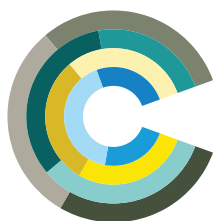




Bisphenol A, the story that won't go away



COMMETRIC



Bisphenol A in Social Media

The controversy surrounding the use of the chemical compound bisphenol A (BPA) in plastic food packaging continues unabated.

With each cycle of fresh research material, NGO interest, government response and active media attention, the debate about BPA is rekindled. It is just the sort of issue that may be discussed in social media for some time before erupting into mainstream media coverage and onto policy makers' agendas.

BPA is widely used: in plastic tin linings, baby bottles and drinks bottles, in some cosmetics and on cash register receipts. Detractors say it can leak into foodstuffs or become absorbed by the skin. As an

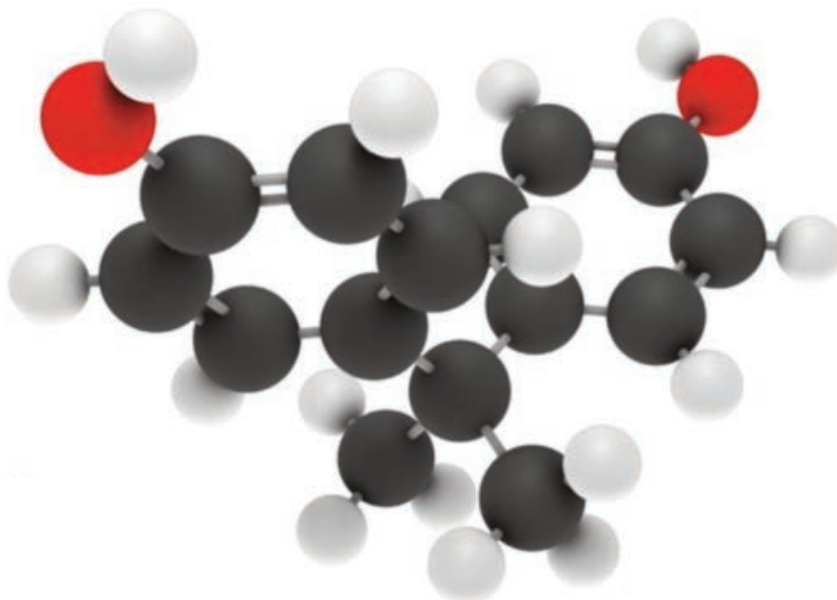
Endocrine disruptor, they claim it can interfere with the body's hormone system and it has been linked with health problems including higher risks of cancer, miscarriage, obesity and developmental problems in the young.

By contrast, most Government regulators, including the US Food and Drug Administration and industry sources, maintain that the additive can be used safely in consumer products.

But who do social media users trust?

To gauge the temperature of the current debate, Commetric monitored a year's mainstream media comment and then analysed in detail a month's tweets and blogs. We wanted to identify the most frequent commentators and any implicated organisations, look at the impact the issue is having on consumers and find out whether it is toxic for those companies associated with it.

This is what we found.





The BPA debate isn't going to go away

We looked at mainstream media over the past year to see if BPA was of increasing or declining media interest.

As the chart shows, BPA media mention volumes follow cycles across the whole year, running at a minimum of around 500 articles in mainstream media and spiking to

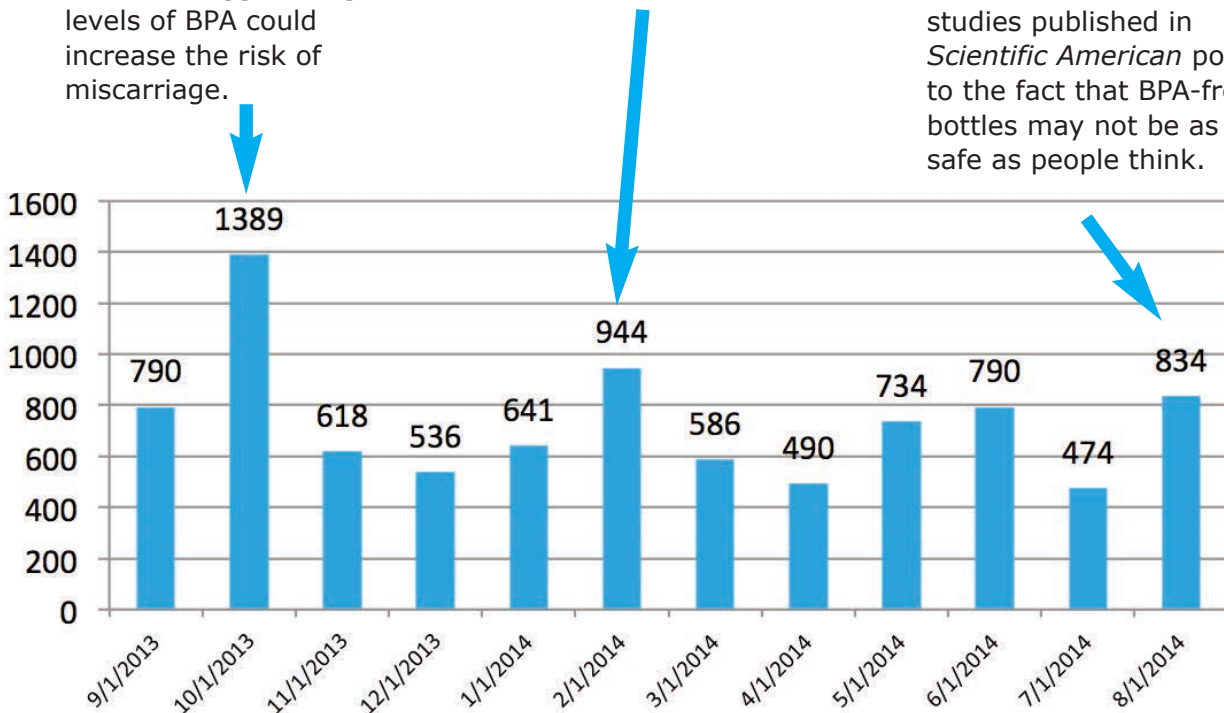
about 1400 around particular events such as the release of a study by the American Society for Reproductive Medicine in October last year.

BPA mentions in mainstream media over the past year

A study by the American Society for Reproductive Medicine suggests high levels of BPA could increase the risk of miscarriage.

Research shows that cashiers may absorb BPA when handling receipts.

An article, '9 steps for green back-to-school preparation' advises parents to use BPA-free lunch boxes while recent studies published in *Scientific American* point to the fact that BPA-free bottles may not be as safe as people think.



Source: Moreover; Sep 2013 – Aug 2014; Search terms: bisphenol A OR BPA AND packaging OR BPA AND bisphenol OR BPA AND chemical





The social media context is mainly negative

This analysis of a sample of the most influential blog and Twitter mentions in just one month, July 2014, shows the predominance of negative topics associated with BPA.

Apart from general health concerns, specific concerns include emotive topics like miscarriage, cancer and diabetes.

Negative topics associated with BPA





The US FDA is the dominant commentator... but not wholly trusted

Unsurprisingly, the US Food and Drug Administration (FDA) was by far the most referenced organisation in the BPA debate. See the next page for our Influencer Network map which illustrates this.

Mentions of BPA's harmful effects were frequently contrasted with the FDA's stated position that "BPA is safe at the current levels occurring in foods".

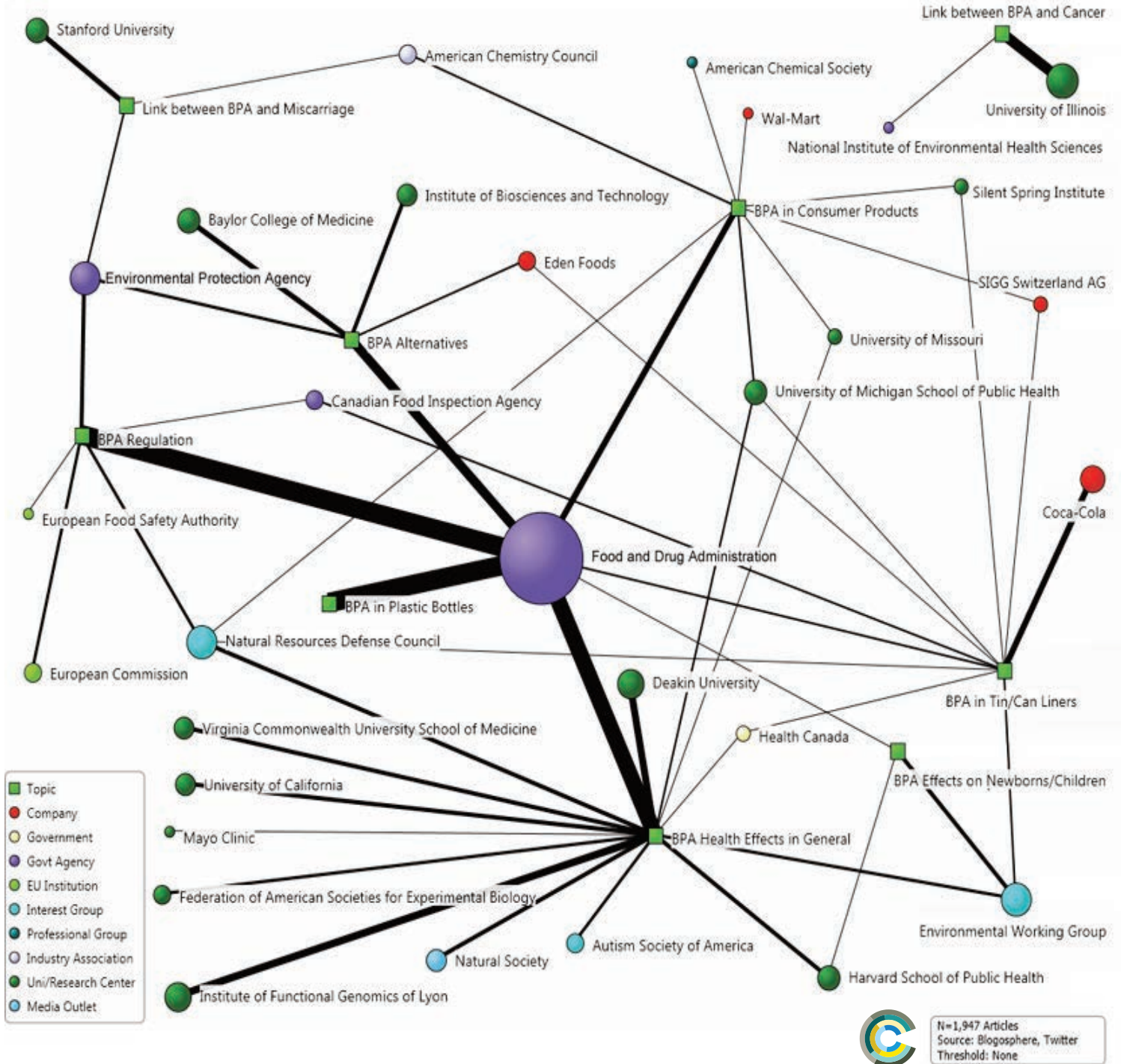
The organisation's profile was not a universally positive one. A recent FDA

study was claimed to be flawed, "Scientists Condemn New FDA Study Saying BPA Is Safe: 'It Borders on Scientific Misconduct'" (Twitter), and the integrity of its staff questioned, "Then again, with an ex-Monsanto Vice President for Public Policy currently (laughingly) sitting as our FDA Deputy Commissioner for Foods, I guess we really can't expect all that much from the agency anyway." (*'BPA Is Everywhere and It's Linked to Cancer', Healthyaeon*)





Our Influencer Network map



Note: The Influencer to Topic map links the participating influencers in the debate (represented by circles) to the topics (represented by squares) with which they were associated in the coverage. The size of a circle is representative of the overall number of mentions the influencer received, the colour shows the category it falls into. The width of lines is indicative of the number of times the influencer was associated with the topic.



Industry groups advocate for BPA

Support for BPA was often voiced by organisations with a vested interest in its use.

John Rost of the North American Metal Packaging Alliance argued that BPA in food packaging poses no health risk for consumers.

Kathryn St. John, a spokesperson for the American Chemistry Council, pointed to flaws in Stanford University research that found BPA could increase risk of miscarriage, "This study has the same flaw as other

studies that attempt to measure BPA in blood at a single point in time and statistically associate that limited data with a health effect – in this case, miscarriage,". (*BPA may increase miscarriage risk, Mother Nature Network*).

However, these industry voices appear to be doing little to influence social media opinion.





Interest groups condemn the substance and advocate for BPA-free companies

Our Influencer Network map shows us that one of the most connected groups, contributing to a number of aspects of the debate, was the Natural Resources Defense Council (NRDC). The NRDC, an umbrella voice for many environmental and consumer non-governmental organisations, claimed that “Nearly every person in America has some BPA in his or her body; And yet, this food packaging chemical may cause problems in developing fetuses, infants and children by altering behavior and increasing the risk of prostate cancer, as a government report concluded nearly two years ago.”

The NRDC saw an increase in mentions when it petitioned the US FDA for an outright ban on BPA.

There were also advocates for companies that had made the decision to avoid BPA. US organic food producer Eden Foods was highlighted as a brand that has become BPA-free and introduced a plant-based BPA replacement.

“Limit canned food and instead opt for fresh or frozen. (Eden Foods is one brand that went BPA-free and disclosed its plant-based BPA replacement; some companies have eliminated the BPA but are using a toxic alternative.)”

(6 Unexpected Heart Attack Triggers, Just a thought...)





Companies and brands can become collateral damage

Companies can find themselves in the spotlight following any association with BPA.

Mentions of Coca-Cola in this context peaked after its shareholders voted 3-to-1 to continue to use BPA in Coke packaging. The mentions were factual but the volumes show the interest in the subject when a big brand makes a statement about its use, one way or another.

This can be used to positive effect. Wal-mart received a number of recommendations following its decision to stop carrying baby bottles made with the so-called "**dangerous chemical bisphenol A.**" Similarly, Swiss manufacturer SIGG was praised when it announced its development of BPA-free products (*'Weekend: 10 Companies That Are Actually Listening to Customers About Controversial Ingredients', Triple Pundit: People, Planet, Profit*).





Ongoing research about the health effects of BPA keeps the issue in the media spotlight

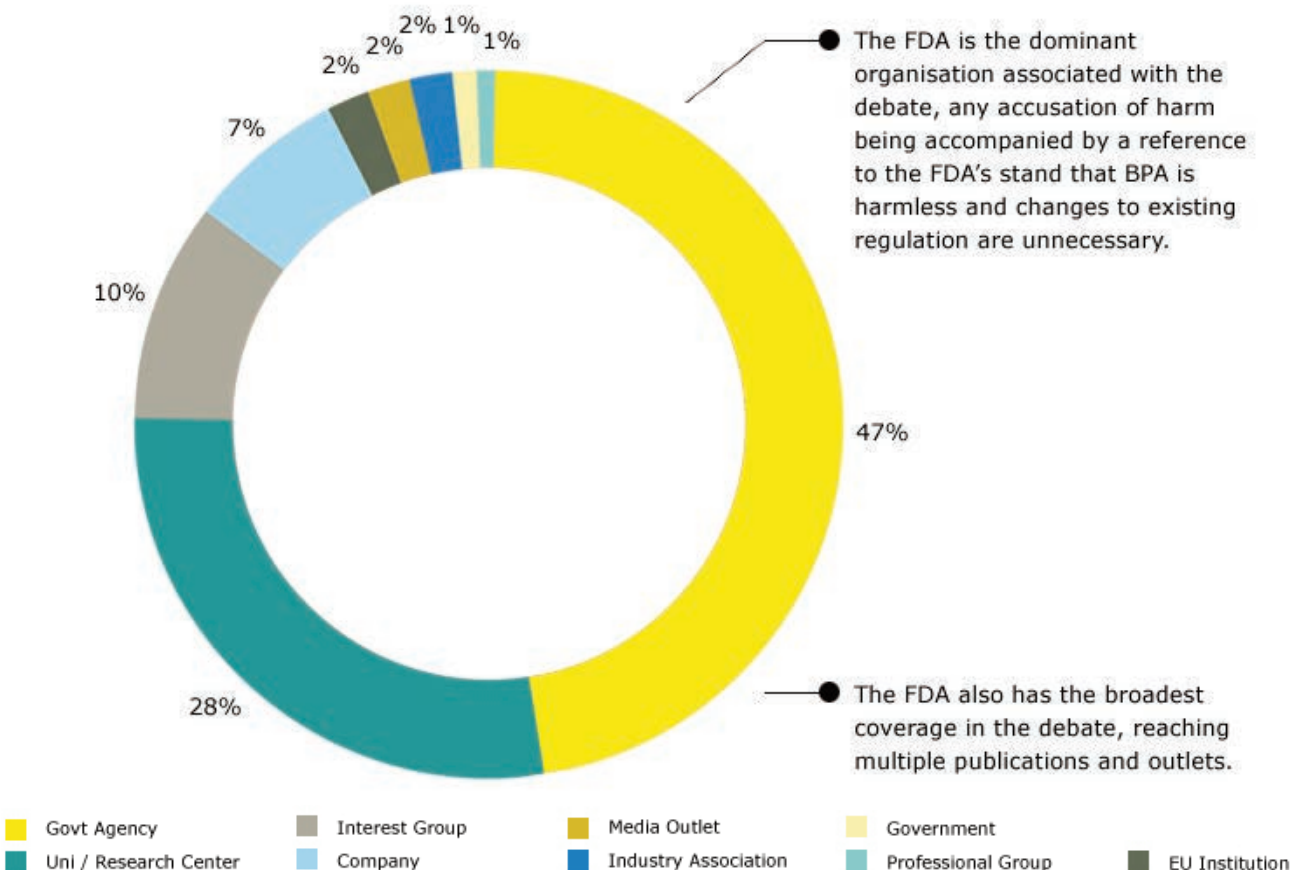
The BPA debate is sustained by the continual release of studies from universities and researchers into the potential effects of the chemical.

Three studies were published this month alone: researchers at Stanford University and the University of Illinois at Chicago found that BPA could increase the risk of prostate cancer and miscarriage, while Baylor College of Medicine claimed to have developed technology which “may help identify safe alternatives to BPA.” Interest in these research topics

was reflected in social media content, with large volumes of tweets about health concerns as well as BPA substitutes and BPA-free alternatives.

With each new release, media revisit the debate and organisations and companies are mentioned in association with the issue.

Organisation Types





A debate that is unlikely to die

Our study suggests that this is a debate that will not go away any time soon.

It also supports the view that trust in established institutions – including Government agencies and well-established brands – is vulnerable to long-running negative debates on social media, fuelled by research studies and commercial initiatives.

As with all such debates, the line between social and 'mainstream' or

edited media is easily blurred with each fuelling the other.

If they have not already done so, companies involved anywhere in the supply chain will need to think very carefully about their position and evaluate regularly how they are involved in the social media discussion.

Methodology

- This analysis is based on a sample of English-language tweets and blogs for a period of one month on the topic of BPA. We then used our award-winning, proprietary Influencer Network Analysis methodology to review the results and identify the most prominent topics and stakeholders (individual influencers and organisations) who shaped the BPA discussion.
- To achieve a suitable sample for analysis we first searched Twitter for “*BPA OR bisphenol A*”. This retrieved more than 14,000 tweets over the time period. We then used authority ranking to select those most authoritative Twitter accounts to be included. The ranking is based on metrics such as the number of followers, following, updates and retweets. Our blog sample was retrieved using a Boolean search that required articles to include the following terms in English language for a period of 1 month: *bisphenol A OR BPA AND packaging OR BPA AND bisphenol OR BPA AND chemical*. This gave us a sample of 475 blog posts.
- A combination of manual and automatic entity extraction techniques were used to identify the names of all individuals and organisations present. All individuals and organisations were then manually assigned a role based on the institution they represent or are employed by, and were coded for the respective topic they were associated with in the coverage.