



'Carbon phrases' reveal patterns in climate change communication

Phrases that combine 'carbon' with other words, such as 'carbon finance' or 'carbon footprint', can provide insight into how climate change issues are communicated. A new study explored online use of these so-called 'carbon compounds' and indicated that they form three clusters focused on finance, lifestyle and attitudes.

Communicating climate change is a complex activity in which many different stakeholders are involved. Understanding how people converse on this issue is essential to understanding how best to communicate it. Over the years there has been a proliferation in the use of 'carbon compounds' in the English language and they have become an important tool in communication.

The research used a novel approach to study the use of 'carbon compounds' in online sources, including blogs. It identified 34 compounds that were used most frequently and were also used creatively. For example, 'carbon diet' is considered creative because 'diet' is not usually associated with carbon, whereas 'carbon emission' is not considered creative. By using two online search engines it combined both a quantitative analysis of the usage of these terms from 1992 to 2008 with a qualitative analysis of the context of their uses.

The results indicated that the number of uses of all compounds has risen from 2000 onwards and peaked around the end of 2007 and the beginning of 2008. Those that combined 'carbon' with words from the world of finance, such as 'carbon budget' or 'carbon credit', appeared to be the oldest and were in use between the early 1990s and 1999. From 2003 onwards the frequency of some of these compounds increased to 1,050 occurrences per year, probably because the economics of climate change became a central issue at this time in policy making. Most were coined to conceptualise 'carbon trading' between countries and businesses.

Economic management of climate change then entered a second phase characterised more by person-centred activities. This may have contributed to emergence of compounds more focused on lifestyle that first came into use in the period 1999-2005, such as 'carbon diet', 'carbon friendly' and 'carbon addiction'. The term 'carbon footprint' is particularly prominent. It was coined in 1999 and with it came a new language centred on calculating individual and collective impacts.

From 2005 onwards compounds became more emotional and evaluative, such as 'carbon dictatorship', 'carbon crusade' and 'carbon morality'. This indicated that climate change mitigation was no longer framed in scientific observations but considered to be more about morality. These attitudinal compounds tended to be used more by blogging and news sites, whereas financial and lifestyle compounds were used across a range of domains.

Both the presence and absence of these three types of compound can reveal the nature of positions taken by various stakeholders seeking to communicate climate change. Future research could look at how different groups use carbon compounds to position themselves and others. This might allow policy makers to see where the public debate is going and gauge possible reactions to certain communications.

Source: Kotevko, N., Thelwall, M. & Nerlich, B. (2010) From Carbon Markets to Carbon Morality: Creative Compounds as Framing Devices in Online Discourses on Climate Change Mitigation. *Science Communication*. 32(1): 25-54.

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