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Hi-Tech Method of Pre-testing Ads

By Max Sutherland

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The U.S. Journal of Advertising Research in its March/April edition 2001 will feature an Australian invention as its lead paper - a hi-tech method of measuring brainwaves that promises better design and pre-testing of ads. This is a prestige journal and very difficult to get published in, so this is quite a coup for an Australian invention.

The inventor of the technology is Dr. Richard Silberstein from the Brain Science Institute at Swinburne University in Melbourne. The lead author on the paper is well known advertising academic and author, John Rossiter who is Research Professor at the University of Wollongong.

Silberstein has been developing the technology for over 20 years within neuropsychology for applications such as clinical diagnosis of attention deficit hyperactivity disorder (ADHD). There it has an extensive scientific history of rigorous exploration and extensive validation (see www.scan.swin.edu.au) which is something that makes it rather unique.

In the rush to market new advertising technology, companies all too often rely on hype rather than documented, scientific substance. By contrast, Silberstein has spent 20 years developing and validating this technique within neuropsychology[1] yet he realized way back then, that it would certainly be used in advertising.

Back in 1982, I first met him and was excited to see the embryonic beginnings of his technology. He was and still is, passionate about it. Even at that time he probably could have marketed it for application in advertising. However, diligent scientist that he is,. Silberstein has spent 20 years, persistently refining it, improving it, exploring its application, and validating it.

Now, with the publication of this paper by him and his team along with Rossiter[2] - a world recognized advertising author, this Australian technology is on the move.

I visited Silberstein's laboratory in Melbourne recently, to get an update. The technology is branded as NeuroVu and the brainwave recording system is technically known as steady-state probe topography (SSPT). Respondents wear a lightweight cloth cap that contains electrodes that record their brainwaves from up to 64 places on the head. The data is cordlessly transmitted via infra red signal to the computer.[3]

The Journal of Advertising Research study used it to investigate just what area of our brains have to be stimulated so that we will later recognize and remember the scenes from TV commercials. Women shoppers watched an 18-minute television documentary interspersed with twelve 30-second TV commercials. Then after a 7 day delay, they were given a surprise test for visual recognition of frames from the commercials.

For those technically inclined, who want the eye glazing details, correct recognition was due to a faster brain electrical activity initial response (shorter latency) only in the left hemisphere, and specifically in the C3-F7 site of the posterior region of the left frontal cortex, and not the right.

Watching pictures so that our brains hold them *for long term retention,* seems to crucially involve left brain activity - contrary to expectation. Previously it was thought that for visuals, the important processing was in the right brain whereas verbal content was processed by the left.

The overall idea is to identify crucial areas of the brain that enable us to predict from the level of brainwave activity at those sites, just which scenes and which commercials will be most effective in terms of being best remembered, most liked, most persuasive etc.

The technology holds promise for advertisers using it in several ways. First, obviously it will be used to pre-test commercials. Perhaps more importantly it will be used to pretest key visuals in story board form, that are candidates for inclusion in commercials.

Out of such tests will emerge learning as to what types of visuals work and what types don't work - in terms of activating the areas of the brain critical for long term memory, liking, persuasion, etc. With this build up of experience, advertisers should be able to incorporate more of what works and less of what doesn't in the design of commercials.

Conclusion:

This Australian development promises to bring us into a new era of applied psychophysiological measurement in advertising.

However it is not going to be easy in the extremely competitive world of advertising for Silberstein to create the necessary interest, globally for NeuroVu. Even with all the documented substance, it is going to take considerable marketing skills. It is good to see him now getting people aboard with the necessary marketing experience. He has recently appointed to the board of the Brain Science Institute well known marketing psychologist Graham Chant (Chant Link Marketing) along with my old friend and veteran PR professional, Garry Oliver (Oliver Corporate Affairs).

Silberstein's has the passion and commitment and his technology deserves to succeed. Australia wishes him luck!

To find out more about the Brain Sciences Institute, visit www.scan.swin.edu.au.

(**Postscript July 2004**:: NeuroVu Inc was eventually renamed Pre-Diction Inc but ultimately ceased operation in 2003. Silberstein explained that "while the technology was finding increasing acceptance with global advertisers, the company was woefully undercapitalised to pursue the rapid expansion path it had set itself".)

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[1] See for example Silberstein, R. B. (1995) "Steady state visually evoked potentials, brain resonances and cognitive processes," in Nunez, P.L. (Ed.), Neocortical dynamics and human EEG rhythms, New York: Oxford University Press, pp. 272-303.

[2] Rossiter, J.R. and Percy, L. (1997) Advertising Communications & Promotion Management, New York: McGraw-Hill.

[3] They also wear goggles that induce a visual flicker stimulus (13 Hz of flickering white light) to evoke a baseline electrical response in the cortex against which speed of response to the advertising stimuli can be recorded. Technical details of the apparatus can be found in Silberstein, R. B., Schier, M. A., Pipingas, A., Ciorciari, J. and Wood, S. (1990) "Steady-state visually evoked potential topography associated with a visual vigilance task," Brain Topography, 3, 337-347.