

*Article*

# The Influence of Peer Reviews on Source Credibility and Purchase Intention

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**Abstract:** Electronic Word of Mouth (eWOM) is information shared on the Internet about a product, which allows people to receive information from others they may not otherwise encounter. Online product reviews are a type of eWOM where a user posts a comment about a product and selects an image to represent the self. The perception of the image and the text in the product review can influence source credibility and the perception of the product, as well as the likelihood that someone will purchase the product. This study examines the effect of the product reviews and their different images and text on perceived credibility, source trustworthiness and purchase intention. Consistent with predictions based on the information processing theory, perceived anthropomorphism influences perceived credibility, source trust, and purchase intention.

**Keywords:** eWOM; purchase intention; source credibility; avatars; virtual representation; online product reviews; anthropomorphism

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## 1. Introduction

People have modified the way they research products as they integrate online information into their purchasing decisions [1–4]. Blogs, email, online communities, and social media allow people to interact, share opinions, and read information posted by other users. People use the information

available online in a variety of ways and it influences opinions, beliefs, and behaviors. This is true whether this information is posted by anonymous others, people encountered either online or offline previously, or by close family and friends. One type of decision people make that is highly influenced by information posted online, is whether or not to purchase a particular product. When making purchasing decisions, people frequently seek out interpersonal sources of information about products, called word of mouth (WOM), or electronic word-of-mouth (eWOM) when it is online [1–5]. Whether electronic or not, WOM is understood to be information about a product coming from a source that is not paid for or associated with the company selling the product [6].

With offline WOM, potential consumers have to seek out others with experience about the product of interest, which can be a challenge. When moved into the online realm, an easy search for the product or visit to any one of numerous websites can allow consumers to view reviews and information about a product posted by consumers who have purchased or considered the product. Consumers can visit a variety of websites and see numerous reviews on a product and even comparisons to alternative products that might fulfill the same need [7]. An additional difference between WOM and eWOM is in the familiarity with the source. Offline, the source is likely to be known by the consumer or have some other connection with them that allowed them to discuss the product. Offline, the source of information may be known only by a username, and the information they posted, as well as possibly an image. The reviews are frequently from anonymous or unknown sources and the only connection is potential interest in the same product.

One type of eWOM is called an online product review, where consumers who have purchased or considered the product post directly to a product's webpage describing their opinions about the product's performance or features [1,7]. The opinions and ratings of the products also generally include brief profile information about the consumer (source) posting the review including community-rated reputation of reviewers indicating the perceived usefulness of previously posted reviews and other products purchased or rated [8]. The reviewers can also generally select visual images, or icons, to represent them, called virtual representations or avatars. These online product reviews are a type of eWOM that provide information directly from sources believed to be outside the control or influence of the corporation. This is important because users trust information from sources, including anonymous Internet users, more than information from the corporation itself [6,9]. This means that eWOM is perceived to have more credibility and would have more influence over purchasing decisions than marketing materials or advertising [3,5,10], assuming the same level of exposure to the message.

These product reviews affect consumer experiences, opinions of products, source perception, and purchase intention, and the question of the relative role of different sources, including eWOM, in the process of decision making and persuasion has been considered by a variety of researchers across contexts [8,10–13]. As information processing theory explains [14,15], there is a sequence of context invariant stages people follow when processing information, and this same process is followed when the information is online [12,16]. Consumers have to make judgments about the motives and credibility of the source, as well as the quality and usefulness of the information provided about the product prior to deciding how much the review will influence purchasing decisions [1,3,9,17]. All aspects of the review itself including the text of the review and any available information about the source will play a role in this assessment [2–4,8,11,18–21]. These attributions of the source's

credibility and motives influence the processing and weight given to the message [14,15,22], and the perceived usefulness of eWOM is dependent upon perceived credibility and source trustworthiness [9].

This paper will use previous research on virtual representations and information processing theory to predict social potential and the influence of images associated with product reviews on purchasing decisions. It specifically examines the relative influence of the perceived anthropomorphism and credibility of different images, and the quality of the text of an online product review on source trustworthiness, perceived review quality, and purchase intention in an online setting. The results contribute to our understanding of how people process information and respond to the features of message stimuli from people outside their traditional face to face social networks, and how that influences perceptions of sources, online product reviews, and purchasing decisions [10].

## **2. Processing Information in the Online Product Review**

In online product reviews, there are usually images of products and the source of the review, along with descriptions and consumer opinions of the products in text format. Essentially, information processing theory predicts that when users attend to a review they will incorporate all parts of it, as well as any available information about the source, in their assessment of the product including the text-based information as well as the initial icon or image [6,12,16]. People make evaluations and attributions of the source as they determine how much weight to give the review in their purchasing decisions. The evaluation of information is influenced by the way it is presented to the senses, an individual's perception of the credibility of the source, as well as his or her own sense of expertise on the topic [23–25]. Source credibility is the perceived ability and motivation of the source to provide helpful and accurate information about the product, which influences the perception of the quality of the information. Sources and messages that are perceived to be less credible or trustworthy are less effective and influential, which has continued in online interactions [3,26,27]. The perception of source credibility influences the way information is processed, what is remembered, and how the information is used, which will also influence purchasing decisions [9,28].

There are multiple factors influencing how people process and use peer reviews including assessments of source credibility, associated images and the text itself, which will determine how much the peer review influences decisions about which products to purchase [8,9]. With eWOM, consumers do not have previous experience with, or knowledge about the source or what motivated the source to provide the review other than what may be provided by the reviewer's profile, and these factors influence perceived source credibility offline [19,29]. This means that when online, they have to make judgments of source credibility using just an image, possibly the reviewer's profile, and some text the reviewer provided. Even so, previous research shows that the perceived credibility of a product review can influence source trustworthiness, and purchase intention [9,25,28]. The next section examines the predicted influence of the peer review on purchasing decisions, considering the quality of images and clarity of the text both separately and together.

### *2.1. The Influence of Peer Review Images on Source Credibility*

Information processing theory maintains that people process all stimuli and messages by following a predictable process in assessing source credibility with all available information influencing

perceptions, which in turn influences the way information is used [13,30,31], as well as the effectiveness of persuasive messages [14,15,22,32]. Visual information in an online setting can vary across interfaces and platforms and includes usernames, icons, images, or avatars. While the term avatar is generally reserved for images representing a person in real time, other types of images can represent people in asynchronous interactions or even represent corporations or computer programs. Images can be anthropomorphic (have human morphology) or not; they can look like familiar animals or objects, or represent fantasy characters; they can be static or animated; they can even be two or three-dimensional [33]. There is a lot of variance in the types of computer generated images online. The appearance and morphology of these images can vary according to user preferences, design decisions, system affordances, and computer processing ability, with all of these possible variations influencing perceptions of the source and associated information in different ways [13,16,18,29,33–37]. Previous research looking at Buddy Icons selected for Instant Messaging interactions showed that only about 32% of people select human images to self-present, the rest of the images selected were either object (20%), scenes (12%), or animals (8%) [38].

There are individual differences including personality variables and interaction goals that predict perceptions and reactions to avatars and images [33], and these factors interact with the format of presentation to influence how people process the information provided and how this information ultimately impacts purchase intention [10,29]. The perceived credibility of images has been shown to influence perceptions of presidential candidates, television commercials, and even people met face to face, avatars and online images have a similar influence on perceived credibility of the associated sources [11,16,19,39]. Thus, the perceived credibility of the image is predicted to influence the perceived credibility of the source itself as well as the way people respond to product reviews.

There are certain factors that are known to influence the perception an image's credibility, and one of the most influential of these is perceived social potential, which research has consistently shown to be driven by perceived anthropomorphism [12,33,37]. Visual anthropomorphism is defined here as the extent to which an image is perceived to have human morphology or visual characteristics associated with humans, or the extent to which one is seen as human, or even humanlike [16,18,40–42]. The perception of anthropomorphism is among the first and most critical judgments made in the evaluation and perception of a social entity. Information processing theory argues that it is this perception of humanness or social potential that engages the charisma sequence and leads to the creation of personae and to categorizations associated with humans [12,16]. These attributions reflect fundamental distinctions in perceived social potential and behavior. Thus, perceptions of anthropomorphism have a significant influence on overall image perception, and increase perceptions of credibility in related information and sources [16,33,34,36,39]. Generally, stimuli that are perceived to look remotely human, are responsive, display intelligence and/or emotion, are perceived to have high social potential, and are expected to be more credible and capable of behaving in socially appropriate ways [43]. A recent analysis on embodied virtual agents (bots) in online consumer settings found that people overestimate the abilities of the agent based on the agent's visual appearance, leading them to argue that those who perceive an image to be anthropomorphic have higher expectations for its social potential [12,16,34,36].

Some people have different reactions to images than others just as people have unique experiences leading to perceptions of, and reactions to, the same stimuli [12,16]. Perceived anthropomorphism

varies across individuals, influenced by a mix of individual differences, personal experiences, as well as the goals and context of the interaction [16,33,36]. Certain images are more anthropomorphic than others. For example, a dinosaur or other animal is by definition less anthropomorphic than a human form, though it will be more anthropomorphic than a scene or object [16,42]. Still, the perception of anthropomorphism is a subjective judgment, meaning that there are individual differences influencing perceived level of anthropomorphism across individuals, and some people will perceive the dinosaur as more anthropomorphic than others. The extent to which an entity is perceived to be anthropomorphic, and/or human influences perceived social potential and credibility [12,16]. This means that while everyone will anthropomorphize images to some extent, some people perceive the same images as more anthropomorphic than others, and these perceptions influence perceived credibility as well as attributions of the source and information associated with the image [43]. Therefore, images rated high on anthropomorphism lead people to have higher expectations for social potential and credibility.

However, because of individual differences, perceptions of anthropomorphism will influence perceived image and source credibility, and these perceptions will vary both between and within different images. This makes it important to measure perceived anthropomorphism and credibility separately and not just consider how it is manipulated if one is to examine the influence of these important variables [16,44]. Therefore, our predictions are not based on the image manipulation. Instead, we predict that the perceptions of anthropomorphism will influence perceptions of credibility, social potential and behavior in future interactions.

Information processing theory predicts that the extent to which an appearance is judged to be credible, will influence perceptions of the source, meaning that the appearance of the person, or the image in the peer review, will influence source credibility and associated text [12]. This is consistent with research on virtual representations and images showing that certain visual characteristics, such as anthropomorphism, increases perceptions of both avatar and source credibility [13,16,34]. As described above, the perception of an image's credibility in the peer review is influenced by the perceived anthropomorphism of the image. Thus, perceptions of credibility are predicted to influence the processing and evaluation of text that is associated with the images, as well as the trustworthiness of the sources represented by them.

H1: Images rated as higher on anthropomorphism will be perceived to have higher credibility than images rated lower on anthropomorphism.

H2: Sources represented by images perceived to be higher on credibility will be more trusted than sources represented by images perceived to be less credible.

H3: Perceptions of image credibility will positively influence perceived text credibility.

H4: Perceived image credibility will positively influence purchase intention.

All of these factors are predicted to influence perception of the text itself, which will also influence product evaluation and purchase intention in an online peer review, as discussed below.

## *2.2. Quality of Text Influences Source Credibility and Purchase Intention*

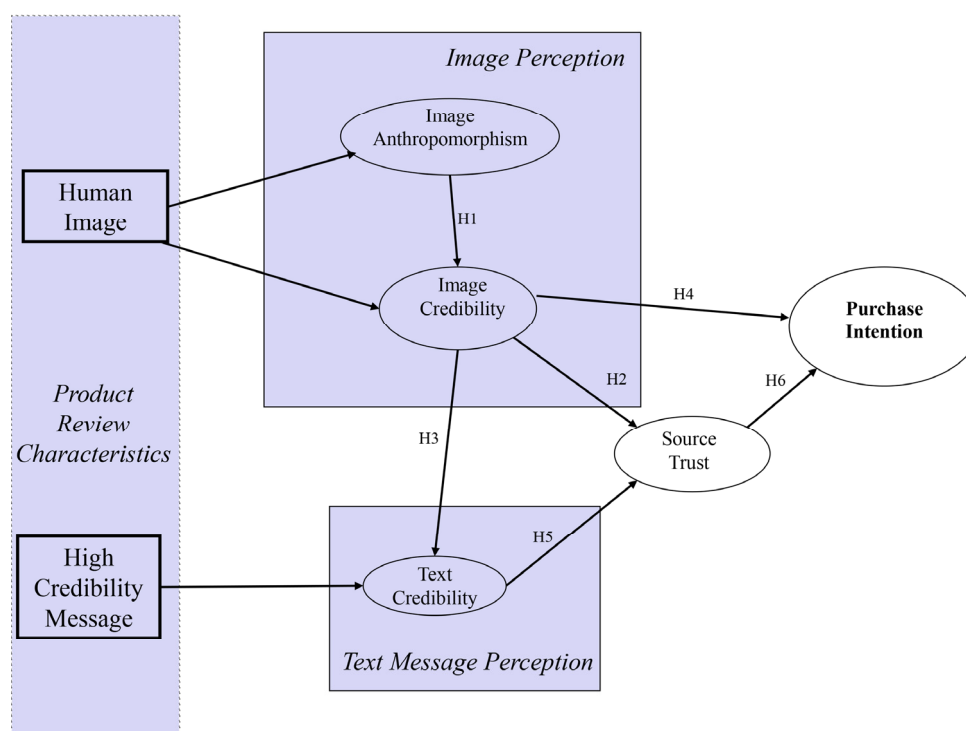
People are likely to be more influenced by sources and associated reviews they consider to be more credible and trustworthy [9]. As outlined above, people use both the image and text in determining the

credibility of the source and how much it will influence purchase intention [6]. The above literature predicts that information from the image will influence perceptions of the quality of the text review itself, though the quality of the text itself will also influence the perceived argument quality of the text [8], particularly if a text has typos or other grammatical errors and another one does not. The perception of associated text and information is also likely to be a significant factor in source trust and purchase intention. Essentially, because people will use the information in the text as they work to determine how much to rely on the information in the review and make attributions of source trust. People have been shown to infer source trustworthiness from message features and message clarity, and sources perceived to have more credibility are more persuasive and have more influence [3,45]. This leads to the final predictions in the model (see Figure 1 for predicted model):

H5: Perceived text credibility positively influence source trust.

H6: Source trust will positively influence purchase intention.

**Figure 1.** Predicted path model.



### 3. Method

To see how source credibility is influenced separately by the visual features and perceptions of the text, we separately measured perceptions of the visual representation's anthropomorphism and credibility as well as source credibility (perceived competence of the source), and argument quality (perceptions of the quality of the argument). This study utilized an experimental post-test only design featuring a 2 (image credibility)  $\times$  2 (textual credibility) design. Participants were randomly assigned to one of four conditions: low image credibility with low textual credibility ( $n = 118$ ), low avatar realism with high textual credibility ( $n = 77$ ), high image credibility with low textual credibility ( $n = 96$ ), and high image credibility with high textual credibility ( $n = 96$ ).

### 3.1. Participants

Participants were recruited from introductory undergraduate courses at a large public university in the United States. Participants received extra credit worth up to 1% of their final grade for participating. The participants ( $N = 387$ ) ranged from 18–30 years ( $M_{\text{age}} = 19.43$ ;  $SD = 1.35$ ), and 234 (52.7%) of the participants were female.

### 3.2. Procedure

Information sheets including a web address were delivered to students in communication courses whose instructors had agreed to provide extra credit at a large university in the United States. Students interested in participating had to enter the web address, select a button indicating they gave consent to participate, and would then be randomly assigned to one of the four conditions. Participants responded to items measuring demographics and their involvement with home theatre technology, and whether they planned to purchase a television in the next three months.

All participants were then shown a website with a photograph of a Dynex 26 inch LCD flat-panel television, along with a list of key features associated with the television. The information was presented as a screenshot of a web page and designed to look similar to several popular electronics web sites in terms of layout and content, and differed only by the image with the product review. The brand name and price of the television was digitally removed from the photograph, and omitted from the product features outline.

### 3.3. Stimulus Materials

The conditions differed only by the image and text associated with the product review. Textual credibility was manipulated on the basis of the review's grammatical and syntactical proficiency and not on content. Pretests of the reviews confirmed a sample of participants perceived these to vary on quality. The images associated with the product reviews shown in Figure 2 were shown to be high and low on perceived credibility and anthropomorphism (respectively) in an earlier study (Authors). This allows for an examination of the relationship between perceived anthropomorphism and credibility, and their influence on the rest of the variables in the model.

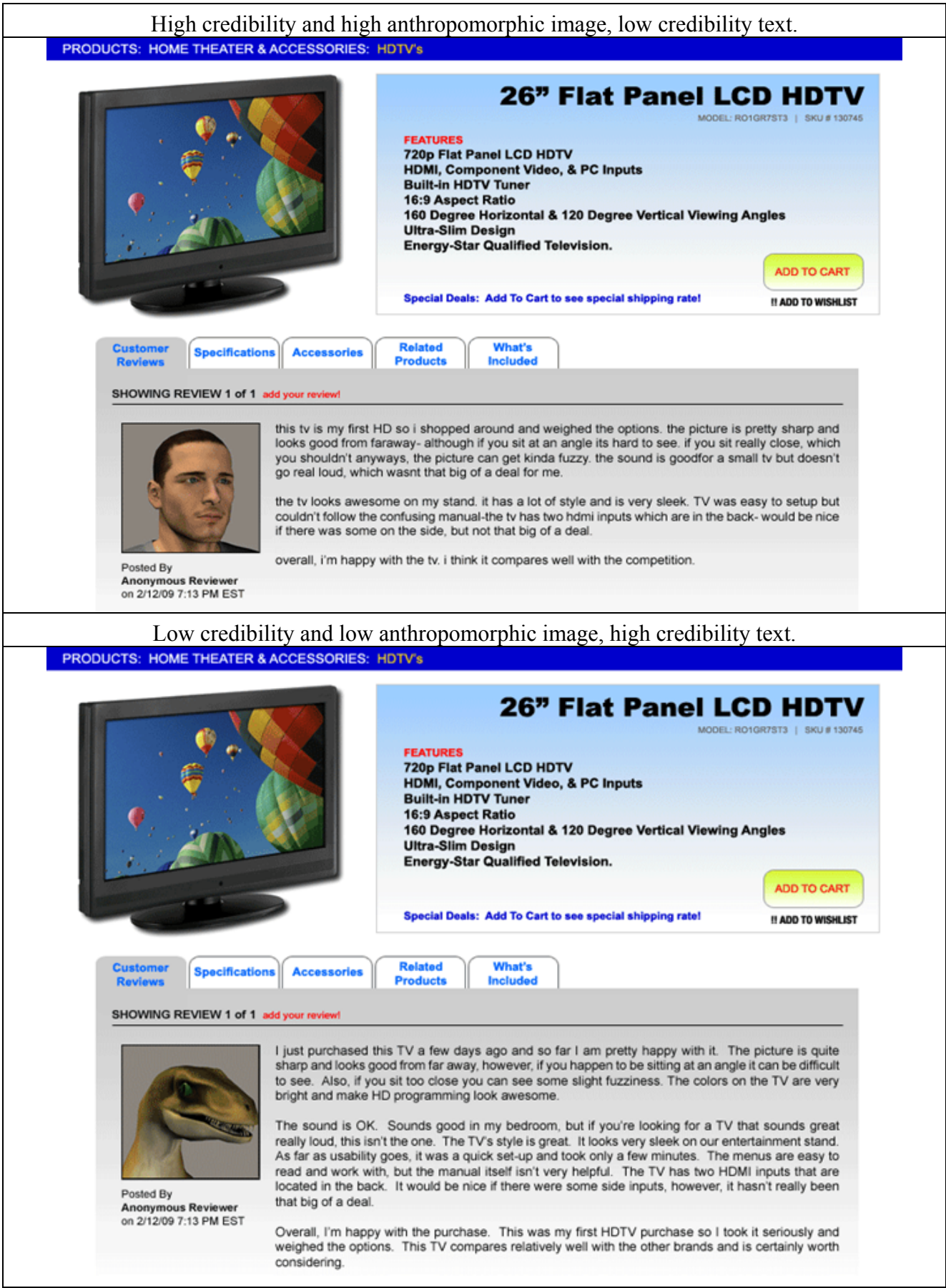
After viewing the stimulus, participants responded to questions about perceptions of the image and text in the peer review, as well as the source of the message, and intent to purchase the product. To examine the role of image characteristics on source credibility and purchase intention, it is important to measure and vary both important characteristics of the image and the overall credibility of the message as well as source credibility and purchase intention separately.

### 3.4. Measurement Instruments

*Experience with online shopping* was measured using three items on a 7-point scale anchored by unique statements such as “never to always” or “no experience to very experienced” and was reliable ( $M = 4.33$ ,  $SD = 0.99$ ,  $\alpha = 0.84$ ). The items included on this scale were: “How often do you shop online”, “How much of your shopping occurs online” and “How would you rate your level of experience with online shopping.” These items were created for this study.



Figure 2. Screen shots of images and text conditions.





*Source trustworthiness* was designed to measure the ability of the source to provide reliable information on the topic and was measured using nine items ( $\alpha = 0.87$ ) on a 7-point scale (1 = strongly disagree, 7 = strongly agree). The items from this scale were adopted from [25]. The items were: “This reviewer is an expert on televisions”, “The reviewer provides an in-depth review”, and “I would trust the reviewer to make a decision for me.” “This reviewer is an expert on this television,” “I trust this reviewer due to his or her extensive experience,” “This reviewer spent a great deal of time analyzing this television,” “This reviewer has complete knowledge about televisions,” “I have confidence in this reviewer,” and, “I believe this reviewer is being honest.”

*Text quality* was designed for this study to evaluate the impression of the clarity and quality of the text associated with the review and its content [22] and was measured using a five item scale on a 7-point metric created for this project ( $\alpha = 0.88$ ). The items were: “The review is well written”, “The review is easy to read”, “The review is communicated clearly”, “The logic of this review is easy to follow”, and “This is a high quality review”.

*Image anthropomorphism* was measured using three 7-interval Likert items ( $\alpha = 0.86$ ) adapted from [16]. The three items were “Does this image look human?”, “Does this image have human features?”, “Does this image have human-like expressions?”

*Image credibility* was measured using five 7-interval bipolar adjective items ( $\alpha = 0.94$ ) from [46]. A 7-point scale (1 = strongly disagree, 7 = strongly agree) was used. The items were, “unintelligent to intelligent,” “uninformed to informed,” “unreliable to reliable,” “incompetent to competent,” and “untrustworthy to trustworthy.”

*Purchase intention* was measured with a three-item scale ( $\alpha = 0.77$ ) adapted from [47]. The items included: “How likely is it that you will purchase the displayed television”, “would you consider buying this television if you were to buy a television in the near future”, and “I would never consider purchasing the displayed television”.

#### 4. Results

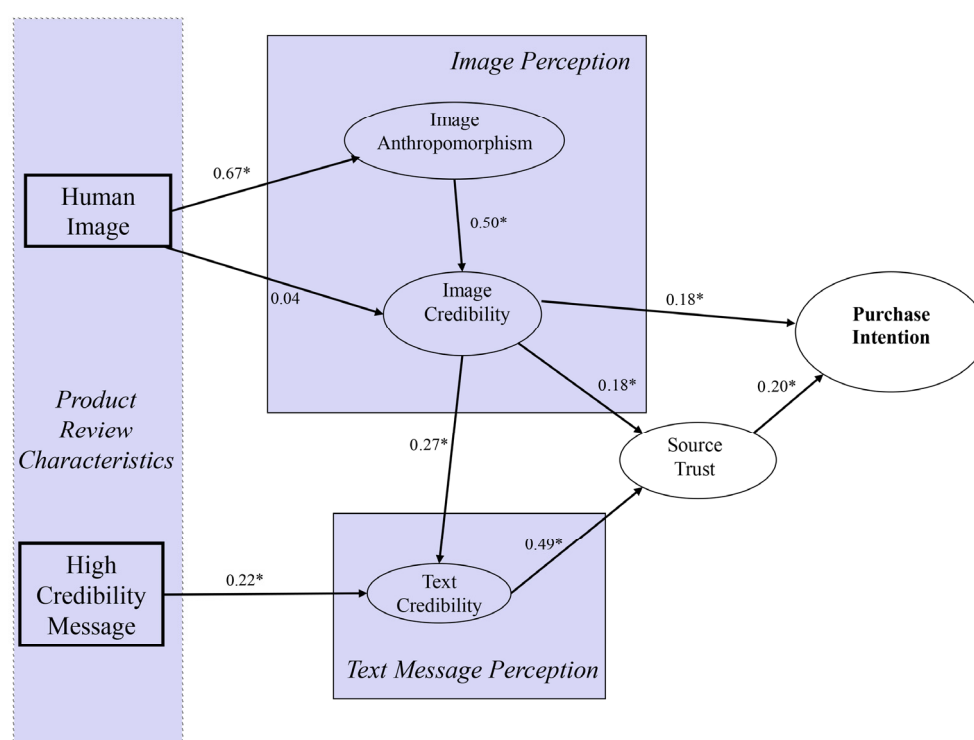
Manipulation checks were conducted before testing the hypotheses. Independent samples t-tests show a significant difference on perceived message quality between high ( $M = 4.87$ ,  $SD = 1.14$ ) and low ( $M = 4.21$ ,  $SD = 1.23$ ) text credibility,  $t(381) = 5.37$ ,  $p < 0.001$ . Additionally, a significant difference on perceived image credibility was identified between high ( $M = 4.08$ ,  $SD = 1.06$ ) and low ( $M = 3.15$ ,  $SD = 1.35$ ) image credibility,  $t(385) = 7.54$ ,  $p < 0.001$ , and a significant difference on perceived anthropomorphism was found between high ( $M = 4.36$ ,  $SD = 1.24$ ) and low ( $M = 2.06$ ,  $SD = 1.26$ ) anthropomorphism  $t(382) = 17.96$ ,  $p < 0.001$ . These results confirm that the experimental manipulations were effective.

A correlation analysis was used to examine the potential relationship between online shopping experience and the dependent variable of purchase intention. The relationship between these two variables was not significant ( $p = 0.83$ ), therefore online shopping experience is not included as a control in the tested model.

The hypotheses were tested using path modeling techniques in AMOS (v. 20). After the successful manipulation check reported above, the image manipulation was coded as high or low anthropomorphism and credibility (1 or -1), and the text manipulation was coded as high or low text

credibility (1, −1). The tested path model (as shown in Figure 3) provided a good fit of the data,  $\chi^2(11) = 14.6$ ,  $p = 0.01$ . The root mean squared error of approximation (RMSEA) (0.027) and the comparative fit index (CFI) (0.99) also suggest that the data was a good fit of the predicted model. This RMSEA value is less than 0.05, which is in the ideal value range [48]. In addition to this, all of the identified paths were moderate to large, significant (except for the path from image condition to perceived image credibility), and in the predicted direction. A correlation matrix for path variables is included in Table 1. Individual hypotheses and the process model as a whole will be discussed below.

**Figure 3.** Path model.



**Table 1.** Correlation matrix of path variables.

Variable	M	SD	1	2	3	4	5
1. Human avatar manipulation	1.5	0.5					
2. High credibility message manipulation	1.55	0.5	0.11 *				
3. Perceived avatar credibility	3.67	1.24	0.37 **	0.05			
4. Perceived message credibility	4.34	1.1	0.03	0.24 **	0.26 **		
5. Source trust	3.3	1.1	0.05	0.12 **	0.31 **	0.53 **	
6. Purchase intention	3.74	1.26	0.07	0.12 *	0.24 **	0.20 **	0.25 **

Notes: \*  $p < 0.05$ ; \*\*  $p < 0.01$ .

As predicted by H1; the path from anthropomorphism to image credibility shows that images perceived to be more anthropomorphic were also perceived to be more credible. Interestingly; there is no significant direct path from the image manipulation to perceived image credibility; and the non-significant path is only  $\beta = 0.04$ . There is a significant path from image condition to anthropomorphism and from anthropomorphism to perceived credibility; showing an indirect path

from image manipulation to image credibility through anthropomorphism. This means that perceived anthropomorphism is driving predicted social potential; which influence credibility directly; and image the manipulation itself only influenced perceived credibility because of the variance in anthropomorphism. To show this relationship in another way; we tested the effect of anthropomorphism and the image manipulation on image credibility using a multiple linear regression. The overall model is significant ( $R^2 = 0.27$ ;  $F(2; 380) = 70.89$ ;  $p < 0.001$ ); as is the effect of anthropomorphism on perceived image credibility ( $\beta = 0.36$ ;  $p < 0.001$ ); but the beta weight for the effect of the manipulation on perceived credibility is not significant ( $\beta = 0.09$ ,  $p = 0.55$ ). This reinforces the conclusion of the path model that it is the perceived image anthropomorphism that is driving perceived credibility and social potential.

The model is also consistent with predictions about the influence of the image on the perceptions of the text, the source, and purchase intention. Text associated with images that were perceived to be more credible was also perceived to be more credible and readable (H3), sources associated with images perceived to be more credible were more trustworthy (H2), and more credible images enhanced purchase intention (H4).

The model also shows the text manipulation significantly predicted perceived text credibility, which is consistent with the manipulation check reported above. Further, the perception of text credibility positively influenced perceived source trust (H5). Thus, image credibility and text credibility are both important factors in the perception that a source is trustworthy. Finally, both image credibility (H4 and source trust (H6) directly predict purchase intention. It is worth acknowledging that the influence of source trust was only slightly larger than the influence of the image's perceived credibility on purchase intention in this model. The implications of these findings are discussed in detail below.

## 5. Discussion

The Internet allows people to communicate with others and receive information about a variety of topics, including products they may want to purchase. The ability to quickly search online and receive reviews from other consumers provides useful information outside the control of the company selling the product and this influences purchasing decisions. This project examines how people use the visual characteristics of online product reviews, and results are largely consistent with previous research the predictions made by information processing theory. While previous research has shown these reviews affect consumers' product judgments [1,2,4,9], the results provided in this study extend this prior research to understand how people are using the different features of these reviews and how people are making attributions of others while using eWOM, and the relative influence of the different features of the review [6].

In this project, one of the manipulated image conditions featured the likeness of a male human, while the other was that of a dinosaur. These images were intentionally selected and pretested to represent high and low anthropomorphism and credibility at the same time. This allowed for a test of not only the influence of credibility, but of the amount of variance anthropomorphism accounts for on perceptions of credibility. It also underscores the importance of manipulation checks on perceived variance of key variables, and the importance of testing variables together instead of doing independent tests of individual hypotheses. In this case, independent tests showed that the images

differed on both anthropomorphism and credibility. The path model, and the multiple linear regression, tested the effects of these manipulations separately and showed that the manipulation did not directly predict credibility when perceived anthropomorphism was also considered. The effect of the manipulation on credibility was indirect through perceived anthropomorphism, which is consistent with predictions that credibility is in large part driven by perceived social potential. Future research should continue to evaluate the types of individual differences that influence perceptions of credibility and anthropomorphism, and their effect on perceived social potential.

Perceptions of the image credibility influenced not only how trustworthy the source was perceived to be, and whether they are likely to purchase the product, but even the perception of the quality of the written product review. Pre-tests and the manipulation check both showed these texts were perceived to be either high or low on credibility, but the perceived characteristics of the image were as, or more, influential on perceived text credibility than the text manipulation itself. While credibility's direct effect on source trust (0.18) is smaller than the direct effect of text credibility on source trust (0.49), image credibility is driving perceived text credibility (0.27). This means that the combined impact of image credibility on source trust comes both from the direct path to source trust and from the direct path to text credibility (0.27). In causal modeling, missing paths can provide important information that is useful for understanding, and there is no direct path from perceived text credibility to purchase intention. Since the image has both a direct and an indirect influence on purchase intention and source credibility, and text credibility only has an indirect path, it is clear that the image is the primary influence on these variables.

As predicted, the quality of the review and text itself did have a sizeable impact on perceived text credibility. When combined with the effect of image credibility, the effect of text credibility on source trust was large, and a variety of factors can help explain some of this variance. It is likely are multiple factors influencing the outcome variables and future research should continue to explore this process and how people react to online product reviews. The results of this study suggest that eWOM is capable of influencing purchase intention and that people are following the process outlined by information processing theory as they make attributions of source credibility. Further, both text and visual information are capable of influencing source perceptions and purchase intention. Future researchers should be careful to measure both perceived text quality and the impact of perceived visual information on review quality and source trust as well as purchase intention.

### *Limitations*

As with any experiment, the added control that allows for the manipulation of certain factors also functions to limit external validity. While the online website used closely mirrored online sales sites, it would not be exactly the same as a truly interactive website advertising a product. We also recognize that people's motives to go online are different in this experimental context than when people are really shopping online, or have a goal of shopping for a particular item, and the implications of these results are further limited to responses to products and purchase intention and may not be applicable to responses to other types of information [10]. Secondly, while participants were asked how interested they were in purchasing televisions in the future, no manipulation can create the degree of investment associated with an individual actively preparing for (and researching) such a major purchase. This may

be a particular issue given that these participants were undergraduates. We manipulated the text written by the source and the image representing the source, there was no other information about the source such as the number of recommendations of each comment or previous purchases, which have been shown to influence source trustworthiness [9]. It is also true that the results could be different if participants had evaluated another type of product, such as a water bottle or a car, instead of a television. Future researchers should explore these variables and the influence on this process.

The selection of the dinosaur and inclusion of cartoon like images was intentional to manipulate both credibility and anthropomorphism, but it likely also influenced other parts of the process as well. The use of a dinosaur and not an object or a more common animal was selected as previous studies had shown it could vary anthropomorphism and credibility at the same time. It is very likely that other animals or different human like images would influence perceptions in different ways, which limits the generalizability of our conclusions. The same is true of animated images, images that represent a person in real time, or even images that were smaller or larger. There are many constructs that may influence this process that were not measured or considered in this process. For example, perceived attractiveness of the images, and previous experience or perceptions of dinosaurs were not measured in this study and it is possible that any of these or other variables could influence perceived credibility and purchase intention. Future studies should measure other constructs to more fully explain how people make purchasing decisions. Finally, the nature of an online survey with self-reports introduces potential response bias and is not the most effective way to measure buyer behavior. Future research could examine this process using different types of images, a wider participant pool, and a design that used objective measures and avoids self-reports.

## 6. Conclusions

Online peer reviews give consumers easy access to a variety of information about products that would otherwise be difficult to find, and extend interpersonal influence into the online realm. People are choosing to get information about products from online sources prior to making purchasing decisions. As consumers adapt their product evaluation process to take advantage of information online, they are increasingly relying on eWOM and peer reviews to supplement information from the company selling the product [6,9]. This project examined how people use online peer reviews and the role of visual characteristics of images and the quality of text in their attribution of source credibility and how all this worked together to influence purchase intention.

The perceptions of an image's credibility are driven by perceptions of anthropomorphism beyond the manipulated characteristics of the image, therefore, pre-testing and targeting images to specific populations will continue to be important in online research or when choosing an avatar, or image, to represent a product or person online. This is likely because of the well-established association between anthropomorphic entities and social potential, or intelligence [43]. Given the impact of these characteristics on credibility and the impact of the perceived credibility on purchase intention, future research should investigate how manipulations in these characteristics can increase or decrease perceived credibility and, in turn the ultimate purchasing decision by consumers while remaining wary of the fact that these are subjective perceptions and can vary across individuals.

The results are consistent with predictions based on information processing theory and show that the images people use to represent themselves influence perceived source credibility, and even the perception of an associated text review. In this study, both the perception of the text and image influenced purchase intention. People seem to use information from the image and the text itself to form attributions of sources, and their purchasing decisions are influenced by these judgments and attributions.

Finally, the finding that image credibility was a direct, significant predictor of purchase intention underscores the importance of visual information in online peer reviews, and has important implications for the practical applications of this research. Individuals and businesses that are using images and avatars to represent themselves in online marketplaces should be aware of how influential their decision of image may be on people's perceptions of them and their ability to sell to consumers. The perceptions of the visual characteristics of images in this study helped shape participant's perceptions of how well the associated text was written as much as the manipulated text quality.

The results suggest that perceptions of visual characteristics have an important and significant influence on how people interpret and process online peer reviews and associated products, which makes the effect of visual characteristics on peer reviews an important area of research. Online consumers place a great deal of weight in peer reviews and eWOM and appear to rely on them to make purchase decisions. This research extends our understanding of how information is processed in these online consumer settings. This can be used by consumers who want to manage impressions others have of them and by corporations as they seek to manage perceptions of products that may influence purchasing behaviors.

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## Conflicts of Interest

The authors declare no conflict of interest.

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