

Self-Presentation and the Value of Information in Q&A Websites

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Prior research has shown that social interaction is important for continuation of question-and-answer (Q&A) activity online and that it also leads to monetary rewards. The present research focuses on the link between social interaction and the value of information. Expressions of self-presentation in the interaction between askers and answerers online are studied as antecedents for answer feedback which represents the value of the answer to the asker. This relationship is examined in a Q&A site, specifically, in Google Answers (GA). The results of content analysis performed on sets of questions and answers show that both explicit and implicit social cues are used by the site's participants; however, only implicit expressions of self-presentation are related to the provision of social and monetary feedback, ratings, and tips. This finding highlights the importance of implicit cues in textual communication and lends support to the notion of social capital where both monetary and social forms of feedback are the result of interaction online.

Introduction

Using the Web to post questions to other people is as old as the Web itself and represents a much older habit of consulting friends and peers when seeking information. In contrast to the old habit, on the Web total strangers may provide answers. It is intriguing to explore why people, who have no prior relationship with or commitment to each other, provide answers that are perceived as valuable by the askers on question-and-answer (Q&A) Websites.

Recent research on incentives for participation in Q&A Websites suggests that answer providers are motivated by the social interaction on the site even when other incentives, including direct payment, are present (Harper, Raban, Rafaeli, & Konstan, 2008; Raban, 2008). These findings indicate that the perception of others online may be important for regulating the intensity and quality of online participation in Q&A sites and for the perception of the value of the answer. The present research explores whether, beyond mere participation, the nature of participation is significant

for the interaction outcomes. The nature of participation is researched through latent and manifest expressions of self-presentation online by examining whether such expressions elicit more answer feedback in the form of tips and ratings. This relationship is examined here in a Q&A site, specifically, in Google Answers (GA).

Previous research focused largely on how people present themselves online: how truthful or authentic is the presentation (Gibbs, Ellison, & Heino, 2006), different forms of presentation in different contexts (Rafaeli, Raban, & Kalman, 2005), or the extent of explicit and implicit presentation (Papacharissi & Rubin, 2000). Qualitative research in a dating Website explored the balance between impression management pressures and authenticity of self-presentation (Ellison, Heino, & Gibbs, 2006). The same researchers later examined the success of self-presentation as a dependent variable predicted by dating experience and self disclosure (Gibbs et al., 2006). The present research explores whether the presentation of self is instrumental in maximizing interaction outcomes online, specifically in expressing high regard for answers to search questions. Askers are believed to present themselves favorably in order to induce answerers to provide answers. The latter, in turn, are expected to present themselves favorably in order to receive good feedback in the form of ratings and tips. For this purpose the presentation of self is explored for both askers and answer providers and studied in relation to the value of information.

The paper proceeds as follows. The theoretical background comprises two main parts: the concept of self-presentation is explained in the context of online interaction, and then the value of information is described as a frame for the outcome measures used in this study. The theory is followed by a description of the Website selected for this research, GA, leading to the research questions, hypotheses, methods, results, and discussion.

Self-Presentation Online

The self-presentation concept, also referred to as impression management, implies that every individual performs a certain role while appearing in public (Trammell &

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Keshelashvili, 2005). Using a metaphor that describes the social world as a stage, Erving Goffman (1959) conceptualized the presentation of self as an ongoing process of information management, in which an individual constructs an impression of himself over others. Persons stage the impressions formed of them by controlling the information they disclose of themselves (Papacharissi & Rubin, 2000; Trammell & Keshelashvili, 2005). Individuals who appear before others try to foster an impression of themselves and/or of the situation in a manner that is in accordance with their interests. However, not all expressions of self-presentation are intentional.

Goffman distinguishes between two kinds of expression of the self: expressions one gives, and expressions one gives off. The first involve relatively easily controlled, presumably intentional expressions, conveyed through traditional verbal communication (Papacharissi & Rubin, 2000; Trammell & Keshelashvili, 2005). The other kind, expressions that are given off, are considered to be more theatrical and contextual, nonverbal, and presumably unintentional (Papacharissi & Rubin, 2000). The current research explored both kinds of expressions of impression management available at the GA system.

The Internet provides numerous opportunities to affect the presentation of the self. From personal Web pages and blogs (Keshelashvili, 2004; Trammell & Keshelashvili, 2005) to the introduction one is required to make when entering online forums or in dating sites, people are constantly engaged online in managing self impression. Even the act of choosing an online name involves self-presentation (Bechar-Israeli, 1995; Rafaeli et al., 2005).

Common approaches to online self-presentation regard face-to-face interaction as the standard of human behavior, against which all human social behavior need be judged (Bordia, 1997; Siegel, Dubrovsky, Kiesler, & McGuire, 1986; Tanis & Postmes, 2003). In light of this view, online self-presentation expressions are sometimes seen as lacking in nonverbal expressions of self, and therefore as poorer than face-to-face expressions. Another approach focuses on the infinite possibilities of self-presentation expressions facilitated by the Web as hosting numerous opportunities for manipulation and falsification of personal identities (Papacharissi & Rubin, 2000). A third approach to self-presentation online is adopted by the current research. In this view, online environments are seen as rich and unique, complete social spaces. Therefore, this research explores not only given, explicit, expressions, but also what is considered as given off, nonverbal, implicit expressions such as how personal and polite the writing style is. As the next section will suggest, those attributes may be related not only to the ways people perceive others, but also to the evaluation of the information exchanged.

The present study explored self-presentation in the GA Website. The site is described in detail later on. In the context of self-presentation it is important to note that GA was a text-only Website enabling only verbal and linguistic cues which are subject to editing and are therefore considered to be

controllable and malleable (Walther, 1996). GA did not offer any formal descriptions or profiles of individual answerers, so the only way they could individuate themselves was by text-based impression formation. Self-presentation is ongoing in GA since the information on the site is mostly ad hoc. Every question or answer posted is a new opportunity to present one's self (Keshelashvili, 2004; Papacharissi & Rubin, 2000). Carefully controlled, explicit, as well as unintentional, implicit, cues may appear in each posting. Yet the only way to display cues is expressive, via text. The site does not offer any graphic or creative tools.

Whereas in gaming situations, for example, people may assume a variety of identities and play out their fantasies (Turkle, 1997) it is reasonable to expect that in less playful activities such as information seeking people will present themselves as they are, both intentionally and unintentionally. Self-presentation is expected to be tailored to the situation in order to maximize the interaction outcome and in this sense self-presentation will be explicit, managed. On the other hand, Q&A sites do not require a formal writing style, thus setting the stage for personal style, which is expected to generate implicit cues by any participant. The askers are believed to present themselves so as to motivate answerers to respond and make an effort to give a good answer. Answerers are likely to present themselves so that they maximize the chances for positive feedback indicating the value of their answer.

Previous research has demonstrated the importance of social cues online for impression formation as well as for the willingness to team up with new people and collaborate (Tanis & Postmes, 2003). This study seeks to discover whether the outcome of interaction is related to the impression formed. In other words, the study seeks to find out whether, beyond mere willingness to provide answers, the actual result of the impression formed is constructive for the conversation and the economic activity on the site as manifested by the value of information. The next section explains the special nature of the value of information and why it is of interest to measure value after an answer has been posted.

The Value of Answers

Information provided in the form of answers on a Q&A Website can be evaluated by the asker given tools that have become common on the Web. Such tools may include a variety of rating mechanisms, textual feedback, and, in the case of GA, even a monetary gratuity payment (called "tip" on the site). All these are explicit forms of value assessment that become available only after an answer is given. This differs from the theory of the value of information, which explains that consumers of information form a subjective value perception of information prior to the decision to consume information (Ahituv, 1989; Raban, 2007). In other words, in Q&A sites value perception is made before getting an answer and then an explicit process of evaluation occurs after an answer is provided. This corresponds well with the nature of information which, in general, is an unusual good

that is difficult to evaluate (Ahituv, 1989; Bates, 1989; Raban, 2007; Repo, 1989; Varian, 1998). However, for the current study the most important characteristic is that information is an experience good.

Experience goods are items of commerce that can be fully evaluated by the consumer only after purchase and use (Nelson, 1970). Information is an experience good, the full value of which is revealed only after use (Shapiro & Varian, 1999; Van Alstyne, 1999). One must experience information personally in order to form a value judgment of it. Askers in a Q&A Website must release their questions and wait for answers before evaluating the information provided. Yet most research on the value of information has focused on preconsumption value known as subjective value (Raban & Rafaeli, 2006; Rafaeli & Raban, 2003). This is the value assigned to information when the content is not yet known, so the consumer does not know how helpful and meaningful the information will be for them. The term “experience” used here is not to be confused with the term “experience” as it is used, for example, by Pine and Gilmore (1998, 1999), where experience is what engages people and creates memorable events.

In a comprehensive review of the economic value of information, Repo (1989) offers a dual approach to the valuation of information: the exchange approach representing the economic value of information, and the “value-in-use” approach, which takes into account the user, the use, and the effects of information. The second approach is better suited for describing the practical value of information for its users. Value-in-use is further fine-tuned by distinguishing between the expected and perceived value-in-use, referring to the value assigned to information before and after use, respectively.

It is of high theoretical and applied interest to investigate the “after-use” value and the factors that influence it. Here this is described as the retrospective value of information. In line with Benkler’s (2006) explanation of the circular nature of information production, retrospective value is believed to be an important antecedent in the formation of the subjective value of information in subsequent decision points and in this way may influence the success of information systems, Websites, and in general, information sources and resources.

In the system under study here there are two explicit expressions of the retrospective value of information. The system offers a 5-star rating mechanism and enables the provision of extra monetary payment, beyond the initial, agreed-upon price. This post-use payment is called a “tip” in the system. Both tip and rating are voluntary feedback mechanisms that imply the perceived value-in-use of information as suggested by Repo (1989).

The next section describes GA, which was the Q&A site serving as the field for the present study.

Google Answers

GA was an online Q&A information system established in April 2002 and described by Google as: “a way to get help from Researchers with expertise in online searching”

(<http://answers.google.com>). The GA service was discontinued by Google as of Dec. 1, 2006. No special reason was given by Google for this move—I speculate that it may relate to the huge success of the free site Yahoo! Answers site, or to Google’s greater focus on advertising-related, large-scale projects.

GA was selected for this study because the complete interaction between askers and answerers is in the public domain and because the site was unique in enabling retrospective value assignment in both social and monetary forms (ratings and tips). A full description of the GA Website, including descriptive statistics, is given elsewhere (Rafaeli, Raban, & Ravid, 2005; 2007). Here are the main system characteristics:

- Any registered user can post a question and question clarifications.
- Only one of about 500 GA Researchers (GARs) may provide a paid answer and answer clarifications.
- Any registered user can post a comment.
- Answer prices range between \$2–200.
- Askers may provide a tip, gratuity payment, ranging between \$1–100.
- Askers may provide ratings on a 5-star scale.
- The offline identity and personal information of participants is not revealed at any time, and all participants are identified only by a self-selected GA nickname.

Looking at this list of features one can see a system where both interaction and feedback are central. Any user can post questions and comments. Askers may rate the answers and reward the GAR with a tip. GARs can post comments but mainly provide answers for the preset fee.

In GA, askers submit a price bid with their questions. This price is an indication of the anticipated value of the information sought (subjective value); however, theory suggests that the value of information is revealed only after consumption (Ahituv, 1989; Raban & Rafaeli, 2006; Shapiro & Varian, 1999). Therefore, in the current research the focus is on feedback; that is, on ratings and tips, which are given by askers in a response to submitted answers and represent the retrospective value.

Research Questions and Hypotheses

Two main questions guide the current research. Both questions are based on two assumptions. The first assumption is that questions and answers alike contain expressions of impression management, both explicit and implicit. The other assumption is that the feedback mechanisms provided by GA can be considered a concretization of the valuation process taking place by the askers. Relying on these assumptions, our two complementing research questions are as follows:

RQ1: To what extent do explicit expressions of impression management correlate with implicit expressions of self-presentation in an online Q&A site?

This question aims to explore connections between manifest impression management expressions such as the

mentioning of age, gender, education, and so forth, on the one hand, and latent elements, such as the graphic and linguistic styles on the other. This relationship is studied for both the askers and the GARs. The purpose is to see whether self-presentation can and should be studied as a single construct in the GA environment or whether there is reason, beyond the theoretical foundation, to treat implicit and explicit cues separately.

The first hypothesis represents the first research question:

H1: Higher degrees of explicit and implicit self-presentation expressions made by askers will be associated with higher degrees of explicit and implicit self-presentation expressions made by GARs.

RQ2: To what extent do impression management strategies, both implicit and explicit, correlate with feedback patterns (retrospective value of answers) in an online information-sharing environment?

As mentioned earlier, not all answers receive feedback (ratings and tips), and not all askers are inclined to post feedback for answers they received. Therefore, this question aims to explore what expressions of self-presentation, both by the asker and the GAR, are most highly correlated with forms of feedback.

The following hypotheses describe the anticipated relationships between the variables:

H2: Higher degrees of explicit and implicit self-presentation expressions made by askers will be associated with more participation in the feedback mechanisms, that is, ratings and tips, than lower degrees.

H3: Higher degrees of explicit and implicit self-presentation expressions made by GARs will be associated with more participation in the feedback mechanisms, that is, ratings and tips, than lower degrees.

Since there is a sequence of events in the process of asking and answering questions it is plausible to examine an alternative relationship whereby answerers' self-presentation mediates between the askers' self-presentation and the askers' provision of feedback. For example, GARs that tend to exercise more self-presentation might be more interested in answering questions posted by askers who also tend to use self-presentation. The next hypothesis aims to test this possible mediated model.

H4: Higher degrees of explicit and implicit self-presentation expression made by askers will be associated with more participation in the feedback mechanism and will be mediated by the explicit and implicit self-presentation expression made by GARs.

The hypotheses so far focused on the rating mechanism, with or without a tip. However, there may be a different attitude toward giving a social feedback, such as rating, and giving a monetary compensation, such as the tip. The next two hypotheses focus on the tip.

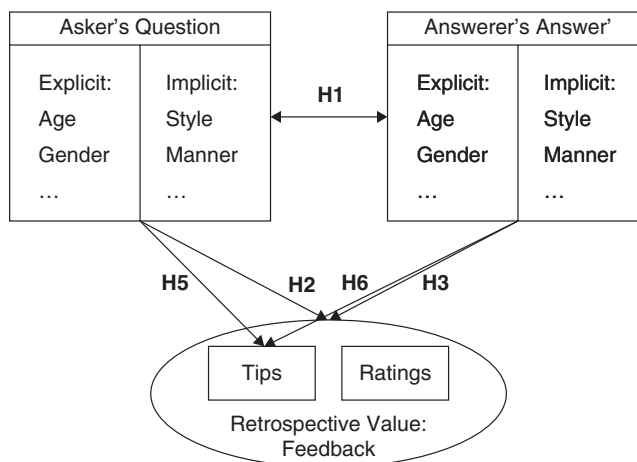


FIG. 1. The relationships between askers' and GARs' expressions of self-presentation and retrospective value of information in GA.

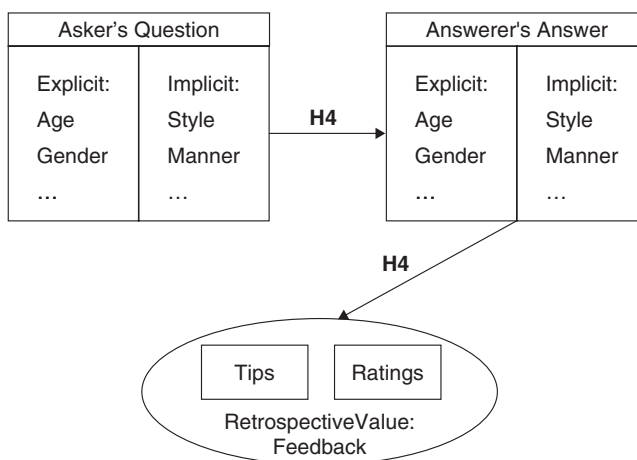


FIG. 2. An alternative, mediated, relationship between askers and GARs (answerers) expressions of self-presentation and retrospective value of information in GA.

H5: Higher degrees of explicit and implicit self-presentation expressions made by askers will be associated with more tip-paying in answers that got feedback.

H6: Higher degrees of explicit and implicit self-presentation expressions made by GARs will be associated with more tip-paying in answers that got feedback.

Figure 1 summarizes the variables of interest and the relationships suggested in H1–H3 and H5–H6. The hypotheses are indicated on the arrows. Figure 2 shows the alternative, mediated model.

Methods

In addressing the questions and hypotheses posted above, the content of questions, answers, and feedback posted in GA in all subject categories throughout the site's 48 months of operation is analyzed. During this period, 129,745 questions were posted and 52,006 were answered. Using the random sampling procedure in SPSS (Chicago, IL) a random sample was obtained from the answered questions.

TABLE 1. Variables contained in five sections of the codebook.

	Asker	GAR
Explicit (given)	Gender	Gender
	Age	Age
	Ethnicity	Ethnicity
	Mention of family	Mention of family
Implicit (given off)	Price offered for answer	Time to provide answer
	Question length	Answer length
	Personal pronoun	Personal pronoun
	Asker-to-GAR approach	GAR-to-asker approach
	Personal opener	Personal opener
	Express thanks	Thank asker
	Personal ending	Personal ending
	Question phrasing	Offer further help Suggest use of clarifications
Answer		
Feedback		
Tip		
Rating		

Content analysis is a research technique for making replicable and valid inferences from data to their context (Krippendorff, 2004). It uses a set of procedures for systematically and objectively identifying characteristics within text (Neuendorf, 2002; Weber, 2003). While some definitions of content analysis restrict it to dealing with manifest content only, in this research a broader view of its possible uses is taken; that is, content analysis is seen as a method of inquiry into symbolic meaning as well, hence both manifest and latent meanings of messages are the focus of content analysis (Krippendorff, 1980).

The sampling and coding process was based on a unit of analysis that represented a whole process of asking, answering, and evaluating answers provided. However, the sample also reflected answers in the system that did not receive feedback. Overall, the sample included 322 Q&A sets, including 44 items that had both tip and rating, 141 rating only, and 137 that had neither tip nor rating. A tip could not be given without a rating, so there were no answers with tip only.

Coding and Training

A stratified (based on GA subject category) sample of 322 answered questions was randomly selected. A coding scheme described in Table 1 was designed to explore both the latent and the manifest dimensions of the content presented in questions, answers, and feedback posted in the GA system.

The coding process was conducted in three stages:

- Training: three independent coders were trained in implementing the codebook to a random sample of answered questions, selected specifically for that purpose from GA.
- Reliability: when the practice stage has been exhausted, reliability of the coding process was tested for each of

the variables coded. In order to verify intercoder reliability, a total of 38 answered questions, which make up 11.8% of the entire sample, were coded by all coders. Reliability between coders was determined using two complementing criteria: Krippendorff’s Alpha index measure, which is considered the strictest criteria for determining reliability between coders, was computed for all variables. Considered reliable when Alpha >0.67, variables that did not exceed that were either excluded entirely from the codebook and results, or checked again, using Holsti’s correlation coefficient, considered reliable when Holsti’s >0.9. To sum up, all variables included in the results reported below achieved in the reliability test the results of either Krippendorff’s Alpha >0.71, or Holsti’s correlations coefficient >0.94.

Coding of the remaining 284 sampled questions was divided between coders, so that each answered question was coded by one coder.

Table 1 includes the variables contained in five sections of the codebook: explicit and implicit cues by the asker and the GAR as well as the quantitative attributes and feedback of the answer. For each variable we examined whether it was present in the text of the question and of the answer. For example, the “personal pronoun” variable meant that we looked at whether the asker and GAR used the first person (I, we, you) in their conversation.

Results

Data Treatment

Internal reliability tests revealed that some variables had to be removed before further analysis. Specifically, “ethnicity” was removed from both the asker and the GAR explicit self-presentation. Looking at the data we discovered that only 10 (of 322) cases contained a mention of ethnicity, so the variance in this variable was too low and the variable was not used for further analysis. The same consideration was applied to the Asker Question Phrasing and to the GAR Personal Ending variables; both were implicit variables. The variables “time to provide answer” and “answer length” did not load onto the GAR implicit self-presentation and were dropped from further analysis.

Four factors with fair or better internal reliability were received and are described in Table 2. While the reliability scores are not very high, it is important to note that they are based on field data rather than on data emanating from a controlled experiment.

Hypotheses Testing

The first hypothesis stated that higher degrees of explicit and implicit expressions of self-presentation by the asker will be associated with higher degrees of the same by the GARs. A summary score was calculated for each factor listed in Table 2 by using the sum of scores of the individual variables. Figure 3 provides the correlation coefficients for these measures and shows that askers who were inclined to give explicit cues

TABLE 2. Factors of self-presentation and their reliability.

Factor	Variables included	Internal reliability (Cronbach's alpha)	Mean summary score
Asker – explicit	Gender	0.765	0.214
	Age		
	Mention family		
Asker – implicit	Price offered for answer	0.681	1.910
	Question length		
	Personal pronoun		
	Asker-to-GAR approach		
	Personal opener		
	Express thanks		
GAR – explicit	Gender	0.520	0.087
	Age		
	Mention family		
GAR – implicit	Personal pronoun	0.474	3.879
	GAR-to-asker approach		
	Personal opener		
	Thank asker		
	Offer further help		
	Suggest use of clarifications		

TABLE 3. Descriptive statistics of the variables used in the logistic regression analysis.

	Feedback*	N	Mean	Std. Dev.
Asker-explicit	No feedback	137	0.16	0.56
	Feedback	185	0.25	0.69
Asker-implicit	No feedback	137	1.50	1.61
	Feedback	185	2.22	1.66
GAR-explicit	No feedback	137	0.05	0.22
	Feedback	185	0.11	0.43
GAR-implicit	No feedback	137	3.72	1.17
	Feedback	185	3.99	1.20

*Rating or rating and tip.

TABLE 4. Expected B values for the predictors of feedback participation for the askers and the GARs (N = 322).

Variable	Exp(B)	p
Askers' Explicit Cues	1.054	0.798 ns
Askers' Implicit Cues	1.283	0.001
GARs' Explicit Cues	1.586	0.243 ns
GARs' Implicit Cues	1.161	0.130 ns

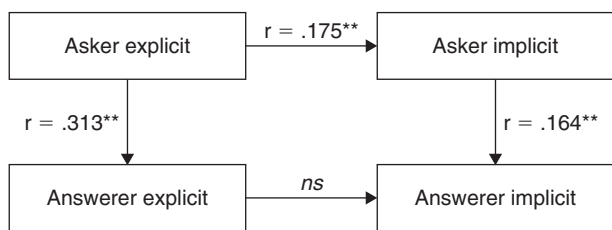


FIG. 3. Correlation matrix for H1. **p < 0.001.

were also inclined to give implicit cues. This correlation was not found for the GARs; however, GARs' cues mirrored the askers' cues: More explicit cues by the askers were associated with more explicit cues by the GARs and the same relationship was found for the implicit cues. These outcomes did not provide grounds for combining explicit and implicit cues into larger factors; therefore, the ensuing analyses are based on the four factors appearing in Table 2. This will enable to examine the contribution of each type of self-presentation by each group.

The second and third hypotheses stated that explicit and implicit expressions of self-presentation by the askers and GARs will be associated with higher participation in the feedback mechanisms, tip and rating. A new variable was calculated to reflect the degree of participation in feedback mechanisms: 0 indicating no participation (neither tip nor rating), and one indicating participation in rating (with or without tip). Tipping was not possible without rating. The mean values of implicit and explicit cues with or without participation in feedback are reported in Table 3.

A logistic regression was performed to predict participation in feedback with four predictor variables: explicit and

implicit cues by the askers and by the GARs. These four predictors were entered into the first block of the regression. In the second block four interactions were entered to the model using the stepwise method (Asker Explicit * Asker Implicit, GAR Explicit * GAR Implicit, Asker Explicit * GAR Explicit, Asker Implicit * GAR Implicit). The results ($R^2 = 7.8\%$, $\chi^2 = 19.36$, $df = 4$, $p < 0.001$) indicate that the tendency to provide feedback is significantly predicted only by the askers' implicit cues. (See Table 4 for the expected B values for all variables.) Asker and GAR explicit cues did not predict the chances to provide feedback, nor did the GARs' implicit cues. The interactions were not statistically significant and are not shown in Table 4 because of the stepwise procedure.

Three variables did not significantly predict participation in feedback; however, it is possible that one of them had a subtle effect that was lost in the model that included all four variables. Additional logistic regressions, which were done separately for askers and for GARs, resulted in the same outcome: only the askers' implicit cues were statistically significant predictors even in the separate models.

The fourth hypothesis stated the explicit and implicit expressions made by askers will be associated with more participation in the feedback mechanism, and this relationship would be mediated by the explicit and implicit self-presentation expression made by GAR. In order to test the hypothesis a logistic regression with two blocks was used. In the first block the explicit and implicit expressions made by askers were entered and at the second block the explicit and implicit self-presentation expression made by a GAR were entered. The dependent variable was the participation (coded as 1) or nonparticipation (coded as 0) in the feedback mechanism.

TABLE 5. Expected B values for the predictors of tip for the askers and GARs ($N = 185$).

Variable	Exp(B)	<i>p</i>
Askers' Explicit Cues	1.152	0.565 ns
Askers' Implicit Cues	1.311	0.010
GARs' Explicit Cues	0.971	0.944 ns
GARs' Implicit Cues	1.192	0.268 ns

The results of the regression for the mediated model were identical to the results of the model for H2 and H3 ($R^2 = 7.8\%$, $\chi^2 = 19.36$, $df = 4$, $p < 0.001$). This is to be expected, since in the previous model it became apparent that the GARs' self-presentation did not contribute to the model. Hence, the same variables did not have a mediating effect either.

The fifth and sixth hypotheses stated that the explicit and implicit expressions made by askers (H5) and by the GARs (H6) will be associated with paying or receiving monetary tips in Q&A sets where feedback was provided. To unpack these hypotheses the group of 185 Q&A sets where feedback was used was divided into two subgroups for further analysis: 141 Q&A sets where rating was given but tip was not given, and 44 Q&A sets where both tip and rating were given. The GA system features did not enable the provision of tip without rating.

A logistic regression was run to test the explicit and implicit expressions made by askers and the explicit and implicit self-presentation expressions made by GARs (all in one block) with respect to the inclination to provide a tip. The second block contained four interactions entered using the stepwise method (Asker Explicit * Asker Implicit, GAR Explicit * GAR Implicit, Asker Explicit * GAR Explicit, Asker Implicit * GAR Implicit). The dependent variable was paying (coded as 1) or not paying (coded as 0) tip for the answer.

The logistic regression model was statistically significant ($R^2 = 7.5\%$, $\chi^2 = 9.46$, $df = 4$, $p < 0.05$); however, only the askers' implicit cues predicted the provision of a tip. Table 5 summarizes the findings of this regression. The interactions were not statistically significant and are not shown in Table 5 because of the stepwise procedure.

The askers' and the GARs' mean and standard deviation values of implicit and explicit cues when tipping or not tipping for answers that received feedback are reported in Table 6.

In summary, H1 showed a mirror effect between the askers and the GARs but did not warrant the construction of a general "cues" construct. In the unmediated model H2 and H3 were supported only for the implicit expressions of self-presentation by the askers. In the mediated model, H4, the mediating variable did not contribute significantly to the model; therefore, the unmediated model is preferred. The results of H5 and H6 show that implicit cues by askers are conducive to the provision of a tip.

TABLE 6. Descriptive statistics for Q&A sets where feedback was used.

	Feedback	<i>N</i>	Mean	Std. Dev.
Asker-explicit	Rating only	141	0.23	0.67
	Rating + tip	44	0.34	0.75
Asker-implicit	Rating only	141	2.03	1.57
	Rating + tip	44	2.84	1.83
GAR-explicit	Rating only	141	0.11	0.45
	Rating + tip	44	0.11	0.39
GAR-implicit	Rating only	141	3.93	1.26
	Rating + tip	44	4.20	0.95

Discussion

This study sought to deepen the understanding of how social interaction leads to higher valuation of information by examining the content of interaction and the retrospective value assigned to answers for questions in a Q&A site, GA. The results obtained in this study paint a fairly clear picture: Self-presentation, mainly implicit cues, creates a better dialog between askers and GARs, leading to more active evaluation of information resulting in the provision of social and monetary feedback. The following interpretation of the results leads to this conclusion.

GA askers who tended to present themselves explicitly also tended to express themselves implicitly. Further, Figure 3 suggests that more self-presentation by the askers was associated with more self-presentation by the GARs. This mirror effect suggests that GARs perceive certain cues and enter this perception into their consideration of whether to provide an answer. Another possibility is that GARs adjust their conversational norms to comply with the askers and create better dialog. According to Table 2, explicit self-presentation received lower scores than implicit self-presentation, implying that GA participants do not divulge much of this type of presentation information (age, gender, etc.).

The results of the logistic regression analysis for H2 and H3 show that implicit expressions of self-presentation by askers are associated with provision of feedback (ratings with or without tips), whereas explicit cues by either group of participants are not. This effect is stronger for the askers, indicating that the provision of feedback may be a predisposition by the askers. An alternative model was presented in H4, where the provision of feedback by the askers was predicted by the askers' forms of self-presentation and mediated by the GARs' forms of self-presentation. The results of the statistical analysis favor the original, unmediated, model since the mediating variables do not contribute significantly to the overall model.

Usage of implicit cues by the askers may be attributed to personal style of communication, or it may even be a tactic designed as a signal for the GARs. In either case, the interim outcome is the mirror effect by the GARs who also exercise more use of hidden forms of self-presentation (Figure 3), and the final outcome is the stronger inclination to provide ratings and tips. The way that GARs may discover the askers' tendency to provide feedback is by being alert to the implicit

cues by the askers when they post a question; for example, the use of first person pronouns, a personal approach to the GAR, or a personal opener. This is in agreement with the findings of Tanis and Postmes (2003), who showed that social cues in personalized forms of communication foster a more positive impression.

Text-based interaction makes implicit cues visible if only GARs would be alert to such nuances. This finding aligns with earlier research that showed that thanking an answerer in advance (within the text of a question) results in answers that are judged to have higher quality (Harper et al., 2008). In other words, whereas participation in the GA site is open to all, the interaction that takes a more personal style and is perhaps somewhat similar to dyadic interaction is likely to be more rewarding for both sides. The asker will receive a better answer and the GAR, in return, will receive better feedback. It is also possible that the dyadic-like nature of the interaction induces more participation in feedback mechanisms because the asker feels more attached or even obligated to the GAR.

Another interesting observation based on the current findings is that because there is no expectation of a face-to-face meeting in GA and there are no graphic or other visual presentation tools, the net effect is provided by textual communication. This form, which may at first sight seem colorless or simple, actually distinguishes between explicit and implicit cues, and those who are able to make good use of their verbal skills stand to benefit. An asker with good writing style will induce GARs to answer and to react seriously to the asker's request, later rewarding the GAR with feedback. The GAR's writing style and manners are signals to the askers' inclination to provide feedback.

Why do only the implicit expressions matter for feedback activity? It seems that for the intellectual effort needed to answer questions, explicit cues such as age and gender are inconsequential, whereas the more subtle impression formed about a person based on their writing style is crucial for the particular context of answering questions. Implicit cues may be especially important in a Website where users are anonymous, such as GA, so that further searching about a person is not possible. The opposite may also be true, namely, that in other types of Websites explicit cues may be very important. For example, in dating sites candidates' photos are crucial for optimizing match results (Bolig, 1984).

The effect of implicit cues on the provision of ratings and tips provides support for the notion that the value of information is largely subjective, it is user-centered. The implication is that users' attitudes, biases, and behaviors bear significant influence on the perception of value and not only the characteristics of the information itself such as content, authorship, timeliness, and so on.

Interestingly, the current results show that interpersonal interaction induces both tangible and intangible feedback in the form of tips and ratings. Out of 185 answers that received feedback, 44 answers generated tips (24%). Only the askers' implicit self-presentation predicted the award of tips, again suggesting that tip-giving is a predisposition of the askers

that should be detected by alert GARs "reading between the lines."

The GA site was a commercial marketplace for questions and answers with price offers declared by askers when posting questions. Yet the askers often chose to complement their stated payment with a voluntary tip after their interaction with the GAR.

This is first and foremost a very interesting statement regarding the experience value of information. Askers had already paid their stated price bid, but felt that additional monetary compensation was due. It is not clear whether they intentionally started with a low bid in order to supplement it later on (a contingent payment of sorts) or if they were surprised by the results, which exceeded their expectations. In either interpretation it is clearly important to give consumers a chance to express their feedback for information transactions upon completion.

Tip payment may indicate a link between social activity, conversation, and economic reward, the tip. As suggested by Raban (2008), the term "social capital" received empirical support through the connection between the social and economic incentives for participation. Implicit expressions are more influential toward eliciting feedback, meaning that warm interpersonal communication has real rewards by inducing more feedback activity. Since an earlier study has already established that feedback also acts as an incentive for future participation, the conclusion here is that implicit self-presentation that induces feedback is an important catalytic factor for long-term system persistence and success.

The link between the social and economic forms of feedback has important implications for the study of the retrospective value of information as well as potential practical implications. The link between ratings and monetary rewards should be further theorized and investigated in laboratory settings in order to establish possible causality between the two concepts. The practical implications may be that the abundance of Websites who offer rating mechanisms may be missing an opportunity to add a system for the collection of tips. People may be more inclined to provide tips after usage than payment before usage.

Study Limitations

The current research employed unobtrusive data collection and its results are limited to the GA Website. Future research should check whether similar findings characterize other Q&A sites, and may also survey askers and answerers in Q&A Websites to assess their predispositions, attitudes, and intentions more specifically.

The correlations and explained variance levels obtained in this study are modest. This may be a result of the unobtrusive nature of the data collection. Data were analyzed in the original form without selection. Only about half of the answers in the sample received any kind of feedback. The sample could have been taken from question and answer sets that only had feedback and analyze those only, but doing that would not be representative of the entire site population. Range restriction

may lead to skewing of the results and was therefore not applied here.

Another limitation is the inability to fine-tune the results. The current setup does not support the elicitation of specific implicit cues that are more influential than others. It is suggested that a controlled experiment may be more suitable for this kind of question.

Finally, the coders knew the English language well, but they were not native English speakers, so they may have missed a few implicit cues and linguistic nuances. It is possible that this study would lead to stronger effects if native English speakers were employed for data collection.

Summary

Unobtrusive examination of questions and answers using content analysis methodology revealed that given-off, implicit expressions of self-presentation by askers were important for the dialog between asker and answerer as indicated by metrics of the retrospective value of information, tips and ratings. The results of this study suggest that in textual online communication given-off cues play an important role in leading to system success and sustainability and to the building of capital in both social and economic terms. This idea should be further explored in other Q&A sites as well as in other site types, such as e-commerce sites, dating sites, and possibly even in gaming sites.

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