

# The Power of Images in Environmental Governance: The Significance of Blogs, Social Networks and Web 2.0

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“Images. They are so compelling that we cannot not watch them. They are so seductive that they have revolutionized human social communication. Oral and written communication are in decline because a new form of communication, communication by image, has emerged.”

– J. Francis Davis, *The Power of Images*

While Davis' quote on the decline of written and oral communication is unsubstantiated, the significance of his proposition prevails; the importance of images in modern society is greater than ever before, largely because of technologies which have revolutionized their means of transmission. From the invention of the printing press and the television, from billboards advertising fast food to children's story books, the human mind is constantly impressed with images in ways which only modern times have seen. And yet only in the past two decades has a fundamentally different medium for the transfer of images emerged, an avenue which is two-way in nature and in which the consumer has unprecedented control, and that medium is the Internet. The Internet changes the way images reach the masses because it levels the playing field to a great degree and allows for the individual to publish their ideas just as a major corporation or government would. It allows the common man the same platform of expression as the privileged elite; it allows for a freedom of expression which would have been unimaginable one hundred or even fifty years ago, and it is continuing to evolve at a magnificent rate.

# Introduction

The power of images to inform, educate and influence the course of future endeavors pertaining to Environmental Governance is greater than ever before. The images we as individuals and collectively as society hold in our minds' eye, and which have serious implications for belief systems, values, and human behavior in general, will be increasingly shaped by the emergence of new and established internet technologies, namely Blogs, Social Networks, and a variety of so-called “Web 2.0” services. These technologies allow for unprecedented access and freedom in realizing the power which images possess. The importance of the image, a visual cue, is both an abstract and concrete concept; “mental images ... lend themselves so easily and naturally to reification that we neither conceive of making a bed without first having some image, some “idea” of a bed before our inner eye, nor can we imagine a bed without having recourse to some visual experience of a real thing”<sup>1</sup>. Thus the path to a more sustainable world, attainable through proper governance, also requires a strong sense of vision, mental images which will allow for a smoother and natural realization of ideas.

While a call for interdisciplinary collaboration and thinking has been made since the birth of the sustainability movement, there have been many difficulties in realizing this directive; only recently have our academic institutions begun to proactively integrate an inherently interdisciplinary approach and philosophy, as they are based upon a tradition of speciality which runs counter to such principles. Only over the past few decades has mainstream corporate culture slowly adopted some mission of sustainability. This, not to mention the scientific community as a whole, fragmented and ultra-specialized, which is now realizing the inability of its tradition to address the most pressing problems our world now faces. “Scientific discovery occurs in the lab one experiment at a time, but science itself moves forward based on a series of ongoing conversations, from a Nobel Prize winner's acceptance

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1 Arendt, Hannah “The Human Condition” pp 141 University Of Chicago Press; 1998

speech to collegial chats at a pub. When these conversations flow into the mainstream, they nurture the development of an informed public who understand the value of funding basic research and making evidence-based voting decisions. It is in the interests of scientists and academic institutions alike to bring these conversations into the public sphere”. With over 40% of American internet users reading blogs, instantly accessible with real-time updates and virtually limitless creative potential, the significance of the medium in shaping public knowledge and opinion is obvious. “Furthermore, blogs can have a substantial impact on traditional academia by providing a quick forum for public peer review of research”<sup>2</sup>

Social Networks also play a major role in bridging the gaps between disciplines. For example: LinkedIn, a highly successful social network for professionals seeking to expand their business contacts and collaborate across sectors. Members build “networks of experts” in which they can give and receive advice, stay updated on industry progress and share personal thoughts and business ideas. There also exist thousands of member groups, one of which is the “Sustainability Working Group”:

“Opening doors globally to discussion about, networking around, business development in, and promoting investment into, sustainable and sustainability featured business. Membership: Entrepreneurs, Investors, Experts and Professionals in businesses that invent, promote, and commit to sustainability.”<sup>2</sup> Groups such as this usually have members from a broad range of fields and backgrounds, and the potential for collaboration through LinkedIn is unprecedented. Facebook, the most popular social network in the world, with over 200 million users, is much less a tool for professional collaboration, but is in equally interesting phenomenon when considering the power of images. It's most popular use is the “Photos” application which currently adds roughly 40 million photos per *day*.<sup>3</sup> It serves as the greatest single image database in the world and is accessible by anyone

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2 Batts, A. Shelley “Advancing Science through Conversations: Bridging the Gap between Blogs and the Academy Plos Biology September ,2008 Volume 6 Issue 9 e240

2 LinkedIn: Sustainability Working Group

3 Facebook Careers: Software Engineering Jobs

with an e-mail address. While the service continues to evolve and grow in volume, the function such a service plays within the broader context of society is difficult to calculate.

“Web 2.0” is a term which includes both social networks and blogs, but also a plethora of other services which offer new ways to organize information and interact on the Internet. It refers to the interactive aspect of the Internet which has always existed as unrealized potential and which is being developed in more recent years. There is actually much disagreement and controversy surrounding the term, but it basically refers to web services and applications which allow for social interaction and information-sharing. There are, however, certain sites that are generally agreed to have the necessary features to earn such a distinction:

“Del.icio.us almost certainly qualifies as one of the quintessential Web 2.0 sites. It is a prime example of ‘social software’. One uses it to track Web page bookmarks, with options to assign arbitrary tags to a given URL. The tagging is the first thing that makes the site special. Most conventional bookmark tools, such as are part of standard Web browsers, seem to assume that each bookmark can be neatly assigned to a single category or folder. The reality is that bookmarks, as with much of the data one deals with, may fall into any number of equally valid categories.”<sup>4</sup>.

The power of Web 2.0 to incorporate images in the field of environmental governance is being realized on a daily basis through various means; whether on one of thousands of scientific-community blogs or between friends on a social network, the internet is changing the role images play in the field of sustainability.

## Review of Literature

The relationship between mainstream media and the “Blogosphere” is assessed in Kevin Wallsten's study “Agenda Setting and the Blogosphere: An Analysis of the Relationship between Mainstream Media and Political Blogs”<sup>5</sup>. His inquiry is based on the claim that blogged news has become just as, if not more significant than news broadcast by the major TV, radio and newspaper

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4 [Validator.com. “So Two-Oh”:The Story Behing the Web 2.0 Validator.](#)

5 Wallsten, Kevin “Agenda Setting and the Blogosphere: An Analysis of the Relationship between Mainstream Media and Political Blogs” Review of Policy Research, Volume 24, Number 6 (2007) pp 567-587

outlets in influencing the political process. Wallsten compared the frequency of 35 issues surrounding the 2004 Presidential election, discussed on 235 political blogs, with the same issues as covered by the New York Times.

“Based on my samples of A-list and less popular blogs during the 2004 presidential campaign, it appears that, on the vast majority of issues, there is a complex, bidirectional relationship between mainstream media coverage and blog discussion. Furthermore, to the extent that media coverage and blog discussion exerted an influence on each other, the influence tends to occur immediately rather than after a lengthy time delay. When coupled with the fact that mainstream media coverage is an important influence on the governmental agenda, these findings suggest that political bloggers are emerging as important actors in the agenda- setting process.”

Wallsten does concede, of course, that further research is called for to determine the relationship between the traditional media and the new, individually driven blog phenomenon. The author suggests that perhaps a point of reference other than the New York Times would be appropriate. He also makes some observations about the political blogosphere in general. For example, he notes that there are more liberal-leaning blogs than conservative blogs published and that traffic is greater in the former than the latter. While Wallsten does not discuss the role of images in his study directly, the differences between the internet-based blog medium and the newspaper is of great significance. Bloggers have the ability to link entire albums depicting policy makers in whatever context they wish, while the newspaper is quite limited in comparison. Black and white images, pressure to conform and avoid controversy and space issues all limit the ability of newspapers to convey images in comparison to blogs. Not to mention blogs can integrate video, and with a single mouse click visitors can watch the most recent speeches, campaigns and other political images, reflecting a broad spectrum of viewpoints. The power of images to influence political outcomes and policymaking is well known, but the nature of their influence is drastically changing because of the Internet.

Blogs also change our ability to function as a society in another way, as they allow us to peer into cultural groups which would normally not be accessible to outsiders. This may allow for a greater understanding of the belief sets and behavior of the cultural groups' members; this is crucial in matters of environmental governance because the belief systems and values of members occupying a certain

ecosystem will usually play a role in the way governance is administered. In “A cyber-ethnographic foray into GR&T internet photo blogs”, David J. Nemeth and Rena C. Gropper engage in research which provides a post-modern perspective on how we may understand cultures. In the authors' own words:

As Romani studies scholars we seek out research applications relevant to our specific interest in culture change among Gypsies (Romanies) and Travelers in the United States (GR&T peoples). As cyber-ethnographers using a ‘data dredging’ methodology we explore Internet cyber-subcultures comprised of youthful GR&T peoples. We describe GR&T adaptive and creative uses of some interfacing new mass communications technologies; for example, photo cell phones, the Internet and personalized web logs. GR&T adolescents using these technologies construct self-ascribed identities and ascribe identities to others via their online Internet communications. They also reveal their values and material cultures.

The researchers collected information from blogs ranging in topic from Religion, Education, Materialism etc, then made ethnological observations and attempted to provide explanations for this subset of society. The duo also make observations which are relevant in a general sense for understanding the role of blogs in cultural expression:

Today anyone with access to a computer can learn to blog. Personal weblog design is available within the broad parameters of a rapidly expanding multitude of audio and visual options. Commercial websites for amateur photo bloggers offer many options along with free set-ups and trial terms. At present some blog sites receive over a million hits (visits) a day! The blogosphere is indeed a busy place...”

To observe the on-line behavior of a part of society and come to conclusions about the groups' beliefs and values is something which could be integrated into future methodologies across disciplines. Such studies may help us to better understand ideological differences, where our education systems are going wrong, why groups within a culture emerge and how they relate to the world around them.

Students make up a distinct group of society which is feeling the impact of Web 2.0. From the way assignments are completed to the learning process itself, a variety of applications and services are impacting students' lives all around the world. Bryan Alexander observes the changes education is undergoing in his article “Web 2.0 and Emergent Multiliteracies”.

“Students are, increasingly, digital content producers, and participate extensively in evolving online social networks. The emergence of the former represents subtle changes in students’

experience of images, audience, copyright, ownership of learning, and technology. Experiencing the latter places students in an awkward position in terms of pre-Web conceptions of social space, and especially concerning privacy and expression in a highly visual environment.”<sup>6</sup>

Alexander takes into consideration blogs, social networks and Web 2.0 technologies in his assessment of the changes which students in the 21st century face. He analyzes the significance of internet tagging, a way for individuals to classify and find content on the web, especially images. Such tags, according to Alexander, convey perceptions about the tagged content; observing different “tagging styles” between students and teachers can be a learning activity in and of itself. He speaks of “a shift to a new form of virtual scholarship” in which students are able to interact and learn in dynamic environments. Such environments continue to evolve, and as their complexity grows, so will the role of images in the learning process. Tagging and new ways of classifying data are current aspects of an educational landscape markedly different from the world experienced by most people in teaching positions today; as pointed out by Alexander, today's students partaking in this “rich international conversation” will soon be the new generation of educators with such methods wholly integrated into their own concept of what education should be.

A testament to the significance of blogs, social networks and Web 2.0, the International Institute for Sustainable Development (IISD) released their article entitled “Social Networking and Governance for Sustainable Development” in March 2009. The paper explores online social networking mechanisms which will impact governance in sustainable development. Starting with an overview of the role technology played in Obama's presidential campaign and a “Social Networks 101” summary, it then proceeds through a description of networks which have thus far had limited effectiveness for governance practices. From a now defunct group of sustainability practitioners that the Institute had itself developed back in 1999 to Facebook, a general description is given in a way that assumes the reader has little familiarity with the services. With a longer section on the professional network

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6 Alexander, Bryan. Web 2.0 and Emergent Multiliteracies. *Theory Into Practice*, 47:150–160, 2008

LinkedIn, a list of sustainability groups, such as “Green” with 28,800 members and “Sustainability Professionals” with 6,000 members are described, but no analysis on the dynamism of such networks is undertaken. The reader is not given any impression of the way LinkedIn actually functions, and somebody who had never visited the site would have to infer the functional characteristics of the service independently.

Moving on to various smaller communities hosted on such do-it-yourself social network interfaces as Ning, a number of internet addresses are provided ranging from “Sustainable Development Africa” to “Local Food Cleveland”. Their commentary on the diversity of such sites is as follows:

SNSs enable the development of a collective understanding of the challenges facing a region, as well as the resources and expertise available to address those challenges. By making relationships within the community more transparent, through the exchange of personal information, photos, and regular interaction, SNSs also may help to generate a stronger sense of trust and commitment.<sup>7</sup>

Next a list and summary of Web 2.0 sites which have social features is given. YouTube, the fourth largest web site in the world, has a special section for Non-Profit organizations and a corporate-sponsored video series which addresses issues of sustainability such as the “Davos Debates” contest. Sponsored by the World Economic Forum and including sections on Economy, Environment, Politics and Ethics. This YouTube “channel”, with nearly 800,000 views, provides a variety of filmed debates and interviews and commences with user commentary and discussion. Users can also post their own response videos and critique each other outside the confines of text-boxes and the written word.

The most significant section of the IISD report is where the possible impacts on sustainable development are considered. How people learn about sustainable development issues, role changes within the private sector and government and implications for governance are all covered. The authors declare that much more research is necessary to quantify any sort of impact assessment and proceed to describe the current state of affairs and potential future benefits the sustainability community might harness from social networking technologies. A constant theme throughout the impact analysis is

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<sup>7</sup> Willard, Terry. Social Networking and Governance for Sustainable Development. International Institute for Sustainable Development (IISD), 2009



transparency; the ability for information to be shared between circles of diverse stakeholders.

SNSs and social media have combined into a powerful force capable of illuminating previously unmonitored governance institutions and processes. While in the short term, this may lead to great upheaval as agencies and institutions deal with scandals and unsubstantiated rumors, in the long term such transparency may improve the accountability of all stakeholders.<sup>8</sup>

Finally, a list of ways to capitalize on social network sites to improve governance for sustainable development is provided. Recommendations include actual interaction with relevant sites for all sustainability professionals, improving existing sites to support more complex features which lend themselves better for dealing with complex issues and ensuring that web developers are involved in niche sustainability application programming. That is, the architects of sustainable governance mechanisms must ensure that they are helping to shape the future of internet technologies, such that the interface through which our ideas are exchanged is optimally engineered for governance directives. The IISD is acutely aware of the benefits social networks and the greater world of Web 2.0 have for sustainability practitioners, and appears hopeful that their role will strengthen as more professionals adopt effective online networking habits.

## Conclusion

While the relatively new phenomenon of Web 2.0 and the social Internet has begun to change the nature of many disciplines, the true impact will be realized in the coming years. While services such as Facebook, LinkedIn and blogging have certainly moved way past early adoption phases, the majority of the world's population which is not participating. But as the benefits of low-cost laptops and internet access reach countries where a “Web 2.0” culture has not yet taken hold, we will see the extension of these phenomenon around the world. With a true international forum in which every voice can be heard, those dedicated to the causes of sustainable development and governance must harness the power of services which are the forums lifeblood. The power of images in influencing the course of sustainable development will be determined in part by blogs, social networks and Web 2.0, and

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<sup>8</sup> Willard, Terry. Social Networking and Governance for Sustainable Development. International Institute for Sustainable Development (IISD), 2009

increasingly so. While the literature is just beginning to emerge, academic research conducted at places such as The Program on Networked Governance at Harvard University will help to explain how “social networks impact political regime change, recruitment of individuals into social movements, and how social networks may build a commitment to collective action on a variety of issues.”<sup>9</sup>

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<http://www.facebook.com/careers/#/careers/departments.php?dept=engineering>

LinkedIn Sustainability Working Group

<http://www.linkedin.com/groupInvitation?gid=44932&sharedKey=20BFBD5FD12A>

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