V. GARG, L. HUBER, L.J. CAMP, K. CONNELLY. **Risk communication design for older adults.** *Geron-technology 2012;11(2):166;* doi:10.4017/gt.2012.11.02.486.00 **Purpose** Older adults are more susceptible to fraud offline than younger adults. As they increasingly use the internet for activities including managing financial assets, this susceptibility is transferred online. Thus, there is an imminent need to communicate the risks inherent in these new technologies, especially that of data disclosure, to older adults. These risks might best be communicated by using appropriate mental models and grounding analogies in more familiar risks, e.g. physical risks. Using videos rather than text may improve comprehension as well as address other concerns of aging, e.g. attention and memory[1]. While videos can lead to richer comprehension, multi-media communications can challenge cognitive reserves[2]. We present the design of narrative-driven risk communication videos that leverage physical analogies to answer the following questions: (i) What are the determinants of older adults perception of online risk, specifically for responding to phishing and malware e-mails?; and (ii) What is the effect on comprehension when using videos as opposed to text? **Method** To investigate the determinants of older adults' perceptions of online risk, Garg and Camp[3] investigated a nine-dimensional model (Fischhoff et al.[4]) of risk perception that is based on an expressed preferences. They found that not all the nine dimensions are equally relevant online. They proposed a five-dimensional model[3] for online risks consisting of voluntariness, immediacy, control, chronic-catastrophic, and severity. These dimensions were adapted to create a survey to assess elders' determinants of risk. For example, voluntariness is redefined as, "To what extent does an older adult have a choice in being exposed to this risk? (1=Voluntary, 5= Involuntary)". Our second question, whether video is more effective than text in communicating risk, was evaluated by participant comprehension: participants' ability to identify the risk, the attack vector, the impact of risk if exploited, and strategies to avoid or mitigate the risk. We conducted pilot studies with a convenience sample of 12 older adults (8 female and 4 male). Six participants watched the videos, the other six read the textual description of the risks, and each filled out associated surveys. **Results & Discussion** All 12 participants rated the risk of responding to be higher than that of not responding, but not all items on the five dimensions were rated higher for responding (*Table 1*). This indicates that not all dimensions have equal weights in the construction of perceived risk. Participants in the video group were more likely to verbalize the risk of responding or not responding, suggesting videos might be better at explaining online risks to older adults.

References

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Table 1: Average risk rating for video vs. text groups; R=Responding, NR=Not Responding

Variable	Video		Text		Rating Scale
	R	NR	R	NR	
Voluntariness	2.5	3	1.8	2.0	1=Voluntary 5=Involuntary
Immediacy	1.5	3.3	1.8	2.5	1=Immediate 5=Delayed
Control	3	4	1.8	4.0	1=Unconscious, 5=Conscious
Chronic to Ctstrpic	3.8	3.3	3.0	2.8	1=Chronic 5=Ctstrphc
Severity	5	4.5	5.0	2.5	1=Not severe, 5=Severe