

TAKING STATISTICAL LITERACY TO THE MASSES WITH YOUTUBE, BLOGGING, FACEBOOK AND TWITTER

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Social media enables us to connect with the world. Statistics Learning Centre YouTube channel has short friendly videos about statistics and receives over 1000 views a day from all over the world, accompanied often by grateful thanks. The blog, Learn and Teach Statistics and Operations Research, receives 2000 hits per week, which has grown through email lists, Twitter, Facebook and judicious choice of topics, keywords and tags. In this session I will describe the growth of each of these endeavors, explaining how to get started and providing pointers for reaching out with the message of statistical literacy to a wider society.

SOCIAL MEDIA

Many people spend a great deal of time on the internet, on YouTube, Facebook, Twitter and other social media. If we are to increase the understanding of statistics in the general population, these platforms are great to get the message out. My philosophy is to make statistics as accessible as possible, which is more important than total rigor. Statistics is very interesting, despite the efforts to which people go to in order to make boring videos about statistics.

YOUTUBE CHANNEL

We originally used the UCMSCI Youtube channel to host videos created for students in statistics and operations research courses at the University of Canterbury in New Zealand. These were discovered by other people and became surprisingly popular. You can read about this in my paper Petty(2010).

We then decided to attempt to make money out of these videos and others by making an app called "AtMyPace: Statistics", which is available on iOS devices. This meant we needed to remove any materials which violated copyright and replace them with our own art work. This was put on a different YouTube channel, now called Statistics Learning Centre. There are now 22 videos, and the four most popular are Types of Data: Nominal, Ordinal, Interval/Ratio, Understanding Confidence Intervals, Choosing which statistical test to use, and Understanding the p-value. They each receive about 1000 views a week, and heartfelt comments thanking us for our clear and entertaining explanations.

BLOG

In December 2011 I decided to start a blog about teaching statistics. There are already many blogs about statistics itself, but the focus for this one would be the challenges of teaching and learning statistics.

I chose Wordpress.com for hosting a blog. It is very easy to set up a blog, and the usage reporting is excellent. Wordpress.com is free unless you purchase a specialized theme. It is straight-forward to tailor it to your needs with regard to extra pages and "widgets". There are daily reports on how many views your site has received, and the location and source of the views.

Before starting my blog I made a list of 52 topics about which I could write between 500 and 1000 words. I did not want to get a few months down the track and find I had nothing more to write about. I keep a list of ideas, and each time I write (now every two weeks, though for two years it was every week), I look through the list and decide what takes my fancy.

In order to get a good following on a blog you need to get noticed by the search engines. There is an entire science related to this, called "Search Engine Optimisation". Frequent posting makes for a better rating on the search engines, as does hits. Links to other sites and from other sites increase your search score. Carefully chosen titles help increase traffic to your site.

Here are the top posts for January 2014, along with the date they were first posted.

- The Myth of Random Sampling (20 Jan 2014)
- Oh Ordinal data, what do we do with you? (8 July 2013)
- Excel, SPSS, Minitab or R? (11 Jan 2013)
- Beware of Excel Histograms (12 Nov 2012)
- Statistics – Singular and Plural, Lies and Truth (6 Jan 2014)
- The median outclasses the mean (29 April 2013)
- Khan Academy Statistics videos are not good (30 July 2012)
- Interpreting Scatterplots (25 Feb 2013)

Using words like Excel, Khan Academy, myth and SPSS help to increase your traffic.

But just using these methods is not enough to get the blog read. I also use the ANZStat and Allstat email lists, Facebook and Twitter to publicise each post. Whenever I post on the blog or put out a new video, I “tweet” about it so that the people who follow me on Twitter will know and can “retweet” to let their followers know also.

THE REWARDS OF BLOGGING

I have written a whole post on why I blog. There is something immensely satisfying about knowing that your words are being read by hundreds, and sometimes thousands of people. I have received feedback that it is helpful to others. It can be fun to put out something opinionated in the hope that other people will disagree and comment. This helps to clarify ideas and provide both sides of the argument. You become part of a community, especially when people respond. I feel strongly that Khan Academy videos about statistics are not good, and thanks to my blog, every week people are told that.

CONCLUSION

For the concepts of statistics to be disseminated among the masses we need to be on the social media. Many teachers of statistics are actually mathematicians, and many still believe that statistics is a subset of mathematics and should be taught like mathematics. Through my blog and videos, I can reach teachers and learners and help in outreach to the wider community.

REFERENCES

- Petty, N. W. (2010). Creating YouTube videos that engage students and enhance learning in statistics and Excel. *Proceedings of the Eighth International Conference on Teaching Statistics (ICOTS8, July, 2010), Ljubljana, Slovenia.*