



Citation for published version:

Kelly, R, Gooch, D & Watts, L 2015, 'Is 'additional' effort always negative? Understanding discretionary work in interpersonal communications', 18th ACM Conference on Computer-Supported Cooperative Work and Social Computing, Vancouver, Canada, 14/03/15 - 18/03/15.

Publication date:
2015

Document Version
Peer reviewed version

[Link to publication](#)

Publisher Rights
CC BY-NC-ND

University of Bath

Alternative formats

If you require this document in an alternative format, please contact:
openaccess@bath.ac.uk

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Is ‘Additional’ Effort Always Negative? Understanding Discretionary Work in Interpersonal Communications

Ryan Kelly

Department of Computer Science
University of Bath
Bath, BA2 7AY, United Kingdom
r.m.kelly@bath.ac.uk

Leon Watts

Department of Computer Science
University of Bath
Bath, BA2 7AY, United Kingdom
l.watts@bath.ac.uk

Daniel Gooch

London Knowledge Lab
Institute of Education
London, WC1N 3QS, UK
d.gooch@ioe.ac.uk

Abstract

This paper describes a position on the meaning of effort in interaction design, particularly for communication systems. We make use of interview data to illustrate our ongoing research on how people invest *discretionary effort* when using communication technologies in personal relationships. Discretionary effort refers to work that, while arguably additional to the delivery of a message, is done to convey meaning to the participants in an interaction. We describe early findings that have the potential to extend current knowledge on the value of effort in communications.

Author Keywords

Caring; Communication technologies; Effort;

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

In HCI, the idea of ‘low effort’ is often seen as analogous to ease-of-use and is thus regarded as an important design goal for interactive systems [4]. Excess or unnecessary effort is simply assumed to be something that should be eliminated. But while this

Sidebar 1

Research Design

Semi-structured interviews lasting 41–73 minutes ($M = 62$), conducted face-to-face or via Skype. To date: seven participants, ages 24–32 years ($M = 28$). Recruited on Facebook and our University campus. Each individual is paid £10 for their interview.

Eight high-level questions are used to guide the interviews. Examples:

1. *Can you tell me about the ways you communicate with the people that you care about?*
2. *What sorts of things would lead you to believe that someone had invested care into a message that they had sent to you?*
3. *Can you think of a recent time where someone else worked hard to invest care into something that they sent to you?*

may be an appropriate criterion for success in some scenarios, recent work challenges the notion that expending effort is inherently detrimental. For example, studies suggest that more effortful interfaces can be beneficial for learning [2] and hedonic experiences [3]. In the context of interpersonal communication, it is possible that the degree of effort invested by a sender has its own value. Riche et al. [5] found that messages sent via low-effort digital tools were seen as less valuable than those created using traditional methods (e.g. handwritten letters). The implication here is that digital systems, which are typically designed to make messages trivial to produce, could be enhanced by allowing users to invest effort into their messages.

However, current theoretical treatments in HCI do not account well for the type of effort that may be valuable to a recipient. Instead, effort is typically characterized in terms of physical or cognitive operations required to handle the 'load' associated with a task [8], and there is little distinction between different qualities of effort. While it is one thing to make a task more effortful in procedural terms (e.g. by adding steps), it does not mean that this will add value for the user. It is therefore necessary to distinguish between different kinds of *meaningful* effort, such that designers are equipped with a range of opportunities to avoid *meaningless* effort. In communication, we believe that value is derived from specific, meaningful effort that is invested beyond the base procedure for delivering a message. We see this as *discretionary* effort—that which is procedurally unnecessary to complete a task, but is nonetheless recognised as valuable to a relationship. For example, it is one thing to wish a colleague happy birthday, but it is another to go out of one's way to purchase a card, bake a cake, or organize

a party. The outcome is similar (celebrating the birthday) but the level of investment involved is rather different. We believe this type of effort, which has not yet been considered in HCI, plays an important role in the appreciation of communications that are 'effortful'.

Our current research is concerned with understanding how such discretionary effort influences personal relationships, and whether there are opportunities for digital systems to facilitate meaningful effort investment by permitting discretionary action. Our intended contribution is to provide a deeper understanding of the effort concept for HCI, particularly as it applies to the sorts of discretionary work invested into communication acts. At the time of writing, we are engaged in our first phase of data collection. Here we present early data from our first round of interviews, which we are using to probe experiences of investing effort in personal communications. On the one hand, our work is aimed at understanding the forms discretionary effort might take. On the other, we are interested in the limitations of current systems in terms of allowing for investment of meaningful effort, and we wish to explore whether there are general phenomena associated with discretionary effort that could be leveraged in the design of communication tools.

Interview Study: Early Findings

In our current study, we are working to understand the perceived value of investing effort in communication acts. We are gathering examples of how people invest and recognize effort, in the roles of both sender and recipient, by asking participants about how they communicate with people that they care about. (See Sidebar 1 for examples of the questions we use.) This is allowing us to consider not only the ways in which

Sidebar 2

'Bookending'

"This guy once read me a poem of Edgar Allen Poe... the audio wasn't just him reading me the poem... it was more personal than that, like he used his own little dialogue before and after the poem."

Demonstrating Responsiveness

"People would send me memes and they will be like, oh this made me think of you, or, oh this is so you... it shows me that they know who I am... it's not just like a generic "Hi". They'll initiate the conversation with something that they know I'll like or enjoy."

"[My mother] sent me a box of balloons and they were all yellow, because she knows I love yellow, and they all had smiley faces on them, because she knows I like smiling... I loved it."

effort is evinced, but also the extent to which different media channels allow for effort investment. For example, are certain channels more suited to particular forms of effortful expression? And how are effortful investments shaped by the way in which different media enable or constrain social behaviours? To answer these questions, we are constructing a grounded theory of discretionary effort in personal communication. Data collection and analysis are occurring hand in hand (emergent concepts are used to guide additional prompts used in later interviews, as in [8]) and will continue through to theoretical saturation. Even at this early stage (we have interviewed seven individuals thus far) we are identifying issues that underpin our position on the meaning of effort while challenging earlier suppositions. Here we present some early considerations of our data alongside quotations.

Investment of Discretionary Effort: Forms and Practices
Decisions to invest effort into the creation of messages are necessarily idiosyncratic—each person will have his or her own preferences and approach. Our early data is allowing us to identify general practices people adopt, and see others adopting, when trying to invest effort into a communication act in order to demonstrate caring. In the first instance, we see behaviours that might be construed as 'optional' but create meaning. A practice that is already evident is that of *tailoring* content to suit an individual's tastes. Other phenomena include beginning and ending messages with personal content (we term this *'bookending'*, see Sidebar 2). In addition, it is becoming immediately clear that the *amount* and *type* of discretionary effort that can be invested is constrained by different media. In other words, different technologies place different ceilings on the amount of effort one can invest, presenting design

questions that are as yet unexplored. We are also seeing that contextual concerns affect decisions to place effort into a medium (e.g. that the comments on Instagram photos are not a suitable place for 'chatting'), raising questions about the privacy of a channel and the forms of discretionary investment that people are willing to demonstrate within it.

Tailoring: Demonstrating Responsiveness

Our informants' experiences of effortful tailoring can be construed in terms of actions performed on the basis of knowledge about an individual's tastes, schedule, or feelings, all of which can be construed in terms of *responsiveness*. For example, one respondent described how friends would '@' (tag) her in Instagram photos because they knew she would like the content (see Sidebar 2). This implies that common knowledge plays an important role in effort investment (i.e. knowing what a recipient likes, and the recipient understanding that the sender thought they would like it). Moreover, the belief that one is understood and valued by another individual, as evidenced by tailored communications, may encourage feelings of gratitude, a key motivator in relationship formation and maintenance [1].

Appreciating Different Forms of Effort

As identified in prior work [6], there is a distinction to be made between mechanical effort needed to engage with a task (turn on a computer, type, click "Send") and the effort required to make something meaningful. Markopoulos [4] suggests that onerous procedural effort is not valuable. However, our responses indicate that knowledge about what another person has had to endure in order to transmit a message, i.e. the perceived "faff" of following a known procedure, may in fact be valued, particularly if the sender or recipient's

Sidebar 3

Appreciating Different Forms of Effort

[Describing Instagram] "It makes me... think that they took time to screenshot it or save it, and then put my name on the 'To:' bar and then, write my name, attach the picture, write whatever they wrote underneath the picture, you know... It's nice."

The Expression of 'Negative Caring'

"Social media is an easy way to post a picture of that same person and write, 'oh my God they did this'... it's easy to make somebody feel like the worst person in the Universe... I feel like if you didn't care about that person and they made you that mad, then you would just... brush it off, but if you really care about that person and they made you like fuming, then if you took the time out to do that then, you know, you still care about the person. You're just upset that they made you mad."

circumstance is not amenable to communication (see Sidebar 3). This indicates that the distinction between these forms of effort may not be clear-cut. Appreciation of differential efforts may in fact be intertwined; while appreciating a handwritten letter will involve admiring the text and enjoying the message, appreciation might also stem from knowledge of the time needed to write a letter, or the cost of stamps required for postage.

The Expression of 'Negative Caring'

The assumptions of prior literature are that effort is mainly invested in the context of relationships where people *do* care about one another. An interesting counterpoint emerging from our dataset is that people invest effort to demonstrate that someone is *not* liked, particularly to communicate their feelings in digital public spaces (e.g. Facebook timelines). This again reveals facets to effort that have not been considered to date, but which might be reconciled through the development of more refined theoretical frameworks.

Discussion and Future Work

Decisions to invest effort into the creation of messages are necessarily idiosyncratic. Our hope is that by identifying specific instances and then extrapolating to the sorts of broader patterns outlined above, we will be able to identify general categories of behaviour that are central to the investment of meaningful effort in communications. These categories might then provide clearer opportunities for design. For example, if it is hard to recognise the effort that has been invested into a message, making evidence (or 'traces') of another's effort visible could lead to greater appreciation of messages. Another approach might be to record the process of composition digitally and allow a recipient to

view it back as a replay. More broadly, we are also interested in the extent to which effortful acts of communication might contribute to the long-term health of relationships, e.g. by creating feelings of gratitude or indebtedness, or by demonstrating caring. We hope that understanding the nature of effortful communication acts, as well as the value of discretionary effort, will provide new directions for the design of technologies that support correspondence between people in close personal relationships.

Acknowledgements

This research is funded by the Leverhulme Trust under grant number PRG-2013-269.

References

- [1] Algoe, S., Haidt, J., and Gable, S. Beyond reciprocity: gratitude and relationships in everyday life. *Emotion*, 8 (3), (2008), 425-429.
- [2] Cockburn, A., et al. Hard lessons: effort-inducing interfaces benefit spatial learning. In *Proc. CHI* (2007), 1571-1580.
- [3] Frolich, D., and Murphy, R. Getting physical: What is fun computing in tangible form? In *Proc. Computers and Fun*, 2, (1999), p. 13.
- [4] Markopoulos, P. A design framework for awareness systems. *Awareness Systems*, (2009), Springer, 49-72.
- [5] Riche, Y., et al. Hard-to-use interfaces considered beneficial. In *Proc. CHI Ext. Abs.* (2010), 2705-2714.
- [6] Romero, N., et al. Connecting the family with awareness systems. *Personal and Ubiquitous Computing*, 11 (4), (2007), 299-312.
- [7] Strauss, A., and Corbin, J. *Basics of Qualitative Research*, (1998). Sage Publications.
- [8] Zijlstra, F. Efficiency in work behaviour: A design approach for modern tools. PhD Thesis, Delft, (1993).