Misconceptions and Myths of Green - Part 2

This is the second part of Verdigris’ look at some of the misconceptions and myths of going green.

Developing an environmental strategy for a printing business is really no different to developing one for any other kind of business. However the printing industry has been particularly villified by some lobbyists, with the result that many misconceptions and myths abound in the industry. We have addressed the misconceptions in part one of this article (see page 14) and here we take a look at some of the myths. It is hoped that this two-part article will help printers to better understand their options, so that they can have more meaningful and constructive conversations with their customers.

**Myth 1 - Recycling is good**

Recycling media, silver and aluminium is generally recognised as a good thing. But there are some studies that have shown that the environmental impact of paper recycling processes may not be altogether positive.

Consider, for instance, the collection of polluted waste which must then be discarded. We believe that recycling is definitely a good thing, but it must be managed effectively.

**Myth 2 - Recycling is bad**

This is, of course, a nonsense for materials that can be reused such as the aluminium in plates. The reuse of aluminium means a reduction in the amount of bauxite that must be mined and processed into aluminium. Recycling old aluminium requires only 5% of the energy required to produce new aluminium. Aluminium is one of the few infinitely recyclable materials because its quality doesn’t degrade with reuse.

When it comes to papers however, it may not be such nonsense, depending on the processes involved. Paper and its production are part of the planet’s carbon sequestration processes, so there are some who would argue that recycled papers sequester no new carbon, which makes virgin fibre a preferable choice. This is one myth that is not easy to understand or dispel, but it is certainly worth considering particularly in regions where methane is captured from landfill and reused as a fuel. In Malmö, Sweden, for example, the city’s buses run on natural gas processed from methane captured from landfill waste sites.

**Myth 3 - Print on paper is more harmful to the environment than digital media**

This is the myth most commonly touted as a reason not to use print. The argument that digital media have less impact than print is not easy to disprove, however there are a number of isolated studies that have compared the impacts of electronic and print media. There are difficulties with proving the question either way. For instance, how are emissions allocated in a media supply chain, or how long is the media kept. Books stay on the shelves for decades, quietly but effectively storing carbon and having no negative environmental impact unless they are read using artificial light. An e-book on the other hand requires a digital infrastructure to support and access it, plus upgrades to the technology required to deliver and use it.

But how do we compare production scenarios for the two alternatives? This is one of the goals for ISO 16759 (Calculating the carbon footprint of print media products)
which is currently under development. Conducting a carbon footprinting study is complex and requires a standard framework, in order to produce studies that can be reasonably compared. This framework is what ISO 16759 seeks to provide. However with comparable frameworks it should be possible to use carbon calculators compliant with ISO 16769 to compare the carbon footprint of different media across geographies and market sectors. This includes electronic and paper-based media.

Myth 4 - Paper and print destroys trees

For every tree harvested for paper in Europe, three are planted. Paper is made from a sustainable and commercially viable crop. Forests and plantations capture carbon and provide amenities that benefit wildlife and local citizens.

When it comes to environmental impact reductions in manufacturing, the pulp and paper industries have lead the rest of industry because their raw material is a harvested crop that can also be recycled. They have made tremendous improvements over the last couple of decades. Waste has been considerably reduced and recycling is commonplace. The industry has consolidated to become far more energy efficient. This has mainly been in response to market pressure however, the gains are tangible. UPM-Kymmene, for instance, has published an annual environmental report, plus individual environmental reports for each of its mills, since 2007. Details are verified by EMAS auditors. EMAS is the voluntary Environmental Management and Audit Scheme developed by the European Commission in 1995.

Myth 5 - Print is not as effective as digital media

This is the kind of generalisation that is often used to criticise print and justify low marketing and advertising spends. It is a myth because it is both true and untrue. For short or trivial messages electronic media can be far more efficient than print, because distribution and receipt of such messages are close to immediate. However for information that perhaps is more complex or difficult to absorb, print may be more efficient: the subtleties and sophistications of high resolution typography, composition, colour, special effects and beautiful finishing are not yet available to digital media. All of these characteristics contribute to efficient understanding and absorption of ideas and complex concepts. Media effectiveness depends on the medium, the message and the nature of the expected response, so effectiveness is highly subjective.

Myth 6 - It’s impossible to deink digital prints

There has been a lot of market confusion relating to the deinking of digital prints. Papers are deinked in the recycling process using a combination of detergents and water. Conventional offset inks are literally washed from the papers, and floated to the surface of a deinking tank using air, where they are skimmed off. Dry toners commonly used in xerographic digital printing are similarly easy to remove. However, not all digital inks
are so simple to get rid of. Water-based inks as used in inkjet digital printing simply melt into the washing water. Much as one red sock can stain an entire load of laundry, inkjet inks can effectively pollute an entire load of pulp. Chemists from major manufacturers have formed the Digital Printing Deinking Alliance to develop a common solution to the problem. They have found answers for pigmented inks using precipitation techniques. It is still early days, but the impossible may not be so impossible after all.

Myth 7 - Paper production wastes energy
The days are long since gone when any manufacturing process was allowed to waste energy. Since the oil shocks of the 1970s to current awareness of anthropogenic carbon’s impact on world climates, energy efficiency has been at the heart of all manufacturing processes. The paper industry, as a traditionally high energy user, has made huge progress to reduce its energy usage and so its power bills. Paper companies have also come up with highly imaginative ways to reuse heat generated through energy use. M-real in Husum, Sweden for instance heats the village school and football field with the heat generated from its pulp production processes. Initiatives such as this have extremely positive and non-wasteful social, environmental and economic benefits.

Myth 8 - Carbon dioxide is evil
Carbon dioxide is a bi-product of metabolism in humans and a raw material for plant metabolic processes. There is nothing evil about it, unless it occurs in excess when it can make you drowsy, dizzy or even render you unconscious. If it is unavailable plants cannot grow or release oxygen into the atmosphere. Carbon dioxide is a necessary compound for life on this planet so carbon management at least should be at the heart of any printing company’s business plan.

Myth 9 - Print is bad for the environment
Print has made huge progress to reduce its environmental impact and continues to do so. The printed word has driven human progress since the first characters were scratched onto a surface. The mechanisation of print production in the fifteenth century lead to a massive and unstoppable flowering of knowledge, economic growth, creative expression and social development. The process continues to this very day, alongside other media including broadcast and electronic forms.

Despots and tyrants have long since recognised the power of print to drive change. Napoleon’s observation that “Four hostile newspapers are more to be feared than a thousand bayonets” still rings true, albeit that print now sits alongside other media. It is not print but waste that is bad for the environment. It is everyone’s responsibility across industry to reduce waste materials including printed matter. We have a responsibility to care for the environment so that future generations may also enjoy it.
Misconceptions about print media’s environmental impact can discourage printers from investing in a greener future for their business, and this is extremely damaging for the industry. Perhaps even more seriously, misconceptions and myths about print’s environmental impact also influence print buyers and end users’ perceptions of print, reinforcing false opinions with ersatz facts. The printing industry must collectively counter accusations of print’s negative impact on the environment. Buyers and consumers need reassurance and to understand that of all media types print is the only truly sustainable one.

- Laurel Brunner