



# Generation and the Google Effect: Transactive Memory System Preference Across Age



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## INTRODUCTION

Advances in information technology have allowed information to penetrate our lives like never before. We are surrounded by information from our smart phones, laptops, tablet, the internet, and so on. It may be that these new resources are changing the way we think. Specifically, it could mean offloading an element of human cognition – memory – to the internet and related technologies.

## BACKGROUND

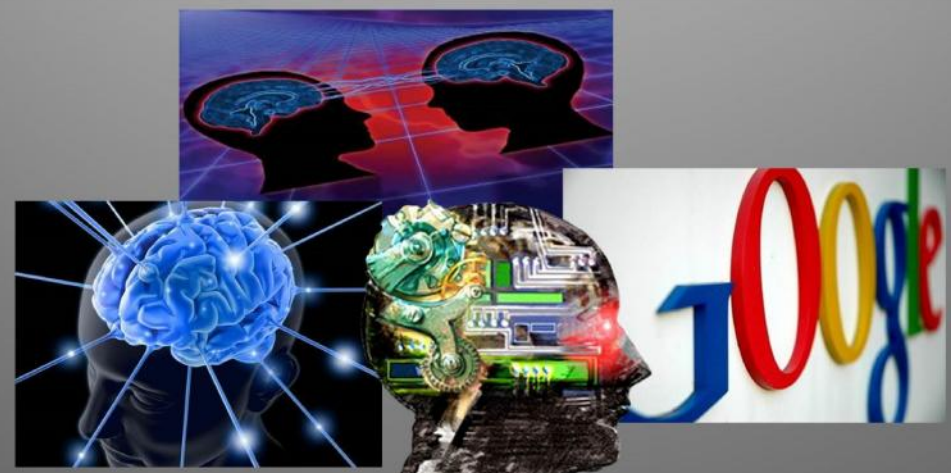
A Transactive Memory System (TMS) is a means by which people may store information externally to be retrieved at a later time.  
Sparrow, Liu, & Wegner (2011): when people think they will have future access to information, recall of it declines, yet recall for where it can be found increases.

'Google effect' of memory: emerging tendency to remember where information may be retrieved rather than remembering the information itself.  
What is lacking in the current literature is a evidence of that shift in thinking – a comparison across age groups.

The current study employs a modified Stroop task that uses target (computer- and book-related) and neutral terms to give insight into what people are thinking.  
Previous research has shown that reaction times will be slower in the Stroop when the term presented is of interest and accessible, i.e. when a person is thinking of it.

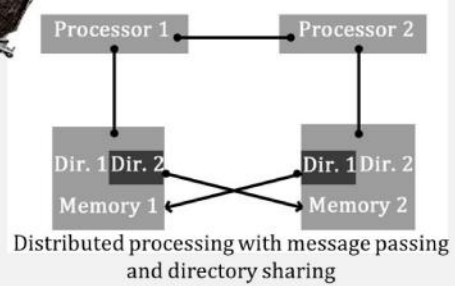
## HYPOTHESIS

Interaction between age group (old/young) and TMS type (Stroop terms): Those older in age will show a higher preference for books over computers; similarly those younger will show a higher preference for computers over books.



## TMS: a computer model

This system allows a person (processor) to access a wider knowledge base by coordinating their memory with agents in the environment (ex: other people) by sharing directories.



## METHOD

Design: 3X2X2 ANOVA

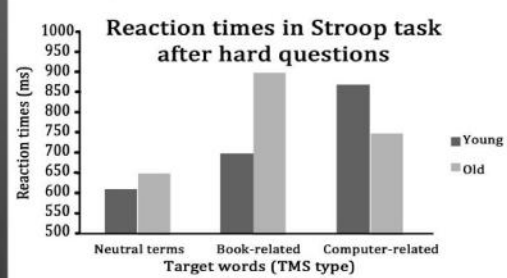
Easy	Age	Young	Stroop Terms		
			Neutral/Unrelated	Book-related	Computer-related
		Old			
Hard	Age	Young	Stroop Terms		
			Neutral/Unrelated	Book-related	Computer-related
		Old			

Procedure:

1. Stroop program  
Training exercise, keep a number in short-term memory, easy and hard question blocks, & two experimental Stroop tasks
2. "Look up or Learn" survey  
How do people consume information? How do they decide whether to lookup or learn?
3. Demographics Questionnaire  
Experience with and use of different forms of information media

## ANTICIPATED RESULTS

Those older will show slowest reaction times for book-related terms, and those younger will show slowest reaction times for computer-related words.



## SAMPLE STIMULI FROM STROOP PROGRAM

Please memorize the following number: 28473  
Please say key to continue when you are ready.

RED BLUE  
hammer

RED BLUE  
internet

RED BLUE  
laser

YES NO  
Is Krypton's atomic number 26?

RED BLUE  
book

YES NO  
Was Cat in the Hat written by J.D. Salinger?

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