Moving beyond the digitalised and natively digital divide?

Mapping climate policy debates in multiple spaces

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Introduction

*"The past few decades have seen an explosion in "born digital" data – including from social media services and online platforms, smart phones, digital devices and the web. These sources of data open up new avenues for the study for social and political phenomena (Savage & Burrows, 2007; Lazer et al., 2009). This panel will **examine the <u>potential implications of a shift from "digitized" to "born digital" data and methods</u>** (Rogers, 2014). This methodological shift from a focus on polls, surveys and interviews to repurposing digital traces and big data is accompanied by a corresponding shift in ways of studying and thinking about of social life. Drawing on research in digital sociology, media studies, communication studies and Science and Technology Studies, this panel will look at how "born digital" data is and can be used in the context of public policy".*

Addressing the panel topic by reflecting on the "digitalised" and "natively digital" distinction in digital studies through two examples of engagements between digital research, including "Digital Methods" approaches, and policy research

Thereby, thinking the distinction not in terms of a "shift", but rather in terms of choices of specific proxies that are more or less suited to produce distant readings of dynamics taking place in specific places, some online, some offline, in the same world.

Situating "Digital Methods" within digital studies in SHS

What are we saying when we say "digital methods" for public policy (research and analysis)?

DM are an approach within "digital studies" within the computational turn in SHS proposing a « web epistemology » to address challenges of web-based research. By contrast to the import of existing SHS methods into the web or to the use of digitalized data, DM are "fully digitally native" by engaging in a repurposing of online devices and their methods for social research: they are "interface methods" (Marres & Weltevrede 2013) which are experimental, situational and precarious.

This highlights the need to reflect on the the ways different kinds of digital data are collected and analysed in studying complex policy debate dynamics, such as those around international climate policy

DIGITAL METHODS
RICHARD ROGERS

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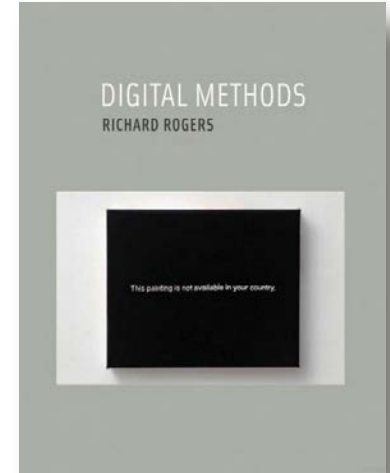
Mapping climate policy debates relying on digital data

Debates over international climate policy deploy over different spaces forming the mosaic of public space of issues, at the official COP venues and beyond, including more and more "on-line" spaces, such as those provided by social media platforms.

How can we map the different spaces of climate debate by relying on digital data? And who does the nature of that data comes at play when considering tools and methods for producing distant readings?
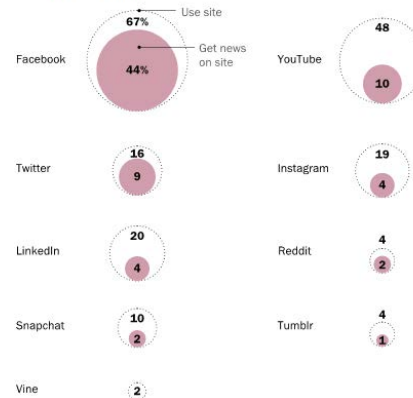
Mapping climate policy debates: finding the right data for the right space

	Project MEDEA + EMAPS at médialab SciencesPo 2011-2014	**Projet ClimatCOP, LISIS, IFRIS, & NUMI Datasprints 2014-2016**
Overarching objective	Mapping emerging debates on adaptation to climate change on different institutional spaces, including UNFCCC; develop methodology.	Mapping the spaces of "issue climatisation" at the occasion of COP21, actors involved and their strategies and orientations.
Research questions within the larger project framework	What topics have structured the negotiation at COPs and what have been their trajectories; how are these trajectories are telling about climatisation	How is COP21 thematised and different issues climatised in key social media platforms, and how those spaces affect the modes of issue climatisation
Space and timeframe of inquiry	Inside COPs, off-line, over 20 years	Outside COP's, online, namely on digital platformes, inclduingTwitter and Youtube, over 2 weeks
Corpora or data sets providing "proxy" access to those spaces	Digitalized daily issues of the Earth Negotiations Bulletin of the 'IISD scraped from the web with ad hoc scripts in Python	Social media data bought to data providers (Linkfluence) and, Twitter data extracted via its APIs with ad hoc software developed by the Digitial Methods Initiative, T-CAT
Tools	CorText for text and network analysis, GePhi, Raw for data visualisation	Radarly and TCAT for data analysis, CorText for text and network analysis; Tableau, Gephi, Raw for data visualisation

Inside the COPs

What digital data for mapping climate debates within the annual COP space ?

Data collection: finding a proxy for 20 years of COP climate negotiations
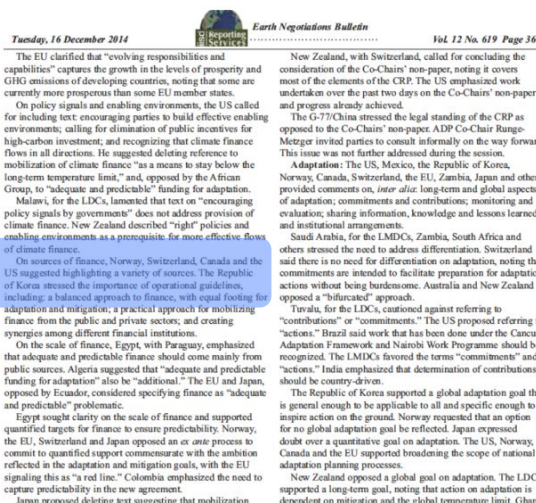
Malawi, for the LDCs, lamented that text on « encouraging policy signals by governments » does not address provision of climate finance. New Zealand described « right » policies and enabling environments as a prerequisite for more effective flows of climate finance

http://www.iisd.ca/vol12/

Data analysis : identifying topics over the ENB reporting on annual COPs
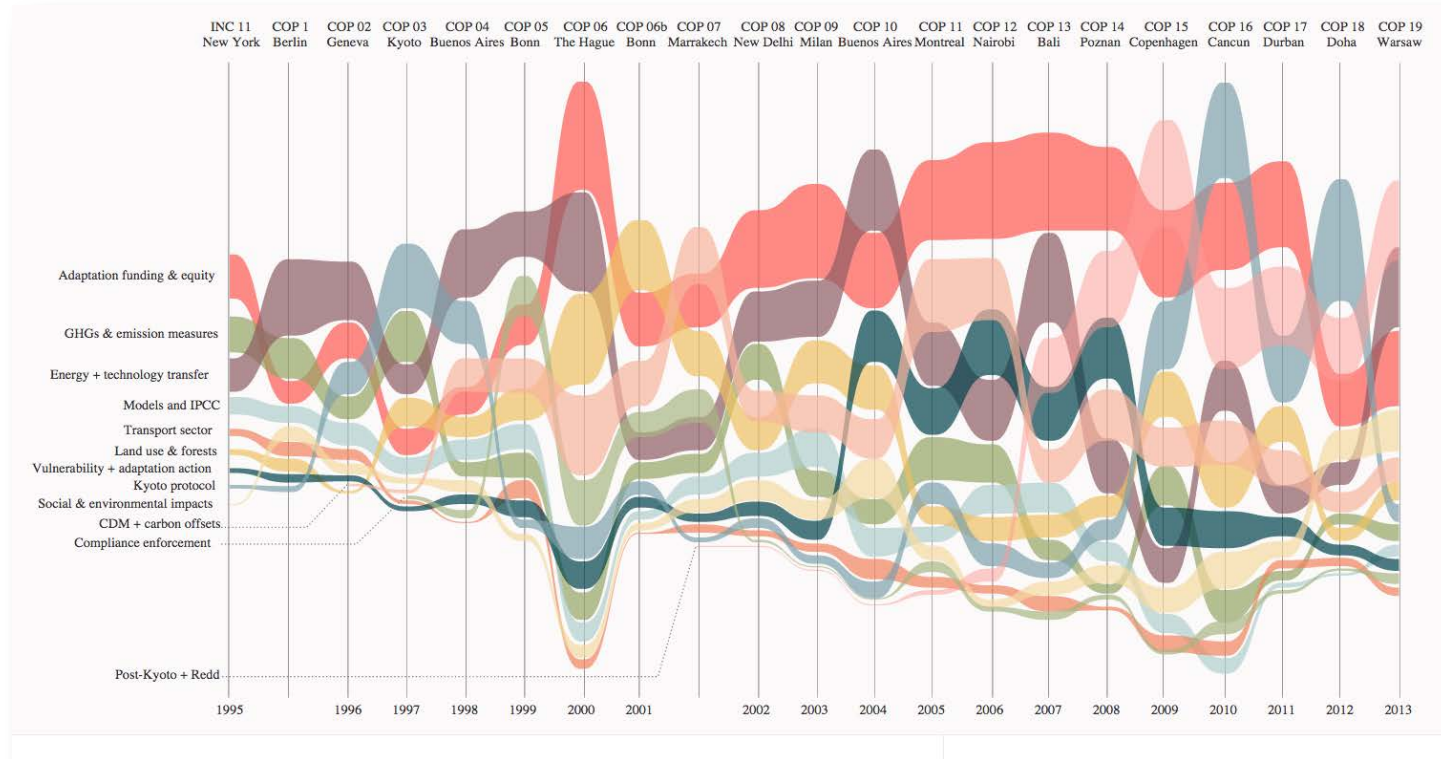
6,347 paragraphs, ca. 465.000 words

Data visualisation

The semantic network structure of debates 1995-2013
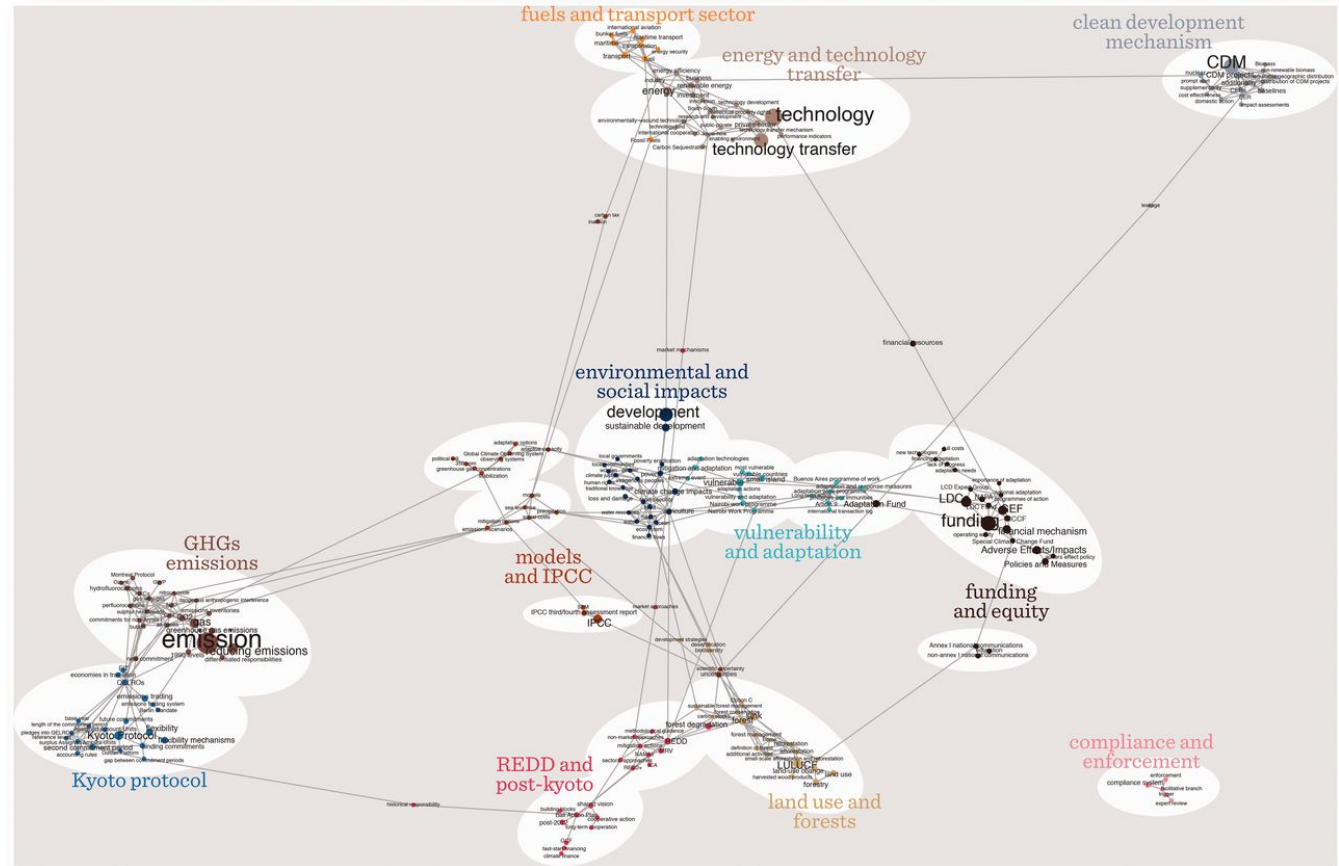
Data visualisation

The trajectories of debate topics at COPs,1995-2013
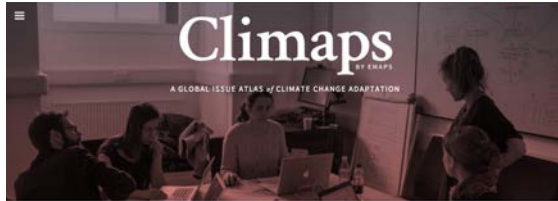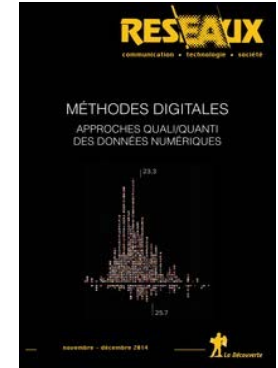

Emaps & Medea projects

Two articles and three websites

Venturini, Tommaso, Nicolas Baya-Laffite, Jean-Philippe Cointet, Ian Gray, Vinciane Zabban, and Kari De Pryck.
"Three Maps and Three Misunderstandings: A Digital Mapping of Climate Diplomacy."
Big Data & Society 1, no. 2 (2014).

Baya-Laffite, Nicolas, and Jean-Philippe Cointet.
"Cartographier la trajectoire de l'adaptation dans l'espace des négociations sur le climat: changer d'éechelle, red(u)ire la complexite."
Réseaux 188, no. 6 (2015): 159–98.

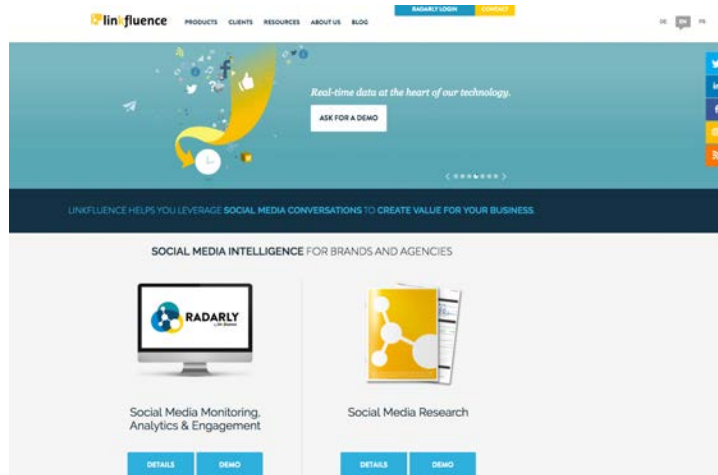

Climaps.eu

Medea.medialab.sciencespo.fr

Climatenegotiations.org

Around COP21, online

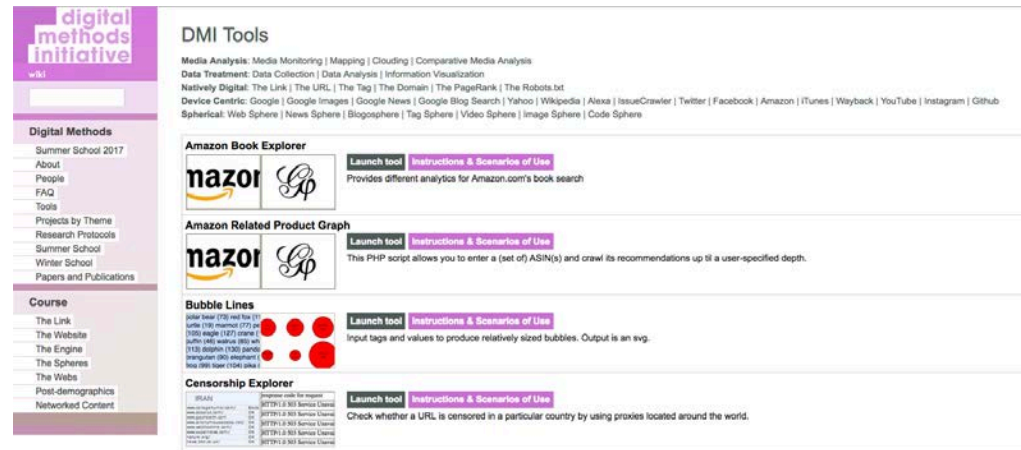What digital data for mapping online climate debates at the occasion of COP21

Data collection: the challenge of access

Data providers

Free, open software

Each presenting its own pros and cons…

Data collection: Berhard Rieder's diagram on how social media analysis with digital methods work

users communicate, interact, express, publish, etc. through "grammars of action" (forms and functions) rendered in software

makes calls to API, creates "views" by combing data into specific sets or metrics, produces outputs

output type 1: widget

provides visual or textual representation of view, e.g. an interactive chart

2

API

technical interface to the data, defined in technical, legal, and logistical terms

output type 2: file

data in standard file format, e.g. CSV

allows analyzing files in various ways, e.g. statistics, graph theory

1 social media platform e.g. Twitter, Facebook

3 extraction software e.g. DMI-TCAT, Netvizz

4 analysis software, e.g. Excel, gephi

layers of technical mediation that one might want to think about

Data collection and analysis: mapping #COP21 "climatisation dynamics" on Twitter with DMI T-CAT

Erik Borra, & Bernhard Rieder. (2014). Programmed method: developing a toolset for capturing and analyzing tweets. *Aslib Journal of Information Management*, *66*(3), 262–278. https://doi.org/10.1108/AJIM-09-2013-0094

Data visualisation: #COP21 and the hashtags race in the climatisation of issues on Twitter
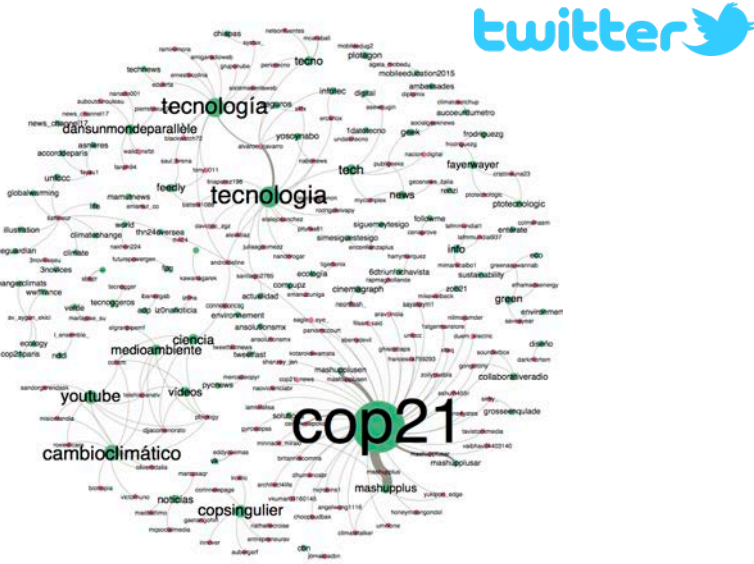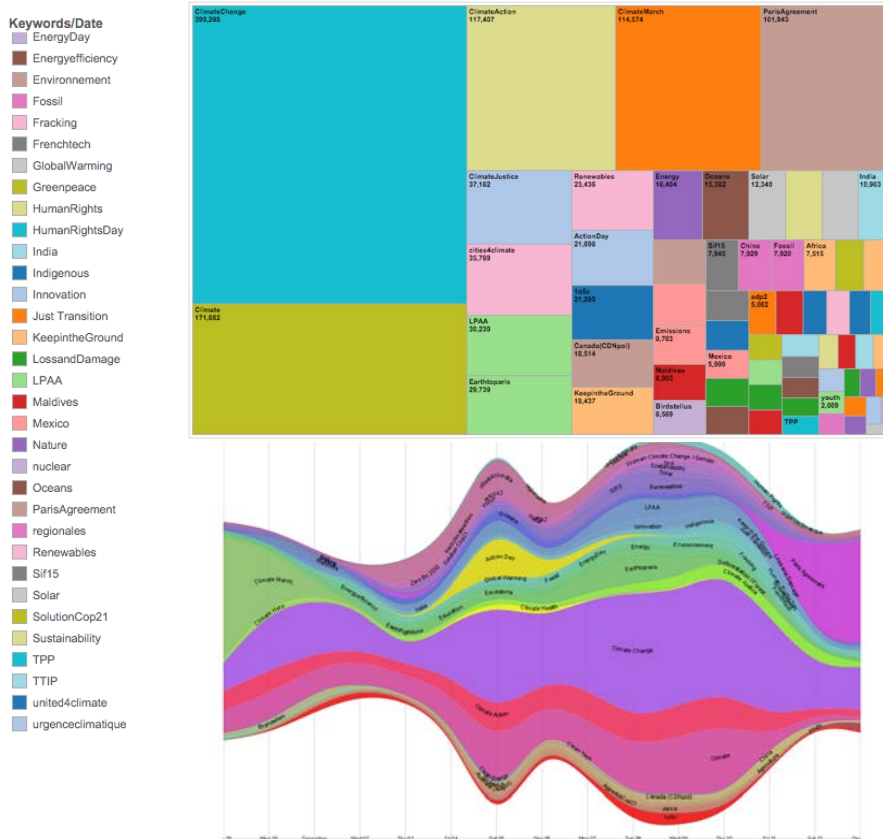
User-curated issue climatisation and the rise and fall of top daily hashtags during COP21

COP21 on Twitter: the #hashtags race in the climatisation of issues

NUMI data sprint on COP21: project Tweet on COP

COP21 on Twitter: the #hashtags race in the climatisation of issues

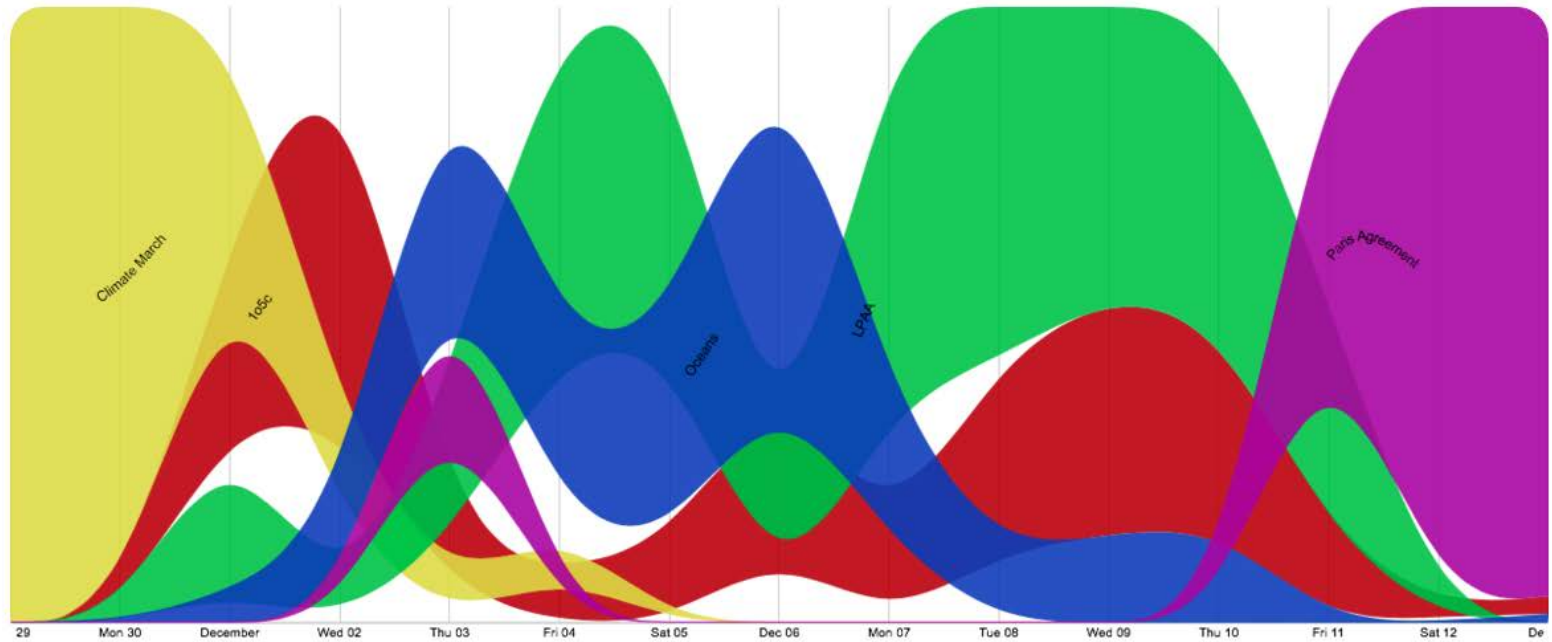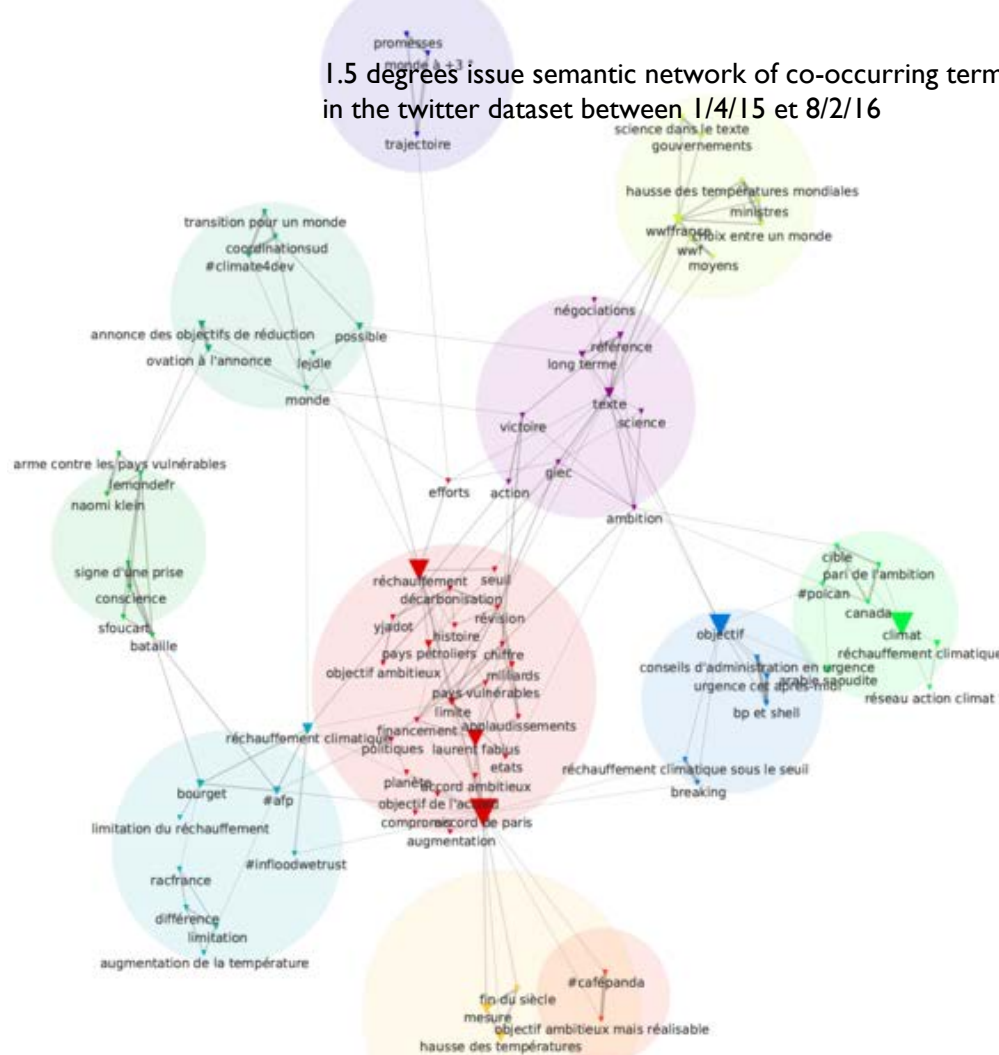|	Stem	Main form	Forms
73	just transition transparency	transparency & a just transition	transparency & a just transition
74	more talk	more talk	more talk
75	replaced-url target temperature	temperature target replaced-url	temperature target replaced-url
76	Indian researcher	Indian researchers	Indian researchers
77	acciones aumentar necesitamos	necesitamos aumentar acciones	necesitamos aumentar acciones
78	goal temperature	temperature goal	temperature goal
79	COP21 replaced-url	COP21 replaced-url	COP21 replaced-url
80	climate replaced-url target	climate targets replaced-url	climate targets replaced-url
81	cut massive support	massive cuts and support	massive cuts and support
82	COP21 protest	COP21 protest	COP21 protest
83	lograrlo par	par lograrlo	par lograrlo
84	check clamor reality	reality check on the clamor	reality check on the clamor
85	Meta pedimos una	pedimos una meta	pedimos una meta
86	change climate	climate change	climate change
87	goal replaced-url temperature	temperature goal replaced-url	temperature goal replaced-url
88	change climate fight	fight against climate change	fight against climate change
89	global rise temperature	global temperature rise	global temperature rise
90	COP21 deal	COP21 deal	COP21 deal
91	final version	final version	final version
92	target warming	warming target	warming target
93	goal success warming	warming goal a success	warming goal a success
94	climate goal replaced-url	climate goal replaced-url	climate goal replaced-url
95	emails protest	protest emails	protest emails
96	climate scientist	climate scientist	climate scientist|&|climate scientists

NUMI data sprint on COP21: project Tweet on COP

To conclude

Not a matter of shift but a matter of data proxies for specific spaces

Accounting for the process of translation: Latour's chain of reference
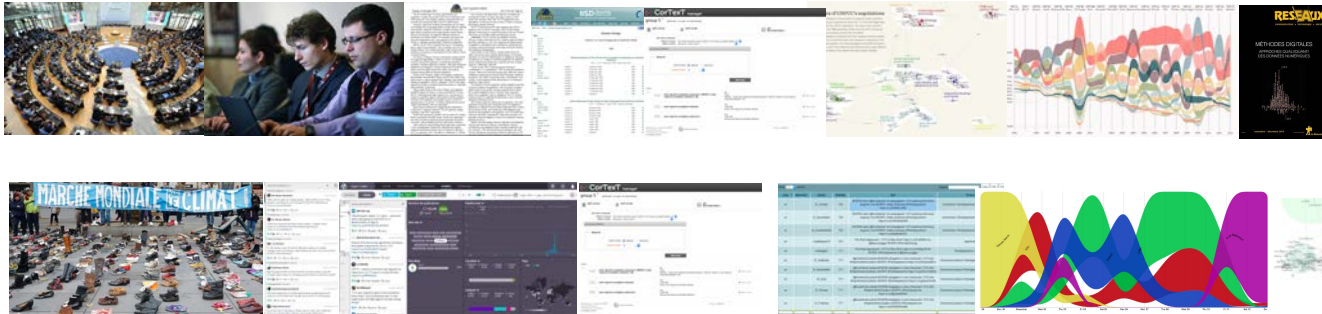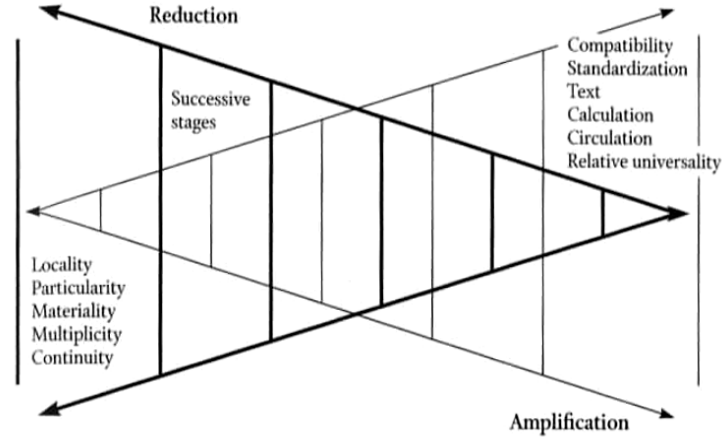
Conclusion

When mapping complex debate dynamics there are multiple sources of digital data which can be used, each presenting its own specificities which need to be accounted for. It is not a matter of shift, as one source cannot replace the other.

The first example focused on the "inside" of the negotiation and we used a collection of digitalised summaries of the ENB to map the evolution of topics over twenty-two annual conferences. The second one focused on Twitter and used Twitter data to map online interactions around the 21st COP in Paris using the #COP21 hashtag to delimit a space where public debate on climate change policy takes place

Both sources of data, digitalised ENB summaries and natively digital Tweets have their specific grammars that have to be accounted for when using them as proxies to produce distant readings in the form of visualisations of topical dynamics about climate policy taking place in specific spaces

Both online and offline spaces participate to the overall conversation taking on climate policy in the same world, but in different spaces, and to study them we need different data proxies.