



The logic of random | The Xpragmatic View



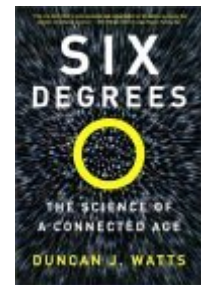
The Xpragmatic View #85
 April 29, 2007
 by [Marc Buyens \(@mbuyens\)](#), Xpragma
marc.buyens@xpragma.com
 url: <http://www.xpragma.com/view85.php>

In all the things we do or choose we are influenced by what what other people are doing or choosing. This seems to be a good thing since it gives us some additional information and it challenges our own ideas while making decisions. However, the consequence might be that we are making random decisions.

In a recent New York Times article entitled "[Is Justin Timberlake a Product of Cumulative Advantage?](#)" (registration required), professor Duncan Watts describes the results of an interesting experiment on how large groups of people choose popular items.

Duncan J. Watts is professor of sociology at the Columbia University and the author of "Six Degrees: The Science of a Connected Age."

Prof. Watts' professional interests are essentially focused on the business of culture (film, music and other media), a business that has a huge interest in understanding and early detecting what will become the next big hit (or failure). However, the findings of this experiment also can have far reaching consequences for other environments.



[Six Degrees](#)
[The Science of a](#)
[Connected Age](#)
[Duncan J. Watts](#)

The experiment

The experiment was set up to test whether knowing what other people prefer influences the preference of people.

In order to do this, a website was created where visitors were invited to listen to songs by some unknown bands, to rate them and, if they chose, to download the songs.

In order to evaluate the degree of mutual influence, a first group of visitors was only presented with the names of the songs and the bands and had no information whatsoever about the activities or preferences of other participants. This was the "reference" group.

The remainder of the visitors were split into eight so-called "socially influenced" groups where participants were also able to see (within their own group) how many times songs had been downloaded.

The conclusions of the experiment were twofold:

First, the experiment confirmed Watts' initial thinking that knowing about the preferences of other participants indeed has an impact on people's own choices. People are social beings and feel more comfortable when belonging to a group. Having a common preference for the same songs creates such group feeling.

However, the second observation was far more fascinating: all so-called "socially influenced" groups developed completely different preferences. So, between these eight groups there was nowhere near an agreement on something like the "best" songs.

Cumulative advantage

According to Watts, this is the result of a mechanism called "cumulative advantage". Cumulative advantage is a theory that says that if a specific item happens to be slightly more popular than another at some moment, it will tend to become more popular still.

That is exactly what happened in this experiment. Once the first visitors had downloaded their preferred songs, the next visitors had some more tendency of choosing the same songs. This influence was still small, but nonetheless real. As a result, there was a somewhat greater probability that these next visitors also chose these same songs, again increasing the download score, further influencing the behaviour of later visitors, and so on.

In addition, given the fact that the preferences of the very first visitors were still unbiased, their choices most likely were very personal, which results in a more or less random set of "first downloads" in each group. As a result, the "influencing" of the subsequent visitors in each group was different in each group and therefore, was likely to drive each group towards a completely different (read: random) greatest hit.

Cumulative advantage and Web 2.0

This is of course interesting stuff but, unfortunately, this type of behaviour is not limited to the world of music, art or culture. This is a human behaviour that, to some extent, is present in any decision-making process.

However, are we really aware of this type of social influencing? What does this imply for the [Digg's](#), the [Del.icio.us](#)' and the [Technorati's](#) of this world? What about social networks such as [LinkedIn](#) and [Xing](#)?

These are all social networks where they make sure that the visitors are fully aware of what other people prefer or link to. Social influencing at its best. What portion of the results or rankings represent "real" opinions or preferences instead of merely "inherited" choices?

Perhaps we don't care. Perhaps the advantage of the group feeling prevails. This group feeling might be more important to us than the advantage of the better information.

However, this phenomenon certainly gets more important while trying to exploit Web 2.0 principles within a business context.

What is our guarantee that we will end up with better information, better communication and better knowledge?

To what extent will our corporate blog indeed reach our "real" customers or will we simply end up having meaningless conversations with a random set of weirdo's?

Will our new wiki-project indeed improve knowledge sharing and knowledge development or will it just be a random stuff generator?

Many questions to ask and no real answers.

We don't have the answers either, but you better have a closer look at the contributions of the first participants and hedge your bet.

About the author




Marc Buyens is analyst, management consultant and owner of Xpragma. Marc started Xpragma in 1999 after a 20+ years career in the IT sector. Today, he provides advice, training and mentoring services focusing on the intersection of technological evolution, organisational change and business strategy: a messy world of unfulfilled promises.


<http://www.facebook.com/marcb254>

<http://www.linkedin.com/in/marcbuyens>

<http://www.twitter.com/mbuyens>

Tel. +32-(0)15-340 845 - info@xpragma.com - www.xpragma.com

 RSS feed: <http://www.xpragma.com/english/rss/xpven.xml>

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