterisations of NGOs are varied and a uniform definition is difficult to give (Ulleberg, 2009), the term is used in this dissertation to describe actors from the so-called 'third sector'. Third sector organisations are characterised as private, non-profit, self-governing, and voluntary (in terms of membership) and include actors as diverse as non-profit organisations, philanthropies, or foundations (Kolleck, 2019; Salamon & Anheier, 1999; Verger, 2019).

Given the great heterogeneity of NGOs, a clear systematisation of their role in education policy is difficult on the basis of previous research. In general, Ulleberg (2009) concludes that NGO involvement in education can be observed at all stages of the policy cycle, meaning that their actions can be attributed to policy discussions and formulation, advocacy and lobbying, service delivery, monitoring, and as innovators or implementers. Similarly, Mundy et al. (2010) summarise NGO engagement in sub-Saharan Africa as service delivery, advocacy and capacity development. Others emphasise the importance of NGOs in creating national and transnational networks to strengthen their position in policy processes (Kolleck & Yemini, 2019; Macpherson, 2016). Studies regarding the influence of NGOs on the implementation of the CRPD and IE are rare. In a systematic study, Rollan and Somerton (2021) examined the importance of civil society activism in the implementation of IE in Kazakhstan. According to them, NGOs are mainly engaged in revising policies, providing methodological support and ensuring IE implementation on the ground. Other studies mention a rather general involvement of NGOs in these implementation processes. For example, Srivastava et al. (2015) see NGOs in the role of a pressure group in many countries, emphasising their focus on advocacy.

In line with the increasing neo-liberalisation and privatisation of education, the corporate sector, including businesses or private think tanks, has gained growing influence as a third important group in education governance (Ball, 2012; Verger, Lubienski, & Steiner-Khamsi, 2016). This development is characterised by large networks and partnerships of private with public actors (Ball & Junemann, 2012; Williamson, 2016b), a turn of multinational companies towards education (Hogan, 2015; Hogan et al., 2016), or attempts by start-ups and small companies to enter the field with innovative ideas (Rönnerberg, 2017). These actors are mainly interested in shaping policy discourses, promoting privatization reforms and establishing their products on the market, but can also be considered as supporting service providers (Hogan et al., 2016; Junemann et al., 2016). Similar to the field of NGOs, the diversity of different actors and their interests in education policy make it difficult to systematise the influence strategies and roles of these actors. Nevertheless, Fontdevila et al. (2021) have attempted to categorise different forms of influence by reviewing existing research on private sector involvement with a specific focus on companies. According to them, private actors pursue four different strategies: (1) they produce, collect and promote knowledge and evidence to inform policy-making processes, blurring the boundaries between research and advocacy (e.g., DeBray-Pelot et al., 2007); (2) they initiate networks by organising meetings and building coalitions (e.g., Santori et al., 2016); (3) they engage in citizen mobilisation to support grassroots activism (e.g., Lubienski et al., 2016; Nambissan & Ball, 2010); and (4) they provide financial support for the

implementation of experimental pilot projects that have the potential to contribute to policy change (e.g., Scott & Jabbar, 2014). In this way, the strategies and roles of the corporate sector are similar to those of the third sector.

As far as the involvement of businesses in disability and IE policy is concerned, there is little academic literature. While the importance of assistive technologies for the inclusion of persons with disabilities in society, and in particular in education, is undisputed and supported by several studies (e.g., Alper & Raharinirina, 2006), the way in which businesses, as logical providers of such technologies, participate in this process has not been widely explored. Goggin and Newell (2007) suggest that the provision of assistive technologies should increasingly be carried out by the technology businesses themselves, bypassing the slow policy-making processes of governments. However, these structures have not yet taken root, possibly due to the limited size of the relevant market (Stienstra et al., 2007). In the education sector, the development of accessible technologies is also not keeping pace with general technological development. Whereas businesses attempt to incorporate accessible features into their online learning management systems, they show manageable efforts to fully address the needs of persons with disabilities (Kent, 2015). However, due to limited knowledge in this area, it is difficult to assess the actual role of business actors in disability and IE policy.

Overall, it can be noted that while much of the literature has examined the role of IOs and non-state actors in education policy, few scholars have focused on the role of these actors in disability and IE policy. Existing studies provide specific examples and preliminary insights into issues related to IO and non-state actor involvement in the implementation of the CRPD and IE, but lack a systematic approach to identifying the roles of these actors at multiple levels. Addressing this research gap can, on the one hand, help to understand the different forms of participation. On the other hand, it can shed light on normative aspects of the increasing involvement of such actors. This can be seen as particularly important since the CRPD and IE, as a crucial element of the Convention, are human rights laws and thus subject to a normative human rights framework that differs from other aspects of education policy (Aubry & Dorsi, 2016).

4 Aim of the thesis and research questions

The previous chapters discussed the importance of IOs and non-state actors in education governance processes, focusing on the policy networks created by these actors, and placed these processes in a network theoretical context based on SNT. The main objective of this dissertation is to find answers to the overarching research question, that is, which actors and actor groups

are involved in the CRPD and IE implementation processes and what role they play – also by examining the networks that these actors build. The literature review on education policy networks and the involvement of inter- and non-governmental actors has revealed that very little attention has been paid to the role of these actors in disability and IE policy, despite the importance of such actors in education policy. Three main research gaps stand out and will be dealt with in particular in this dissertation. First, the role of IOs and non-state actors in CRPD and IE implementation processes has not been systematically studied. Second, little is known about the networks that form in the field of disability policy and IE and the actors involved. Third, despite the importance of these actors and their networks in education policy processes, a concise network theoretical framework of these networked governance processes and the underlying policy networks is lacking. As shown in Chapter 3, a conceptualisation of the involvement of intergovernmental and non-state actors in education policy networks based on SNT can capture both the general structure of such networks (i.e., the backcloth and architecture) and the flow of information (i.e., the traffic). In this way, the findings on the role of these actors can be discussed in a broader theoretical context. This, in turn, can contribute to a better understanding of these actors and their networks in education policy in general.

The aim of this dissertation cannot be to measure the degree of implementation of the CRPD and IE (e.g., using inclusion rates) or to fully explain the mechanisms that influence implementation in individual countries. Following Powell et al. (2016), who find different explanations (e.g., stronger or weaker effects of path dependence) even within states such as Germany, it is not possible to identify one explanation for why states implement or do not implement comprehensive IE in their education system. Rather, I aim to identify mechanisms through which IOs and non-state actors attempt to influence the implementation of IE in different forms and at different levels. In particular, recourse on SNT allows me to theoretically link their roles to their embeddedness in policy networks. In doing so, the approach adopted in this dissertation tries to extend and empirically test theories of education policy networks with aspects from SNT, both in terms of information exchange and the actors involved, as well as the general network architecture underlying these implementation processes. In addition to these theoretical considerations, a growing body of literature has recognised the need to transcend the boundaries of national and global and to include processes at multiple levels in the analysis of policy-making (Ball, 2016; Dale & Robertson, 2012; Jakobi, 2009). Hence, this thesis aims to look at policy-making processes in the context of IE and the implementation of the CRPD at multiple levels simultaneously to identify the role of different actors in them. This makes it possible to conceive of the processes as transnational.

As an international treaty, the processes at the international and global levels are still important for the implementation of the CRPD at the national level. For this reason, the analysis will start at these levels, before examining the involvement of inter- and non-governmental actors at the national level. Based on the theoretical considerations and the research desiderata derived, I pursue the following sub-questions in this dissertation:

1. Study I:
 - Which actors are important in global disability policy?
2. Study II:
 - To what extent can issue-specific subnetworks (including education) be identified in the Twitter communication network on global disability policy?
 - How do these subnetworks differ regarding their characteristics?
 - Which actors are central in the different subnetworks?
3. Study III:
 - Which actors and actor groups are involved in the global communication network on inclusive education?
 - How influential are they?
 - How are they involved in the formation and structuration of the network?
4. Study IV:
 - What can studies tell us about the involvement of non-state actors and IOs in the implementation of IE at the national level?
 - What forms of participation can be identified in the academic literature?

Figure 4 illustrates the objectives of the dissertation by highlighting the aims of the individual studies and relating them to each other and to a broader context. The overarching goal is to paint a detailed picture of the actors involved in the implementation of IE (coloured in red), the networks they are part of and the roles they play. This goal is approached by analysing the entire CRPD communication network (coloured in blue) – as the main legal instrument for the implementation of IE – to describe the general landscape of actors and identify the central actors in it (Study 1). In order to situate IE within the broader context of the CRPD and examine it in relation to other important issues in global disability policy, Study 2 then investigate issue-specific subnetworks (i.e., women’s and children’s rights, new technologies and education) of the overall CRPD communication network. This allows me to further specify the roles of the actors identified (in part) in Study 1, as well as the structural characteristics of the IE subnetwork in relation to other issue-specific subnetworks. Study 3 then focuses exclusively on the

IE communication network that emerged in the context of the CRPD in order to make assumptions about its structure, its formation process and the role of the different actor groups in it. In contrast to the previous studies, the focus is shifted from identifying central actors to examining aggregate actor groups and the network structure. Finally, Study 4 leaves both the digital sphere of Twitter and the global level and turns to the national level, analysing the ‘offline’ involvement of different actor groups in the implementation of IE at the national level and below. In this way, the policy processes around the implementation of IE are placed in the broader context of the CRPD with a particular focus on the actors involved. This allows me to specify the roles of different actors within the legal framework of the implementation of IE. Furthermore, the simultaneous study of global and national processes creates the basis for a comprehensive understanding of policy processes across traditional borders and levels.

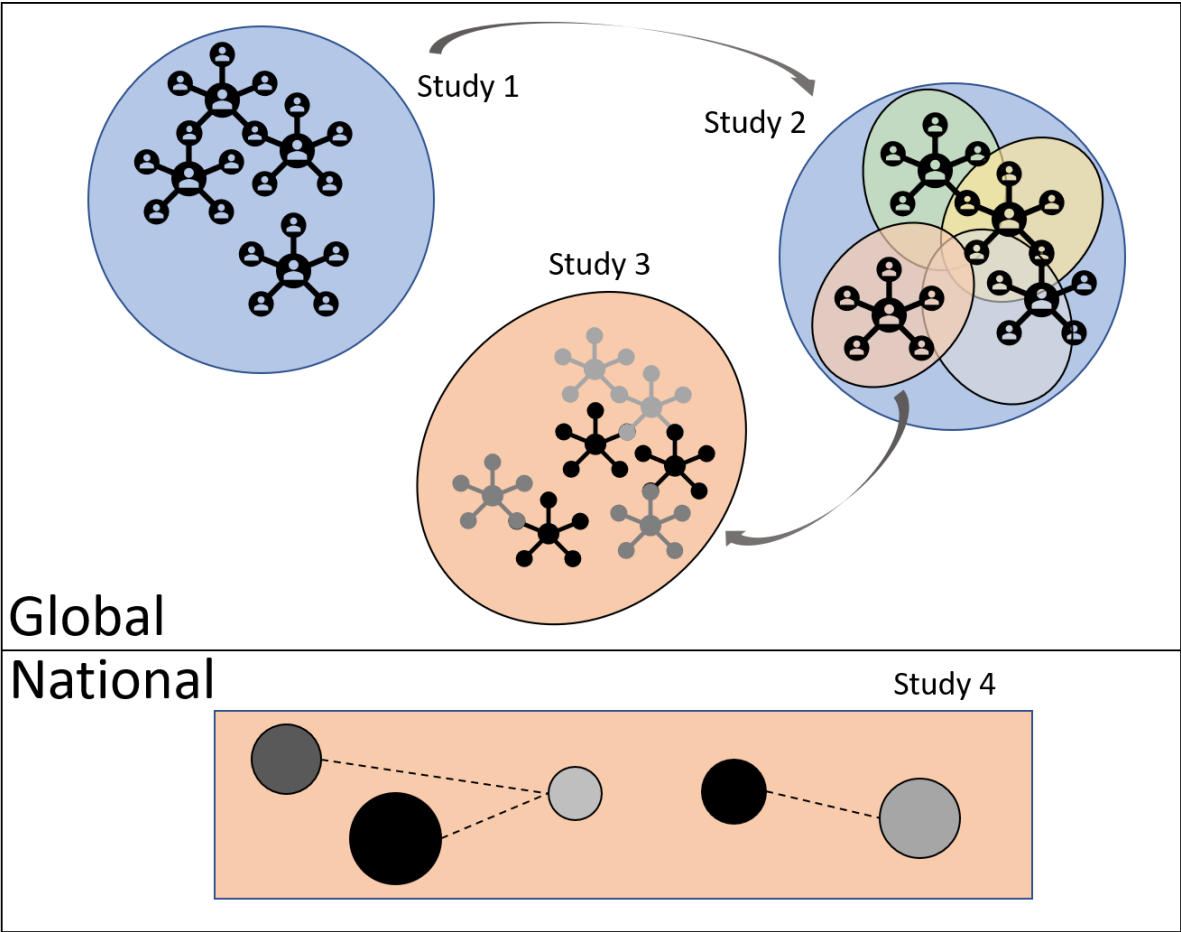


Figure 4. Illustration of the studies in the broader context of the dissertation; the blue area represents the general CRPD space, the red area the IE space; the network nodes represent different actors, the lines represent information exchange and the dashed lines the general network architecture. (Source: own representation.)

5 Methodology

For the purpose of this dissertation and to answer the research questions, a multi-method approach was chosen (Knappertsbusch et al., 2021). This term describes methodological approaches in the social sciences that aim at “overcoming the deadlock of strict monist approaches and the unproductive direct confrontation of qualitative and quantitative methods” (Maggetti & Giraud, 2015, p. 132). While mixed-methods approaches have been developed in recent years to bring together the different perspectives from both methodological directions, such designs often suffered from strict standards (e.g., Kuckartz, 2014). Multi-method designs, in contrast, allow for “any combination of qualitative and/or quantitative methods” (Knappertsbusch et al., 2021, p. 262). However, the use of different terms for combining methods (both within and between the two main paradigms) is not consistent in the literature. It is therefore important to note that when multi-method research is referred to in this dissertation, it is not in clear distinction to mixed-methods research. Rather, it should be emphasised that no strict mixed-methods design is followed, as postulated by some researchers (e.g., including a specification of a certain design type or a joint tabular display of both types of data; see Creswell in Kuckartz, 2014). Instead, the approach can be understood as part of the field of method integration in general (see also Hesse-Biber, 2015). This is mainly due to the lack of previous research combining the methods used, as well as the openness of the methods, as will be outlined below.

The multi-method design used in this dissertation includes SNA techniques of Twitter data on the one hand and an SLR on the other. A combination of these different methods and data sets makes it possible to capture the diversity of different actors involved in the implementation of the CRPD and IE and the various roles they play in these policy processes. In addition, it allows for a simultaneous study of multiple levels. In this section, I superficially describe the data and methods used in order to make the overall approach comprehensible – more detailed explanations of the methods can be found in the corresponding studies (Appendices A–D).

5.1 The use of Twitter data in the study of global policy networks

The analysis of policy networks in education, especially at the global level, is a challenging task. This is especially due to the large number of heterogeneous actors involved in global policy processes, which are difficult to capture. To meet this challenge, McNutt (2007) has introduced the concept of virtual policy networks (see also McNutt & Pal, 2011). Originating in public policy research, the concept was developed in response to the need to understand the organisation of complex global policy networks composed of actors as diverse as governments, IOs, foundations, or think tanks, also taking into account the new importance of the internet.

The basic idea of virtual policy networks is to draw on networks based on online relations to approximate the structures of offline networks (McNutt & Pal, 2011). While McNutt used hyperlink networks, another way to collect online relational data, which has attracted increasing attention in education policy research, is to draw on Twitter data as a source (e.g., Kolleck et al., 2017; Rehm et al., 2020; Supovitz et al., 2018).

Twitter is a social media microblogging platform that has become important in recent years in society in general and thus also for social science research (Weller et al., 2014). Short messages of up to 280 characters – so-called tweets – can be published on Twitter, which can be read, liked and retweeted by a wide audience. Twitter accounts can belong to private individuals, but also to collective actors such as government agencies, organisations, or initiatives. Not least since the high Twitter output of former US president Donald Trump, Twitter has gained great importance, especially for policy issues (Ott, 2017). In the shadow of such high-profile Twitter phenomena, Twitter is used for various political purposes. For instance, activists and movements use it to organise as part of grassroots activism (e.g., Bennett & Segerberg, 2012; Liu, 2016), NGOs expand their networks through Twitter by forming coalitions (e.g., Guo & Saxton, 2014; Svensson et al., 2015), and formal and informal political actors disseminate their policy ideas on the platform (e.g., Conover et al., 2012; Dubois & Gaffney, 2014). In addition, scholars can draw on Twitter data to capture discourses and narratives in political debates (e.g., Bossner & Nagel, 2020; Häussler, 2019). Twitter data has also been analysed in education policy research to get hold of various actors and the dominant debates. For example, Supovitz et al. (2018) examined the Twitter discussions around the Common Core State Standards in the US and identified main narratives and central actors. On the same topic, Sam (2019) applied Foucauldian discourse analysis to map the discourse used by different actors around this far-reaching educational reform. Others have analysed social networks in the context of global debates on climate change education (Kolleck et al., 2017) or focused on the Twitter discussions following the publication of the PISA results in 2016 (Baroutsis & Lingard, 2021).

The use of Twitter has also been discussed in the context of disability rights and policy in several studies. According to Ineland et al. (2019), Twitter is a powerful tool for marginalised groups such as persons with disabilities to participate in political debates, advocacy and thus empowerment. Similarly, in their study of Twitter use among adults with severe communication disabilities, Hemsley et al. (2015) report on how helpful Twitter can be in obtaining help and creating a supportive community. In addition to these general findings on the intersection of disability and Twitter, Trevisan and Cogburn (2019) point out that UN conferences often have

low levels of accessibility, making it difficult for people with disabilities to participate. Although the COSPs to the CRPD have more inclusive structures, disability rights advocates are still sometimes excluded from participation. Drawing on data from a platform as accessible as Twitter therefore represents an appropriate approach to analyse the communication and networks in the context of the CRPD and to capture the various actors involved in these debates.

For the present dissertation, I focus on the Twitter communication networks that have formed around the debates on the CRPD and IE. On Twitter, relations can be established in different ways. One common way is through what is called ‘following’ other accounts. When following other users, their new tweets appear in one’s timeline (i.e., the main surface where you see tweets) every time they post something. Therefore, looking at follower networks can shed light on how different actors show interest in each other. However, following represents a rather inactive form of connecting to other users: once established, the relation contains no information about the frequency of contact or information exchange. In contrast, connections made through retweets, mentions and replies can be seen as a more accurate measure of actual contact between Twitter users (Huberman et al., 2009). Retweeting means republishing a tweet originally published by another user, whereupon that user receives a notification. Retweeting is often used to disseminate ideas, but also to respond to the tweets of others (Boyd et al., 2010). Mentioning means directly addressing another user in a tweet by putting the @-symbol in front of their username and inserting it into a tweet. The mentioned user then receives a notification and thus knows who has referred to them. Mentions are often used to draw the attention of another user to a certain piece of information or to have information read by the other user’s followers. Finally, a reply is a mention at the beginning of a tweet and is used for public conversations with other users.

In this dissertation, Twitter accounts are conceptualised as nodes and the information exchange through retweets, mentions and replies as relations between these nodes. To give an example, when a Twitter account A retweets another account B, the relation goes from A to B. When B mentions or replies to A, the relation goes from B to A. Figure 5 illustrates this relation with an example tweet from the CRPD Secretariat mentioning the UN Human Rights Office account. In this case, the relation goes from the Secretariat to the Human Rights Office. These different forms of Twitter activity lead to the emergence of complex and heterogenous networks on specific topics, such as disability rights or IE, which can be analysed to gain a better understanding of the actors involved in global policy processes. From the SNT perspective introduced in Chapter 3.3, this exchange of information through retweeting, replying or mentioning others

can be considered the traffic that uses the potential backcloth of actors engaging in a specific topic for dissemination purposes, thereby creating interaction structures.



Figure 5. Example tweet from the CRPD Secretariat during the COSP 2017.

The data set used for the analyses of Studies 1 to 3 comprises Twitter communications published during the CRPD COSPs 2013 to 2017. The data were obtained using general hashtags and keywords, such as #CRPD or #COSP, as well as more specific hashtags that were prominently used in certain years, such as #post2015 in 2015. The entire data set consists of 44,545 tweets, resulting in a total network of 16,712 nodes and 38,737 edges. To extract issue-specific communication, the data were further filtered searching for keywords related to the relevant issues (i.e., women's and children's rights, new technologies and education). The full search syntaxes for the entire network as well as the issue-specific communication can be found in the appendix of Study 2. The IE data set, as the issue-specific network of greatest interest for this dissertation, consists of 1,638 tweets leading to 986 nodes and 1,557 edges, with a constant increase over the five years (Schuster et al., 2021).

5.2 Social network analysis

To analyse the networks that emerge from Twitter communication in the context of the CRPD and IE, I use techniques of SNA. The method of SNA has become the leading approach to the study of social relations in recent decades and has been applied in various contexts. Recourse to SNA allows to give precise definitions and formulas for social structural phenomena in different fields such as politics, economy, or education (Wassermann & Faust, 2009). Instead of focusing on the characteristics of individuals or groups, the main idea of SNA is to place the environment of individuals at the centre of analysis. In this way, an SNA approach differs from more traditional methods in the social sciences, such as surveys or interviews, by shifting the focus from the individuals themselves to the relations in which they are embedded and the networks that result from these relations (Jörgens et al., 2016; Wassermann & Faust, 2009). The study of social networks based on SNA usually aims to identify regular patterns of interactions (i.e., the structure) and particularly central actors (i.e., network participants who are well embedded due to the number or quality of connections they are part of) (Nooy et al., 2011).

It therefore allows assumptions to be made about how information and ideas are disseminated and how this dissemination is influenced by particular actors (Kolleck, 2016).

As one of the primary goals of applying SNA, the identification of particularly influential actors in a given network follows a defining idea of SNA, according to which influence can be derived from an actor's position in a network. Scholars have therefore developed various measures to gauge that influence, which can be grouped under the umbrella term 'centrality'. Actors can be considered central if they have a high number of existing relations, if they are on particularly important paths within a network, or if they have connections to important others (Freeman, 1979). Depending on which measures are applied, the conceptual notion of influence can then also differ (for an overview, see Borgatti et al., 2018). For instance, actors who have a high number of incoming ties (i.e., in-degree centrality) may be seen as popular interaction partners and actors with a high number of outgoing ties (i.e., out-degree centrality) can be considered as particularly active. Both measures represent opportunities to interact with many others. In a Twitter context, this applies accordingly to the number of in- and out-going retweets and mentions, emphasising the importance of users with high in- or out-degrees. In contrast to degree centrality, actors who are on many shortest paths in a network (i.e., betweenness centrality) have a large influence on what is exchanged in that network (e.g., information). As information can be exchanged on Twitter through retweets and mentions, a user who is on many shortest paths between other users can influence the flow of information by deciding whether or not to retweet a message. At the same time, it is not always necessary to have a high number of connections: actors who have few ties but to important others (i.e., eigenvector centrality) are influential because they are directly connected to potentially powerful actors in a network (Borgatti et al., 2018).

Focusing on the identification of central actors provides an approach to examine the traffic of a social network (see Chapter 3.3). Information exchange is used to identify those actors who can be considered particularly influential in terms of the dissemination of information in a given network. For the purposes of this dissertation, the application of centrality measures is used to identify central actors in both the entire CRPD communication network on Twitter and the issue-specific networks (e.g., education). Furthermore, techniques of SNA are used to map the entire CRPD network and show issue-specific communication in it.

In addition to these more exploratory approaches to the study of social networks, inferential techniques are applied to statistically test assumptions about the formation of the Twitter communication network in the context of IE (see Study 3). More specifically, exponential random

graph models (ERGMs) are used (Robins et al., 2007). The use of ERGMs allows the topology of an observed network to be statistically examined by predicting the probability of tie formation in the network based on certain characteristics. The approach mainly argues that “the patterns within networks can be seen as evidence for ongoing structural processes” (Lusher et al., 2013, p. 10), which in turn allows for the statistical testing of hypotheses about factors that influence the formation of a network. To find significant features of the observed networks, the characteristics of a theoretical network are modelled. Then the parameters of these characteristics are estimated by fitting the theoretical network to the empirically observed network. In this way, those characteristics of the observed network that occur more frequently than expected by chance are revealed (Robins et al., 2007). The dependent variable in ERGMs is thus the network structure, while the independent variables are, on the one hand, characteristics of the network members and, on the other hand, network-inherent structural features (e.g., reciprocity or transitivity). In this dissertation, the focus is mainly on the actor group of the network members, which includes the groups of governmental actors, IOs, general NGOs, DPOs, businesses, research actors, media, and others. To specify the different roles of actor groups in the network, their aggregate in-degree and out-degree centrality are included in the model, as well as their tendency to connect with actors belonging to the same group (i.e., homophily; McPherson et al., 2001). In addition, the occurrence of the network-inherent processes of reciprocity and transitivity are tested. This methodological approach thus statistically tests assumptions about the structure (i.e., the backcloth, see Chapter 3.3) of the IE Twitter communication network.

5.3 Systematic literature review

In order to analyse the role of IOs and non-state actors in the implementation of IE at the national level, an SLR is conducted (see Study 4). An SLR is a method used to “mak[e] sense of large bodies of information”, “map[...] out areas of uncertainty, and identify[...] where little or no relevant research has been done” (Petticrew & Roberts, 2012, p. 2). More specifically, it aims at a “comprehensive identification, systematization and synthesis of available knowledge on a specific theme and [is] characterized by the use of explicit and transparent methods in order to reduce selection and interpretation bias” (Verger et al., 2017, p. 761). Similar to other methods in social science research, the specific steps and methods used are determined in advance to minimise systematic bias and ensure a reproducibility of results (Petticrew & Roberts, 2012). This includes, in particular, the identification of the literature corpus to be included in the analysis, which usually follows specific inclusion and exclusion rules. For the purpose of this study, the EBSCOhost database – including leading databases in the field of education

research (e.g., ERIC, PsycInfo or PSYINDEX) – is searched for relevant articles related to the involvement of IOs and non-state actors in the implementation of IE.

With the aim of systematising the articles in relation to the countries studied, the actor groups involved in the implementation of IE and their activities in this context, the literature is coded on the basis of empirical knowledge (see Chapter 3.4), initial research and professional experience. The actor groups comprise actors as diverse as IOs, businesses, charities, parent associations, or church organisations. The activities can be grouped under the main categories of advocacy, awareness raising, capacity development, empowerment, implementation, monitoring, and policy formulation. In order to get a more systematic overview of the relations between the actor groups and the activities, the network analysis software Visone (Brandes & Wagner, 2004) is used. Based on the information about the actor groups and the activities they carry out in the IE implementation process, a two-mode network is created to visualise the extent to which the actor groups are involved in specific activities (Wassermann & Faust, 2009). This also makes it possible to gain an impression of how certain actor groups engage in similar activities and which activities are only pursued by a few actors. In addition to visualising the results, a comprehensive and detailed analysis based on descriptive measures of the data is conducted to synthesise the findings. Overall, this approach provides results that are used to systematise the actions and capacities of the actors involved in the implementation of IE at the national level, which in turn allows for an initial assessment of the network architectures of the potential networks forming around these processes. Furthermore, these findings on the actions of inter- and non-governmental actors at the national level complement the findings of the Studies 1 to 3 regarding the global level.

6 Summary of the four studies

Study 1: The role of international organisations in an expanding global policy field. This study examines the landscape of IOs in the field of disability policy. The analysis focuses on the different IOs involved in global disability policy, their focus on leading disability topics and their relations to each other and to non-state actors. Based on Twitter communication published during the Conferences of States Parties (COSPs) to the CRPD between 2013 and 2017, the communication network is mapped and central actors are identified. These findings are complemented by document analyses. The results show that a variety of different IOs such as UN agencies, the World Bank, the International Telecommunication Union (ITU), or the World Health Organisation (WHO) are involved in global debates on disability policy with different focal points and have close connections to non-state actors advocating for the rights of persons

with disabilities. Furthermore, children's rights, women's rights, new technologies and education can be identified as leading issues in global disability policy.

Study 2: The global education governing complex and the UN Convention on the Rights of Persons with Disabilities. Based on the concept of a global education governing complex (Ydesen, 2019b), which argues for a global education space in which IOs and non-state actors influence domestic education policy – among other things – through networks, this study seeks to identify an education-specific subnetwork (i.e., an IE network) within the CRPD Twitter communication network. By comparing the education subnetwork to other issue-specific networks related to leading issues in global disability policy (i.e., children's rights, women's rights, and new technologies), the network characteristics of the IE network are explored and the roles of central actors in the IE network are specified based on their position and centrality in other issue-specific networks. The results indicate that the most central actors in the IE network are somewhat separated from each other, with some (e.g., the World Bank or the United Nations International Children's Emergency Fund [UNICEF]) linked to issues of children's and women's rights, while others (e.g. UNESCO or the OECD) have a closer proximity to issues of new technologies. In this way, the findings contribute to a conceptual and methodological extension of the global education governing complex.

Study 3: Analysing Twitter debates on inclusive education using social network analysis. This study investigates the structure and formation of the global policy network that forms around debates on the implementation of IE. The networks resulting from Twitter communication on IE at the COSPs to the CRPD are analysed for each year between 2013 and 2017 using ERGMs to statistically test assumptions about the structure of the network. The analyses show that IOs are particularly popular in the network, while DPOs and businesses are significantly more active than the other actor groups. Furthermore, the results indicate that NGOs in particular tend to connect with other NGOs, suggesting efforts to build advocacy coalitions. Finally, the findings show a tendency for actors in the network to form transitive triads, that is, to connect with others with whom they already share links. This suggests that in addition to these actor-specific effects, general network phenomena are also at work in the IE Twitter communication network.

Study 4: A systematic review of the involvement of inter- and non-governmental actors in inclusive education. For this study, the literature on the involvement of IOs and non-state actors in the implementation of IE is systematically reviewed. Using an SLR approach combined with network visualisation techniques, the education database EBSCOhost is

searched for relevant literature. A screening of the literature leads to 65 peer-reviewed articles, which are included in the data corpus and analysed. Systematisation of the findings shows that NGOs are the actor group with the highest involvement in national IE implementation processes, focusing mainly on advocacy, capacity development and awareness raising activities. IOs also actively support IE implementation by providing financial support and critical monitoring of existing policies. International experts and research actors constitute a third influential actor group, involved mainly in the training of specialists and professionals and the formulation of policies.

7 Discussion

In this section, I will present the main findings of the studies based on the research sub-questions posed in Chapter 4 – Table 1 provides an overview of these main results – and situate them within the existing literature and theoretical framework introduced in Chapter 3. First, I will outline the main results of each study individually. Then I will synthesise and generalise these findings in terms of the theoretical framework. Subsequently, I will address general limitations and suggest directions for future research before discussing implications for education policy and practice.

7.1 Discussion of the main results

7.1.1 The global disability policy landscape

Disability can be seen as a comparatively new topic in global policy-making and therefore it is necessary to employ accessible techniques to capture the various actors involved at the global level and their main motivations. For this reason, Study 1 used an SNA approach based on Twitter data with the aim of mapping the network of global disability policy actors – with a focus on the IOs involved in these processes – and complemented these findings with a review of main documents published by these actors. This made it possible to present the global disability policy landscape, identify key actors, specify main issues in global disability policy and link them to the relevant organisations. In addition, the examination of the IOs' relations to other IOs and to non-state actors – both in the entire network and in two reduced networks, one representing only relations between IOs and the other between IOs and prominent NGOs – gave an impression of the information flow within the network and the established network structures.

The results of the analyses show that the population of disability IOs at the global level is diverse and comprises organisations with various thematic focuses. Both the documents and the Twitter data suggest that they also interact with each other and build connections with key non-

Table 1. Overview of the main results of the four studies.

Study 1	Study 2	Study 3	Study 4
The IO landscape related to the CRPD is diverse (CRPD Secretariat and Committee, UNICEF, UN Women, ITU, WHO, OECD or World Bank)	Issue-specific network structures (i.e., subnetworks) can be identified in the overall CRPD Twitter network	The central actors and initiatives in the IE network change over time	NGOs are the most active group at the national level, mainly focusing on capacity development, implementation on the ground and awareness raising
While some actors can only be identified as important from the documents, others are also central in the Twitter communication network	The subnetworks are mainly dominated by actors primarily active in the corresponding field	IOs are popular addressees in the network, which might indicate a high level of attributed authority	IOs (mainly UNICEF, UNESCO and the World Bank) participate through capacity development, policy formulation and monitoring
Central IOs build connections with each other and with key NGOs	The IE subnetwork shows a low level of hierarchy among its members	DPOs are active disseminators and popular addressees of information	Research actors are involved in capacity development activities and policy formulation
Women's and children's rights, new technologies and education can be identified as leading issues in global disability policy	The IE network seems to be divided, with one part (including UNESCO and the OECD) closely related to new technologies and one part (including UNICEF) close to women's and children's rights	Businesses and research actors participate in the network mainly through the active dissemination of information	External experts and consultants, as an additional group, are needed for policy formulation and implementation on the ground
	While multinational companies (Dell and Microsoft) are central in the technology network, small businesses can be found in the IE network	While NGOs rather build connections with other NGOs, IOs tend to interact with actors from different sectors	
		Network members tend to create transitive triads	

Note: IO = international organisation; CRPD = Convention on the Rights of Persons with Disabilities; ITU = International Telecommunication Union; WHO = World Health Organisation; OECD = Organisation for Economic Co-operation and Development; NGO = non-governmental organisation; DPO = disabled persons organisation.

state actors involved in global disability policy. According to the SNA, the most central actors are the UN and its specialised agencies, such as the CRPD Secretariat, the UN division and department the Secretariat is assigned to (i.e., the Division for Social Policy and Development [DSPD] and the Department of Economic and Social Affairs [DESA]), the UN Women organisation, and UNICEF. The CRPD Secretariat as the Convention’s umbrella organisation appears to be particularly involved in interactions with other UN entities and important DPOs, as can be seen both in the overall CRPD Twitter network (see Figure 6) and in networks reduced to interactions between IOs (see Figure 7) or between IOs and NGOs (see Figure 8). Complementing the findings from the documents on the function of the Secretariat, these results suggest a coordinative role of the secretariat, which is not only mandated to support interagency communication within the UN and organise the COSP, but also to disseminate the normative framework of the CRPD and thus support its implementation. In this way, it is a logical complement to the official CRPD Human Rights Committee, whose main task is to monitor implementation at the national level.

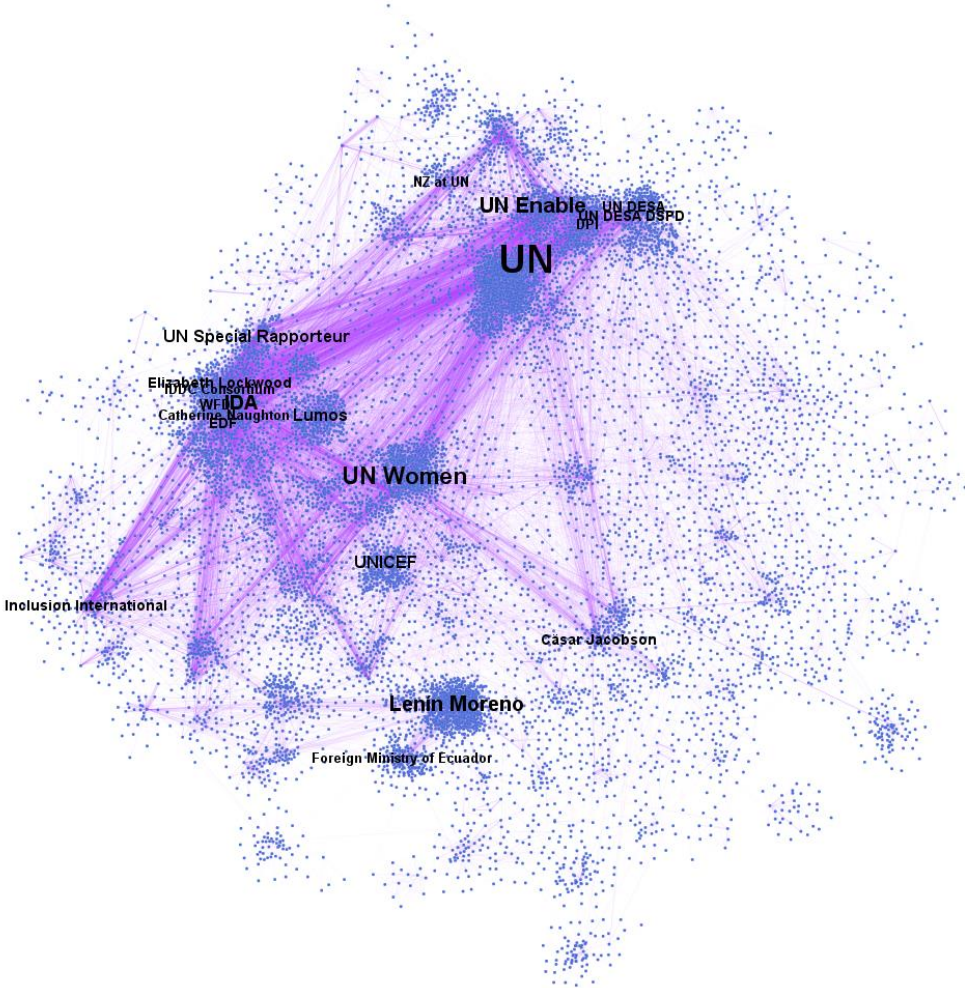


Figure 6. The overall Twitter network of the COSPs 2013–2017. (Source: Schuster & Kolleck, 2021b.)

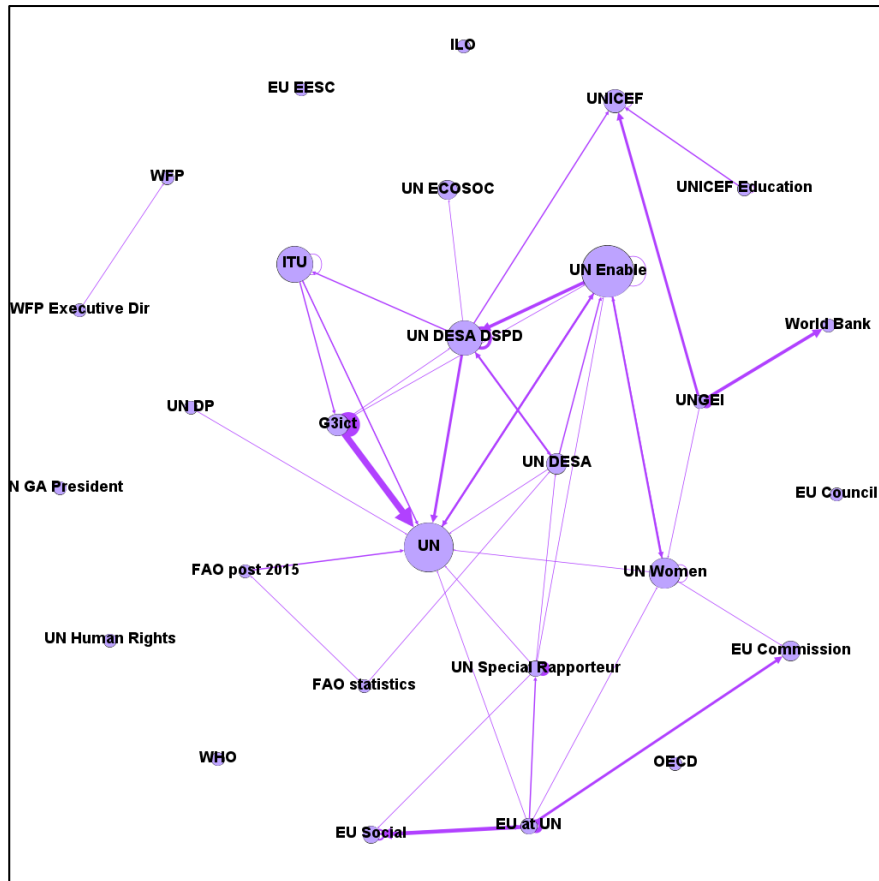


Figure 7. Twitter network of the most central IOs during the COSPs 2013–2017; node size represents eigenvector centrality. (Source: Schuster & Kolleck 2021b.)

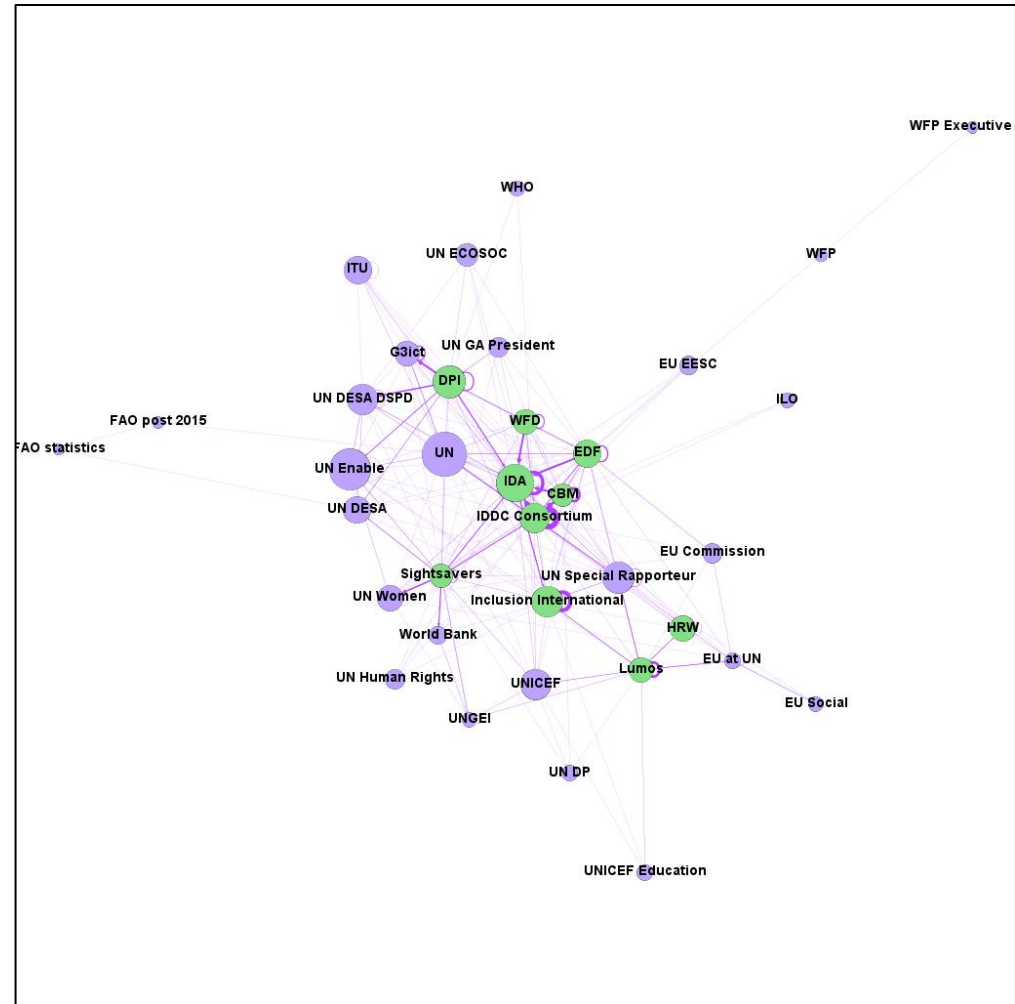


Figure 8. Twitter network of central IOs and NGOs during the COSPs 2013–2017; node size represents eigenvector centrality; purple= IOs; green= NGOs. (Source: Schuster & Kolleck 2021b.)

Other central UN actors not directly linked to the Secretariat can be described as organisations with a specific thematic focus besides disability. UN Women seems to be particularly centrally embedded in the overall Twitter network and is also directly connected to the UN Girls' Education Initiative (UNGEI) and some actors related to the European Union (EU). Women's rights are not only directly addressed in Article 6 of the CRPD, but were also declared the main theme of COSP 2012 and sub-theme of COSPs 2015 and 2018 (Schuster & Kolleck, 2021b). Given this leading position of the issue in disability policy, it is not surprising that UN Women is highly visible in the network. Its main objectives include promoting the rights of women with disability and serving as a broker to other IOs such as the EU, but also between different issues within disability policy, such as women's rights and education. Similarly, UNICEF seems to take on the role of a central actor in the network representing the important issue of education within the CRPD and also providing links to other key IOs in this field (e.g., the World Bank) or to leading NGOs (e.g., Inclusion International or Lumos). A third important UN agency is the ITU, which seems particularly central in the reduced networks based on IO interactions or IO-NGO interactions. This organisation has a particular focus on meeting the needs of persons with disabilities in the use of information and communication technologies (ICTs) by providing guidelines and statistics to policy-makers and offering trainings. Its embeddedness in the network also indicates that the ITU benefits from network structures to disseminate information at the intersection of disability and new technologies, as this is one of the main issues discussed in the context of implementing the CRPD (Schuster & Kolleck, 2021b).

Other actors that can be identified as influential from the history of global disability policy and document analysis, but are not well embedded in the Twitter communication network, are the WHO and the OECD. These organisations, which can be considered as leading actors in the field of disability (WHO) on the one hand and education (OECD) on the other, seem to be important knowledge brokers in their respective fields. This is reflected in their high output of reports and guidelines – notably on the classification of disabilities or on the status quo with regard to persons with disabilities together with the World Bank in the case of WHO and on the integration of disabled persons into the labour market in the case of OECD – as well as in their collaborations with other IOs and NGOs. In this way, they contribute to the development of frameworks and policies in CRPD member states and thus potentially influence the implementation of the Convention.

In summary, these results suggest that disability policy at the global level is structured as a heterogenous network of IOs and NGOs that take on different roles and functions to promote

the implementation of the CRPD. The great diversity of IOs in this field indicates a broad thematic positioning and the close links between different IOs and with NGOs suggest a tendency to diffuse information and to create structures to strengthen concerted efforts. Not only do these actors work together in various forms of collaboration, such as in the production of joint reports or guidelines, but the SNA findings also show that they seek to establish and use channels for exchanging information and influencing policy ideas. Furthermore, the identification of leading issues in global disability policy (i.e., women's and children's rights, new technologies and education) indicates that various specific issues are discussed within the frame of disability policy and that education, as one of the most controversial topics of the drafting process (Beco, 2018), represents one of them.

7.1.2 Inclusive education in the global disability policy space

In order to specify the role of actors involved in the implementation of IE at the global level, Study 2 examined the Twitter communication network formed around the CRPD investigated in Study 1 with the aim of identifying and analysing issue-specific structures (i.e., subnetworks) within the CRPD. Based on the main issues identified in Study 1 (i.e., women's and children's rights, new technologies and education), this should allow assumptions to be made about the structure of the IE network in comparison to other subnetworks and to make more detailed statements about the involvement of certain actors at the intersections of these issue-specific structures. The embeddedness of actors in different subnetworks was therefore used to identify actors' efforts to advocate for specific interests in the field of global disability policy.

The findings of the study indicate that issue-specific structures can be observed in the overall network – at least to a certain extent. These areas of the overall graph are characterised by a large amount of communication on one of the main issues being exchanged between actors who are in a similar part of the network, which can be seen by the dominant colour in such areas (see Figure 9). Community detection supports this assumption by identifying communities (i.e., parts of the network consisting of closely connected nodes) that correspond with the areas represented by the issue-specific communication flows (see Figure 10). From an education perspective, the bipartite IE structure is particularly interesting. While one part is directly adjacent to the technology-related structure, the other is in close proximity to the issue-specific structures related to children's and women's rights. This also points to different perspectives of the central actors in the two areas. While UNESCO and the OECD seem to advocate for IE at the intersection with new technologies, UNICEF and UNGEI represent more of a rights-based paradigm

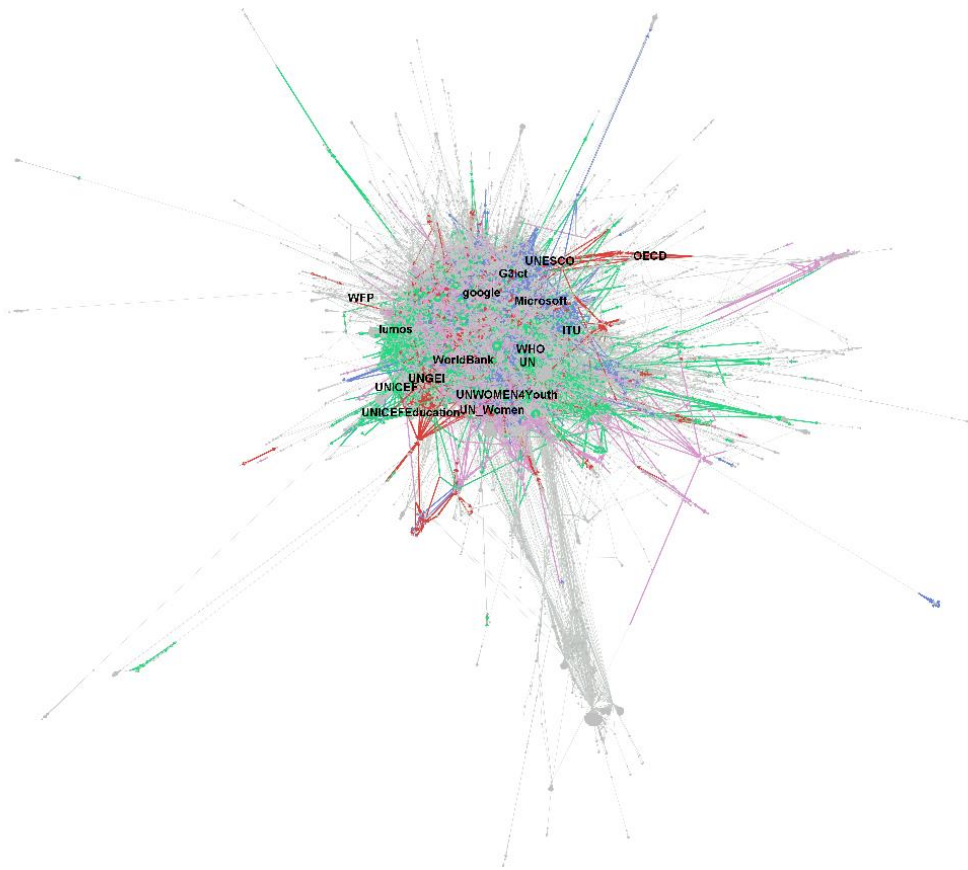


Figure 9. Issue-specific communication in the full Twitter communication network (red= education; pink= women's rights; green= children's rights; blue= new technologies; grey= others). (Source: Schuster & Kolleck; submitted.)



Figure 10. Main communities in the full Twitter communication network (red= education; pink= women's rights; green= children's rights; blue= new technologies; grey= others). (Source: Schuster & Kolleck, submitted.)

regarding the advocacy for IE, which can be assumed due to their close interlinkages with actors mainly focusing on children's and women's rights.

A characterisation of the subnetworks based on whole network SNA measures shows that these subnetworks differ to some extent in terms of their characteristics, although a direct comparison of the measures was difficult partly due to the different network size (i.e., the number of nodes in a network). Nevertheless, differences between the women's rights network and the education network can be highlighted, for example, in terms of centralisation. While the women's rights network is highly centralised ($C = .294$), indicating that few actors are particularly central, the education network has a low level of centralisation ($C = .080$). According to Burt (2000), this can be interpreted to mean that the education subnetwork has a low hierarchy where several actors are equally central to the dissemination of information on the education of persons with disabilities. Furthermore, the IE network has the highest proportion of isolates (i.e., actors who share information within the Twitter sphere without directing it to others, and who are not addressed by other accounts) with 5% and with 38% the lowest proportion of single appearances (i.e., accounts that participate only in one issue-specific network). This suggests that actors who tweet comparatively frequently on the topic of education, although not directly involved in the network structures, at the same time also participate in communication on the other main issues, thus are not thematically restricted. These findings also support the assumption of a low hierarchy in the IE network, as the network seems to consist of various actors with low centrality who focus not only on lobbying for education but also for other issues without necessarily being involved in network structures.

With regard to the actors who are central in the dissemination of information in the Twitter network, the SNA provides results that accord with the findings from Study 1. The central actors in the issue-specific networks are those who are primarily active in the corresponding policy fields. For instance, in the women's rights network, UN Women and the women's rights NGO Women's Refugee Commission are central, among others. Similarly, the ITU and the digital advocacy initiative G3ict are among the most central actors in the technology network, and UNICEF and the children's rights organisation Lumos in the children's rights network. This indicates that the implementation of the CRPD is not only represented by general disability rights organisations and the respective IOs at the global level, but that actors with specific thematic focuses enter the policy network to influence the shaping of ideas and policies in line with their individual interests. In the case of education, this is only partially observable: while leading education IOs such as UNICEF or the World Bank (Niemann & Martens, 2021) are

among the most central actors in the IE network, the NGO landscape with regard to IE is dominated by DPOs rather than specific education NGOs (e.g., Childhood Education International or the Education Trust).

In addition to the IOs and NGOs, which were already identified as central actors in Study 1, the findings of this study bring another important actor group into the discussion in the form of businesses. These actors occupy central positions especially in the issue-specific networks on new technologies and education. However, while multinational companies such as Dell and Microsoft are among the central actors in the technology network, smaller businesses such as the accessible digital content providers Ai-Media and Karlen Communications are centrally involved in the IE network. This suggests that global disability policy is a potential market for (digitalisation) businesses, which has already been noticed in part by larger companies that engage in policy network structures to shape the diffusion of ideas and make connection. At the same time, the IE sector is still left to smaller businesses that might be able to meet more specific needs.

Taken together, the findings of this study contribute to the understanding of networked governing structures in the context of the CRPD by shedding light on how leading issues are discussed in the context of disability policy, how network structures emerging in relation to these issues are characterised and how certain actors benefit from these structures and establish new ones. In this way, the study complements Study 1 by helping to specify the role of different actors in the global network in relation to the CRPD in general and IE in particular. The results indicate that a diverse set of public and private actors are participating in these networks to shape the dissemination of ideas, including IOs, NGOs and businesses. Furthermore, some of these actors seem to have rather narrow thematic interests in promoting disability rights, resulting in issue-specific network structures dominated by actors from the relevant policy fields. This could mean that these actors take on the role of advocates for their original interest (e.g., children's rights or new technologies) in order to strengthen these positions in the implementation of the CRPD, or it could indicate a willingness to contribute issue-specific expertise. However, this can only be observed in parts for the education network, as this subnetwork contains a large number of actors with a multi-thematic perspective and low hierarchies. This in turn could lead to a high potential for innovative ideas developing from the input of heterogeneous network members, as policy networks can benefit from the accumulation of different actors with individual expertise (see also Mintrom & Vergari, 1998).

7.1.3 The structure and functioning of the global inclusive education network

While Studies 1 and 2 examined the entire CRPD Twitter communication network – with an initial focus on issue-specific structures – this study places the IE network at the centre of the analysis. To support the arguments raised in the previous studies about the involvement of different actor types in network formation, the study used inferential techniques of SNA (i.e., ERGMs) to determine the role of actor groups at an aggregate level and make more general assumptions about the network structure. In particular, this was intended to contribute to the understanding of various actor groups in their embeddedness in network structures (i.e., the backcloth). In addition, the study looked at the IE network for each of the years included in the data set (2013 to 2017), which made it possible to see whether high variance between years could affect the validity of the results.

An exploratory examination of the annual networks shows that – similar to Study 2 – IOs and NGOs (more precisely DPOs) are the most central actors (see Figure 11). Again, the IO accounts belong mainly to UNESCO, UNICEF and the World Bank. More interestingly, however, is the fluctuation of central actors over the years. While UNESCO is particularly central in 2013, UNICEF takes over the leading position in 2014 and is then joined by the World Bank in 2017. Furthermore, changing campaigns and initiatives by UN agencies to promote the rights of persons with disabilities on IE with different focuses appear centrally in the respective years (e.g., the Global Initiative for Inclusive Information and Communication Technologies [G3ict] or the Global Education First Initiative [GEFI]). This suggests that slightly different aspects are discussed each year, with changing organisations and campaigns taking centre stage – possibly due to the different thematic focus in certain years. In 2015, for example, discussions around the end of the post-2015 agenda were central, coinciding with the end of the Education First Initiative. This topic may therefore have been discussed with increasing relevance this year. A fluctuation similar to that of IOs can also be observed especially in the participation of central NGOs and DPOs.

The inferential analysis of the networks reveals several interesting results on the network structure, which allow conclusions to be drawn about the role of the different actor groups (see Table 2; a more detailed explanation of the results can be found in the original study in Appendix C). According to these, IOs were significantly more frequent addressees of Twitter communication around IE compared to other actor groups (as can be seen from the positive coefficients of ‘IO alter’). Together with their comparatively low activity, this indicates that IOs are perceived as popular actors with high authority. This may have two possible explanations: On

the one hand, information brought into the debate by IOs receives a high level of attention and is therefore often more widely disseminated. On the other hand, less popular accounts might address IOs to benefit from their wide reach, as tweets mentioning these accounts might be read by their numerous followers. In any case, IOs seem to be important actors in the Twitter communication network, but they take on a more passive role than that of an active disseminator of information. Moreover, IOs are one of the few actor groups in the network that have a tendency to connect with actors outside their sector. While in social networks, network members tend to connect with similar others (i.e., homophily; McPherson et al., 2001), IOs show an opposite behaviour. This is further evidence that IOs operate as boundary spanners between different sectors and play a coordinating role.

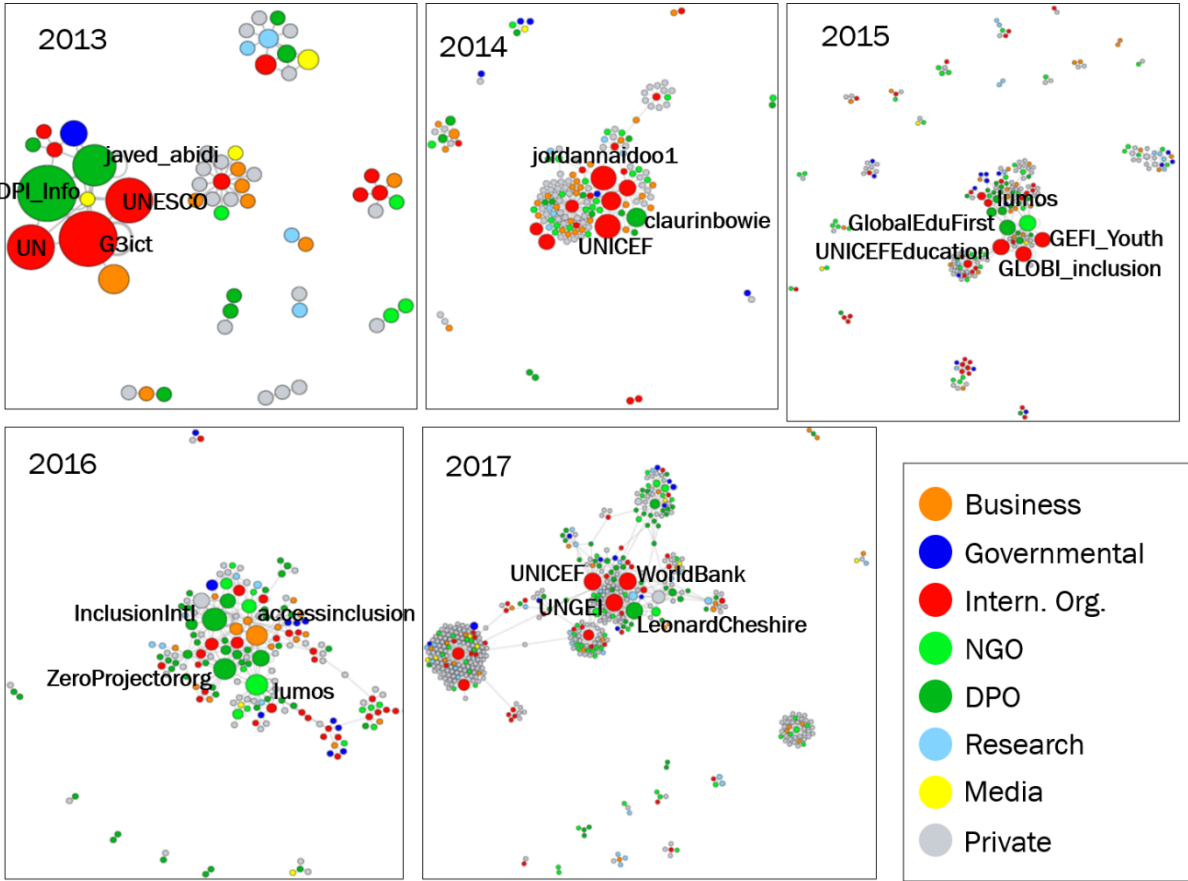


Figure 11. Development of the inclusive education Twitter network over time; node size refers to eigenvector centrality, node colour refers to actor group. (Source: Schuster et al., 2021.)

In contrast, NGOs (including DPOs) show a strong tendency towards homophily in the networks. In their attempts to share information and establish connections, they seem to prefer to link their information with other NGO actors. This suggests that these actors try to build coalitions within their sector to join forces and strengthen their arguments in a collective approach. This can lead to increased sharing of important information, but also to lesser-known organisations being brought into play. The central role of DPOs as the most important type of

NGOs for disability rights is supported by their significantly high scores in both popularity ('DPO alter') and activity ('DPO ego'). While IOs appear to be the primary recipients of information exchange on Twitter, DPOs themselves are active. This, combined with their tendency to interact mainly among themselves, allows DPOs to build strong coalitions in support of the rights of persons with disability on IE.

Table 2. Results of the exponential random graph models.

	2013	2014	2015	2016	2017
Edges	-4.21***	-5.84***	-5.71***	-5.04***	-5.63***
Indegree	-1.20***	-3.43***	[NA] ¹	-2.23***	-5.07***
Outdegree	1.50***	2.57***	[NA] ¹	0.88***	2.44***
Betweenness centrality	0.11*	0.21***	0.07***	0.10***	0.06***
IO alter	0.91***	0.93***	0.62***	0.23*	0.33***
DPO alter	0.52**	0.52*	0.19	-0.05	0.00
Business ego	-0.32	0.52	0.58***	1.03***	0.06
DPO ego	0.27	-0.26	0.32**	0.39*	0.79***
Research ego	-0.44	0.44	0.26	0.41	0.22
Private ego	-0.32	0.13	0.25*	0.57***	0.32*
Follower alter	0.00***	0.00	-0.00	0.00	0.00***
Homophily					
Business	[NA] ²	0.41	-0.34	-0.40	0.10
Governmental	[NA] ²	3.14**	1.20	1.28**	1.49
IO	-0.27**	0.00	0.21	0.41	-0.29
NGO	0.29**	0.57	0.62***	0.38**	0.57***
Research	1.97***	[NA] ²	1.57**	1.19**	0.77
Private	-0.25***	-1.17	0.07	-1.72*	-0.81***
Network closure					
Reciprocity	0.20***	-2.67*	-1.81***	-0.14	-1.41
GWESP	2.16***	0.79***	3.10***	2.17***	2.49***
GWDSP	-0.47***	0.05***	-0.22***	-0.12***	-0.17***
AIC	532.62	1356.94	3443.33	2791.46	6088.96
BIC	641.85	1510.46	3603.02	2957.71	6293.99
Log Likelihood	-248.31	-659.47	-1703.67	-1375.73	-3024.48

Note: ***p < 0.001, **p < 0.01, *p < 0.05; GWESP= geometrically weighted edge-wise shared partners; GWDSP= geometrically weighted dyad-wise shared partners; AIC= Akaike information criterion; BIC= Bayesian information criterion; ¹The terms for in- and out-degree had to be excluded from the model in order for it to converge; ²Cases without a homophilous connection had to be excluded from the model. (Source: modified from Schuster et al., 2021.)

Similarly active in disseminating information are businesses ('Business ego'). These actors, who have already surfaced in Study 2, seem to participate in Twitter communication as an active part rather than an addressee. Given the lack of tendency to network with similar other actors seen in their insignificant homophily estimates, this indicates that businesses are trying

to enter the global IE policy network by connecting with other actor types (e.g., government or NGO) with the aim of establishing or reinforcing relations. This could also be related to the findings of Study 2, which showed that the corporate sector in the IE network is still mainly represented by small businesses, while the CRPD subnetwork on new technologies includes multinational companies. Consequently, these small businesses receive little attention and therefore need to actively engage in the IE network. Another actor group that appears to be particularly active according to the aggregated descriptive out-degree measures are research actors. Although the inferential SNA shows that this result is not significant in any of the years, the positive coefficient in four of the five years indicates some level of activity ('Research ego').

While these findings from the inferential SNA are directly related to the roles of IOs and non-state actors, the results also reveal network theoretical processes that can explain the structure of the networks. In particular, actors in the networks tend to form transitive triads ('GWESP'), which strengthens the coalition building argument (see Chapter 3.3). This, in turn, allows them to jointly address the requirements of the CRPD and, in particular, the refusal of member states to fully implement IE. In contrast, network members show no significant tendency to reciprocate connections, which is unusual for social networks. Nevertheless, the structure of the IE network constitutes a policy network that enables actors to exchange information and increase their collective power through well-established advocacy structures.

7.1.4 A systematisation of the involvement of international organisations and non-state actors at the national level

Studies 1 to 3 approached the overarching research question of how IOs and non-state actors are involved in the implementation of the CRPD and IE by looking at network structures at the global level and in the virtual space. At the same time, these actors also exert great influence on implementation processes at the national level. As networks are difficult to capture at the national level, let alone generalise across several countries, this study focused on the activities of these actors rather than their linkages in order to specify their role in these processes. Furthermore, given the difficulty of distinguishing national Twitter communication and the added value of also including 'offline activities' of the respective actors in the dissertation, an SLR of the existing academic literature on IO and non-state actor involvement at national levels was conducted. Reviewing the academic literature not only revealed that there are various actors involved in the implementation of IE, but also presented the different ways in which these actors operate.

The results of the SLR extend the findings from the previous studies in that they further differentiate the diversity of actors involved in IE implementation processes. The non-specific group of NGOs – which must also be retained due to a lack of definitional precision in some of the included articles – is expanded by the presence of multi-stakeholder initiatives, advocacy groups, parent associations, or church organisations (for an overview of the actor groups identified and their forms of engagement, see Figure 12). This shows that a variety of different actors participate in the implementation of IE in different forms and with varying degrees of diversity in their activities. For instance, while advocacy groups mainly engage in forms of advocacy, multi-stakeholder initiatives offer more diverse forms of support. Furthermore, it is evident from the results that the actor groups differ in their prevalence in the data corpus, which could indicate differences in their actual involvement in these implementation processes.

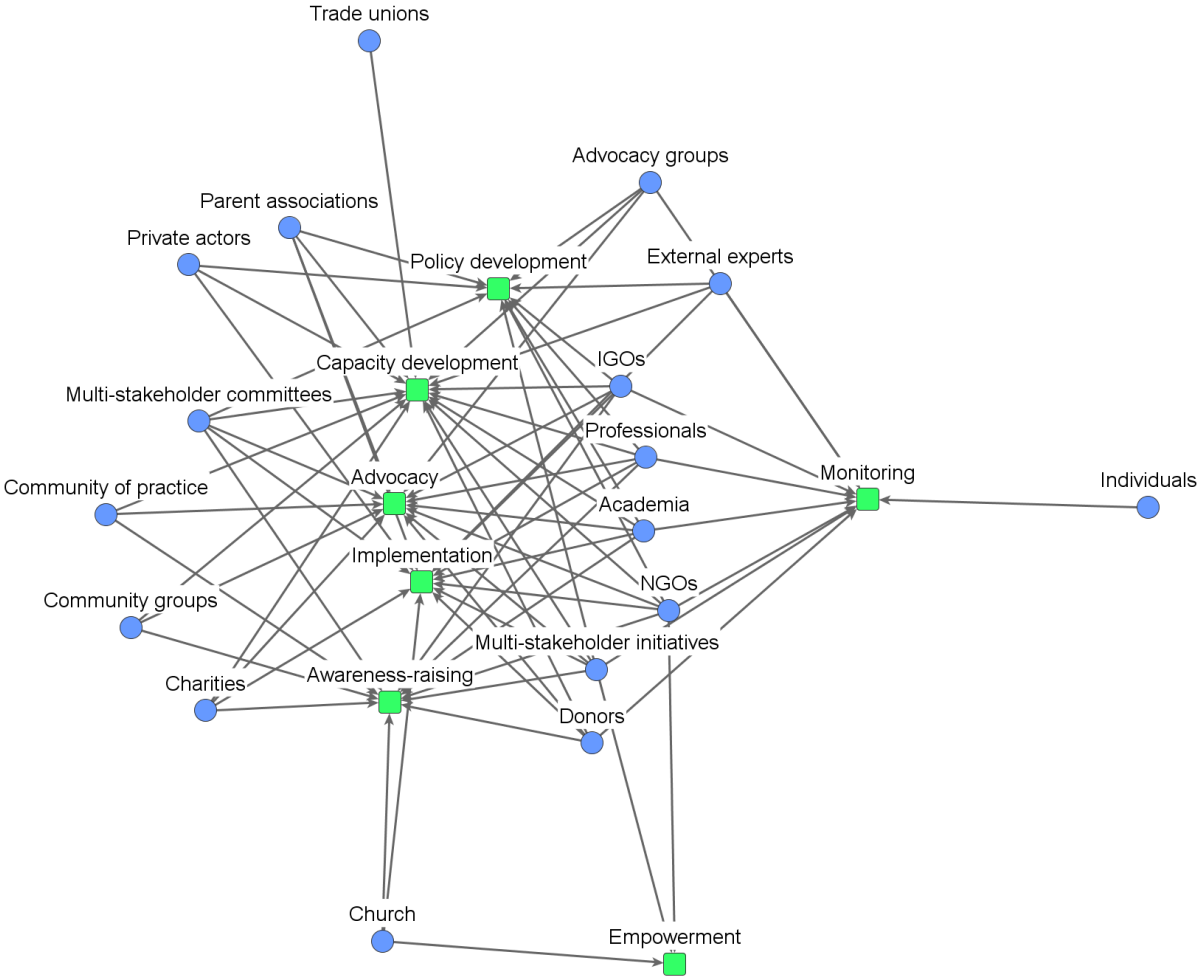


Figure 12. Overview of actor groups (blue nodes) and forms of involvement (green nodes) and their relations to each other. (Source: Schuster & Kolleck, 2021a.)

In this respect, NGOs are the most common actor group in the implementation processes, alongside state actors. NGO involvement takes different forms, with a focus on capacity development and implementation in practice. In particular, this involves supporting other actors in

implementation by providing financial means or training teachers and specialists. In addition, NGOs run their own projects and programmes that directly lead to the provision of IE on the ground. Most of the support comes from domestic NGOs, but some international NGOs also participate in these forms of engagement. For instance, Sightsavers International provided financial support to conduct a study to survey IE needs in Uganda (Lynch et al., 2011). In addition to these activities, which are generally strongly represented in the data, NGOs show a remarkably high level of engagement in awareness raising activities. In contrast to activities related to capacity development and IE in practice, these activities are often not elaborated on in the articles, but can be seen as integrated into the day-to-day activities of NGOs to promote IE. These findings are an extension of those from the Twitter analyses at the global level and support the role of NGOs as advocates, knowledge brokers and coordinators of activities.

The importance of IOs identified in the previous studies on the global level can also be demonstrated for the processes at the national level. IOs invest the largest share of their engagement in capacity development activities. In contrast to NGOs, which show greater diversity in these activities, IOs' support is mainly limited to providing funding that can be used to run or sustain IE projects. Similar to the global level, the main actors are UNICEF, UNESCO and the World Bank, which fund projects such as the 'Special needs in the Classroom' project in India (Singal, 2006) or the 'Female Secondary School Stipend Project' in Bangladesh (Ahsan & Mullick, 2013). Furthermore, IOs are highly involved in policy formulation and monitoring. In this way, IOs such as the regional Pacific Islands Forum Secretariat (PIFS) provide expert knowledge that informs the development of policies and frameworks, and are also important critics of the status of implementation. This complements the formal role of the CRPD Committee, which is mandated to formally monitor the implementation processes in CRPD member states, in that the IOs not only assess the formal reports, but also support other actors in contributing knowledge to the development of informed critiques that are often raised by non-state actors.

The SLR also reveals other actor groups that were not identified as highly influential in the analyses of the global network, such as research actors, external experts, professionals, or multi-stakeholder committees or initiatives (see Figure 12). While in Study 3 research actors could be identified as reasonably active in the global IE Twitter network (although not significantly so), individual actors in particular were not central and were therefore grouped together as non-specific private actors. The subordinate role of these actors at the global level combined with an important role at the national level suggests that the landscape of actors directly involved in

implementation processes at the national level is even more heterogeneous than the set of actors identified at the global level. This could be due to the limited international orientation of these actors or a greater interest in implementation processes that are inevitably linked to the national level. For example, research actors have a high share of activities related to capacity development, which primarily involves conducting workshops and trainings with government staff, NGO members or school teachers to increase their knowledge in IE. Furthermore, these actors are often brought in as experts to develop policy strategies. External experts and consultants are also involved in such processes, but in addition show a high level of participation in the implementation of IE on the ground (e.g., by planning and overseeing specific programs). Multi-stakeholder initiatives, which combine the expertise of different sectors, also operate mainly in the context of policy formulation and monitoring. For instance, in Italy, a committee of academic experts, consultants, and professionals was formed to inform the development of a plan to strengthen IE in general schools (Grimaldi, 2012), and in South Africa, a coalition of multiple stakeholders addressed court-based monitoring of existing policies (McKenzie et al., 2017). In contrast, non-specific private actors, donors, and charities rather serve as providers of financial means and funding, especially in countries of the Global South.

7.2 Synthesis of results

Given the wide variance in the implementation of the CRPD and IE across member states, the role of IOs and non-state actors as potential drivers of policy change in the face of governments' refusal to take the necessary action is becoming increasingly important. By outlining the heterogeneous set of actors involved in these processes and specifying their actions, this dissertation contributes to the topic and provides insights into the different roles these actors take at multiple levels. The following section summarises the findings of the four studies in this dissertation, discusses them in the context of the current literature and places them in the conceptual framework on networked forms of governance and SNT (see Chapter 3). In a first step, the roles of different actor groups are systematically presented based on the findings of the studies. In a second step, the structures of the global CRPD and IE policy networks on Twitter are discussed in detail. In a third step, the potentials of the roles of the different actors in the context of networked governance are discussed based on SNT.

7.2.1 The role of international organisations and non-state actors in the implementation of the Convention and inclusive education

The analysis of the processes at multiple levels related to the implementation of the CRPD and IE helped to capture the variety of actors involved in these processes with their different

roles, functions and interests. This section attempts to systematise the main actor groups in order to discuss their role in the context of education policy literature. To give an overview, Figure 13 provides the main actor groups and their primary forms of involvement.

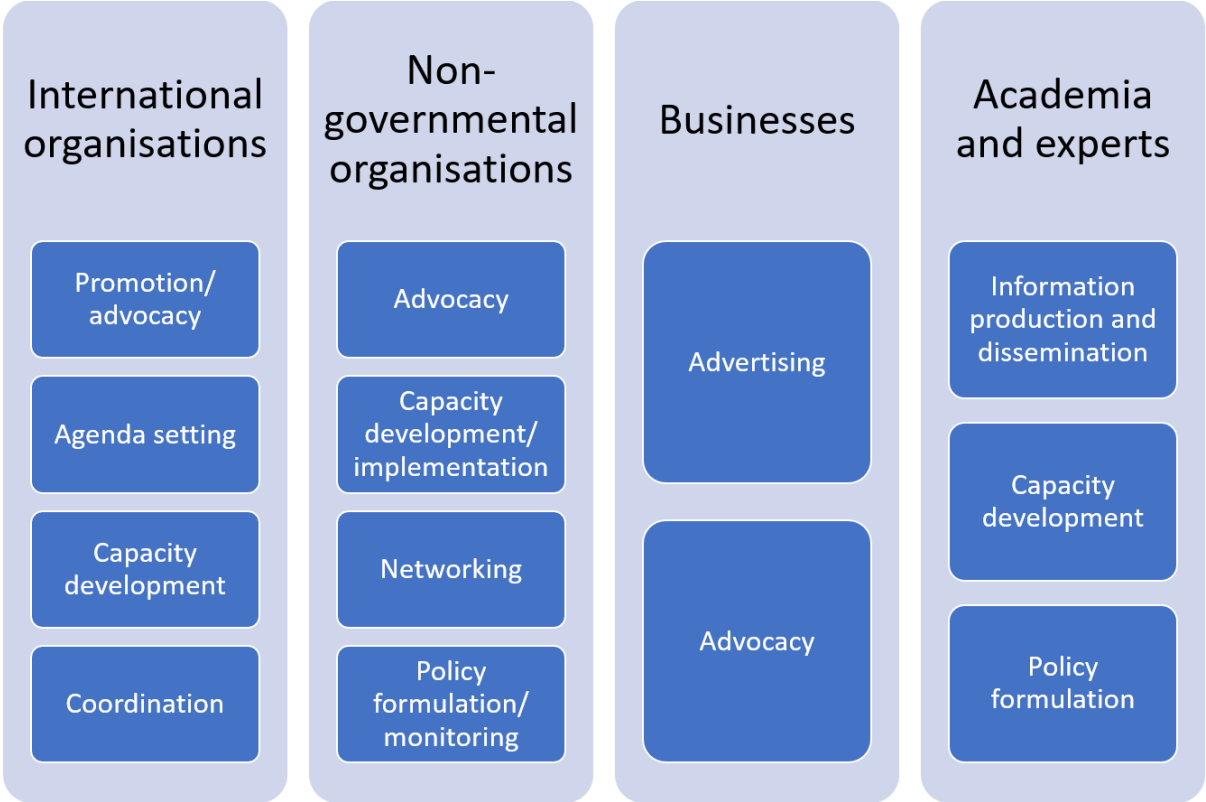


Figure 13. Overview of the main actor groups in disability and IE policy and their primary forms of involvement. (Source: own representation.)

International organisations

A synthesis of the four studies underlines the great importance of IOs and especially UN agencies for the implementation of the CRPD and IE. This is not surprising given that UN agencies have been identified as the main drivers of a human rights perspective in education (Mundy et al., 2016b). Against this backdrop, IE is a particularly interesting case for the involvement of IOs in education policy, as membership in the CRPD obliges its member states to provide IE, introducing rights-based requirements that go beyond the typical right for education. In this way, IOs can be regarded as influential promoters and advocates of disability rights and the right to IE, both at the global and national level (Duygun, 2020). Several findings of the dissertation corroborate this assertion. First, the wide distribution of reports and guidelines by IOs identified in Study 1 promotes the normative framework of the CRPD and helps to ensure that it is recognised with the necessary strength. Second, their centrality in the global policy network on Twitter, demonstrated in the first three studies, enables their information to be disseminated through retweets by others in the network, making individual tweets by IOs

powerful tools for disability rights advocacy. Following a concept developed by Goritz et al. (2020) for climate policy, this high number of retweets and mentions that IOs receive, especially in the IE network, can be understood as a high degree of ‘digital authority’ attributed to IOs by others. This further emphasises the importance of these actors. Third, the use of IOs as levers in the Twitter network, which are used by lesser-known actors to reach a broader audience through the wide reach of IO accounts on Twitter⁴, presents IOs as passive but influential knowledge brokers of information related to disability rights and IE. In summary, these findings are consistent with a role attribution by Verger et al. (2018, p. 18), according to which IOs are influential actors as “facilitators and honest brokers of evidence-based practice”. As such, this role is similar to that identified in previous studies of IOs in education, such as the OECD (Niemann & Martens, 2018). In the case of IE, however, this role is not limited to a single organisation, but is taken on by a variety of IOs.

At the same time, the findings make it clear that IOs must also be considered as promoters of their original policy fields or other topics of interest within disability policy and IE. This can be seen, on the one hand, in the publication of reports on issues related to their thematic origin or interests observed in Study 1. For instance, UNESCO and the ITU place a particular focus on the consideration of ICT use in promoting disability rights and the OECD emphasises the integration of disabled persons into the labour market, while UNICEF and the World Bank take up issues related to children’s rights and general development politics. On the other hand, these findings are further supported by the empirical analyses of issue-specific structures in the CRPD Twitter communication network from Study 2. UNESCO’s positioning at the intersection of the technology and education subnetworks shows that the organisation is closely interconnected with actors communicating about education and new technologies, indicating that UNESCO pursues a technology-oriented agenda in promoting disability rights and IE (see also Watkins, 2014). In contrast, the positions of the World Bank and UNICEF at the intersection of education and children’s and women’s rights empirically underscore their interest in promoting a rights-based agenda around the implementation of IE.

In addition to the above, within the IE network analysed in Study 3, another mechanism of IOs can be observed that underlines this effort to reinforce certain IE topics. The change in programs and initiatives introduced by the same organisations (notably UNICEF and UNESCO) that play a central role in the networks for each year shows that they are able to

⁴ For a more general and in-depth description of this mechanism in the diffusion of social innovations beyond the virtual space, see Rogers (2003).

influence the discourse on IE by introducing specific programs. To give an example, while in 2013 the G3ict advocacy initiative launched by the UN Global Initiative for ICT and Development takes a central position in the network, in the following years the Global Education First Initiative related to the SDGs is particularly central, before in 2017 there seems to be a particular focus on UNGEI. In this way, and through their central position in the network, IOs and UN agencies in particular can take on the role of agenda setters, influencing the disability and IE policy discourse not only by introducing international standards (e.g., the CRPD) but also by placing specific initiatives and programs at the centre of global networks. This accords with findings from other education policy fields such as lifelong learning (Jakobi, 2009) or climate change education (Kolleck et al., 2017), which showed the influential role of IOs and their bureaucracies in shaping education policy agendas in their favour.

The studies also point to various forms of capacity development by IOs. The systematic review conducted in Study 4 shows that the organisations provide financial resources to foster the implementation of IE in practice. These forms of support, primarily directed at countries from the Global South, have been found to be one of the main functions of IOs in education (e.g., Elfert, 2021; Jakobi, 2009; Verger et al., 2018). The same is true for the provision of ‘technical assistance’ (Jakobi, 2009), although this form of capacity development was not widely observed in the articles reviewed. Instead, IOs tend to provide technical assistance in disability and IE policy through the publication of reports on various topics, such as guidelines to support ICT use (ITU) or the collection of data (World Bank, UNESCO, or the EU). In this way, IOs “develop, promote and disseminate policies across countries” (Jakobi, 2009, p. 476). They hence offer diverse forms of support to improve implementation in practice at the national level, both by distributing general guidance and by providing financial means in specific cases.

Another important role of IOs in the implementation of the CRPD and IE is that of a coordinator. A synthesis of the studies shows that IOs play an important role in connecting different actors advocating for disability rights and IE at different levels. The main actor mandated to coordinate efforts in the context of the CRPD is the CRPD Secretariat, which not only organises the Convention’s main networking event (i.e., the COSP), but is also involved in UN inter-agency support groups on disability rights promotion. Moreover, close cooperation can be observed between the CRPD and thematically ‘neighbouring’ conventions such as the Convention on the Child or the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) (see also Holzscheiter, 2021; Kayess et al., 2014; Watson, 2012). The publication of joint reports described in Study 1 also emphasises the efforts of IOs to gather

knowledge from different actors in the field of disability policy and IE, which has been reported on in education policy before, e.g. the cooperation between the OECD and the European Commission (Grek, 2010) or UNESCO and the World Bank (Elfert, 2021). A coordinative function that even transcends the boundaries of actor types is further supported by the inferential network analysis conducted in Study 3, which found a tendency of IOs to interact with actors of other actor types than IOs. Thus, IOs in the global IE policy network on Twitter seem to be important boundary spanners, not only because they connect different issues within the disability policy framework, but also because they bring together actors from different sectors. This accords with previous studies that have shown the importance of IOs as coordinators of concerted policy efforts (e.g., Jakobi, 2009; Ydesen, 2019a).

Non-governmental organisations

Similar to IOs, NGOs appear as central actors across the different approaches selected for the studies, which is consistent with previous studies on NGO involvement in CRPD and IE policy (e.g., Rollan & Somerton, 2021; Srivastava et al., 2015). In terms of their importance in the global policy networks on Twitter analysed in Studies 1 to 3, the high centrality of leading NGOs (and DPOs in particular) is noteworthy. In the entire CRPD network, those organisations that were already involved in the drafting of the Convention, such as the International Disability Alliance or the International Disability and Development Consortium, are among the most central actors, together with NGOs that are still rather new in the field, such as the child rights organisation Lumos. Their high centrality indicates that NGOs are trying to use the accessibility and wide reach of Twitter to advocate for disability rights. It also allows them to potentially influence the flow of information in the network, which in turn can be used to shape political discourse (Kolleck, 2016). The thematic differentiation made in Study 2 further shows that the most important NGOs (e.g., Inclusion International or Disabled Peoples' International) are central in all issue-specific subnetworks, while NGOs with a narrower thematic focus only appear central in their issue-specific networks (e.g., the Women's Refugee Commission in the women's rights network or Autism Speaks in the children's rights network). This suggests that NGOs are broadly positioned in global disability policy, with a few actors with broad reach representing vocal voices in several areas of disability policy and others focusing on specific issues in particular. In the case of the IE network analysed in Study 3, this claim is further supported by the fact that DPOs in particular can be seen as both very active and popular, suggesting that very active smaller DPOs try to benefit from the wide reach of larger DPOs in order to attract attention of a broader audience. At the same time, information by popular DPOs may

be widely retweeted, further increasing their reach and promoting the dissemination of information related to the advocacy of disability rights and IE.

Another finding from Study 3 accords with the argument that NGOs culminate their efforts to strengthen their collective power. The high degree of homophily among NGOs shows that these actors tend to interact with other NGOs, suggesting attempts to establish and reinforce links between them. Similarly, the graph of the entire CRPD network in Study 1 suggests clustering of key NGOs (Figure 6). These findings can be interpreted as an attempt to build transnational advocacy coalitions between NGOs working on IE. This reading of NGO activity on Twitter is consistent with a broad education policy literature on efforts by transnational actors to join forces to collectively pursue policy goals and shape policies (e.g., Macpherson, 2016; Menashy, 2016; Mundy & Murphy, 2001). Furthermore, third sector actors in particular seek to benefit from networking to strengthen their position in education policy processes (Kolleck & Yemini, 2019). Connecting with others following a similar agenda not only enables coalition building, but can also be useful in bringing new actors into the arena who contribute additional resources or new information. Similar forms of networked advocacy by civil society at the transnational level to support implementation at the national level has also been observed in the context of the CEDAW (Zwingel, 2005). However, the findings of this dissertation on the role of NGOs as network facilitators are not limited to the global and transnational levels. The results of the systematic review in Study 4 show that NGOs often operate as organisers of conferences and other networking events (see also Lynch & Irvine, 2009; van Boxtel, 2018). Thus, NGOs can be seen as important initiators of advocacy networks in the context of the CRPD and IE at multiple levels.

As part of their general advocacy activities, NGOs are important actors when it comes to drawing general attention to the rights of persons with disabilities and the right to IE. On the one hand, this can be observed in the particularly high activity of DPOs in the Twitter IE network, which suggests that DPOs attempt to reach a wide audience through the online platform in order to increase public understanding of IE. On the other hand, the articles examined for the systematic review in Study 4 emphasise the efforts of NGOs in this regard by pointing to a comparatively high level of participation in awareness raising activities at the national level. These efforts can be seen as particularly important for other NGO activities (such as the operation of programs) given the limited resources NGOs often face (Ulleberg, 2009). Raising public awareness of the needs of disabled persons and their right to IE can attract the attention of better-funded actors such as IOs or donors, which can then lead to a more comprehensive

implementation of the policy itself. Furthermore, a broader general understanding of issues related to disability rights may also increase pressure on governments to comply with the requirements from the CRPD (see also Srivastava et al., 2015).

Despite the often limited resources of NGOs, the findings of Study 4 suggest that these organisations also significantly support IE implementation through the provision of financial and technical assistance and the roll-out of IE projects and programmes. In contrast to IOs, whose capacity building activities are mainly limited to providing guidelines and data as well as financial means, NGOs contribute to improving IE – in addition to providing basic financial support – by training teachers and specialists or running IE projects. The organisations can thus be seen as important levers for policy change in two respects: On the one hand, they support other actors (e.g., public or private schools, other non-state actors, or governments) in their efforts to increase capacity to implement IE. On the other hand, they implement IE directly on the ground to promote the education of persons with disabilities. In sum, they fulfil the function of ‘service providers’ identified in other studies (e.g., Mundy et al., 2010), promoting the implementation of education policy measures in close collaboration with other stakeholders.

Furthermore, NGOs participate in policy formulation and monitoring, often in the form of multi-stakeholder committees and initiatives. Such committees, composed of academic experts, consultants or teachers, have been formed to inform and plan IE programs (e.g., in Italy; Grimaldi, 2012) or to directly develop policies (e.g., in the Pacific Islands Region; Forlin et al., 2015). In one case in South Africa, a coalition of different organisations even filed a court case and published documents to increase pressure on the national government (McKenzie et al., 2017). In the broader context of the CRPD, NGO monitoring activities are not only linked to launch campaigns to criticise governments’ lack of efforts to comply with the CRPD, but civil society is even actively encouraged to participate in the monitoring conducted by the CRPD Committee and to contribute alternative reports on the implementation level of member states. This form of regulation, which Arduin (2019) calls ‘metaregulation’, is characteristic of the strong involvement of NGOs in the entire process of the Convention, from initiation to drafting to implementation. According to Arduin, NGOs mainly take on the tasks of norm setting, monitoring and enforcement. However, as the results of this dissertation suggest, NGOs expand these roles, especially in relation to IE, by also being heavily involved in policy formulation and implementation on the ground. This is in line with Ulleberg’s (2009) findings on NGO influence in education policy, who describes NGO activities in education as present in all stages of the policy process: from agenda setting and policy formulation to service-delivery,

monitoring and implementation. This highlights the important role of NGOs and other civil society actors in the continued implementation of disability rights and IE.

Businesses

Regarding the involvement of businesses in the implementation of the CRPD and IE, the findings are ambiguous in relation to the different levels. The results of Studies 1 to 3 on the global policy network on Twitter show that businesses overall hold central positions in the network. There are two possible explanations for this centrality: On the one hand, these actors could play an active role as disseminators of information to draw attention to specific issues and products and use Twitter as an advertising platform (see also Schuster & Kolleck, 2021c). On the other hand, they could be the addressees of retweets and mentions to attract their attention, for example from disability advocates trying to get advice or support from these businesses. In any case, their central position allows them to exert influence on the discourses around CRPD and IE policy processes (Kolleck, 2016). This central role of businesses is in line with the growing body of literature on corporate sector involvement in education, which is summarised under the term ‘Global Education Industry’ and describes various forms of influence on policy processes (for an overview, see Verger, Lubienski, & Steiner-Khamsi, 2016). Furthermore, previous research has already highlighted the importance of (assistive) technologies in improving the inclusion of persons with disabilities in society and pointed to the potential for new public-private partnerships in the provision of these technologies (e.g., Goggin & Newell, 2007; Stienstra et al., 2007). Businesses thus seem to have already recognised the market potential that lies in disability policy – despite the comparatively limited size of this market given the number of potential customers (Stienstra et al., 2007).

The findings of Study 2 provide additional information on the focus of businesses in relation to different disability issues. While multinational businesses such as Dell or Microsoft play a central role in the technology network, smaller businesses (e.g., Ai Media or Karlen Info) hold central positions in the IE network. This could be due to a limited potential of the education market for multinational businesses, which might tend to focus on broader societal areas for assistive technologies, such as assistive driving solutions or assistive ICT use at home. The widespread introduction of assistive technologies into the education system might seem comparatively less beneficial. However, the broad literature on the increasing influence of multinational IT businesses in education in recent years, particularly catalysed by the Covid-19 pandemic, suggests that at least other areas of education policy seem to be highly profitable markets (e.g., Hogan et al., 2016; Williamson, 2018; Williamson & Hogan, 2020). Thus, an alternative

explanation could lie in the specific knowledge required to offer helpful technological solutions to support IE, which could be provided by specialised smaller businesses rather than larger companies with broader agendas. So far, however, there is a lack of empirical evidence to comprehensively answer questions about the involvement of technology businesses in disability and IE policy and their motives for doing so, which would need to be explored in future research.

The detailed analysis of the IE network conducted in Study 3 shows that the businesses in this network are significantly active participants. This indicates that these actors are highly involved in the dissemination of IE-related information and link this information to specific others. In addition, the lack of tendency to connect with similar others (i.e., homophily) suggests that businesses tend to connect with all kinds of other actors. Given the still limited knowledge about the relationship between the corporate sector and IE, this network behaviour reveals an ambiguous role of these actors in IE. As profit-oriented actors, businesses are primarily interested in increasing their profits, positioning themselves as potential partners in such networks and using all possible channels (including social media) to promote their products. At the same time, by presenting inclusive products to the general public and especially to state actors, businesses can also be seen as advocates for improving IE by showing policy makers ways to overcome barriers. The relationship between the corporate sector and the disability rights community has thus the potential to be fruitful for both parties (see also Goggin & Newell, 2007; Stienstra et al., 2007).

In contrast to the roles of IOs and NGOs, which have important and similar roles at both global and national levels, the findings of the studies show a large discrepancy between the actions of businesses at different levels. While the results point to an active and central role of businesses in the global Twitter communication networks on the CRPD and IE, the systematic review conducted in Study 4 indicates a lack of presence of business actors in the implementation of IE at the national and lower levels. Only the non-specific category of ‘private actors’, which had to be created due to missing information in the articles reviewed, could include businesses. However, the context rather suggests that this category mainly comprises foundations or donors, as the main activities involve the provision of financial support. This lack of information found on corporate involvement in the implementation of IE contrasts with their central role at the global level and with the literature already mentioned on the potential of disability and inclusive technologies for (IT) businesses (e.g., Alper & Raharirinirina, 2006; Stienstra et al., 2007). Together with the findings on the global Twitter network, the involvement of the corporate sector in the implementation of IE is far less diverse than has been described for the

broader education policy context (Fontdevila et al., 2021; see also Figure 3). To what extent this is an actual refusal of businesses to enter this market and influence IE implementation, or a lack of research in this area, cannot be conclusively assessed based on the findings of this dissertation.

Academia and experts

On the road to the CRPD, another important group that influenced the emergence of a disability rights convention through the production of data and publication of scientific papers was academia (Degener & Begg, 2017). The studies included in this dissertation provide results that show that this actor group – expanded to independent experts and professionals – plays an important and diverse role in the implementation of the Convention in general and IE in particular. The detailed analysis of the IE network in Study 3 shows that research actors are active disseminators of information in the network, although their high level of activity is not statistically significant. Nevertheless, this indicates that research actors use Twitter to insert information into the network and link this information to specific others. However, the positive level of homophily suggests that these actors tend to link their information to other accounts related to academia. This can be interpreted to mean that they are more likely to take up and further disseminate the information of other research actors than to expand the network through different actor types. In contrast, the findings of the systematic review in Study 4 on the involvement of research actors and experts at national level suggest that these actors also target their activities to other actor groups. In particular, as they are involved in capacity development activities, more specifically in the training of teachers and specialists, their activities are directed towards increasing the capacity of actors as diverse as teachers, members of NGOs or state actors. The findings thus point to a discrepancy between a rather research-centred networking behaviour at the global level and far-reaching and cross-sector activities at the national level. Nevertheless, actors from academia also formed research networks at the national level, which in some cases informed the development of frameworks and policy formulation (e.g., in Spain; Baena et al., 2020). Furthermore, external experts and professionals (who can be considered ‘internal experts’) have been involved in the planning and operation of IE projects in practice (e.g., Kalyanpur, 2014; van Boxtel, 2018), but also consulted in the development of policies.

Taken together, these findings strongly indicate a tendency to rely on experts (with and without academic backgrounds) as important knowledge providers in the implementation of the CRPD and IE. This development has not only been described in public policy research as characteristic of modern societies (Stehr & Grundmann, 2015) but is also in line with a new

importance of knowledge and expertise in education policy identified in various studies (e.g., Anderson et al., 2021; Grek & Ozga, 2010; Malin & Lubienski, 2015). As Grek and Ozga (2010) argue, education policy is highly dependent on knowledge produced by experts, which has led to a ‘scientization’ of education governance, consisting mainly of knowledge closely intertwined with action. Although this ‘rise of expertocracy’ (Grek, 2013) is often linked to the expertise of IOs, particularly the OECD, the findings of this dissertation suggest that in IE policy, the voices of academia and other experts are equally important. However, as Malin & Lubienski (2015, p. 6) argue, “efforts to elevate the insights of experts may come at the cost of diminishing the voices of other valid constituencies”. The reliance on expert opinion thus needs to be balanced with voices of other advocacy stakeholders. In light of the above findings on the role of NGOs, this dissertation suggests that a wide range of actors involved in the implementation of the CRPD and IE are considered in the implementation processes, including advocates and interest groups (especially persons with disabilities themselves). Nevertheless, this point needs to be emphasised when it comes to the involvement of experts in these processes.

7.2.2 The structure of the global policy networks in the context of the Convention on the Rights of Persons with Disabilities and inclusive education

The mapping and analysis of the global CRPD Twitter network as well as the issue-specific subnetworks (especially education) in the first three studies suggests that a policy network of various actors has formed at the global level around debates on the implementation of the CRPD and IE. The high centrality of certain actor groups, such as NGOs and IOs, indicates that calls by researchers to build strong networks between actors advocating for disability rights in order to strengthen collective efforts have been at least partially taken up (e.g., Harpur, 2012; Lord & Stein, 2008; Priestley, 2007). This can also be cautiously interpreted as evidence of the concept of ‘metaregulation’ that Arduin (2019) uses to describe the policy processes surrounding the CRPD. According to this, various public and private actors are equally involved in these processes – with different priorities – and jointly drive the implementation of the Convention. Thus, Arduin locates the regulatory function of norm-setting in the realm of UN agencies, DPOs and research actors, while monitoring and enforcement is assigned to the CRPD Committee and DPOs. As the detailed analyses of actor group involvement in the previous section have shown, the different actors also take on these roles within the global CRPD network. In this respect, the global structure that has developed around the CRPD can be seen as supporting the mechanisms of metaregulation described by Arduin.

With regard to issue-specific structures in the overall CRPD network, the analysis in Study 2 shows that such structures can be identified to a certain extent. Particularly notable is the division of education-related communication into two parts, one directly linked to the subnetworks related to children's and women's rights and the other adjacent to the technology subnetwork. This indicates that key actors within the network seem to approach IE advocacy with two different perspectives: either a rights-based or a technology-based perspective. It also shows that actors focusing on IE within the CRPD have a comparatively broad focus compared to other issues. This is further supported by the result from Study 2 that the education network has the lowest proportion of monothematic actors, that is, actors who can only be found in one of the main issue-specific subnetworks. Furthermore, the comparatively low centralisation score of the IE network indicates a low hierarchy in the education network (Burt, 2000). This is also corroborated by the observation from Study 3 that IE network members seem to integrate new members over time, as indicated by the growing main component (i.e., the largest cohesive part of the network) and the constant number of isolates and loose islands (Figure 11). It appears that the IE network consists of several equally central actors who are constantly trying to expand the network by connecting with actors who also tweet about education. This low hierarchy is in line with Búrca et al.'s (2013) theoretical conceptualisation of CRPD governing processes as 'experimentalist governance', which describes the opportunity for various actors to participate in the implementation of the Convention during all stages and thus refers to a low level of hierarchy in these processes. In this way, the results of this dissertation indicate that the IE network in particular functions according to some of the mechanisms suggested by the concept of experimentalist governance – at least in the digital space. The concept thus seems to complement Arduin's (2019) concept of 'metaregulation' presented above, as it overlaps particularly in relation to a key finding of this dissertation, namely the equally important involvement of different actors at multiple stages of the policy-making process and at multiple levels.

Furthermore, according to the findings of Study 3, some general and common network phenomena can also be observed in the IE network. While network members do not show a significant tendency towards reciprocal connections, they significantly tend to form transitive triads (Granovetter, 1973). This indicates that actors tend to build connections based on pre-existing connections, but not by directly reciprocating a retweet or mention, but by following the example of a known account and mentioning or retweeting a third. In this way, the network mechanisms are comparable to those already observed in other studies from public policy research (e.g., Carpenter et al., 2004; Leifeld & Schneider, 2012). However, while in these studies transitivity could be interpreted as trust in the expertise of others, alternative explanations are

required in the context of the present Twitter communication network. In this context, the closure of transitive patterns can be interpreted either as an effort to emphasise the importance of a certain piece of information (by also retweeting it) or as increasing the pressure and attention on a certain account (by also mentioning it). In both cases, this successive expansion of transitive structures can be understood as an attempt to achieve a progressive consensus-building sought by network members that is characteristic of policy networks (Ball & Junemann, 2012). This, in turn, can lead to a reduction of resistance to policy implementation (Marin & Mayntz, 1991). In contrast, the result on reciprocity, which is rather unusual for social networks, can be interpreted as a Twitter specific phenomenon, as Kwak et al. (2010) found similar results on reciprocity in an earlier study on follower networks. According to this, Twitter users show more interest in the formation of small cohesive groups than in the mere reciprocation of relations – and so do the members of the CRPD communication network on Twitter.

7.2.3 Towards a network theoretical framework of policy networks in (inclusive) education

In the previous sections, the main findings regarding the involvement of different IOs and non-state actors in, and the importance of network structures for the implementation of the CRPD and IE were presented and discussed in the broader research context. Against the background of the theoretical considerations in Chapter 3, this section integrates the findings into the network theoretical model with the aim of approaching an empirically grounded network model that is able to capture some of the policy processes around the implementation of the Convention and IE in particular, as well as the policy networks that emerge from them. Despite the potential special position of IE in education policy due to its human rights legitimacy (Aubry & Dorsi, 2016), this model might also make promising contributions to general education policy research by offering a theoretical development of existing concepts of education policy networks.

Across the analyses of the CRPD Twitter communication network presented in Studies 1 to 3, it was shown that different actors such as IOs, NGOs, or businesses hold central positions in the network. These positions enable them to exert influence on the flow of information, as described in the network flow model (Borgatti & Lopez-Kidwell, 2011). By positioning themselves as central actors in the network, these actors can shape discourses and debates on the implementation of the CRPD and IE and thereby influence the policy process. In this way, they can be seen as ‘policy entrepreneurs’ who “contribute to building the causal beliefs that constitute the cognitive basis of programmatic ideas, packaging the programmatic ideas in a way that

makes them appealing to a range of audiences, disseminating these new ideas among practice communities [and politics; JS] and pushing for them to be implemented in particular contexts” (Verger, 2012, p. 111; see also Mintrom & Vergari, 1998). They therefore use existing network structures and create new ones (as the network mechanisms described in Chapter 7.2.2 show) with the aim of disseminating information to a wider audience and targeting specific others. The way these actors shape the traffic of information within the network can therefore lead to policy outcomes that correspond to the policy preferences of the respective actors (see also Kolleck et al., 2017). In the modified illustration of the overall framework presented in Chapter 3.3, the nodes outlined in red represent those actors who occupy central positions in the network flow with the aim of influencing this flow (see Figure 14).

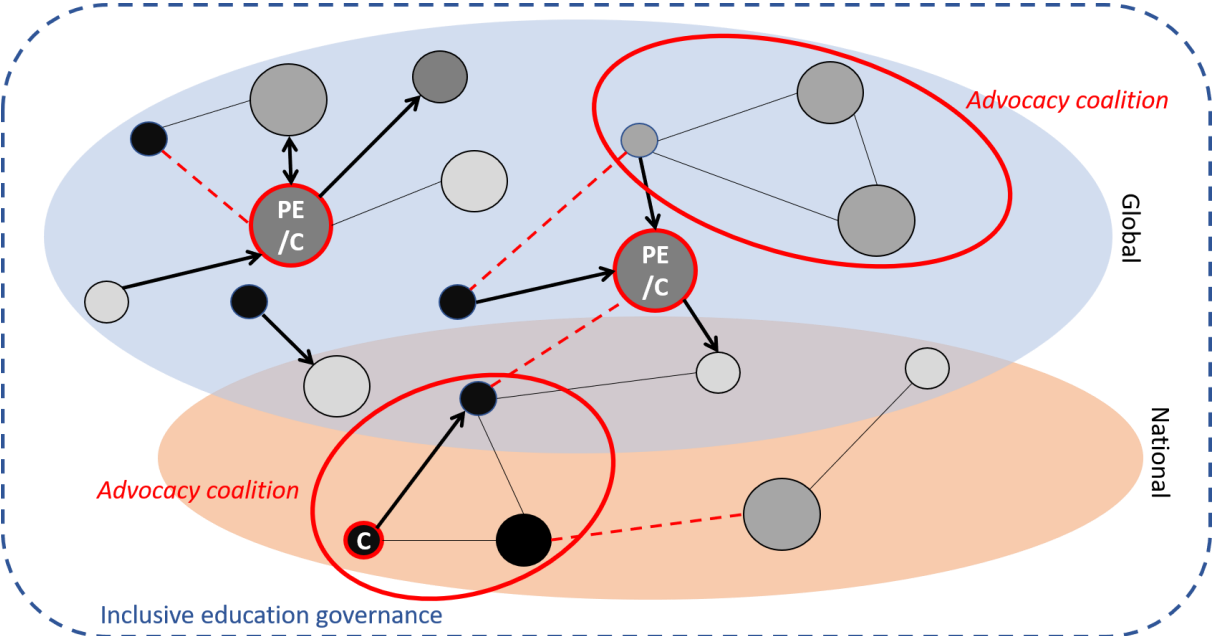


Figure 14. Extended heuristic model of the network governance process in the context of inclusive education; the nodes represent different actors, the arrows the exchange of information, the lines potential infrastructure and the dashed lines connections of the general network architecture; PE= policy entrepreneur; C= coordinator. (Source: own representation.)

In order for information to flow through the network in a certain way (and in a way that is favourable to certain actors), the network structure (i.e., the backcloth) is important (Borgatti & Lopez-Kidwell, 2011). As the network structure offers the possibility to influence network outcomes, the design of the structure is a powerful tool to shape discourses and policies (Sandström & Carlsson, 2008). Thus, the findings of this dissertation show the extent to which network members seek to create structures that enable support for their policy preferences. This can be seen, on the one hand, in the efforts of NGOs to form advocacy coalitions with other NGOs. These actors are therefore primarily concerned with creating structures among other

actors with similar backgrounds in order to pool potentially similar resources and thereby increase collective impact. In the heuristic model set out in Figure 14, the red circles represent such structures of similar actors who establish structures between themselves. On the other hand, IOs seem to connect with other actor types to bring together different backgrounds. This, in turn, can enable the gathering of various resources, different ideas and innovative solutions that can contribute to the achievement of shared goals. Again, the nodes outlined in red can be seen as such actors (see Figure 14).

Despite these different approaches to the creating network structures, both IOs and NGOs can be seen as coordinators of transnational advocacy networks that transcend national borders to influence education policy at global and national levels. To this end, certain actors (outlined in red in Figure 14) take on the role as coordinators trying to create such structures. As Nam-bissan and Ball (2010, p. 326) put it, these transnational advocacy networks constitute “relations for the diffusion of knowledge and information and typically seek to pluralize political authority.” According to Macpherson (2016), who studied transnational networks in the context of the Global Campaign for Education, such transnational networks can therefore help build community among members, organise information, or disseminate new ideas. By establishing structures among others advocating for disability rights and IE, IOs and NGOs, but also businesses as active members of the education and technology networks, can increase collective impact to advance the implementation of the CRPD and IE. In addition to these network structures at the global and transnational levels, the findings of the systematic review in Study 4 suggest that network structures are also being established at the national level. For instance, research networks are being formed to inform policy formulation, or multi-stakeholder initiatives are being launched to jointly influence IE policy-making (Schuster & Kolleck, 2021a). In this way, the findings of this dissertation accord with the potential of the suggested framework as a network theoretical extension of policy network theories by incorporating the network flow model of Borgatti and Lopez-Kidwell (2011): different actors and actor groups create network structures for their benefit, which they can use to pursue their individual or collective goals.

In addition, issue-specific network structures are formed that emphasise particular issues within the broader CRPD context. These structures result from the communication of actors who seem to have a focus on certain aspects of disability policy, which they attempt to promote within the broader disability policy debates. Again, particularly IOs and NGOs with an official focus on the respective issues can be observed as the main drivers of such structures. The establishment of such structures can further strengthen the collective power of the actors involved

by pooling knowledge and experience in certain areas to increase the visibility of these issues in a broader policy context. Furthermore, certain actors operating at the intersection of such issue-specific structures (e.g., UNESCO at the intersection of technology and education, or UNICEF and the World Bank at the intersection of education and children's and women's rights) can help to establish links between such issue-specific structures. Again, IOs in particular are in a position to act as boundary spanners, not only in terms of sectoral boundaries (in forms of specific actor types), but also in terms of thematic boundaries. So while building such structures is beneficial for developing issue-specific solutions between actors with a similar thematic focus, it is equally important to find and establish actors that connect the different issue-specific structures in order to have a network structure that enables the best possible outcomes (Sandström & Carlsson, 2008).

The results of the systematic review conducted in Study 4 provide some insights into the mechanisms underlying the network architecture model of Borgatti and Lopez-Kidwell (2011) to explain networked governance processes operating in the IE policy process. The various forms of activities uncovered in the study point to the efforts of actors involved in the implementation process to contribute to the outcomes within their scope of capacity. It can be assumed that the actors are embedded in structures that allow them to bring their individual qualities to the implementation process. For example, the involvement of research actors and experts in the development of frameworks and guidelines suggests a general network architecture in which the expertise of these actors is taken into account in policy formulation. Similarly, the awareness raising activities of NGOs can be seen as an integral part of the empowerment of disabled persons promoted by other advocacy groups. Figure 12 is indicative of such an architecture, as it illustrates the potential of the combined capacities of different actors engaged in similar activities to increase IE implementation efforts (Schuster & Kolley, 2021a). In the broader context of the overall framework presented in Figure 14, this network architecture is represented in the dashed lines connecting different actors. This mechanism, described in studies on policy networks (e.g., Kenis & Schneider, 1991), can be seen as essential to the collective impact that IOs and non-state actors can have in networked governance processes. The findings of this dissertation thus provide first insights into how a general network architecture with its structural and contextual interdependencies, in which the different actors involved can pursue their common goal by contributing their individual qualities (Borgatti & Lopez-Kidwell, 2011; Ingold et al., 2021), can be observed in the context of CRPD and IE policy-making.

In this way, the results of the synthesis suggest that a combination of the models proposed by Borgatti and Lopez-Kidwell (2011) provides a suitable framework for describing the policy networks related to the implementation of the CRPD and IE. The framework offers the possibility to take into account the actual flow of information and the structures that enable this flow, while at the same time considering the individual actions and qualities of the actors involved as embedded in a general network architecture. In doing so, the framework also allows to transcend the traditional distinction between global and national/local contexts and to view the processes from a transnational perspective, as called for by various education policy scholars (e.g., Ball, 2016; Dale & Robertson, 2012). In particular, the easy accessibility and global reach of Twitter lowers the barrier for actors with a local focus to also participate in global debates and network with other smaller and larger actors worldwide. At the same time, the increasing influence of IOs, international donors and transnationally operating NGOs on national policy processes, which is described in a large body of research (for an overview, see Mundy et al., 2016a), and the ways these actors interact with local stakeholders emphasise the need to take such structures into account when analysing processes at the national level. In this way, the framework is able to capture and describe the transnational structures and network processes that influence IE policy-making. In addition, it sets the ground for considerations that not only transcend geospatial borders, but also take into account the blurring of digital and analogous spaces (Gulson et al., 2017).

7.3 Limitations and directions for future research

This dissertation project has provided valuable insights into the policy-making processes in the implementation of the CRPD and IE, particularly the involvement of non-state actors and IOs in these processes. Despite the value of the empirical results and their contributions to theory, some limitations that may partly restrict their explanatory power need to be addressed, concerning both the methodological approaches used for the studies and the theoretical framework employed for the conceptualisation of the findings. Therefore, this chapter discusses the main limitations of the dissertation and presents new ideas and directions for future research.

A first limitation concerns the data set used for the analysis of the global policy network, namely the Twitter data. As with any other type of data, Twitter data has limited generalisability, which is only possible, if at all, within the Twitter sphere. Although similarities and comparable mechanisms between Twitter and offline networks are increasingly demonstrated in the literature (e.g., Dunbar et al., 2015; Goritz et al., 2021), inferences from findings from Twitter networks to the ‘offline’ world should be made with caution. This applies in particular to the

large differences in Twitter use between the actors involved in education policy, which could be observed in the present studies, but also in studies on other education policy topics (e.g., Schuster & Kolleck, 2021c; Supovitz et al., 2018). State actors in particular still seem reluctant to participate in Twitter debates, while private actors such as NGOs or businesses show a high level of online activity. A large discrepancy can also be observed when comparing the involvement of IOs, with some (e.g., UN agencies) being particularly central and others that normally play an important role in disability and education policy (e.g., WHO, the OECD, or the EU) hardly being observed in the Twitter communication network. Thus, while the concept of virtual policy networks (McNutt, 2007) has been used to approach global policy networks in the context of the CRPD and IE through online relations, these networks might differ if approached differently. To further deepen the understanding of the mechanisms by which these networks and the actors involved influence policy-making processes related to IE at the global and transnational levels, future research could use additional network data (e.g., through surveys or documents) that complement the analyses conducted in this dissertation.

Directly related to this is a limitation regarding the methods used to analyse the Twitter data. SNA is particularly useful in studying social networks and the inferential techniques employed even allow assumptions about the structure of a network to be tested statistically. However, a mere focus on the relations implied in tweets, as derived from retweets and mentions, neglects the content and quality of the information included in the messages. Given the primary interest of the analyses at the global level (i.e., the global network around the CRPD and IE), a focus on the relations was within the scope of this research and provided valuable insights into the potential influence of central actors (as inferred from their central position; Kolleck, 2016) and the characteristics and topology of the network. In addition, the use of computer-assisted techniques enabled the systematisation of tweets according to the main issues addressed. Nevertheless, using qualitative methods to analyse the Twitter communication could shed further light on how different users apply Twitter to pursue their individual policy goals. While more traditional methods such as discourse analysis or content analysis based on manually coded data are difficult due to the large number of tweets, innovative and computer-assisted techniques such as natural language processing (e.g., Kolleck & Yemini, 2020), discourse network analysis (e.g., Leifeld, 2016) or sentiment analysis could be used in future studies to complement the findings from the SNA. Furthermore, the Twitter data could be complemented by interviews with those responsible for the Twitter communication to increase the knowledge about the motivation and leading interest to engage in these social media debates on education policy (e.g., Rehm et al., 2020).

A third limitation relates to the SLR used to capture the various actors and forms of involvement at the national level and below. As the aim of this dissertation was not to empirically analyse mechanisms at the national level through a case study, but to systematise and generalise IO and non-state actor involvement at the national level, the SLR approach was suitable to provide such findings. Furthermore, the restriction to articles from peer-reviewed journals ensured a certain level of quality of the included studies. However, this limitation excluded potentially interesting reports from IOs or NGOs that could have yielded further insights into the role of these actors in implementing the CRPD and IE (e.g., UNESCO, 2020). In addition, expert interviews of or surveys with IOs or non-state actors operating in specific countries could provide further evidence on mechanisms not covered in the scientific articles, as has been done by education policy scholars before (e.g., Verger et al., 2017). Furthermore, and relatedly, the research design of this dissertation covers multiple levels and reveals mechanisms that go beyond these levels, but lacks a clear multi-level design that could have been appropriate for similar research questions on the same topic. The main aim of the dissertation project was not to trace the movement of IE policies from the global to the national level, as examined in studies on education policy borrowing and lending (for an overview, see Steiner-Khamsi & Waldow, 2012). Nevertheless, it might be interesting to directly relate policy processes at the national level (e.g., the publication of frameworks and policies or the implementation of projects) to recommendations from IOs or private actors operating internationally. Such approaches have already been used by education policy researcher, particularly in relation to the influence of the OECD (e.g., Ydesen, 2019b), and an examination of comparable processes in the context of the CRPD and IE could enhance the understanding of the implementation processes.

Finally, the concepts of policy networks and networked educational governance have not been without criticism in education policy research and beyond in recent years (e.g., Ball & Junemann, 2012; Galloway, 2011; Goodwin, 2009; Gulson et al., 2017). This critique concerns primarily two dimensions of the study of policy networks and networked governance. The first relates to the question of what is actually represented when a network is visualised. Ball and Junemann (2012, p. 10) state that “the nature of the relationship between [network; JS] members (as represented by the arrows in the network diagrams [...]) is not the same in every case”, which is especially true for the method used by Ball and Junemann (i.e., network ethnography). At the same time, when relying on well-defined relations (as in the analysis of mentions and retweets), the network represents only a very limited form of relation, thus overlooking other forms that exist simultaneously. A researcher studying (education) policy networks must therefore choose one approach and deliberately neglect the other. The second dimension refers to an

even broader problem, namely “how we know what we know in the social sciences” (Rhodes, 2008, p. 442). In this particular case, policy networks often remain themselves the object of study without being linked to the actual governance, leaving questions about policy outcomes unanswered (Gulson et al., 2017). Connections from the structure and key actors of networks to policies are therefore often only hinted at, if at all. Moreover, the focus on policy networks neglects the broader context in which they emerge. Thus, several scholars suggest drawing on ‘new topological spatialities’ in education that allow us to capture the various relational dynamics at work in education policy processes (Gulson et al., 2017; Lewis et al., 2016; Lingard & Sellar, 2014). Although this dissertation cannot find answers to these problems and faces limitations in relation to this missing link between policy network and governance, the approach can be interpreted as an attempt in the direction called by these scholars, as it transcends the traditional levels (i.e., global and national) and includes the online space in the analysis of education policy networks and networked governance. Furthermore, the multimethod approach allows for the partial inclusion of the broader policy context.

In addition to the above, future studies would need to link governance processes and policy outcomes related to the CRPD and IE more comprehensively to network relations in order to fully understand the influence of such networks and the actors involved. This could allow for a theoretical extension of the framework proposed in this dissertation by integrating the outcomes of these processes as an additional part. In doing so, the creation and emergence of certain structures or a specific network architecture, for example, could be directly linked to consensus building between different actors, which in turn can lead to reduced resistance to policy implementation (Ball & Junemann, 2012). While this dissertation provides initial ideas to an integration of SNT into theories of education policy networks, such an extension could constitute a more robust framework for describing the networked governance processes that underlie the entire policy cycle (i.e., from agenda setting to evaluation; Jann & Wegrich, 2007).

7.4 Implications for education policy and practice

With its focus on implementation processes of the CRPD and IE, the emerging networks and the role of the different actors involved in these processes, this dissertation project aims to contribute to knowledge on IE policy-making. Although the studies included in this dissertation have only addressed some aspects of this policy context and the findings need to be extended in future research, implications for education policy and practice can be derived from the results and will be discussed in this section.

The dissertation contributes to closing research gaps regarding the involvement of IOs and non-state actors in the implementation of IE. By highlighting the different ways in which these actors are involved at the global and transnational levels, as well as at the national level and below, the findings demonstrate great potential for engaging these actors at several stages of the implementation process, with each actor focusing on specific issues and activities. For example, policy-makers could enhance their consultation of NGOs and research actors to make more informed decisions based on the knowledge and experience of these actors, who often have a broad overview of the field and are knowledgeable about potential challenges and how to address them. While some states already rely to some extent on this knowledge, others still refuse to fully consider the opinion of these actors in decision-making. This seems particularly detrimental given the findings of some of the articles examined in Study 4, which show the great potential of including NGOs and research actors in policy-making processes.

Furthermore, it might be helpful for decision-makers to establish stable partnerships to support the implementation of the CRPD and IE on the ground. As the results of this dissertation show, networks are an integral part of IE policy implementation. However, state actors in particular still seem reluctant to engage in such networks in the context of IE, even though they could benefit from private-public partnerships to successfully adapt their approaches to the actual needs of the addressees, as has already been observed in other areas of education policy (e.g., Kolleck & Yemini, 2019; Rose, 2010; Verger, 2012). NGOs can draw on many years of experience in their fields, often based on projects they have implemented themselves and the extensive exchange with persons with disabilities, and can thus bring their expertise to bear on the development and implementation of IE projects. Clear mandates and planned strategies formulated by stakeholders could lay the foundation for fruitful partnerships and encourage private actors to engage in IE, thus strengthening the capacities of all stakeholders involved. Similarly, partnerships with IT businesses could enhance the provision of assistive technologies to support the education of disabled persons. However, given the increasing marketisation of education and the growing influence of IT businesses in the education market (e.g., Williamson & Hogan, 2020), such public-private partnerships would need to be established on the basis of strict rules and with limited powers for the private actors to maximise benefits and minimise risks (Verger, 2019).

As far as the actions of civil society are concerned, the findings of this dissertation show that the high level of engagement of these actors, which could already be observed on the way to the Convention, can also be seen in the implementation, both in relation to the CRPD and IE.

In particular, the close network structures and alliances called for by various scholars (e.g., Lord & Stein, 2008; Priestley, 2007; Torres Hernandez, 2008) already seem to be visible at multiple levels. Nevertheless, these partnerships could be further expanded between actors committed to broader implementation of the CRPD and IE. The analysis of the Twitter communication network shows that social media sites such as Twitter could be helpful platforms to lower the threshold for such exchange and thus facilitate networking. Furthermore, the results of Study 4 suggest that NGOs still show little activity in monitoring implementation. However, the existing participation of NGOs in the official monitoring process, ensured through their consultation by independent national CRPD monitoring bodies, demonstrates the potential of joint civil society forces in monitoring the Convention. Disability advocates could extend these efforts by launching campaigns and even court cases to criticise the CRPD and IE implementation. Such collective action could also minimise the costs of individual actors and in turn increase the potential hidden in the concertation of individual qualities. Based on the theoretical framework used in this dissertation, a network architecture that includes different actors with individual backgrounds, resources and potentials could further strengthen the role of civil society actors.

For practitioners working in IE, the findings of this dissertation provide ideas of how they can better benefit from the involvement of IOs and non-state actors in the field. Although practitioners are often associated with public institutions (e.g., public school teachers or administrators), in the absence of sufficient state regulation, these actors could learn from these findings and use the activities of the different stakeholders to improve their practice. For example, they could apply for funding from IOs to carry out their own IE-related projects, or they could participate in training programmes offered by research actors or NGOs to improve their capacities in developing inclusive learning environments. In doing so, practitioners themselves can become part of the networks that emerge around the implementation of the CRPD and IE – as has already been demonstrated in parts of this dissertation project. Furthermore, the results show that the opportunities for individuals to participate in such processes are not necessarily limited to the local level, but can also shift to the transnational level by using social networking platforms such as Twitter to make their voices heard. In this way, the dissertation sheds light on these new forms of political engagement that enable different actors to participate in policy processes.

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Appendix

Study 1

Disability as a ‘New’ Global Social Theme: The Role of International Organizations in an Expanding Global Policy Field

Schuster, J., & Kolleck, N. (2021). Disability as a ‘New’ Global Social Theme: The Role of International Organizations in an Expanding Global Policy Field. In K. Martens, D. Niemann, & A. Kaasch (Eds.), *Global dynamics of social policy. International organizations in global social governance* (pp. 207–230). Palgrave Macmillan.
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Abstract

Disability as a global social policy issue has gained increasing importance during recent decades, partly due to a shift in conceptualization from a medical to a social perspective on disability. This new relevance has led to the emergence of a global organizational field around the topic, with a high involvement of international organizations (IOs). In order to investigate the population of IOs in the field, this chapter identifies influential actors, relates them to the main discourses and maps their relations. It can be seen that agencies of the United Nations have become the key actors in promoting the rights-based social perspective and the monitoring of the implementation of disability rights. In contrast, the World Health Organization is still the leading organization in the provision of medical classification systems. Overall, it can be noted that the organizational field leaves space for IOs to influence the direction of global and national disability policy.

1. Introduction

Disability as a global social policy issue has gained increasing importance during recent decades. Largely responsible for this development has been a shift in the general conceptualization of disability – from a medical perspective that views disability as a person’s limitations to the perception of disability as limitations imposed by society. After many years of struggle for recognition, the adoption in 2006 of the Convention on the Rights of Persons with Disabilities (CRPD) by the United Nations (UN) represented a seminal step in establishing disability as a human rights issue. Due to this new acknowledgement of disability as a global social policy issue, a global organizational field with a variety of different international actors has emerged around the topic, with strong involvement by International Organizations (IOs).

Today, global policy is no longer made by nation states alone but includes a heterogeneous set of different public and private stakeholders, such as IOs and non-governmental organizations (NGOs) (Jakobi 2009). The concept of global governance underlines the influence of non-state actors in the interplay with state actors in relation to a specific policy (Rosenau 1995; Zürn 2018). Moreover, the diverse actors of an organizational field are interdependent, which means that they build networks to form alliances and disseminate information in order to strengthen their positions (Adam and Kriesi 2007). IOs often have a particular mandate that allows them to act in a frame predefined by their member states. However, public administration scholars have agreed that IOs and their administrations exert additional political influence by shaping discourses and setting agendas for specific topics (Barnett and Finnemore 1999; Bauer et al. 2017). This means that the traditional principal-agent model – with leading nation states as principals creating international regimes as their agents that work on predefined problems – is outdated in some fields of social policy, making it particularly interesting to investigate the role of IOs.

An investigation of the population of IOs in a specific social policy field needs to consider two approaches: the organizational environment and the intrinsic features (Abbott et al. 2016). Whereas the organizational environment encompasses the general characteristics of a policy field (i.e., the beliefs and norms) as well as the involved actors and their relationships (i.e., the social networks), the intrinsic features relate to the inherent characteristics of organizations (such as membership rules and thematic orientation) and the way these define an organization’s scope of action (Niemann et al. in this volume). As there is still only limited knowledge about the population of IOs in disability policy, the aim of this chapter is to introduce disability as a global social policy theme and to identify important actors, with a particular focus on IOs. First,

we give an overview of the policy field and its development from a global perspective and present the main IOs in terms of their involvement in disability policy. In order to approach a mapping of the organizational field of global disability policy, we identify the most central actors and their connections based on Twitter data. We then present the main topics discussed in the field, followed by a short conclusion of the chapter.

2. Background of (global) disability policy discourse and involvement of IOs

In general, disability policy is a comparably novel topic of social policy. Before the twentieth century, persons with disabilities were mostly hidden from society and it took governments until the end of the Second World War to explicitly address the needs and rights of disabled persons through policies. According to Drake (1999, 36–41), domestic disability policies can be evaluated along a spectrum from policymaking that denies disability rights, to an approach that seeks to identify individual disadvantages in order to provide necessary services for adjustment, to a social approach where disabled people are accorded the rights to participate in society as equal citizens. For a better understanding of disability in both a national and global context, two main concepts can be distinguished: the medical model and the social model of disability (Kayess and French 2008; Harpur 2012). In this section, the two models are explained and related to IOs, thereby partly describing the intrinsic features of these IOs. Subsequently, an additional model – the economic model – is presented and the role of regional organizations is briefly discussed.

2.1 The medical model and WHO

The medical model of disability conceives of disability as “a personal tragedy” and focuses on the “affliction caused by the particular condition or impairment and the provision of cure, treatment, care and protection to change the person so that they may be assimilated to the social norm” (Kayess and French 2008, 5). Thus, in this model the limitations are caused by the impairment itself, neglecting the role of the social environment and the barriers it builds. In social policymaking, this conception has led to disability policies that categorized persons with disabilities according to their disadvantages and that urged them to adjust according to their unique and individual needs, for example the Chronically Sick and Disabled Person’s Act (1970) and the Disability Discrimination Act (1995) in the UK (Priestley 2000) or the Rehabilitation Act (1973) in the USA (Barnes 2011). This model enhanced welfare policies to support the disabled individuals in their adjustment, such as accommodating them in separate houses or providing financial support and care (Priestley 2000). Inherent in such an approach is an increased expenditure on health care and research (Jeon and Haider-Markel 2001). These attempts created

a whole new professional system of welfare that aimed to rehabilitate persons with disabilities. This in turn exempted persons with disabilities from (labor-related) duties and established and institutionalized a climate of societal segregation (Drake 1999).

The one IO that is closely intertwined with the medical model is the World Health Organization (WHO). In order to establish universal definitions for different forms of disability and impairment, WHO published the International Classification of Impairments, Disabilities, and Handicaps (ICIDH) in 1980. The document was divided into the three categories, impairments, disabilities, and handicaps, with concise definitions for each (WHO 1980, 27–29). The classification system was used for the assignment and provision of services and benefits. This focus of WHO on the medical model lasted until the beginning of the twenty-first century. The organization then replaced the ICIDH with its International Classification of Functioning Disability and Health (ICF) and thereby adopted – at least to some extent – the social model (Barnes 2011). Other activities of WHO include the community-based rehabilitation guidelines – published in close cooperation with other inter-governmental and non-governmental actors (e.g., the International Labour Organization (ILO), UNESCO, or the International Disability and Development Consortium (IDDC)) – which mainly cover the provision of medical support (Lang et al. 2011), or the World Report on Disability, published together with the World Bank, which provides a comprehensive outline of the status quo around persons with disabilities and provides suggestions for all sorts of different stakeholders (WHO 2011).

2.2 The social model and the UN

In contrast to the individual model, the social model of disability states that “contingent social conditions rather than inherent biological limitations constrain individuals’ abilities and create a disability category” (Stein 2007, 85). This concept – which was promoted by a growing disability rights movement that started to emerge in the 1960s, particularly in the US and the UK – shifts the focus from the impairment itself to the society as the cause of barriers (Kayess and French 2008). The movement was substantially led by the British disability rights network known as the Union of Physically Impaired Against Segregation, which rejected more mainstream ideas in order to enforce the acknowledgement of the social model (Shakespeare 2010). This sociopolitical or rights-based approach to disability policymaking implied that the adjustment of the physical environments of disabled persons to their needs was what was necessary, rather than a “medical repair” of the concerned persons themselves (Jeon and Haider-Markel 2001, 216).

In tracing the development of the disability rights movement and thus the emergence and acceptance of the social model, we can see that they are closely interlinked with the UN (Degener and Begg 2017; Stein 2007). The first non-binding declarations, such as the Declaration on the Rights of Mentally Retarded Persons in 1971 and the Declaration on the Rights of Disabled Persons in 1975, still tended to emphasize individuals' medical needs. In contrast, by declaring the year 1981 the official International Year of Disabled Persons – which was succeeded by the International Decade of Disabled Persons (from 1983 to 1992) – the UN gave particular attention to the rights and interests of persons with disabilities (Stein 2007). A seminal step was then made with the adoption of the Standard Rules on the Equalization of Opportunities for Persons with Disabilities in 1993, which although only “soft law and legally unenforceable” (Stein 2007, 89) nevertheless represented an initial UN instrument that exhorted member states “to ensure the equalization of opportunities for disabled persons” (Stein 2007, 89). Until today, the Standard Rules are conceived as a leading watershed in the development of global disability rights. Finally, at the beginning of the new millennium, disability rights successively became a human rights issue worthy of their own convention, having been promoted by individual states (such as Mexico and New Zealand) as well as scientific studies which looked at the neglect of disabled persons in the core human rights conventions beyond the medical perspective. The convention itself was discussed and drafted by an Ad Hoc Committee which was established in December 2001 and included significant involvement by civil society organizations. After a process of eight sessions, the final document was adopted in December 2006 and came into force in May 2007 (Degener and Begg 2017).

Today, the UN is the driving force in global disability policy. The implementation of the Convention is monitored by the Committee on the Rights of Persons with Disabilities, which is located at the Office of the High Commissioner for Human Rights in Geneva. Signatories are obliged to submit reports on the progress of the implementation of the CRPD every four years. The Committee then evaluates the reports and returns general observations, including recommendations for further implementation. Moreover, the main tasks of the Committee comprise the preparation of General Comments on specific issues of the Convention as well as the examination of individual complaints (Uerpmann-Wittzack 2018). It should be noted that as well as the Committee's other tasks, the development of the reports is exercised in close consultation with different non-state actors, foremost disabled persons' organizations (DPOs).

Besides the Committee and its administration, the main focal point of the CRPD and disability rights at the UN is the CRPD secretariat, which is located at the UN headquarters in New

York. The secretariat falls within the Division for Inclusive Social Development (DISD) of the UN Department of Economic and Social Affairs (UNDESA). The secretariat is established to promote the international normative framework on disability, to support other inter-governmental bodies concerning disability rights issues and to service the annual Conference of States Parties (COSP) (UN Enable 2020). The COSP represents – for human rights treaties in particular – an innovative mandate and provides a forum for constant exchange and discussion between member states, IOs and civil society organizations (Búrca et al. 2013).

However, the promotion of disability rights in the UN is not limited to the main bodies, but also brings together other UN divisions and specialized agencies, such as the UN Educational, Scientific and Cultural Organization (UNESCO), the UN Children’s Fund (UNICEF), and the World Bank. UNESCO is an official supporter of the CRPD and has adopted an action plan including “research and evidence-based data collection, development of policies and strategies on inclusion of persons with disabilities, building an enabling environment and raising awareness, development of appropriate tools for instruction and capacity building” (UNESCO 2020). In doing so, UNESCO places a strong emphasis on the promotion of inclusive information and communication technologies (ICTs), as can be seen from the publication of model policies for inclusive ICTs to support UNESCO member states in the implementation of specific issues concerning disability policy (Watkins 2014). Whereas the focus of UNESCO is linked strongly to the CRPD, UNICEF’s concern with disability rights has been an integral part of their work since the Convention on the Rights of the Child (CRC) (see also Holzscheiter in this volume). Predominantly focusing on the rights of children with disabilities as “one of the most marginalized and excluded groups in society” (UNICEF 2020), UNICEF follows three disability goals. First, it commits itself to being “an inclusive organization for all” (UNICEF 2020), stating that the organizational staff includes an adequate number of persons with disabilities, but also undertakes efforts to raise awareness on disability issues. Second, it aims to “develop leadership on the rights of children with disabilities and build capacity among [its] staff and [its] partners” (UNICEF 2020). This means engaging in collaborative relationships with other UN stakeholders as well as actors from civil society, academia or the private sector. The third goal is to “mainstream disability across all of our policies and programs, both in development and humanitarian action” (UNICEF 2020). UNICEF mostly implements programs in different countries, predominantly in the Global South, in order to support them in the implementation of the CRPD.

As one of the leading IOs in the global social policy field, the World Bank is also considering disability. Its goal is to “integrate disability into development through its analytical work, data and good-practice policies” and to include disability-related issues in its operations (World Bank 2020). Besides the World Report on Disability (WHO 2011) that has been published together with WHO to give a comprehensive image of the global status quo in disability policy, the World Bank has a focus on the inclusion of disability and disabled persons in its own work. As mentioned in its Disability Inclusion and Accountability Framework, the guiding principles in the World Bank’s disability inclusive work are based on the CRPD and encompass nondiscrimination and equality, accessibility, inclusion and participation, as well as partnership and collaboration (McClain-Nhlapo et al., 2018). This suggests a rights-based perspective of the organization that is in slight contrast to its previous collaboration on this issue with WHO.

2.3 The economic model

A third dimension of disability policy that can be found in the literature has emerged in close relation to the shift from the medical to the social model and therefore has implications for the understanding and setup of the global disability policy field: an economic definition. From this perspective, disability is understood as a “health-related inability or a person’s functional limitations on the amount or kind of work that disabled people can perform”, with associated calls for policy solutions to remove these barriers (Jeon and Haider-Markel 2001, 216). Consequently, disability policymaking is supposed to aim at an inclusion of persons with disability into the labor market in order to have them contribute to the economic success of a country. Moving towards the establishment of such inclusive environments – even if most of them have not yet been implemented successfully – implies a shift from a welfare system for disabled people to a ‘workfare’ system (Peck 2001). The underlying assumption of this approach is that citizens who benefit from the welfare system need to contribute by participating in the labor market – a system of conditionality that is increasingly implemented by Western welfare states (Geiger 2017; Soldatic and Chapman 2010). The IO that exerts a particular influence on the development of such a model is the Organisation for Economic Co-operation and Development (OECD). In a collection of country reports from 2003, the OECD discusses opportunities to integrate disabled people into society in general as well as ways to secure their income by building inclusive structures in the labor market (OECD 2003). Another series of books published between 2007 and 2010 called *Sickness, Disability and Work: Breaking the Barriers* also examined different country case studies according to the inclusiveness of their employment structure for persons with disabilities (OECD 2010). A similar agenda is set by the ILO, which has continuously extended its instruments in regard to the rights of persons with disabilities.

The ILO adopted a first recommendation concerning Vocational Rehabilitation of the Disabled (R099) in 1955 in order to “meet the employment needs of the individual disabled person and to use manpower resources to the best advantage” (ILO 1955). The recommendation was then renewed in 1983 (R168) and led to the technical Vocational Rehabilitation and Employment (Disabled Persons) Convention (C159), which entered into force in 1985.

2.4 Regional organizations

The global disability policy field consists not only of IOs, but also includes regional organizations. As the first ever supranational organization to sign an international human rights treaty, namely the CRPD, the European Union (EU) has a disability strategy that addresses eight priority areas: accessibility, participation, equality, employment, education and training, social protection, health, and external action (European Commission 2010). One main objective of the EU is the collection of comprehensive information and data on the implementation status of the CRPD in its member states. For instance, it has launched the European Agency for Special Needs and Inclusive Education, an independent organization that provides information about the schooling of persons with special needs in the member states. Even broader thematically is the Academic Network of European Disability Experts, which offers a database summarizing the implementation status of the Convention in regard to the most important topics, such as accessibility, education, or employment.

There is significant variation in the ways in which other regional IOs address disability rights. Two examples stand out because of their explicit strategies and policies. The African Union introduced two African Decades of Disabled Persons (2000–2009 and 2010–2019), which led to the recent adoption in January 2018 of an additional Protocol to the African Charter on Human and People’s Rights on the Rights of Persons with Disabilities. The main purpose of the Protocol is “to promote, protect and ensure the full and equal enjoyment of all human and people’s rights by all persons with disabilities, and to ensure respect for their inherent dignity” (African Union 2018, 5). Similarly, the Association of Southeast Asian Nations (ASEAN) adopted the Enabling Masterplan 2025 in November 2018 to mainstream the rights of persons with disabilities. This is conceived as an additional framework in support of the implementation of the CRPD in ASEAN member states (ASEAN 2018).

3. Mapping the global disability policy field based on Twitter data

As we have already shown in this chapter, the population of IOs in the field of disability policy is diverse and contains many different organizations. Besides these international and supranational actors, the global disability policy sphere also comprises a variety of NGOs,

mostly DPOs, that are engaged in the advocacy of disability rights. During the disability rights movements in the late twentieth century, these organizations played a crucial role in achieving self-advocacy, using international advocacy networks to share ideas and information (Priestley 2007). Moreover, in the context of the CRPD, DPOs have had an influential role since the drafting process, with significant involvement in the meetings of the Ad Hoc Committee (Degener and Begg 2017; Stein and Lord 2009). The close interaction between the member states of the Convention with stakeholders from civil society is also explicitly mentioned in Article 32 (United Nations 2006) and is further considered in the monitoring process of the Committee. Moreover, despite the differences in disability concepts and policies, the UN endeavors to establish programs that combine forces for the promotion of disability rights outside and inside the organization. For instance, the Inter-Agency Support Group for the CRPD was established in 2006 in order to integrate disability into the UN system and the UN Partnership on the Rights of Persons with Disabilities brings together different stakeholders – including the ILO, UNESCO or WHO as well as civil society organizations, such as the International Disability Alliance or the IDDC – to advance disability rights on a global scale.

Consequently, it can be assumed that IOs and DPOs use means of soft governance – that is, institutional and discursive resources – to diffuse and implement the standards set in the CRPD (see Niemann et al. in this volume). We argue that in order to do so, they build networks to collectively shape discourses around disability rights. This makes an analysis of such networks a promising approach for better understanding the global disability policy field. However, mapping global networks that comprise a diverse set of global actors is challenging (Dicken et al. 2001). In order to address this challenge and to acknowledge the increasing relevance of new ICTs for the exchange of information, we draw on Twitter data.

The social media platform Twitter is used for real-time information and discussion and has gained increasing importance in politics over recent years (Weller 2014). Different political actors contribute to the platform to promote their ideas, for mobilization or organization (Dubois and Gaffney 2014; Guo and Saxton 2014; Conover et al. 2012). Users can participate in issue-specific discussions by adding a so-called hashtag ('#') to a word (e.g., #crpd or #disability). Moreover, users can interact with other users by: mentioning them (that is, placing the @-symbol in front of a username so that the user in question receives a notification), replying to them (a mention at the beginning of a tweet), or retweeting them (republishing another user's tweet). By collecting tweets on a specific topic and extracting the interactions made in these tweets, issue-specific Twitter networks can be mapped.

For the present analysis we obtained Twitter data that were published during the COSPs to the CRPD in the years 2013 to 2017. To identify references to the CRPD and to disability policy, we filtered for specific hashtags such as #crpd, #cosp, or #disability. In total, we identified 44,545 tweets, which led to an overall network consisting of 16,712 accounts (so-called nodes) and 38,737 interactions (edges). We used techniques of social network analysis (SNA) to map the network and the relations between the different actors and to identify central actors (Borgatti, Everett, and Johnson 2013). SNA is particularly suited to exploring the ‘hidden influence’ that actors exert in a given organizational field because it shifts the unit of analysis from individual attributes of actors to their embeddedness in social relations (Jørgens et al. 2016; Kolleck et al. 2017).

In order to present an overall impression of the network, Figure 1 shows the network with labels for the 20 most central actors according to eigenvector centrality. This measure represents the centrality of a node in relation to the centrality of the nodes it is directly connected to. It can therefore be seen as an indicator of an actor’s popularity in a network (Borgatti et al. 2013). The size of the labels is proportional to the eigenvector centrality value. The figure indicates that the most central nodes belong to the UN, namely the official UN account, the UN entity for the empowerment of women, the account of the secretariat of the CRPD (UN Enable) and UNICEF. Other UN accounts that appear among the top 20 are directly linked to the division and department to which the CRPD is assigned (that is, the Division for Social Policy and Development (DSPD) in the UNDESA) or represent the official Special Rapporteur on the rights of persons with disabilities. In addition, the International Disability Alliance and the Ecuadorian president, Lenín Moreno, show high centrality values. Other central actors are mostly NGOs and DPOs or their representatives, such as the IDDC, Lumos, the European Disability Forum (EDF), or Catherine Naughton (EDF Director). The clustering of these nodes in the network suggests that they are closely interconnected. Aside from that, the lack of other IOs in this list is quite remarkable, even though for the most part they are not explicitly concerned with disability rights (see Section “Background of (Global) Disability Policy Discourses and Involvement of IOs”).

Figure 2 provides a reduced network containing only the interactions between IO-related accounts. In this network, the size of the nodes represents the eigenvector centrality. As could be observed in the overall network, the most central nodes in the IO-IO interaction network belong to the aforementioned UN agencies. According to the graph, one particularly prominent organization is the UN International Telecommunication Union (ITU), a specialized agency

that is established to facilitate global connectivity. This is not surprising given that the organization is concerned with ICTs and the analyzed data were created using ICTs. Hence, it can be assumed that the ITU has a particular interest in appearing prominently in online social media. Rather remarkable is the position of WHO and the OECD. Though among the most influential actors in global disability policy, they seem to be excluded from the Twitter network. However, the extent to which this is due to an actual lack of interaction with other relevant actors or rather a general reluctance to engage in social media activity cannot be ascertained from this data.

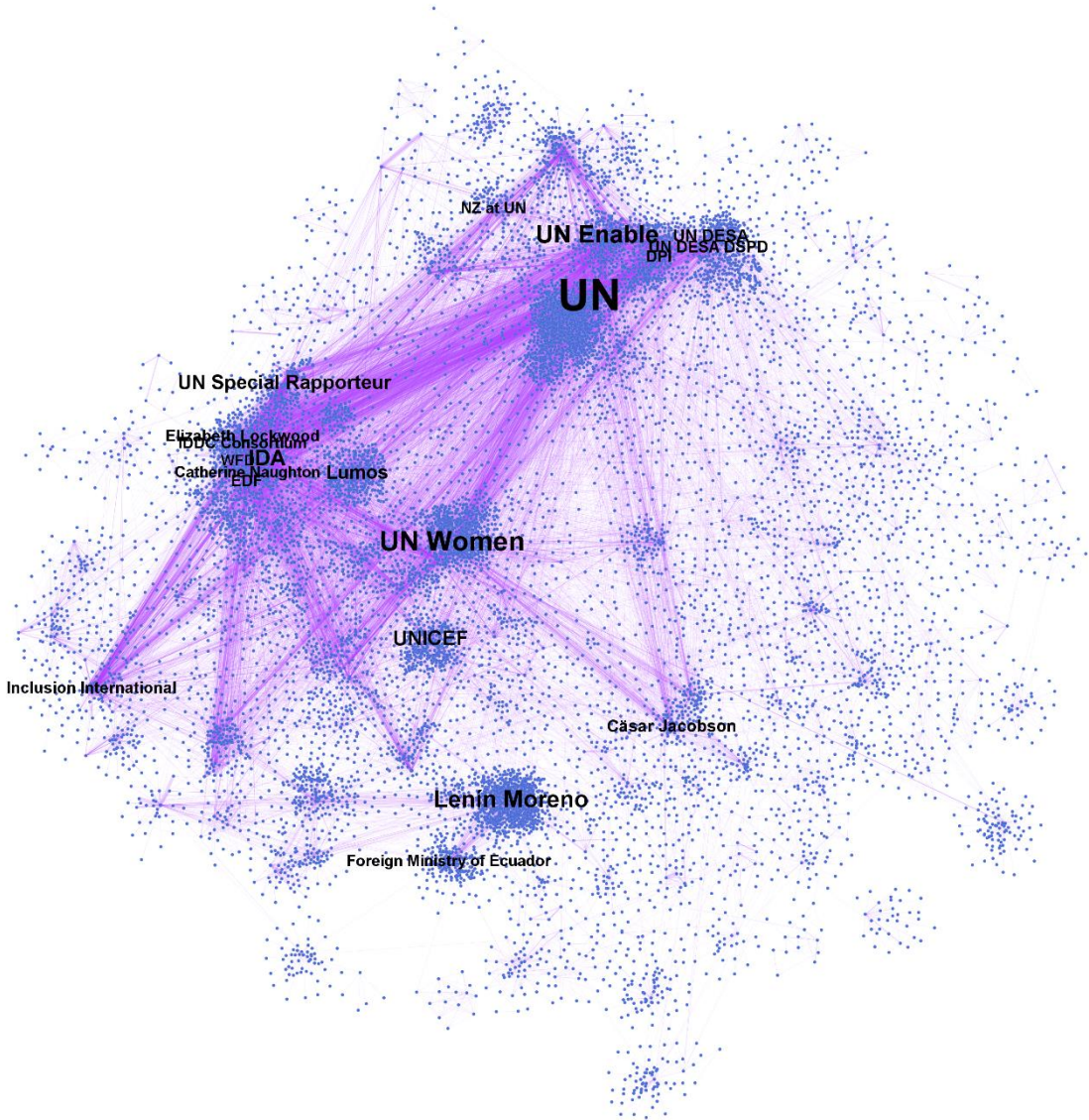


Figure 1. The overall twitter network of the COSPs 2013–2017.

When looking at the IO-NGO interactions (see Figure 3), we find similar results to the overall network. Aside from UN accounts directly related to disability rights, the DPOs hold the most central positions in the network (in regard to both the centrality value and the actual

position). Overall, it can be observed from this analysis of Twitter data that both IOs and NGOs use Twitter to exchange information. The most central actors in the network are UN agencies directly related to disability policy as well as DPOs. This suggests that those actors with an explicit agenda for disability policy use the available channels – including online platforms – to promote disability rights, whereas the topic is less important to others. However, it must first be noted that the data was collected in the context of a UN event, making it more likely for UN actors to participate, and second, that social media platforms are still used to different extents by official political actors. For this reason, inferences from these results must be made with caution.

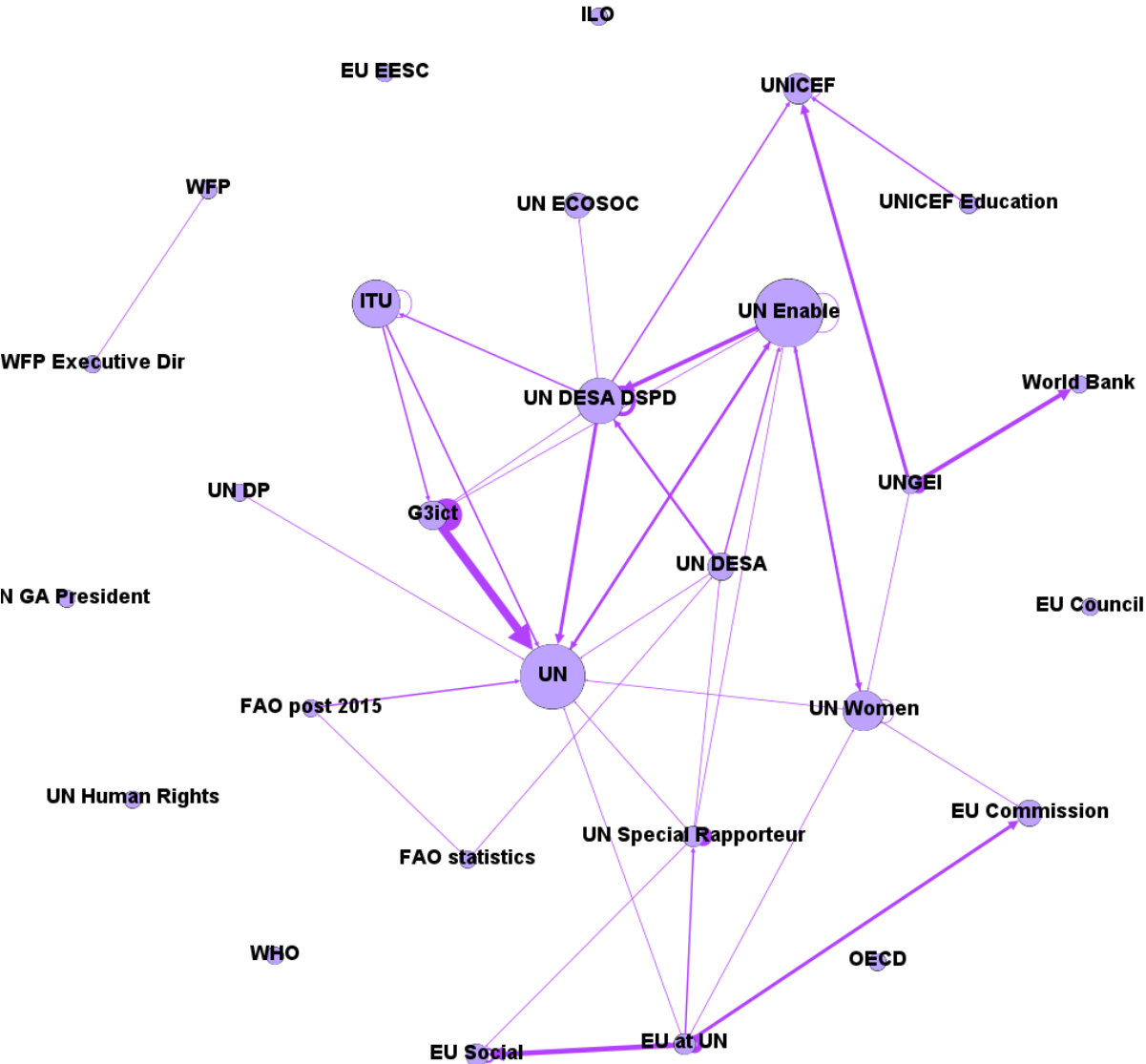


Figure 2. Twitter network of the most central IOs during the COSPs 2013–2017.

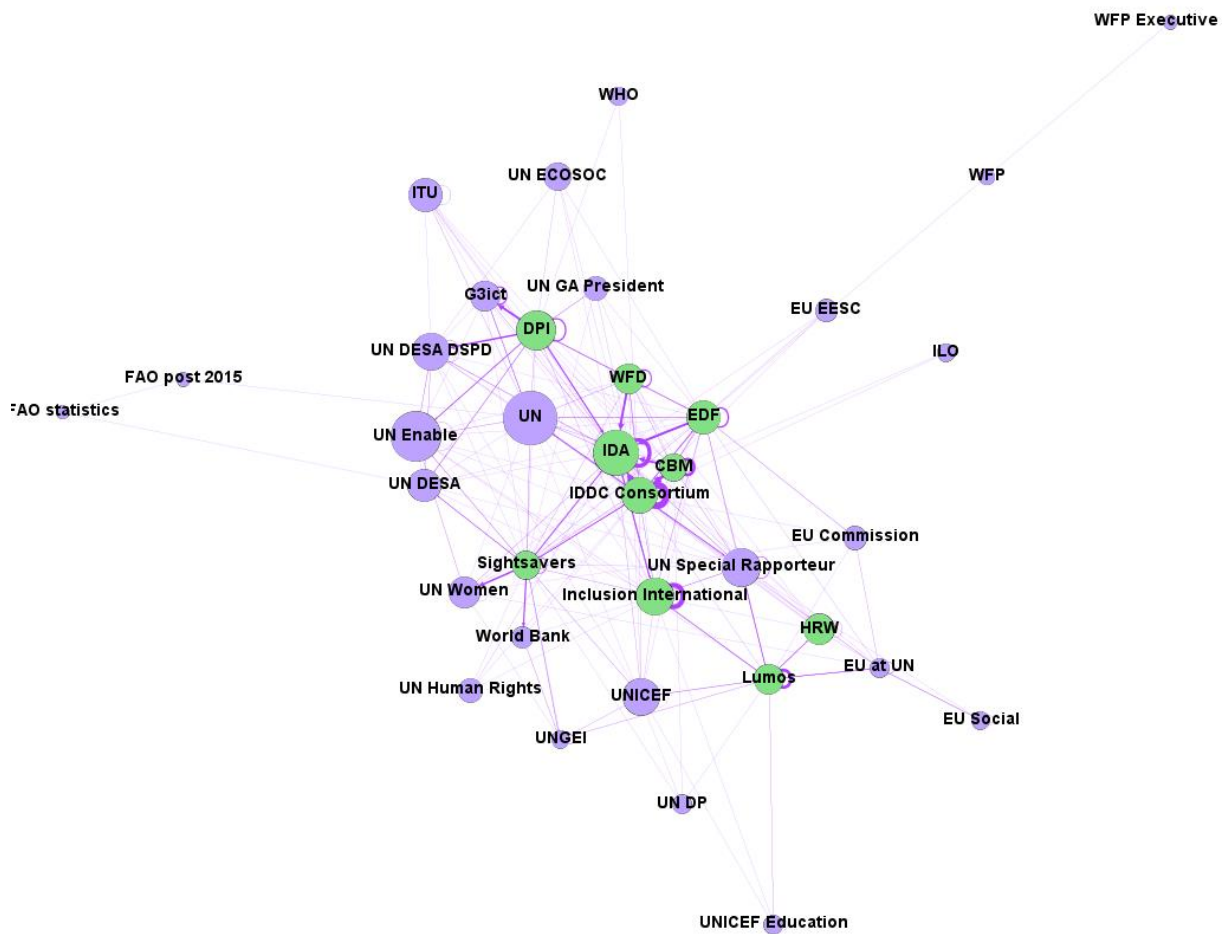


Figure 3. Twitter network of central IOs and NGOs.

4. Main topics in global disability policy

The presentation of IOs in the field has already shown that disability is often discussed in conjunction with other forms of discrimination and can hardly be discussed separately from other social and development policy issues. Hence, in the context of disability rights, a specific focus is placed on other marginalized groups who need more immediate consideration when they also have a form of disability. Most commonly, children (or youth) and women (and girls) with disabilities are discussed – often in combination – in the global disability discourse as groups prone to multiple marginalization. First of all, women with disabilities (Article 6) and children with disabilities (Article 7) are addressed with specific articles in the Convention. Moreover, a closer look at the thematic setup of the COSPs to the CRPD shows that the specific

consideration of children and youth (main theme 2012, sub-themes 2014 and 2015) as well as women and girls (main theme 2012, sub-themes 2015 and 2018) is important in discussions about the implementation of the Convention. Also, the General Comment No. 3 by the CRPD Committee pays particular attention to women and children, stating that they “face barriers in most areas of life” (United Nations 2016a, 1). According to the UN, the main dangers for women and children with disabilities are poverty, lack of health care, the general degree of social inclusion and participation, and lack of employment and equal education (United Nations 2014; United Nations 2016a). However, it must also be noted that children and women with disabilities in the Global North face different challenges to those in the Global South and that the focus of politicians and advocates can differ in light of this. Being at the intersection of several forms of marginalization and discrimination, the topic of children and women with disabilities is dealt with in close cooperation between the respective units of the CRPD, the CRC and the Convention on the Elimination of All Forms of Discrimination Against Women (Watson 2012; Kayess et al. 2014; see also Holzscheiter in this volume).

One of the most controversially discussed topics during the meetings of the Ad Hoc Committee to the CRPD was that of education (Biermann and Powell 2014; Beco 2018). The main argument involved the position on whether the Convention text should exclusively demand inclusive education or whether schooling in separated special schools or classes should still be maintained as an option. Although member states are asked in the final version in Article 24 to “ensure an inclusive education system at all levels” (United Nations 2006, 16), the schooling of persons with disabilities still differs widely across the world. The CRPD Committee has emphasized the importance of education as a disability rights issue by publishing the General Comment No. 4 on inclusive education (United Nations 2016b). At the same time, WHO’s ICF is still used to justify special education systems. From a medicalized perspective, the classification can be useful for the allocation of resources (Schiemer 2017). As is the case for children and women with disabilities, education for persons with disabilities on a broader, more global level also needs to address different issues depending on the region. In countries of the Global North such as Germany, the main argument is between supporters of a traditional segregation system with special schools and proponents of a comprehensive, inclusive system. In contrast, countries in the Global South (e.g., Nigeria) are still struggling to provide any sort of education for disabled children (Biermann 2016). Hence why DPOs emphasize the importance of assuring general access of persons with disabilities to the education system first and foremost, though they also support the inclusive approach.

In an increasingly digitalized world, another crucial topic for disability policy is technology. As different scholars point out, the provision of assistive and accessible technology is mandatory for the inclusion of people with disabilities in policymaking processes. For instance, Trevisan and Cogburn (2019) emphasize that official UN conferences lack accessibility and thereby exclude disability rights advocates from participation. Only the COSPs to the CRPD meet the needs of disabled persons, making it difficult to represent persons with disabilities in events that do not explicitly address disability policy. Moreover, Alper and Raharinirina (2006) have shown through their systematic review that assistive technologies for individuals are also still rare. This topic is also taken into account by different IOs in the context of disability policy. Just recently, “technology, digitalization and ICTs for the empowerment and inclusion of persons with disabilities” was announced as a sub-theme for the CRPD COSP 2019, making technology a sub-theme at the conference for the third time (after 2012 and 2016). A UN specialized agency that directly addresses the intersection of ICTs and disability – and that appeared prominently in the CRPD Twitter network – is the ITU. In order to meet the needs of persons with disabilities in using ICTs, as is required by Article 9 of the CRPD, the ITU provides policymakers with reports and guidelines as well as trainings and capacity-building programs. This material is published to enable member states of the ITU to make their ICTs accessible. Discussing accessible and assistive technology in the context of global disability policy is particularly interesting as it represents the part of the field that is most profitable for private business actors. Hence, new partnerships between public (inter-)governmental actors, civil society and businesses are already forming at the global level and can influence future disability policymaking (Goggin and Newell 2007; Stienstra et al. 2007).

5. Conclusion

The main objective of this chapter was to examine disability as a ‘new’ global social policy theme. Both the development of global disability policy and the involvement of different IOs in that organizational field were examined. In order to approach a mapping of the global disability policy network and to identify particularly central actors as well as their interactions, social network analysis was used to map the Twitter network surrounding the UN CRPD. Finally, the main discourses of the field were identified.

The development of disability policy, both at national and global levels, was mainly influenced by a shift from the general conceptualization of disability as a negative condition of individuals that needed to be reacted to with care and welfare in order to assimilate them to the social norm (the medical model), towards a perception of disability as barriers and limitations

imposed by society that disabled persons have to face (the social model). The two main IOs in the field – the UN agencies assigned to the CRPD on the one hand and WHO on the other – stand divided by this discourse. While the UN tends to promote the right of persons with disabilities to a society and environment without barriers, WHO tends to maintain the medicalization of disability. However, since the adoption of the CRPD, the UN has undoubtedly been the dominant actor, driven by its monitoring system that obliges its member states to regularly disclose their disability policy. As Búrca, Keohane, and Sabel (2013) note, this rather new mode of governance can best be described as ‘experimentalist governance’ (see also Sabel and Zeitlin 2010). Experimentalist governance is characterized by “a set of practices involving open participation by a variety of entities (public or private), lack of formal hierarchy within governance arrangements, and extensive deliberation throughout the process of decision making and implementation” (Búrca et al. 2013, 16). In an iterative process, it is left to the member states of an international treaty to establish ways of incorporating the goals of the treaty into their domestic policy framework and, in return, their performance is regularly assessed by IO bodies. This iterative process can create a dynamic of peer pressure that often leads to a continuous strengthening of policy targets accompanied by a gradually evolving institutionalization and formalization of the procedural rules.

This structure offers diverse opportunities for IOs to engage in global disability policy. However, as the Convention is still rather new, there is currently not much research on the involvement and especially the interplay of different actors, such as the UN and WHO. To date, only the important role played by civil society organizations and their robust relationship with the UN bodies have been emphasized by different authors (Lord and Stein 2008; Degener and Begg 2017; Búrca et al. 2013). Our empirical mapping of the CRPD Twitter network also suggests that the CRPD-related accounts are well connected to other UN agencies and to crucial civil society actors, while WHO is rather excluded from these discursive networking activities (see also Schuster et al. 2019). It will be interesting to see how the organizational field around global disability policy will develop in the future and what role WHO will play. Moreover, the increasing focus on persons with disabilities as ‘human capital’ – with the OECD as a driving force behind an economic model – has the potential to steer global disability policies towards the creation of workfare states. In theory, this is in line with the social model and the focus on the right to inclusion. Consequently, critics of the social model state that a mere focus on the social barriers neglects the bodily impairments, and that this in turn can deny the necessity of medicalization (Thomas 2004). Hence, scholars have recently made attempts to synthesize the medical and the social model in order to take into account “the complete background of an

individual's life and living", including environmental and personal factors (Barnes 2011, 66). Adding the economic model, future disability policy – both at global and national levels – will have to be made within this area of tension between the different conceptualizations, thereby leaving space for IOs to exert their influence.

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Study 2

Governing through networks: the global education governing complex and the UN Convention on the Rights of Persons with Disabilities

Schuster, J., & Kolleck, N. (submitted). Governing through networks: the global education governing complex and the UN Convention on the Rights of Persons with Disabilities.

Abstract

In this article, we attempt to extend the concept of a global education governing complex to include disability policy. Using social network analysis, we analyse the Twitter communication network around global disability policy at the intersection with the global governing complex in education to identify an education-specific subnetwork and its central actors. By comparing the education-specific subnetwork with other main issues of global disability policy (i.e., children's rights, women's rights, and technology), we further specify the role of key actors, such as international organisations (e.g., UNESCO or the World Bank), NGOs, or businesses. Our findings provide interesting insights into global networks in education and disability policy and can contribute to a methodological and conceptual extension of the global education governing complex.

Keywords: global governance, education policy, policy networks, social network analysis, CRPD, Twitter

1. Introduction

Education policy is no longer determined exclusively at the nation-state level. Rather, a global education governing complex of international and transnational actors is increasingly gaining influence on the design and shaping of education-related processes and outcomes (Dale 2000; Mundy et al. 2016b; Parreira do Amaral 2010; Ydesen 2019b). At the same time, networks of state and non-state actors are forming at the global level, underpinning this governing complex and influencing decision-making processes (e.g., Ball 2012; Ball and Junemann 2012; Gulson et al. 2017). These networks come with a proliferation of various actors, such as international organisations (IOs), non-governmental organisation (NGOs), or business actors that operate at the global, national and local levels. Major organisations such as the Organisation for Economic Co-operation and Development (OECD) or the United Nations (UN) have been identified as key actors in global education policy, focusing on different education-specific issues such as international testing (Ydesen 2019c), development politics (Mundy 1999), children's rights (Fuchs 2007) or global citizenship education (Kolleck and Yemini 2020).

While some of these actors mainly focus on education policy, others can be expected to operate in various policy fields, such as disability. This intersection of education and disability rights has not received sufficient attention in the academic literature – despite the increasing importance of inclusive education in global education discourses (Powell, Edelstein, and Blanck 2016; Beco 2018). Hence, research on the intersections of global disability policy with the global governing complex in education is still scarce. In particular, little is known about the interplay between the various actors operating in these fields and the networks in which they are involved. We argue that examining such intersections, which we refer as subnetworks, and identifying central actors can contribute to understanding the role of different actors in the governing complex in education and the ways in which they influence policy-making processes at the global level. Therefore, we analyse issue-specific subnetworks based on Twitter data to answer the following research questions:

- (1) To what extent can issue-specific subnetworks (including education) be identified in the Twitter communication network on global disability policy?
- (2) How do these subnetworks differ regarding their characteristics?
- (3) Which actors are central in the different subnetworks?

We base our considerations on the concept of a global education governing complex (Ydesen 2019c). The aim of the article is to adapt this concept and extend it by disability policy, applying an innovative methodological design based on Twitter data. Hence, the paper is

organised as follows: First, we outline the conceptual framework of the article, followed by a description of our methodological approach. Then, we present the results of our analyses and discuss them in the context of the current state of research. Finally, we formulate limitations and prospects for future research and conclude with some summary thoughts.

2. Conceptual framework

2.1 The global education governing complex and (virtual) policy networks

The concept of a global education governing complex describes the global order of education ‘characterised by various types of international organisations, edu-businesses and powerful nation states continuously shaping education systems across the globe, via networks, programs, and initiatives’ (Ydesen 2019b, 1f.). More precisely, it summarises the ‘interconnectedness and complexities of an organized structure’ and includes processes of ‘competing agendas associated with different stakeholders, political priorities, and discursive struggles’ (Ydesen 2019b, 292). As Ydesen (2019a) notes, the global governing complex in education consists of international and transnational actors (e.g., IOs, NGOs, or business actors) that primarily use means of soft governance (e.g., the generation and dissemination of policy ideas or evaluations) to shape the policies of nation-states. In the field of education, scholars have largely focused on the discourses and actions of leading IOs such as the OECD (for an overview, see Ydesen 2019c), the United Nations Educational, Scientific and Cultural Organization (UNESCO) (Matasci 2016; Mundy 1999), or the World Bank (Girdwood 2007; Elfert 2021) and corresponding programs such as PISA or Education for All (Niemann and Martens 2021). In addition to IOs, several studies have highlighted the influence of NGOs on the provision of basic education or children’s rights at national and international levels (e.g., Fuchs 2007; Mundy et al. 2010; Junemann, Ball, and Santori 2016).

The global education governing complex is largely characterised by the interconnections and networks of the actors involved. The fact that the participation of international and transnational actors in global policy networks influences education policy has already been demonstrated elsewhere (Mundy et al. 2016b; Jakobi 2009; Junemann, Ball, and Santori 2016; Ball 2012). Such policy networks are characterised by ‘a shared problem on which there is an exchange of information, debate, disagreement, persuasion and a search for solutions’ and represent ‘a soft, informal and gradual mode for the international dissemination of ideas and policy paradigms’ (Stone 2004, 560). While actors involved in policy networks ‘operate through interdependent relationships, with a view to trying to secure their individual goals by

collaborating with each other' (Bevir and Richards 2009, 3), the structure of these networks can be expected to influence the outcomes of policy debates (Marsh and Rhodes 1992).

The study of global policy networks poses particular challenges to researchers due to the large number of different actors involved. Previous studies have mainly relied on inductive approaches that primarily analyse documents and iteratively expand networks by attempting to replicate key actor relationships (e.g. Stone 2000; Pal and Ireland 2009). In education policy research, network ethnographic approaches have been applied to map international actors involved in policy-making processes (e.g. Ball and Junemann 2012; Junemann, Ball, and Santori 2016). Ethnographic and inductive approaches have produced important insights into global policy networks in education. Yet Gulson et al.'s (2017, 236) call for 'new analytical tools' rather than looking for 'the presence of new actors in otherwise traditional spaces'. As in the field of public policy, these insights could be enriched by digital methods (McNutt and Pal 2011). Against this background, McNutt and Pal (2011) suggest the study of 'virtual policy networks' as one approach to systematically map relations in virtual spaces, with the objective of mirroring some structures from the offline world in a given policy field (McNutt 2007; McNutt and Pal 2011).

Online data, such as Twitter, appear to be a valuable source for studying education-specific networks at the global scale (Schuster, Jörgens, and Kolleck 2021). Twitter is a social media platform that has become a widespread communication tool for political purposes (Dubois and Gaffney 2014; Goritz et al. 2020; Sam 2019; Supovitz, Daly, and Del Fresno 2018). On Twitter, relations to other users can be established by directly addressing another user in a message (i.e., a mention), replying to another user's message (i.e., a reply), or sharing messages from other users (i.e., a retweet). In addition, relying on Twitter data allows for the collection of data related to specific issues. In this way, issue-specific communication flows a full network can be observed and analysed, which can be seen as subnetworks. In turn, the study of such issue-specific communication within a broader set of Twitter data allows us to identify potential intersections of policy fields, as it reveals communication flows thematically related to overlapping issues, such as disability and education.

2.2 The global education governing complex and the UN Convention on the Rights of Persons with Disabilities

Research on the global education governing complex has primarily focused on the role of the OECD in processes of international testing and data production (Ydesen 2019c; Grek and Ydesen 2021). However, in recent decades, scholars have shown that various areas of education

policy-making are influenced by international and transnational actors, such as global development (Mundy 1999; Verger et al. 2014), new technologies (Mundy et al. 2016a), or children's rights (Fuchs 2007). Hence, the global governing complex in education can be assumed to include various different subject areas. One such field is that of global disability policy. The adoption of the UN Convention on the Rights of Persons with Disabilities (CRPD) in 2006 has established disability rights as a global policy issue and has led to far-reaching reform efforts, not least in the education sector (Lord and Stein 2008; Beco 2018). The schooling of persons with disabilities has taken a central position in education policy debates, diffusing the idea of inclusive education worldwide (Richardson and Powell 2011). Although the convention is implemented at the national level, a network of international and transnational actors (e.g., IOs and NGOs) has emerged at the global level to influence policy-making processes, thereby also operating at the intersection of disability and education policy (Schuster and Kolley 2021).

In terms of the actors involved, global disability policy can be seen as overlapping with the global education governing complex. For instance, UNESCO, as one of the leading IOs in education policy, has extended its agenda by disability political issues since the adoption of the CRPD (Schuster and Kolley 2021). Furthermore, the World Bank, which had already included the issue of disability in its agenda for decades, has increasingly embraced the issue of inclusive education since the 1990s (Zahnd 2021). Hence, these actors seem to operate at the intersection of global education and disability policy.

As Ydesen (2019a) notes, IOs and other global policy actors differ widely in their foci and dispositions. To give an example, while some global actors might only have a particular focus on education, others are likely to play a central role in several policy areas (Niemann and Martens 2021). Consequently, examining the intersection of different fields could provide a deeper understanding of the actors involved in the respective field. Thus, we place the Twitter communication network around global disability policy at the centre of our analysis with the goal of identifying its intersections with the global education governing complex (i.e., an education-specific subnetwork) and specifying the role of education-related global actors within it. For greater clarity, we further analyse other issue-specific subsets of the full network to be able to compare it to the education subnetwork.

3. Methodological approach

3.1 Data set

The Twitter data analysed for this study were collected during the Conferences of States Parties (COSPs) to the CRPD between 2013 and 2017. These conferences are the main forum

for international debates surrounding the implementation of the CRPD, bringing together various state and non-state actors, mainly representatives of the member states and IOs, but also a few civil society organizations and individuals. While the event itself is limited to selected participants, the COSPs are used by various actors, such as sub-state politicians, experts, advocacy groups or businesses, to advocate for the rights of persons with disabilities on social media platforms in a high-profile way. In this respect, Twitter communication during conferences provides an excellent source of data to analyse the global network of actors with different interests in the disability debate.

The Twitter data used for the present study were collected using a search syntax that includes general keywords and hashtags (e.g., ‘#cosp’ or ‘#crpd’), but also more specific ones that were prominent during certain conferences, such as #thisability in 2013 and 2014 or #post2015 in 2015. To distinguish issue-specific communication, we further filtered the overall data set by messages related to education as well as three additional main global disability issues: children’s rights, women’s rights, and technology. These issues were, in part, particularly contentious during the drafting process of the convention and were included in the final convention text (Beco 2018; United Nations 2006). Moreover, they were subject of recurrent debates in the context of the CRPD, as evidenced by the selection of COSP conference topics and the publication of general comments by the UN (Schuster and Kolleck 2021). To obtain data on each topic, we searched for relevant keywords and included them in the search syntax in an iterative process until no more keywords occurred.

3.2 Social Network Analysis

We draw on social network analysis (SNA) techniques to map the relations between different actors and identify key actors in the issue-specific networks (Borgatti, Everett, and Johnson 2018). SNA focuses on the relationships between actors as well as the structural properties of relationship networks. Thus, it places the structures and properties of an actors’ environment at the centre of empirical analysis (Borgatti and Lopez-Kidwell 2011). A better understanding of the general structure of a network and the role of specific actors in it can help make assumptions about how actors may shape the dissemination of information (or any other resource) in the network. Specific techniques of SNA can also succeed in measuring latent forms of influence (Jørgens, Kolleck, and Saerbeck 2016; Kolleck 2016). The application of SNA in education policy research has increased in recent years (Menashy and Verger 2019; Hodge, Childs, and Au 2020). In particular, scholars have applied network approaches to study policy networks at both the global and the (sub-)national levels to identify the structures of relations among

actors involved in policy-making processes, such as the ‘Education for All’ agenda (Macpherson 2016), low-cost private schooling in Africa (Junemann, Ball, and Santori 2016), or the ‘learning to code’ campaigns in the UK (Williamson 2016).

To address RQ1, we first visualize the full network (i.e., the network created from the relations of all tweets) with the relations derived from issue-specific communication included and coloured, using the open-source SNA software Gephi (Bastian, Heymann, and Jacomy 2009). This allows us to identify the corresponding network flows in the full network and see whether these relations are present in distinct groups or occur throughout the network. In addition, we perform community detection based on modularity optimisation to extract communities in the network. The identification of communities (i.e., subunits of highly interconnected nodes) can be used to uncover topics in networks (Blondel et al. 2008). For our study, however, we use this approach to further support our assumption that the detected communities mirror the issue-specific subnetworks.

We then apply various whole network measures (i.e., measures at the network level: density, (in-/out-)centralisation, proportion of isolates, and proportion of single appearances) to assess the extent to which the subnetworks differ regarding their network characteristics (RQ2). Network density calculates the number of ties present in a network relative to the number of possible ties. It is thus a measure of network cohesion. Centralization indicates the extent to which a network is dominated by a few very central actors (further separated by in- and outgoing ties) and is a measure of hierarchy. The proportion of isolates calculates the proportion of accounts tweeting about the given topic without directing their tweet to other accounts (i.e., users that participate in the debate without being part of the communication network) relative to the network size. Finally, the proportion of single appearances indicates the number of accounts that participate only in the issue-specific subnetwork, relative to the network size. The analyses are performed using the free and open-source development environment R (R Core Team 2021).

To identify influential actors in the subnetworks (RQ3), we calculate the eigenvector centrality for the subnetworks. Eigenvector centrality calculates the centrality of a node in the network relative to the nodes it is directly connected to and is thus a measure of popularity. Unlike other centrality measures, eigenvector centrality can be high even for nodes with few relations if they are related to other central accounts. By identifying central actors in the issue-specific subnetworks, we are able to compare the actors’ involvement across subnetworks to specify

their form of engagement in the full disability network as well as the education governing complex.

4. Results

The total data set includes 44,545 tweets and retweets. The 2013 data set contains 2,219 tweets and retweets, 4,318 tweets for 2014, 9,827 tweets for 2015, 12,918 tweets for 2016, and 15,263 tweets for 2017. Figure 1 shows the number of tweets in the issue-specific data sets per year. Overall, women’s and children’s rights are more than twice as frequently discussed in tweets than education and technology. The trend over time shows that debates related to the rights of women and girls with disabilities, in particular, increased with the establishment of the topic as the COSP 2015 main theme. This trend continued in subsequent years. With regard to education-related debates, there is also a general increase in the number of tweets over time, with a brief interruption in 2016. Specific events that may have influenced this development could not be identified.

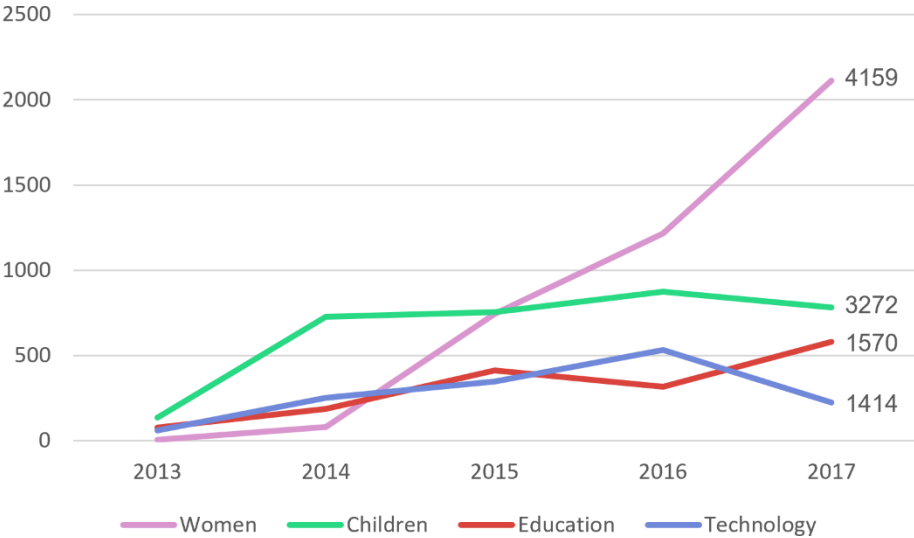


Figure 1. Development of the number of tweets and retweets in relation to the main issues over time (the cumulative numbers for each issue can be found at the end of the line).

4.1 Subnetwork detection

To test our assumption that we can identify subnetworks in the full network that relate to the four main issues, we visualised the full network (see Figure 2). The connections in the graph are coloured according to the topics discussed. Hence, areas of the network with a dominating colour indicate the existence of a subnetwork. The graph shows that the full network is not clearly divided into four thematic areas. Nevertheless, there are areas where actors primarily exchange information on a specific topic, which is represented by a dominating colour and

suggests the existence of subnetworks. Of particular interest is the education-related area, which seems to be divided, with one area including UNICEF Education and the UN Girls' Education Initiative (UNGEI) and the other UNESCO and the OECD. While the UNICEF-related area appears to be closely linked to the subnetwork on children's rights, the other area shows greater proximity to the technology-related subnetwork.

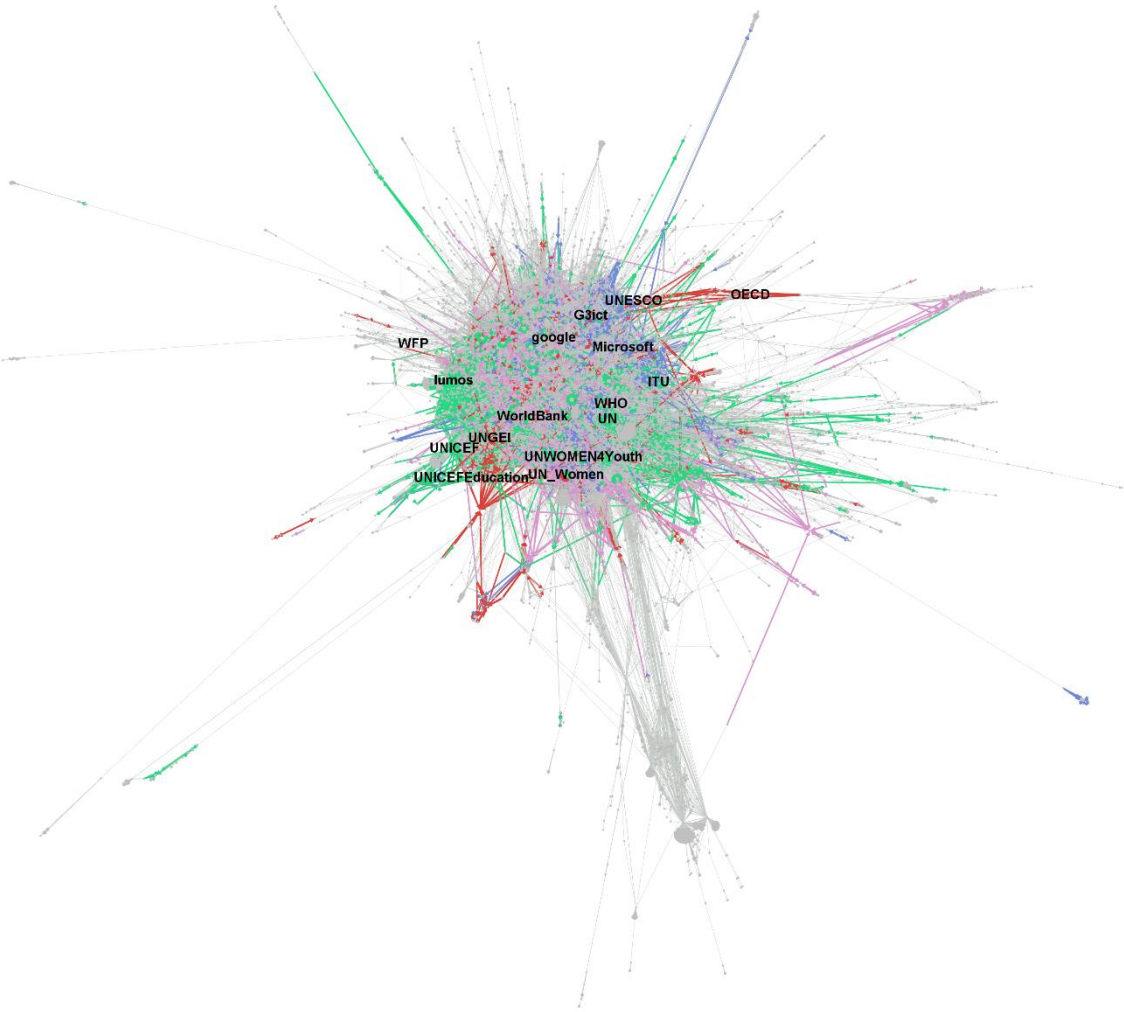


Figure 2. Issue-specific communication in the full Twitter communication network (red= education; pink= women's rights; green= children's rights; blue= technology; grey= others).

To see whether a community detection can reproduce a network structure with four main communities (i.e., subnetworks), Figure 3 shows the full network with nodes coloured according to the four main communities identified. The analysis extracts four main communities located around the corresponding dense coloured areas in Figure 2, supporting the above results. This confirms the assumption that the main global disability policy issues can be identified in

the underlying Twitter communication network. Furthermore, the visualisation indicates that the education subnetwork seems to be formed around UNICEF and UNGEI and in close proximity to children’s and women’s rights. When looking at specific actors in the subnetworks, we see that the most prominent IOs are found in their respective communities (e.g., UN Women in the women’s rights community, ITU in the technology community, or UNICEF in the education community). In addition, Microsoft’s appearance in the technology community is remarkable.

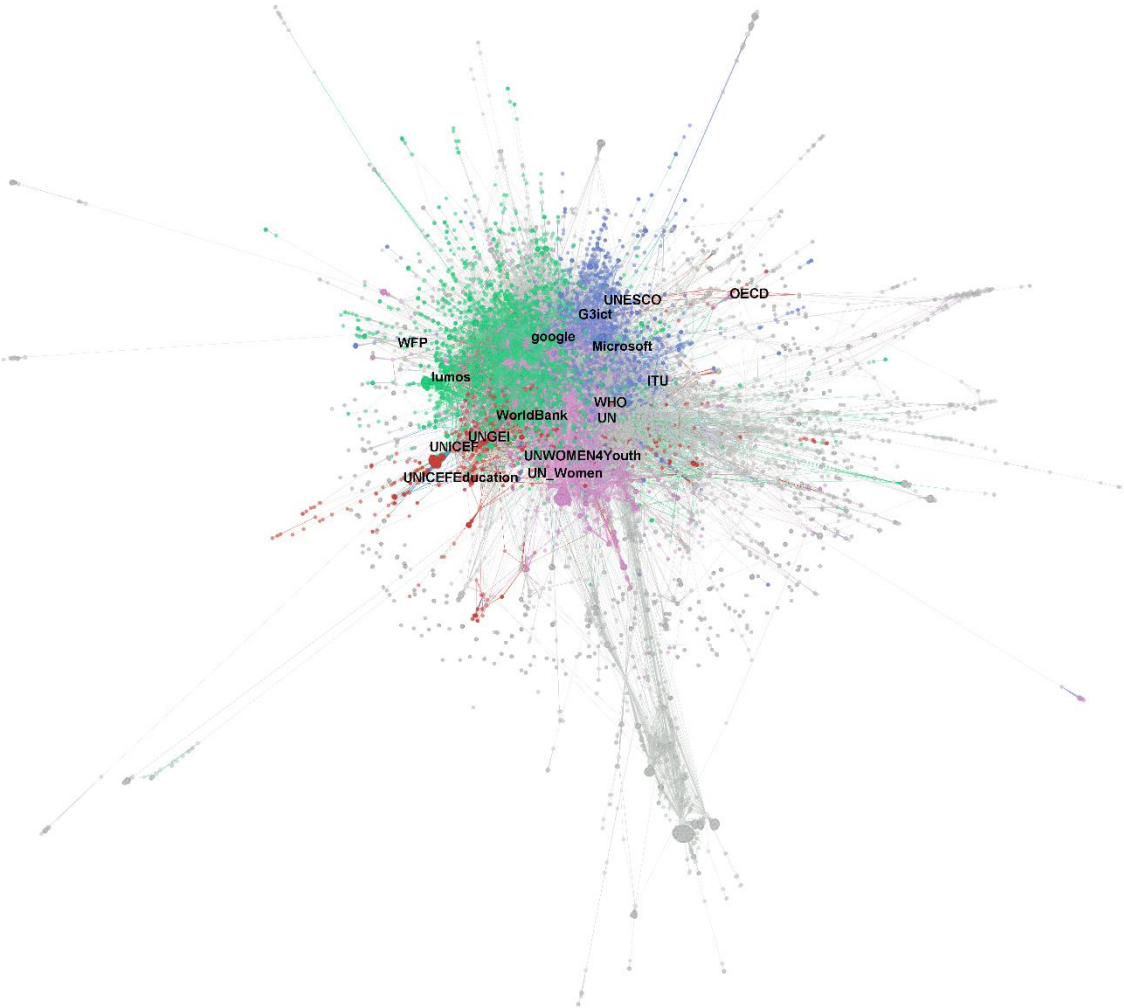


Figure 3. Main communities in the full Twitter communication network (red= education; pink= women’s rights; green= children’s rights; blue= technology; grey= others).

4.2 Network characteristics

The whole network measures we calculated for the subnetworks with the aim of describing their structures can be found in Table 1. While the larger networks around children’s and

women’s rights show low density values, the education- and technology-related networks seem to be denser. However, as density is strongly dependent on network size, only networks of similar size can be compared. In this regard, only the technology network seems to have a particularly high density relative to its size. The centralisation scores of the networks indicate that the women’s rights network is highly centralised compared to the other networks. In particular, the network shows a high degree of in-centrality, which may be due to UN Women’s prominent role in women’s rights. In contrast, the education network shows a low degree of centralisation, implying a low hierarchy. This means that several actors in the network are equally central in promoting the education of persons with disabilities.

Table 1. Global network measures of issue-specific subnetworks.

Network	Size	Density	Centralisation	In-centrality	Out-centrality	Proportion isolates	Prop. single appearance
Children	2,180	.0010	.208	.385	.038	0.02	0.64
Women	2,421	.0010	.294	.583	.042	0.03	0.71
Technology	856	.0038	.109	.163	.064	0.03	0.50
Education	985	.0023	.080	.161	.072	0.05	0.38

Regarding the proportion of isolates, the education network has the highest value compared to the other subnetworks. This indicates that a comparably high number of Twitter accounts contribute to education-related debates during the COSPs without directing their information to others and without being addressed by others. At the same time, the education network shows the lowest proportion of single appearances (i.e., accounts that only appear in the education-specific subnetwork). Hence, the accounts that participate in education-related communication in the global disability sphere online seem to have rather broad thematic focuses.

4.3 Identifying central actors

In a third step, we calculated eigenvector centrality scores for the actors in the four subnetworks. Detailed lists of the fifty most central actors can be found in the appendix. Overall, the networks are dominated by IOs and their specialised agencies, as well as NGOs. The most central accounts in each of the networks represent NGOs and, with the exception of the education network, these NGOs have special interests that correspond with the issues of the subnetworks (the children’s rights organisation Lumos for the children’s network, the Women’s Refugee Commission for the women’s network, and the digital advocacy initiative G3ict for the technology network). The dominant NGO in the education context is Inclusion International, a disabled persons’ organisation that works on disability rights in general, but explicitly aims to provide quality inclusive education in the world. In this respect, its particularly central role in

the education network is not surprising, although the organisation is also among the top 20 of both the women's and children's networks. In terms of other central non-state actors in the networks, a high degree of variance can be observed across the networks, with NGOs and their representatives focusing mainly on one topic in their attempt to participate in the communication network.

With regard to the IOs that are central in the networks, the observations from the visualisations are supported by our analyses. IOs that are active in the policy fields of the four main issue areas show a particularly high centrality in the Twitter communication subnetworks. While UN Women is the second most central actor in the women's network, UNICEF holds an important position in the subnetworks on children's rights and education. The ITU, as the leading IO in the technology sector, is among the fifty most central actors in the technology network, which is particularly noteworthy given its low centrality in the full network as well as the other subnetworks. The same applies to the World Bank, which occupies a remarkably central position in the education network, given its minor importance in other subnetworks.

Finally, the increasing importance of business actors in global governance and education policy can also be observed in the disability-related subnetworks. While in the technology network the multinational companies Dell and Microsoft are among the most central accounts, in the education network it is more small companies, such as Ai-Media and Karlen Communications, that are involved in accessible digital content delivery. This suggests that while multinational companies seem to have recognised disability as a potentially profitable future market, the education-specific issues are more likely to be of interest to smaller providers.

5. Discussion

In this article, we attempted to apply the concept of the global governing complex in education to the issues of disability policy and inclusive education. Using techniques of SNA, we analysed the Twitter communication network around global disability policy at the intersection of the global education governing complex to identify an education-specific subnetwork and the central actors within it. While our results mainly support our assumptions regarding the prevalence of issue-specific subnetworks and illustrate the role of key actors, some of our findings require further discussion.

Overall, differentiating the disability Twitter network into issue-specific (i.e., education, children's rights, women's rights, and technology) communication revealed acceptable subnetworks. Hence, our results suggest that groups of actors can be identified that exchange

information on a specific topic within the disability policy network. However, while the subnetworks of children's rights, women's rights and technology could be located quite distinctly within the full network, the education network seems to be divided into two groups. One group, which includes UNICEF and the UN Girls' Education Initiative, seems to be more closely related to actors working on children's and women's rights. Given UNICEF's history as one of the main drivers of global educational development (e.g., Mundy 1998; Niemann and Martens 2021), a close linkage in both education and children's rights networks in the context of disability rights seems logical. Furthermore, the organisation has placed a special focus on children in its advocacy for disability rights (UNICEF 2021). The other group, which includes UNESCO and the OECD, shows greater proximity to the technology subnetwork. In the case of the OECD, which has taken on a role as a 'knowledge broker' in education policy (Niemann and Martens 2018), this position at the intersection of technology and education could be explained by an interest in promoting innovative (and thus technological) ideas to support the education of children with disabilities. In contrast, UNESCO's role seems less intuitive, as the organisation also has a long history of promoting children's rights and the right to educational development. Therefore, one might expect the organisation to have closer links to the children's and women's rights networks and the other education subgroup. However, UNESCO's history as the main producer of statistics in education before the advent of the OECD (Cussó 2006) might explain its position in the full disability network in that UNESCO and the OECD might share interests in educational innovation and data-based improvement in the context of disability rights. Furthermore, UNESCO's education agenda in recent years includes a large share of content related to new technologies, which could also explain its high centrality in the technology subnetwork (e.g., Watkins 2014; Schuster & Kolleck 2021).

A closer look at the most central actors in the education subnetwork shows a particularly high centrality of the World Bank compared to the other subnetworks. Positioned at the intersection of the education and children's and women's rights networks, the World Bank appears to represent an educational development position in the global disability policy debate (see also Verger et al. 2014; World Bank 2021). This is consistent with the historical role of education in the World Bank (Mundy 2002). Recent studies observe an increasing relevance of inclusive education in the organisation's disability policy agenda (Zahnd 2021) and a general policy shift within the organisation (Edwards and Moschetti 2021). Combining these different observations, this might suggest that the World Bank's turn towards disability is part of a broader change in direction of the organisation.

Being located at the intersection between education and other issues (e.g., the World Bank and UNICEF at the intersection with children's rights, or UNESCO and the OECD at the intersection with new technologies) shows that these IOs are closely interconnected with actors who are mainly active in one of these areas. The organisations are thus in a position to connect actors from different fields and to provide information and knowledge. In this way, they can be seen as knowledge brokers in the global education governing complex, as has been described elsewhere (e.g., Menashy & Manion 2016; Niemann & Martens 2018). While in other studies this brokerage role rather included knowledge and information transfer to governments, our findings point to mediation between different issue-specific areas within and outside the global governing complex in education.

While the IOs involved in the Twitter communication network show great diversity across topics, the most central NGOs in the network can hardly be clearly assigned to specific subnetworks. Rather, NGOs appear central in several issue-specific subnetworks, which can be attributed to the interference of NGOs in different disability-specific issue areas. For instance, Lumos and Inclusion International, as the most central actors in the children's rights network and in the education network, also hold central positions in other subnetworks. Furthermore, the central NGOs tend to be positioned at the centre of the full network, indicating that these organisations cover a wide thematic range in their advocacy for disability rights. In this sense, specific disability policy issues, such as education, seem to be represented at the global level more by general disabled people's organisations than by education NGOs. Nevertheless, the high centrality of NGOs in the Twitter subnetwork at the intersection of global disability and education policy is consistent with the high importance of NGOs identified in other studies on global education policy networks (e.g., Junemann, Ball, and Santori 2016; Macpherson 2016).

Finally, a participation of businesses can be identified especially for the education and technology networks. This suggests that these actors see a large market potential in the provision of technological solutions to disability accessibility issues in general (as already observed in other studies, e.g. Goggin and Newell 2007; Stienstra, Watzke, and Birch 2007) and in the provision of accessible learning material in particular (see also Schuster, Jörgens, and Kolleck 2021). However, while the technological subnetwork includes multinational companies such as Dell and Microsoft, smaller companies in particular are central and influential in the education-related subnetwork. Given the increasing influence of multinational companies in global and domestic education policy (e.g., Hogan, Sellar, and Lingard 2016; Williamson 2018), their lack of involvement in education-related communication in the context of disability policy is

surprising, especially as disability is a socially, economically and politically important field of activity in which multinational companies could make their mark, especially via public networks such as Twitter.

5.1 Limitations and directions for future research

While our study provides valuable insights into global policy networks in disability and education policy, it also faces some limitations. First, we have empirically limited ourselves to the analysis of Twitter data and thus can hardly draw conclusions for the ‘offline world’. Given the importance of Twitter for marginalised groups such as disabled persons to participate in political debates (e.g., Ineland et al. 2019), this data source seems to be particularly appropriate to capture such debates. However, while previous studies have shown that offline and online networks share similar characteristics with respect to other topics and actors (e.g., Dunbar et al. 2015; Hayes and Scott 2018; Goritz, Jörgens, and Kolleck 2021), assumptions about opportunities to participate in or even influence political processes via Twitter must be made with caution. In addition to a reluctance to publicly disclose sensitive information, certain actors (especially public actors) still seem to refrain from participating in Twitter and other social media platforms (e.g., Schuster, Jörgens, and Kolleck 2021). Virtual policy networks, as they form on Twitter, are therefore to be regarded as policy spaces in their own right and can thus – at best – be used to cautiously approximate the structures of offline contexts.

Another limitation relates to the methodological approach chosen. While we used quantitative techniques of SNA to cope with the large amount of data, we could not analyse the content of the tweets in detail. Our filter allowed us to distinguish issue-specific subnetworks, but the texts themselves with their underlying attributes (e.g., emotions, goals, motivations, endorsements, criticism etc.) remained unexplored. Here, further qualitative and quantitative methodological approaches, such as sentiment analysis, Natural Language Processing (e.g., Kolleck & Yemini, 2020), topic modelling, or discourse analysis, could provide more evidence.

A third limitation concerns the reduction of data necessary for pragmatic reasons. Thus, we focused only on Twitter data that emerged during the COSPs to the UN CRPD. This might have led to implications especially in terms of the number of tweets from certain actors (such as an overrepresentation of the UN system). However, we also interpreted the results of our analyses in light of this limitation. COSPs are used by various actors as a time to discuss issues related to disability rights. Nevertheless, it may be that particular actors not directly involved in the COSPs, such as the OECD, have shown lower participation in the Twitter network than would have been the case in other disability policy contexts.

Future research could address three issues in particular. First, offline data (e.g., documents or survey data) could be collected to examine the policy networks that underlie the intersection of the global education governing complex and disability policy. In this way, the relations of actors involved in one or both fields and their particular roles in these networks could be identified and matched with their appearance in virtual policy networks. Such analyses could shed further light on the current structure of the education complex and the influence of non-state actors and IOs on global education policy. Second, the involvement of IOs in policy processes at the intersection of disability rights and education (i.e., the education of children with disabilities and inclusive education) needs to be further explored. While a recent book edited by Köpfer, Powell, and Zahnd (2021) has brought together various international and national perspectives on the implementation of inclusive education, the influence of IOs in this field is still under-researched – despite their central role in global policy processes as identified in this article. Future research could examine different IOs and IO initiatives in terms of their impact on domestic disability policy making (e.g., Powell, Edelstein, and Blanck 2016), thus expanding the knowledge on the influence of IOs on education policy in general. Third, few studies have investigated the engagement of business actors in disability policy and inclusive education (e.g., Goggin & Newell 2007). Furthermore, the extent to which small businesses that are already engaged in disability policy at the global level can enter (or perhaps have already entered) the education market needs further investigation. In this context, the differences between multinational, large and small companies in terms of their influence and strategies in global disability policy could also be examined.

6. Conclusions

In this article, we have shown that the global education governing complex overlaps with global disability policy in that an education-specific subnetwork can be identified in the disability communication network on Twitter. By locating this education subnetwork and comparing it to other issue-specific networks, we find that certain actors operate at the intersection of disability and education policy. In this way, our findings contribute to a better understanding of the role of education IOs such as the World Bank or UNESCO at this intersection. While the concept of a global education governing complex has focused primarily on the OECD and its dominant role in international testing and data production (Ydesen 2019c), other areas such as the education of persons with disabilities are easily overlooked. However, the participation of certain IOs in the Twitter communication network on disability policy and their embeddedness in specific subnetworks indicate that extensions of the concept could be helpful. For instance,

organisations such as the World Bank can be seen as central to debates on inclusive education from a development perspective, while UNESCO or the OECD are more engaged at the intersection of education and technology in the context of disability rights. As Ydesen (2019b, 297) notes, ‘[t]here are simply too many interactions between contexts and agents in different positions, with different outlooks and meaning-making agendas’, which makes it difficult to cover the wide array of complex interactions of the global governing complex in education. In this sense, our findings represent an extension of the concept to include a disability policy perspective – at least with regard to the virtual policy network forming on Twitter.

Since IOs in particular, but also NGOs or other non-state actors, exert great influence on the dissemination of education models due to their centrality in policy networks, among other things (Resnik 2016), this form of influence will require constant scholarly attention in the future. In this respect, our approach, which draws on online data to map virtual policy networks, can offer a fruitful extension of existing methodologies. Following Beech and Artopoulos (2016, 261), who state that ‘networks are not contained within space, [but] networks produce and shape space’, one could even assume that such virtual spaces represent areas of political networking in their own right – with consequences for policy processes that need to be further explored.

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Appendix

Appendix A. Search syntax

Topic	Syntax
COSP 2017	#cosp10 OR #crpd OR #csfcrpd OR #coscrpd10 OR #uncrpd OR (#SDGs AND #disability) OR (#SDGs AND #disabilities) OR cosp10 OR crpd OR uncrpd OR (SDGs AND disability) OR (SDGs AND disabilities)
COSP 2016	#cosp9 OR #crpd OR #crpd10 OR #uncrpd OR cosp9 OR crpd OR uncrpd OR crpd10
COSP 2015	#cosp8 OR #crpd OR #post2015 OR cosp8 OR crpd OR uncrpd OR post2015
COSP 2014	#cosp7 OR #crpd OR #thisability OR cosp7 OR crpd OR uncrpd OR thisability
COSP 2013	#cosp6 OR #crpd OR #thisability OR #cosp2013 OR cosp6 OR crpd OR uncrpd OR thisability
Education	educa* OR article 24 OR sdg4 OR school OR (child AND inclu*)
Children and youth	child* OR youth OR young OR kids
Women and girls	wom*n OR girl* OR female OR gender OR femme OR fille OR mujer
Technology	techn* OR ict OR innovat* OR digital* NOT (picture OR conflict)

Appendix B. Top 50 accounts according to eigenvector centrality in the issue-specific subnetworks

Education		Children and youth		Women and girls		Technology	
Name	Value	Name	Value	Name	Value	Name	Value
InclusionIntl	1.000	lumos	1.000	wrcommission	1.000	G3ict	1.000
kimberbialik	0.345	GPtoEndViolence	0.258	UN_Women	0.249	DPI_Info	0.712
claurinbowie	0.221	hrw	0.185	boramsnothere	0.221	DorodiSharma	0.305
lumos	0.181	InclusionIntl	0.181	EmmaPearce_WRC	0.214	javed_abidi	0.209
hrw	0.150	SRSGVAC	0.166	UNMAS	0.183	idpp_global	0.205
UNICEF	0.132	UNICEF	0.160	VivianFridas	0.152	victorpineda	0.146
GlobalEduFirst	0.126	PlanGlobal	0.141	HelpAge_USA	0.101	ZeroProjectorg	0.127
UNrightswire	0.117	UNICEFData	0.132	FinlandUN	0.067	UN_Enable	0.108
accessinclusion	0.092	ZeroProjectorg	0.108	nuwodu	0.067	UN	0.104
megmszyco	0.078	GPcwd	0.099	UNDESA	0.063	UNESCO	0.083
eileenasd	0.068	NancyMaguireUK	0.098	NZUN	0.063	UAEMissionToUN	0.067
AnnaMacQ	0.065	bauwensl	0.075	UNOCHA	0.063	antduittine	0.067
WorldBank	0.063	EASPD_Brussels	0.075	dfat	0.062	LockwoodEM	0.059
StateDept	0.061	SR_Disability	0.074	janekihungi	0.062	WorldEnabled	0.057
sdswhenson	0.061	MaeganShanks3	0.068	BlindUnion	0.061	IDA_CRPD_Forum	0.054
catherinenaugh	0.060	vrailas	0.067	DPI_Info	0.058	iddcconsortium	0.046
UNICEFEducation	0.057	joanngarnier	0.066	InclusionIntl	0.056	netfreedom	0.046
ZeroProjectorg	0.050	EminaHRW	0.040	FatmaWangareHaj	0.056	IndiaUNNewYork	0.045
EASPD_Brussels	0.024	accessinclusion	0.039	fiach	0.051	WHO	0.044
jordannaidool	0.022	ASAndyShih	0.037	Meghan_Hussey	0.051	Dell	0.043
KarlenInfo	0.020	autismspeaks	0.037	SR_Disability	0.044	StevensHelga	0.043
IDA_CRPD_Forum	0.016	ks7s	0.034	IDA_CRPD_Forum	0.043	NZUN	0.040
JordanUN_NY	0.011	UKUN_NewYork	0.034	iddcconsortium	0.043	SenatorHarkin	0.034
PlanGlobal	0.011	JordanUN_NY	0.034	MIW_CRPD	0.038	mEnablingSummit	0.034
Education2015UN	0.010	DorodiSharma	0.033	UN	0.034	Microsoft	0.034
NancyMaguireUK	0.010	irishmissionun	0.033	LockwoodEM	0.033	advocatEquality	0.033
swiss_un	0.010	swiss_un	0.033	UAEMissionToUN	0.028	undesadspd	0.031
SR_Disability	0.010	EU_Commission	0.033	PriscilleGeiser	0.026	globalcompact	0.026

EESC_SOC	0.009	UNGEI	0.033	AbiaAkram	0.026	debruaruh	0.025
UN	0.009	MerelKrediet	0.033	UN_Enable	0.024	AfdoOffice	0.024
WorldWeWant2015	0.007	MaleniChaitoo	0.033	judithheumann	0.023	derrickcogburn	0.018
McNhlapo	0.006	ifsbh	0.021	UNWomen_MetroNY	0.022	filippotrevisan	0.016
StevensHelga	0.005	megmszyco	0.013	catherinenaugh	0.019	CitiesLab	0.012
lftworldwide	0.005	Sjstevenson	0.011	lumos	0.018	jamesthu	0.010
MyEDF	0.005	claurinbowie	0.009	ravikarkara	0.016	socialpwds	0.010
SRehbichler	0.005	catherinenaugh	0.009	mkabir2011	0.014	UN_EWEC	0.010
intl disability	0.004	GlobalGoalsUN	0.008	Sightsavers	0.014	ITU	0.009
UNICEFtalk	0.003	DPI_Info	0.006	CBMworldwide	0.013	g	0.009
SPMazrui	0.003	sdsqwenson	0.006	DisabRightsFund	0.013	UNDESA	0.008
UN_Enable	0.003	undesadspd	0.006	GermanyUN	0.013	NYCDisabilities	0.007
UNICEFmedia	0.003	Denmark_UN	0.005	BMWi_Bund	0.013	ri_global	0.007
DisabRightsFund	0.003	StevensHelga	0.005	ITCILO	0.013	maloutfy	0.007
UNGEI	0.002	UNICEFtalk	0.005	EU_Commission	0.013	FordFoundation	0.007
DorodiSharma	0.002	IDA_CRPD_Forum	0.004	ABNYOffice	0.013	Habitat3UN	0.007
FinlandUN	0.002	nazmak	0.003	GAATES_GAN	0.011	NipponZaidan	0.007
GAATES_GAN	0.002	nanCy	0.003	Sightsavers_Pol	0.011	unisdr	0.007
LeonardCheshire	0.002	UN	0.003	lftworldwide	0.010	VladimirCuk2	0.007
DSamarasan	0.001	UN_Women	0.003	AWID	0.008	UN_Women	0.006
Education2030UN	0.001	UNWOMEN4Youth	0.002	ThinkCREA	0.008	CasarJacobson	0.006
ohchr	0.001	CBMworldwide	0.002	undesadspd	0.007	ravikarkara	0.005

Study 3

The Rise of Global Policy Networks in Education: Analyzing Twitter Debates on Inclusive Education Using Social Network Analysis

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Abstract

With the Convention on the Rights of Persons with Disabilities (CRPD), inclusive education has become the main alternative to special schools for the schooling of children with disabilities. In order to promote the global implementation of inclusive education, a variety of stakeholders form networks to transmit and exchange information and knowledge concerning political strategies. However, little is known about the actors and actor groups involved in these networks. In the present paper, we draw on general network theory and policy network theory to examine the Twitter communication network that has formed around the topic of inclusive education. Using exploratory and inferential social network analysis, we show that disabled persons' organizations and international organizations, such as the United Nations, hold a particularly central position in the network. This position enables them to potentially exert influence on the content and flow of information within the network. Aside from that, business actors are active participants in the network. Moreover, the Twitter network shows some structural patterns that can also be found in policy networks. Our findings help to map the global sphere of inclusive education promotion and can contribute to a broader understanding of global processes in inclusive education policy.

Keywords: inclusive education, policy networks, Twitter, social network analysis, global governance

1. Introduction

Inclusive education has emerged as the main alternative to special education for the schooling of children with disabilities (Powell, Edelstein, and Blanck 2016). The implementation of inclusive school settings as the main form of education for children with disabilities is a policy process that comprises a variety of actors, both at the national and international level (Biermann 2016). From a cross-national perspective, the implementation of inclusive education varies strongly across states. This stems from diverging definitions of the issue as well as differences in traditional schooling structures and in the general perception of disability (Mitchell 2005). With the adoption of the United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD) the right to inclusive education has gained the status of a human rights issue. Adopted in 2006 and ratified by 177 member states (including the European Union as the first ever supranational organization to sign a human rights treaty), the convention is the first human rights treaty of the 21st century and is also the first legally enforceable UN instrument specifically fostering disability rights (Lord and Stein 2008). During the negotiations and drafting of the convention, one of the most controversially discussed parts was the article on education for children with disabilities (Beco 2018). Eventually agreement was reached on Article 24, which stipulates that ‘States Parties shall ensure an inclusive education system at all levels’ (United Nations 2006). Hence, in light of this perspective, the enrolment of children with disabilities in inclusive school settings needs to be understood as a fundamental right that must not be subjected to a case-by-case balancing of costs and benefits. However, the degree of compliance with inclusive education still varies between CRPD member states. Consequently, state and non-state actors continue to advocate for the rights of persons with disabilities and the right to inclusive education (Biermann 2016), thereby keeping the topic on the agenda of international conferences on disability rights.

As is the case with other policy domains, education policy is no longer confined to the territory of the nation state, but has become global. Global governance entails an increasing importance of non-state actors and their interactions with traditional governmental actors in global policy-making processes (Rosenau 1995; Zürn 2018). These non-state actors, such as non-governmental organizations (NGOs) or businesses, build networks and coalitions for reciprocal support in the promotion of specific issues (Menashy 2016). In the case of the CRPD, Harpur (2012) argues that disability rights stakeholders should build and strengthen links within and outside the disability rights community to advocate disability rights. More generally, in the

field of human rights, transnational actors often create structures that allow for a better diffusion of ideas and practices among different stakeholders (Koh 1999).

Scholars have begun to map networks of state and non-state actors in the field of education policy. Relevant studies focus on policy networks in domestic education policies – such as, for instance, those in China (Han and Ye 2017), India (Ball 2016) or the United States (Lubienski, Brewer, and La Londe 2016) – as well as on transnational networks supporting regional or global education issues, e.g. low-cost private schooling in Africa (Junemann, Ball, and Santori 2016) or the Education for All agenda of the UN (Macpherson 2016). This strand of research demonstrates the increasing influence that diverse non-state actors exert by building networks to provide political and financial resources and exchange knowledge. Aside from the mere provision of actual goods to support policy ideas, these actors also participate by diffusing policy-relevant information, thereby shaping political debates. However, there is only limited knowledge about the different actor groups involved in such issue-specific global debates. Moreover, there is little research on the way different stakeholders become involved in and intend to foster the rights of persons with disabilities.

Against this backdrop, our paper studies the emergence of an issue-specific communication network around the topic of inclusive education. This network serves as a forum through which different actors and actor groups attempt to shape the content and increase the visibility of the policy debate on inclusive education. The aim of the present paper is to map the global communication network that has formed around the topic of inclusive education, identify central and potentially influential actors and actor groups, and to describe and explain key elements of the network's structure. In other words, we ask which actors and actor groups are involved in the global communication network on inclusive education, how influential they are, and how they are involved in the formation and structuration of the network. Whereas scholars already emphasize the role of state and non-state actors in shaping agendas for specific global educational policies (e.g. Jakobi 2009; Mundy et al. 2016), research on the interplay between different actors and their embeddedness and influence in relation to others is still scarce.

We conceive the network on inclusive education as a global policy network. Our analysis draws on social network theory (Wassermann and Faust 2009) and policy network theory (Marin and Mayntz 1991). Empirically, we use social network analysis (SNA) to explore the position and characteristics of individual actors and actor groups as well as characteristics of the network. To address the challenge of how to empirically observe a global policy network, its actors and the inherent communication, we use Twitter data. This allows us to include the

full diversity of actors from the local to the global level as well as from the public and the private sphere. Moreover, using this data source acknowledges the increasing relevance of new information communication technologies (ICTs) for the exchange of policy-related information and the establishment of new connections, as well as the growing use of online social media platforms for political debates (Dubois and Gaffney 2014; Guo and Saxton 2014). We examine the Twitter communication network around the CRPD with a specific focus on communication related to inclusive education.

After this introduction, we first specify our research topic, the CRPD and inclusive education, followed by a short introduction to the social media platform Twitter as our data source. Next, we describe our theoretical and methodological approach. Finally, we present the results of our analysis and discuss these against the backdrop of current research and limitations.

2. The CRPD and inclusive education

The term inclusive education comprises a variety of concepts and can therefore be considered from different perspectives (e.g., inclusion of all groups vulnerable to exclusion, inclusion as a general effort to include all children in the education system versus inclusion in the mainstream education system; Messiou 2017). For the present paper, we focus on the inclusion of persons with disabilities in the education system as the only case of inclusive education with a legal foundation (due to its implementation in the CRPD).

Inclusive education has been a relevant topic within global education policy for a long time. In 1990, the World Declaration on Education for All first mentioned equal access of persons with disabilities to quality education (UNESCO 1990). In 1993, the Standard Rules on the Equalization of Opportunities for Persons with Disabilities noted more specifically that ‘adequate accessibility and support services (...) should be provided’ for the needs of persons with disabilities in mainstream schools. However, it was still suggested that persons with specific needs, such as blind or deaf persons, be assigned to special schools or at least to special units in mainstream schools. Moreover, the concept of inclusive education was not explicitly mentioned (United Nations 1994). A seminal step was the Salamanca Statement adopted in 1994 at the UNESCO World Conference on Special Needs Education. The statement included an explicit recommendation for the schooling of persons with special educational needs in inclusive settings and, in doing so, brought inclusive education as the preferable approach onto the agenda (UNESCO 1994). This gradual development eventually cumulated in Article 24 of the CRPD, with inclusive education stipulated as the only adequate means of meeting not only the needs

but also the rights of persons with disabilities in school settings – although there were long debates about keeping the option for special schools in the formulation (Beco 2018).

As is the case with many other human rights issues, the convention lacks the power to impose legal sanctions or consequences for countries not complying with its standards. As it often takes several years or up to decades for treaties to be implemented, continuing advocacy by non-state actors (international organizations (IOs), NGOs, business actors, etc.) is indispensable (Lord and Stein 2008). Moreover, as advocates in some countries may lack the capacity to run campaigns on their own, they may seize the opportunity to engage in transnational structures of both international and domestic non-state actors to increase their advocacy power (Torres Hernandez 2008). As Koh (1999, 1409–10) contends, these actors ‘seek to develop transnational issue networks to discuss and generate political solutions (...) at the domestic, regional and international levels’. For instance, when in the 1990s the Education for All initiative was adopted, a well-connected global civil society network formed around the advocacy of education as a humanitarian act (Menashy 2016). Thus, governmental and non-governmental forums are created to ‘declare both general norms of international law (e.g. treaties) and specific interpretation of those norms in particular circumstances’ (ibid.).

The annual Conference of States Parties (COSP), which is held every July in New York City, represents one possible forum for the international debate about the implementation of the convention. Although only member states and few non-state actors have access to this conference, many sub-national and non-state actors use the timing of the COSP to connect with other actors and exchange information on the topic via social media platforms such as Twitter. Therefore, the Twitter communication can provide information on a more diverse set of actors than the actual conference network because it does not exclude actors from participation. Actors from both domestic and international levels can contribute to this communication, making the communication network transnational. Thus, the inclusive education network on Twitter can be understood as a manifestation of global education policy in its own right.

2.1 Twitter as data

Twitter is a social media platform that is used for real-time information and discussion and is prevalent in all parts of the world (Weller et al. 2014). It allows its users to engage in specific debates and to connect with other users by publishing tweets, i.e., short messages with up to 280 characters. On Twitter, users can participate in particular discussions by using hashtags (i.e., placing a hash (#) in front of a word). Users can also subscribe to a hashtag in order to be updated with new tweets. Moreover, users can directly contact others by retweeting them

(that is, reposting a tweet of another user), by mentioning them (adding the @-symbol to a user name), or by replying to them (mentioning them at the beginning of a tweet). This enables them to directly exchange information, to further disseminate information, to engage in public conversations, or to attract the attention of specific users.

In politics, the importance of Twitter has grown rapidly over recent years. Political actors promote their ideas through the platform (Dubois and Gaffney 2014) and NGOs use it for ‘public education’ as well as mobilization and organization (Guo and Saxton 2014). Not only governmental and non-governmental organizations, but also private users use Twitter intentionally and strategically to express their issue-specific policy preferences (Conover et al. 2012). Although the influence of Twitter on education policy is still an emerging research field (e.g. Sam 2019), it can be assumed that the platform is used by both domestic and international policy stakeholders in the negotiations around education policy.

3. Theoretical and methodological approach

3.1 Theoretical approach

International (education) policy regimes are structured as networks rather than hierarchies (Risse 2004). Two observations support this assumption. First, over recent decades, a huge body of work has shown that global governance is not restricted to or dominated by states and their public administrations, but comprises a heterogeneous array of public and private stakeholders from all levels of government (Jakobi 2009). The concept of global governance emphasises the influential role of non-state actors that cooperate with state and non-state actors in an attempt to achieve their policy preferences (Rosenau 1995; Zürn 2018). At the same time, international institutions and policy processes have a great impact on domestic policies, making it difficult to examine national and international policy development separately (True and Mintrom 2001; Jakobi 2009). Second, the understanding of policy-making as a ‘process involving a diversity of actors who are mutually interdependent’ (Adam and Kriesi 2007, 146) and who operate at different levels of government, has led to the assumption that global governance occurs in networks rather than hierarchies.

Consequently, in order to understand global governance, for example in the field of disability policy, it is crucial for scholars to refer to approaches of policy network theory. Policy networks are characterized by informal, decentralized and horizontal relations (Kenis and Schneider 1991) where the exchange of problem-specific information constitutes a ‘key feature’ Stone (2004, 560). Actors may use these issue-specific communication networks to build alliances and jointly promote their policy preferences.

In order to better understand the structure of a global education policy network, we apply concepts of social network theory (e.g., see Wassermann and Faust 2009; Borgatti and Lopez-Kidwell 2011). Technically, a network is ‘a set of actors or nodes along with a set of ties [or ‘edges’; the authors] of a specified type (...) that link them’ (Borgatti and Halgin 2011, 1169). The main idea is that social systems are ‘networks through which information (or any resource) flows from node to node along paths consisting of ties interlocked through shared endpoints’ (Borgatti and Lopez-Kidwell 2011, 43). A social network perspective shifts the unit of analysis from individual actors towards the relations between them and the overall network these relations constitute (Jörgens, Kolleck, and Saerbeck 2016). The examination of relations can lead to the identification of particularly central and, possibly, influential actors within a network as inferred from their relative position to others (Kolleck 2016). Gaining a better understanding of both the general structure of a communication network and the role of specific actors (and actor groups) within it can then lead to growing knowledge about how information is disseminated and how actors might be able to shape that dissemination. Whereas no single theory can be described as ‘the network theory’, a number of theoretical approaches focusing on the structure of social networks can be subsumed under this term. Due to the structure of our data, we emphasize the concepts of network closure and homophily. Network closure comprises the tendency of actors in social networks to improve their structural embeddedness by reciprocating ties or by closing triads (connecting with ‘friends of friends’) (e.g. Granovetter 1985; Burt 2000). Homophily describes the tendency of individuals to connect to others with whom they share similarities (McPherson, Smith-Lovin, and Cook 2001). These similarities can include personal properties, such as race or gender, but also concern affiliations with the same groups or organizations. Both network phenomena can be assumed to be relevant for a policy network as they influence the flow of information as well as the formation of coalitions and alliances.

In international relations and global policy research, the study of actor networks allows us to draw inferences about the roles of different actors and their (potential) influence in shaping policy debates. Scholars from educational science have already widely integrated approaches of policy networks into the study of global policy-making processes, showing that networks play a key role in global education policy (for an overview, see Menashy and Verger 2019). Networks of state and non-state actors constitute important channels for the international diffusion of educational policies and innovations, such as inclusive education. In the study of these networks, the usage of network approaches differs widely. For instance, Junemann, Ball, and Santori (2016, 539) use network ethnography to analyze ‘meanings and transactions rather than subjecting the networks to the more quantitative measures offered by social network analysis’.

In this way, they are able to reveal the nature of connections between the different members of a global network of state actors, businesses and philanthropies. Kolleck et al. (2017) use centrality measures to identify the central nodes in a Twitter network on climate change education. As these studies show, global education policy networks comprise a high number of diverse actors with different types of connections, such as information or resources. However, inclusive education as a global education policy issue is still largely under-researched, as is the influence of non-state actors on the promotion of the topic. Whereas the remarkable involvement of civil society actors (predominantly disabled people's organizations [DPOs]) in the meetings of the Ad Hoc Committee is documented in the literature (Stein and Lord 2009), there is limited knowledge about their role in the implementation processes. In order to shed light on the global debate about the implementation of inclusive education as it is led on Twitter, we examine the interactions between different actors and the structures these interactions build.

3.2 Methodological approach

In order to examine the global Twitter communication network on the topic of inclusive education, we draw on techniques of exploratory and inferential SNA. In doing so, we identify central actors who can be expected to be especially capable of shaping the flow of information, as well as structural properties of the network in order to make assumptions about the roles different actor groups play within the network (Borgatti et al. 2009). Whereas exploratory SNA allows for an overview of the network as well as the identification of central nodes (Nooy, Mrvar, and Batagelj 2011), inferential SNA offers the opportunity to test hypotheses about the formation of the network (Cranmer et al. 2017; Lusher, Robins, and Koskinen 2013). By using Twitter data, we try to address the main challenge of investigating global policy networks, that is, to 'identify actors in networks, their on-going relations and the structural outcomes of these relations' (Dicken et al. 2001, 89). Although it must be noted that Twitter networks are not representative of the actual population of a research subject and that the channels existing on Twitter represent only some of those available for exchange and information diffusion (Tufekci 2014), they enable researchers to investigate a set of global policy actors who have the opportunity to participate in a communication without being excluded.

3.3 Data set

For the purpose of this study, we purchased Twitter data published during five consecutive COSPs (2013 to 2017) from one of Twitter's official resellers and refined it using the free and open-source development environment R (R Core Team 2018). To receive tweets related to the CRPD and disability policy, we searched for general hashtags, such as #crpd or #cosp, as well

as more specific keywords that were prominently used for the promotion of disability rights in a specific year (e.g. #post2015 in 2015 or #thisability in 2013 and 2014). We added one day before and one day after each conference. The whole data set included a total of 44,545 tweets. In order to extract a network for the debate on inclusive education, we employed a filter using the following search syntax: educa* OR article 24 OR sgd4 OR school OR (child AND inclu*). We developed the filter in an iterative process by adding potentially relevant words which were used in combination with already used terms until no more matches were obtained. As we were mainly interested in the network information the tweets contained (i.e. the retweets and mentions), in theory tweets in all languages could be included. Nevertheless, it cannot be ruled out that relevant tweets on other languages were lost during extraction.

The filter reduced the data set to 1,638 tweets. Using the tweets, we generated a directed network with relations based on the mentions, replies and retweets. The extracted education-specific network contained 986 nodes and 1,829 edges. Nodes in this data set represent Twitter accounts which, in turn, can represent persons as well as organizations. Where possible, we added the organization type for each user. The categories were generated inductively and led to the following organization types: businesses, governmental actors, IOs, general NGOs, DPOs, research, media, and private persons.

4. Results

4.1 Exploratory analysis: describing the Twitter network on inclusive education

In the first part of our empirical analysis we use exploratory SNA to give an overview of the network and identify its most central nodes. For the visual representation we used Gephi's ForceAtlas 2 algorithm. This force-directed layout visualizes networks based on the rule that connected nodes are attracted whereas unconnected nodes repulse each other (Jacomy et al. 2014). The edges represent retweets, mentions and replies, but do not contain information about the quality of the relationship. Figure 1 shows the five-year development of the network. The size of the nodes represents their eigenvector centrality which measures the centrality of a node in proportion to the sum of the centralities of the nodes it is adjacent to. Hence, 'a node is only as central as its network' (Borgatti, Everett, and Johnson 2013, 168), making it an indicator of an actor's popularity. In order to keep the graphs readable, we only labelled the most central nodes.

Several findings stand out. Regarding the network structure, we observe that both the overall network and its main component (i.e. the largest cluster of interconnected nodes) have constantly grown while the number of loose islands remains relatively constant. The only exception

to this development can be observed for the year 2015, when a rather small main component is surrounded by a high number of islands. The visualization also shows a remarkable increase in the number of new, but unconnected, accounts until 2015. By contrast, in 2016 the number of unconnected nodes is much lower, indicating that new participants were rapidly integrated and, consequently, that functioning network mechanisms are at work in the education-related Twitter network.

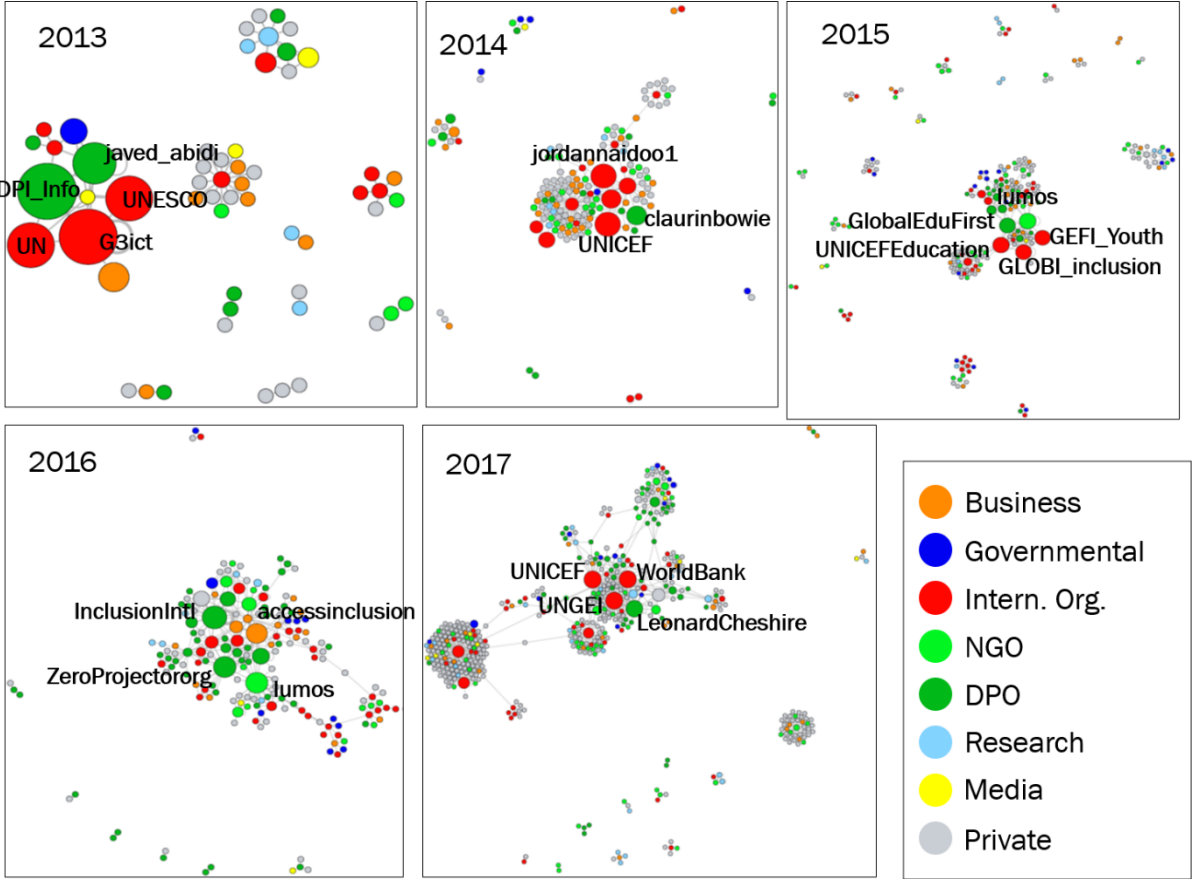


Figure 1. Development of the network over time. (Node size refers to eigenvector centrality, node color refers to actor group.)

In all five years, the network is dominated by a rather small number of particularly central nodes. These central positions are predominantly occupied by IO-related actors as well as DPOs. Although campaign names change over time, the different UN departments such as UNESCO and UNICEF and initiatives such as the Global Initiative for Inclusive Information and Communication Technologies (‘G3ict’), the Global Education First Initiative, or the UN Girls’ Education Initiative (‘UNGEI’) seem to be highly influential participants of the network. A similar observation can be made for the DPOs, where different organizations dominate over time. Whereas in 2013 the Disabled Peoples’ International account (‘DPI_Info’) is the dominant organization, this role is exercised by Inclusion International (‘InclusionIntl’) in 2016 and by

Leonard Cheshire Disability in 2017. The only two central nodes that do not belong to either of these two organizational types are Lumos (an NGO for children’s rights) in 2015 and 2016 and Ai-Media (‘accessinclusion’, a business that provides tools to make digital content accessible) in 2016.

In order to make more general assumptions about the network structure and roles of different actor groups, Table 1 provides an overview of the involvement of the different actor groups overall as represented by in-degree and out-degree centrality values. In-degree centrality refers to the number of mentions or retweets users related to a specific group have received. Out-degree centrality measures the number of activities (mentions or retweets) in which the actors of a certain group engage. As the groups differ highly in terms of their overall appearance in the network, the values need to be viewed in proportion to the overall group size. Regarding in-degree, the high value for IO-related accounts is particularly striking. The 104 accounts presented in the Twitter network received a total of 895 mentions and retweets, which is by far the highest number in comparison to the other groups. Moreover, no other group shows a comparably high in-degree in relation to its out-degree or its overall number of accounts. Regarding out-degree, business-related actors show a remarkably high value compared to their in-degree and to the proportional representation of this actor group in the network, with a value more than twice as large as their group size. Furthermore, DPOs seem to be particularly active in the formation and establishment of contacts. Although private actors also show a high out-degree value, this finding needs to be considered in relation to the group size which corresponds to nearly half of the total network. Furthermore, as (seemingly) unconnected and unknown users are unlikely to be mentioned or retweeted, addressing others is the easiest way for private actors to participate in the network.

Table 1. In- and out-degree distribution according to actor group.

Actor group	In-degree	Out-degree	N
Business	65	207	91
Governmental	63	55	43
IO	895	169	104
NGO	229	193	127
DPO	353	345	109
Research	67	84	50
Media	6	26	16
Private	100	699	446

4.2 Inferential SNA: Explaining the formation of the Twitter network on inclusive education

The second part of the empirical analysis uses inferential SNA to test hypotheses about the formation of the network. In order to analyze the formation of the Twitter network on inclusive education, we built a model to statistically test the descriptive findings on the actor groups and to describe, in parts, the topology of the network. We then estimated this model drawing on exponential random graph models (ERGMs). The main idea of this approach is to model the characteristics of a theoretical network and estimate their weights in order to identify those characteristics of an empirically observed network that occur significantly more often than would be expected by chance (Robins et al. 2007). An inferential network approach allows for more stable assumptions about the topology of a network and, consequently, about its formation. We conducted our model estimation on R, using the ‘ergm’ package (Handcock et al. 2017). The model was estimated using Markov Chain Monte Carlo Maximum Likelihood Estimation (MCMC MLE).

Since we had no empirical or theoretical reason to estimate different models for the five years, we employed the same model for each year. We developed the model with reference to the descriptive findings, on the one hand, and to the aforementioned network theoretical assumptions, on the other. Due to the distribution of in- and out-degree in terms of actor groups, the estimated model contained terms for incoming ties (in the model ‘alter’) for IOs and DPOs as well as terms for outgoing connections (‘ego’) for businesses, DPOs, research and private users. Moreover, the model included terms for actor group homophily (one term for each group). In this way, the model was tested for the tendency of actors to interact within their actor group versus outside of it. Also, we added one term for reciprocity and two terms for transitivity, namely geometrically weighted edge-wise shared partner (GWESP) and geometrically weighted dyad-wise shared partner (GWDSP). Whereas GWESP counts the number of connected nodes with shared partners, GWDSP counts any nodes with shared partners. Taken together, they can be interpreted in terms of the transitivity of a network (Leifeld and Schneider 2012; Hunter 2007). As control variables, we also included an edges term as well as degree terms in our model. The edges term controls for the density of the network, ensuring that the number of ties stays constant over the simulations. The in-degree and out-degree terms control for the degree distribution in the network, putting an emphasis on actors with few ties with a parameter of $\theta=0.1$ (Hunter 2007). Moreover, we added one controlling covariate for the general centrality of actors in the network as measured by betweenness centrality, as well as for the number of followers .

In order to improve the readability of the results of the analyses, we divided them into two parts; it must be noted, however, that both parts stem from the same model. Hence, combining both parts, the results for each year have to be seen as independent from each other. Table 2 shows the results related to the descriptive findings (part one). As expected, the estimate for incoming ties for IO-related actors is positive and significant across all five years, thereby indicating an important role of these actors as addressees of mentions and retweets. Less strong, but still observable is the effect for DPOs. With the estimates being mostly positive and significant across the years for both incoming (negative only for 2016) and outgoing (negative only for 2014) connections, actors related to DPOs seem to have an important role in each of the years not only as addressees, but also as active participants of the network who build connections by retweeting and mentioning others. For business-related as well as private actors, the results of the inferential analyses also mostly confirm the expected high level of activity, as both actor groups show a negative parameter exclusively for 2013. The same pattern applies for accounts related to research, although the effects are not significant. Compared to the descriptive findings, it can be noted that some of the findings from the visualization and from the in-/out-degree distribution (e.g., the roles of IOs and DPOs) seem to be statistically significant whereas the significance of others cannot be confirmed.

Table 2. Exponential Random Graph Model. (First part: control variables and assumptions from descriptive findings)

	2013	2014	2015	2016	2017
Edges	-4.21***	-5.84***	-5.71***	-5.04***	-5.63***
Indegree	-1.20***	-3.43***	[NA] ¹	-2.23***	-5.07***
Outdegree	1.50***	2.57***	[NA] ¹	0.88***	2.44***
Betweenness centrality	0.11*	0.21***	0.07***	0.10***	0.06***
Follower alter	0.00***	0.00	-0.00	0.00	0.00***
IO alter	0.91***	0.93***	0.62***	0.23*	0.33***
DPO alter	0.52**	0.52*	0.19	-0.05	0.00
Business ego	-0.32	0.52	0.58***	1.03***	0.06
DPO ego	0.27	-0.26	0.32**	0.39*	0.79***
Research ego	-0.44	0.44	0.26	0.41	0.22
Private ego	-0.32	0.13	0.25*	0.57***	0.32*
AIC	532.62	1356.94	3443.33	2791.46	6088.96
BIC	641.85	1510.46	3603.02	2957.71	6293.99
Log Likelihood	-248.31	-659.47	-1703.67	-1375.73	-3024.48

***p < 0.001, **p < 0.01, *p < 0.05; AIC = Akaike information criterion; BIC = Bayesian information criterion; ¹The terms for in- and out-degree had to be excluded from the model in order for it to converge.

Table 3. Exponential Random Graph Model. (Second part: network theoretical assumptions)

	2013	2014	2015	2016	2017
<i>Homophily</i>					
Business	[NA] ¹	0.41	-0.34	-0.40	0.10
Governmental	[NA] ¹	3.14**	1.20	1.28**	1.49
IO	-0.27**	0.00	0.21	0.41	-0.29
NGO	0.29**	0.57	0.62***	0.38**	0.57***
Research	1.97***	[NA] ¹	1.57**	1.19**	0.77
Private	-0.25***	-1.17	0.07	-1.72*	-0.81***
<i>Network closure</i>					
Reciprocity	0.20***	-2.67*	-1.81***	-0.14	-1.41
GWESP	2.16***	0.79***	3.10***	2.17***	2.49***
GWDSP	-0.47***	0.05***	-0.22***	-0.12***	-0.17***
AIC	532.62	1356.94	3443.33	2791.46	6088.96
BIC	641.85	1510.46	3603.02	2957.71	6293.99
Log Likelihood	-248.31	-659.47	-1703.67	-1375.73	-3024.48

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; GWESP = geometrically weighted edge-wise shared partners; GWDSP = geometrically weighted dyad-wise shared partners; AIC = Akaike information criterion; BIC = Bayesian information criterion; ¹Cases without homophilous connections had to be excluded from the model; for this reason, no estimates could be calculated for the group of media-related actors.

Concerning the occurrence of general network theoretical patterns, the results are ambiguous (see Table 3). Particularly for actors related to governments, NGOs, and research organizations, the homophily estimates are consistently positive and mostly significant across all five years (with exceptions only for governmental actors in 2015 and 2017, for NGOs in 2014 and for research-related actors in 2017). This indicates a rather strong tendency of these actors to use Twitter to connect to other actors of the same organization type. In contrast, private actors and IOs seem to overcome these self-imposed ‘boundaries’ by including different actor groups in their Twitter activities, as can be seen from the not significant positive or even significant negative homophily estimates for these two groups. This is not surprising for private actors, as this category does not represent a homogenous group. Quite remarkable are the results for reciprocity. With the exception of 2013, the estimates for the models are all negative and mostly significant, indicating not only a lack of reciprocity in the network, but also a statistically significant tendency for actors in the Twitter network to not reciprocate activities such as mentions or retweets. This is even more surprising with regards to the transitivity. When controlling for unconnected dyads sharing a contact (GWDSP), there is a significant occurrence of shared contacts between already connected ties (GWESP). Combining the results for reciprocity and transitivity, this means that users in the Twitter network tend to build new connections rather than

using already existing channels. However, they use already existing contacts as ‘recommenders’ of possible new contacts.

5. Discussion

The main objective of this paper was to map the Twitter communication network that has formed around inclusive education in order to identify central actors and actor groups and to describe structural patterns in the network. Drawing on approaches of policy networks and general network theory, we used social network analysis to explore the role of individual actors and actor groups as well as characteristics of the network, which we then statistically tested using inferential network analysis.

As a global human rights issue that is implemented in particular through the UN CRPD, inclusive education was assumed to be a topic discussed in the global Twitter sphere. Based on the notion of international policy regimes being structured as networks, we focused on the Twitter communication during the COSPs to the CRPD as an opportunity to investigate the global communication network relating to inclusive education. Following the idea of global policy spaces as heterogeneous sets of diverse stakeholders, we expected to find this diversity in the Twitter discussion as well. Hence, the Twitter data allowed for coverage of the wide range of political and private actors engaging in the advocacy of disability rights as well as the connections forming between them. Based on network theory, we inferred the potential influence of individual actors from their position in the network and examined the network in view of general network phenomena, in particular network closure and homophily. Although the use of Twitter data limits the possibility of transferring the findings to offline policy networks, several implications can be inferred which are discussed below.

First of all, the Twitter network regarding inclusive education is constantly growing, which means that the topic is increasingly discussed on Twitter and the number of actors engaging in the topic is rising. However, this growth needs to be put into perspective in light of the growth of the CRPD Twitter network as well as the increase in Twitter usage in general. Assigning the accounts to their respective actor groups shows that the network covers the range of diverse stakeholders participating in global policy regimes. Leaving private actors or actors with an ambiguous affiliation aside, most of the network members are affiliated with the groups of NGOs (particularly DPOs) followed by IO-related and business actors. This high level of occurrence of DPOs is not surprising regarding their significant involvement already in the meetings of the Ad Hoc Committee to the convention as well as the role of civil society stakeholders explicitly inscribed in the convention (Stein and Lord 2009).

The visualizations of the network over five years provide further information about the actor groups. By calculating and visualizing the eigenvector centrality of the nodes, we show that predominantly IO- (mostly from the UN) and DPO-related actors occupy central positions in the network. Referring to Kolleck (2016), this centrality can be related to the influence of an actor, indicating that UN accounts and leading DPOs in particular are in a position that allows them to exert influence on the Twitter communication in the context of inclusive education. Hence, our results indicate that actors such as UNESCO, UNICEF, or Inclusion International hold potentially influential positions in the Twitter debate around inclusive education. These positions allow them to increase their impact on the information diffusion in the network. This is in line with findings from studies investigating the UNFCCC Twitter network, which showed that the convention's secretariat has a particularly influential role (Kolleck et al. 2017; Jörgens, Kolleck, and Saerbeck 2016).

The inferential analysis that we conducted to confirm the descriptive findings and to reveal general network theoretical patterns produced ambiguous results. First of all, it suggests that the IO-related accounts in the Twitter communication network obtain their central role primarily through the attention of others. The significantly high number of received mentions and retweets suggests, on the one hand, that IOs have their information disseminated more than others. On the other hand, they indirectly are targeted as potential multipliers by users with a smaller reach. Although IO accounts contribute to this mechanism only to some extent (as they mostly remain the addressees in this communication), their role must not be underestimated. Against the backdrop of the limited opportunities provided by social media – which cover discursive aspects of policy-making rather than actual implementation – some of the functions of IOs in policy-making as described by Jakobi (2009) can be identified. Their central role in the Twitter network allows IOs to set the agenda for inclusive education, but also to introduce new actors or initiatives to the network. The fact that the most predominant UN accounts have varied over the years has enabled the UN to put the focus on different aspects of inclusive education, adapted to the respective initiatives and trends for each year. Moreover, by connecting to different stakeholders the UN can even take on a coordinative function. This is further supported by the tendency of IO-related actors to have contacts to other actor groups rather than to their own, as indicated by the negative homophily parameter.

Even more diverse is the role of DPOs in the Twitter network. Our results indicate that accounts related to disability rights organizations are influential both in sending tweets (and thereby connecting to others) and in receiving mentions and retweets. In this way, these actors

are in a position to not only have their information further disseminated, but to also address others in order to forward information directly to them or to integrate them in the network. These findings suggest that disability rights organizations may use Twitter as a means of connecting with others to build advocacy coalitions. This is in line with the work of Zwingel (2005) who shows similar patterns for the transnational discourse shaping processes for women's rights in the context of the UN Convention on the Elimination of all Forms of Discrimination Against Women. Moreover, when considering NGOs in general, the results for homophily indicate a strong tendency of NGOs to connect with other NGOs. Cautiously assuming a deliberate, strategic use of Twitter as an opportunity to exchange information and contact others, this can be interpreted as an attempt of NGOs to build transnational coalitions in order to collectively promote the right to inclusive education. Hence, the network seems to contribute to the required wide and strong interconnections within the disability rights community (Lord and Stein 2008; Harpur 2012).

Our inferential network analysis conducted for this paper partly confirms that businesses are also among the most active participants in the Twitter network. Businesses, such as the Ai-Media venture, can use the platform for advertising purposes. This active participation in the global debate is in accordance with the emergence of a 'Global Education Industry' (Verger, Lubienski, and Steiner-Khamsi 2016). The involvement of private sector stakeholders in education is becoming increasingly present at both national and global levels (Verger 2012; Ball 2012). Moreover, the link between (assistive) technology companies and the disability community has been widely discussed at the intersection of new technologies and disability rights (for an overview, see Alper and Raharinirina 2006). By demonstrating existing opportunities in the context of accessibility for persons with disabilities, these businesses give new input to the disability rights community. Thus, to some extent their involvement in the Twitter communication around inclusive education can also be seen as active advocacy for inclusive education, moving their role from that of a mere market player to that of an advocate.

Overall, the high level of activity – particularly of actors without direct democratic legitimization (e.g. DPOs or businesses, in contrast to governmental or intergovernmental stakeholders) – suggests that these actors try to benefit from the discursive opportunities of Twitter in order to shape the debate and the network around inclusive education. With strictly limited capacities in the implementation process, they seem to use the global sphere to form coalitions and to team up in the advocacy for disability rights in general and inclusive education in particular. Hence, to some extent the Twitter communication network forming around inclusive

education meets Lord and Stein's (2008, 468f.) call for an advocacy that 'fosters the building of stronger and more engaged disability rights coalitions, increases the visibility of disability groups, and fosters linkages between disability groups and other civil-society actors and allies'.

Aside from the involvement of specific actors and actor groups, we also examined the Twitter network in terms of structural characteristics, namely network closure and homophily. In contrast to expectations derived from social network theory, the Twitter users connecting in the context of inclusive education have a surprisingly low tendency to reciprocate ties. A similarly low willingness for mutual following on Twitter has previously been found by Kwak et al. (2010). Our results indicate that this pattern can also be applied in relation to actual Twitter activities (i.e. mentioning and retweeting), suggesting that this could be a Twitter-specific phenomenon. At the same time, for the examined network over the five years the level of forming transitive triples is significantly high. This is in line with studies of communication or information exchange networks by Carpenter, Esterling, and Lazer (2004) and by Leifeld and Schneider (2012), which demonstrated that political actors prefer to form ties with others if they already share a connection. Although the transitive patterns in the observed Twitter network can hardly be interpreted as the tendency to actively rely on the expertise of others, as in the aforementioned studies, the results suggest that traditional network mechanisms also apply for the Twitter network.

Similarly, the findings concerning homophily appear ambiguous. Whereas the tendency to interact with presumably similar others – which is often related to shared characteristics or memberships – is prevalent in many social networks (McPherson, Smith-Lovin, and Cook 2001; Himelboim, McCreery, and Smith 2013), the inclusive education communication network on Twitter shows these tendencies only in parts. As mentioned before, NGOs as well as research-related actors tend to mention or retweet other users of the same organizational type. The opposite tweeting behaviour can be noted especially for IO-related actors. Compared to other studies on homophily in political Twitter networks, these equivocal findings are not too surprising. When similarity is directly measured over interest, the tendency to interact with others on Twitter is highly related to shared preferences and interests (Conover et al. 2011). However, if the assumed similarity is mediated over group membership (e.g., gender or race), homophily is more dependent on the kind of group (Mousavi and Gu 2015). Hence, given that in the present work the similarity between actors is derived from their affiliation with organizations, the differences in tweeting behaviour need to be explained differently in relation to the actor groups. On the one hand, the high level of homophily for NGOs might be interpreted

according to the preference of these actors to strengthen their group in order to consolidate their rather limited opportunities for promoting inclusive education. On the other hand, the tendency of IOs to have interactions with the overall network can be seen as an indication of their role as boundary spanners by connecting to all sorts of different actors, regardless of their position in the network.

In addition to findings related to the inclusive education network, the study also contributes to the literature on the usage of social network analysis in educational research. First, it shows that using Twitter data enables researchers to extend the analysis to actors that are easily neglected or hard to reach with traditional research methods. Not being limited by a predefined set of actors, research on Twitter networks can better grasp the complexity of actors in education policy networks. Second, in the emerging research field of SNA in education policy (Menashy and Verger 2019), inferential analyses of social networks are still rare (e.g. Shields 2016). However, as can be seen in this article, adding methods of inferential network analysis to more traditional approaches allows researchers to statistically test hypotheses on the topology and formation of social networks. This, in turn, can be used to strengthen results obtained with other methods.

Although the present study has implications for research on inclusive education and education policy networks, some limitations must be mentioned. First of all, it must be emphasized that the analysis of Twitter data can only lead to assumptions about the Twitter network while inferences about the actual policy network underlying the global debates on inclusive education cannot be drawn. At most, the Twitter communication network can approximate the policy network and, consequently, the results can provide hypotheses about the mechanisms at work in the corresponding global governance network. In order to broaden our findings on global inclusive education policy, future research could use other network data sources, such as text documents or survey data, to explore different types of networks.

Another, related, limitation of our approach is the continuing lack of research on the comparability of Twitter networks with offline networks. Although the study of Dunbar et al. (2015) indicates that online social media networks show some of the characteristics that are found in offline networks, studies comparing networks with two different data sources – one based on social media data, one based on survey data – are still missing. In this regard, our study can at least deliver some more evidence in the comparison of offline networks and social media networks, revealing similar structures for both. However, to extend the usability of Twitter

networks for policy research, more systematic comparisons of the different types of networks are necessary.

Overall, the study provides valuable information about the global debate on inclusive education as observed on Twitter, mapping the variety of different stakeholders involved in the advocacy of disability rights. Despite being restricted to the Twitter sphere, the results contribute to research on global governance of inclusive education and can lead to further analyses of the roles of different actors and actor groups in the global promotion of the CRPD. Moreover, they can also be used to expand the investigation of the nexus between global and national levels concerning the implementation of inclusive education.

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Appendix

Table A1. Search syntax.

Time	Syntax
12-16 June 2017	#cosp10 OR #crpd OR #csfcrpd OR #cospcrpd10 OR #uncrpd OR (#SDGs AND #disability) OR (#SDGs AND #disabilities) OR cosp10 OR crpd OR uncrpd OR (SDGs AND disability) OR (SDGs AND disabilities)
13-17 June 2016	#cosp9 OR #crpd OR #crpd10 OR #uncrpd OR cosp9 OR crpd OR uncrpd OR crpd10
8-12 June 2015	#cosp8 OR #crpd OR #post2015 OR cosp8 OR crpd OR uncrpd OR post2015
9-13 June 2014	#cosp7 OR #crpd OR #thisability OR cosp7 OR crpd OR uncrpd OR thisability
16-20 July 2013	#cosp6 OR #crpd OR #thisability OR #cosp2013 OR cosp6 OR crpd OR uncrpd OR thisability

Study 4

Between capacity development and contestation: a systematic review of the involvement of inter- and non-governmental actors in inclusive education

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Abstract

The adoption of the UN Convention on the Rights of Persons with Disabilities has brought about extensive education policy reforms towards inclusive education in many countries around the world. At the same time, it has been observed that intergovernmental organisations and non-state actors have been extensively involved in establishing these reforms. To better understand the roles of these actors in this field, we conducted a systematic literature review combined with network visualisation techniques. Specifically, we applied the policy cycle framework to analyse peer-reviewed articles published between 2006 and 2020 on the implementation of inclusive education and the roles of intergovernmental and non-state actors therein. The systematisation of findings from the studies included in our review indicates that inter- and non-governmental organisations are the dominant actor groups, which become involved through the provision of capacity development support and implementation in practice. At the same time, researchers and experts are becoming increasingly involved at different stages of the policy cycle, from policy formulation, to capacity development, to implementation in practice. Overall, our results provide a comprehensive picture of intergovernmental and non-state actor involvement in inclusive education and can contribute to a better understanding of implementation processes in the field of inclusive education.

Keywords: inclusive education; non-state actors; systematic review; intergovernmental organisations

1. Introduction

In recent years, inclusive education (IE) has become one of the most controversially discussed topics in education policy worldwide (Amor et al. 2019; Ainscow, Booth, and Dyson 2006). The adoption of the Convention on the Rights of Persons with Disabilities (CRPD) and its Article 24 on education has further strengthened the implementation of IE as the preferred form of education for children with special educational needs in many UN member states. The convention represents the first legally enforceable instrument with the aim to enable persons with disabilities to participate in inclusive settings at all education levels (Lord and Stein 2008). However, due to the Convention's limited means to legally sanction states not complying with the standards, there are significant differences between member states in the schooling of persons with disabilities and concerning the level of implementation of IE (Curcic 2009).

These differences in implementing IE relate to various reasons – such as different definitions of the construct of disability; schooling traditions; and discourses (Powell, Edelstein, and Blanck 2016) – and leave room for intergovernmental (i.e., (regional) intergovernmental organisations; IGOs) and non-governmental (e.g., non-governmental organisations (NGOs), or business groups) actors to play a crucial role in the implementation process. In education policy, this increasing relevance of both IGOs and private actors in promoting reform has been widely researched. The involvement of these actors ranges from agenda-setting, monitoring and data collection in the case of IGOs, to funding and financial support from companies and foundations, to advocacy and implementation of initiatives and projects by NGOs (Verger, Lubienski, and Steiner-Khamsi 2016; Grek 2010; Jakobi 2009). However, while scholars have already studied the role of these actors in the implementation of other education reforms, such as life-long learning (Jakobi 2009), Education for Sustainable Development (Kolleck 2016; Kieu and Singer 2017), or Education for All (Rose 2010), such processes have scarcely been examined in the case of IE.

During the initiation and negotiation processes of the Convention, significant involvement of NGOs could already be observed (Stein and Lord 2009). The Convention even explicitly provides in Article 32 that non-state actors be considered in the implementation. While the involvement of IGOs, NGOs and businesses in ongoing debates around the implementation of the CRPD and IE has been observed at the global level (Schuster, Jörgens, and Kolleck 2019), analyses of their role in implementation processes at the national level are still limited. Rollan and Somerton (2019, 1) investigated civil society activism in Kazakhstan in the context of IE and identified NGOs as 'change-agents in facilitating inclusive education'. Other scholars

conducted research on the implementation of IE in close collaboration with local and international NGOs (e.g., Kalyanpur 2014; Nuth 2018). At the same time, the involvement of IGOs and non-state actors in the implementation of IE has been mentioned in numerous articles, though these processes were not the primary focus of the analysis. For instance, in their review of IE in so-called developing countries, Srivastava, Boer, and Pijl (2015) described several instances of joint initiatives by various international and local organisations aimed at raising awareness about disability and the need for IE.

Previous reviews published in this journal have mainly focused on systematising approaches to IE research in general (e.g., topics, methodologies, geospatial coverage) (Amor et al. 2019; Messiou 2017; van Mieghem et al. 2019) or examined learning outcomes of students in IE settings (Dell'Anna, Pellegrini, and Ianes 2019). However, a systematic review of research discussing inter- and non-governmental actor involvement across different countries and contexts and taking into account a wide range of actors has not yet been conducted. Hence, the objective of this study is to systematise and synthesise findings from peer-reviewed articles on the involvement of IGOs and non-state actors in the implementation of IE published in English-language journals since 2006 (i.e., the year the CRPD was adopted) in order to answer the following research questions:

1. What can studies tell us about the involvement of non-state actors and IGOs in the implementation of IE?
2. What forms of participation can be identified in the academic literature?
3. What theoretical conclusions can we draw from the results of our systematic review?

We address these questions by drawing on the policy cycle framework. This framework, which 'points to the messy, often contested and non-linear account of relationships between aspects and stages of policy processes' (Rizvi and Lingard 2010, 6), has helped us to capture the various forms of inter- and non-governmental involvement in the IE policy process. Methodologically, we apply techniques of systematic literature review (Petticrew and Roberts 2012) and combine these with elements of network visualisation using the software Visone (Brandes and Wagner 2004). Following Verger, Fontdevila, and Zancajo (2017), we focus our analysis on the findings of the articles included in the review. In this way, all relevant research articles that mention an involvement of non-state actors in the implementation of IE are screened and systematised in order to identify the actors involved and their roles in implementing IE. Following this introduction, we describe our theoretical framework and specify our methodological approach. Next, we present the results of our systematisation and discuss these with reference

to current research, limitations and prospects for future research. Finally, we summarise major arguments and present implications for practice.

2. The policy cycle framework

The idea of conceptualising different stages of the policy-making process was initially developed by Laswell (1956) and has been further elaborated over recent decades. The main idea of the policy cycle is that the process does not progress through respective stages in a one-directional, linear way, but that it circulates between them. To give an example, ‘contestation occurs right from the moment of appearance of an issue on the policy agenda, through initiation of action, to the inevitable trade-offs involved in formulation and implementation’ (Rizvi and Lingard 2010, 6). In the more recent academic literature, a distinction is often made between agenda setting, policy formulation, decision making, implementation, and evaluation to characterise the policy-making process. Accordingly, a typical policy cycle follows the following pattern: (1) identification of a problem and selection of an issue (agenda setting); (2) development of proposals and demands in government programmes (policy formulation); (3) formal adoption of the policy (decision making); (4) enforcement of a policy on the ground (implementation); (5) assessment of the results against the originally formulated goals (evaluation) (Jann and Wegrich 2007).

In this article, we argue that the participation of IGOs and non-state actors in policy-making processes can also be studied using the policy cycle model. In relation to NGO involvement in education policy, for example, Ulleberg (2009, 12) emphasises that NGOs ‘can participate in all stages of the policy cycle [...]; as contributors to policy discussion and formulation, advocates and lobbyists, service deliverers (operators), monitors (watchdogs) of rights and of particular interests, and as innovators introducing new concepts and initiatives’ (see also Mundy et al. 2010). Given the globalised, political contexts in which policy discourses today are conceptualised, the increasing relevance of IGOs has also been observed in all stages of the policy cycle, according to different studies (e.g., Jakobi 2009; Arduin 2019). Their activities range from agenda-setting, to the provision of means supporting implementation, to monitoring the policies. For the study of IGO and non-state actor involvement in IE policy-making, this theoretical approach is particularly promising. Rollan and Somerton (2019) were not only able to show that NGOs appear to be involved in all stages of the policy cycle in Kazakhstan, but furthermore, this framework allows us to integrate actors that may have been neglected in previous IE research.

3. Method

3.1 Search and selection procedure

For the purpose of this study, we conducted a systematic review (Petticrew and Roberts 2012), i.e., a method that focuses on a ‘comprehensive identification, systematization and synthesis of available knowledge on a specific theme and [is] characterized by the use of explicit and transparent methods in order to reduce selection and interpretation bias’ (Verger, Fontdevila, and Zancajo 2017, 761). In this way, the processes of selecting relevant literature and systematising the information derived from this literature are comprehensible and reproducible for others.

Between January and May 2020, relevant literature was collected on EBSCOhost, a database that includes leading databases in the field of education research, such as ERIC, PsycInfo, or PSYINDEX. To account for the importance of the CRPD to the implementation of IE, we limited our search to articles published in 2006 or later. In contrast to studies that focus on factors related to teaching in IE settings (e.g., teachers’ attitudes towards inclusion, different methodological approaches to IE), we were primarily interested in the political dimensions of implementing IE and the roles of IGOs and non-state actors therein. For this reason, we addressed these topics by using the search terms ‘inclusive education AND (non-state OR non-state)’ (103 results; two articles were included in the analysis) for an initial search and ‘inclusive education AND implementation AND (organi*ation OR civil OR association OR church OR charity OR donor)’ (312 results; 19 in analysis) for a more specific search. To reflect the prominent role of the International Journal of Inclusive Education in the field, the same search terms were used to search for other relevant articles in the journal’s search function (630 results; 17 in analysis). The systematic search was further supplemented by studies identified using snowballing (27 articles included in the present analysis).

In a first selection step, titles and abstracts were screened. Articles were excluded if they focused on general theoretical considerations of the implementation of IE or on processes within the classroom (e.g., teacher attitudes or student results). In a second step, the full texts of the remaining articles were screened for the main actor groups to identify studies that mentioned the involvement of specific actors or actor groups. This was particularly important for the term ‘organi*ation’ because several articles address organisational processes in the implementation of IE without mentioning the involvement of specific organisations. Furthermore, articles that only mentioned the role of IGOs as providers of international agreements were excluded. Although international agreements, such as the CRPD or the Salamanca Statement,

are undoubtedly important for the implementation of IE, it is usually difficult to attribute developments directly to such agreements. After these selection processes, a total of 65 articles were included in the analysis.

3.2 Coding

First, studies were coded in terms of the countries studied. Second, two researchers independently screened the articles for passages that mentioned non-state actor involvement in the implementation of IE at all levels (between national and local). A total of 378 text passages were identified and included in the analysis. The number of passages per article ranged from 1 to 34. Then, for each of the passages, the actor group(s) mentioned and the actors' activities were coded. The categories were mostly formed based on the wording or descriptions in the texts or, when the names of specific actors were given, on information found on the internet. For instance, the term 'NGO' was used to group together those actors that were either so designated by the authors of the articles or could be identified as such. In cases where actors were further specified (e.g., charities, parent associations, or church organisations) or other, non-specific terms were used (e.g., private actors, donors, or advocacy groups), these were included as additional categories in the analyses. For this reason, there may be overlap between categories, but this allowed us to analyse the wide range of IGOs and non-state actors in more detail. In coding the actors, 17 different categories of actors (i.e., actor groups) engaged in various forms of activities connected to the schooling of persons with disabilities and IE were identified.

For the assignment of activities, we used categories developed by Rollan and Somerton (2019), but had to expand these to include additional categories due to the complex nature of non-state actor participation. We based our extensions on the conceptual framework that Booth and Ainscow (2002) developed for their widely acknowledged Index for Inclusion. They distinguish three dimensions along which IE is implemented: the creation of inclusive cultures, the production of inclusive policies, and the evolution of inclusive practices. We deployed the framework with the aim to develop further categories. During the process, the researchers involved compared and discussed the categories that emerged from the coding. In this way, the number of categories was expanded and summarised in an iterative process.

During the coding process, we identified 44 distinguishable forms of activities, which we subsumed under seven main categories: advocacy, awareness-raising, capacity development, empowerment, implementation, monitoring, and policy formulation. In the absence of unified definitions for actions by IGOs and non-state actors in education policy, the development of the categories was informed by previous work on the role of IGOs, NGOs and other civil society

actors (Mundy et al. 2010; Jakobi 2009; Ulleberg 2009). Furthermore, we developed the main categories in line with the policy cycle framework but introduced additional distinctions to cover the variety of involvement. With the exception of decision-making, which is mainly limited to government, all stages were covered, as we elaborate below. It should be noted that the categories partly overlap in terms of content and that, as in most other qualitative review studies, the criterion of selectivity could not be strictly applied. For clarity, we therefore briefly describe the categories as well as how they are delineated from each other.

Awareness-raising covers all forms of publicly promoting and advertising IE and the operation of projects that aim to broaden a general understanding of the rights and needs of persons with disabilities in an educational context. Advocacy summarises actions that, in a broader sense, not only raise awareness about the topic of IE but set the ground for further mobilisation and activism. In addition to general and unspecific mentions of advocacy in the texts, we included, for instance, networking events and conferences as well as political agenda-setting. In terms of the policy cycle framework, these two categories represent forms of agenda-setting. Policy formulation, as used in our contribution, includes supporting state actors by developing outlines and methodologies, advising decision-makers, or directly informing policy formulation. Capacity development (also known as capacity building) entails the provision of financial, technical, medical, or other support, which serves as a facilitator toward the aim of implementing IE. Furthermore, the training of specialists and teachers is included in this category. Under the category implementation we summarise all forms of direct involvement of IGOs and non-state actors in IE in practice. This can include, for example, the operation of IE programmes and projects, the transformation of schools into inclusive environments, or the general provision of special education or IE in schools. These two categories represent the implementation stage of the policy cycle: in addition to direct involvement in the implementation on the ground, capacity development can also be included in this stage, as it often involves supporting other actors to implement policies. Monitoring (what Mundy et al. (2010) call ‘watchdog role’) is used to describe forms of contestation, policy revision, or formal and informal monitoring of state authorities, and represents the evaluation of a policy. In addition to categories related to the stages of the policy cycle, we added empowerment as a form of activity that cannot be directly associated with the different stages, but rather must be conceptualised as underlying the entire policy process. This category describes the active inclusion of persons with disabilities in processes of advocacy for their rights and includes – in addition to general mentions of empowerment of affected parents or children – social inclusion in community events.

4. Results

4.1 Description of the dataset and systematisation

The studies included in this review examined IGO and non-state actor involvement in the implementation of IE in 44 different countries. Figure 1 shows the distribution of the countries studied across continents. According to this, the dataset represents research focused on countries around the world, with the highest number of countries in Asia, followed by Africa and Europe. In the Americas in particular, few studies on the implementation of IE seem to mention non-state actor involvement. This is surprising given how many studies on IE have been conducted in the United States, as noted in a previous review by Amor et al. (2019). Furthermore, only 33 per cent of the studies examined countries classified as high-income according to the World Bank (2021), indicating that IGO and non-state actor involvement is more often addressed in medium- or low-income countries.

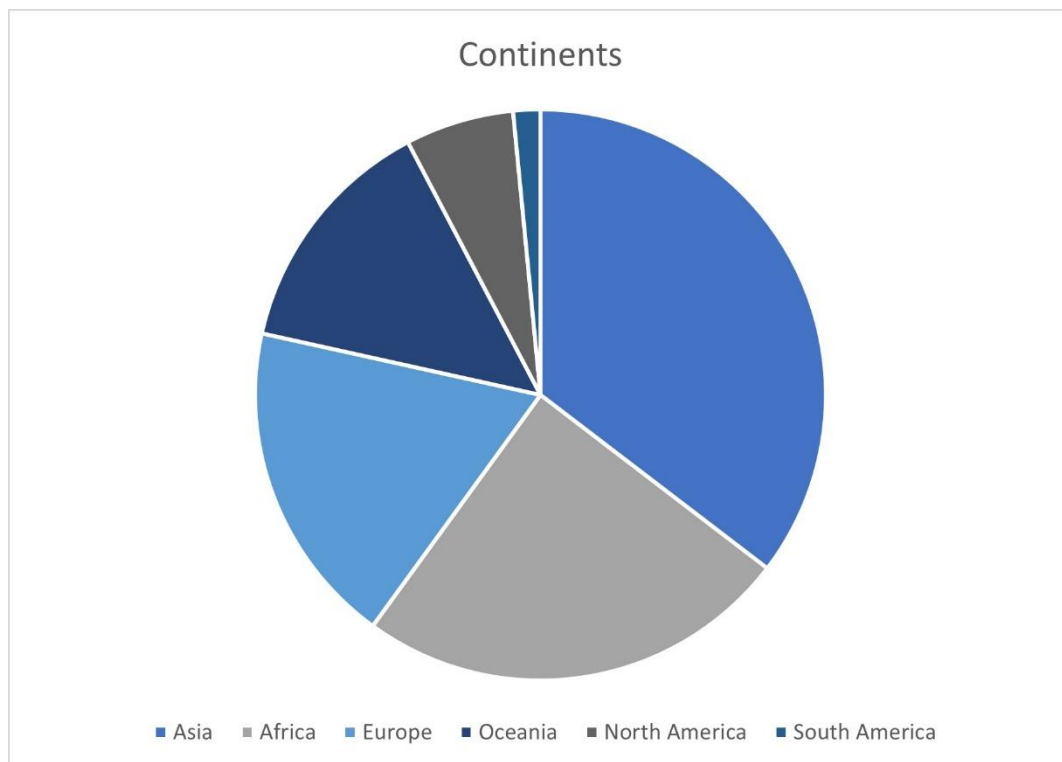


Figure 1. Distribution across continents of the countries examined in the studies included in this review.

To give an overview of the actor groups and main categories, we used the network analysis software Visone (Brandes and Wagner 2004). This allowed us to visualise both the actor groups and the main categories, as well as their relationships to each other, as a conceptual network (see Figure 2). The blue nodes represent the actor groups and the green nodes depict the main action categories. Relations between the nodes indicate the engagement of an actor group in a particular activity. The map suggests that the main categories are advocacy, capacity

development, awareness-raising, policy formulation, and implementation. This is also supported by a closer look at the data, which shows that capacity development is the most frequent form of action in the implementation of IE (109 mentions), followed by activities of implementation in practice (79 mentions) and advocacy (67 mentions). The actions mentioned least often in the studies are those related to monitoring and empowerment. In particular, empowerment of persons with disabilities in the education sector seems to be neglected according to the articles analysed for this review. Only NGOs, multi-stakeholder initiatives and church-related groups appear to engage in actual activities to support the empowerment of concerned persons.

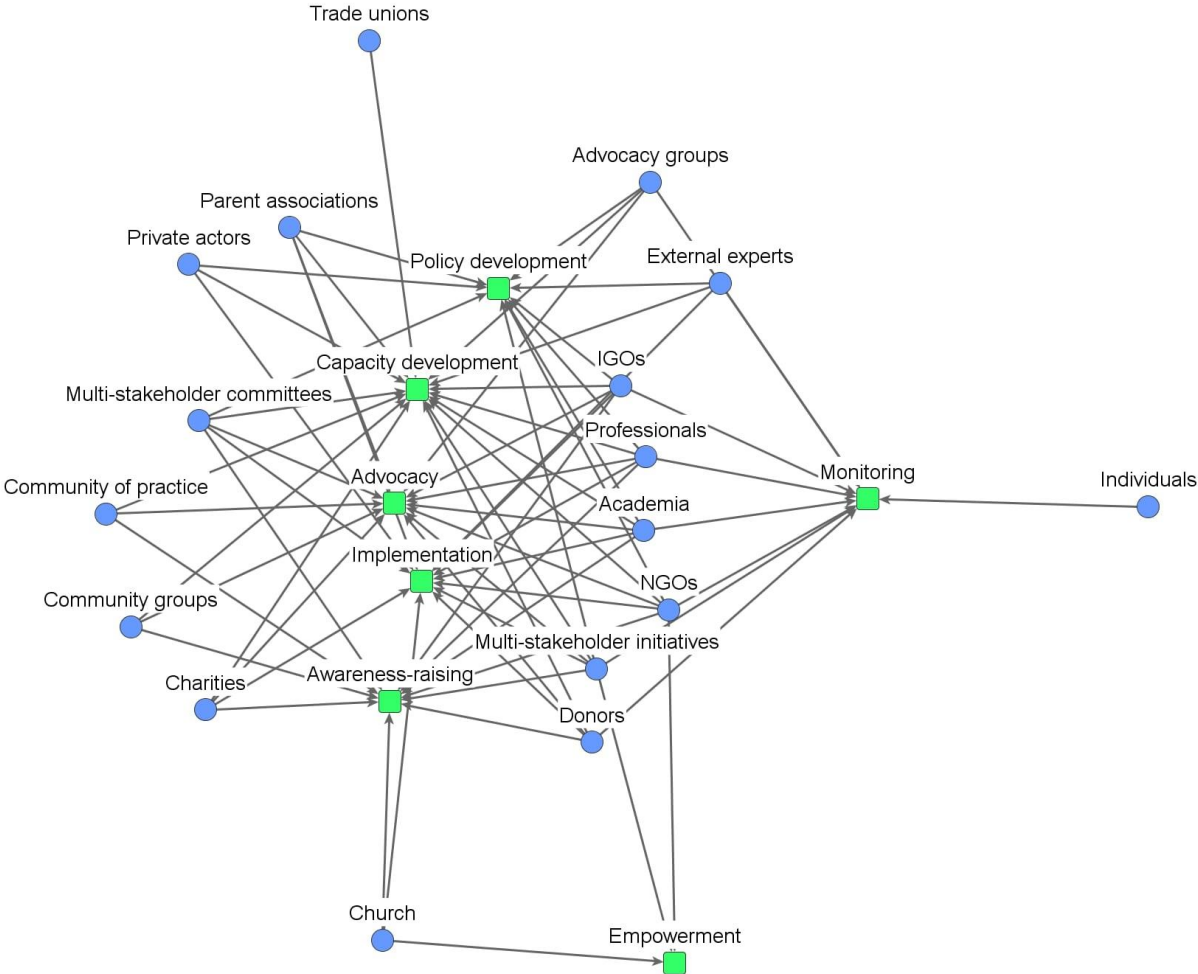


Figure 2. Visualisation of categories of non-state actor involvement (green nodes) and actor groups (blue nodes) and their relations to each other.

Regarding the involvement of different actor groups, it can be noted that a high number of these seem to engage in various activities. One main difference between groups can be traced back to their participation in monitoring activities. Actors that can be considered to be directly involved in implementing IE in practice, such as communities of practice, parent associations or trade unions, appear to refrain from engaging in the monitoring of policies. In contrast, actor groups with a more political agenda (e.g., IGOs or external experts) are particularly involved

in monitoring. Professionals seem to be the only ones who would be expected to be directly involved at the practice level while also monitoring policies.

The closer actor groups are on the map, the more they engage in similar activities according to the data. For instance, community groups, foundations and communities of practice are all identified as being involved in advocating activities, the development of capacities and awareness-raising. This indicates that these actor groups have similar agendas in implementing IE. Furthermore, the map shows that NGOs and multi-stakeholder initiatives are the only ones engaged in activities related to all seven main categories. However, while NGOs have a total of 186 mentions in the texts, multi-stakeholder initiatives are only mentioned in 20 text passages. This suggests that such initiatives have a very broad agenda, without being particularly widespread.

4.2 Analytic results of actor group roles

To make more precise assumptions about the specific roles of each actor group, we calculated the share of each activity for each group, as well as the share of each group in each activity. We then compared these to the shares of both individual activities in the total activities and individual actor groups in the total actor groups, which can be found in Table 1. This allowed us to compare the involvement of groups in a particular form of action to their occurrence in the total activities, and the share of activities in a particular actor group to their shares in the total activities. For instance, if an actor group with a high prevalence in the overall dataset had a large share of a specific activity this was assessed to be less significant than a less prolific group having a large share. In addition, we examined the activities in more detail to further specify the actors' roles.

Non-governmental organisations

NGOs show the highest involvement in activities of implementing IE in practice, according to the mentions of these in the articles included in our analysis: the main areas of their engagement relate directly to IE practice (24%) and capacity development (26%). In particular, this involves supporting other actors in implementing IE. A large part of NGO engagement in capacity development is the provision of financial support. This is predominantly from domestic organisations, though in some cases support comes from internationally operating NGOs. One example is Sightsavers International, which provided financial support for a study to investigate the need for inclusive schooling in Uganda (Lynch et al. 2011). NGOs also engage in training specialists and teachers: again, both international (e.g., Sightsavers International or Leonard Cheshire Disability) and domestic organisations were found to be involved in implementing

projects to foster teacher training. In addition to their support in developing capacity, NGOs are also directly involved in IE practice through projects and programmes. This can be found in the case of the Slovak Republic, where several national NGOs run projects on IE (Miškolci 2016).

Table 1. Proportion in the overall mentions (in per cent per group)

Actor groups		Activity categories	
NGOs	49.2	Capacity development	28.8
IGOs	12.7	Implementation	20.9
Academia	6.9	Advocacy	17.7
Multi-stakeholder initiatives	5.3	Awareness-raising	12.2
Professionals	4.2	Policy development	10.8
Advocacy groups	3.4	Monitoring	7.1
Donors	2.9	Empowerment	2.4
Multi-stakeholder committees	2.4		
Charities	2.4		
Parents associations	2.1		
External experts	2.1		
Private actors	1.9		
Church	1.6		
Community of practice	1.1		
Community groups	1.1		
Individuals	0.5		
Trade unions	0.3		

However, these proportions correspond to those of the respective categories in the total activities and can therefore be explained by the overall high involvement of NGOs. In contrast, NGOs show a comparably high engagement in awareness-raising activities compared to the other actor groups (61% of the awareness-raising activities are undertaken by NGOs, while NGOs account for only 49% of the total activities). These actions of awareness-raising and promotion of IE-related topics are in many cases not further explicated in the articles but seem to be integrated into the organisations' daily business. Such activities are primarily aimed at attracting public attention with the goal to broaden understanding, but can also be used to acquire international funding (e.g., Singal 2006).

While NGOs are highly involved in most of the various forms of action, their engagement in activities related to monitoring and policy formulation is rather low compared to other actor groups. Nevertheless, NGOs have attempted to contest public authorities. For instance, in Slovenia, NGOs criticised the placement of students with special needs based on invalid methods applied by a national commission (Schmidt and Brown 2015), and in the Pacific Islands region,

organisations criticised governments ‘for not doing enough to support IE and for not making it a national priority’ (Forlin et al. 2015, 198).

Intergovernmental organisations

IGOs show the second highest level of activity and while they demonstrate little engagement in awareness-raising activities (8%), their involvement is mainly in the development of capacities (33%), and the implementation (19%) and advocacy of IE (17%). In particular, IGOs’ engagement in capacity development is higher compared to other actor groups. Even more than NGOs, which also provide other forms of support, such as technical or medical, IGOs focus their capacity building actions on the provision of financial resources. The most active organisations in this regard are UNICEF, followed by UNESCO and the World Bank. IGOs mainly fund initiatives and projects that aim to put IE into practice, for instance, the project ‘Special Needs in the Classroom’ in India (Singal 2006) or the ‘Female Secondary School Stipend Project’ in Bangladesh (Ahsan and Mullick 2013). In contrast to NGOs, IGOs show comparably little engagement in organising training programmes for teachers and specialists.

In comparison to other actor groups, IGOs show a particularly high level of involvement in policy formulation and monitoring activities (17% of such activities can be attributed to IGOs). Forms of support in developing legislation and policy dominate. In particular, the Pacific Islands Forum Secretariat (PIFS) has had a considerable influence on IE policy formulation in the Pacific Islands region by formally criticising policy processes and providing support in the development of legislation and frameworks (e.g., Sharma et al. 2019; Yates et al. 2019).

Academia

Academia, as a third main actor group, invests almost 50% of its engagement in capacity development, which is the highest value compared to the other actor groups and almost twice as high as the share of capacity development activities in total activities. While the capacity development undertaken by NGOs and IGOs is characterised by the provision of financial support, the actions of research organisations focus on training teachers and specialists. For instance, in the Solomon Islands, researchers from the Queensland University of Technology conducted workshops and trainings with government staff and members of NGOs and parent associations (Carrington et al. 2017). In other cases, researchers from education institutes provided training for school teachers to increase their knowledge about teaching students with special needs in an inclusive classroom (e.g., Daniels 2010; Koay 2014).

Furthermore, while research actors show low levels of involvement in other main areas, such as implementation in practice, awareness-raising, and empowerment, they are highly engaged in the development of policies (10% of activities related to policy formulation are undertaken by academia). To support the development of policies, in Spain, a research network informed the development of a paper that later influenced the adoption of an IE law (Baena et al. 2020). In other countries, such as South Africa and the Slovak Republic, research actors organised conferences to bring together stakeholders from different sectors with the goal to advocate for more inclusive policies (e.g., Daniels 2010; Miškolci 2016).

External experts and professionals

Two additional groups that are gaining influence are external experts and (unorganised) professionals. These groups include, for example, foreign educators acting as experts (van Boxtel 2018), unspecified international consultants (Kalyanpur 2014), or professionals working in the IE field (e.g., occupational therapists) (Forlin et al. 2015; Talley and Brintnell 2016). Although these groups are not formal non-state actors in a strict sense, they can be considered actors in their own right: not only are they involved in practice in their respective professional roles, but they can also be conceived as agents of political change at multiple levels. According to the articles analysed for this review, external experts are mainly involved in the implementation in practice of IE (e.g., in planning and overseeing specific programmes) (e.g., Kalyanpur 2014; van Boxtel 2018). They are also consulted in policy formulation and support teacher training. While professionals – by nature – are always involved in translating policies into practice, the cases of involvement identified in this review deviate from these expectations. Their main areas of activity are capacity development and policy formulation. Similar to external experts, professionals seem to serve as ‘internal’ experts, consulted with the aim to inform framework and policy development based on their expertise in IE. For instance, in the USA, a team of professionals was formed to improve the quality of inclusion measures (Soukakou, Evangelou, and Holbrooke 2018). In this way, experts from different fields – both domestic and international – appear to be involved in the implementation of IE primarily by providing knowledge.

Other actor groups

Several actors and actor groups could be identified in the analysed articles that represented either more specific forms of NGOs (i.e., actors further characterised as charities, parent associations, or church organisations, and therefore analysed separately) or non-specific non-state actors (e.g., advocacy groups, multi-stakeholder initiatives, donors, or private actors that could

not be assigned to the group of formal NGOs due to a lack of information). The involvement of these actors, as presented in the studies, can mostly be narrowed down to less diverse forms of engagement. For instance, 18% of advocacy-related activities are carried out by advocacy groups, although they represent only 5% of all actors. The actions of advocacy groups are often described broadly as ‘advocacy’, revealing a lack of detailed description of non-state actor engagement in advocacy for IE: not only is there a lack of clear description of actors, but their actions are not elaborated in detail. In addition to these general activities, however, advocacy groups often act as conference organisers and network facilitators (e.g., Lynch and Irvine 2009; van Boxtel 2018). In this way, they are directly involved in broadening IE advocacy by combining forces of different stakeholders.

In a similar vein, the actions of multi-stakeholder committees can be interpreted based on the studies included in this review. These actors, which combine expertise from a variety of different areas, are often consulted in the course of policy formulation. For instance, in Italy, a committee composed of academic experts, consultants, teachers, and former principals was installed to inform and plan a programme to strengthen IE in general schools (Grimaldi 2012). Similarly, multi-stakeholder initiatives with various purposes and functions are emerging or being established in several countries. In South Africa, for example, a coalition of different organisations filed a court case against local and national governments and later published a document to increase pressure with the aim to improve schooling for students with disabilities (McKenzie et al. 2017). In Spain and Portugal as well as in the Pacific Islands region, multi-stakeholder initiatives were directly involved in the development of IE policies and frameworks (Forlin et al. 2015; Baena et al. 2020; Alves 2019). Thus, multi-stakeholder initiatives are involved in all different forms of engagement, although they have a comparably small share in the overall activities compared to other stakeholders. This might be due to their nature as actors that combine the agendas and capacities of different sectors. Consequently, such initiatives cannot be directly attributed to a specific form of engagement, as they are evenly represented in all forms. Only their particularly low involvement in activities related to advocacy for the right to IE indicates that this form of action is not prioritised by such initiatives.

Charities as well as non-specific private actors and donors are mentioned mainly in relation to financial support or direct implementation of special and inclusive education in practice (e.g., the operation of IE programmes). Not surprisingly, with the exception of Oman, this form of financial capacity building occurs only in middle- and low-income countries. For church-related actors, involvement is mainly limited to the direct provision of special education, but also

includes empowerment and awareness-raising projects in Samoa (Duke et al. 2016). Community groups and communities of practice seem to have an advocacy-oriented agenda: in addition to providing general capacity development support, they facilitate inter-stakeholder collaboration and raise awareness of the struggles of persons with disabilities in educational contexts (e.g., Brandon and Charlton 2011; Pierobon 2019). Individual parents and parent associations are also primarily involved in general advocacy activities, many of which are unspecified (e.g., Forlin et al. 2015). To provide an example of these activities, van Boxtel (2018, 1180) describes a mother who attended a conference in which she spoke about ‘struggles and successes in advocating for her son’. In addition to advocacy activities, parent associations exerted influence by initiating reforms (Powell, Edelstein, and Blanck 2016) or running schools for children with disabilities (Kalyanpur 2008).

5. Discussion

The purpose of this review was to systematically analyse peer-reviewed articles on IE in order to systematise the plethora of inter- and non-governmental actors involved in implementing IE, and to describe their specific forms of participation in these processes. We implemented the policy cycle framework to support our empirical analysis and the grouping of the forms of action. By identifying different actors and their forms of engagement as reported in studies on the implementation of IE, we revealed gaps in the academic literature on IGO and non-state actor involvement in IE and offered a systematisation of existing findings. In this way, the article sought to contribute to a better understanding of ongoing global attempts to improve schooling for persons with disabilities and the forms of actions through which different actors are involved.

The distribution of countries examined in the articles of this review reveals a bias of focusing on non-state actors in processes of implementing IE in low- and middle-income countries. This is not only evident from the mere proportion of these countries in the overall dataset: with 33% of the studies conducted in high-income countries, this share is possibly even higher than might be expected. Moreover, these groups of countries differ primarily in the number of mentions and the depth of description of IGO and non-state actor involvement in the articles. While articles on the implementation of IE in countries such as Germany or the UK mention such actors in one or two text passages and in rather general terms, studies conducted in the Global South include numerous mentions of NGOs or IGOs participating in specific actions. This applies especially for IGOs, which appear in studies in high-income countries only as umbrella organisations of international agreements, while in low-income countries they directly support

policy development and operate IE projects. In light of a previous review by Amor et al. (2019), which showed that Global North countries dominate IE research due to their generally high research output, our findings suggest a discrepancy between the origin of IE researchers and the country cases studied. Although a large share of international research is conducted in high-income countries, particularly non-state actor involvement is mainly discussed in studies of countries in the Global South. In education policy, scholars have been particularly interested in the increasing involvement of private actors in low-income countries (Verger, Zancajo, and Fontdevila 2018). Not least, low-income countries often have high vulnerability, which offers more opportunities for international agencies and organisations to exert influence. Hence, the focus on low-income countries has already been observed in other education policy areas.

The systematisation of different actors and their forms of action, based on the studies included in this review, shows that NGOs are the most active group in the process of implementing IE. This accords with the widely acknowledged high involvement and significance of NGOs during the drafting of the CRPD (Stein and Lord 2009; Degener and Begg 2017) and supports findings on the active role of NGOs in global debates around the implementation of IE (Schuster, Jörgens, and Kolleck 2021). Organisations appear to engage in various tasks and functions. This might be due to the wide range of NGOs and their different agendas. In this regard, the findings of this review support Ulleberg's (2009) broad characterisation of NGO intervention in education policy, which includes NGO involvement in all stages of the policy cycle. Correspondingly, this also appears to apply to organisations operating in the field of IE. The studies analysed suggest that NGOs show particularly high levels of engagement in activities related to the implementation stage, such as capacity development or implementation on the ground. This confirms previous findings by Mundy et al. (2010, 492), who found that NGOs in sub-Saharan Africa conceive of themselves as 'complementary service providers'. In the field of IE, this refers to the mere provision of financial or other support as well as the training of teachers or specialists. As such, their involvement covers the wide range from direct intervention in practice to sustainable change (Ulleberg 2009).

More notable than NGO involvement in capacity development, however, is their high representation in awareness-raising activities. These activities seem to take two directions. On the one hand, organisations try to attract the attention of international, financially better equipped actors (e.g., international aid agencies, foundations, or other donors) to further strengthen implementation. On the other hand, they seek to broaden the general public's understanding of the needs of students with disabilities and the benefits of IE. In this way, NGOs' awareness-raising

activities support both the practical and cultural dimensions of the framework developed by Booth and Ainscow (2002). At the same time, the low level of NGO engagement in policy monitoring as reported in the studies indicates a gap in NGO efforts and thus provides an opportunity to further expand their influence on the implementation of IE. By focusing more on policy evaluation, NGOs could provide the official CRPD Committee with further information needed to formulate fundamental critiques of implementation processes in specific countries.

Furthermore, our review indicates that IGOs are also an important and influential group of actors according to the scientific literature. The finding that UNICEF, UNESCO, and the World Bank are among the key global actors involved in the field of disability policy and IE supports previous studies based on, for example, analysis of Twitter data and documents (e.g., Schuster and Kolley 2021). Moreover, the finding is consistent with the observation that UN agencies in particular are the main drivers of a human rights perspective on education (Mundy et al. 2016). In terms of interventions, this systematic review shows that the forms of 'implementation in practice', 'capacity building', and 'policy formulation' dominate the academic literature. However, the low involvement of IGOs in the training of educators and specialists is noteworthy. Similar to NGOs, IGOs could set up official training programs to improve the formation of teachers and other professionals on the education of children with disabilities. This could further strengthen the role of IGOs as providers of IE beyond the mere financial support.

Nevertheless, the involvement of IGOs in IE is similar to IGO engagement in implementing reforms in other education sectors (see e.g., studies in the area of lifelong learning; Jakobi 2009). According to previous studies in education policy, IGOs 'develop, promote and disseminate policies across countries' (Jakobi 2009, 476) and serve as 'facilitators and honest brokers of evidence-based practice' (Verger, Zancajo, and Fontdevila 2018, 18). As such, IGOs seem to be involved in all stages of the IE policy cycle, albeit with a focus on policy formulation and implementation. However, it should be noted that the CRPD Committee is formally charged with monitoring the convention and thus IE implementation (Arduin 2019). This may have been taken for granted in the studies considered in this review, so it was not discussed further.

While the studies included in our review suggest that for most regions, the involvement of IGOs in implementing IE on the ground is limited to global actors, in the Pacific Islands Region, a regional intergovernmental organisation, the PIFS, is particularly influential. One possible explanation for this could be the comparably high share of countries from the Pacific Island region in our study. As a result, the respective regional organisation is more likely to be mentioned in research articles. However, the PIFS is involved in a variety of different forms of

action, such as monitoring, awareness-raising and policy development, while the few mentions of the European Union (EU), as the only other regional organisation included in the analysis, focus only on its provision of financial support. This discrepancy is particularly surprising given that most regional organisations (e.g., the EU, the African Union, or the PIFS) have adopted their own disability rights frameworks as a result of the CRPD, which emphasise the right to IE (Schuster and Kolleck 2021). Although IGOs and their bureaucracies are attributed increasing independence and relevance beyond the formulation of international treaties and frameworks (Bauer, Knill, and Eckhard 2017), the influence of regional IGOs at national level beyond the provision of financial support in the field of IE still seems limited according to the studies included in our review. This may indicate a lack of research on these actors but could also be due to an actual subordinate role of these actors in IE implementation.

Furthermore, our systematisation of the findings of studies discussing IGO and non-state actor involvement indicates that a wide field of different actors has emerged around the implementation of IE at the national level. In addition to NGOs and IGOs, academia and research organisations in particular seem to play a prominent role in developing policies and methodologies and training specialists to strengthen the implementation of IE. Similarly, the involvement of independent domestic or international experts and professionals suggests that decision-makers rely to a great extent on their expertise. According to our review, the knowledge provided by these actors is used at different stages of the policy cycle, from policy formulation and framework development to training of specialists and operation of IE projects. Thus, the studies suggest that researchers, experts and independent professionals serve as knowledge providers at multiple levels. In this way, these actors influence the formulation of specific IE laws or improve the provision of high-quality (because research-based) training, which represents a high degree of interconnectedness of research with politics and practice. This increasing relevance of experts and their knowledge in public policy has been conceptualised as characteristic of modern societies (Stehr and Grundmann 2015), but their role in education policy has not yet been discussed comprehensively. Additionally, ‘efforts to elevate the insights of experts may come at the cost of diminishing the voices of other valid constituencies, such as those of parents or the wider community’, as Malin and Lubienski (2015, 6) note. Hence, while the involvement of experts may seem beneficial for the implementation of IE, the implications of such an increase in expert opinion for the efforts of other non-state actors remain to be discussed. Ideally, forces could be joined to advocate and implement comprehensive IE based on the practical knowledge and experience of NGOs and the science-based expertise of researchers and experts.

5.1 Limitations and directions for future research

While the systematic review conducted for this paper offers valuable insights into the variety of different actors and their roles in the implementation of IE, it also faces limitations that need to be discussed. First of all, only articles published in peer-reviewed journals were considered. However, such narrowing down is necessary to guarantee the feasibility of a systematic review. In addition, a final 65 articles were subjected to a detailed and systematic analysis. It can also be assumed that most relevant studies are published in the central peer-reviewed journals. Furthermore, we limited our systematic search to articles published in English. It may be that this provoked a bias in favour of research from the Anglo-American region and led to a neglect of other parts of the world. It is likely that additional studies were published only in other languages (e.g., Amor et al. 2019). To obtain a comprehensive overview of the participation of non-state actors in IE, future reviews could incorporate additional sources, particularly those in other languages.

Finally, some of the results of our review are difficult to interpret based on our methodological approach. For instance, the studies analysed suggest a subordinate role of some actors that have important roles in other areas of education policy, particularly certain IGOs (e.g., OECD) or regional organisations (e.g., the EU). However, we cannot say whether these findings are due to a lack of research on these actors, a biased selection of documents (e.g., their involvement could be reported in different forms of publications, such as grey literature or specialised journals), or an actual low presence of these actors in national IE implementation processes. The same applies for the discrepancy between high- and low-income countries in terms of the participation of IGOs and non-state actors in IE implementation. Thus, future reviews could complement articles from peer-reviewed journals with policy reports, literature from specialised journals, or even recommendations from key informants, as has been performed in systematic reviews in other education sectors (e.g., Verger, Fontdevila, and Zancajo 2017). In particular, IGOs and NGOs themselves often publish reports that provide information on the involvement of non-state actors in IE implementation processes (see e.g. UNESCO 2020; CfBT Education Trust 2010; OECD 2015; World Vision 2007). For instance, in its Global Education Monitoring Report on Inclusion and Education, UNESCO collects information on examples such as Malta or Indonesia where governmental actors financially support NGOs in implementing inclusive settings, or describe actions taken by international NGOs (e.g., World Vision or Light for the World) that conduct their own research to support advocacy for IE (UNESCO 2020). Similarly, the UK-registered charity Education Development Trust has published a report on the status of implementation in different countries and also reported on non-state actor

involvement (CfBT Education Trust 2010). Including such reports would allow for a more comprehensive overview of the existing evidence and thus improve understanding of the involvement of different actors in the implementation of IE, for which the present paper already provides a solid foundation.

6. Conclusions

Overall, this review suggests a need for more systematic studies on the engagement of non-state actors and IGOs in IE implementation processes at the national level, considering different geographical contexts and various actors. While the studies included in the review provide valuable insights into the ongoing work of some actors, particularly NGOs and UN bodies with a focus on education (e.g., UNESCO or UNICEF), others have been rather neglected. At the same time, the systematisation of the studies analysed identified professionals and domestic and foreign experts as groups of actors that are increasingly relevant in the political dimension of implementing IE but have not yet been comprehensively discussed.

With respect to the theoretical construct of the policy cycle, we can highlight two key observations from the synthesis of the results of studies in the field of IE. First, IGO and non-state actor involvement seems to occur primarily in the implementation stage of IE policy-making (i.e., capacity development and implementation on the ground). At the same time, forms of monitoring (i.e., the evaluation stage) are rarely found in the literature. One reason could be the official assignment of monitoring to the CRPD Committee and national human rights institutions (Arduin 2019), which could lead to diminished efforts, especially by non-state actors, in this regard. Second, advice from external or domestic (academic) experts and professionals is not only used in the implementation stages of IE but is also relied upon in the development of policies and frameworks, as well as in the monitoring of policies. Overall, the framework proves to be applicable to the IE policy context as it includes not only the entire policy-making process but also the wide range of intergovernmental and non-state actors in addition to state actors.

Practical implications of this review include the enhancement of non-state actor engagement in IE implementation. In particular, it is helpful for practitioners and stakeholders to formulate practical strategies to stimulate non-state actors to engage in IE implementation processes through a better knowledge of the opportunities and challenges that arise. A growing number of political programmes, school-based initiatives, media reports and scholars working on IE programmes urge the fostering of IE in education around the world. This review provides practitioners with an overview of the involvement of IGOs and non-state actors in IE implementation processes. Practitioners and decision-makers could learn from these findings and

forge new pathways of partnerships among different stakeholders to support IE while strengthening their capacities.

References

Note: References marked with an asterisk indicate studies included in the review.

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Declaration

I hereby declare that I have written this dissertation independently and without unauthorised assistance. I have indicated all direct or indirect sources that were used. This dissertation has not been accepted or rejected in any previous doctoral procedure.

Hiermit erkläre ich, die vorliegende Dissertation selbstständig verfasst und ohne unerlaubte Hilfe angefertigt zu haben. Alle Hilfsmittel, die verwendet wurden, habe ich angegeben. Die Dissertation ist in keinem früheren Promotionsverfahren angenommen oder abgelehnt worden.

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