# Conflictive Knowledge Constructions on Climate Change through Mainstream and Alternative Media?

#### Alexander Brand & Achim Brunnengräber

Technische Universität Dresden, Germany. Corresponding author: Alexander.Brand@tu-dresden.de

#### Abstract

The article tackles the issue of the social construction of climate change from the perspective of a potential multiplicity of society-wide conceptions of climate change. Such conceptions possibly entail different understandings of what climate change is and how to cope with this phenomenon. A plausible assumption would be that such multiple meanings are conveyed by different types of media which cater to different segments of the overall audience. Against this background we ask whether there exists a genuinely alternative (liberal-leftist) perspective on climate change which might undermine the prevailing, hegemonic notion of climate change as an environmental problem amenable to prudent policy management. Such a counter-hegemonic construction would highlight the inherent relationship of climate change/deterioration and contemporary forms of capitalist economy. For the purpose of analyzing whether such an alternative account is in the making, we propose an analytical framework that focuses on conflictive and diverging media constructions of climate change. In the remainder of the article, we present some preliminary results of our research. Analyzing the output of two mainstream newspapers and two liberal-leftist media outlets within the United States and Germany, we find some evidence that the mainstream media indeed reconstruct climate change as an environmental problem first. As such it is, according to the mainstream reading, subject to prudent policy management. Alternative media, however, while delivering more critical accounts of the relationship between climate change and market-based solutions, are far more muted in their criticism than expected. This is especially true concerning the embeddedness of climate change into structures of capitalist production and consumption. Consequently, one has to be cautious in simply assuming that alternative media will and do act as producers of alternative knowledge(s) on climate change at this moment, even though other multiple crises of capitalism have become a staple in their coverage.

Keywords: Climate change, alternative media, mediatization, discursive construction, capitalism

#### 1 Introduction

Climate change has a strong socially constructed dimension. This does not refer, however, to climate change being a fabricated myth, which contrary to surmounting scientific evidence does not happen. Nor is the social constructedness necessarily restricted to its anthropogenic nature, i.e. to the fact that it is man-made or at least hugely influenced by human decisions and actions. Rather, there is an increasing awareness that climate change in its meaning(s) to specific communities and within concrete societies is first and foremost a social phenomenon. In other words, its roots as well as possible strategies to cope with it are subject to various cultures of interpretation (Pettenger, 2007b, pp.2-5). As such, the social constructedness of climate change has already attracted scholarly attention (e.g. Pettenger, 2007a), but its specific knowledge dimension has so far been analyzed mostly with regard to the role which science, especially so-called epistemic communities, can play (or not). Such epistemic communities are said to establish knowledge interpretation based on strict procedures of testing truth claims and feed it into the process of policy formulation (e.g. Haas, 1992; Gough and Shackley, 2001; Hulme and Mahoney, 2010).

Climate change, however, is not only a hot topic for climate scientists and policymakers<sup>2</sup>, but arguably has evolved into a field of interest for a host of societal actors. It therefore seems necessary to broaden the analytical perspective beyond an elite focus and to include a society-wide conception of the various processes of the societal construction of climate change. In this regard, the recent interest in the mediatization of international and transnational relations i.e. the growing awareness of (mass) media as an important player in transboundary political activity (Krotz, 2007; Brand, 2010; Louw, 2010) points to a promising field of investigation. Relevant questions here are: How is knowledge and, especially, are eventually diverging forms of knowledge such as conflictive meanings attached to the issue of climate change (re-) constructed and spread throughout societies? Do, as could safely be assumed given societal heterogeneity and the multiplicity of interests and cultures of knowledge involved, diverging social constructions of the issue exist? What role do different subsets of media play within such dynamics of social construction?

## 2 The Mediatization of Climate Change: Current Research and the Question of Conflictive Constructions

Climate change as a phenomenon (at least partially) constructed by mass media has already been analyzed to some degree. The focus of the respective studies, however, has mostly been on what could be called national cultures of interpretation, i.e. specific frameworks of meaning established within nationally defined societies. Thus, there is some research on specific *national* climate change

discourses: a US discourse/set of meanings attached to this issue vis-à-vis an Indian discourse etc. In some instances, various national or other geographically-bounded media constructions are compared to each other as well (e.g. Carvalho, 2007; Good, 2008; Billett, 2010). Such an understanding, however, brings with it the danger of overtly homogenizing the respective national discourse settings. To speak of a specific American take on climate change, for instance, rests on the assumption of a largely homogeneous body of social constructions within the United States. In turn, it unduly downplays the degree of difference among societal actors and groups a priori.

What has been under-researched so far is the degree of eventually diverging and contentious constructions of meaning attributed to the climate change phenomenon within societies. This is all the more surprising given the generally acknowledged usefulness of further research into so-called media differentials, most notably with regard to the differences between established, mainstream (mass) media and online-based, alternative media. Interestingly, without leading to a large body of work, this research gap has already been hinted at with regard to issues of climate change (Ladle, Jepson and Whittaker, 2005; Gavin, 2009; Boykoff, 2010, p.23). Apart from the pioneering studies in comparing mainstream and alternative media coverage by Kenix (2008a, b), though, climate change reporting still tends to be analyzed as a rather homogeneous entity within the respective societies under research.

This somewhat contradicts the recent trends in Media and Communication Studies which highlight the ongoing transformation of mediascapes through new information and communication technologies. Not least the idea of a proliferation of alternative media outlets and technologies has gained some prominence in this respect, and mainly so because such media might not only have an impact on existing forms of journalistic practices and media systems but might enhance the opportunities for civic participation as well (Benkler, 2006; Shirky, 2008, 2011). Consequently, alternative media are often discussed under the perspective of whether they might be able to counter or undermine an established societal consensus on certain issues fostered by mainstream media. The focus of our article is therefore on the analysis of the potential inherent in such alternative media with regard to their abilities to spread alternative meaning constructions (thereby undermining existing forms of knowledge). Concerning climate change such a dynamic may thus lead to the production of new stocks of knowledge which in turn could be fed into societies.

While mass media can be defined relatively easily as large-scale companies geared towards large segments of a society and staffed with professionals<sup>4</sup>, the very definition of alternative media has proven fairly elusive.<sup>5</sup> The criterion which guides our analysis has been to define alternative media as being alternative to the mainstream in terms of self-asserted alternative contents.<sup>6</sup> Consequently, we base our understanding of alternative media on their self-definition as being producers of counterhegemonic contents. This very assumption is grounded in a loosely applied Gramscian notion of hegemony/counter-hegemony (c.f. Newell and Paterson 2010; Brunnengräber 2011 forthcoming<sup>7</sup>).

Such a notion refers to successfully established and society-wide generalized framings of an issue which render a set of specific social constructions generally accepted knowledge (a hegemonic perspective). This knowledge is, by large and at least temporarily, taken for granted by large segments of the respective societies. On the other hand, a counter-hegemonic movement entails a set of assumptions and ideas which undermine such a prevailing perspective by offering a contrasting take descriptions, explanations, framings of certain phenomena on these issues. With regard to the dichotomy of mainstream and alternative media employed here, then alternative media are seen as producers of contents which run counter the prevailing hegemonic notions of social phenomena (constructed and recycled via mass media before). Such a self-perception as being alternative may also go hand in hand with alternative ways of producing contents (online communication in general, citizen journalism, blogging), and indeed, most often does.

In what follows we thus concentrate in our analysis on specific media as examples of either mainstream or alternative ones within the United States and Germany. Regarding mainstream media, we relied on elite newspapers as the setters of the debates parameters in the middle ground of the respective societies. This was done mostly for pragmatic reasons, but also because there is still solid evidence that elite newspapers heavily influence the overall opinion climate on issues. This is not least true for issues such as climate change which tend to be fairly complex, abstract and to some degree invisible, however huge their impact on everybodys life world might be.

We also restricted our approach to a specific set of alternative media, namely liberal-leftist alternative media displaying a decidedly critical stance towards capitalism. This is for two reasons: On the one hand, the literature on alternative media seems to exhibit a slight bias towards alternative media on the left side of the political spectrum. Of course, one need not buy into such a biased perspective, but taken seriously, one could ask whether the assumptions about the *counter-hegemonic* potential of a liberal-leftist mediasphere might be justified in the light of empirical evidence. On the other hand, as numerous studies have shown (Shanahan, 2007; Boykoff, 2007; Boykoff, 2008, pp.14-16), it can be questioned whether it would make sense to include conservative-right-wing (fringe) media. Given the fact that they are nowadays deeply entrenched in mainstream media coverage in the US, the very dichotomy of mainstream/alternative would become blurred. In other words, the recent resurgence of the political right in the US in debates on climate changes renders the assumption of a *counter-hegemonic* right-wing take on climate change obsolete. What has to be acknowledged then is that climate skepticism and denialism have reached a degree of (media) popularity in the United States, and visibility in mainstream media as well, that it would simply make no sense to analyze such right-wing commentary as being confined to alternative media.

In focusing on what mainstream and alternative (liberal-leftist) media respectively do with regard to the issue of climate change, we hence propose to change the research perspective on issues of climate change-knowledge in three ways. Firstly, we break with the almost exclusive focus on science experts and other elite actors. Instead, we aim at analyzing more in-depth the complex dynamics of the *societal construction* and negotiation of knowledge claims. Secondly, we abandon the predominant perspective on nationally-defined media cultures of interpretation. Our interest is in the *heterogeneity* of climate change constructions within societies. Thirdly, we do not aim at uncovering journalistic bias which then leads to misrepresentations of scientific findings due to imperatives of the media actors working environment (Henderson-Sellers, 1998; Ladle, Jepson and Whittaker, 2005; Carvalho, 2007; Lewis and Boyce, 2009, p.8; Boykoff, 2009, 2010).<sup>8</sup> Nor are we preoccupied with the media-driven process by which climate change contrarians have asymmetrically gained attention recently against overwhelming scientific consensus (Shanahan, 2007; Boykoff, 2007, 2008).

While the first set of studies has gained some currency in policy circles, especially among proponents of the position of anthropogenic climate change, the ensuing normative plea towards media professionals to more thoroughly reflect upon the limitations of their job leading among other things to the uncritical acceptance of climate change skepticism in the name of balance<sup>9</sup> is not our primary concern here. As for the alleged mediatization of climate contrarianism: Although it might be interesting to compare the conditions of success for different groupings and their agendas regarding the issue of climate change, we do not see any point in arguing that these are processes which necessarily relate to counter-hegemonic media dynamics. Thus we propose to shift the debate towards a critical evaluation of the potential of alternative (as against mainstream) media to change the contours of the climate change debate and, hence, to alter climate change knowledge.

### 3 The Discursive Construction of Climate Change, Or: How to Uncover Alternative Constructions When We See Them

Our argument ultimately rests upon a conception which allows for a multiplicity of competing ideas on the reality of climate change (its roots, its impact and strategies suitable to cope with it). Such multiplicity crystallizes in specific constellations at certain places and times. It leads, hypothetically, to a variety of conflictive knowledge formations concerning climate change. As there are dynamics of privileging/marginalization of such worldviews at work, one soon comes to question the assumption of largely homogeneous national cultures of interpretation as mentioned above (one specific US take, a homogeneous Indian perspective etc.). The task is rather to unpack underlying processes of homogenization and their undermining by counter-hegemonic movements. This in turn leads to an analysis of the very processes of the discursive construction of meaning(s), which are temporarily stabilized and spread throughout societies leading to the establishment of knowledge.

Discourse is thus taken here as a process through which meaning is attached to things or phenomena and then successfully generalized. The final albeit temporary result is that a certain set of constructions gains the status of intersubjectively accepted knowledge. It then becomes, depending on its ability to withstand competing knowledge claims, naturalized as its socially constructed quality is forgotten over time. In this sense, discourses do function as knowledge regimes (Bäckstrand and Lövbrand, 2007, p.125) which temporarily define what is regarded as acceptable knowledge within a community of interpreters on certain issues. They also set the parameters for legitimately debating these phenomena. We thus agree with Boykoff, Goodman and Curtis who claim that there are in principle competing climate change discourses, albeit certainly not competing on par with each other, and that the respective meaning [of climate change] is constructed and manifested [] through contingent social and political processes involved in interpretations (2009, p. 137).

Since such a social constructivist/discursive constructivist perspective is predominantly interested in how these processes of the (re-)construction of meaning and, finally, knowledge, evolve, media come into play with a certain necessity. They are not only providing the facts and subsequent commentary. They rather establish frameworks for the perception of reality (c.f. Boykoff, 2007, p. 478). Thus, in the literal sense, the Media and Communication Studies interest in media frames equals, from a constructivist perspective, an interrogation in the rules of the media-led processes of social construction. Such frames/framings of issues and phenomena arguably organize the very discourse. Consequently, as Kenix describes it, the general understanding of issues thus coalesces from meaning-constructions by media over time (Kenix, 2008a, p.120).

In order to analyze whether there is indeed an alternative take on climate change issues pushed by alternative media, we decided to sketch out a rather strict binary opposition between a mainstream hegemonic and a liberal-leftist alternative perspective on climate change. According to such a distinction, the mainstream perspective roughly conforms to the idea that climate change is a global environmental problem that is amenable to prudent environmental policy management. Such a view is not least embodied in the design of market-based instruments (cap-and-trade, Clean Development Mechanism, carbon offsetting), and hence explains a certain preference for using such instruments (Brunnengräber 2006). Next to the preoccupation with market-based mechanisms, a lot of attention is given to technological innovations and their potential to alter patterns of behavior, consumption etc.

However, the applicability as well as the usefulness of such instruments and technological fixes as tools to mitigate the effects of climate change has been already questioned recently. Moreover, it has become gradually acknowledged that under current conditions the global South might have to bear specific burdens in adapting to global warming. This arguably has contributed to the sporadic emergence of alternative interpretations of climate change. This is true especially for niches within academia, where a stronger emphasis is put on social-ecological issues of climate justice and on the

entanglements of climate change, fossil-based energy markets and systems, growth and trade issues. The result of such thinking is to transcend the issue of climate change being simply anthropogenic in nature (and, concomitantly, to regard market-based mechanisms for the steering of behavior as the primary solution to the climate crisis).

Rather, climate change is seen from such an alternative perspective as the necessary consequence of (unjust) capitalist modes of production, mostly the reliance of capitalist economies on (as well as their structuring by) fossil energy. According to this logic, there is an inherent antagonism between ecological sustainability and market-based principles. Consequently, the yardstick for a truly alternative (in the above mentioned sense), counter-hegemonic construction of climate change would be to pose the system question. By this we mean that a counter-hegemonic account would have to focus on capitalism and to fundamentally question the alleged potential of market-based solutions which do not alter the prevailing capitalist modes of production. Such an obviously rivaling conception of climate change as being related primarily to macroeconomic dynamics inherent in capitalist production structures would lead to arguably different conclusions on how to cope with the climate crisis.<sup>10</sup>

This binary structure of two largely incommensurable constructions of climate change in turn informed our basic categories of analysis. We derived specifically tailored frames/framings of central aspects of climate change as an issue for both types of perspectives on climate change mainstream and alternative. This method bears some resemblance with the work of Bäckstrand and Lövbrand (2007) who differentiated between three macro discourses of green governmentality. ecological modernization and civic environmentalism. The first two of these categories refer to a possible manageability of climate change through monitoring, controlling and adaptational measures and, hence, claim at a fundamental level the compatibility of contemporary forms of the economy with ecological survival. Civic environmentalism, the third perspective, tends to negate such compatibility. Instead, it advocates a fundamental transformation of consumption patterns and other forms of economic activity as a necessary prerequisite for tackling climate change (Bäckstrand and Lövbrand, 2007, p.132).

For our purposes, we have developed a more nuanced coding scheme which consists of six key frames:

- 1. The Manageable (most notably, through market-based mechanisms).
- 2. The Technological Fix/ Behavior Frame: The anthropogenic impact on climate can be balanced by technological innovations (e.g. carbon sequestration, a new generation of nuclear energy use, renewable technologies) as well as adaptational measures targeting the behavior of individuals/consumers (e.g. carbon offsetting, switching to energy-efficient light bulbs).

- 3. The Compatibility Frame: The *general* compatibility between contemporary forms of socio-economic organization (neoliberal, capitalist economy) and policies to contain climate change is stated climate chance is even being presented as an opportunity for economic growth.
- 4. The Adaptation Frame: Adaptational measures *instead* of a necessary comprehensive transformation of the economy are sufficient for coping with the consequences of climate change.
- 5. The Transformation Frame: Climate change must be tackled by comprehensively revising the forms of the overall economy as well as consumption patterns this is true because capitalism is responsible for the climate crisis and their persistence in the first place.<sup>13</sup>
- 6. The Anti-adaptation Frame <sup>14</sup>: Adaptational measures only prolong the climate crisis, they will not be able to successfully contain climate change.

The underlying contention then is that the prominence of specific framings within media contributions would signal either the re-construction of an already prevailing perspective on climate change (frames 1-4), which to some degree has already been established by mainstream mass media throughout the last few years. Contributions which deviate from these framings (frames 5 and 6 as well as explicit criticisms of the frames 1-4) would, on the other hand, form an alternative, counter-hegemonic construction of climate change.

### 4 The Material Analyzed: US and German Mainstream and Alternative Media

As already stated, we have proposed to analyze media coverage in various societies under the perspective whether there are conflictive, divergent (re-)constructions of the climate change problematic within either mainstream or alternative media. As a first step we chose two countries, the United States and Germany, and selected two mainstream and alternative media outlets representative for each societal context. The design is thereby more directed towards increasing the ability to generalize than to compare two national settings (although one can hardly escape specific national traits, as will be shown in the results section).

The United States mainstream media coverage is analyzed through exploring the reporting of the New York Times and the Washington Post (as both newspapers function as national lead media, their agenda-building impact is beyond the mere circulation numbers), while as liberal-leftist alternative media the weekly The Nation and the blog platform Daily Kos have been selected. <sup>15</sup> For

Germany, the two biggest newspapers (lead media as well) Frankfurter Allgemeine Zeitung and Süddeutsche Zeitung have been chosen as mainstream media, while concerning alternative media we opted for the leftist weekly Jungle World and the online media platform de.indymedia.org. 16

For these media, as a first approach, the whole media output (all sorts of contributions: articles, commentary, blog posts etc.) from January to June 2010, which was available online, also via databases, and dealt with climate change issues has been selected for analysis. The overall pool of distinct media treatments (articles, posts etc.) of climate change issues within the media selected comprised 2240 units.

The ongoing analysis then combined techniques usually applied in quantitative designs (identification of keywords/phrases and combination of such keywords)<sup>17</sup> and rather qualitative methods of discourse analysis (what framings do occur, which arguments are put forth, which assumptions they are grounded in etc.). This led to a first assessment of the respective overall discursive construction of the problem and possible solutions within specific media treatments. As the analysis conducted up to this point did not yield an impressive amount of coverage in alternative media, a second search was conducted here, which focused on specific aspects (technologies, industrial projects, more general framings of the climate change issue), this time without a temporal limitation except for the availability of the respective material online.

The analysis at this point still in progress of the respective discursive constructions within the media selected has been focused on the concrete shape of the arguments put forth (which framings, what linkages to other issues) and, consequently, on the ensuing contours of the respective knowledge(s) on climate change. Our working hypotheses have been the following ones:

- 1. Mainstream media (in both countries) depict climate change predominantly as an *environmental* problem with almost no reference to underlying economic structures of causation.
- 2. The coverage in mainstream media (in both countries), if it refers to possible solutions to climate change, focuses on market-based instruments and by that points to a fundamental compatibility of the capitalist economy and policies countering climate change.
- 3. The coverage in alternative media (in both countries) stresses the inherent relationship between the capitalist structuring of economies and climate change.
- 4. The coverage in alternative media (in both countries) hints at a necessary transformation of the structures of economic activity in order to fight climate change.<sup>18</sup>

### 5 Preliminary Results<sup>19</sup> and Discussion

So far, our research has produced a mixture of expectable and fairly surprising results. As assumed, mainstream mass media have indeed been found to cover climate change issues often as an environmental problem (environmental change, man-made or not) which can eventually be handled with the help of market-based solutions. Thus, for instance, emissions trading is a prominent theme as well as new technologies such as Carbon Capture and Storage. To a lesser extent, behavioral changes also figure prominently in the mainstream coverage, especially the use of new light bulbs and payment schemes for carbon-intensive action (carbon offsetting). This in no way implies that these issues are covered in an uncontroversial manner or that debates within the respective societies are absent in the mainstream coverage. But, and this is a qualitative difference to the counterhegemonic form of criticism sketched above: Such instruments and technologies are almost never questioned in a fundamental way. Put differently, one hardly comes across the question whether it makes sense at all to resort to them without changing the overall framework of capitalist economies. Instead, it is mostly debated how to improve such schemes/technologies, how to make them functioning better and more efficient or, as in the case of CCS, more secure (and by that, enhance their legitimacy in the eyes of the people). What is questioned then, if at all, is rather their applicability at this moment in particular places, not their use in principle. The New York Times, for instance, notes:

As a climate change prevention strategy, carbon capture and storage is nowhere near ready for prime time [] Yet a breakthrough in chemistry may be able to radically reduce the cost of stripping carbon from power plant emissions, potentially making carbon capture and storage a far more realistic climate change solution. That is the hope, at least, of researchers studying a remarkable class of materials [] (Rudolf 2010).

One marked difference—despite all efforts not to fall back into the national interpretations-trap between the US and the German mainstream coverage, however, caught our attention. Within American media the issues of climate skepticism versus the scientific consensus and debates on the scientific integrity of climate science have been far more prevalent than depictions of any problem-solution-chains. In this sense, the coverage of scientific knowledge production in this area has to some degree overshadowed the coverage of climate change phenomena themselves in the US mainstream media. This is not surprising given the temporal coincidence of the so-called *climategate*-affair and the timeframe of our analysis. What is noticeable, however, in comparing the coverage of US elite newspapers and their German counterparts, is that the coverage of climate science (as sort of a metacoverage of the problem itself) and climate change got far more blurred in the US context. In Germany, both issues drew attention, but were subject to separate coverage. Hence, regarding

the US coverage our results so far confirm the assessment of recent studies which have depicted a media-driven dynamic in climate change discourse from convergence [on the above mentioned notion of climate change] to contention [on a more general level] (Boykoff, 2007).

Within the coverage of the alternative media analyzed up to this point, links between forms of economic activity and climate change/climate deterioration seem to be indeed more prevalent. However, the arguments put forth, the issues covered and the framings employed have proven far more muted than expected. In other words, any fundamental questioning of the capitalist system on the grounds of the analysis of the climate change topic is conspicuously absent. Media treatments which drew a line between economic activities and climate change were more often preoccupied with rather specific industrial projects or technologies, such as CCS-technology in the German context. Archetypal contributions are the following postings from the users Hanno and E.ON abmelden! (sign-off E.ON<sup>20</sup>) on the online platform *Indymedia*:

Coal power plants are expected to become cleaner this is at least what energy companies promise [] Even if the CCS technology works someday, this does not make a good case for the new development of coal power plants today [] the more urgent question is how secure the planned deposits can be [] (Hanno, 2009; our translation);

CCS technology to date mostly exists on paper there are no studies so far on possible risks, for instance the sudden leakage of huge amounts of carbon dioxide or changes in the ground (E.ON abmelden, 2009; o.t.).

Quite similar takes can be found within US alternative media, as for instance in an article on the political importance of climate change in the run-up to a meeting of the G-20 taken from *The Nation*:

Yesterday about two dozen protesters picketed coal industry executives [and] shouted Clean coal is a lie and Sequester greed an allusion to carbon capture and sequestration [] protester Lisa Fithian held out two large, dark clumps of wet coal, seemingly offering them to the well-dressed spokesperson. The coal is already down [in the ground]; why would we take it out of the ground and then put it back? the protester asked (Eshelman, 2009).

More general considerations regarding the eventual linkage of capitalism and climate crisis could be detected, much to our surprise, only sporadically, if at all. They are absent in the regular coverage of alternative media and only pop up as postings in online bulletin boards. Here, some individual content producers have published their thoughts concerning the necessity and the opportunities for a radical climate movement (Digger, 2010) or the capitalist climate crisis (Konicz, 2010). But such

traces of genuinely alternative thinking hardly render the talk of a counter-hegemonic movement in the making plausible. They are clearly the exception from the rule (of a certain silence on climate change matters as embodiment of a capitalist crisis in alternative media). The most profound contribution of alternative media to the societal construction of climate change thus seems to lie in the delivery of some critical commentary on certain projects/technologies and specific strategies of adaptation, not the comprehensive questioning of the hegemonic notion of climate change and the proposed solutions.

Judged from this angle, the interesting question then is why such genuinely alternative constructions of climate change as a necessary consequence of contemporary capitalist forms of economy are not a staple even within self-assertedly alternative media. This seems even more astonishing given the fact that capitalism as a term (as well as a phenomenon open to debate) has made an impressive comeback in the wider public within the last few years, not least in the wake of the global financial and economic crisis. Even within the US context, certainly at no point in time the hotbed of anti-capitalism neither semantically nor substantially, criticisms of capitalism as a mode of socioeconomic organization have become relatively popular recently. This, in turn, is especially true for liberal-leftist alternative media as can be shown with regard to The Nation. The online archive of this US weekly lists between 500 and 700 entries for capitalism annually throughout the last three years, a remarkable increase of the popularity of the sole usage of the term as against the 1990s when it was mentioned only in about 20 articles per year! What is more, some recent in-depth articles give a nuanced and differentiated assessment of societal consequences of capitalism (e.g. Clover, 2010). Such problematization, however, does not occur with regard to climate change issues.

Against the background of global and multiple crises, the discursive framing of other issues has thus taken a partially different shape: financial market imbalances and turbulences, their very effects, energy scarcity, the food crisis as well as singular ecologic disasters such as the oil spill at the US Gulf region in 2010 have helped putting the system question more center stage (e.g. Daily Kos 2010). Climate change as a topic, however, does not figure prominently in the allegedly alternative accounts published within alternative media. Counter-hegemonic forms of knowledge on global warming and climate deterioration do not seem to be in the making, at least not in the alternative media within the societies analyzed so far. Consequently, more programmatic accounts remain sidelined in academic journals at the margins (e.g. Sweezy 2004). The power potentials of alternative media have thus obviously not been activated yet with regard to matters of climate change.

#### Notes

<sup>1</sup>Earlier versions of this paper have been presented at the 2nd International Conference Power & Knowledge, Tampere (Finland), 6 September 2010, and the Congress for Critical Science Momentum 10, Hallstatt (Austria), 22 October 2010. We thank all commentators and the anonymous reviewer for their valuable comments and helpful suggestions. For related accounts which are not grounded in the concept of epistemic communities, but nevertheless assign science experts a privileged role, see e.g. Demeritt (2006) and Jasanoff (2010).

<sup>2</sup>Most studies which take a constructivist stance on climate change so far have put their focus on what can be dubbed elite constructions (scientists, policymakers, prominent political activists) of climate change. See Bäckstrand and Lövbrand (2007); Grundmann (2007). A more inclusive concept is that of opinion leaders (detached from being necessarily experts or politicians), see Nisbet and Kotcher (2009)

<sup>3</sup>See also the recent special issue of the International Communication Gazette (Vol. 73, No.1-2, 2011) on Communicating the Environment, especially the contribution by Hansen. Hansen explicitly states that different media formats might pose an interesting avenue of research for they allow different possibilities in terms of what can be communicated about the issues in question at all (2011, p.16).

<sup>4</sup>See Bailey, Cammaerts and Carpentier (2008, p.18).

<sup>5</sup>Overviews of the debate are given in: Atton (2004); Waltz (2005); Bailey, Cammaerts and Carpentier (2008); Atkinson (2010, pp.13-20); Fuchs (2010).

<sup>6</sup>This follows the spirit of Fuchs (2010), however with a focus on the dimension of discursively produced meanings. This leads to a specific perspective on alternative media as producers of alternative meanings first, rather than sites of coordinating and mobilizing protest/activism, their functioning as watchdogs or their eventual goal of community-building. See on the latter aspects e.g. Waltz (2005).

<sup>7</sup>Brunnengräber uses the term "metagovernance" which is however pretty close to the notion "hegemony" as applied throughout this text.

<sup>8</sup>The factors unearthed in these studies are, among others: a preference by most mass media for negative/catastrophic coverage in order to garner attention, a lack of resources to appropriately cover the complex issues of climate science, and corporate influence in the form of advertising or the funding of expertise.

<sup>9</sup>See on that the remarks by the EU Commissioner for Climate Action Hedegaard who advised the journalists that media could help a lot by simply communicating the facts [] take care that when you have one or two errors in a huge report [] not to communicate the message as if one or two errors would change the whole finding (cited in Tarr, 2010).

<sup>10</sup>This obviously conforms to a rather radical notion of an "alternative perspective". However, it allows for delineating a truly alternative construction from a hegemonic/mainstream one. What is more, such a genuine alternative take would enable actors from civil society to lessen the degree of "hegemonic entanglement" (Methmann, 2010, 2011 forthcoming).

<sup>11</sup>This is different from Kenix (2008a) approach as she mainly employs content-related structural categories (varying degrees of sensationalism etc.).

<sup>12</sup>For similar notions (albeit in a stricter Foucauldian reading) such as eco-governmentality or green governmentality itself, see Goldmann (2001) and Rutherford (2007).

<sup>13</sup>See on that e.g. Boykoff, Goodman and Curtis (2009, pp.138-141; Lewis and Boyce (2009, p.5). Lewis/Boyce label this the "tradition of a consumer capitalism powered by fossil fuels".

<sup>14</sup>This challenge aims at establishing a counter public sphere, see on that Fuchs (2010, p.183).

 $^{15}$ The Nation has a paid circulation of about 180.000 (only print). The blog platform Daily Kos has up to 20 million visits per month.

<sup>16</sup>Jungle World has a paid circulation of about 12.000, while it is notoriously difficult to assess the visits of the German Indymedia website. Indymedia itself gives a figure of approx. 10.000 daily users which increases up to 100.000 daily visits at specific points.

<sup>17</sup>Such filtering proved necessary, not least since a large number of hits produced no content related to climate change issues or treatments of this issue.

<sup>18</sup>As a logical next step in case one can detect a genuinely alternative construction of the climate change issue within liberal-leftist alternative media one could ask what the chances of such counter-hegemonic coverage to seep into the mainstream are. It could be analyzed whether there is an eventually growing tendency within mainstream media to refer to such alternative arguments, alternative media coverage itself or more radical (i.e. alternative) experts which regularly express their opinions there. All such dynamics might be indicators of an emerging intermedia agenda-building process, see on the idea: Song (2007).

<sup>19</sup>The analysis has not been completed at this stage. We thus present some early findings which are nevertheless judged on the basis of our research so far fairly indicative of the general trends. However, a note of caution in the face of such tentative evidence is certainly warranted.

<sup>20</sup>E.ON is one of the biggest private energy companies worldwide with headquarters in Germany. E.ON is fairly active in testing the Carbon Capture and Storage technology within the context of established mainstream climate protection policies.

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