Supplementary Material for:

(When) Is a Summary Really Worth a Thousand Words? – How Textual and Visual Customer Review Summaries Affect Cognitive Load During Online Purchase Decisions

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Appendix A Online Shopping Site

Note: *For all experimental groups, the position of the smartphones and the position of the customer reviews are randomized to avoid any potential order biases.*

No Summary Group

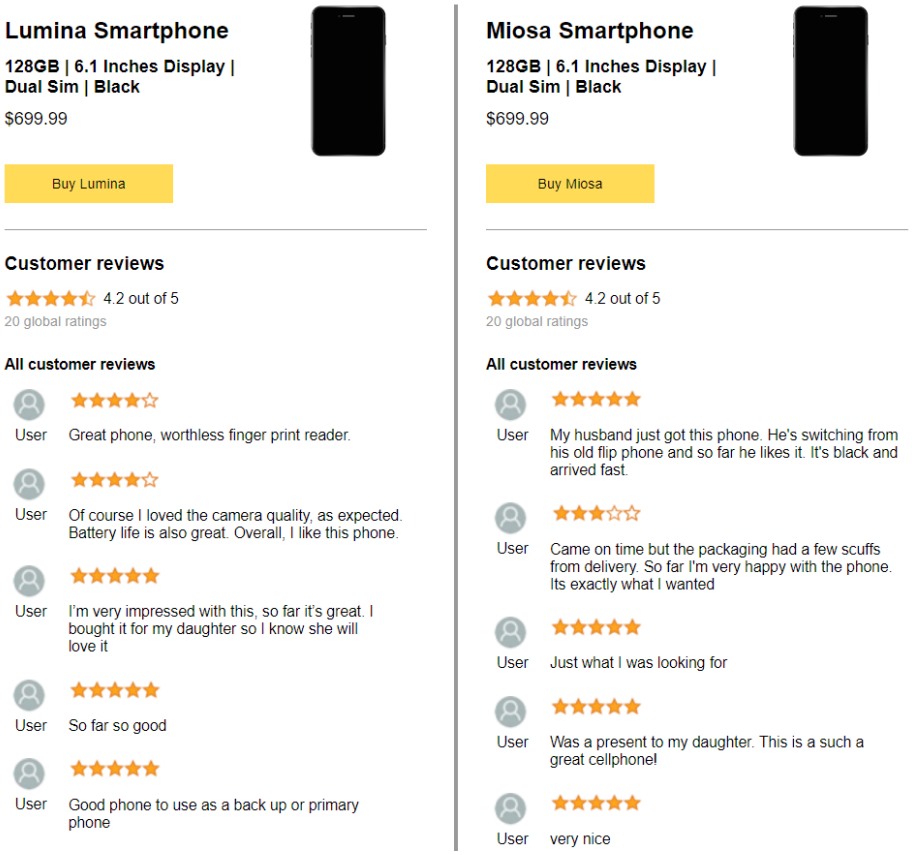

Figure 1. No Summary Group

Textual Summary Group

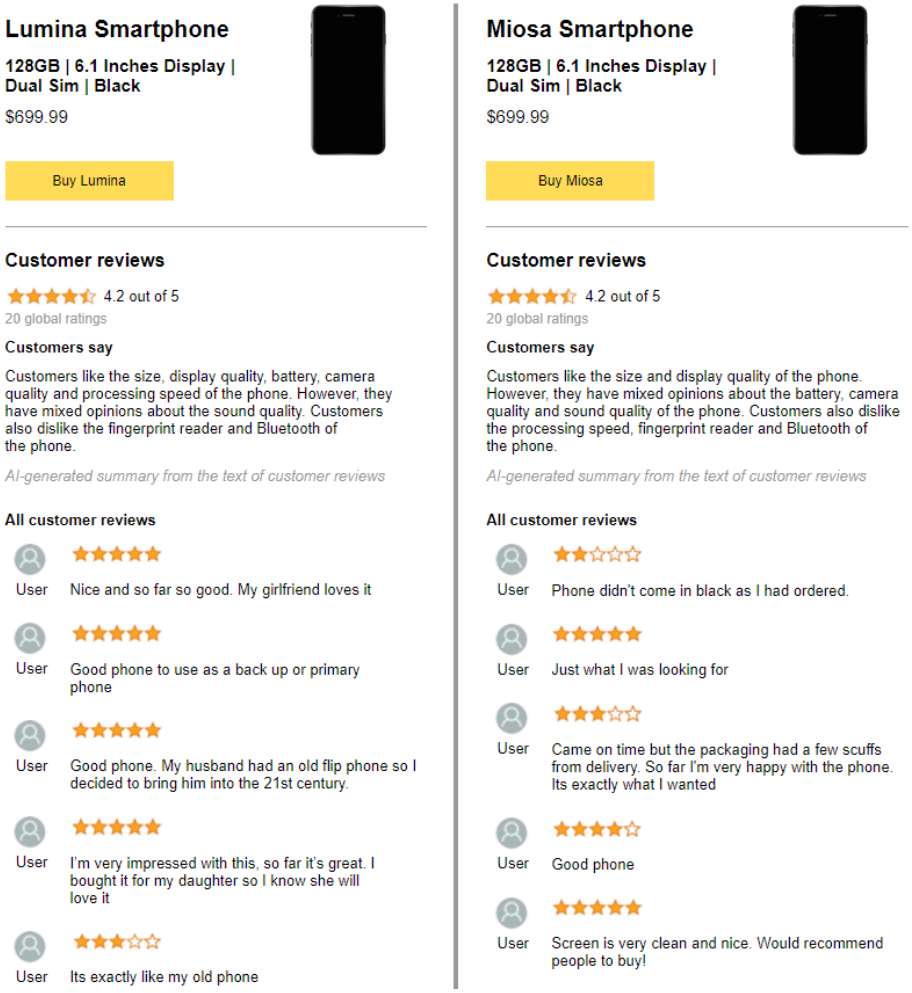

Figure 2. Textual Summary Group

Visual Summary Group

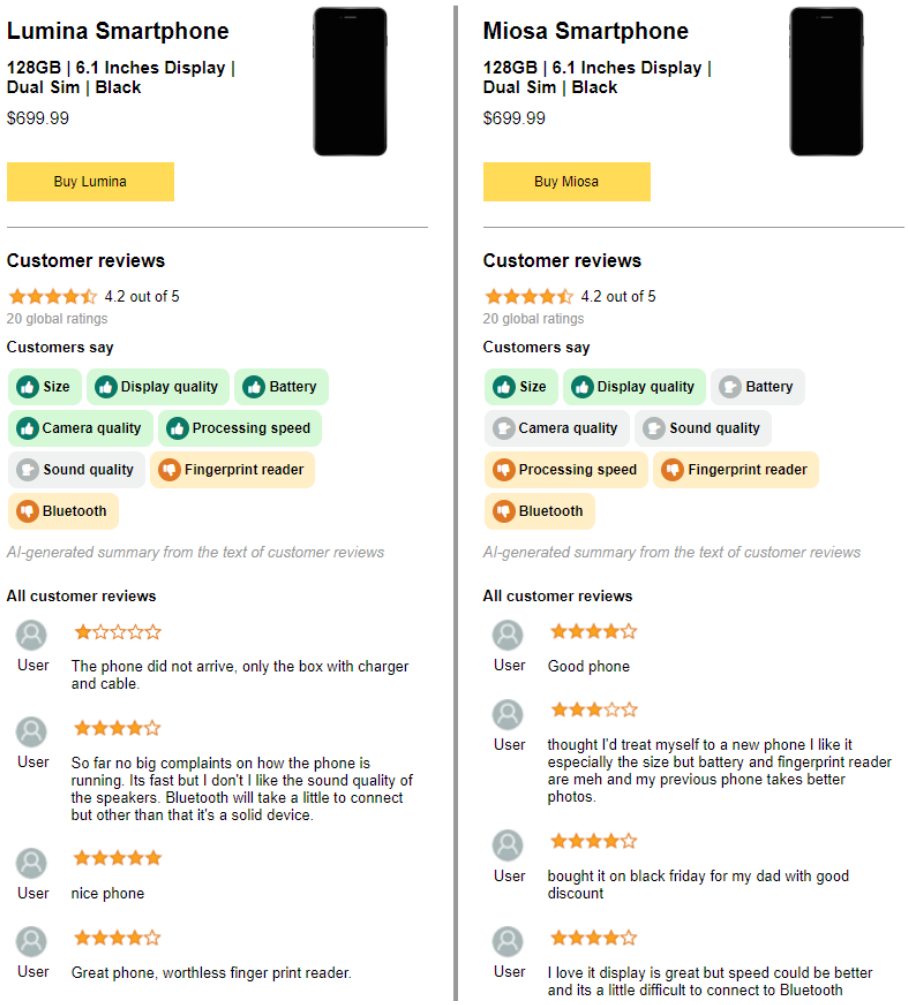

Figure 3. Visual Summary Group

Textual x Visual Summary Group

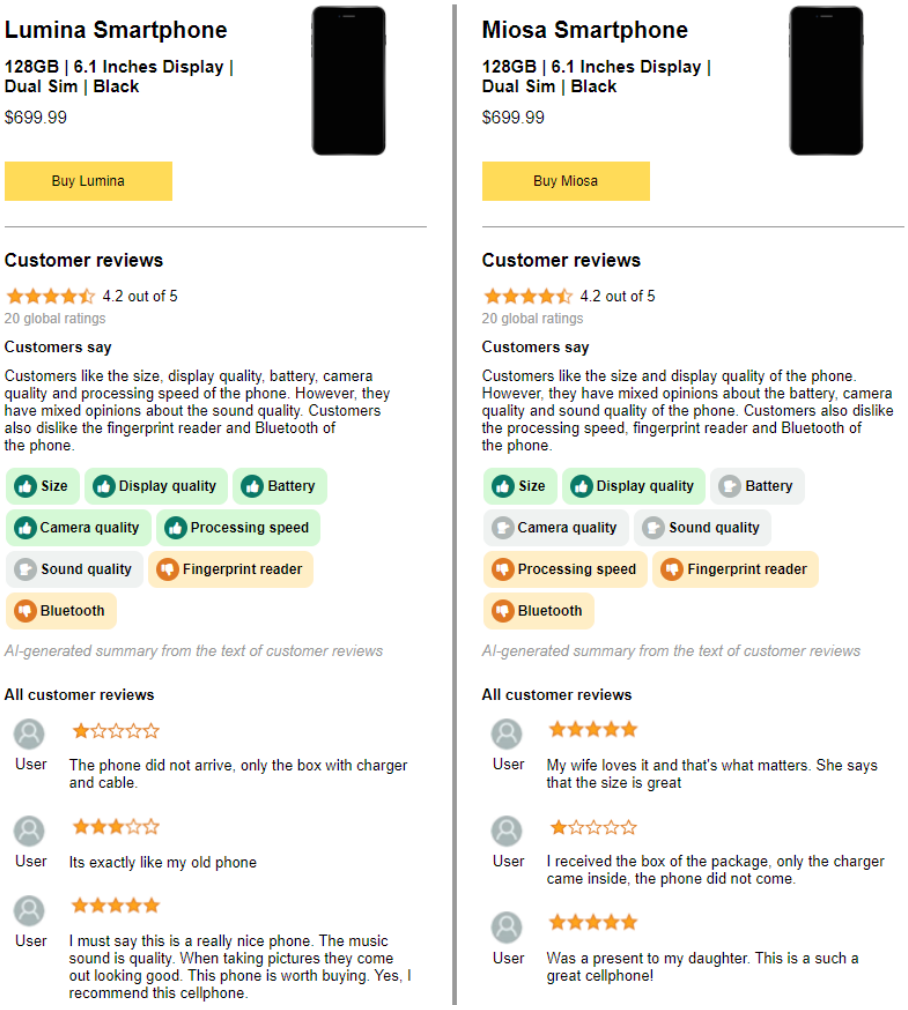

Figure 4. Textual x Visual Summary Group

Appendix B Overview of Items Used in the Experiment

Dependent Variable

Cognitive Load	
It was exhausting to find the important information to decide on a smartphone.	Adapted from Klepsch et al. (2017)
The way the provided information was presented on the online shopping site was very impractical for learning about the quality of the smartphones.	
It was difficult to recognize and link the crucial information to decide on a smartphone.	
All items are based on a 6-point Likert scale (1 = Strongly Disagree to 6 = Strongly Agree).	

Table 1. Items for Cognitive Load

Control Variables

Sociodemographic Questions
Age
Gender
Education
Income

Table 2. Sociodemographic Questions

Familiarity with Online Shopping, Customer Reviews, and Smartphones
Familiarity with Online Shopping How often do you shop online?
Familiarity with Customer Reviews How often do you read online customer reviews before buying a product online?
Familiarity with Smartphones What is your experience with smartphones?

Table 3. Items for Familiarity with Online Shopping, Customer Reviews, and Smartphones

Attitude Toward AI	
I feel positive toward AI technologies. I feel that using AI technologies is pleasant. Using AI technologies is a good idea. Using AI technologies is a smart way to get things done.	Adapted from Choung et al. (2023)
All items are based on a 6-point Likert scale (1 = Strongly Disagree to 6 = Strongly Agree).	

Table 4. Items for Attitude Toward AI

Decision-Making Style	
When I am in the car listening to the radio, I often check other stations to see if something better is playing, even if I'm relatively satisfied with what I'm listening to. I often find it difficult to shop for a gift for a friend. Choosing a movie from streaming services is really difficult. I'm always struggling to pick the best one.	Adapted from Schwartz et al. (2002)
All items are based on a 6-point Likert scale (1 = Strongly Disagree to 6 = Strongly Agree).	

Table 5. Items for Decision-Making Styles

Information Processing Styles	
Textual information processing style I enjoy tasks that require the use of words. I do a lot of reading. I like to learn from words. *Visual information processing style* My thinking often consists of mental "pictures" or images. I generally prefer to use a diagram rather than a written set of instructions. When I forget something, I often try to make a mental "picture" to remember it.	Adapted from Childers et al. (1985)
All items are based on a 6-point Likert scale (1 = Strongly Disagree to 6 = Strongly Agree).	

Table 6. Items for Information Processing Styles

Appendix C Reading Span Task

Note: *To measure participants' actual working memory capacity, we implemented a reading span task following the algorithm of Oberauer et al. (2000): In the experiment, we first provided participants with instructions for the reading span task (see Figure 5). We implemented a sample round with two sentences (see Figure 6 for an example) and a recall phase with brief instructions (see Figure 7) to ensure that participants understood the procedure. After the sample round and for the actual reading span task, we showed participants five rounds of three sentences each (see Figure 8 for an example), followed by a recall phase after each round (see Figure 9).*

To construct the sentences, we followed the suggestions of Oberauer et al. (2000) and ensured that each sentence was between four and seven words, syntactically simple, clearly identifiable as "true" or "false", and ended with a familiar noun.

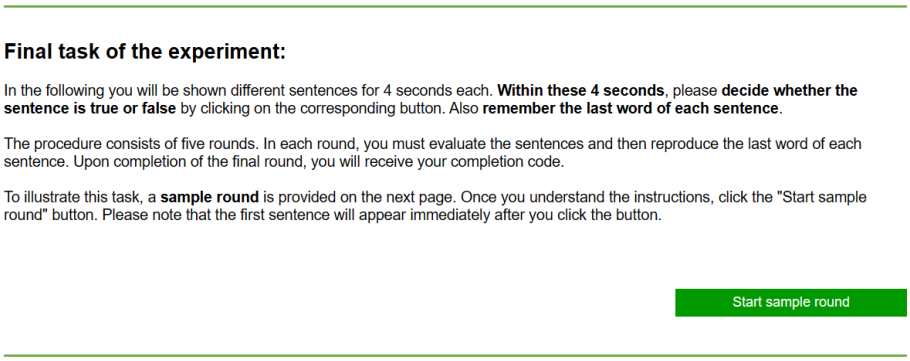

Figure 5. Instructions for the Reading Span Task

Figure 6. Example Sentence for the Sample Round

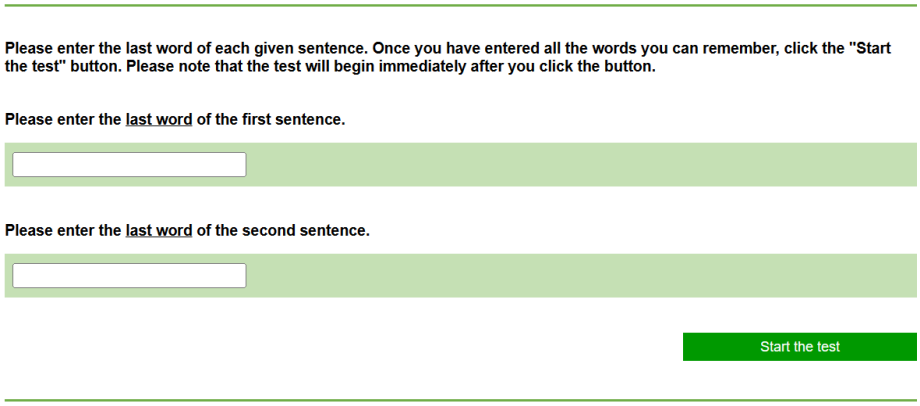

Figure 7. Recall Phase for the Sample Round with Instructions

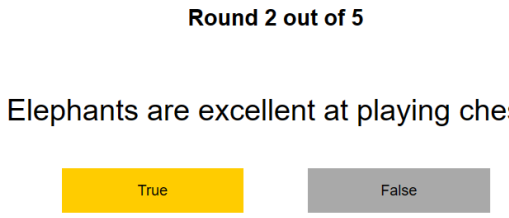

Figure 8. Example Sentence for the Reading Span Task

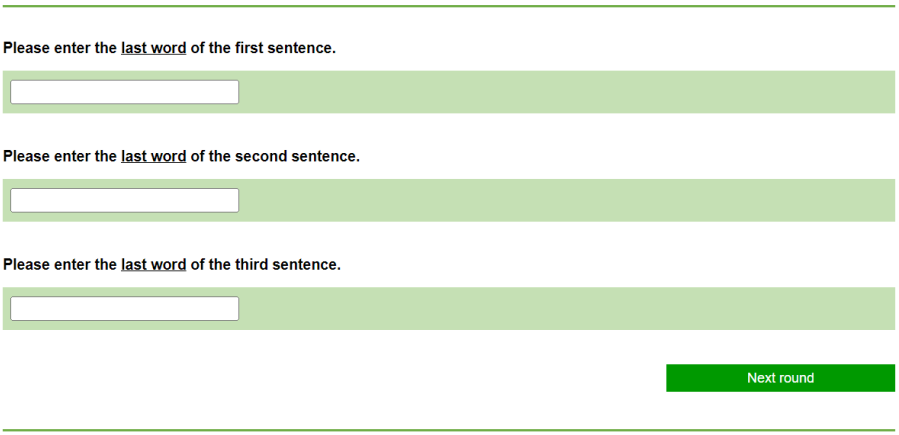

Figure 9. Recall Phase for the Reading Span Task

References

Childers, T. L., Houston, M. J. & Heckler, S. E. (1985), 'Measurement of Individual Differences in Visual Versus Verbal Information Processing', *Journal of Consumer Research* 12(2), 125–134.

Choung, H., David, P. & Ross, A. (2023), 'Trust in AI and Its Role in the Acceptance of AI Technologies', *International Journal of Human–Computer Interaction* 39(9), 1727–1739.

Klepsch, M., Schmitz, F. & Seufert, T. (2017), 'Development and Validation of Two Instruments Measuring Intrinsic, Extraneous, and Germane Cognitive Load', *Frontiers in Psychology* 8, 1997.

Oberauer, K., Süß, H.-M., Schulze, R., Wilhelm, O. & Wittmann, W. W. (2000), 'Working memory capacity — facets of a cognitive ability construct', *Personality and Individual Differences* 29(6), 1017–1045.

Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K. & Lehman, D. R. (2002), 'Maximizing Versus Satisficing: Happiness Is a Matter of Choice', *Journal of Personality and Social Psychology* 83(5), 1178–1197.