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INSIGHT SERIES

DEBUNKING THE MYTHS: THE ENVIRONMENTAL CRED OF PRINT MEDIA

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The environmental credentials of printing have been in the spotlight for a while with brands and marketers as well as large corporates regularly proposing they would reduce or eliminate paper and printing from their business as a *sustainability* proposition. It is an agathokakological display by well-meaning but unwitting companies. In other words, noble thinking, but bad logic. Many contributors, largely consultants, adding to the argument, while well-meaning, have only served to confuse the issue and largely ignored the science.

THE PULP AND PAPER INDUSTRY IN ITS BEST FORM, IS CARBON NEUTRAL

The one thing that cannot be disputed is the paper industry is perhaps the only industrial sector in the world that exists in an above ground, or what is called a terrestrial carbon cycle. This means, the trees the industry uses absorbs CO2 from the earth's atmosphere. Carbon that is captured in paper planted forests has been the topic of a large body of academic study. When trees are converted into paper, the captured carbon remains intact, in other words, it hardly makes any impact at all on the earth's climate and remains an important storage tank of carbon that we don't want released. It adds little if any CO2 into the earth's atmosphere, in its best incarnation, the pulp and paper industry is total carbon neutral. The Tasmanian paper mill is in fact carbon positive, due mainly to its hydroelectric energy supply, but also to the planted forests is regenerates. Reviewing carbon emission data from environmental reports of the significant paper firms around the world reveal an extremely low level of CO2 emissions, in some cases where planted forests are supplied to paper mills, the total carbon emissions are close to, or at zero. Comparing to digital media streams with significant data storages and internet reliance in fossil fuelled energy economies, print media is the most sustainable mass communicator available to marketers wanting to reduce their footprint.

MANY PULP AND PAPER FACTORIES USE ALL RENEWABLE ENERGY

Many paper companies use the waste bark and lignin from the trees as the energy source, often producing more energy than it requires to make the pulp and paper. In Japan, energy conversion programs see the excess energy being sold back to the Japanese energy grid, something the Australian industry is reviewing in Victoria. This would use landfill waste to build heat, make paper and energy and move Victoria from coal-based energy to a renewable source.

Australia alone has two million hectares of working tree farms and this is growing. That equates to over 1,000,000 MCG's in the land area covered

Two Sides, 2019.

Our only local catalogue paper mill in Tasmania, just outside Hobart, uses 100% renewable hydroelectric power and is a carbon positive facility

Norske Skog 2020.

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IT IS ONE OF THE ONLY INDUSTRIES WHERE THE END PRODUCT IS COMPLETELY RECYCLABLE OR RE-USABLE

Paper is also entirely recyclable, or even better, reusable in many other areas of society – catalogues recycled to tissue or packaging paper for example. The amount of solid waste from pulp and paper making is hardly registered, it is so little, it is measured in kilograms for the entire year. Digital-waste on the other hand is significant and recycling rates appallingly low.

The leading paper and print media companies are actively involved in developing biofuels, nanofibre technologies, renewable energy and plastic replacement technologies. Unfortunately, many parts of society have a limited view of the pulp and paper industry and make poor decisions when assessing environmental footprint. Often marketers will record the entire production to readership of print media but only readership of digital. Not an apples for apples comparison, from paper production to magazine reading compared to digital reading and ignoring the production of hardware, software to read the online content and the ongoing energy impact of sharing, downloading, re-accessing and so on. The point here being, digital has a footprint and it's big.

MASSIVE IMPROVEMENTS IN PRINTING TECHNOLOGIES SINCE 1990

The print industry is also often targeted as an environmentally damaging industry sector – we cut print and saved trees is a common catch-cry. However, this is not accurate on any level. No tree is saved from reduced print media volumes. In fact, it is the opposite. The paper and print industries plant forests to grow paper. If there is not paper industry these planted forests would be destroyed to make place for urban development, cattle farming or agriculture. The highest contributors to deforestation across the world are agriculture and urban development. That or the paper would be used for packaging which is significant growth area of the print sector – paper straws, cereal boxes and coffee cups are now recognised as better than plastics for the environment, yet is we put it in a catalogue, magazine or newspaper it becomes bad for the environment? Science will overrule a marketer's budget strategy every day of the week.

Catalogue, brochure, magazine and newsprint production results in 20% less direct CO_2 emissions, thanks to a major investment at Australia's largest catalogue and magazine paper production in Tasmania.

Australian Forest Production Association, 2017

Paper recycling rates in Australia are amongst the highest in the world with over 87% of all paper and paperboard being recovered. This compared to e-waste recycling at 9.6% demonstrates the overwhelming credentials of the paper recycling industry over other media channels

CEPI 2018.

The most common pressures causing deforestation and severe forest degradation are agriculture, unsustainable forest management, mining, infrastructure projects and increased fire incidence and intensity

WWF, 2020.

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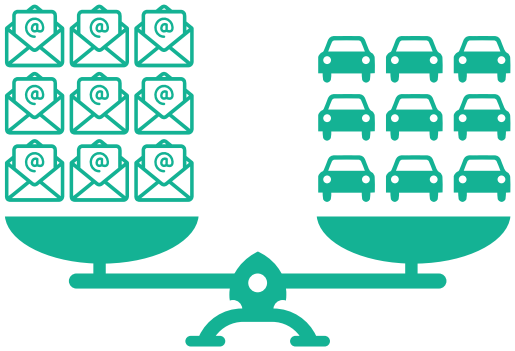
Additionally, the print industry can stand tall with its environmental credentials. It has reduced its footprint by more than 90% since 1990. That is a remarkable figure by any measure. Printing machines have reduced energy use by around 40% every ten years, and since the early 90s, the entire industry has reduced chemical use by 98%. Waste preparation materials such as film and harsh chemicals have disappeared from the industry worldwide. It is hard to imagine any other industry with such a positive environmental record as the printing industry, except perhaps pulp and paper. At this point, it is worth noting that in 1992, US President Bill Clinton said his country would reduce its national energy consumption in electricity by 10% by the end of the decade. Then the internet exploded onto the scene, and it was responsible for an increase in the consumption of electrical energy in the US by 10% by itself.

To make any claim that eliminating print from a marketing strategy is a measure to make a grand step in becoming environmentally sustainable is in terms of the James Ball book published in 2017, "Post Truth, How Bullshit conquered the world." It is fundamentally wrong for any business to make environmental claims that cannot be justified by detailed analysis. If brands did rely on peer-reviewed, fact-based research on the environmental decisions they made, it is more likely they would not be advertising online or on television screens.

The paper, print, publishing, mail and distribution sectors employ 258,000 Australians and 41,000 New Zealanders. Over 70% of the businesses operating across the sector are small businesses

TRMC Industry Insights Report, 2020.



Worldwide, total emissions generated by emails is estimated to be 300 million tonnes of CO2 a year – equivalent to the annual emissions of 63 million cars.

Two Sides Australia; Berners-Lee, M., 2010; Radicati Group, 2015; EPA, 2018

New Zealand's total planted tree farm's standing volume was estimated to be 519 MILLION cubic metres with an average forest standing age (area weighted) of 17.38 years

New Zealand Forest Report, 2018.

Annually, the Cloud consumes twice as much electricity as the entire United Kingdom.

GeSI SMARTer2020