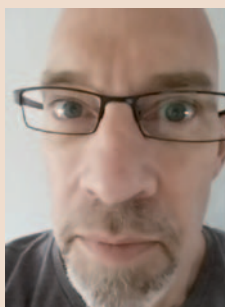


Webwaves



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Phishing for beginners

TED's website (ted.com) is an archive of over 2400 talks given on topics loosely related to Technology, Entertainment and Design. TED talks started in 1984 and until 2004 there was only one conference per year. There are now many TED-sanctioned conferences in many countries (223 planned in 2018), some are general and others more focussed. Few talks run longer than 20 minutes, most are thought provoking and also entertaining. One particularly entertaining talk was given by James Veitch (https://www.ted.com/talks/james_veitch_this_is_what_happens_when_you_reply_to_spam_email) about his reply to an attempt at phishing. General advice when receiving spam email is to delete rather than reply to it.

Wikipedia (wikipedia.com) defines 'phishing' as 'the attempt to obtain sensitive information such as usernames, passwords, and credit card details (and, indirectly, money), often for malicious reasons, by disguising as a trustworthy entity in an electronic communication'. As befits any neologism in 2017, there are variations around how the attempt is made and the intended target. For example, 'spear' phishing targets individuals. 'Whaling' targets high-value individuals who know who they are. 'Pharming' employs DNS redirection, and two-factor authentication can be effective against this method.

Phishing relies on targets failing to notice the disguise. Email addresses and URLs can be long, and therefore they are often aliased. Thus, Veitch's talk referenced in the introduction might be presented using the code `James Veitch`. 'James Veitch' is displayed in the browser's HTML style and the alias can be followed to the URL. A phishing exploit might be written `Bank account`.

Invariably programs capable of interpreting HTML contain a feature where the URL that is aliased can be revealed by moving the pointer over the HTML link without following the link ('hovering'). A pause of less than a second will expose the attempt. Nevertheless, the time-poor or rushed might easily follow the legitimate text

to the bogus URL. Gutmann (2006) describes many more examples of successful phishing expeditions.

So while phishing exploits are quite old and often crude, they are often effective, and James Veitch's talk is a timely reminder to be vigilant when following HTML links.

The current ASEG website is approaching its first anniversary and has mostly grown since it was launched by Katherine McKenna during the 26th ASEG Conference and Exhibition in Adelaide. As might be expected from any reasonably complicated system there were some issues. These were mostly related to the way the website interacts with the publisher. A solution to occasional problematic access to *Exploration Geophysics* has been identified, though yet to be implemented.

The website access data has demonstrated that the most successful additions to the site have been equipment manuals, the virtual museum and presentations from ASEG workshops. Material from two more workshops remains to be added to the site, and a standing invitation is extended to organisers who would like to see their efforts reach a larger audience.

Reference

Gutmann, P, 2006, 'Phishing tips and techniques: tackle, rigging, and how & when to phish', DefCon14, Las Vegas, NV. Available at: <https://www.youtube.com/watch?v=MZ19WWG15wI>



This **vertical component magnetic variometer** is from the ASEG virtual museum collection and was generously donated by John Stanley, formerly lecturer at the University of New England and inventor. It was built in 1947 by E. R. Watts & Son of London, England with a resolution of 2.9 nT. Its serial no. is 50 275, suggesting at least 275 were built, and it weighs 9 kg.

The calibration record for this instrument indicates that 1 scale division equalled 29.4 nT and that consecutive readings were repeatable to 0.1 of a division, or 2.94 nT. Temperature compensation for this instrument was adjusted to zero over a temperature range of 15 to 55 degrees C. Measurement firstly required precise levelling of the instrument on a tripod, unclamping the mechanism, recording the temperature, and then reading the scale through a microscope. The centre value was set at 52 000 nT. Setup and measurement time was typically 1 minute for an experienced operator.