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Human or Machine:

The Effects of Centering Productivity on User Psyche Through Digital Management/Tracking Tools

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An undergraduate honors thesis submitted in partial fulfillment of the requirements for the degree of
Bachelor of Fine Arts in University Honors and Graphic Design

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Abstract:

This paper examines the growing toxic culture of centering productivity and efficiency in the growth of Big Data-incentivized digital management/tracking tools. In response to the development of personal notetaking tools, mood tracker apps, habit tracking, and other personal data tracking programs, discourse from data scientists, interactive designers, archivists, and technology academics have critiqued how well-meaning the larger tech industry is by providing these tools. However, the current discourse on developing potential solutions to this issue remains understudied as the growth of said tools are fairly new. This paper proposes that digital interfaces employ approaches with users' personal data that center user autonomy, and that designing with the intention for users to rekindle their sense of connection to the world and themselves can steer us away from just centering maximum efficiency. This paper is led by past conclusions by scholars studying how UI/UX principles of these tools value data extraction over productivity, users engaged in these tools have deteriorated mental health, and future tech designed for reflection can aid in user self-discovery.

Introduction:

With the combined factors of the economic rise of gig work, people's general incentive to improve their productivity, and the heightening of tech data surveillance, digital management, and tracking programs like Trello, Notion, and Daylio have become an attractive tool for people to seek self-improvement. The fact that these digital tools encompass all the necessary components feel very promising to the user: sleek user interfaces, satisfyingly timed notification sounds, and gamified methods to make improving oneself all the more rewarding. After all, these tools are much easier to carry around than a planner, notebook, or timer. But the question raised is how keeping close tabs on oneself can cause more harm than good — a question raised by ethical data scientists, interactive designers, archivists, and scholars on technology. A past developer of Trello, one of many management tools, answers that these tools turn us “into more productive human machines. Rather conveniently for those that own them, human machines have little inherent value — they are easy to automate, replace, and erase.” Research has shown that these tools have misintended, or entirely misaligned their purpose of enhancing users' productivity. They are innocuous-looking personal data-mining machines reflecting a the larger Big Data industry. This leaves the user stressed, anxious, and finally, burnt out as they are denied self-improvement, true self-discovery, and obsessed with tracked goals, as they have access to an overwhelming wealth of data to contemplate.

I cannot deny that digital management tools haven't helped me keep track of my schedule and need for improvement. However, the digital management tools' early ancestors speak to an audience of those who value simplicity and lack of intrusiveness - namely, analog journaling and early internet websites. Where tools like Notion, Google Calendar, and Trello can flow across all platforms, some folks seek out creative journaling and building websites reminiscent of early-internet style as an outlet. Both activities are common in that their mediums don't streamline you to being a worker. Participants of both find themselves able to reflect on their data, have freedom in their method to log personal data without stress, disconnect from the computer, and make their self-discoveries. It is by researching followers of

these movements that I argue that digital management tools can improve when they center the user, and center the human; I propose for digital spaces to employ human-centered approaches with users' data; an approach that is designed to allow users to rekindle their sense of connection to the world and themselves, its nature setting aside productivity and efficiency to play merely one role of many within our lives.

Research

My research on digital management tools is sourced from scholarship of scholarly articles, news articles, feminist literature, and tested studies. The formation of these tools, whether a mobile app or desktop, is incentivized by capitalist politics engaged in data surveillance, resulting in a supposedly free app extracting data from the user — this user being one who initially sought autonomy from the tool. Specific interface and user experience design choices are critiqued for engaging in the gamification and standardization of this process, hitting the sphere of UI/UX design. How the user psyche is affected by apps valuing user engagement and consumption over actual improvement broaches the topic of mental health. Finally, I study the discourse on humanist tech and analog journal enthusiasts, that calls for total autonomy of one's data, creating a space to dictate how they structure their logging, and finally navigate to their self-discovery in a way that allows for disconnection, beauty, and love.

A. Digital Tools for Big Data

UI/UX principles, user interface and user experience principles, are the standards of best practices for web design that web designers hold to ensure user needs. However, there are performative UI/UX principles within digital management and tracking tools that do not produce valuable insights on user productivity/efficiency. I draw evidence for this from Tim Leberecht, a business analyst, who wrote the article “The Problem with (Personal Productivity)”, which observes Microsoft's introduction of the “Productivity Score” feature in their 365 Workplace Analytics Suite, along with other task management tools. It concludes that “efficiency is good for the complicated but not for the complex”, as defining productivity as a flat metric leads to workers prioritizing the showing of work being done. This means

tasks being crossed out just for the sake of said workers' boss seeing that work has been done, whether or not that task had unequal value with other tasks, or if it served value in the larger mission of the company. Lost is the priority of what is truly valuable, what truly benefits the person in charge of their work — instead there is a focus on maximization of productivity and efficiency. If true productivity is not valued, then what is? *Data Feminism*, a book by Catherine D'Ignazio and Lauren Klein, breaks down the surveillance system that data is truly siphoned for: “extractive system creates a profound asymmetry between who is collecting, storing, and analyzing data, and whose data are collected, stored, and analyzed. The goals that drive this process are those of the corporations, governments, and well-resourced universities that are dominated by elite white men. And those goals are neither neutral nor democratic—in the sense of having undergone any kind of participatory, public process.” Data does not circulate amongst communities, but amongst the few elite that intend to sell for the highest bidder. There needs to be a digital space that does not serve to disconnect the user and the collector/storer/analyzer but to build a true space that emphasizes the user's voice and autonomy.

B. Users and Hyper Rationalization

The toxic relationship between users and tech causes mental deterioration in users. Technology ethics researcher Luke Starks's “The emotive politics of digital mood tracking” analysis states that the app user becomes stuck switching between subjective emotional experience and pursuable decision-making, or a “hyper-rational fool”. A survey participant practicing analog methods states that they found themselves “obsessed” with needing “one external thing to change, and [their] life will be better” to describe tacking on additional tracking methods, a feeling they described as desperate due to the lack of contemplation they had in their life, that the “cost” of contemplation has gone up”. The user is an aimlessly productive “workaholic” as stated in Bagnara and Pozzi’s article “Design for reflection”, a relationship between the “wired-in” user and the computer is a continuous, uninterrupted flow of information that leads to “user fatigue”. Tim Leberecht continues that the main metric of work

performance within management tools “hampers mental health within a company, causing stress, anxiety, and burnout among workers”.

My interview with Pirijian Keth, co-creator of Fog Creek Software, which developed Trello, succinctly answers how user mental health is not addressed by these tools: “Task management turns us into more productive human machines. Rather conveniently for those that own them, human machines have little inherent value - they are easy to automate, replace, and erase.” People who believe these apps should enhance their efficiency and management become overwhelmed easily, not because of their flaws, but because in the conversation of productivity and efficiency, it is not addressed whether these users are even to blame for their humanity, their ability to not catch up to increasing demands for workers to act more like robots.

C. Humanist Tech

There need to be humanist principles and techniques to design tech. Scholars Bagnara and Pozzi introduce the concept of “design for reflection”, designing to interrupt the rigid flow of information between the user and the computer and allow for pauses, detachment, and serendipity for the user. It uses the example of the Nintendo game Wii Fit Plus, a Wii game designed for the user to be aware of their own physical body, with no total focus on the screen itself, no need to be wired into the game. This method of approaching tech would serve the person as a whole, both the digital dimension and the real dimension of the user. Leberecht concludes that instead of monitoring workers, we should emphasize love and beauty to strengthen workers, less on efficiency and productivity. Luke Stark critiques the “less is more” in designing the UI/UX of these digital tools, as this simplification fails to let users look beyond the end goals of tasks and find areas of “fortuitous discoveries”. Users shouldn’t be forced to work around a rigid simplified system to manage their dynamic, everchanging life - a truly humanistic system should be just as dynamic and provide freedoms in its structure for users to reach evaluations, or “discoveries”. It’s with these analyses and anecdotes that I believe the humanistic digital space should provide generous allowances for user freedom and agency, be a structure that lets the user disconnect from the computer

and reach their evaluations, and have a navigation that doesn't just see task management/tracking as a means to an end, but a starting point for self-discovery.

Survey

I surveyed 23 participants through a Google Form who use analog journaling. The voice that the analog approach is the agency of having the particular space to voice their thoughts, the privacy it allows, building their own rules and systems, the imperfect approach that the analog space allows, and actual growth that can be made. When asked about what system they follow, each participant had their own method to logging:

“I didn't follow any format. I did what I wanted, when I wanted because this was my journal!”

“i mostly do it in the simplest way possible with headings and bullet points. i find that keeping it simple works best for my brain and difficulty with executive functioning. i prioritize simplicity so my brain doesn't have to jump through as many hoops. it's also fun because you can add anything you want like doodles and scribbles as long as you do it with your own hand. i also have my own “quirks” in organization that work with how my brain likes to think whether those ways are roundabout / don't make sense to others or because pre-formatted apps like todoist or notion don't have it built in. i guess i'm saying i prioritize the freedom i have when i do it myself.”

“My daily journal of events/experiences is just in a lined notebook with the date at the top of the page. In my bullet journal, I mostly live in a weekly spread format. I have 4 columns (2 on each page of the spread). One column is bullets of the most important tasks of the week that will move my big projects forward. One column is bullets of things I'd like to do. One column is used for habit tracking, with some impactful reminders written underneath (usually quotes that help me through hard days). The final column is free space I can jot down challenges and setbacks I encounter during the week, or just random thoughts.”

“I have a highly structured migraine diary. I use a blank grid-paper notebook. I free-write notes on each attack, sometimes draw pictures of the pain, I track specific metrics for each attack, and I visualize each attack by drawing a timeline showing the start/end, pain, nausea, meds, and sleep. I use colors to indicate severity. I also have a calendar where I mark the days of my migraines and the days of my period to visualize the relationship between the two. These structures

help me a LOT in my doctor's visits - I can show him exactly what I'm experiencing at a glance.”

Significant to these dedicated analog journalers was their freedom to structure their words however they like for maximum personalization. Whether a dedicated journaler or not, people go to journaling when they need zero structure, low stimulation, and the ability to let go. Current tracking websites are too rigid and limited compared to the paper and pen approach.

When asking survey participants whether tracking the analog method might say something about how they'd avoid internet consumption, the majority answered “no”, with most answers saying that they are very connected to the internet, implying that technology is very much a part of people's lives; tech has optimized our way of living that cannot be reversed. Less than half of participants (41%) who engage in creative journaling do not divorce themselves from digital tracking - however, they find separate uses for both.

That being said, my survey results may have a bias as I sought out participants from my design class, honors class, online creative journaling communities, and online digital tracking tool communities. Survey responses from creative journaling communities were noticeably more skewed towards creative journaling and unfavorable to digital tracking. Those who detailed that their schedules were busy also mentioned that they couldn't divorce themselves away from useful tools like Google Calendar, as it is impossible to keep orderly without.

My research explores the dichotomy between analog and digital tracking, and between early and modern user interfaces. Therefore, my project aims to design possibilities for what digital tools would look like if said modern digital spaces meshed the values and benefits of early websites and analog journaling into its own. Digital spaces where users could enter and find relief, to log their experiences in imaginative ways, to discover themselves through their data. Management of tasks can be playful, free-moving, and adapting, just like journaling can. With this research, I aim for my project to bring these possibilities to light. I will target the very “workaholics” mentioned - those who log their tasks and

schedules on digital management and tracking tools. These people may find frustration that their problems don't go away through vigorous self-control - I intend to reframe their struggles not as a failure of self-management, but as simply consequences of their environment, with allowance for human error.

Project

With values of self-discovery, beauty, love, humanism, self-reflection, and user autonomy in mind, I sought inspiration from websites that valued the same. Most came from the thought of bringing back digital spaces that emphasize slow internet, early internet aesthetics, and uncomplex purposes. In a similar vein of these works mimicking the early internet simple aesthetics to denote simpler life, I decided to mimic Apple MacBook's user interface for Lhondup's laptop visual that represents a default stage. This mimicry falls apart into more creative visual interfaces when Lhondup decides to move away from her work life in the film.



I wanted this project to take a passive voice, one that didn't reward heavily as much as it punished the user for not fulfilling their every goal, unlike the assertive voice commonly held in newly released smartphone and computer ads. Although I considered making a website that could ask questions of the user and then print a zine back to the user with their prompt submissions, it ended up being too complex

and lengthy of a project for me to build. I decided to make my project narrative a motion project that takes the perspective of a workaholic named Lhondup. From the perspective of Lhondup's laptop, viewers can imagine how her decision to let go of the 'machine' in her and embrace that she is a human who makes mistakes and has a life outside of work.

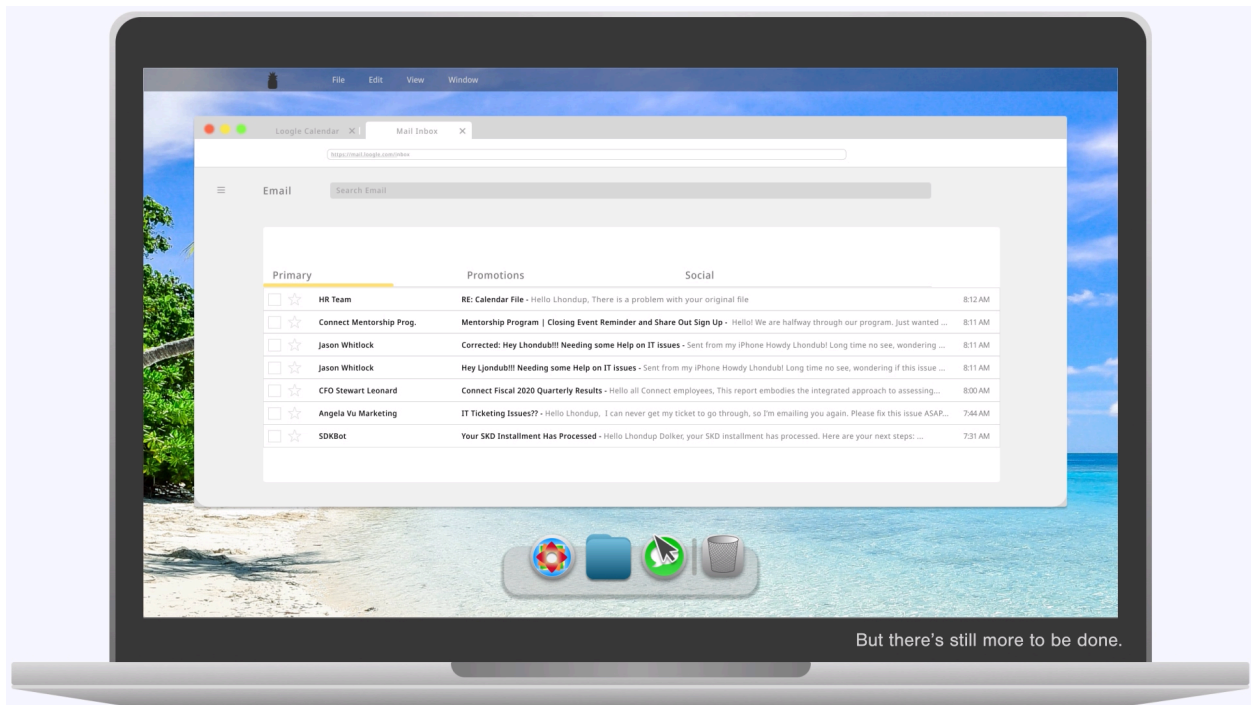
This is Lhondup's Laptop.

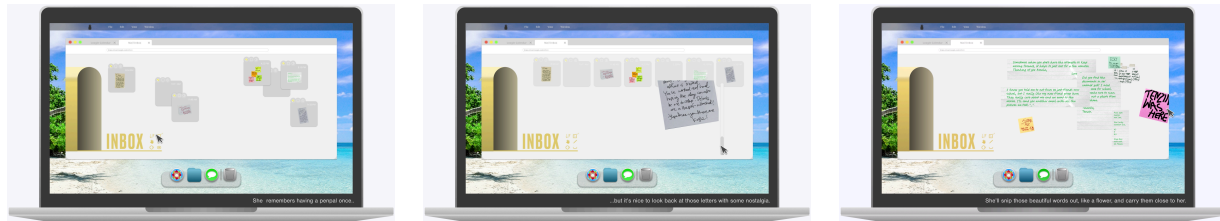


For the visual direction of this film, I wanted viewers to be able to envision their laptops to be like Lhondup's, to empathize with her. For this reason, the motion comes from the perspective of her opening the laptop from start to finish. From Lhondup's point of view, we can open her screen. All her apps, her wallpaper, and her strewn-about files are visible. Everything is exposed, and we can piece together the type of person she is. Important to emphasize, was her initial state of being an overworked, hyperaware workaholic - which is why I chose to exhibit 3 scenes in this film that all surround relieving her of her responsibilities. These three scenes are 1) her files flying out of her wallpaper as paper airplanes, 2) her work emails and email inbox user interface being replaced, and 3) her calendar events flushing away.

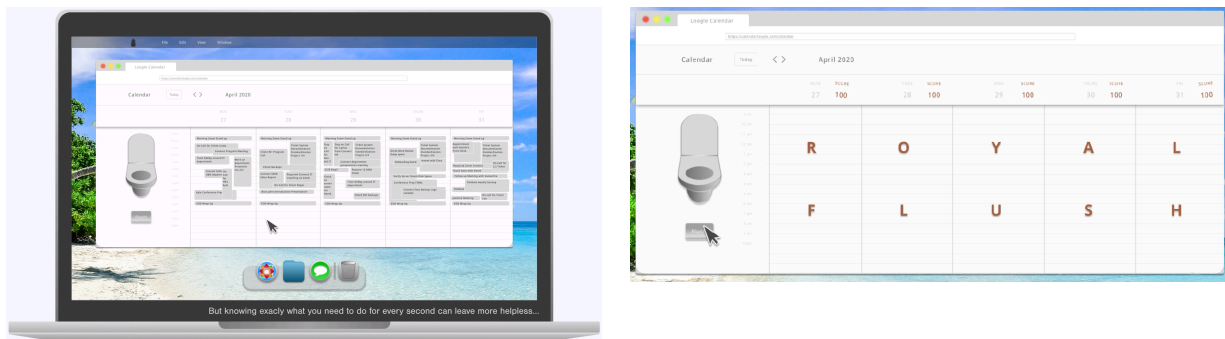


The first scene of her files flying away as airplanes was important because they represent how busy and unorganized Lhondup truly is - there is no future use for these files, rarely do we ever open files strewn about if we didn't keep them close to us. For them to fly away whimsically as paper airplanes, clearing the way for Lhondup's wallpaper to be in clear view - the beach trip she would love to go to - relates to the concept of connecting our bodies back to the world over the computer.





The second scene demonstrates what other possibilities we could have with handling mail. As so many messages become automated and auto-completed, can we hold words with the same power or be as sentimental before websites valued modernization? Lhondup's inbox switches out for an interface where words from people are precious, specifically her daughter's words. Instead of trashing an email from her daughter, she can scrap it into a window that'll save her favorite words from people around her, and hold them in the email website's memory. Rather than flicking through emails by faceless coworkers, she can reflect on these words and make fortuitous discoveries.



The third scene has Lhondup clicking on a toilet button to flush down her overwhelming calendar week full of events. The events clog the toilet first, then another flush does the trick, freeing Lhondup's schedule for her much-desired vacation. After flushing, numbers are revealed next to each day's label to show how much she has 'scored' for keeping this busy schedule. Receiving high scores aren't seen as rewarding as they are colored brown - so gone are these shitty days.

By the end of the film, Lhondup is elated. After the calendar website window flies into the trash can icon as a paper airplane, we return to her empty wallpaper, her vision clear again. She is to go on her awaited trip to the beach! And then the laptop closes, just as it opened in the beginning, closing her story.

Reflection

Lhondup's Laptop is a project that provides a lens to what digital management tools could look like if they embodied values of playfulness, user discovery, reflection, and humanity.

People who ask themselves "Why didn't I reach my goals today?" through these tools they are asked to reframe their question: "Why do I need fulfillment by reaching these goals?". The scenes represent this — the email inbox, the calendar, the files on the wallpaper — all decenter productivity and efficiency in favor of Lhondup to slow down, reflect on her scrapped emails, and give time for herself. At the end of this film, she reaches her fulfillment by centering her needs, not just her full productive potential.

Lhondup's Laptop is not just Lhondup's story, but a story relevant to all of us. Since the pandemic, our screens have become more familiar to us than just a tool to communicate with. Rather than mourn our loss of time and community since then, we utilize tracking and management tools to bounce back to our fullest potential, a sentiment amplified by the surveillance government and Big Data through promotion of said tools. Relinquishing our data to these tools, we find frustration in what we can't control and what machines can't translate. If these tools looked more like those imagined by Lhondup, embodied the freedom of analog journaling, or demonstrated the same simpleness of the early internet websites, logging out could be as satisfying as logging in.

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