

THE “INFOMANIA” STUDY

In 2005 I was commissioned by Porter-Novelli, the London publicists of Hewlett-Packard, to supervise a small in-house experiment on the negative effects of “always-on” technology, dubbed “infomania”. This was to accompany a large-scale survey of around 1000 people conducted by polling company TNS, revealing the extent of misuse of technology among UK workers. For example, 62% would check email and text messages out of hours and when on holiday, and 20% would interrupt a business or social meeting to respond to an email or telephone message. The findings of the experimental part of the study, for which I was responsible, were as follows:

SUMMARY

Design

Eight Porter Novelli employees (4 male and 4 female) were tested twice – once in quiet conditions and once in distracting conditions (mobile phones ringing and e-mails arriving). Parallel forms of a matrices-type IQ test were used. The design was balanced with respect to sex, order of test conditions, and order of IQ test forms. Measures of skin conductance, heart rate and blood pressure were taken under both conditions as well as self-reported stress ratings.

Effect of distraction on IQ

Results showed clearly that technological distraction diminished IQ test performance (mean scores dropped from 143.38 achieved under quiet conditions to 132.75 under “noisy” conditions).

Sex difference

The impact of distraction was greater for males (145.50 down to 127) than for females (141.25 down to 138.50). Putting that another way, males were superior in quiet conditions, females were superior in the distraction condition. This is consistent with the idea that women are better than men at “multi-tasking”.

Self-reported stress

Noisy conditions caused a striking increase in self-reported stress. Ratings on a 0-10 scale of “stress experienced during the test” increased from 2.75 to 5.5 for males and 4.75 to 6.75 for females. Note that in addition to the main effect of conditions of testing, women reported higher stress levels than men overall.

Physiological stress indicators

Skin conductance (a reflection of sweat gland activity) increased slightly for both males (23.00; 25.75) and females (16.25; 18.25) under distraction conditions compared with quiet. Heart rate and blood pressure showed no consistent relationship with work conditions. Males were higher than females on all these markers, which contrasts with the self-report measure.

NOTE

This study was widely misrepresented in the media, with the number of participants for the two aspects of the report being confused and the impression given that it was a published report (the only publication was a press release from Porter-Novelli). Comparisons were made with the effects of marijuana and sleep loss based on previously published studies not conducted by me. The legitimacy of these

comparisons is doubtful because the infomania effect is almost certainly one of temporary distraction, whereas sleep loss and marijuana effects on IQ might conceivably be more fundamental, even permanent.

I have prepared this note in response to numerous media enquiries and have not researched the topic since 2005.

Glenn Wilson, 16/1/2010