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# **Does Social Media Benefit Dominant or Alternative Water Discourses?**

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ABSTRACT: Political ecology and cognate fields have highlighted the social constructedness of different water discourses, exposing them as the product of a particular view of nature with underpinning interests and political consequences. Integrated Water Resources Management, technical approaches, or the privatisation of drinking water services have enjoyed dominant positions, being able to determine what constitutes common sense. This has excluded numerous other alternative approaches, such as those championed by indigenous peoples. Social media, through its easy accessibility and its emphasis on visual, interactive, and short communication forms, bears the promise to challenge dominant discourses. Whether social media benefits dominant or alternative discourses has not yet been explored by the political ecology literature to which this article contributes. The article conducts a qualitative analysis of the use of two of the main social networking services (Facebook and Twitter) by nine organisations working on water. Organisations were selected considering their likelihood to champion different water discourses. The article analyses the formats used, the place of communities, and the kind of language employed. It argues that while social media presents an interesting potential for alternative discourses, it also offers important tools for dominant discourses to consolidate themselves. The article concludes that social media does not structurally challenge the status quo and suggests avenues for future research.

KEYWORDS: Social media, discourse, hegemony, counter-hegemony, water organisations

#### **INTRODUCTION**

Social media is part of everyday interactions and, as a result, its study is gaining importance in the social sciences. Social media has been analysed as bearing the promise of an open and inclusive platform for communication (Dahlgren, 2005; Castells, 2007; Ellison et al., 2009; Iosifidis, 2011). Theoretically, it allows exchanges between strangers, the expression of marginalised voices and offers new possibilities to collaborate. Empirical research has, however, challenged this enthusiasm by presenting cases where social media does not lead to any of the above (Segerberg and Bennett, 2011). Consequently, the literature has engaged in a rich debate about the role social media fulfils in different contexts.

Political ecology has highlighted the social constructedness of discourses on water, and has uncovered the power struggles underpinning them. In so doing, political ecologists have extensively studied discourse<sup>1</sup> production and reproduction.<sup>2</sup> Yet, research on the uses of social media for the

<sup>&</sup>lt;sup>1</sup> Following Dryzek (1977:8), I understand discourse as "a shared way of apprehending the world. Embedded in language, it enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts. Each discourse rests on assumptions, judgments, and contentions that provide the basic terms for analysis, debates, agreements, and disagreements, in the environmental area no less than elsewhere".

natural resources and environmental management fields has remained fairly limited (White, 2013). This paper intends to contribute to the field by analysing, from a political ecology perspective, whether the kind of tools social media provides benefit dominant or alternative discourses. In particular, I analyse the ways in which the uses of social media by selected organisations foster dominant or alternative discourse production and dissemination.

The paper argues that while social media offers an interesting potential for the expression and the spread of alternative discourses, it also gives dominant discourses a powerful tool for their consolidation and, therefore, does not structurally challenge the status quo. I draw from 180 Tweets and 180 Facebook posts by nine organisations working on water from different perspectives. I identify the themes associated with water, I seek patterns of association between themes and media used (photos, texts, links, etc.), and I analyse how these patterns relate to the workings of dominant and alternative discourses.

I start by putting the political ecology and social media literatures into dialogue. This leads me to a methodological section where I explain how I undertook the data collection and analysis, which rests on a hybrid approach combining theory-driven with inductive codes. I then present the results of the study in two sections that correspond to the most salient uses of social media observed: dissemination and the presence of diverse visual elements. I then discuss the results to answer the research question: does social media benefit dominant or alternative water discourses? The analysis is organised in three sections: (i) a discussion of whether social media features preformat the messages disseminated; (ii) a discussion of how social media's emphasis on enlarging and strengthening communities constitutes a key arena in which to dispute common sense; (iii) an analysis of the ways in which social media serves well the dissemination of ambiguous messages that benefit dominant discourses. The article ultimately concludes that social media does not structurally challenge the status quo and suggests avenues for future research.

# THEORETICAL FRAMEWORK: INVESTIGATING DOMINANT AND ALTERNATIVE WATER DISCOURSES IN SOCIAL MEDIA

Critical research has highlighted the numerous meanings conveyed by water in discourses and in everyday practices (Strang, 2006). Discourses are always crafted to fit with a particular view of water and society (Linton, 2010). The scientific discourse on water, for example, claims neutrality; it presents water as merely a chemical element, dis-embedding it from its social reality and supposing substitutability of all kinds of water (Budds, 2009). An approach backed by scientific rationality necessarily dismisses other approaches, such as those based on empathetic, aesthetic and other understandings. Political ecologists and anthropologists have discussed how the framing of water cannot be disentangled from the framing of society (Mosse, 2003; Bakker, 2013). They have highlighted the hybridity of water, which is both social and material, which shapes and is shaped by society (Linton and Budds, 2014). Additionally, critical geography has denounced the power struggles embedded within technical or neo-liberal approaches to water management and has pinpointed the oppressive structures that underpin unequal access to water (Loftus, 2009).

Discourses can be classified into dominant – those that shape policy and behaviour – and alternative - those that contest dominant discourses. This classification derives inspiration from both the

<sup>&</sup>lt;sup>2</sup> As Hajer (1995: 43-44) reminds us "discourse analysis emerged in the context of the wider post-positivist interpretative tradition but, in fact, has deep historical roots in the analysis of ideology, rhetorics, the sociology of science, and language philosophy".

Gramscian concepts of hegemony and counter-hegemony and from the Foucauldian analysis of power.<sup>3</sup> For Gramsci, hegemony combines coercion and consent to consolidate the power position of a specific social group. Consent is crucial because hegemony is enacted, rather than imposed. It consists of "a prevailing common sense formed in culture, diffused by civic institutions, that informs values, customs, and spiritual ideals and induces 'spontaneous' consent to the status quo" (Peet, 2002: 56). Common sense is both material and discursive; it refers "to the sedimented – and at times contradictory – ideologies through which people act in the world" (Ekers and Loftus, 2008: 705). This resonates with Hajer's – a critical reader of Foucault – definition of the dominant discourse as one that is institutionalised, i.e. translated into concrete institutional arrangements, and is capable of structuration, i.e. shapes how society views the world (1993).

While Gramsci considered power to be real, in that it could be deployed and achieved, he was also interested in how power can "remain conveniently invisible, disseminated throughout the texture of social life and thus 'naturalised' as custom, habit, spontaneous practice" (Eagleton, 1991: 116). This resonates with the Foucauldian interest in the techniques of power that lead people to internalise specific government forms.

The Gramscian notion of counter-hegemony is key to my analysis. Counter-hegemony has not received much attention in the political ecology literature. Yet, I follow Karriem (2009: 317) in insisting on the dynamism between hegemony and counter-hegemony: "Hegemony is never absolute. It is continuously contested by oppositional forces, reformulated due to tensions or splits in the ruling bloc, and adapted to changing circumstances".

Crucially, counter-hegemonic discourses might appropriate elements of hegemonic discourses and redefine them or use them to their advantage, as a key tool for resistance. This is what some scholars have claimed globalisation does: while it is the product of capitalism it also allows the creation of global resistance networks (Strang, 2014). Conversely, an important consolidation tool for the hegemon is to colonise elements from counter-hegemonic discourses, modify or partially empty their meaning, and integrate them in the hegemon (Dryzek, 1997; Peet, 2002).

The counter-hegemony is more than simply resistance. It is in a position to challenge the hegemon and offers an alternative common sense. For this reason I prefer to use the term 'alternative', which encompasses not only counter-hegemonies but also minor struggles. Ekers and Loftus (2008: 713) raise the question of "whether struggles against water privatisation might be celebrated as a part of broader hegemonic struggles or simply as revolts against disciplinary forms of power". Indeed, different alternative discourses might challenge concrete expressions of the hegemon or the very roots of its rationale. In order to illustrate these points, I present some of the dominant and alternative discourses on water.

The technical understanding of water – which has enjoyed a dominant position – describes water as an apolitical and merely technical issue that would threaten society if unmanaged. If, on the contrary, it is managed with the appropriate technology, it constitutes a source of economic growth and progress (Égré and Senécal, 2003). Specifically, rivers are put at the centre of the analysis: they are used as a source for drinking water, irrigation and electricity production (Alhassan, 2009). The rationale

707; Foucault, 1997), I think that coalitions between different social groups can be formed to develop global struggles, which

resonates with a Gramscian belief in the potential of resistance to challenge the dominant discourse (1971).

<sup>&</sup>lt;sup>3</sup> It is important to point out that associating Gramscian historical materialist and Foucauldian post-structuralist approaches is not without challenge. However, I follow Ekers and Loftus in arguing that a fruitful set of analytical tools emerges from the 'resonances and tensions' between both approaches (2008: 702). I stand from a rather Foucauldian ontological and epistemological perspective in that I focus on discourses, I consider power to be relational and disperse rather than real and departing from the state, and I take truth as operating within specific discourses. Finally, while I follow Foucault in considering that 'the social' is a "dangerous abstraction(s) [that] elides the specificities of subjugated practices" (Ekers and Lofturs, 2008:

underpinning this discourse lies in the need to control nature while the state assumes the role of a technically capable and modern manager (Mitchell, 2002).

From an alternative position, certain political ecologists have opposed the construction of large dams along rivers and denounced the apparent development achievements brought by the technical understanding as unsustainable (Abramovitz, 1996; Leroy, 2006). In particular, they highlighted how local peoples' livelihoods were destroyed by dam construction (Richter et al., 2010). Facing widespread contestation, the World Bank – whose policies were heavily influenced by the technical discourse in the 1970s and 1980s – together with the NGO International Union for the Conservation of Nature in 1999, founded the World Commission on Dams (WCD). The WCD aimed to address the two major criticisms of large dam building, i.e., environmental degradation and the displacement of people (Dore and Lebel, 2010). Assessing the environmental and social repercussions of large dam projects has been presented as a way to mitigate the unavoidable impacts (Moore and Dore, 2010), as if the arguments against dam construction could be incorporated into the discourse with the opposite objective: legitimising dam construction.

The debate on dams triggered the emergence of transnational networks of diverse kinds of actors fighting against dam construction around the world (Conca, 2006). These networks, allying international human rights advocacy groups, ecologists and indigenous peoples, defended a vision of water that was radically different from the vision promoted by developmental states. They constituted a discourse-coalition, i.e. "a group of actors who share a social construct" (Hajer, 1993: 45). This was possible because of discursive affinity where "arguments may vary in origin but still have a similar way of conceptualising the world" (Hajer, 1993: 47). From their alternative perspective, rivers and the services they provide are part of local people's livelihoods, and it is those people's right to manage them as they had traditionally done (Anguelovski and Martínez-Alier, 2014; Martínez-Alier, 2014).

Comparable networks emerged to fight the privatisation of drinking water services, on which, together with sanitation services, the water marketisation discourse focuses. In the marketisation discourse, which became dominant in the 1990s through the Washington Consensus, rivers and other sources of water are mere inputs and outputs for water and sanitation services. This discourse was not incompatible with the technical discourse but changed the scope (Hajer, 1993) by putting the emphasis on the commoditisation of water supply. In opposition to this, activists rejected the commoditisation of water. They focused on redefining access to drinking water as a human right, which emerged as a new narrative.<sup>4</sup>

Nowadays, Integrated Water Resources Management (IWRM) can be considered as the dominant approach to water management. It is championed by multilateral agencies, such as the World Bank and the United Nations (UN), and endorsed by governments across the globe (Jeffrey and Gearey, 2006). Civic engineers developed IWRM in the late 1940s, but it only became a tool for public policy in the 1990s (Ward 1995; Biswas, 2004). IWRM claims to provide a comprehensive management approach and emphasises the variety of interests around water (Global Water Partnership, 2015).

IWRM incorporates elements of the different discourses analysed above (technical, market-oriented) and of their counter-discourses (people-centred, environmentally aware). While IWRM claims to accommodate all perspectives, it is uncertain that some of them, such as the technical approach and the ecological perspective, are compatible since they defend a radically different view of water and its place in society. IWRM uses a malleable and ambiguous language that leaves empty spaces (Molle, 2008) and runs the risk of working as a façade behind which power dynamics that benefit actors in a dominant position can flourish (Giordano and Shah, 2014).

<sup>&</sup>lt;sup>4</sup> The United Nations recognised water as a human right in 2010.

As we have seen above, the different expressions of dominant water management discourses have encountered strong foci of resistance. Research has not explored whether these antagonistic discourses find space for expression through social media, and which discourses are privileged by social media features. Yet, the social media literature is engaged in a debate of the utmost relevance for political ecology, namely whether social media encourages the expression of certain discourses – particularly marginalised ones. In the following, I will use the concepts of alternative and dominant as the platform from which to synthesise the debates on discourse from both social media studies and political ecology.

Political communication scholars have explored whether social media in itself constitutes a new type of public sphere with enhanced participation and deliberation (Dahlgren, 2005). Building on the idea that online media manages to free itself from the vested interests that filter what gets published in traditional media (Gerhards and Schafer, 2010) – since access to social media platforms only requires access to a device connected to the internet – they argue that social media increases users' opportunities to campaign without going through formal structures (Wring and Ward, 2010). This would make possible the expression of positions that were ignored or marginalised and give space to forms of expression that were banned. The kind of discourses identified by political ecologists as denouncing oppressive structures in mainstream discourses could find the light through social media. Additionally, social media has been analysed as a platform that constitutes and strengthens communities (Sullivan and Xie, 2009; Chen, 2011), and fosters different forms of participation (Rojas et al., 2009). This platform would then present an opportunity for those defending marginalised discourses to strengthen their communities and challenge dominant discourses.

The idea of a virtual public sphere builds on the ideal of deliberative democracy, which emerged from the work of two philosophers, Jürgen Habermas and John Rawls. These philosophers criticise the structures that, in so-called democratic societies, hinder horizontal and inclusive deliberations; truly democratic deliberation, they believe, rests on an exchange of arguments between citizens affected by a certain decision. Feminists and other critical scholars have, however, highlighted the limitations of such an exchange. They have shown that rational argumentation is biased, being a typically western and masculine form of expression (Plumwood, 1993). Therefore, a truly inclusive space would include alternative modes of expression such as narration, lyric, etc. The virtual public sphere not only seems to fulfil the conditions posed by Habermas and Rawls, it also opens up possibilities to express messages in those ways that are traditionally absent from the public deliberative sphere. Thus, social media could provide a space for the representation and strengthening of not only marginalised discourses – such as human rights coalitions defending indigenous understandings of water – but also for the very people closest to the environment (Haraway, 1992; Latour, 2004).

Recent empirical research has, however, raised some caveats over the ability of social media to make concrete its potential (Loader and Mercea, 2011; Segerberg and Bennett, 2011). Firstly, this research has pinpointed that social media is mainly used to disseminate information (Romero et al., 2011; Wu et al., 2011). The dissemination of information is a role usually fulfilled by traditional media. Therefore, by using social media as a tool for dissemination, social media would be reproducing traditional media structures. Additionally, several scholars have called attention to the fact that participation in social media platforms is not equal between users. The volume of information disseminated by certain actors, such as those with access to professional resources, "hinders the constitution of strong counter-hegemonies" (Dean, 2005: 53). These actors also attract more traffic and generate more networks than the average user (Fenton and Barassi, 2011; Hands, 2011).

While the kind of quantitative analysis these studies are based on provides crucial insights on the role of social media for alternative discourses, a qualitative analysis better helps to answer the question asked here. In the particular case of water, paying attention to the way social media supports the expression of different discourses is key. Indeed, critical scholars have highlighted the undefined language and all-encompassing narratives that consolidate mainstream discourses such as IWRM, and it

is important to scrutinise how social media helps or hinders this feature (Giordano and Shah, 2014). A qualitative approach would enable the capture of the subtleties of the different discourses.

#### **METHODOLOGY**

Admittedly, this article is explorative and, as such, it has limitations, but this approach has been necessary given the lack of studies of this kind. In this section I explain and substantiate the choices made, while remaining aware of the limitations.

The first important choice was to select the social networking sites on which the study would focus. I chose to focus on Twitter and open uses of Facebook over the rest of social media for their widespread use (Davenport et al., 2014). Secondly, I conducted a purposive sampling to select the users (Kuzel, 1992). Its explicit aim was to include users likely to champion either an alternative or a dominant discourse. Specifically, I adopted a criterion-based sampling, which consists of selecting "a few cases that represent a range or extremes, so that one can learn from the comparisons and contrasts" (Kuzel, 1992: 41). The method never pretends to approach saturation or statistical representativeness. I first intended to sample organisations addressing a global audience. Yet, in so doing, discourses typically linked to local struggles - such as water privatisation - remained excluded, which drove me to amplify the sample in order to include such actors. A first list was created based on my knowledge as an academic working on water for the past eight years. It comprised 29 organisations, including multilateral agencies, think tanks, associations of actors from the private sector, and NGOs. The sampling did not aim to create an exhaustive list of all organisations working on water or of all instances of dominant or alternative discourses, but instead it sought to find actors championing different water discourses. As long as a combination of the listed organisations fulfilled that condition, the sampling would remain adequate for the study. Yet, my perspective necessarily imposed biases, such as the limitations of my knowledge or my geographic areas of focus. Future contributions from other researchers with different geographic areas of interest would help enrich the field.

I set the final list to nine organisations for practical data-management reasons. This number allowed me to include users likely to champion either dominant or alternative discourses, thus respecting the conceptual rationale of this kind of sampling (Miles and Huberman, 1994). The general criteria for inclusion in the final sampling were the fulfilment of two conditions that would allow comparison; their main language of expression had to be English and they had to have both Twitter and Facebook public accounts. For example, the Water section of the World Bank has a Twitter account but not a Facebook account and was therefore excluded. Choosing English as the language of expression introduces an important bias. Yet, considering that the analysis was qualitative, it seemed important to be able to compare different language uses. Focusing only on one language facilitates this task. This considerably reduced the list. Among the rest of users, I proceeded to choose a combination of those that were more likely to champion the specific discourses I was interested in.

The Global Water Partnership (GWP) and the World Water Council (WWC) were selected as the two main champions of IWRM, albeit from different perspectives — while GWP puts the emphasis on institutional arrangements, the WWC focuses on economic and business matters (Jeffrey and Gearey, 2006). The UN-Water and the UN account on World Water Day were selected to include the discourses championed by the UN, which is particularly influential in terms of discourse (Swyngedouw, 2013). The United Nations Development Programme (UNDP) was one of the founders of the GWP, which suggests that the UN would champion IWRM. Yet, as an organisation that has raised awareness on alternative discourses, such as indigenous rights, and has declared water a human right, the UN might also provide alternative views. World Water Day is an event organised by the UN and focuses on a specific — and different — theme every year. The 'water and energy' perspective, chosen in 2014, suggested a technical and economic approach, which I wanted to include. I chose the Global Water Challenge (GWC) as likely to champion a market-oriented approach, International Rivers as an environmentally oriented NGO,

Pachamama Alliance as an NGO sensitive to indigenous rights, and Right2Water as a coalition fighting privatisation of water access. A development-oriented NGO, Water for People, based in the US but with offices in Guatemala, Honduras, Nicaragua, Bolivia, Peru, Malawi, Rwanda, Uganda, and India was the last selected user. Water for People works on drinking water accessibility in the developing world and claims to follow a market-oriented approach (Water for People, 2015).

The table below presents the users included in the final sampling and links them to the discourses they were likely to champion.

Table 1. Selected users.

User	Bio	Aspects of water and discourses likely to emerge		
Global Water Challenge (GWC)	Founded in 2006, it associates private companies and NGOs funding Water Hygiene and Sanitation (WASH) initiatives in developing countries from a market perspective. Its headquarters are in Washington, DC (Global Water Challenge, 2014).	Economic discourse, drinking water, hygiene and sanitation.		
Global Water Partnership (GWP)	Founded in 1996 by the World Bank, UNDP and the Swedish International Development Cooperation to foster IWRM globally. It is based in Stockholm (Global Water Partnership, 2014).	All aspects encompassed by IWRM.		
International Rivers	Founded in 1985 to institutionalise the international network that fights for global river protection and the livelihoods built around. Based in Berkeley, California (International Rivers, 2014).	Environment, dams, resistance.		
Pachamama Alliance	Supporting the indigenous people of the Amazon rainforest, defends an understanding of the environment inspired by the indigenous' vision. Based in San Francisco it was founded in 1997 (Pachamama Alliance, 2014).	Environment, indigenous- inspired vision, spiritual, emotional.		
Right2Water	A European Citizens' Initiative to get the human right to water and sanitation implemented in European legislation. It was based in Brussels and was launched in 2013 (Right2Water, 2014).	Drinking water, hygiene and sanitation, privatisation, conflict.		
UN-Water	UN-Water is the United Nations' inter-agency coordination mechanism for all freshwater- and sanitation-related matters. Founded in 2003 as a coordination mechanism, it does not have a secretariat (UN Water, 2014).	All aspects encompassed by IWRM, might give voice to actors defending alternative views.		
UN WWD	UN-Water chooses a UN agency every year to coordinate the campaign for World Water Day. In 2014, the theme of the campaign was 'water and energy' and it was coordinated by United Nations Industrial Development Organisation (UNIDO) and United Nations University (UNU).	Economic, technical, drinking water.		

Water for People	Non-profit funded in 1991 for universal access to WASH and health. Endorsed by American Water Works Association (AWWA), the Water Environment Federation, the Water Quality Association, the National Association of Water Companies, the National Association of Clean Water Agencies, and the Association of Metropolitan Water Agencies of the United States. Based in Colorado (Water for People,	Drinking water, hygiene and sanitation, marketbased approach.	
World Water Council (WWC)	2015). Founded in 1996 by multilateral organisations and private companies including the International Union for the Conservation of Nature, Suez Lyonnaise des Eaux, the United Nations agencies UNDP, UNESCO, and the World Bank. It operates as a think tank and a 'multistakeholder platform' that brings together water 'specialists'. Promotes the implementation of IWRM. It is based in Marseille (World Water Council, 2014).	All aspects encompassed by IWRM, economic.	

Pachamama Alliance posted on a number of unrelated issues but the selection sought to include only those referring either to the environment in general or to water in particular. This means that the posts referring, for example, specifically to forests, were excluded from the sampling.

The Facebook posts and Tweets<sup>5</sup> were captured through the NCapture programme, an NVivo add-on able to capture publicly available data from social networking sites. Twitter users publish 140 characterlong messages (called Tweets) that might include photos, videos, or website links. Tweets are immediately visible to users who follow the user or go directly to the user's page. It is also visible to users who do a search containing a hashtag included in the Tweet. The users selected here used Facebook as an open network; this means that anyone can follow (or 'like') the page of these users without necessarily being a 'friend' of the user.

The total number of posts per user was restricted to 20 in order to render the in-depth analysis of the themes manageable. World Water Day (22 March 2014) was taken as the start day for the selection of posts. I was interested in seeing whether, and how, different actors participated in this event, launched by a particularly influential actor in terms of discourse, the UN (Swyngedouw, 2013). Ten posts before and ten posts after World Water Day were taken into account. If there were several posts on the day, the number of posts was counted departing from the median. By selecting ten posts before and after the day, I was likely to include posts unrelated to World Water Day. This allowed me to broaden the perspective on the kind of themes discussed. Yet, the centrality of World Water Day in the selection imposes a certain bias. It would be interesting, in future studies, to exclusively select posts randomly from dates unrelated to significant events.

The analysis was done in the qualitative analysis software NVivo10, following two sequential steps. Firstly, the data were analysed thematically following the approach described by Boyatzis (1998). This is a well-established approach to address explorative and descriptive questions (Fereday and Muir-Cochrane, 2006). It rests on the identification of themes in the selected data that allow the description and analysis of the studied phenomenon. The approach was hybrid (Crabtree and Miller, 1999); a list of codes was first created deductively from the critical literature on water discourses. This list was then revised inductively as themes emerged from the data. For example, while 'IWRM' was at first included

<sup>&</sup>lt;sup>5</sup> When generically speaking, they will be referred to as posts.

as a theme in the list, it was suppressed after analysis of the data since very few posts explicitly referred to it. This was coherent with the rest of the coding which retrieved specific and concrete aspects encompassed in IWRM. The hybrid approach allowed me to triangulate the relevance of the themes across data sources and to account for significant exceptions (Denzin, 1978). In a second step, I compared different actors' use of the media to identify similarities and differences. Validity was sought as reflexive accounting, i.e. I analysed my data "over and over again to see if the constructs, categories, explanations and interpretations made sense" (Patton, 1980: 339).

The coding scheme was developed around two coding families – themes and means of expression. Means of expression consisted of descriptive codes about what the post contained (document – subcategory: visual; hashtag; user; photo; video; website; re-tweets or shares). These codes were inductive and they were built during the first phase of data analysis, after these elements had been identified in the posts. Each of the codes in the themes' family included both descriptive and interpretive elements (Miles and Huberman, 1994). The coding scheme was applied over the data segmented by posts. Each post was taken as a coding unit.

Table 2. List of themes.

Expressions	Definitions	Examples
Aesthetic and emotional	Refers to expressions of water that inspire feelings of wonder or awe.	Happy World Water Day! Join us, and people all around the globe, in a prayer for the healing of the waters. #WorldWaterDay <sup>6</sup> (Pachamama Alliance, Facebook Post, 22/03/2014).
Dams	Dams are explicitly referred to, regardless of whether they are presented as positive or negative.	.@WLE_CGIAR asked experts what they thought about more #dams. Here are some answers and they want more! http://t.co/eDk6Pa7TkM (GWP Tweet, 25/03/2014).
Drinking water (sub- theme: privatisation)	Refers to access to clean drinking water.	Global Water Challenge applauds the Replenish Africa Initiative (RAIN) for building communities by providing access to sustainable, clean drinking water to two million people by 2015. (Global Water Challenge, Facebook Post, 19/03/2014).
Hygiene and sanitation	Mentions sanitation and hygiene as an issue or a target.	You have 3 days to support two innovative sanitation entrepreneurs who really need your support. Water For People has supported them and now we are asking you to help. http://ow.ly/ul05f (Water for People, Facebook Post, 23/03/2014).
Nexus water energy	Refers to the 2014 World Water Day campaign, which calls attention to the links between water and energy.	Global Energy Thirst Threatens Water Supplies, UN Says http://t.co/ZxVpoh7jNh (UN-Water, Tweet, 22/03/2014).
Scarcity and security	Refers to water as scarce.	On track towards a #water-secure future! The 7th World Water Forum framework will serve as building blocks for the preparatory process that will pave the way to the Forum in Korea in 2015

<sup>&</sup>lt;sup>6</sup> Hashtags are written as single words.

		(World Water Council, Facebook Post, 25/02/2014).
Celebration	Pays tribute to water. Water is an object of celebration.	Celebrate #WorldWaterDay by joining us! If you believe that everyone should have access to clean water, share this post and like our page! (UNW- WorldWaterDay, Facebook Post, 22/03/2014).
Conflict and resistance	Water is an object of conflict. Refers to an open or latent conflict that opposes two visions of water.	Yesterday, #Cambodian ppl protested against #Lao PDR #Donsahong Dam on the #Mekong http://t.co/s4Uhselbqx http://t.co/ogOtycFzDu (International Rivers, Tweet, 31/03/2014).
Economic	Water is understood as an economic good in itself or as an input for industrial production.	New study shows #water shortages are a real source of concern for European companies, reports @EurActiv. http://t.co/7isrB0tjpx (Global Water Partnership, Tweet, 26/03/2014).
Environment	Water is understood as part of ecosystems.	We care for the forest as a living thing because it gives us everything: life, food, water This is why we fight. http://t.co/kwlHbqMRTS (Pachamama Alliance, Tweet, 12/04/2014).
Scientific or technical	Water is presented as a disembedded element, away from its social reality.	Why waste water when we can reuse it? #WorldWaterDay Cool infographic: http://t.co/dUcRGOBwCO http://t.co/pBniaOCxmn (UN-Water-World Water Day, Tweet, 22/03/2014).

Four more codes were also created: 'absent' was created to code posts that referred exclusively to the organisation; 'ambiguous' to identify the instances in which ambiguous language was used; 'communities' to identify the posts referring to a community of experts or of users; and 'atypical' to code posts that did not fit in any of the previous categories.

None of the codes were exclusive of each other. On the contrary, if several expressions of water, discursive themes, or means of expression were present within the same coding unit, it was coded several times.

Once data were classified following the coding scheme, patterns of co-occurrence were sought between the different families of codes. This was done through the NVivo10 Matrix Coding Query, which reveals which nodes co-occur in the data and with what frequency. This analysis sought to explore how themes relate to each other and to specific means of expression.

The coding constitutes a qualitative approach to analysing, interpreting and classifying themes. However, the display of results is partly done in a quantitative fashion to summarise them efficiently. The search for patterns was first approached by quantitatively observing the co-occurrence of qualitative codes. This quantitative tool was used as a first step in identifying patterns that were then analysed qualitatively.

This study presents a number of limitations due to its qualitative stand. It focuses on the possibilities offered by social media, and on its use by different actors, but does not pay attention to the effectiveness of that use. Measuring the effect of the disseminated posts would require a quantitative analysis on the number of tweets, crossed with the power-law algorithm for the number of followers, which could be undertaken in future research.

# **RESULTS**

In this section I present the results of the coding and the search for patterns done through coding matrices, which indicate the co-occurrence of themes and means of expression for each of the users.

I turn now to explore in more detail the contents of the posts and discuss two aspects that were particularly salient: the emphasis on dissemination and the role of visual media.

# Dissemination: Websites, repetitions and hashtags

Of the 360 selected posts 258 contained a link to a website, i.e. they invited users to leave the social media space (see Table 3). Twitter, with its restriction on the number of characters permitted in each post, seems to structurally encourage this use. However, it is interesting to note that, in the data selected, Facebook was similarly used for this purpose (133 Tweets and 125 Facebook posts). Thus, Facebook as much as Twitter was used to disseminate short messages and lead the readers to other spaces where more detailed explanations were developed. The links included led to a variety of content, such as blogposts, news articles, and corporate websites. This seems to support the argument that social media is used as a platform to disseminate information: the posts contain a short message and include a website where information is further developed (Romero et al., 2011; Wu et al., 2011). Three tools appear as particularly useful in ensuring wide diffusion: the repeated posting of messages, the mentioning of users and the use of hashtags.

Users post exactly same message or very similar messages, with the same content, several times. Typically, users post the same message on both Twitter and Facebook. For example, on 18 March the Global Water Partnership posted on both Twitter and Facebook: "Some interesting reading on #water footprint diets, researchers say eating fish saves water @thefishsite". Posting on both Facebook and Twitter allows users to amplify the spread of the message since the audiences of each media are not necessarily the same. Indeed, the GWP's Facebook page has 29,158 likes and their Twitter account only has 2297 followers. Users might also post the same message several times on the same media. Messages, for example, might be disseminated in several languages, or as replies, i.e. as messages associated with different usernames each time they are posted. This technique makes the message visible to the followers of that user and thus disseminates the message further.<sup>7</sup>

Identical messages might also be disseminated at different times, as the Global Water Challenge showed on 18 and 19 March when it posted about the Replenish Africa Initiative (RAIN). Facebook and Twitter present the home page of any given user in the form of a flow of messages posted by all the followed users in chronological order. The more users one follows, the more messages one gets on the home page. Users are therefore more likely to view the messages posted closest to their log-in time. Thus, by repeating a message, the chances that followers view it are multiplied.

Finally, some repetitions aim to link a message to a topic to which it was not previously linked through the use of hashtags, which help identify messages on a particular topic. There was some disparity over the use of these tools across the selected cases with UN-Water, UN WWD and GWP using the conversation hashtag sign the most. In the example above, the GWC included the hashtag #ToastToWater in the first post about the RAIN but not in the second post. Hashtags are key to

<sup>&</sup>lt;sup>7</sup> See for example Right2Water Tweets on 19 March.

<sup>&</sup>lt;sup>8</sup> This is the standard use. Users can actually filter the messages, classify users in different categories, and create lists that would automatically include posts only by certain users. This information is, however, unknown of the rest of users.

<sup>&</sup>lt;sup>9</sup> The use of hashtags was first introduced by Twitter to facilitate conversations among users. Tweets relating to a specific conversation are tagged under that specific hashtag, which facilitates the retrieval of the Tweets relating to that topic. That way, totally unrelated users could engage in conversations on the same topic. Facebook decided to emulate Twitter and introduced the hashtag in June 2013 (BBC News, 2013).

disseminating messages since they make the post visible to users following that specific conversation. On Twitter, users might encourage people to use a certain hashtag in the hope of turning the conversation into a 'Twitter Trend'. A trend is an 'emerging' topic, i.e. a topic that experiences a dramatic increase in the number of times it is mentioned (Twitter, 2010). Trending topics have high visibility. Once a topic becomes a trend, it appears in the trend list available on the home page of any Twitter user.

#### Presence of visual elements

In the posts analysed, photos (68) and videos (30) were used in over a quarter of the posts (98/360 posts) and visual documents – infographics and posters – were used in 37 posts, making a total of 135 posts containing visual elements (see Table 3).

Half of the posts coded under 'Aesthetic and emotional' contained a visual element. Otherwise, the majority of photos published related to the themes of 'Celebration' (20/55) and 'Environment' (12/46). The 'Nexus' (9/67) and 'Drinking water' (7/66) followed in the use of pictures. The majority of videos appeared under the themes of 'Hygiene and sanitation' (10/50) and 'Drinking water' (9/66). The use of infographics was also relatively high for these two themes (7 and 11, respectively) and for 'Nexus water and energy' (18/67). Visual media was almost never used to speak of privatisation or scientific and technical aspects.<sup>10</sup>

The high use of visual media for the theme of 'Celebration' is partly explained by the inclusion of the campaign #ToastToWater, which invited people to post their own pictures celebrating World Water Day. Moreover, the UN organised a photo contest on Facebook on that same day. For both the 'Aesthetic and emotional' and 'Environment' codes, the central element of the pictures was a natural expression of water presented as interconnected with elements of the natural or the built environment. These kinds of pictures were mainly posted by International Rivers and Pachamama Alliance. The 'Nexus', 'Drinking water', and 'Hygiene and sanitation' concentrated a large amount of visual media, particularly of infographics.

Besides International Rivers and Pachamama Alliance, the GWC and the WWC were the main users of photos (see Table 3). In the case of GWC this is explained by the fact that they supported the #ToastToWater campaign. WWC used pictures to illustrate the message of the post, particularly in reference to meetings. The use of infographics was high for the UN's two accounts, particularly in the posts referring to the campaign on the nexus 'Water and energy'. Finally, the use of videos was particularly high for Right2Water, who disseminated the video of the European Commission's hearing on the Right2Water petition and the Greek Prime Minister, Alexis Tsipras', video supporting the initiative.

## **DISCUSSION**

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In this section, I interpret the results in order to try to determine whether social media tools benefit dominant or alternative discourses. I first analyse if the format of messages encouraged by social-media favours certain types of discourses. I then discuss how the emphasis on participation and community strengthening is mobilised by different actors to champion the discourses they defend. I finally highlight how both the medium and the emphasis on communities, associated with ambiguity in the messages disseminated, provide powerful means by which dominant discourses can thrive.

<sup>&</sup>lt;sup>10</sup> A caveat, however, needs to be raised on these figures. They under-represent the presence of visual media since the inclusion of website links might entail the addition of images as thumbnails.

Table 3. Means of expression by users.

	Docu- ment	Visual	Mentions conversa- tion	Mentions user	Photo	Re- tweets or shares	Video	Website
GWC	1	2	29	24	11	9	4	21
GWP	4	0	34	32	4	3	4	37
International Rivers	3	3	16	24	9	13	1	31
Pachamama Alliance	2	2	12	16	8	5	5	29
Right2Water	1	0	14	21	1	14	8	28
UN-Water	10	10	32	22	6	12	1	32
UN WWD	15	15	33	16	7	14	3	25
WaterforPeople	1	0	18	28	8	14	4	28
WWC	5	5	18	9	10	5	0	24

Table 4. Mentions of themes by user (Part1).

	Aesthetic & emotional	Celebration	Conflict and resistance	Dams	Drink	Privatisation
GWC	0	24	0	0	9	0
GWP	2	4	1	2	1	0
International Rivers	2	3	17	29	0	0
Pachamama Alliance	8	5	16	0	3	0
Right2Water	0	0	25	0	29	19
UN-Water	4	3	0	0	4	0
UN WWD	4	5	0	0	12	0
WaterforPeople	1	6	0	0	6	0
WWC	0	5	0	1	1	0

Table 5. Mentions of themes by user (Part 2).

	Environ- ment	Hygiene and sanitation	Economic	Nexus water energy	Scarcity and security	Scientific or technical
GWC	1	5	4	3	1	0
GWP	2	1	3	7	4	2
International Rivers	8	0	4	0	0	0
Pachamama Alliance	28	0	3	0	0	0
Right2Water	0	20	0	0	0	0
UN-Water	4	3	0	17	4	2
UN WWD	1	10	3	16	2	4
WaterforPeople	0	11	1	2	0	0
WWC	1	0	4	19	8	0

#### The limits of the medium

To a certain extent, media formats the messages that it disseminates (Castells, 2007). Political ecologists have echoed this claim by asserting that certain spaces do not allow for the expression of all discourses. For example, rationalistic deliberation presupposes a universal reason that can agree to the best rational argument (Pellizzoni, 2001). In so doing, it excludes non-argumentative approaches, such as emotional approaches (Plumwood, 1993). This calls for attention to be paid to the interconnectedness of the format and the content.

Campaigns and other event-linked topics are in a good position to attract wide audiences via, for example, the trending topic feature on Twitter. Additionally, the organisation of posts as a constant flow encourages users to pay attention only to what they see when they log into the social networking site, which is why users put such emphasis on dissemination as we saw in the results section. This type of framing does not favour reflexive messages. Indeed, the promotion of short-term goals in a campaign-like fashion diverts attention from the deeper social structures that sustain dominant discourses. As a result, alternative discourses tend to remain marginal and unable to challenge common sense. This is not to say that actors championing alternative discourses, such as discourses encouraging resistance to the privatisation of water provision, cannot make use of this type of feature when campaigning. Yet, these campaigns focus on specific phenomena, and not on the underlying social structures, such as capitalism, that allow them (Ekers and Loftus, 2008).

We saw in the results section that different actors used visuals in different ways to support their discourses. For example, Pachamama Alliance and International Rivers, both concerned with environmental protection and local livelihoods (see Tables 4 and 5), seemed to choose photos in order to better convey their messages. The pictures in these posts are part of the message in the sense that images convey meanings of their own and do not simply illustrate a written message. This would, therefore, suggest that social media indeed allows different discourses to be expressed in ways that best convey their message.

Yet, as Plumwood (2006: 123-124) pinpoints, visuality cannot be considered as the rejoinder to rationalism since it establishes what is seen as a passive object. By contrast, this fits well the Western rationalistic approach "because, unlike other senses, sight requires little in the way of symmetry (one can see without being seen), reciprocity, or consent, and allows the user to be set sharply apart from what is seen".

The dissemination of infographics suggests that visuality can be tightly adapted to the reproduction of rationalistic discourses with an emphasis on technical aspects. The most extensively reproduced infographic simply contains a series of figures: "768 million people lack access to drinking water, one in three of the world's population don't have access to improved sanitation and 1.3 billion people lack access to electricity". The infographic also indicates that these are "often the same people". These figures aim to raise awareness of the lack of access to water, sanitation, and electricity globally. Since the infographic presents a global picture, its message remains very general, to the extent that the adverb 'often' is used instead of a percentage. It is the very essence of this type of message to obscure the contexts that help explain the larger political reasons why there is such poor access. Said otherwise, it dis-embeds water from its social reality (Budds, 2009). The choice in the solutions – what type of sanitation is more desirable, where – are also dismissed and, by aligning water, sanitation, and electricity, the three are presented as the same type of problem. By not calling attention to the specific uneven power relations of the cases, this type of general message contributes to the reproduction of belief in catch-all solutions (Jensen, 2013; Swyngedouw, 2013).

 $<sup>^{11}</sup>$  Shared, for example, by the UN WWD Twitter account on March 22 at 8:29 am.

A second interesting infographic disseminated with the #NexusWaterEnergy hashtag develops more thoroughly the idea of 'nexus' itself. Interestingly, the subtitle of the infographic reads "we must find new ways to save water and energy and optimise our modes of production and consumption. We need to produce more with less". The words 'optimise' and the idea of "producing more with less" convey the idea that a technical solution would solve the problems of the current situation (Mitchell, 2002). The option of changing consumption patterns and producing less — which would challenge the dominant world order — is not considered.

#### Reproducing and strengthening communities

In the following, I investigate the ways in which social media contributes to enlarging and strengthening communities, which the communication literature has discussed (Sullivan and Xie, 2009; Chen, 2011). I will try to determine whether the features offered by social media that serve to enlarge communities encourage the endorsement of dominant or marginal discourses.

Communities appear in the sampled data at different levels. There are internal communities in the world of water, such as water leaders and their meetings, water professionals and their work opportunities, or water volunteers and their field-based achievements, all of which find representation in social media. For example, the WWC posted on Facebook on 26 March 2014: "The international water community is gathering on Thursday in Gyeongju, Republic of Korea for 2 days of working sessions as part of the preparatory process of the 7th World Water Forum". This community is presented as 'the' international water community, one single and united community made of experts and representatives, which necessarily excludes multiple others (Haraway, 1992; Mitchell, 2002). This is paradoxical since previous instances of the World Water Forum, such as the one organised in Istanbul in 2008, had been confronted by the organisation of counter-forums where other water communities had met. Beside the 'international water community' WWC refers to, there are also very different communities present in the data, such as the one in International Rivers' post from 2 April: "Hundreds of Cambodians" protesting against the Don Sahong Dam. Here is a concrete, local and politicised community of citizens defending local livelihoods.

Beyond its capacity to provide an arena for the representation of multiple communities, creating and sustaining communities of users is a crucial feature of social media. Thus, social media users might be asked to support or join existing communities, or to constitute new ones. We saw in the results section that users extensively use social media as a tool to repeatedly disseminate similar messages. This aims at making sure that messages remain visible to all followers, and amplifies the possibility of making one's followers engage with what is posted. Moreover, all the selected users engage in an effort to include their readers, with the presence of verbs such as 'join', 'share', pronouns such as 'we', the adverb 'together' or direct questions such as 'what will you do?', etc. Asking people to participate in a campaign or in a photo contest fosters participation (Lilleker and Koc-Michalska, 2013). Additionally, the inclusion of user names in posts creates a direct interaction with the user mentioned, which aims to consolidate a sense of community. Hashtags also play a key role in this.

All the users studied here used the hashtag #WorldWaterDay at least once.<sup>13</sup> Including the hashtag World Water Day ensured high visibility since the hashtag became a trending topic. The day's stated purpose was to raise awareness over the 'challenges' associated with water, but it also served as a day to 'celebrate' water (see Table 4) and both aims were directed towards strengthening water communities. Argumentative and rational discourses generally exclude celebratory elements (de la Cadena, 2010). Yet, on World Water Day, these are widespread across users. All the users selected —

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<sup>&</sup>lt;sup>12</sup> See the No to the Commercialization of Water Platform Declaration (2009).

<sup>&</sup>lt;sup>13</sup> Even though in the case of Right2Water it is as part of a re-tweet.

with the exception of Right2Water – wished a 'happy' World Water Day to their followers or encouraged them to engage in some sort of celebration. For example, the GWP encouraged its followers to follow online the UN celebrations in Tokyo, and marked the importance of the day by choosing it to launch its new strategy. The UN organised a Facebook photo contest to invite users to actively participate in activities related to World Water Day, which helped to consolidate the specialness of the day and strengthen the sense of community among the participants.

Through the World Water Day celebrations, users aimed at enlarging their communities and obtaining endorsement from a broad audience. Both the GWC and Water for People – through the #ToastToWater campaign – and the two UN accounts especially drove attention to what their followers could do to address water challenges. For example, the special UN account for World Water Day posted: "If you believe that everyone should have access to clean water, share this post and like our page". The language of the post is a typical example of the IWRM language. Indeed, such messages call for an automatic endorsement since it is impossible to oppose such a cause (Molle, 2008). Yet, the political, economic, and social reasons that might explain why certain people lack access to drinking water are silenced (Swyngedouw, 2013).

The posts disseminated in World Water Day were consistent with how the different users framed the problems associated with water (Hajer, 1993). The case of Pachamama Alliance is particularly interesting since it called for a prayer on the 'healing of the waters', highlighting their fragile state (see Tables 4 and 5). International Rivers took the opportunity to strengthen its community by posting on the importance of collective work and asked its followers to engage in a reflexive exercise by reading a study on big dams and commenting on it (see Table 4). This highlights the dialectic between resistance and domination: while the calendar might be determined by dominant players, the existence of multiple views on the event challenges the consolidation of a specific approach as 'common sense' (Karriem, 2009). The case of Right2Water suggests that the calendar itself can be challenged. Right2Water did not post on the day itself, thereby removing itself from the immediacy of an agenda set by other players. Moreover, its only reference to WWD was a re-tweet.<sup>14</sup>

Another interesting example of hashtag use is that of #ToastToWater, which specifically refers to a Twitter campaign launched by the Global Water Challenge, the Coca Cola Company, the Replenish Africa Initiative (RAIN) – a community-based programme of the Coca-Cola Africa Foundation – and the World Wildlife Fund on World Water Day. The purpose of the campaign was to encourage users to take a picture of their 'toast to water' and share it with their social networks using the hashtag. The reason for toasting was to celebrate that, 'everyday water does all of us a big favour', a favour that is summarised by the phrase 'enabling life as we know it'. Among the users selected here for the dates included, only Global Water Challenge – one of the promoters of the campaign – and Water for People included the hashtag in their posts. <sup>15</sup> Posts wherein both the #ToastToWater and the #WorldWaterDay – which was a trending topic – to the #ToastToWater campaign. This seemed to help fulfil the objective of the campaign: to enlarge the network of users that 'toast to water' regardless of their awareness of the campaign or their views on the work of any of the promoters.

# Ambiguity and depoliticisation: Tools for dominant discourses

The #ToastToWater campaign called for endorsement through an ambiguous and all-inclusive language, typical of IWRM (Jeffrey and Gearey, 2006). The campaign presented water in some sort of anthropogenic form: water 'does' (undefined) things for 'us', which constitute a 'favour' we should

<sup>&</sup>lt;sup>14</sup> The re-tweeted post, originally from a Belgian member of the European parliament, regrets that World Water Day was not used as an opportunity to raise awareness over water-related problems and congratulates Right2Water for their work.

<sup>&</sup>lt;sup>15</sup> UN's World Water Day account also does but not in the dates selected here. They posted about it on 25 March.

'return'. This image draws society ('us') as a collective subject in interaction with 'water', which is also a subject. Therefore, it would seem that this post acknowledges water as a bearer of agency, which would resonate with certain indigenous understandings (Plumwood, 2006) and political ecologists' claims for the recognition of non-human agency (Haraway, 2008). Yet, the enabling character of water is only partially recognised: it is presented as a favour and not as a foundational element. Water agency therefore appears as an enslaved agency, relegated to the background of society (Plumwood, 2006). The relationship between water and society is that of 'favours', suggesting an optional relationship between two separate entities. Therefore, water is conceived as exterior to society, as an external driver. Moreover, the favour that we are asked to perform – 'toasting to water' – fails to address which human activities ('life as we know it') hinder the sustainability of water forms. Finally, the core of the campaign - getting people to post pictures toasting to water - is a ludic and apparently neutral exercise. The campaign is disconnected from the views on water of the promoters, which are silenced. Therefore, users are asked to 'join' a campaign, where the materiality – the pictures – operates as an endorsement of the promoters. Users become some sort of online advocate (Lilleker and Koc-Michalska, 2013) without necessarily reflecting on the identity of the organisations whose message they are endorsing.

In this type of campaign, the messages posted are decontextualised through ambiguous language (Swyngedouw, 2013). Indeed, the phrase 'enabling life as we know it', rests on numerous undefined parameters and unspoken assumptions: Life as who knows it? What aspects of life are targeted? How desirable are such aspects? Such general statements either suppose an insider's knowledge in order to participate in the conversation or appeal to the dominant common sense (Ekers and Loftus, 2008). Another example of ambiguity is to be found within the 'Water Security' theme. For example, the World Water Council posted on Facebook (25 October) on its 'Framework for a Water Secure Future'. These ambiguous terms beg the question: for whom will the future be water-secure? (see Table 5). This is a language that does not specify its exact meanings (Hajer, 1993) and that renders natural agency as well as social injustice invisible (Plumwood, 2006), as if the specific meanings intended were the only ones possible.

Ambiguity is a powerful tool for dominant discourses because it blurs frontiers. Indeed, anything can be included in such ambiguous terms, giving the impression that such discourses are all inclusive. In fact, certain interests – such as, for example, those of the promoters – exclude others as becomes apparent when different interests enter into opposition in concrete settings. This resonates with Jensen's (2013) analysis of IWRM. In contrast to this decontextualisation, the posts emerging from the data under the 'Conflict and resistance' theme called attention to concrete struggles. In posts with this theme, mainly made by Pachamama Alliance, International Rivers and Right2Water, controversies were made clearly visible (see Table 4). Their posts referred respectively to the destruction of the environment that economic globalisation entails, conflicts around dam construction, and the privatisation of drinking water and sewerage networks. These posts denounce the oppressive relations installed by dominant water discourses (Loftus, 2009; Strang, 2014).

Some posts draw attention to the deep social relationships that water sustains and internalises (Linton and Budds, 2014). In the data selected, there is one re-tweet by UN-Water from 22 March that reads: "#water is free time. Women & children carry more than 70% of burden to get water, leaving less time for study & fun". This post directly illustrates the gendered social relations that the lack of water precipitates and symbolises since women are charged with the work of making water available. This is a re-tweet from UNICEF that had launched the campaign '#wateris' to raise awareness of the different meanings attributed to water by people across the world. This campaign is a good example of how social media can be inventively used to spread alternative discourses. Firstly, the campaign invited people from around the world to express what water is to them. This went beyond the simple listing of different definitions, since it provided a space for metaphors that drove attention to the particularity of their situations, for example, by saying 'water is free time'. The message is illustrated with a picture that

works as a portrait of the people to whom a voice had been given – women and children – partially overcoming the limits of visuality. Additionally, UNICEF puts the specific aspect upon which the #wateris phrase focuses in a global perspective, highlighting the existence of social structures that perpetuate it. In this case, attention is driven to a structural and widespread problem: uneven social relations against a specific group – women and children; and to its consequences: lack of access to education and reduced work opportunities.

This campaign had, however, some important limits. Indeed, by giving a voice to all, it conveyed the idea that all voices are equal, when this is far from being the case. Giving equal space to the powerless and the powerful perpetuates the existing power differentials, since some discourses are in a dominant position and others are not (Young, 2002). As far as the selected users are concerned, this post appears as a re-tweet. The re-tweet (or 'share' as its Facebook equivalent) is an interesting function in that it allows users to share with their followers something that another user has posted without specifying whether they endorse it or simply find it interesting. In the case of UN Water, which was fully engaged in the Nexus campaign, it also questions whether this kind of message does not get lost in the flow. Indeed, all-encompassing narratives contribute to make alternative discourses less visible and perpetuate the status quo.

# **CONCLUSION**

The findings of this article draw attention to the importance of social media as an arena for competition between discourses – a research area that has been neglected in the political ecology literature so far. The article poses new questions that suggest two pathways for future research. Firstly, it focuses on the observed uses of social media. Future research should also include users' motivations for choosing specific uses. For these purposes, interviews would need to be combined with the content analysis of social media. The second way in which this study could be expanded in future research is by conducting a statistical analysis on the reception of the posts. This would investigate how the audience receives the posts in terms of the number of comments, likes, re-tweets, etc. and provide some insights into the reproduction of the different discursive aspects discussed here. This would enable the measurement of the impact of the different identified discourses on users, by exploring for example, the effect of campaigns defending different approaches.

The article has contributed to bridging the gap between the political ecology and the social media studies fields. Firstly, the description of the results has involved engaging in the communication studies debate on the uses of social media. It has appeared that, among the selected users, social media is widely used to disseminate information and to constitute communities that will endorse what is disseminated. The article has not only paid attention to the linguistic expression of the discourses analysed, but also to their materiality, such as, for example, through the production of images. I have pinpointed that the use of visual elements is done in creative ways that allow for the expression of both dominant and alternative discourses. Thus, the kind of pre-formatting that social media imposes can be mobilised for the benefit of both dominant and alternative discourses.

I have argued that while social media has the potential to enlarge all communities, including those that defend alternative discourses, it also offers the dominant discourse the tools with which to consolidate itself. Importantly for political ecology, social media is an arena wherein the dialectic between dominance and resistance is at play. In particular, the ambiguity fostered by short messages and the use of re-tweets/shares, as well as the appropriation of features typically excluded from dominant discourses provide the ground from which to consolidate the common sense through ludic appeal, persuasion, and manipulation. While it appears from this discussion that social media does not structurally challenge the status quo, political ecologists should pay further attention to such a space, wherein power is enacted.

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