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To Pray without Ceasing:
An Interpassive Liturgy

To Pray without Ceasing is a web app that prays for the needs of Twitter users. Each day the system searches for tweets expressing needs (e.g. "I really need a hug right now") and, using various techniques of natural language processing to generate responses to these tweets, produces a 24-hour-long liturgy based on the "Liturgy of the Hours." Visitors to the web app activate it by tending to several virtual candles. As long as one of these remains lit, the system will proffer prayers. By participating in its ritual, viewers are invited to consider and feel what it would be like to put down their own worries and instead care for others without limits.

Praying for Strangers

"I need a girlfriend." "I just need to move out of this apartment." "I really need to quit my job." Every day, every minute, Twitter users publish such plaintive confessions. On social media, however, solicitude is not equally distributed. Some users' heartfelt pleas receive thousands of retweets and replies expressing sympathy; other users have few if any followers and muster few if any kind responses. To receive care, one must increasingly struggle to be noticed within a digital attention economy. Would it not be better if everyone received some minimal measure of solicitude, a quantum of "Universal Basic Care"?

Yet this seems impossible. The logics of neoliberalism have turned us into what Byung-Chul Han calls "achievement subjects" (Han 2017b). We feel the need to spend each moment striving to become better versions of ourselves, better human capital. Even as social media makes it possible to notice the needs of others and to attend to these needs, we have less and less time to do so. No, we must be working and learning, or at least gaining followers for our own accounts. Even moments of pause or mindfulness, Han suggests, are justifiable only insofar as they recharge us for work. And, as Han explains, we do not live in a society of "'Love thy neighbor,' where we all realize ourselves in concert" (Han 2017b, 49). Instead we are violently isolated, competitive both with each other and with ourselves. To think about others offers no benefit; to do so is irresponsible, a sin against the perpetual commandment of self-optimization.

To Pray without Ceasing (topraywithoutceasing.com) is a web-application that rejects this hyper-competitive, achievement-oriented way of viewing the world. It does nothing but methodically and relentlessly pay attention to the needs of others. Each day it searches Twitter for expressions of need uttered by those users with few followers—the attention economy's dispossessed. The system produces an online liturgy based on the "Liturgy of the Hours," according to which Catholic clergy and members of religious orders (monks, nuns, etc.) pray at different times throughout the day, from "Matins" in the early morning to "Compline" late at night. At each of these Hours, the system prays in a slightly different way; this is meant to encourage the visitor to be patient in order to see how its variations unfold. Since each day the system harvests a new set of needs from Twitter, the work of prayer is never finished. Once it has gone through its 24-hour liturgy, it is already time to begin again.

Interpassivity

To Pray without Ceasing is a post-human religious ritual. The piece's title alludes to St. Paul's exhortation to the Thessalonians to "pray without ceasing"—a task better suited for a machine than a Thessalonian. However, *To Pray without Ceasing* does not pray on its own. It needs a human intervention, albeit a minor one: the visitor to the web app must light one of several candles. Once this simple but symbolically-resonant act is accomplished, prayers begin to appear above the candles in response to specific needful tweets. Soon a pop-up message encourages the visitor to go about their business, checking in every so often to relight the candles so that the prayers continue.

This interface (Fig. 1) is thus designed not for interactivity but for "interpassivity," a term that Robert Pfaller uses to describe the process of delegating consumption or enjoyment to other people or, just as often, to a non-human apparatus (Pfaller 2017). As Pfaller observes, interpassivity is fundamental to religious ritual. When a Christian lights a candle or a Buddhist spins a prayer wheel, these physical objects take over the responsibility of praying. Interpassive delegation of this sort fulfills a specific psychic function: the Buddhist and the Christian enjoy the self-satisfaction of being pious or religious while simultaneously being freed from the responsibility of actually being so, since the performance of piety has been totally externalized.

1. The default browser cursor has been replaced with the "Person with Folded Hands" emoji, forcing the user to assume a gesture of prayer.

Why resort to interpassivity? Pfaller observes that, after lighting a candle in a church, the religious person may "stay for a few minutes and then leave the church while the candle remains in his or her place, burning for a few more hours" (Pfaller 2017). The implication is that interpassivity produces an excess pleasure, a bonus. With *To Pray without Ceasing*, I hope to likewise allow people to experience an undeserved gratification. Tending to a digital candle is a very small act of labor, but it is not as easy as simply clicking a button. In fact, the web-interface measures how quickly the visitor's cursor moves and scolds her should it move too quickly.[2] This makes the lighting the candle somewhat more special than rapidly and mindlessly clicking around a screen. The visitor may feel that, through her mindful movements, she has done the necessary labor to activate a spiritual machine. Having done so, she can feel responsible for the prayers that the web app generates, even if she hardly pays attention to it, instead spending most of the day doing her own work and only infrequently returning to make sure the candles are lit. In fact, she may forget altogether that the app is running in another browser tab only to stumble upon it later in the day, realizing that she has been credited with praying several hundred prayers.

2. An html alert box interrupts the interface with messages such as "Your cursor is fleet. But this is a place for moving slowly." and "The ritual cannot be rushed."

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Neoliberalism's emphasis on being better and better, deserving more and more, leaves the achievement subject exhausted and depressed (Han 2017a); this piece, on the other hand, offers a feeling of accomplishment, even of being virtuous and kind, that is refreshingly unmerited.

Fig. 1. Since the candles are lit, To Pray without Ceasing generates a prayer. A Tweet is placed upon the altar using Twitter's oEmbed API.

Computer-Augmented Prayers

As an apparatus that prays on behalf of someone interpassively, *To Pray without Ceasing* is different than a physical candle. Unlike mute wax, it generates prayers that are specific to each incoming need.

But "generate" is a slightly misleading term in this case. *To Pray without Ceasing* uses what I would call computer-augmentation rather than computer-generation of text. The system matches needs from Twitter with specific prayers that I have already written. It then automatically transforms my hand-written prayers in several ways: it revises them by substituting my rather pedestrian words with obscure Biblical vocabulary, adorns them with linguistic fragments derived from the King James Bible, and matches them with sententious Biblical proverbs. I can dimly recognize the prayers it produces as based on my language, yet they are refigured, given a heighted style and strangeness as if sent through a Biblical kaleidoscope. Because the system's prayers are based on my own words, I feel responsible for them; my one act of kind attention to strangers is multiplied. But because the system's prayers are augmented through techniques of natural language processing, I can feel as though I am responsible for

more—and more interesting—prayers than I have actually myself written. This is another form of excessive or undeserved pleasure, a way of experiencing what it would be like to care deeply and specifically for each stranger whose needs I glimpse online.

Technical Details

To Pray without Ceasing, using the Twitter Search API, gathers tweets that begin "I need" and "I just need," filtering out those by users who have even a modest number of followers. For each of these Needy Tweets, it tries to find a semantically similar need from a list of Target Needs that I have manually composed. This is accomplished by encoding both the Needy Tweets and the Target Needs as sentence vectors using a pre-trained model (Reimers and Gurevych 2019) and comparing the cosine similarity of each Needy Tweet to each Target Need. The advantage of this approach is that sentence vectors can capture the latent meaning of a sentence; the cosine similarity between the Need Statement "to be cozy and dreaming" and the Target Need "to sleep" is high, despite a dearth of shared vocabulary between them.

Each Target Need is associated in a dictionary with a prayer, each prayer consisting of eight different sentences (for each of the liturgical hours: Matins, Lauds, Prime, Terce, Sext, Nones, Vespers, and Compline). For instance, the Target Need:

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"to visit my family and friends"
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is associated with the prayer:

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"May you be {VBD.embraced.recognized} by your {JJ.true.beloved.chosen.
given} {NN.family.belonging.holiday}"
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This prayer is written in a custom markup that allows me to hastily compose prayers while noting what words I want the system to algorithmically emend. Embraced in brackets are a part-of-speech tag followed by a series of search terms. *To Pray without Ceasing* tries to substitute these typically boring words with words that are more resonant but that possess a similar meaning. The system searches a list of Biblical words, sorted according to part-of-speech, for those that are similar according to cosine similarity of pre-trained word embeddings (Mikolov et al. 2013). For instance, the above sentence may be transformed into:

"May you be proclaimed by your faithful firstling"

To adorn a sentence, *To Pray without Ceasing* relies on linguistic fragments automatically extracted from the King James Bible using spaCy's dependency parsing (Honnibal et al. 2020). For instance, using this parser, I extracted all (*adjective, noun*) combinations, such as ("pure","water") as well as all of the (*noun, prepositional phrase or relative clause)* combinations, such as ("sleep",of "a labouring man"). The system may adorn the above sentence like so:

"May you be proclaimed by your faithful firstling; behold—this firstling faithful as commandments"

Finally, every so often the system may refer to a semantically-relevant proverb (a verse from the Books of Proverbs and Ecclesiastes). Once again, semantic relevance is operationalized as cosine-similarity of sentence vectors between a prayer and a proverb. The above sentence may be matched with a proverb like so:

"May you be proclaimed by your faithful firstling; for it is written: Wealth maketh many friends; but the poor is separated from his neighbour."

Available at: http://www.topraywithoutceasing.com

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