

On Virtual Face-Work:
An Ethnography of Two Live Chat Reference Interactions

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Abstract

Erving Goffman's (1959, 1967) theoretical framework and concept of face-work has the potential to greatly increase the understanding of interpersonal dynamics in computer-mediated communication realms. This research used the concept of face-work to analyze the transcripts of two interactions between a librarian and a library user in a Web-based virtual reference service (VRS) environment. These highly goal-oriented interactions, even though lacking the immediacy of face-to-face interaction, were found to be rich sources of face-work.

Keywords

Erving Goffman, Face-work, Computer-mediated communication, interpersonal communication, chat, virtual reference, ethnography of communication; online ethnography

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“A promise to take ritual care of his face is built into the very structure of talk”

(Erving Goffman, 1967, *On Face-work*, p. 40).

“Life is one big show in which no one rehearses” (John Gorka).

Introduction

You have a problem. You are a freshman university student working on a paper applying the work of the sociologist Erving Goffman to the study of computer-mediated interaction. The deadline for submitting the paper is two days away, and you are starting to panic. You still need to locate some contemporary articles on your topic, but you don't know where or how to look for them. You have flailed around on Google and Wikipedia, but you are not getting anywhere. In desperation, you go to your university library homepage and you see a button that says “Ask A Librarian.” Hey, it's worth a shot, you think, and so you click the button. You find yourself in a one-on-one live chat session. A computer-generated message appears that says, “Welcome to the Ask A Librarian service. A librarian will be with you in a moment.” Your interaction is soon to begin.

Take a moment to reflect upon the interaction that is about to take place. Do you feel excited, nervous, or perhaps indifferent? Will this interaction be the same as the one you might have face-to-face (FtF) with a librarian? Will you be able to express what you need to say in this novel environment? How can you be sure the librarian will understand what you need? Suppose the librarian thinks your question is frivolous? Perhaps the chat service is not meant to deal with

these kinds of questions? What if you don't understand what the librarian is telling you? How can you present your problem without appearing to be ignorant? Are you putting yourself in jeopardy by initiating a conversation with a highly qualified information professional that may be judging and evaluating you through every ill-formed sentence or spelling error you type?

According to Erving Goffman [1], putting yourself in jeopardy is exactly what is about to happen. "When a person volunteers a statement or a message, however trivial or commonplace, he commits himself and those he addresses, and in a sense places everyone present in jeopardy" [1, p. 37]. In every interaction, there is always the danger of committing a gaffe, or offending the other person in some unintended way, or presenting oneself in ways that are not intended. This is not a profound insight, by any means. However, it is an insight that is often ignored in the consideration of reference interactions in the library setting, and even more so in the computer-mediated setting, even though the sense of "putting oneself in jeopardy" is heightened in these encounters [2; 3]. Radford and Radford [4] have argued that for many library users, their experience of the library is structured by their management of fears, including: fear of appearing stupid, of authority, of disrupting the order of the library, of wasting the time of a professional, and so on [see also 5]. These fears form the cornerstone of popular culture representations of libraries and stereotypes of librarians.

It is not difficult to see why fear should be so fundamental to a typical reference encounter. Consider what the user is asked to tolerate in such an encounter. First of all, the encounter is often conducted with a stranger. Second, the users often are unsure what is needed to address their information gap [6]. Users may not know if a source or citation will help until they actually see it or work with it. They may be hazy about what their information need is exactly [7] until they actually talk with the librarian or work through the search process [8].

Added to this uncertainty is the users' knowledge that the librarian possesses an infinitely more sophisticated understanding of highly complex information sources and systems. On the surface, the reference encounter will be about locating information and sources to address a particular information need. However, as Goffman [1] notes, "Much of the activity occurring during an encounter can be understood as an effort on everyone's part to get through the occasion and all the unanticipated and unintentional events that can cast participants in an undesirable light" [1, p. 41].

Goffman's work has been effectively applied to explore interactions in school libraries [e.g., see 2] and in academic libraries [e.g., see 9; 10]. Goffman's concept of "deference" has been identified as integral to success in FtF reference encounters [2; 9; 10] and Mon [3] has written an overview of "Face Threat" in library interactions. This paper explores the question of whether or not Goffman's work is useful in understanding the dynamics of the *computer-mediated reference encounter* and, in particular, the reference encounter between a user and a librarian in a one-on-one, dyadic live chat environment, similar to Instant Messaging (IM). Is the communication activity in a virtual reference (VR) encounter part of an effort to "get through the occasion" and to avoid events that can "cast participants in an undesirable light?" How are these concerns realized in the virtual encounter? What implications does the management of interpersonal jeopardy have for the success or failure of the VR interaction? The argument is made in this paper that the management of interpersonal jeopardy is as central to the virtual encounter as it is to a FtF encounter, and that the virtual interaction is a rich site to explore the relational dimensions of communication [see 10; 11]. To begin, Goffman's concept of face-work is discussed below.

Goffman's Face-Work

According to Goffman's [1] seminal article, *On Face-Work*, participants risk their sense of *face* in every interaction. For Goffman, face does not refer to an actual facial expression [see also 12]. However, the comparison of a physical facial expression and Goffman's notion of face is nevertheless instructive. One's physical face is the part of the body that is most immediately informative to others. The human face is the site where others pick up the most powerful cues concerning one's emotions, personality, and state of mind. When and how people smile, frown, roll their eyes, or flash their eyebrows provides information about those persons and how they feel in any given situation. The connection to Goffman's notion of face is that these facial expressions do not occur randomly or in a vacuum. A smile, for example, arises in the flow of an ongoing conversation in response to something said or done by another. Such a smile might be considered as friendly (you're laughing with me), or it may be considered offensive (you're laughing at me). The same smile can mean different things in different places and with different others; therefore, the interpreted meaning of the smile is always contingent upon the flow of events in which it occurred.

This notion of *contingency* is central to Goffman's concept of face [see also 13]. Goffman describes a person's face as an image of self that is based on social expectations. It addresses the questions, "Who am I supposed to be in this situation?" and "What behaviors are expected of me?" Like the meaning of a smile, one's face is always contingent; it is always "diffusely located in the flow of events in an encounter" [1, p. 7]. One's sense of face has to be constantly established and maintained in how one acts. It is not enough to say that "I am the boss." One also has to act like the boss, and engage in behaviors that establish that face. These acts constitute what Goffman refers to as a *line*, the actual "pattern of verbal and nonverbal acts"

[1, p. 5] which serves to express how one sees oneself in this situation. To maintain one's face in a particular interaction, particular kinds of behaviors must be enacted, and not others. A participant "must ensure that a particular *expressive order* is sustained . . . so that anything that appears to be expressed by them will be consistent with his face" [1, p. 9]. Thus *face-work*, the work that must be done to create and maintain one's face, refers to the "actions taken by a person to make whatever he is doing consistent with face" [1, p. 12]. For Goffman, the need to achieve this consistency is the central organizing principle of human social interaction. Goffman writes, "By repeatedly and automatically asking himself the question, 'If I do or do not act in this way, will I or others lose face?' he decides at each moment, consciously or unconsciously, how to behave" [1, p. 36]. Goffman's work was conducted prior to 1967, and therefore prior to the modern age of computer-mediated communication (CMC). Is the same concern with face present in the behaviors displayed by participants in a computer-mediated interaction?

Face-Work in the Computer-Mediated Environment

Web-based virtual reference services (VRS) are offered by most libraries to assist users who choose online venues for their information queries. As libraries of all types have developed digital collections that feature a large array of electronic reference resources, they have experienced increased user demand for quality online reference assistance. Live chat reference is a popular type of VRS in which librarians engage in synchronous reference encounters with users in text-based interactions, similar to IM, but with additional features tailored to library needs, and generally using proprietary software.

When studying CMC, Markham cautions researchers to not ignore "the person's understanding of, response to, and interaction with the technology" [14, p.796]. Although VRS users may have reservations about the technology, they have made the decision to use this format

to meet their information needs instead of choosing more common formats, such as FtF or telephone. Users of VRS also have stated that they feel more comfortable in the virtual environment when asking certain types of questions than in other reference formats [15].

Rituals akin to face-work have been demonstrated to occur in virtual encounters similar to VRS [16; 17; 18; 19]. Behaviors used to maintain one's face in virtual encounters include the use of emoticons and other text-based cues which enable the participants to communicate meaning beyond the literal meaning of the words on the screen [20; 21]. With respect to computer-mediated reference interactions, Fagan and Desai, [22] have argued that librarians, "must introduce social and even emotional elements and high degrees of interactivity through a seemingly impersonal medium" [22, p. 125]. Their study of VR transcripts identified a number of pro-social verbal behaviors that communicated a caring attitude. These behaviors included offering follow-up questions, the use of humor, being appropriately formal or informal, showing interest and sympathy, and verbal representations of nonverbal acts, such as "<giggle>." Similarly, Westbrook [23] found that participants in a chat-reference service at a public library used various techniques to lower or raise formality levels including: abbreviations, self-disclosure, humor, apologies, and self-deprecation. This research suggests that face-work plays a significant role in computer-mediated reference interactions.

An Ethnography of Face-Work in Two Virtual Reference Encounters

The research reported in this article draws upon two VRS transcripts selected from the dataset collected by Radford and Connaway [24]. The dataset consisted of 746 chat-reference transcripts randomly selected from OCLC's QuestionPoint and 24/7, an international chat software provider, during a period of 23 months (July 2004 to May 2006) from a population of 479,673 chat sessions. These transcripts were stripped of identifying information and analyzed

through repeated reading, identification, comparison, and categorization (coding) of patterns, issues and themes. In previous research, Radford [9; 10; 25] identified two classes of ritual face-work behavior: (a) *relational facilitators*; those rituals that have a positive impact on the interaction, and (b) *relational barriers*; ritual behaviors that have a negative impact on the interaction.

In selecting two transcripts for in-depth analysis, the authors are following Goffman's call that the description of face-work in any interaction requires an ethnographical approach to communication. Since these transcripts depict VR interactions, the ethnographical approach used to analyze the communication within this VR context is referred to as online or virtual ethnography [26; 14]. This means that the statements and communication acts of the participants need to be understood in terms of the context of its occurrence. This context includes such factors as: the setting of the interaction, the relationship of the participants, the goals which the participants wish the interaction to achieve, the emotional pitch or feeling of the interaction, and the norms of communication that are appropriate for this interaction [see 27]. An ethnography of communication also considers "the way verbal and nonverbal signs create and reveal social codes of identity, relationships, emotions, place, and communication itself" [27]. The focus of communication ethnography is not the feelings or thoughts of the participants, but the communication acts themselves and how these take on meaning in the context of the interaction as a whole. Goffman writes that "the proper study of interaction is not the individual and his psychology, but rather the syntactical relations among the *acts* of different persons mutually present to one another" [1, p. 2]. Goffman's concern is not with whether or not an individual is happy, but rather what the role the statement "I feel happy" might play in the conduct of an interaction. What response might be expected of the conversational partner if this statement were

uttered? Is it an appropriate statement given the context of this particular interaction? How might this statement shift the topic of the interaction, or contribute to the face-work of the participants? Goffman's focus is on how communication events are coordinated and how this pattern of events provides the conditions in which face is created and maintained. Goffman explicitly deals with "behavioral material" [1, p. 1] such as glances, gestures, positioning, and verbal statements and the specific contexts in which these behaviors occur, such as "conversation, track meets, banquets, jury trials, and street loitering" [1, p. 3]. In this paper, the context is the VR encounter.

In the VR context, the behavioral material that makes up the interactions is *the acts* of making verbal statements and how those statements are coordinated with other statements to enable the participants to establish and maintain face. The participants must make choices concerning how these statements are presented and how they will respond. These choices, and their coordination by the participants, comprise the ritual behaviors that will enable each participant to both achieve their information goals and also to maintain their identity, self-worth, and the impressions "given" and "given off" to the other [see 28; 1].

The theme analysis conducted by Radford and Connaway [24] identified a number of face-work categories that were tabulated and abstracted by considering the dataset of 746 chat-transcripts as a whole. However, an ethnographical approach of the kind advocated by Goffman requires that these themes be considered in terms of the context of the interaction in which they occurred; therefore, in this article, two transcripts have been selected, and the creation and maintenance of face are described within the context of these actual interactions. To this end, the transcripts of the two interactions and the description of the face-work performed by the coordination of verbal acts are presented side-by-side in a table format.

Both transcript excerpts are reproduced verbatim, and thus misspellings, grammatical errors, etc. are not corrected. Spelling and punctuation are important elements of the communication act and have significance in the construction and maintenance of face. For example, there is choice to be made concerning whether or not to send a message with or without typos, and this choice may have significance in the context of the interaction. Incorrect spelling may contribute to a perception of sloppiness, or the correction of a previously misspelled word may contribute to a perception of seriousness and attention to detail. Every aspect of the message's presentation has potential communicative value, whether the sender of the message intends it or not.

The first transcript focuses on the question: "Where can I find the leading drug companies in boston (sic) doing diabetes treatment/prevention R&D?" This question from a university student was selected because it demonstrates positive face-work on the part of both librarian and user. The session is an unusually long one, 70.85 minutes, as the average session for this sample of 746 transcripts has a mean of 12.42 minutes and a median of 12 minutes [29].

Transcript One: Drug Companies in Boston

Line	Participant	Verbatim Transcript	Analysis
1	U (User)	Where can I find the leading drug companies in boston doing diabetes treatment/prevention R&D?	The user (U) has been prompted by the system to enter a question. Lines 1- 5 are part of a greeting ritual. An interaction is patterned by conventions and procedural rules which guide and organize the flow of messages. These rules inform the participants what a statement is doing (greeting, asking a question, giving an answer, expressing frustration, etc.). The interaction must open with a set of gestures to initiate the communication and for the persons concerned to "accredit each other as legitimate participants" [1, p. 34]. The persons so ratified are now considered to be in a "state of talk;" i.e., they have

“declared themselves open and to guarantee together to maintain a flow of words” [1, p. 34].

- | | | | |
|---|---------------|---|---|
| 2 | L (Librarian) | [A librarian will be with you shortly, please hold.] | Scripted system greeting. Lets U know that the question has been received. |
| 3 | L | [[Name] - A librarian has joined the session] | Scripted information. Lets U know that the librarian (L) is now present. |
| 4 | L | Hello. I'm a reference librarian at X University. How may I help you? | Scripted greeting from L. Goffman [1] notes: “Thus when one person volunteers a message, . . . someone else present is obliged to show that the message has been received and that its content is acceptable to all concerned” [1, p. 38]. L self-discloses his/her affiliation and reassures the user that L is here to help. |
| 5 | U | Where can I find the leading companies in boston doing diabetes treatment/prevention R&D? | U repeats his/her question in response to L’s question in line 4. U could have posed a face-threat by refusing to answer this question, or by telling L that the question was already posed, but rather chooses to answer the question and continue the ritual face protection of L. |
| 6 | L | Please hold on while I check a few sources. | L acknowledges question and defers to U by asking U to wait and using the polite expression “please” [see 30]. |
| 7 | L | I can probably give you a few sources to get started, but I may wind up referring you to a business and/or medial librarian specialist. | L’s choice of the term “probably” signals that L may be anticipating problems later on in the interaction. L is not promising a total solution to U’s request. L also signals that U may be referred to another librarian. This may be an attempt to lay the groundwork which will enable L to save face later in the interaction if L is unable to answer the question or provide desired information. |
| 8 | L | Let's start with X library web page... | Face-work here is accomplished by L including the U in the interaction through use of “Let’s.” This statement can also be interpreted as instruction, since U may not be aware of the resources available on the library website. |

9	U	ok great thanks	U expresses deference (“ok,” thereby agreeing to do what is suggested) [see 30], enthusiasm (“great”), and uses the ritual politeness response (“thanks”).
10	L	[Page sent]	The VR software allows L to push a website to U’s desktop.
11	U	ok	Ritual acknowledgment and agreement/deference.
12	L	Are you a studnets or faculty member at X University?	L wants to establish that U is a legitimate participant who is allowed to take part in this interaction. U had to be a “student” or a “faculty member” to be allowed access to the interaction. A risk is taken by the L, since U can refuse to answer or could log off and abruptly end the session.
13	U	student	U provides an acceptable answer, deferring to L.
14	L	OK. I'm going to try the "co-browse" option -- that might let us see the same information at once...(if it's working!)	“OK” recognizes that U is a legitimate participant. The term “co-browse” ¹ is given in quotation marks to indicate that L is using a technical term and is aware that U may not know what it is. L’s statement gives face to U and communicates awareness of U’s knowledge of the system. L says co-browsing “might let us see the same information at once,” communicating inclusion of U in the search process. The ellipsis (...) operates like a nonverbal pause, indicating that something akin to a punch line is coming, which indeed it is. The phrase “(if it’s working!)” and use of the exclamation mark act like a wink or smile to put U at ease. L signals self-deprecation, of being tentative about this feature, building on L’s disclaimer in line 7.
15	U	wonderful	U’s term “wonderful” communicates both appreciation and enthusiasm, choosing to ignore L’s self-deprecation, instead reinforcing L’s face by not pursuing all the ways the interaction might fail as indicated previously by L.
16	L	since what you want to find are drug companies, I'll try to get you into a busienss database...	L is explaining what she/he is doing. The word “try” communicates empathy. The ellipsis (...) encourages U to wait and indicates that L is working even though not interacting. The ellipsis implies, “please don’t go, I will be right back.”
17-18	U	perfect thank you	U acknowledges L’s efforts.

¹ The co-browse feature permits simultaneous viewing and searching of electronic resources (such as journal indexes and full text databases) by the user and librarian.

19	L	[Page sent]	
20	L	I clicked on article databases	L lets U know she/he is working, again maintaining face (doing what this encounter demands), keeping U engaged.
21	U	alright	U keeps the channel open, more agreement.
22	L	by the way, wht's your email address in case I need to send yo a transcript?	L takes another risk, since U can refuse to answer or log off, ending abruptly. L asks for self-disclosure and explains the need for information. The informal expression "by the way," softens the otherwise intrusive request for self-disclosure.
23	U	[email address]	U acquiesces to request, acknowledges L's right to ask, and signals trust that L will not abuse this disclosure.
24	L	Business and Company ASAP and Business Source Premier both look good. I'll try business and company asap.	L keeps U engaged, lets U know what is being done, uses "try" again to signal that L is uncertain whether they will be useful.
25-28	L	[Pages sent]	
29	L	Could you please type in your last name and X barcode number? Thanks.	Another request for U's personal information, this time to allow entry into a subscription database that is restricted to university students/faculty. Again, U can refuse which risks L's face.
30-31	L	[Pages sent]	
32	L	hmmm. I treid the keywords "diabetes and boston and research" and tht came up with soem possibilities...	L spells out "hmmm" which acts like a nonverbal gesture. One can almost picture the facial expression that would accompany this statement. The use of the ellipsis (...) indicates that L is continuing to work and is not expecting an immediate response from U.
33	L	[Page sent]	

34	U	[name, barcode] uh huh, more specifically im looking for maybe some kind of list of who is doing what, for respective drug companies	The use of “uh huh” is a representation of a common nonverbal behavior. U is aware of the need to modify or question what L is doing, since L is not finding the results U needs. This is a potential threat to face, and U wants L to know that the results are not appropriate and to clarify the information need without threatening face.
35	L	I'm looing at teh actual article and the links at the bottom. The SIC can be particularly helpful...	This is not a direct response to U. Instead L has chosen to keep going with the original strategy. Again, the ellipsis is used as a signal that L is still searching. L uses a technical term from the business world (SIC) giving positive face by assuming that U knows this one.
36-40	L	[Pages sent]	
41	L	Sorry, I thought there was a way you could search by sic code and get a ranked list of companies in a certian code.	L apologizes here, acknowledging U's previous response and making adjustments.
42	U	thats alright, seemed liek you were on the right track	U's "That's alright" response signals acceptance of the apology, allowing the interaction to continue [see 30]. U signals reassurance, saving L's face. U acknowledges L's efforts "it seems you were on the right track." Goffman notes that these "protective maneuvers" show respect and politeness "making sure to extend to others any ceremonial treatment that might be their due. He employs discretion; he leaves unstated facts that might implicitly or explicitly contradict and embarrass the positive claims made by others" [1, p. 16].
43-45	L	[Pages sent]	
46	L	What I'm gettign here is a nation-wide list...	Keeps U informed and engaged.
[...]			Lines 47-51 omitted; L searches for list.

- 52 U and they are all in the process of Diabetes R&D? U politely reminds L of the original query.
- [...]
- 69 L I'm having trouble getting you such a list. It might be possible, but we need to play around with our search terms... L admits that the interaction is not going as well as L would wish, aware that U is not getting the required information. It is clear that more time and effort will be needed. Does this violate the expectation of quick information? What is expected in a chat room interaction? L says it "might be possible" and not that it is possible, introducing uncertainty. But L did say that the strategy was a risk. L's face is on the line here.
- [...]
- 74 U perhaps the business librarian would be helpful, can i be connected through this same online format? U is ready to leave the interaction, which can be tricky as U does not want to cause L to lose face or to acknowledge L has "failed." U says "perhaps" the business librarian would be helpful. U does not say she/he would "rather speak to the business librarian" or imply that he/she would do a better job. The use of the term "perhaps" leaves the question open, offering L the opportunity to maintain face.
- 75 L yes, there might very well be a book in the [univ.] reference collection. Might be best to call them. L is justifying a call to the business librarian because of a certain book, or kind of book, not because L perceives this reference encounter to have failed. L attempts to save face and also gives deference to U, by acknowledging U's suggestion.
- 76 L No, I cannot connect you, but I can look up her email address. L responds to U's question in line 74.
- 77 U this online help is very convenient though, my roommate is actually sleeping, so a phone call would be tough Again, U reassures L that he/she has given good service. U comments on the online help interaction itself by noting that it is "very convenient." However, U does not comment directly on L's performance, again in an effort to save L's face.

78	U	ok, e-mail should be ok	U gives positive feedback, agreement with L's suggested solution.
79-80	L	It's [e-mail address]	L gives the business librarian's email address as offered.
81	L	did you get that?	L defers to U, asking if information was received.
82	U	alright thank you for your help, have a good day	Beginning of the closing ritual, indicating that U is ready to leave the interaction. "Have a good day" is a final statement in a closing ritual.
[...]			Lines 83-109 are omitted; comprise a long closing ritual.
110	L	good bye and good luck.	L completes the closing ritual.
111		Note to staff: XFERIN [L Name] - user has closed this session]	Scripted closing.

Transcript Two: The Question of the Accelerating Bumper Car

While the majority of transcripts in the sample of 746 VR sessions reflect positive interactions, some demonstrate negative face-work on the part of the user, the librarian, or both. The following transcript is not typical; rather, it was selected for closer analysis because it exemplifies an interaction where face-work is not successful and because of the unusually high number of relational barriers that impede the interaction's success [see 25]. The user's question is: "when you drive forward in a bumper car at high speed and then you slam into the car in front of you, you find yourself thrown forward in your car. Which way is ur car accelerating?" The origin of the question appears to be a science (Physics) homework question from a high school student who has sought the help of a VR librarian. The duration of the transcript is, again, unusually long at 39.05 minutes.

Line	Participant	Verbatim Transcript	Analysis
1	U	Physics	The user (U), prompted by the system to enter a query in a box, has, by default, launched into the topic of the query, without an opening salutation. U seems to offer a category, rather than a question. Perhaps U thinks a particular category of question will be directed toward a particular librarian (L).
2	L	[Please hold for the next available librarian. If you would like a transcript of this session emailed to you, please type your full email address now.]	Scripted system greeting. Lets U know that the question has been received and what to do to get a transcript of the session.
3	L	[[Name] - A librarian has joined the session.]	Scripted information. Lets U know that L is now present.
4	U	when you drive forward in a bumper car at high speed and then you slam into the car in front of you, you find yourself thrown forward in your car. Which way is ur car accelerating?	U offers no “hello” or greeting ritual. Rather U is treating the chat service like an impersonal search engine. A greeting ritual can initiate the process of give and take. However, when no greeting ritual is present, this violates ritual expectations and may inhibit the relational development between the participants [see also 31].
5	L	thank you for holding I was working with another patron.	L has not acknowledged U’s question and does not greet U (no hello). “Thank you for holding” is polite, but sounds impersonal, like a line from a telephone operator. L does provide an explanation to U for the wait time, which is a deferential move.
6	L	Is this a homework question.	This is a direct question to U without any contextualizing salutation. There is no “how are you?” This direct

question can be superficially interpreted as a request for information. However, it can also easily be construed as a reprimand of U for asking a “homework question” that should be the work of the student [see 2], which would make this is a face-threatening move.

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|----|---|--|--|
| 7 | L | I'm not an expert on driving so I really can't answer that. | This statement implies that U has asked L personally for an answer to the question. L's reply is not very helpful, and L probably knows this. The statement is more of a rebuff and a refusal to help find an answer to U's query. It is also a cue to U that U may not be on the path to receiving an adequate answer from the L. L threatens U's face with this bald statement of lack of expertise. |
| 8 | U | can u find a website or something | U is much more deferential here. U recognizes the need to treat L with more respect if U expects to receive the requested information. However, it also trivializes the L's expertise and sounds like a desperate plea. |
| 9 | L | I'm not sure what you are asking. | Instead of offering U reassurance that L will help find an answer to the query, L again gives a disclaimer, stating, “I'm not sure what you are asking.” This statement acts as an obstacle to U's quest to achieve a helpful answer. L is not working for mutual understanding, or engaging in relationship development [10; 25]. |
| 10 | U | when you drive forward in a bumper car at high speed and then you slam into the car in front of you, you find yourself thrown forward in your car. Which way is ur car accelerating? | U seeks to overcome the obstacle produced by L by providing a restatement of the initial query. |
| 11 | U | | Although this transcript does not have time stamps to show how much time passes between the exchanges between L and U, it is clear from the ellipses and “hello?” in lines 11 and 12, that U is waiting for a response from L. The lack of any kind of response is itself a message that communicates a negative attitude toward U. |

- 12 U hello? U again seeks to discover if L is still connected since there has been no confirming messages from L.
- 13 L Is this a homework assignment. what subject is it. L does not explain where she/he has been, offer an apology for being away from the interaction, or explain that perhaps she/he has been looking for information to answer U's question (or perhaps was helping other Us in the queue). L does not offer reassurance that he/she will pursue the query, but instead repeats the face-threatening question regarding a homework assignment. This line indicates that perhaps L is not fully engaged with U, and is communicating a message of distrustfulness.
- 14 L I really don't understand how I can answer that for you. L comes back a second time with a disclaimer, "I really don't understand how I can answer that for you," which is an attempt to again push U away. This response sends a disconfirming message by indicating that U's attempt to use VRS to find an answer may be misguided. In essence, such a remark to U acts as a type of rejection of the question and also of the person.
- 15 U can i hav another librarian This is a disconfirming comment by U, who responds to L's messages of rejection with a similar rejection. In lines 14-15 a gaff in politeness is apparent, and that some form of repair should have been attempted by L, perhaps along the lines of a face-saving apology. A process of face-repair would normally be engaged when a communication interaction is recognized as potentially threatening one's own face or the face of the other [30]. U tries an avoidance strategy in line 15 by acknowledging L's unwillingness or inability to help and requesting to have "another librarian." This request can be considered a direct face-threat to L. However, neither participant engages in a corrective process, which contributes to the further deterioration of the interaction.
- 16 L The information you gave you me does not help me find any resources to help you. Usually Ls engage in query clarification to elicit additional information from Us so that the query can be better understood and addressed. Often Ls formulate open-ended questions such as, "Can you tell me more about what you need?" and the U can then respond to inform the search process [see 6]. Rather than ask clarifying questions, or acknowledge U's request for another L, L replies, "The information you gave you me does not help me find any resources to help you." This

			disclaimer mirrors U's behavior with a face-threat. L implies that it is U's fault that the interaction is failing.
17	L	What do you mean by which way is your car accerlaerating. Are you sure thats what your assignment asks.	L continues with more questions about assignment, but asks what the assignment is, rather than what U wants to know. U has yet to disclose whether this is a homework assignment. Indeed, nothing is known of U's age or educational status. L's implication that U does not understand the "assignment" could be construed as condescension and represents another threat to U's face.
18	U	Yes	Although U replies "yes" it is unclear if the reply addresses L's question in line 13 or about the assignment in line 17.
19	L	What subject is this question from?	L demonstrates a lack of attention to the interaction by asking for the subject of the question again (as in line 13).
20	U	Physics	U answers the question without demonstrating impatience, which is polite.
21	L	Okay just one moment.	After U provides the subject again, L indicates that she/he will help U. This is followed by pushing a Web page.
22	L	[Web Page sent]	Takes 22 lines before L sends U a Web page.
23	L	This is one site that may help.	L's use of the phrase "may help" communicates that L does not know if the website is actually useful and potentially that L does not care, a face threat to U.
24-25	L	[Pages sent]	L continues to push pages to L, but does not seek any feedback as to whether these pages were actually useful.
26	L	this is another site that youmay try forhelp.	L has more tentative language "may try" suggests that L is not sure of its usefulness.
27	L	When we disconnect youwill have these links in a transcript.	L provides helpful information here, but U does not respond until line 33, which is a negative response.
28	L	[Page sent]	

29	L	This site looks to be very helpful.	L gives a personal evaluation of this site, but again fails to ask U for any feedback.
30-32	L	[Pages sent]	
33	U	this isn't helpful	U's statement, "this isn't helpful," is again disconfirming to L and another face threat. At this point in the interaction, it could be concluded that L has experienced a loss of face since L's primary responsibility in the interaction is to provide U with information to answer the query. In this sense, L has "failed." But it is not only the information pushed to U that is not helpful. U could also be saying that L's behavior of pushing websites without asking for feedback or clarification is also unhelpful.
34	L	Well I really don't have any other resources that can assist you.	L responds with, "I really don't have any other resources that can assist you." Such a disclaimer, and with other disclaimers on the part of L, are failures to make an appropriate referral for U, which means U may leave the session empty handed. However, L does send another page, but again fails to tell U what the page is or how it might be useful in addressing the query.
35	L	[Page sent]	L again returns to sending a Web page to U despite the fact that U has stated that the Web pages are not helpful.
36	L	I cannot answer the question for you, I don't have the physics knowledge.	L realizes that L cannot find the appropriate information to address U's query, and offers a reason in an attempt to repair face: L does not have the needed physics knowledge. It also signals that L will stop working on the question.
37	L	Maybe you will need to ask your instructor for a clear understanding.	However, line 36 is followed by what seems to be a retort, "Maybe you will need to ask your instructor for a clear understanding." This reply chastises and reprimands U. Blames U for the failure of the interaction, because U's question lacked clarity. U's lack of knowledge is the problem, not L's failure. L also persists with the assumption that U is working on an assignment, despite having no information to substantiate that assumption.
38	L	[Page sent]	L persists in sending more Web pages to U.
39	U	do u kno ne1 who does	U responds by asking if L knows anyone (ne1) with a working knowledge of physics. U ignores the pages L sent

- and does not say whether they are useful. U is ready to end the interaction and talk to someone else who is more knowledgeable about the query's subject matter. In essence, U knows that a referral is possible.
- 40 L [Page sent] L continues to send pages, even though U has indicated that they are not helpful, both in an explicit statement to that effect, and by ignoring all the subsequent Web sites pushed by L.
- 41 L Sorry I do not. This statement could be read literally, i.e., L does not know someone with a knowledge of physics, or it could be read as saying that L does not want to deal with this question.
- 42 U ok U acknowledges L, and is probably aware that no further useful information, either about the query or how to go about answering the query, is going to be forthcoming from this interaction.
- 43 L I have a few patron that I ned to assist. L acknowledges that the interaction is over, but does not apologize for not providing the information. L does not wish U well in seeking an answer. Rather, L demeans the status of U by stating that L has to see other users, presumably with queries that are more important, or better stated, or are not "merely" homework questions.
- 44 U ok bye U offers a ritual closing statement.
- 45 L [Thank you for using [VRS]! If you have any further questions, please contact us again.] L fails to conclude the interaction with a personalized ritual closing statement, choosing to push a prepared script again demeaning the status of U.

Discussion

The transcripts examined above reveal that VR encounters in a chat environment are extremely rich sites of relational communication where users and librarians struggle to create and maintain face through the coordination of text-based verbal acts. These transcripts provide unobtrusive windows that can be used to see how interpersonal rituals of face-work identified by

Goffman [1] play out in one type of CMC environment. Relational communication, including positive and negative face-work, in chat is found to mirror that of FtF encounters [see also 25; 31; 32].

The analysis shows how users and librarians engage in chat versions of interpersonal rituals such as seeking or receiving reassurance, greetings and closings, missteps and apologies. Missing nonverbal cues are rerepresented through use of different fonts, characters, text-based comments, and symbols [see also 21]. Clearly, successful VR interactions contain evidence of positive face-work by the participants. Similar to the FtF environment, expressions of affect, such as deference and strategies for rapport development, are important to the success of chat VR encounters [see also 23].

The CMC context provides snapshots of interactions that anchor relational elements in a specific context and highlights, turn by turn, how individuals actively produce positive and negative face-work. Goffman's insight concerning the structural role of face-work in all social interaction is important to understanding the reference interaction because much of the library and information science literature's concern with this topic is focused on information retrieval and exchange. The purpose of an interaction with a reference librarian has traditionally been seen as goal directed, that being to obtain a piece of specific information, or to provide help or instruction to library users, guiding them in locating needed resources. The success or failure of the interaction is typically judged with respect to the librarian's ability to give the user the help required [10].

The same criteria of "success" can be applied to an interaction that takes place in the VR chat environment: did the librarian give the user the information or help the user needed? However, in Goffman's terms, achieving the stated strategic goal of an interaction is not enough

for that interaction to be considered successful. Goffman would maintain that such an interaction would be successful only if the participants emerged from it without feeling slighted, foolish, or offended, regardless of the success of finding a particular piece of information or needed resources. In other words, success would be achieved when both the user and librarian were able to establish and maintain a desired face. Users, as well as librarians, appear to greatly value how they are treated in addition to accomplishment of the encounter's goal to facilitate information discovery and use [see also 33; 5].

Although much can be learned from the VRS transcripts, many questions involving the participant's perception of these interactions remain unanswered. One limitation of dealing with transcripts that have been made anonymous to protect participants' identities is that the researchers are unable to conduct any interviews or surveys. Demographic data are absent, unless self-disclosed by participants (as in the user in Transcript One, who discloses that he/she is a university student) or inferred from the session transcript (for example, the user in Transcript Two is most likely a high school student, as Physics is generally first taken at that level).

One possible direction for future study is to examine the impact of cultural differences and stereotypes on face-work and deference. Fagan and Desai [22] argue that CMC levels the playing field as "patron or librarian can form judgments based on race, age, gender, or a busy or uninterested appearance" in FtF interactions. However, one study that took an experimental, rather than ethnographic approach, found that manipulating use of African- American and Arab names, while asking the same questions, received lower service quality than other ethnicities [34].

Conclusion

This research has demonstrated how rich the theoretical framework of face-work is in analyzing the interpersonal communication found in chat reference transcripts. As mentioned above, a total of 746 transcripts have been coded for relational facilitators and barriers, and this paper sought to focus on two illuminating examples of face-work in action, one demonstrating positive face-work, and the other negative. The analysis will continue to examine VR as a context for exploring face-work and also investigate turn-taking and message content in greater depth to understand the nature of these interactions and what, if possible, causes interactions to deteriorate into negative interaction or conflict. Further research and exploration into interpersonal aspects of CMC, and in VR in particular, will provide a deeper understanding of these interactions as well as the cost of violating politeness rituals. Ultimately the authors believe these insights will lead to more positive, successful interactions and will increase use and satisfaction on the part of users and librarians who engage in live chat and other VR encounters. Perhaps then the panicking student introduced in the beginning of this article, once having dared to try VR and having found the “cybrarians” to be non-face threatening and pleasant (as well as knowledgeable and savvy) may be less leery of seeking professional assistance the next time around.

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