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Information overload and perceived productivity amongst tertiary students

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ABSTRACT

Information overload, as a result affects individuals' ability to effectively process the constant flow of information and perform required tasks. Over decades, technological advancement has increased the production of information, leading to increasing levels of information overload. Recent research propose that the abundant flow of existing information and how it interrupts the manner in which people conduct tasks can affect decision making, productivity and how individuals perform tasks. The purpose of this study was to determine the perceived relationship between information overload and perceived productivity amongst Information and Knowledge Management undergraduate students at the University of Johannesburg (UJ). The sample used consisted of 205 undergraduate Information and Knowledge management students. The collected statistical data was analyzed using SPSS software. The data suggests that the availability of a large number of information streams does not have a noticeable effect on the perceived performance of the students in the sample.

INTRODUCTION

With the constant increase in information and data through the interconnectivity of people, more time is spent filtering and processing information [7]. This can have an effect on the productivity of people. "Current research suggests that the surging volume of available information - and its interruption of people's work can adversely affect not only personal well-being but also decision making, innovation, and productivity" [4].

Information overload was first introduced as a concept in 1970 by a psychologist Alvin Toffler in a book entitled Future Shock [8]. Currently highly active social networks that are accessible through electronic devices keep us constantly connected, causing potential welcome distractions from tasks [3]. In the past, problems experienced regarding information were those of scarce usable information, while the problem today, is that of information overload [6]. Computers today are common because of their ability to produce, manipulate and distribute information at a much faster pace than people can process it [6].

Adegbilero-Iwari [1, p757] argues that information overload can be caused by factors such as; the tasks at hand which require completion, the nature of information and the likelihood to misuse information technology such as the Internet, social media and e-

mail. Young people are the warmest embracers of mobile devices that are equipped with a number of information intensive applications [1, p757].

LITERATURE REVIEW

Information users dismally fail to assimilate information because of its large quantity [5, p52]. As the measure of data streaming into our lives has expanded exponentially, we get ourselves pushed from the diversion, intrusion and weight which this determined stream of data places on us. Information overload can have a negative impact on individuals as it comes as an interruption to a task or an activity that has to be performed, especially now with the existing wide range of technologies that deliver information regardless of the receiver's geographical location or time. Similar to an observation made by [5, p52] reveals that, information overload normally manifests in situations where an individual's competency to using information to carry out their tasks is hindered by the amount of relevant, valuable, information available at their disposal. It is in this regard that information overload is normally associated with the individuals processing ability.

People are dependent on information to better understand the world in which we live in, for good decision making, to get things done, and to learn about what we affect and what affects us. The importance of information makes it necessary to manage information in such a way that enables the ease of access and its use. However, challenges are encountered once the quantity of information exceeds the filtering capacity of the individuals [2, p143].

Hoq [5, p52] is also of the view that the effect of little or no information to process normally leads to poor decisions. Therefore, it is of paramount importance that any increase in information is actually in parallel with the processing capacity of individuals in order to enable them to make good quality decisions. However, an individual can only process information to a certain level and when it has been reached it then automatically dampers the ability of good decision making. Hoq [5, p54] believes that there is more than one causes of information overload. In reality there are five significant causes of information overload, and they range from; "multiple sources of information, too much information, difficult to manage information, irrelevance or unimportance of information, lack of time to understand information".

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RESEARCH DESIGN

A quantitative data collection method was used, in the format of a questionnaire. Convenience sampling was used to achieve the responses from 205 undergraduate Information Management students at the University of Johannesburg. Analysis was done through SPSS. The descriptive statistics are reported in the findings.

FINDINGS

As far the general demographics go, a total of 205 participants from Information Management 1st year, second year and third year classes completed the questionnaire. This survey was also conducted on two campuses (Auckland Park and Soweto). From the participants 70% were between the ages of 19-21 years of age. From the participants 59% were Males and 41% were Females. As expected, 96% of the students were registered in the Faculty of Management (the home Faculty for the Information Management module).

From those participating in the survey, a total of 87% owned a smart phone, 72% had a laptop, 50% owned a tablet and 24% had a desktop computer at the place of residence. Overall it seems that the group of students was fairly well connected. UJ does have a policy that insists that all 1 year students have a device to connect to the Internet to conduct their academic work. 72% of the students claimed that they had a smart phone prior to enrolling at UJ. The students were asked where they were accessing the Internet (from what location); 47% were using the Internet on campus, 32% from their home or place of residence, 16% from the library, 5% at a café or coffee shop and only 0.5% were using the Internet at work.

The students were asked to self-assess their academic performance, this was important to understand how they perform and investigate if information overload is affecting their performance. 62% of the students claimed they were performing above average, 22% claimed they were adequate, 11% claimed they were exceptional and only 5% were battling to cope. The students were also asked if they were able to finish their work on time indicating 50% claimed Always, 36% Sometimes, 12% Rarely and 2% Never. The students were asked if they were confused about what information to use is best, 48% indicated Yes, while 42% indicated Occasionally and only 9% indicated No. 39% of the participants indicated that they very often find it difficult to focus.

Table 1 shows the information viewing activity per hour. The most notable activity is highlighted in red, according to the responses, 12% looked at their text messages 30 times or more every hour, WhatsApp usage seemed exceptionally high with 23% of the students looking at their messages 21-30 times an hour and 24% checked their messages more than 30 times an hour. Another mentionable responses recorded was

24% checking their Facebook feeds 21-30 times per hour.

Table 1: Information stream usage per hour

Frequency per hour	Text SMS	Emails	Whats App	Instagram	Facebook	Twitter
Less than 10	55%	66%	29%	55%	45%	78%
10-20 times	26%	20%	24%	22%	23%	13%
21-30 times	8%	8%	23%	17%	24%	3%
More than 30 times	12%	6%	24%	7%	8%	6%

Table 2 shows the resources for collecting information for University related work. The most used source of information was a search engine, followed by the library database, ebooks and books and magazines,

Table 2: Resources used to collect information

Resources	% of usage
Search engine	88%
Library database	68%
Books and magazines	49%
eBooks	58%

The participants were asked if they had sufficient time to process and filter information, which helps gauge to some degree the potential feeling of overload, 42% indicated they had sufficient time to process and filter, while 42% indicated occasionally and 16% claimed they did not have sufficient time to process and filter information. The participants were asked if they were able to resist replying to a text message, indicating only 23% were able to resist responding, 33% most of the time, 36% occasionally and 8% were unable to resist responding. The participants were also asked if they received too many messages, 32% indicated No, 29% Yes and 39% Occasionally. Lastly the participants were asked if they were able to distinguish the difference between useful and distracting information, most of them (62%) were able to distinguish the difference, only 3% claim they could not distinguish and 35% Sometimes.

IMPLICATIONS OF FINDINGS

From the above descriptive statistics it is very difficult to determine whether the students experience information overload, some indicators do suggest they are potentially challenged by the increase in information and media channels, in many cases students are looking at their phones or other devices as much as 30 times or more an hour for messages (difficult to determine what effect this has on their productivity). The self-assessed academic performance seems favorable as most of the students saw their performance as above average and the ability to finish

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work on time seems adequate (50% Always and 36% Sometimes). One trend that is noticeable is the change in communication flow and the increased amount of information that is shared with others. This could potentially be something for Universities to lookout for and possibly look creating support for those who believe they are not coping.

CONCLUSION AND RECOMMENDATIONS

The main objective of the study was to determine the relationship that lies between information overload and perceived productivity amongst tertiary education students at the University of Johannesburg. Likewise, according to the findings, the researchers have found it difficult to establish the relationship between information and productivity and performance amongst those participating. A considerable challenge was the development of items to assess the concepts of information overload and productivity. This may create an interesting area for further research.

However experience and evidence shows a continual increase in information flow as society becomes more and more connected, more data is generated each day. This does pose a potential challenge to students at universities.

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