

PERSONALITY AND INTERNET USAGE : Too shy to surf?

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Abstract

Internet research has focused on the commercial potential of the environment, and the demographics of its users. This study extends knowledge by examining how internet usage relates to a psychographic variable, namely personality.

A questionnaire on internet usage, examining web motivation and internet affinity, was administered alongside the Myers-Briggs Type Indicator, an instrument used to classify personality. Analysis of 160 respondents shows that personality is relevant in understanding frequency and purpose of, and affinity with internet usage.

Key Words: Personality, internet, MBTI, motivation, web

1. Introduction

Expanding internet usage increases the need to understand the relationship between individual users and internet technology. Whilst the use of all Computer Mediated Environments (CMEs) is governed by social context, attitudes and perceptions (Rubin, 1993), the internet is unique: an individual's psychological characteristics are believed to affect usage (Papacharissi and Rubin, 1999). The need for research on the internet from a behavioural and descriptive perspective has been observed by Berthon *et al.* (1996). This study extends this line of enquiry, by considering personality type and its impact on internet usage.

2. Relevant Literature

Personality and the internet

Hoffman *et al.* (2000) contrast traditional media environments, where consumers have only secondary control, with online environments, where consumers have primary control. In the former, consumers are limited to manipulating their own beliefs and judgments, or approaching or avoiding the medium in order to exert control. The internet, in contrast, allows consumers choices about how to see and act upon media messages. Given this greater ability to control the environment, personality and its expression become important issues. Rubin (1993) described the absence of research, into the usefulness of personality in understanding internet usage, as a missing piece of the media equation.

There is limited research exploring the relationship between internet usage and individual differences. As certain types of individuals watch television for companionship (Rubin and Rubin, 1989), it is plausible that the internet may replace other activities depending on the individual rather as an overall consequence of increased internet relations. Those who substitute less involving internet relations for more face-to-face relations may be people who are socially anxious about interacting face-to-face and who may prefer the internet as a means of connecting with others. Personality may explain how and why individuals use the web.

Other researchers have explored the complexity of the relationship between the Internet and its users. People have been found to choose to explore certain sides of their personalities (e.g. assertiveness) more extensively, or even invent virtual life personae (e.g., Bolter, 1996; Cutler, 1996; Lipton, 1996). For some researchers, the striking point is that the individual and computer

function as one; the machine allowing the individual to reinvent himself/herself online (Stone, 1995).

The internet can be seen as meeting needs similar to those met by more traditional interpersonal and media channels (Armstrong and Rubin, 1989). It can allow the user the opportunity to reinvent their identity and to compensate for a sense of inadequate social interaction.

In one of the few papers examining an aspect of personality on Internet usage, Hoffman *et al.* (2000) found whether people use the internet primarily for goal-directed versus experiential activities (and thus whether there are “effects” or “consequences” of Web use) depends on the user’s locus of control.

Table 1: Summary of research on internet usage and personality

Authors	Principal Findings
Turkle, 1984	CMEs remove the constraints of an embodied presence, creating anonymity and the potential for multiple identities.
Armstrong and Rubin, 1989	Internet fills needs similar to those by more traditional interpersonal and media channels.
Haraway, 1991	Computers blur the human-machine boundaries.
Rubin, 1993	Established that psychological characteristics, social context, and attitudes and perceptions influence people’s motives and behaviour in CMEs.
Stone, 1995	The Internet user and the computer are seen to function as one. User can reinvent himself/herself on-line.
Bolter, 1996	People can invent virtual life personae different from their real life personality.
Cutler, 1996	Internet is creating the social situation for the formation of a new understanding of community.
Papacharissi and Rubin, 2000	Media use patterns affected by individual’s affinity for the channel.
Angleman, 2000	Used factor analysis to show that control accounted for 23% of variance on internet usage. Control is also a factor for ungratified users
Hoffman et al., 2000.	Locus of control is relevant in understanding Internet usage.

Personality testing

The Myers-Briggs Type Indicator (MBTI) is the most widely used model of human personality outside of the psychological community. It has been used in many diverse settings including marriage and career counselling (Myers, 1980; Quenk and Albert, 1975) and is one of the most consistently researched variables in the social sciences (Briggs-Myers and McCaulley, 1985). Based on Jungian philosophy, the MBTI approach divides personality into four orthogonal dimensions: energising (Extravert or Introvert), attending (Sensing or Intuitive), deciding (Thinking or Feeling), and living (Judging or Perceiving), as explained in Table 2. It is assumed that individuals have a preference for one of the two opposites which define each scale.

Table 2 MBTI Dimensions

Dimension	Type	Prefers to
Energising	Extravert (E)	Draw energy form outside world of people and things
	Introvert (I)	Draw energy from internal world of ideas, emotions or impressions
Attending	Sensing (S)	Take in information through the senses and focus on the here and now
	Intuitive (N)	Take in information via a sixth sense, see patterns and focus on the future
Deciding	Thinking (T)	Organise information to decide in a logical, objective way
	Feeling (F)	Organise information to decide in a personal, value-orientated way
Living	Judging (J)	Live a planned and organised life
	Perceiving (P)	Live a spontaneous and flexible life

3. Methodology

This research study uses two instruments: the Myers-Briggs Type Indicator (MBTI) to measure personality, and an Internet usage questionnaire examining usage, affinity and motivation.

The internet survey used is an integration and modification of three previous surveys. The 10th GVU user survey (GVU, 1999) and the questionnaire developed by Papacharissi and Rubin (2000) are condensed to measure web affinity and usage. The Web Motivation Inventory (Rodgers and Sheldon, 2000) was also included to measure web motivation but the results are not reported here.

A convenience sample of 160 people was interviewed. As most questions in the internet questionnaire use a five-point Likert scale, the data were analysed using non-parametric statistical techniques. The scales used to define the four personality dimensions followed the established methodology of the MBTI. For each personality scale a continuous score was calculated as well as a classification. The statistical tests used are the Mann-Whitney test and the Spearman correlation.

4. Results and Discussion

Table 3 shows the correlations examining affinity and usage. These show Feeling types are more likely to be sceptical about the internet than Thinking types, and they use the internet less frequently. MBTI theory suggests that Feeling types might find the internet an impersonal and value-free environment, and therefore unattractive. As more frequent users, Thinking types would be expected to feel more skilled when using it.

Similarly, Introverts are more sceptical about the importance of the internet than Extraverts. This may be because it cannot provide the depth which Introverts typically need. However, they are more likely to prefer using e-mail than Extraverts, perhaps because it enables them to communicate in a quiet manner.

Table 3: Correlation of Internet affinity and usage with personality dimension.

	Energising E-I	Attending S-N	Deciding T-F	Living J-P
How frequently do you use the internet?	0.064	0.055	0.207 *** T	0.074
I use the internet to communicate with others	0.017	0.004	0.063	0.071
I prefer to use the internet (including email) to speaking on the phone	0.213 *** I	0.139	0.020	0.146*
It is important to be able to visit internet sites without revealing your identity	0.032	0.040	0.087	0.138 *
There need to be laws to protect privacy on the internet.	0.066	0.040	0.061	0.066
In general the internet's importance is exaggerated.	0.174** I	0.064	0.189*** F	0.112

When I use the internet, I feel skilled	0.021	0.105	0.185**	0.083
When I use the internet I feel comfortable	0.012	0.041	0.109	0.022

*** p<0.01** p<0.05 *p<0.10

The correlation of internet usage with personality is shown in Table 4. In MBTI terms, we would expect Intuitive types to be more likely to use imaginative applications than Sensing types. Since Intuitive types are typically considered more imaginative and creative, this finding is consistent with MBTI theory. Thinkers are also more likely to use the Internet for information gathering, implying perhaps that the internet plays to their preference for more random approaches to information.

Thinking types are more likely to use the Internet for information gathering than their Feeling counterparts, and the impersonal nature of the information and its environment may also explain this. It could also be that an initial preference is enhanced by frequent usage: as Thinking types use it regularly they may become more skilled, they become more effective at gathering information.

Table 4: Correlation of purpose of internet usage with personality dimensions

	Energising E-I	Attending S-N	Deciding T-F	Living J-P
I use the internet for imaginative applications	0.020	0.184 *** N	0.074	0.032
I use the internet to buy things	0.002	0.069	0.057	0.047
I use the internet to get the information I need	0.039	0.183 **	0.178 **	0.128
I use the internet for innovative applications	0.069	0.041	0.062	0.092
I use the internet to surf for fun	0.037	0.119 * S	0.051	0.025

*** p<0.01** p<0.05 *p<0.10

Conclusions

This test of MBTI personality type as a construct for understanding individual internet usage supports the view that psychological constructs are important. It provides a pathway for further study of the ways in which psychographic characteristics affect internet usage.

The study shows that different types perceive the internet in different ways, and behave differently in using it. Online marketers need to take this into account when designing and promoting their internet services.

Internet practitioners could use the results of this study to help develop strategies to capture and hold the attention of internet users with different personality types. In particular, e-mail communication outlets should be provided, to attract usage from Introverts. The structure of web-site information, and the way it is accessed, should consider the needs of both Sensing and Intuitive information gatherers. Attracting Feeling types may require special consideration of the human content of the offering, and a promotional approach which addresses the human dimension.

The evidence from this study shows that internet sites need to provide a combination of activities and approaches that promote a positive internet experience, encouraging sustained, or repeated, usage. This study demonstrates that personality is an important variable in achieving this.

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