Negativity in Automated Performance Appraisals due to Online Behavior Trends

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ABSTRACT

It is argued that the increased use of automation for employee review tools is further commoditizing the role of the individual in the workplace. Although this use of technology portrays advantages in speed, organization, and efficiency, the increased anonymity from the standpoint of the reviewer has determents. With a reduced risk of detection and a lack of affective emotions present on the web, a distortion of results may occur. Trends in online behavior have shown that there is a deviation between how we conduct ourselves in reality and that which our online personas embody. It is the goal of this study to explore whether the human propensity with negative actions via the web results in an insensitive and inaccurate measure of feedback.

Categories and Subject Descriptors

[**MISCELLANIOUS**]: Software Psychology – *captology, human-computer interaction.*

General Terms

Captology, Persuasive Computing, Online Identity, Social Behavior, Recruitment, Interaction, User Groups, Forums, Instant Messaging, Security, Privacy, Gambling, Morality,

1. INTRODUCTION

In collaboration with University of Sydney post-graduate students from the departments of communications, media studies and social sciences, this pilot survey looks to investigate the effects of increasingly automated workplace performance appraisals, given the behavioral trends of online users. As related to the subject of Persuasive Computing, we hope to also gain insight on the resulting behavior that recipients of such appraisals might have in comparison to traditional review methods, possibly shedding light on the motivational affects of appraisal automation from both the standpoint of the reviewer and the reviewee.

2. CAPTOLOGY

Capt-ology, \Cap*tol"o*gy\, noun. A pseudo-acronym for **C**omputers **A**s **P**ersuasive **T**echnologies, coined at *CHI'97* by BJ Fogg, while working for Sun Microsystems.

Persuasive Computing uses technology to change people's attitudes or behaviors. Any computer, from a mobile phone to a supercomputer, [Figure 1], could act as an agent, providing context in which persuasion could possibly occur. If there exists influence on the decision-making processes of a human being, then it can be considered persuasive technology. By presenting or promoting a certain point of view, generally through the enhancement of a human-to-computer interaction, persuasive technologies guide our actions, sometimes knowingly, sometimes unknowingly.
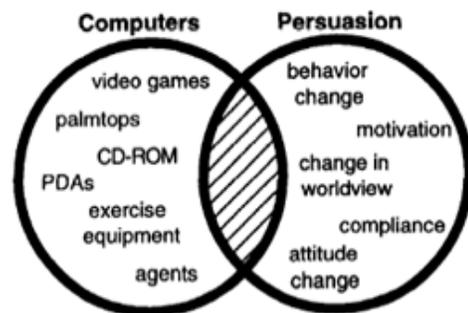

Figure 1. – Captology Topic Intersection [1]

Persuasive Computing is a recently conceived area of study, having less than a decade of formal organization. Already, recognized examples have taken place in numerous different aspects of society. From cults to politics, any field that is people-oriented uses persuasion as their common denominator could find benefit in this research. Military recruitment video games and email-based political fundraising are two visible examples of persuasive technologies being used to accomplish different goals.

2.1 Current Challenges

One challenge for Captology and Persuasive Computing is addressing new technologies and the unique dilemmas that they might present. As a result, the field needs to be constantly evolving and adapting in order to understand what the underlying meaning and motivation behind each new means of interaction might be.

In today's technology prone and information-rich society, our ability to consciously discern and recognize persuasive elements is consistently being tested with increasingly subtle methods of manipulation. Fogg [1] suggests a standard set of questions to ask to help properly address the impact of each emerging technology:

- o   What are the best applications for these technologies?
- o   What is their potential?
- o   What are their limits?
- o   What are the effects and side effects of using them?
- o   What are the ethical implications?

In addition, another challenge for Persuasive Computing is to remove itself from the field's roots in information sciences and begin to manifest in areas that are not just technical in nature, but have cognitive and social aspects present. Healthcare has been a popular manifestation of Persuasive Computing of late, with studies addressing self-help techniques amongst the sick and elderly [9].

The last of Fogg's questions asks to consider ethical implications of a given technology. Yet, persuasive technologies need not to be predatory in nature or even intended to persuade in order to have an effect on human behavior. In some cases, our mere action of even adopting technology changes our behavior and opinion.

A fundamental perspective of this project is that the technological *medium itself persuades* a certain point of view, due to the attributes in which technology promotes in our lives. A task that may at one time have required thoughtful contemplation now is sped through with relentless efficiency. Accordingly, the anonymity of technology may cause us not to believe received feedback delivered via email, for example, as opposed to the extent in which one would gravitate towards handwritten letter or face-to-face conversation.

3.   COMMON ONLINE BEHAVIORS

Trends in online behavior have shown that there is a deviation between how we conduct ourselves in reality and our online personas. With a reduced risk of detection and a lack of affective emotions present on the web, a distortion of one's value system is common. Violation of copyright law, viewing of adult content and flaming (sending negative messages) are examples of behaviors that could occur with ease and relative lack of repercussion within a Digital Social Environment [12].

3.1   Influences on Identity

In looking at some of the causalities of dehumanization on the internet, there have been four distinct factors identified [1] as having an influence on behavior. These are:

- o   Lack of Affective Feedback and Remoteness from Harm
- o   Reduced Fear of Risk of Detection and Punishment
- o   New Environment Means New Rules
- o   Perceptions of Social Injustice and Corruption

From a moral standpoint, A Digital Social Environment does not exclude an inter-office network. There may be more restrictions in place than the free-range of the open internet, but certainly there is no lack of animosity amongst office workers. Competitive environments such as corporations, especially those who exhume a high level of stress and demand, breed discontent among office workers. These environments are ripe for retribution due to 'perceptions of injustice', as listed as one of the four influences on identity.

3.2   Opinion Platforms

To understand motivation behind causal behaviors for giving online feedback, parallels were made to common consumer opinion platforms, such as eopinions.com or amazon.com. It is understood that writing a review for public consumption is targeted towards a different audience than one in a confidential employee review, but an analogy is being made to typify the trends in behaviors that are already present.

In a related study [6] of 2,000 word-of-mouth providers, it has been found that *negative* motivations for providing feedback outweighed the *positive* [Table 1]. Venting negative feelings associated with dissatisfying consumption experiences can serve to lessen the frustration and reduce the anxiety associated with a consumer event. In addition, sharing negative reviews through the publication of online comments help the consumer to reduce the discontent associated with their negative emotions.

Table 1. Factors and Scores for word-of-mouth motivation [7]

Negative	(α: .827 / ave: .657)
. . . the company harmed me, and now I will harm the company! . . . I want to take vengeance upon the company. . . . my contributions help me to shake off frustration about bad buys. . . . I like to get anger off my chest.	
Positive	(α: .788 / ave: .548)
. . . this way I can express my joy about a good buy. . . . I feel good when I can tell others about my buying successes. . . . I can tell others about a great experience. . . . my contributions show others that I am a clever customer.	

Additionally, in looking at user motivations for posting movie reviews, the higher percentage of people were inclined to write reviews were those who expressed negative opinions about films rather than a positive ones [10]. This shows a trend in online behavior similar to consumer opinion sites and can be used as an associated behavior in giving feedback through the internet.

These patterns in user behavior can be attributed to the lack of consequence, allowing negative discourse on the web to be submitted anonymously. Technology creates the illusion that we are invisible, unable to assume risk or receive tangible feedback about our actions as it might affect other people.

Lack of tangible feedback undermines an emotional response, at the same time undermining feelings of remorse if one engages in

irresponsible or harmful behavior. The lack of response also makes it easier to rationalize an irresponsible or harmful action as not having caused harm to anyone. These thought processes are applicable in any environment where the internet is present, not just through home use.

4. PERFORMANCE APPRAISALS

Performance appraisals are defined as a process that evaluates the performance of an employee and generates information about their effectiveness and efficiency at work. Performance being further clarified as 'the extent to which an organizational member contributes to achieving the goals of the organization' [3]. An appraisal system is considered to be an essential and important part of a given organization, commonly used for a multitude of purposes such as pay increases, improvement and training, transfers, compensation, counseling, promotion, employee recognition, termination, salary decisions and feedback. These purposes represent legitimate reasons for the use of performance appraisal systems in organizations. As a result, managers have depended on performance appraisal systems to influence employees' pay, performance and behavior in an organization.

While performance appraisal systems have similar qualities across a wide variety of organizations, their implementation is unique to each individual corporation and is often tailored towards the functions or administrative that an individual employee is expected to serve within the corporation. As a result, most organizations use a recognized but adaptable process for performance appraisal to determine the basis for promotion and/or performance rewards.

4.1 Performance Review Committee

While at McKinsey & Company, Jeffery Skilling was introduced to the Performance Review Committee (PRC) system of collecting employee appraisal. When appointed as the Chief Operating Officer of the Enron Corporation, Skilling brought this method with him. Known as 'rank and yank', a committee of twenty managers reviewed each employee's performance every six months. Employees were rated on a scale of 1 to 5, with 5 being the worst. It was required that 15% of the entire workforce be rated a 5 in each round of the PRC.[4] These employees were reassigned and granted a few weeks to find another job within Enron. Subsequently, they were let go.

After the fall of Enron, it is surprising that historians look at this performance evaluation model as one of the causes for the collapse of a multi-billion dollar company. How could a human resources process lead to such widespread corruption?

It is important to first understand what made this process so drastically effective and detrimental at the same time. The effect on Enron employee behavior because of this system was a radical one. The employee's performance, the word being previously defined as was likely to have increased exponentially. Yet, the psyche and ethical behavior of the individual suffered as a result of being bought, sold, and traded amongst manager and department was devastating. Like the energy commodities that formed Enron's (alleged) profit model employees were processed and abused to the point where a lack of cohesion and human-

relationship led to widespread corruption, distorted priorities and an eventual collapse of the company.

The PRC is cited because it is an extreme example of a comparative ranking method [Figure 2] as well as a showing commoditization of an individual within the bounds of an organization. Employees were given numbers to rate their performance, those numbers were then compiled and averaged against their co-workers. The methodology used at the now-defunct Enron was paper-based, but would have certainly lent itself much better to a mechanized data harvesting system like we see today, due to the autonomy in which it the process treated employees and their abilities.
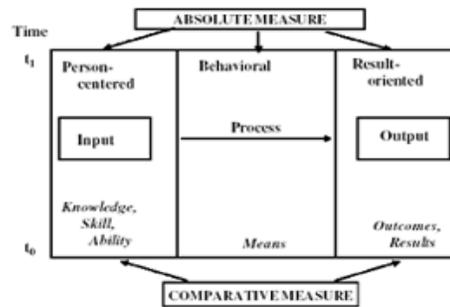

Figure 2. – Methods of Performance Appraisal [11]

4.2 Persuasion and Process

The process of meeting with a manager to give them qualitative feedback regarding a fellow employee is a delicate and intimate one. Even the harshest of supervisors would walk lightly around a confrontation of likely dealing with someone's sense of self-perception and confidence. With the introduction of technology automating workplace reviews, this level of intimacy and empathy toward the individual is removed almost entirely.

Persuasion in the *act of using* technology has been taking place with the use of automation. We are accustomed to filling out web forms with the fastest process possible. Companies like Google, and Microsoft have integrated into their toolset the ability to fill out browser-based forms in a single click [Figure 4], completing the process in milliseconds. No longer are we careful to read each line, consider the implication of each option when addressing a form on the web. Contrast this to a physical, printed form, where one is forced to slow down and process the information, due to the constraints that one's manual dexterity imposes.

Figure 4. – Google Toolbar [16]

The aspect of automation is introduced not just from a point of convenience, but also one of measure. As indicated in the definition of Performance Assessment, these reviews are used to indicate who gets promoted, who receives a salary increase and in Enron's case, who is terminated. A comparative method helps

justify all of these things, being able to assign a number value to an employee's worth clears the company both morally and legally from having to prove (or disprove) why incentive actions occurred. The drawback of these processes is that reduced attention is given to employee self-improvement and increased focus is put on improving a score for perception of worth.

Persuasive Computing's challenge to '*address the ethical implications*', as applied to automated performance views, should be focused on the employee well-being. By desensitizing the feedback process, the employee is the agent that suffers, as they are in most in need of concrete feedback, which goes far beyond any number ranking or score. In addition, the implications of allowing anonymous feedback to be submitted via the web, a medium that has shown to lack empathy or emotional sensitivity, can be harmful to an employee's development.

4.3 Thrown Out with the Trash

Anywhere between 45-60% of all email is spam [8], causing workers to make a conscious disconnect from any content delivered via email message. This is not to say that email is not a vital part of our work day and the arguably the most important decentralized means of communication since the telephone, but as a result of the constant bombardment of messages, we tend to cognitively shut off any content delivered via this medium.

A majority of automated employee review tools use email as their means of operation: sending reminders for unfilled form, prompting peers for review, informing managers of completion or milestones. This association with email dilutes the content in which is delivered to both the peer reviewer and the employee.

Contrastingly, a handwritten letter displays emotion in many different aspects. A tangible piece of paper is much more powerful than the changing pixel configuration of a message displayed on a computer monitor. Being able to hold a piece of paper up to one's face, study it closely or stash it away somewhere is a sensory experience that far exceeds computer-displayed text. In addition, the handwriting of an author (in the case of this study, the illegibility in handwriting) conveys emphasis and inference regarding the author's inner thoughts, transcending the words themselves. This study looks to prove that these are seen as much more potent and powerful motivators than one delivered in an email or web page.

4.4 Common Automation Techniques

For this study, we looked at the review process of a half-dozen different systems, finding similarities and differences in the methodology and techniques used within the industry. The language in which these companies used to promote their products was also noted, as it portrays their perspective on their typified user.

Web-based employee review tools typically employ a '360 degree' technique, surveying the employee, their customers, managers and peers for assessment. This is the most comprehensive of review methodologies for performance

assessment, in that it gains the widest variety of perspective but it is also the most prone to corruption. When soliciting feedback remotely from individuals of the manager's discretion, there is only minimal context in which the invitation can occur. The employee has little say in how they might be evaluated and the in fact this context of rating is. Managers themselves are often guilty of a distorted perspective, reacting inversely to peer-employees by inflation of scores, to give the appearance that their leadership is bearing fruit.

In each of the examples we looked at, a mixture of quantitative and qualitative feedback were the primary means of comparative rating for the employee. The numerical system varied from four to ten options, as did the definition behind the rating scale.

Figure 3. – Insight 20/20 GOLD Interface [6]

Anonymous input is compiled and used to rank an employee based upon skill and/or ability. There were never options for an employee to know the identity of the individual giving feedback, accountability has been removed from entirely from this process. Even from a manager's perspective, only half of the applications listed the identity of a specific panel review member who gave qualitative feedback, or, 'who said what'.

A methodology behind solely using the displayed form [Figure 3] for employee reviews can be seen as flawed for several reasons. No longer is there an intimacy which face-to-face interaction contains, in which a majority of discourse might occur. Office environments are not machines, but instead comprised of individuals with emotion and affection towards others. A gap in understanding is present here, as what the true measure of an effective review process might be.

5. PROPOSED TEST METHODOLOGY

For this project, a pilot web-based survey will be instituted to attempt to collect 100 sample users from different cross-cultural backgrounds.

A sample set of users will be collected from non-University sources. Since a number of questions pertain to workplace related scenarios, the student demographic is unsuitable. In addition, subjects with less than two years of workplace experience were discarded due to possible lack of contextual understanding of the questions. A basic familiarity with email and web technologies is also required, ensuring that the subject as an ability to conduit their emotion through technology.

5.1 Previous Behavior

In our first set of questions we ask the subject to give some indication of past history with regards to a positive or negative review on a consumer based transactions. We hope to reaffirm results found in studies done by Henning-Thurau [7] with regards to negativity in word-of-mouth behaviors, as well as get an indication of the subject's online identity and their cadence towards either positive or negative emotion.

5.2 Workplace Scenarios

Questions five and six begin to explore possible behaviors as they might occur in the workplace. Identified earlier as one of the four factors of influencing online behavior, remoteness from harm, the subject is asked to relate their anonymity to the likelihood of their giving a positive or negative review to a co-worker. When the fear of detection is removed, will the subject be more inclined to give negative feedback?

Questions seven and eight pose the question 'which medium would you feel more comfortable giving negative feedback through', probing to see if the subjects are more prone to sending negativity through the use of technology than without.

5.3 Emotional Affect

The next ten questions related to the emotional affect a recipient of an automated survey might have in comparison to a personalized, hand written appraisal. Examples of both qualitative and quantitative reviews are displayed, as are anonymous and signed feedback.

These questions are to see what the positive and negative affect might be on a recipient, would they react stronger to negative feedback is someone wrote it by hand or submitted via the web. Whereas in the previous section, the subject was being asked to put themselves in the position of one who would be generating feedback, these questions study the contrast in answers between differences in behavior when using technology to give and receive feedback.

5.4 Perspective

Finally, the subject is asked to take the perspective of the manager when presented with a decision to weight feedback given both qualitatively and quantitatively via an automated feedback form. This will help gain an understanding as to what level do people even prioritize feedback given through web-based forms.

6. CONCLUSION

In this research proposal, we have given a basic background on the field of Persuasive Computing, providing context in which to understand trends in behavior as they are acted out through by online identities. Following working definition of Performance Assessment, examples of both non-automated and automated systems were shown to identify different processes (absolute and comparative) that organizations have taken.

With increased use of web-based tools in the recruiting, hiring and firing of employees, a tangible factor is being left out. Using an automated mechanism to solicit employee feedback has its' limits. Through better understanding of online behavior patterns, managers might be better able to understand the behavioral gaps that reviewers possess when giving anonymous, online-based feedback.

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