

The carbon tax hiding inside your drawers

By Greenbang on Tuesday, 6th July 2010

Amid all the questions about where companies can meet their carbon reduction commitments, not often would attention turn to the little round discs that are probably overflowing in your computer-desk drawer.

Despite the growing popularity of downloads for music and even films, the humble CD and DVD continue to thrive. In large part, that is because discs so effectively bridge the gap between offline and online worlds: perfect for physical distribution through traditional marketing and retail channels, with the power to carry the user to a more online, interactive experience. They also have a strong commercial appeal: newspaper publishers report a 20 per cent increase in sales whenever they give away a free DVD, and there is now an expectation that computing magazines will carry a free cover-mount disc — try grabbing that kind of attention with a download URL inserted inside the publication.

In other cases, DVDs and CDs are intensely practical. They're a physical and, therefore, very flexible method of distributing content. They offer a huge storage capacity at low cost, are small and lightweight, and have a long lifespan. Plus, almost everyone has a driver or player. In fact, almost every new consumer electronics product comes with a disc containing drivers, instruction manuals and links to websites. The alternative distribution method for these software drivers would be to maintain a site containing every single driver for every consumer electronics product a manufacturer has in the marketplace.

You might have a drawer full of discs you've only used once for your printer or webcam, but if you have to wipe your PC or you change computers, you need to be able to reinstall — that's why we keep them. Flexibility also means they can be more broadly distributed. Copyright issues aside, schools using computer-based training materials can pass a disc around multiple computers without having to install from a link on every device.

The examples of how discs are being used is hugely varied. Volvo is replacing the glossy packs it hands out in show-rooms with discs to encourage people to enjoy the online as well the offline experience. Huggies is running a mums-and-dads campaign that involves sending discs out containing promotional material. Ordnance Survey distributes OS maps on discs to those who request them (very useful to walkers planning routes on computers or taking netbooks with them on their weekend trails). Nokia will distribute 100 million discs in 2010 alone simply to ensure their customers have all the information and support they need when they purchase a new mobile device.

That is why global demand for DVDs remains at about eight billion in 2010.

The problem is that discs are not particularly environmentally-friendly. They use polycarbonate, an oil-based derivative in increasingly short global supply and they also use non-biodegradable toxic resin to bond together the two halves of the disc. Add manufacture and shipping and you've got quite a toxic mix.

We estimate that every single DVD uses 132.73 grams of CO₂ in manufacture. If you think about the Nokia example above, that is almost 13 kilotonnes of CO₂, the equivalent weight of nearly 3,000 adult African elephants in CO₂ — and that's just for the disc, never mind the consequences of manufacturing the device. Based on those calculations, the total CO₂

emissions of all the discs produced globally in 2010 is over one million tonnes, or the equivalent weight of 15 QE2 ocean-liners.

For companies that struggle to reduce the carbon emissions resulting from their core business, such as mobile handset manufacturers or newspaper publishers, that is a huge potential saving and a big step toward meeting carbon reduction commitments. For those companies that use discs for relatively peripheral activities, such as Volvo distributing brochures for new cars, adding those kind of CO2 emissions to the core business could be costly. Costly in terms of the environment for sure — publishers might get a 20 per cent increase in sales when they include a cover disc, but only a very small percentage of readers actually use and keep the disc with the rest becoming landfill — but also in terms of potential environmental taxes.

But for all the reasons I've already outlined, the disc is not going anywhere soon. This is another example of having to fix the engine while the plane is still in the air. The problem that companies faced in finding a solution was that the DVD and CD in all their simplistic genius, have become a standard ... a standard around which hundreds of millions of disc players around the world are built. Reducing the size of the disc or changing its format in any way inevitably created problems in reading the disc inside the player.

It's taken considerable research and development to solve the problem but finally the EcoDisc has come to market. EcoDisc is 100 per cent recyclable, uses 50 per cent less polycarbonate and 50 per cent less energy in production. All in all, using one EcoDisc in replacement of a standard disc saves 68.91 grams of CO2. That's around seven-and-a-half of those QE2 ocean liners' worth of CO2 taken out of circulation in one year.

So what's the cost? you ask. The new EcoDisc format is actually cheaper to manufacture and therefore cheaper to the end user. It's a win-win situation.

Of course there is some hesitation. No one likes to be the one to distribute an untested new format, and previous attempts at solving this problem had faced problems. That's why the EcoDisc had to go through considerable independent testing to prove it worked in all available players. As a result, some foresighted companies have taken up the opportunity and benefitted. Future publishing now uses the EcoDisc for every one of its magazine covermounts, and Volvo and Huggies, as well as AVG and even NASA, are all adopting EcoDisc. If we can continue this trend, we might just make our ongoing love-affair with DVDs sustainable.

Those innocuous discs building up in your drawer will never be the centre of attention when it comes to reducing carbon emissions — nor should they be. But the smallest steps sometimes yield the biggest results. With nothing to lose in making the switch and everything to gain, companies that are aware of the issues are benefitting immediately. We can't expect the general public to force the change, so it has to come from the organizations that still rely on discs so heavily.

Those that believe download will eventually fix the problem for us may well be right. But with market predictions that demand will remain at over 6 billion DVDs in 2012, how much damage are we willing to do before we make the very simple switch to EcoDisc?

Editor's note: This was a guest commentary by Ray Wheeler, sales and marketing director for Software Logistics.

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