Retrieval in the Information Age: How interface design can affect long-term memory Geoffrey L. McKinley¹ and Aaron S. Benjamin² Georgia School of

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The mnemonic benefit of retrieval is not widely appreciated, and is often underutilized (Karpicke et al., 2009; Tullis et al., 2013)	General pr Participants we	
Smart phones make a great deal of information readily accessible.	On each trial, p	
 Current motivation To examine how access cost influences lookup behavior To examine the downstream consequences of this access cost 	In the first block they could choo Each pair was After a 1-day re	
Experiment 1: Time access cost		
sanctuary - recover - closing - arrogant - mineral -		
building - excellent - intuition - showcase - wildlife -	k	
fragment - airline - clothing - birthday -		
teenager - informal - employee - container - religion -		



Target appeared after a 0 s (cheap) or 1.5 s (costly) delay

wildlife -



In both experiments, participants in the costly condition looked up words less often than in the cheap condition, which resulted in better memory. These effects were significant only when the data from the two experiments were combined.

ocedure

ere shown a grid with word cues.

participants were shown cues in the bottom center box and asked to type in the target.

ck, they had to look the target up in the grid, but after multiple blocks oose to retrieve the target from memory.

queried in each of the 5 blocks.

etention interval, participants were given a cued-recall test.

Experiment 2: Perceptual access cost								
informal -	container -	recover -	excellent -	egestas -	pretium -	wildlife -		
vulputate -	showcase -	luctus -	auctor -	etiam -	ligula -	turpis -		
closing -	libero -	nullam -	fragment -	arrogant -	clothing -	sanctuary -		
building -	employee -	amet -	mineral -	airline -	diam -	birthday -		
creature -	lacinia -	intuition -	faucibus -	lobortis -	religion -	placerat -		
laoreet -	teenager -	rhoncus -	massa -	aliquet -	donec -	dapidus -		
wildlife -								

Display density was either low (cheap) or high (costly)



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