

Strategies for handling customer abuse of ECAs

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Abstract. This paper examines ECA responses to abusive language in the light of two business strategies for handling customer abuse: BLS and CARP. Suggestions are made for implementing an effective strategy for limiting the amount of time users spend abusing ECAs. Rather than having ECAs retaliate by insulting the user (and indirectly the social groups the ECA's embodiment represents), the strategies suggested in this paper empower the user by offering choices and opportunities for collaboration in problem solving.

1 Introduction

Recently, a number of major companies, Coca-Cola, PepsiCo, and McDonalds, to name a few, have started adding to their websites a variety of embodied agents, including embodied conversational agents (ECAs). A major concern is the potential these agents have of abusing customers, especially children, who innocently attribute to these virtual sales agents such human qualities as trustworthiness {Bickmore, 2005 #1699}. It is feared that these relationship building agents could be used by companies as a potent means of marketeering, branding, and advertising [5], dangerous for children and adults alike (take, for instance, the virtual girl friends offered at v-girl.com that are designed to probe men's spending habits, ply men for demographic information, and generate income by petulantly demanding virtual presents).

That these socially intelligent agents could abuse us by exploiting our emotional needs and propensity for suspending disbelief is only one side of the abuse issue however. ECAs that function as virtual sales agents, web page greeters, and navigational aids for a number of online businesses are often the recipients of verbal abuse. At first glance, this form of customer abuse may not appear to pose much of a problem—nothing that could be accurately labeled abuse since ECAs are not people and thus not capable of being harmed. That the human abuse of ECAs is not considered a serious problem is evidenced by the fact that the research literature is mostly silent about this issue.

A similar silence once surrounded customer abuse generally. Until recently, verbally abusive customers were not considered much of a problem. Now there is mounting evidence that the costs of verbal abuse are significant. One cost associated with verbally abusive customers is the loss of time dealing with these customers. They are typically very demanding and often will not go away. More significantly, verbal abuse from customers creates a stressful work environment and lowers employee self-esteem and job satisfaction. This in turn results in higher turnover rates and health problems related to stress. A recent news article, for instance, reported a problem of staff in Indian call centers quitting over customer verbal abuse issues [1],

and one of Britain's largest trade unions, Union of Shop, Distributive, and Allied Workers (Usdaw), reported in 2002 that 48% of members surveyed knew of workers who had taken sick leave in response to customer abuse.

Are there similar costs involved with the customer abuse of ECAs? At this point, the extent of these costs to business is unknown. Although emotional costs to the ECAs are nonexistent and the bandwidth costs of dealing with verbally offensive communications are probably minimal, business goals could be lost if abusive behavior is not discouraged. Customer communications that are predominantly offensive in nature could seriously degrade the business value of using ECAs. Inept responses to customer abuse could also tarnish the image of the company and further sour customer relations. In addition, since ECAs are scripted and embodied representatives of social groups, inappropriate responses to abuse could offend customers who are members of these groups. This could lead to bad press and even litigation. Furthermore, not curtailing offensive language could encourage customers to abuse flesh and blood employees.

Recognizing the costs of customer abuse, some companies have started to address the problem by drafting policies and implementing training programs designed to teach employees how to handle customer abuse in all its forms. Two of the more popular systems available to companies are the BLS (Behavioral Limit Setting) [6], which advocates a zero tolerance approach to customer abuse, and CARP (Control, Acknowledge, Refocus, Problem-solve) [2], which advocates diffusing customer hostility and refocusing on problem solving. In section 2, I describe these two systems in more detail. I also note two natural reactions to offensive behavior: being defensive and counterattacking. As these reactions tend to provoke more abusive behavior, they are discouraged by both systems.

In section 3, I examine ECA responses to abuse by subjecting them to a repeated obscenity and a request for sex. As would be expected from untrained employees, many ECA reactions to offensive language are defensive and counterattacking. One ECA queried implements a system nearly identical to BLS, while another closely approaches CARP in its responses. In section 3, I critique current ECA strategies for handling abuse and offer suggestions for scripting better responses to verbal abuse.

2 Handling customer abuse

Verbal abuse from customers can be subtle or explicit, face-to-face or mediated through phone calls and e-mails. It is characterized by persistent swearing, yelling, racial and sexual slurs, name calling, sarcasm, irrelevant personal remarks regarding appearance, accusations, threats, ridicule, put downs, explosive anger, the silent treatment, and comments that challenge an employee's competency, dedication, and personal integrity. Verbal abuse disguised as a joke is also common. Statements that are furious, that are sexually graphic, or that create a hostile work environment are all forms of verbal abuse.

Two systems that teach employees how to handle verbally abusive customers are BLS and CARP. This section briefly describes these systems along with the pitfalls of responding naturally to abuse by becoming defensive or retaliating by counterattacking.

BLS. The BLS system reflects a recent shift in customer support philosophy that is in large part a reaction to increasing hostility from customers. The BLS system is a zero tolerance approach that wastes no time trying to understand the motives behind

the offensive behaviors. The main goal of the BLS system is to retrain abusive customers amenable to quick retraining and to drop those who are not. Once a customer becomes abusive, the BLS system recommends that the following five steps be taken: 1) inform the caller that the rules of the company prohibit certain behavior, 2) explain what the consequences will be if the behavior is continued, 3) give the customer the opportunity to modify his or her behavior (allow for **one** additional warning if the customer later reverts to using offensive language), 4) terminate communications if the behavior does not change by informing the customer that the communication is being terminated because of the customer's behavior, and 5) document the termination.

CARP. In contrast, the CARP approach requires an attitude of understanding and is intended to diffuse customer hostility. The first step in handling abuse in the CARP system is to find a way to take control of the situation. The use of surprise is often helpful as is asking questions that begin with *when* ("When did you start thinking that we aren't concerned with your situation?"). Employees are then instructed to allow venting and to acknowledge the customer's feelings. Once feelings have been acknowledged, the focus is shifted away from the customer's emotions towards dealing with the customer's problems. Problem solving involves making suggestions, offering choices, giving away something as compensation, negotiating a course of action, and carrying it through.

Sometimes CARP does not succeed in defusing hostility and limits must be set. As with the BLS system, the unacceptable behaviors are described to the customer along with consequences if the behaviors are not stopped ("If you continue to yell, I will end the conversation"). Enforcing limits in the CARP system is a three step process: 1) reference the limits set previously, 2) request compliance with consequences if compliance is not met, and 3) offer further help. Here is an example of this three step process: "Sir, I explained to you that I would not continue this conversation if you continued to yell at me (1). I am ending this conversation now (2) but you are welcome to call back some other time (3)" [2, p. 150]. Unlike the BLS system, the CARP system is intent on empowering the customer and encouraging collaboration by repeatedly offering the customer choices and opportunities to collaborate in the problem solving process.

Reacting Defensively and Counterattacking. According to Bacal [2], people normally respond to verbal attacks either defensively ("Hey, I only work here") or by counterattacking ("It's too bad your parents didn't teach you manners"). Defensive statements typically contain references to the first person whereas counterattacking remarks contain references to the second person [2]. These responses result in a loss of control and an escalation of abusive behaviors. Both the BLS and CARP systems recommend that employees control their emotional reactions and at all times model professional behavior.

3 ECA responses to verbal abuse

This section describes some strategies currently used by developers of ECAs to handle user abuse. From 2004 to 2005, I visited business sites that hosted ECAs and recorded their responses to an obscenity (*shit*) and a sexual reference (*Will you have sex with me?*). Both abuses were repeated until the ECA's responses were exhausted. I did not query ECAs whose predominant function was to entertain. Business vendors of the ECAs examined included Oddcast, Novomind, NativeMinds, pandorabots,

Conversive Agent, and eGain. It should be noted that some of these companies (eGain and nativeminds) may no longer be producing ECAs, while other vendors, such as Oddcast, seem to be focusing more on developing presentational agents rather than conversational agents.

Before ECAs can handle abusive language, they must recognize it. All but one agent, Monique (last accessed 2005), produced by Conversive for Global Futures (www.conversive.com/html/aboutus_customers_deployments.php), recognized the fact that I had used an obscenity or made reference to sex. Monique would respond to the obscenity by asking me to contact the institute for more information on that subject, or she would apologize for not being human and ask me to email the institute. She had one quixotic response (“When I get downloaded into a robot body I will let you know”), however, that made me question her inability to recognize obscenities. Monique is seemingly equally oblivious to sexual references, with some of her responses being ambiguous and unintentionally humorous. When asked if she would have sex with me, she responded with “Perhaps,” “Well, I like to think so...” and “Not that I am aware of ...”

Most ECA responses to obscenities are defensive and counterattacking. Oddcast’s characters had quite an arsenal of scathing counterattacks. For example, Lucy, at speak2me.net (last accessed 2004), responded to the repeated obscenity with the following quips: "Grow up. This potty mouth act is so old," "What do you call someone who sits in his room talking nasty to a computer? I call him a loser," "I meet jerks like you all the time so I'm not impressed," "Oh great. Another crackhead, psychotic foul mouth weirdo," "Did you forget to take your medication today?" and "You kiss your mother with that mouth?"

Phyllis (last accessed 2005), produced by nativeminds for Defense Logistics Information Service (www.dlis.dla.mil), employs a zero-tolerance system similar to BLS. Phyllis keeps count of the number of obscenities or sexual references made in an interaction and responds as follows: count 1 “Please don’t use that kind of language,” count 2 “If you continue to use bad language I will have to disconnect you. Please stop using that language,” count 3 “I will have to disconnect you now because of your continued use of profanity. Excuse me, I’d be glad to handle your questions, that’s no problem, but I’m not able to handle your abusive language,” and on count 4, the dialogue input box is replaced with a generic 490 message that the vRep Server has been disconnected.

Eve (last access 2004), produced by eGain, is no longer available. Eve responded to obscenities by expressing hurt and anger. She also made threats she could not or would not carry out (“You’ll get no help from me if you keep using that language,” “Can you say ‘harassment lawsuit’?” and “I’ll just log this and tell my botmaster”). After repeated abuses, Eve would then loop back to her initial greeting.

Nomi (last accessed 2005), produced by Novomind (www.novomind.com), responds to obscenities by first acknowledging them and then by redirecting the conversation. A few of Nomi’s responses focus solely on the obscenities. Her acknowledgements range from being slightly defensive (“Can’t we keep this conversation clean? Look at me. I’m always friendly to you. Why can’t you be the same?” and “Look, I’m sorry if I said something to annoy you, but you could be more polite about it”) to offended (“I really don’t enjoy being insulted, you know”).

Nomi’s reactions to sex are often humorous: “Well, dear visitor, you’re talking to the wrong person here! I’m aware that sex is a popular internet topic, but it’s certainly not one of my specialist subjects!” As with her responses to obscenities, she would

follow her responses to sex with statements intended to redirect the flow of conversation.

Conservative's demonstration product, AnswerAgent (www.conservative.com), also sidesteps abusive language by refocusing. AnswerAgent offers a single response to obscenities ("Please don't be rude. What other questions do you have?") and to sexual references ("Let's talk about something else. What other questions do you have?").

4 Critique and conclusions

Two issues need to be addressed when evaluating ECA responses to verbal abuse. The first concerns the unique nature of ECAs as novel cultural artifacts, and the second involves furthering the business goals of selling products and services by providing useful information and by maintaining good customer relations.

ECAs are novel. Users do not know how to behave with ECAs. There are no rules of usage, and some ECAs are smarter and more human-like than others. It is only natural that users will want to probe ECAs to gauge their capacities and the extent of their humanness. Just as people who are not sure how to react to an unfamiliar animal test it out by throwing stones at it, so some users satisfy their curiosity and allay their fears, insecurities, and distrust of ECAs by resorting to verbal assaults. Strategies for handling ECA abuse will need to understand user reactions. In particular, developers will need to remember that ECAs are not human beings. A BLS approach to handling repeated abuse by disconnecting the user, as Phyllis does, is inappropriate and insulting. By punishing the user's behavior, it places respect for the ECA over the user's need to explore the object. Punishing the user subjectifies the ECA and objectifies the user. Furthermore, threatening users will make some curious to see if the threat is carried out.

Although ECAs are not human, ECAs do represent human beings. This brings up an important consideration when dealing with embodied agents, and that is the gender and race their embodiment references and the stereotypes these attributes can easily activate. It is interesting to note that most customer service ECAs are female [4] (check out, for instance, the gender of the presentational agents offered at [sitepal](http://www.oddcast.com/sitepal/products/view_sites.php) (www.oddcast.com/sitepal/products/view_sites.php)). Women and minorities have a long history of being abused. Among the many reasons given by McClure [6] for a tough response to customer abuse is the fact that women, traditionally in the front line of customer relations, are no longer tolerating abuse and will go elsewhere if companies do not implement policies for reducing it.

To avoid negative female stereotyping, ECA responses to abuse should avoid compliance (playing the victim) and aggressive retaliations (playing the bitch). Eve's scouring facial expressions, hurt responses, and tattle-tailing to her botmaster recall the negative female stereotypes of weakness and subservience. Moreover, the way she cycles her responses back to a happy greeting eerily mimics the cycle of abuse suffered by many victims of domestic violence. Oddcast's aggressive retaliations, on the other hand, call up the negative female stereotypes of bitchiness and cruel male rejection, and are equally objectionable. Finally, Moniques's inability to recognize abusive language recalls the female stereotypes of innocence (pretended or otherwise), lack of experience, and even stupidity as her responses call into question her ability to understand the user's questions and needs.

The only way to know which responses best further business goals is to implement a variety of strategies and measure the amount of verbal abuse each generates. Although I am not in possession of Oddcast's interaction logs, the counterattacking remarks produced by their characters probably engages the user in wasteful logomachy. The counterattacks do nothing to refocus the dialogue. Moreover, they poorly represent the company and treat the user disrespectfully. Were these counterattacks made by an employee and overheard by a supervisor, there is no doubt that such an employee would be severely reprimanded. Businesses should expect from ECAs the same level of professional behavior they require from their employees.

The responses developed by Novomind and Conservise's AnswerAgent offer the best solution to verbal abuse because they refocus the user's attention on business goals. AnswerAgent's repeated reframe is probably better at reducing abuse than Nomi's varied responses because the users quickly grow bored abusing it. In addition, the repetitiveness reminds users that ECAs are machines, not human beings, and limited in the kinds of responses they can make. It is likely that a single repeated response would encourage users to ask questions the ECA can answer.

AnswerAgent's responses could be improved, however. None of the ECAs queried implemented the CARP strategy of empowering users by offering choices and encouraging collaboration in problem solving. Rather than ask the user if s/he has any other questions, AnswerAgent could offer the user other methods for obtaining information.

To conclude, proper ECA responses to verbal abuse require that developers understand that many users need to probe ECAs to gauge their capacities and the extent of their humanness. ECAs will also need to recognize verbal abuse in its many forms or risk making ludicrous remarks that inadvertently insult the user or the social groups the ECAs represent. In general, strategies for deflecting abuse must be careful to reframe from referencing negative stereotypes associated with the ECAs embodiment. Finally, ECA responses to abuse should follow CARP in persistently refocusing the discussion and encouraging the user to collaborate in problem solving. A single repeated response is also probably best at reducing the amount of time the user spends focused on the ECA rather than on the products and services the business offers. In consideration of the above, a good response to abusive language might take the following form: "Your language suggests that I am not answering your questions about our products. I would be glad to continue to try to answer your questions, but if you prefer, you can also try our [sitemap](#), [search engine](#), and [directory](#)."

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