

Our heads in a tag cloud?



Henry Liebling and Genna West discuss how advances in technology can enhance our teaching and learning about sustainability.

Over the last 30 years it seems that all human knowledge has been sucked through a microchip. We can now instantly access information which would have been almost impossible to retrieve before the so-called digital age.

But what are the pros and cons of this digital revolution? Is progress necessarily good, or beneficial for the planet as a whole? Is more really better, or should we be content with less and slow down?

The technological landscape changes very quickly, and most technologies have a limited lifetime. Each time two technologies merge, such as camera and phone, they become more than the sum of their parts and people find new ways of using them. The same effect occurs

when two or more pieces of software converge or 'mashup': just look at the current proliferation of Web 2.0 applications (web applications that facilitate interactive information sharing). The image on the next page shows the ever-evolving sphere of applications and tools that work with Twitter: just one of the many social networking sites. With the number of Apple iPhone applications now moving towards 100,000, will we, or have we already, ended up with just one little handheld box that does almost everything? And looking back at vinyl LPs, walkmans and various video technologies, which lasted only for a decade or two, how long will it be before today's current technologies are replaced?

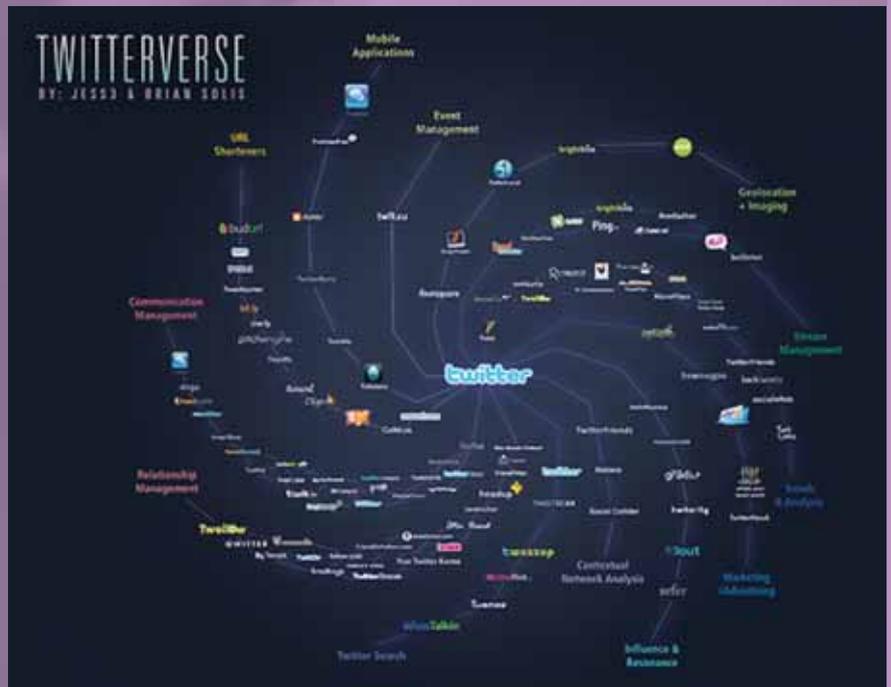
What does this mean for education for sustainability?

To some extent, advances in technology have contributed to the lack of sustainability that we face today. But this should be a motivation to ensure that we make use of current technologies to promote a more sustainable and environmentally responsible future. We can utilise advances in technology to educate about ancient wisdoms, existing sustainable lifestyles and share solutions in order to envision a sustainable future.

Dennis Meadows (2004) believes that any successful system is one that can change readily with "information [as] the key to transformation".



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Gazing into the Twitterverse¹. Developed by Jess3 and Brian Solis.

New ways of communicating and sharing information

We believe that interactivity is key to education for sustainable development. Here is how the ESCalate ESD website is trying to encourage the move from delivery to interactivity:

■ Social bookmarking

The website uses the social bookmarking website Diigo² as an interactive way to bookmark key websites. Diigo is open to everyone and allows users not only to bookmark and tag webpages, but also to highlight parts of the

webpage and attach virtual sticky notes. These annotations can either be kept private or shared within a Diigo group. We also share and comment on our bookmarks in the Diigo group 'Sustainable Education'³.

■ Tags

Tags are one or two-word descriptors that can be assigned to web bookmarks to remember key websites. They are similar to key words, but with more freedom, as tag-words can be chosen by the user. More than one tag can be used, which gives more flexibility than fixed categories or folders.

■ Tag lists

Lists of tags can be used by an individual, group or even across the whole of a social bookmarking site to help to classify and allow simple searching. There are pros and cons for both controlled tag lists using a predetermined restricted vocabulary, and free tagging which includes the tags everyone wants to use, sometimes called *folksonomy*⁴. Restricted tags can limit what you wish to classify, and free tags can leave you with thousands of tags with little overlap and much confusion. ►

¹ Jess3 and Brian Solis (2009) Gazing into the Twitterverse [online] Available: www.briansolis.com/2009/05/gazing-into-twitterverse/ [19/01/2010]

² www.diigo.com

³ <http://groups.diigo.com/group/sustainable-education>

⁴ The spontaneous cooperation of a group of people to organise information into categories.



We have opted to experiment for a period of time by gathering key words from UK education and producing our own suggested list. Diigo also has a tag editor so tags can be modified at a later date.

■ Tag rolls

The website uses tag rolls as a way to display the 10 latest Diigo bookmarks⁵ as part of the ESD website. This page automatically updates as new bookmarks are added.

■ Tag clouds

Tag clouds are visual presentations of a set of tags, in which characteristics of the text, such as colour or size, are used to represent key features like the frequency of the tag. The tag cloud arranges tags both horizontally and vertically, rather than listing them, to show more tags and minimize scrolling. The tags can be sorted either alphabetically or by frequency.

The ESCalate ESD website has imported a Diigo cloud tag⁶ (shown below) which links to key resources and interesting websites.



■ Blogging

The website has an external link to a blog created in *blogspot*⁷, which contains occasional diary entries about *Sustainability in Education*⁸. Readers are free to link into the blog and to post any comments.

■ Searching

It seems strange to think of a time when we didn't have powerful search engines such as Google and the effect this has had on how we look for answers, ideas, information, holidays, gifts etc.

The introduction of a search facility into the ESCalate main site, and the ESD site, had a huge impact, showing an almost instant and growing use of the sites. It changed the pattern of pages visited and the routes taken, by allowing more 'parallel' rather than just 'branching' access, and new pages rose up the rankings faster.

■ Google Translate

One unexpected outcome for the website has been the increasing numbers of visitors from other countries many using Google Translate, showing that language is no longer a constraint. The ESD site is now able to communicate and share information with people across the world regardless of their native language.

We are also starting to look at RSS Feeds, Twitter, and other Web 2.0 applications in order to find new and dynamic ways to educate others about sustainable development. By increasing the interactivity of the ESD site, we have attempted to move away from the traditional push of information, instead encouraging people to form their own views and engage in debates about sustainability.

Reference

Meadows, D. Meadows, D.H. and Randers, J. (2004) *Limits to growth: the 30-year update*, Chelsea Green Publishing Company.

5 <http://esd.escalate.ac.uk/newlinks>

6 <http://esd.escalate.ac.uk/favorites>

7 www.blogger.com

8 <http://sustainableeducation.blogspot.com>



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ESCalate Academic
Consultant

Henry helped introduce Agricultural Science into the Zambian Secondary Curriculum in 1970, leading science and the school farm at Mwinilunga secondary school. Returning to Lancashire in 1973 with a growing interest in self-help, community and sustainability, he also taught for 10 years in an urban primary school. Henry now works for ESCalate as an Academic Consultant in ESD.



Genna West
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Genna recently graduated from the University of Plymouth, with a first class degree in Geography and Spanish. She became interested in sustainable development whilst at university, as the study of sustainable practices formed a large part of her studies. She is working with ESCalate as part of the Graduate Business Partnership.