identified the greenhouse effect in a laboratory (confirming John Fourier's 1824 discovery) Svante Arrhenius 1890s calculated that emissions from human industry could cause a global warming Guy S. Callendar 1930s <u> 1960 – 2014 timeline</u> found levels of carbon dioxide are climbing and raising global temperature Roger Revelle 1950s demonstrated that CO² levels had The Charney Report
by the National Research Council of last ice age, is "very likely," with possible severe surprises. Effective end of debate among all but a few increased due to the use of fossil fuels the cost of reducing emissions would measured CO² fluctuation in the atmosphere and annual maximum The World Climate Conference value steadily rising. produces declaration and appeal to world to NOAA established prevent man-made changes in cliamte.

Geneva 1979 call for a 20% reduction of global CO2 emissions by the year 200<mark>5. June 1988</mark> industrial nations except US and Australia - 2009 deletes section on climate change William Nierenberg's repor from a report after the Bush administration's directs EPA and State to prepare The Stern Review on the attempts to manipulate scientific consensus. effects of climate change will be negligible USA - 1983 policy options for climate change claims that climate change is **Senator James Inhofe,** Chairman of Senate "the greatest market failure the Leak of Republican strategist Frank Luntz memo: world has ever seen". UK - 2006 issues charged with the task of preventing "dangerou n the commitment period 2008 to 2012. Bush administration abandons the House on climate change during this period delivers an speech on the Senate floor where he describes climate change as a 'hoax'. climate science To Really Save the Planet, Stop Going Green World Wildlife Fund (WWF) founded Switzerland 1961 Toyota introduces Prius in Japan (1997) first massby Naomi Oreskes and Erik M. Conway UK Prime Minister Margaret Thatcher is the first major leader to call for action. limate activism a "marvelous excuse for supra-national socialism" is considered at an individual level rather than at the level where decisions are of the "green economy" where economic valuation processes are to be used to prove privatisation + deregulation trends
supporting the contrarian agenda made regarding regulation for polluting industry, i.e. government policy. "media portrayals of uncertainty have potential to distract as well a — impede substantive efforts to reduce GHG emissions as the reduction of 'balance', i.e. the false balance of science vs. opinion / ideology, conforming to the journalistic norm of 'balance' and conflict. Boykoff 2011 consolidation of media of uncertainty has long been framed as a prerequisite for political and policy progress" (Boykoff, 2011, pg.64). increasing corporate power Warming Swindle
Channel 4 (UK) documentary Exxon and other fossil fuel interests fund groups to challenge the science disinformation campaign created by The Competitive Enterprise Institute by Michael Crichton. A novel al industry funded Information Council on the Environment (ICE) launchs a \$500,000 campaign aiming to "reposition global warming as theory (not fac behind climate change. One of thes groups, the Global Climate Science Team that argues that global warming is a scam created by environmentalists anti-regulation industry lobbying ctory will be achieved when...average citizens 'understand' (recognize) Bjorn Lomborg - 2001. A book which claims that video produced by Western Fuels argues that more carbon dioxide will be uncertainties in climate science; recognition of uncertainties becomes part of responding to climate change is not supported contestion of scientific consensus beneficial to humanity. The video is popular with politicians in Washington. 1991 the "conventional wisdom...". by adequate scientific data. George C. Marshall Institute stroturfing + deceptive disinformation as the Oregon Petition organized in 1989 and again in 2007 founded by Nierenberg, Seitz and Jastrow (1984) SEPP project opposing the global warming - 1995 Media Monitoring: World Newspaper Coverage **The Climate Timeline** explores the history of climate How to read this poster Discourse Colour Coding Peak coverage in 2009 of Climate Change or Global Warming This timeline contextualizes events within these impacts will become increasingly discourses in order to explore tensions 5) Climate contrarians have ideological communication. The work illustrates the temporal growth of Events are situated within five discursive streams and colour 5 times larger than 2000 1960 1970 1980 1990 2000 2010 various climate discourses by mapping historical processes and coded accordingly. To compare media coverage with events, ipcc IPCC report five discourses. Discourses are shared ways expensive, difficult and even impossible to between this discourse and the neoliberal motives behind their critiques of various A research group led by Max Boykoff monitors fifty sources across twenty-five countries in seven different regions around the world. understanding the world and framing mitigate if action is not taken to dramatically discourse (as described in the "Theorizing dimensions of climate science and the policies") events that have lead to different ways of communicating and follow graph at the bottom right to events directly above. The COP conference* neoliberalism problems. They provide the basic terms for reduce greenhouse gas emissions.

Discursive Confusion" section of the *Poster* directed at lowering emissions. Typically We record the number of times the terms 'climate change' or understanding climate change. Events are color-coded according legends display icons and colours used in the timelines. This poster is the first of a series created for the ecological moderniza other conference* analysis, and also define what is understood to the communicative function they serve within five discourses: contrarians challenge what they see as a false 'global warming' have been used in these sources and publish the **Mapping Climate Communication** project by: climate contrarian (red), neoliberalism (dark blue), ecological This timeline is the first of a series of posters in the **Mapping** as common sense and legitimate knowledge. 2) Climate justice movements see climate consensus in climate science. This discourse is results monthly online. Prior to 2004 a much smaller sample of climate justice Dr. Joanna Boehnert data is available. Details are available on the project website: modernization (light blue), climate justice (green) and climate **Climate Communication** project. Information on the The discourses represent positions on change as an ethical problem wherein the 4) **Neoliberalism**: Herein environmental promoted by conservative think tanks, book / report climate change motivated by science (or not) greatest impacts are felt by those least considerations are subordinated to bloggers, media outlets, fossil fuel lobbyists, science itself (grey/black). The timeline also displays how events methodology, theory and references for this work are available http://sciencepolicy.colorado.edu/icecaps/research/media_coverage/index.html CIRES Visiting Research Fellow and ideology. Mapping discursive positions responsible for greenhouse gas emissions. macroeconomic policy "imperatives". public relations personnel and some politihave influenced media coverage from the year 2000. The media in the *Poster Summary Report* published online 15 October Center for Science and Technology Policy Research newspaper / magazine monitoring graph displays media peaks and dips which correspond 2014. This project was completed by Dr. Joanna Boehnert during is a means of exploring different assump- Advocates demand radical changes to reduce Neoliberalism is an ideology that is charac- cians, often with financial support from the Cooperative Institute for Research in Environmental Sciences movie / TV show / video tions and perspectives behind various ways emissions while also addressing issues of terized by privatization, deregulation, fossil fuel industry. The radical position, to the events in the timeline directly above. This poster provides an a visiting fellowship at the Center for Science and Technology University of Colorado Boulder of communicating climate change. The five social justice and equity. The radical position financialization and austerity. Neoliberal promoted by fossil fuel interests and supportoverview of the major events in climate communication history as Policy Research at the Cooperative Institute for Research in advertising campaign Joanna.Boehnert@colorado.edu well as the forces that obscure and denigrate climate science and Environmental Sciences at the University of Colorado Boulder. discourses are described briefly below and in holds that capitalism can never deliver governance simultaneously rolls-back ing think tanks, seeks to continue unrestrained movement jjboehnert@gmail.com climate policy. Mapping a wide variety of activities and events the The views presented in this work and any mistakes are the more detail in the *Poster Summary Report*. sustainable levels of emission, since this responsibilities of the state and rolls-out use of the Earth's fossil fuel reserves regard-Posters can be downloaded with the *Poster Summary Repor* economic model will always prioritize the market conforming regulatory incursions less of the consequences to the climate. work serves to clarify the relationship between science, media, author's alone. meteorological event Available 15 October 2014 on this website: 1) Climate science: This discourse needs of the market over those of the natural (Peck, 2010). In practice, neoliberalism seeks policy, civil society and the ideological factors that influence the milestone http://ecolabsblog.wordpress.com emerges from physics, chemistry, atmos- world. New ways of organizing social rela- to mask these dynamics by presenting itself The contarian movement is not the only ways in which climate change is communicated. act / mandate / protocol pheric sciences and the earth sciences. The discourse stalling action on climate change. 97% consensus within science (Cook *et al.*, created to respond to climate change. avoiding action to reduce net greenhouse Neoliberal modes of governance and ideolotrend or strategy 2013; Anderegg *et al.* 2000) is that warming gas emissions. Despite the green rhetoric gies have profound impact on both climate declaration of the atmosphere and ocean system is

3) Ecological modernization holds that there is a symbiosis between this and the policy and public understand of climate unequivocal, associated impacts are occur- climate change can be addressed within the contrarian discourse, since the lack of change. Theorizing the impact of neoliberalism key statement or speech ring at rates unprecedented in the historical current capitalist system and that low emis- regulation enables corporate power grabs on climate policy and communication is key record and that these changes are predomi-sions and economic benefits can be achieved and weakens capacities in the public sphere to understanding of why emissions connately due to human influence. Climate with market mechanisms, clean energy and to regulate and monitor polluting industrial tinue to rise despite the significant work change presents severe risks to civilization other innovative solutions to climate change. activities. by the climate science community and the COP: Conference of the Parties, yearly United Nations conference and to the non-human natural world and

This category subsumes a variety of green * including H1, H2, etc.: Heartland Institute's contrarian conference environmental movement over four decades.