

Everything is Miscellaneous

The Power of the New Digital Disorder

By David Weinberger

[Karen Schneider at the American Library Association site](#): [The last paragraph:] "This is, I repeat, a dangerous book. Ban it, burn it, or take it to heart. The most dangerous part of this book is not that Weinberger says these things, and so much more: the danger comes if we don't listen."

Though I'm not an expert to be able to say a quote like above, this is exactly how this book makes you feel. Weinberger uses fine examples and history to point out how throughout history, people have strived to find order in what they do. Is order needed for efficiency, simplicity, or just because the human race demands it? How did the alphabet get its order? I can tell you what my Kindergarten and First Grade students might say. They would say that Queen Elizabeth wanted it that way. [See movie here](#). Does the Dewey Decimal System still work for libraries? How do you load your dishwasher? How was it determined that the pots and pans should be in a cupboard close to the oven (at least in my house)? Why aren't all grocery stores ordered the same way so that no matter which one you shop at, you can find everything you need? What is the best way to layout a website? These are just a few examples of questions that were raised by me or Weinberger during my reading of his book.

One of the first things that Weinberger discusses is the need to get rid of the idea that there is a right or best way to do any of the above mentioned items. Though I don't think that everything should be miscellaneous, I can definitely see the advantage to website layout and catalogs. I am a frequent online shopper and I know I wouldn't do near the amount of online shopping if I could only access items in the order and category that the manufacturer listed. The fact that I

can shop and search for items I am specifically looking for, thus customizing my shopping experience, is the reason for shopping online. When I am shopping for specific items, online shopping is more efficient than wandering around a store wondering how they ordered the items. In a store, I might eventually run into what I wanted or else have to stop and ask one of the busy workers. Put that time with the time and stress of driving there and home, negotiating traffic, and of course grabbing something to eat while I'm out and I've now probably doubled the cost of getting the item I was looking for.

Weinberger also spent a considerable amount of time discussing the organization of photographs. I would guess that he might be somewhat of a photography enthusiast because of this. He was particularly interested in the Bettman Archive and seemed to have interest in the Flickr website. Both are great examples of photo archives with Flickr being the digital version. The ability to tag photos and have the ability to find them under multiple headings can be very lucrative, but as he points out, the tags mean something to the person assigning them and not necessarily everybody that might want access to them. As a personal user of Flickr I was pleased to see him discuss this site. The Bettman Archive is somewhat the opposite. Photos in this historic collection have now been stored underground for preservation. But then the question is—what is the value in a collection that can't be seen or displayed? Are there photos of the photos? Or better yet, are there digital photos of the photos? To retrieve a photo from the Bettman Archive could take several days compared to Flickr's several seconds. Yes, there is historical value to the photos underground but they aren't easily accessible. Is the value of the collection in the actual photo or is it in what the photo shows?

Weinberger also spends a fair amount of pages discussing the Dewey Decimal System, card catalog systems and the order within libraries. He makes several good arguments while showing that the systems were once effective but now outdated. I could see how this might be somewhat offensive to librarians, but I really don't think that was the purpose of his book. I was impressed by the depth of history shown in the adoption of such systems. The Dewey system was only published in 1876. It is still widely used today even though it appears to have some inefficiencies. To come up with such a system that has been kept somewhat up to date, is a very difficult task which the age of information makes extremely difficult. This was one of the points in the book that I could only sigh deeply because I felt the weight of such a task. The Dewey system has been adopted on a grandiose scale and any slight change can be extreme for some users. If you change it too much, it becomes less reliable. I struggle thinking about this again as I write.

To help answer how things might need to be ordered, such as photos, desk drawers, and libraries, Weinberger proposes Three-orders of order. Putting books on a shelf or silverware in a drawer would be an example of the First-order of order. People organize these items for convenience. Sometimes these items aren't ordered, but often it doesn't cause great distress. The Second-order of order is information about information or what is referred to as metadata. A card catalog would be a good example of this. Each card has information about a book, often arranged in multiple ways. Both the First-order and Second-order of order are vulnerable as items in these categories are made of material (or atoms as Weinberger might state) that can become unstable over time. The Third-order of order uses technology and often results in a company being more profitable, having more loyal customers, and reducing costs incurred. An

example of this might be Flickr or a company website that lets the customer drive how they might want the website to look. Many sites are adopting this way of website transformation. Giving up the power and putting website navigation in the hands of the user is powerful. It is difficult for a small group of individuals to make all the decisions about how a website should be navigated. There are far too many needs of users to make a one-size-fits-all website. I have been exploring the use of iGoogle in my work for the past 8-9 months which would be along this Third-order of order. I have personalized my homepage to what is important or used the most by me. Of course this also makes me a more faithful Google user. I can now head out to the Internet and the first thing I see on my homepage is the weather forecast in my city and the cities my children are living in. By clicking on a different tab in that same screen I can view my calendar of activities, the Eiffel tower mini-cam (on my Life list of things to see), or a quick link to my Bloglines account to stay current in my field. These are tasks that I might take some amount of time out of my day to complete but now it only takes seconds to see. Do I have a better life because of this? No, but I feel better informed and in control, and more efficient which makes me happy.

[Erin McKean](#), the Editor in Chief of Oxford's American Dictionaries, writes (quoted in full): "I'm right in the middle of David Weinberger's *Everything is Miscellaneous*, which is terrifically smart and eerily prescient about where information is going (and how we'll find it once we've caught up to it). As a lexicographer, I especially enjoyed his take on the evolution of alphabetical order ... finally, someone gets it!"

So now I ask myself again, "Why is order needed?" Is it more important to organize something for others, or let them create their own organization? Should everything have order...just a few things...or nothing at all? Do we teach our students how to order items? Is there a correct way to teach this? Should we teach our students to memorize principles and history or should we

make sure they have the skills to find the information if they should ever need it? This brings us to some of the new 21st Century Learning skills and Digital-Age Literacy. In identifying these skills over the next several pages, I have used [NCREL](#) for my source of reference.



Figure 1

Digital-Age Literacy	
Basic Literacy	Language proficiency (in English) and numeracy at levels necessary to function on the job and in society to achieve one's goals and to develop one's knowledge and potential in this Digital Age.
Scientific Literacy	Knowledge and understanding of the scientific concepts and processes required for personal decision making, participation in civic and cultural affairs, and economic productivity.
Economic Literacy	The ability to identify economic problems, alternatives, costs, and benefits; analyze the incentives at work in economic situations; examine the consequences of changes in economic conditions and public policies; collect and organize economic evidence; and weigh costs against benefits.
Technological Literacy	Knowledge about what technology is, how it works, what purposes it can serve, and how it can be used efficiently and effectively to achieve specific goals.
Visual Literacy	The ability to interpret, use, appreciate, and create images and video using both conventional and 21 st century media in ways that advance thinking, decision making, communication, and learning.
Information Literacy	The ability to evaluate information across a range of media; recognize when information is needed; locate, synthesize, and use information effectively; and accomplish these functions using technology, communication networks, and electronic resources.
Multicultural Literacy	The ability to understand and appreciate the similarities and differences in the customs, values, and beliefs of one's own culture and the cultures of others.
Global Awareness	The recognition and understanding of interrelationships among international organizations, nation-states, public and private economic entities, sociocultural groups, and individuals across the globe.

Figure 2

As educators move to teach students to have literacy in the digital-age, the skill-set that students must now have to gain employment in our society has changed dramatically (See Figure 1 and 2). Simply being able to read and write will not produce a job with a high enough pay scale. Citizens now need to be able to calculate, analyze, problem-solve, organize, communicate, and have the ability to adapt and change in a quick-paced environment. We have begun showing students that to question why things are a particular way can be a good thing. I have also seen this become a distraction in the classroom but possibly because the teacher failed to have a good answer. Is there an age that is appropriate to encourage such questioning or should it be throughout the education of our children? I do believe that although some ways of order are questionable, our students need some type of order to help in the beginning learning process. I'm specifically relating back to the order of the alphabet. The alphabet has an order but does not change, we have not added letters. It is also the foundation for teaching reading literacy. Teachers somewhat make the alphabet miscellaneous in education by not teaching letters to students in what we know as the alphabetical order. Some have taught the alphabet beginning with letters in a student's name. Some have taught the alphabet according to ease of pronunciation or groupings of letters. Others have taught the alphabet by ease of writing letters. These multiple ways show that the alphabet can be miscellaneous. Do we merely teach the alphabetical order because of popularity?

I think before the Age of Information, order was needed and some of the systems we use today were useful but are now in need of another possibility of order. I'm looking at the Dewey system. This system proved effective for quite a while. There was no way of seeing the future of books and topics when this system was created. I imagine myself entering a library in search

of a book about Abraham Lincoln in his boyhood years. The Dewey system coupled with a card catalog would give me options where I might look for such a book. I might have to think of different areas in the library to reference and then write down the location of some of these choices. I could go to the biography section, then on to the history section, and finally might end up in the children's section. Now let's think of how that might look in the Digital Age. I go to the automated system available at the library and type in Abraham Lincoln. I get a choice of subheadings to narrow my search. I click on boyhood years and in less than a second I have a list of books and their locations. I hit print and it gives me the list printed out with a map of the library included that specifically shows me where the book(s) should be located. I will even find out if the book is available so I won't waste time looking for it when it's checked out. Another option that could come into play is accessing Wikipedia, Technorati, or my Delicious bookmarks. As Weinberger states "And what is the most important lesson Wikipedia teaches us? A miscellaneous collection of anonymous and pseudonymous authors can precipitate knowledge." (Weinberger, p. 139) I not only have information that I have found now, I have information that others have found and written about. I'm sure I am not the only person that has ever needed information about the boyhood years of Abraham Lincoln. Part of my task now is determining if the opinions I find are credible. Is the learning process reaching its full potential when I use information that others have found helpful? Or am I cheating by not having to think through those processes? Are we doing our children justice by showing them how to use resources or do they need to experience the process and make resources? What makes information credible? What if they want to learn more about Darboux's theorem? They may not easily find information about this subject. Will they have the skills to find information?

Chances are that if they are advanced enough to even know about this theorem, they will have a network or resources where they can get further information without a general Web search. I think that is one of the struggles that educators have these days. Should students actually know the information or should they simply have the skills to be able to find the information and deem it worthy of notation when the need arises? I think the answer lies in needing to have the ability of both knowing and being able to find information. Weinberger also states, "One of the lessons of Wikipedia is that conversation improves expertise by exposing weaknesses, introducing new viewpoints, and pushing ideas into accessible form".

(Weinberger, p. 145)

The 21st Century learner won't always realize that the information is miscellaneous. They will be accustomed to searching for what they specifically need. Could this be harmful? It will be important for learners to be able to link material and information and see relationships between different types of material. This is similar to how the Internet works by using the power of metadata. "The Semantic Web proposes not a standard set of relationships but a standard way for people to describe whatever relationships are important to the topic."

(Weinberger, p. 192) The Semantic Web will not only use natural language but also language that can be understood by programming and software and many of the advantages have yet to be discovered. This is what has begun to make the area of Web 2.0 technologies such a great resource in education. Having to learn html or another language to write programming and have a presence on the web was something that hindered everyday people from getting drawn into full use of the Internet. Now, there are websites and software programs that make the ability to add web content as easy as being able to type in a text box. People and educators are

adding content to the Web at an alarming rate but are also finding out that in order for their voice to be heard, they also need to network and have their information easy to access by others. This makes us think outside of the box and look at the order and organization of other websites. The 21st Century learner will have a greater chance of having a global voice than any other generation ever has! This leads us to understand that web layout will play a very important part of this. Keeping in mind that we all can think very differently and have very different reasons for accessing information, keeping information miscellaneous might benefit a higher percentage of people more of the time. Will we ever be able to satisfy 100% of users all the time? I don't think that is an attainable goal, but I do see it as a goal. I think of some of the Web 2.0 sites that I frequent. Bloglines, Twitter, Delicious, Pageflakes are all places that I frequent for different uses. I'm sure others access the same sites for very different reasons than I do. Let's see.....Bloglines is one of the sources I use to keep up on current information and gadgets that might have an impact on education. In my account I actively read between 15 and 35 blogs. As much as I would like to read them daily, I usually get to them twice a week or so. I like it because I choose the content I want to view and I only have to go to one website to get the information. Twitter was one of those Web 2.0 sites that I didn't think would be for me. It didn't fit what I used the Internet for. Now that I'm a Twit, I've found that it is very helpful. It reminds me of my mother reminding me to choose my friends wisely though. I've found that there are quite a few educators and if/when I follow them, I find out what they are doing in their jobs. This gives me ideas and another source of resources in my job. If my list of people that I follow simply told me they went to work or they went grocery shopping, I wouldn't care. My followers often leave Tweets about a presentation they are putting together for a particular

group or conference. Often they will share the URL of the presentation so that I have access to some really great stuff! Twitter has proven to be a very handy and useful tool for me. Delicious was mentioned slightly by Weinberger but I have become a very big fan. It's my online bookmarking system where I "tag" websites. It's a good example of the Second-order of order that Weinberger discusses but also spans the Third-order of order by having the ability to be shared with others with similar interests which makes me a more loyal "customer". Pageflakes is my newest addition to my Web 2.0 favorites. I compare it to iGoogle in that it allows me to create my own homepage. I can choose from different "flakes" or pages and just drag and drop them around the page. Granted I can only have one homepage, but it's nice to have a choice.

So now I begin to wonder how much miscellaneous information works for me. I use the Internet and many resources on a daily basis in my job of instructional technology and data. My job is to take miscellaneous information and put it in a form that is understood by others or else highlights particular information. Just now I was e-mailed by my Assistant Superintendent of Special Education asking for information about our county percentages of Special Education students to Regular Ed. Oh—and can we also show the percentage of free and reduced lunch recipients in those figures? And will it be ready for the Monday morning meeting? Sure! No problem! I'm taking several databases of 15,000 students that is arranged by no particular order and making order of it. Our county has paid quite a bit of money and uses several resources to have the ability to take this information and make it miscellaneous. My job is to train educators in local districts how to take their information and make it un-miscellaneous. They can look at and compare demographics, test scores, and basically any information that is gathered at the State and district level. Once they feel confident in accessing their information,

they share their findings with teachers and administrators to help achieve district goals. No Child Left Behind has developed this data driven decision making model. It is powerful to see and compare how students perform on standardized tests over several years. We can now look at deficiencies from almost any possible angle. This also seems to be the tool of choice by Districts. They like the power of having miscellaneous information. They can categorize and arrange their data how they want to see it. Some might consider this data manipulation but I see it as a way to help even the playing field for some districts. I have observed the power the administrators feel when they can find data to back what they believe is happening. We will be able to identify trends once enough data is available. "Miscellanized information is information without borders." (Weinberger, p. 223) This statement can't be more true not only for educational data, but as Weinberger happened to be speaking of, and business.

Overall I found this book to create more questions than find answers. I think that's why I enjoyed it so much. I agree with several of the other critics, that this book is dangerous. It says some obvious things in a very different way to force thought and make considerations. As we continue down of path of the Age of Information, we have many things that will change. I think the majority of people have their default settings to resist change. It's time we take a look at our Control Panels and change that setting. Soon, we won't have the choice.

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