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Abstract: Considering an Anti-convenience Funding Body

Food delivery services, self-driving cars, music streaming, e-commerce, and essentially any high-impact invention this century makes a business case by arguing that humans dislike being inconvenienced and technology can help elevate that discomfort. But I'd argue that the best things in life are not convenient, efficient, or fast. The moments which hold the most meaning to us are ones we can't and would never choose to optimize: the best adventures happen when you get lost; hilarious jokes come from being extremely bored; and strong friendships are often built by overcoming difficulty.

But the canon of computation technologies tells a story marked by reduction rather than enhancement of emotional depth. Instead of using technology to optimize for efficient interactions, could we use it to produce moments of meaning which are anything but efficient? Instead of describing a novel technology, I propose a new incentive structure around the concept of "anti-convenience" which critically challenges how and why we build technology. Carried out by the creation of a public funding model, my proposal sketches out a future system of engineering which relies more on qualitative experiences than quantifiable metrics. By the end of this essay, I hope to demonstrate that incentive structures are powerful forces, and if intentionally redefined, can cascade into a future of computing which better aligns with our growing and nuanced values as a species.

Considering an Anti-convenience Funding Body

They say that engineers are taught to value efficiency above all else, and although I would not say that MIT is the most efficient place I have ever been, I can see the truth to that statement in what engineers bring into the world. In visiting a hack-a-thon, a new tech demo, or a start-up pitch, you start to see a consistent theme: though the way that technology is made is chaotic like a winding road, its value to society is its ability to – at scale – make our lives more convenient, fast, and efficient. Food delivery services, self-driving cars, music streaming, e-commerce, and essentially any high-impact invention this century makes a business case by arguing that humans dislike being inconvenienced and technology can help elevate that discomfort.

But I'd argue that the best things in life are not convenient, efficient, or fast. The moments which hold the most meaning to us are ones we can't and would never choose to optimize: the best adventures happen when you get lost; hilarious jokes come from being extremely bored; and strong friendships are often built by overcoming difficulty. For me, a truly exciting and fulfilling future is full of these moments, none of which are easy or fast. Like love or art, these kinds of life experiences are ones without an easy formula. They are less about the quantity of what is done, and more about the quality of how things are done. A life which prioritizes process rather than product, journeys over the destination.

But the canon of computation technologies tells a story marked by reduction rather than enhancement of emotional depth. Take for instance social media platforms, which have made it easier and more convenient to meet people than ever before. But instead of feeling inspired and curious as my interactions with people can feel, my experience is reduced to a hollow numbness, and at worst inflamed anger. Instead of using technology to optimize for efficient interactions, could we use it to produce moments of meaning which are anything but efficient?

Instead of describing a novel technology, I propose a new incentive structure around the concept of "anti-convenience" which critically challenges how and why we build technology. Carried out by the creation of a public funding model, my proposal sketches out a future system of engineering which relies more on qualitative experiences than quantifiable metrics. By the end of this essay, I hope to demonstrate that incentive structures are powerful forces, and if intentionally redefined, can cascade into a future of computing which better aligns with our growing and nuanced values as a species.

Technology is deeply rooted in the concept of progress as defined by speed and efficiency. The mechanization of human life has a long history, most prominent following the industrial revolution, where it became possible on a large scale to optimize not just machinery, but human behavior. While prioritizing efficiency, convenience, and speed has unearthed great quantities of wealth, it has done so at the sacrifice of the lives of humans and non-human species. Optimizing for faster food production has led to sky-high rates of obesity, destruction of rural communities, and has left devastating impacts on soil, ocean, and animal well-being. Meanwhile, optimizing for speed and ease of social interaction has caused us to spend more time on our phones than with real humans, reduced communication to angry message boards, and enabled mass disinformation and critical ruptures in democratic processes.

Considering the large impact that technology plays in how we live our lives, it seems important to critically examine the motivations behind what we build, and what we are optimizing for. Is it to make progress move faster, or is it to make lives better? It's worth considering that these are not always the same thing.

I am often humbled by the small unplanned moments which seem to give life its rich color; these often seem to happen when things are going wrong. Once I accidentally missed my stop on the train, and in trying to get back to where I was supposed to go, ran into a friend I hadn't seen in a long time. That conversation was short, and I returned to work late, but seeing

them after so long made me very happy, and I decided to meet them for coffee at a later time. A slick app developer could look at this situation and quickly find the problem to be optimized: So I don't miss my stop, a notification could appear on my phone. And to make sure I still benefit from seeing old friends, my social media app could remind me at random intervals to call up people I haven't seen in a long time. Now with this app, I can get to work on time, and I get to chat with my friend, problem solved. However even the slickest of app developers cannot recreate the true feeling of spontaneity or the experience of being at the right place at the right time. Common technology solutions tend to lack the emotional landscape which so carefully colors these moments. I missed my train – I was frustrated – and this emotion changed how I interacted with my friend: more vulnerable, more open to changing my plans. I simply cannot see how the technology previously described can carefully choreograph nuanced social moments without encountering the dilemma that things we perceive to be uncomfortable and inconvenient can, in spite of themselves, provide meaning to our lives.

Other moments of my life are too coloured by this seeming contradiction: Paddling back home from a rained out canoe camping trip, I am cold and soaking wet, but my friends and I make hilarious jokes and I feel warm. Though it is possible to design a weather sensing umbrella so I can avoid the rain, such an invention which attempts to reduce my momentary discomfort, cannot provide what it takes away. It is the very inconvenient nature of life which has given this moment meaning. The world I so desperately hope for the future, is one where technology does not impede on these moments.

Efficiency as a value can be seen throughout technology pipelines, from urban planning to human-computer interaction. The fundamental extent to which efficiency has always gone hand-in-hand with machinery makes it very difficult to consider alternative paradigms. It feels counter-intuitive to propose building anything that makes things slower or less convenient, partially because we lack the language and necessary economic models to start thinking a

different way. Without foundational projects breaking with these norms, it's difficult to begin having discourse around how we might unlink technology from harmful consumption.

Of course, the culture of convenience has deep roots in colonial systems which far expand beyond the control of technologists considering the future of computing. The motivation systems underlying which technology gets built and why are not solely in the hands of those who build them. Capitalism, and the incentive structures which follow, produce an economy of consumption, which best align with technology encouraging consumption. People who build computing technology, which of course is expensive to build, must always build products with profits in mind first, followed by non-monetary values like well-being or social connection.

However, the complexity and scale of the issue does not absolve the fact that even in experimental technology research, convenience, speed, and ease are often used as core value propositions. By encouraging the people who are building emerging technologies to do so in ways which comply with alternative value systems, we can play an important role in envisioning a future with a new kind of relationship to technology. For this reason, my proposal takes the form of a public funding body, similar to the NSF, which can act as an incubator where projects can develop with different incentives. By relieving pressure on technologists to build without existing problematic structures in mind, we can support products and services with human and planet well-being in mind first. The agency would select and fund projects which comply with the values of "anti-convenience" – like slowness and mindfulness – to better understand what a future of computing with different priorities even looks like.

Here are some examples of speculative projects which might be developed through this proposed funding model:

Social Social Media: A social content platform which can only be used in the presence of a friend. You both need to be physically present to browse through fun media, otherwise the app

is locked. The content is customized to intersect between both of your interests, but also introduce new kinds of ideas which you might form a bond around.

The Long Way Around: A navigation system which takes you through longer routes, but passes through new unique places in your neighborhood and is different every time. The system thoughtfully draws your attention to your surroundings, and gives information about businesses and places you might not know about in your community. You might end up late to where you need to be, but might also discover something important, and feel more connected to the community you pass through every day.

Slow feed: A news feed which tells only one story per day, but from different perspectives, like an image from different angles or a topic from different community viewpoints. You can scroll through a finite set of content, but all of them are critically related to the same thing, so that at the end of the day, you learn a lot about just one thing instead of very little about many things.

The Wrong One: A match-making app which sees the journey of finding the right person as an important one. The algorithm makes matches based on dissimilar characteristics, pairing people who may not work long term, but may learn something important from dating each other. The app supports users in having healthy and important dialogue around their needs by facilitating productive conversation.

All ideas of anti-convenience come with obvious trade-offs: discover something new on your way to work, but you show up late; you gain depth in one kind of content, but miss out on everything else happening on the internet right now. But I'd argue that we are constantly making these sacrifices in the other direction. In our desire to find the right partner quickly, we engage in a dating scene that treats people like numbers; in our efforts to be more productive we lose life's

joys of spontaneity. There has always been great tension between the diverse and conflicting needs that we try to satisfy simultaneously. No framework or funding body will change the fact that life requires a constant negotiation between priorities. But looking at the continued pattern of lives which revolve around convenience, it seems that there is a strong need for structures to support life choices which revolve around less obvious and measurable priorities, like social connection and emotional growth.

I am not denying that inconvenient experiences are unpleasant. I, like anyone else, despise waiting in traffic. But this entails the tricky almost paradoxical problem of human optimization problems: you can't reliably fabricate meaning – some boring moments will just be boring moments, and some will lead to real inspiration. Anti-convenience applications, in their definition, propose shallow short-term losses to strive for meaningful long-term gains. The benefits of important emotional, physical, and social growth come at the cost of occasionally feeling uncomfortable, frustrated, lost, late, bored, and other side-effects which corporations have been systematically telling us are problems to be solved. It is a radical proposition to create inventions which specifically add suffering, even only in the short term. If we can make things easier for people, well shouldn't we? The anti-convenience funding body and framework would need to grapple with both of these simultaneously true realities: one from the perspective of long-term benefit and the other from short term suffering. How should an organization building a technology acknowledge that it knowingly does both?

From this perspective it is not difficult to imagine why convenience holds such power. It is something that can be measured on a scale. Speed is a number which can be minimized or maximized, while satisfaction or fulfillment cannot. Humans spend their entire lives defining and redefining what meaning means to them. The framework proposal hinges on technology's power to persuade users to behave a certain way, without having any testing on if this way is indeed better, or even a reasonable way of measuring if it is. Since abstract feelings are not truly comparable, it's hard to argue that sacrifices should be made. You can't make a business case

by saying that a product will make you 20 minutes late to work everyday, so that maybe one day you might run into someone or something that will bring meaning to your life. It's not practical or rational to make decisions this way, because in weighing them against each other you engage in an optimization problem which cannot be computed: there is no "best" life. To make an evaluation system based on something so dynamic, undefinable, and ephemeral, feels impossible – more like magic than engineering. But just because it's hard to define some aspect of human experience, does not mean that we should exclude it from the worlds that we build. If computing technology has the capacity to create a future where humans and the planet flourish, the only way to do so is to contend with values which do not easily fit into the obvious. My proposed funding body does not solve this problem, or can prove that it will, but it makes important steps towards that effort.

That is not to say that I believe we should abolish convenience as a core measurement of success. There are undoubtedly many instances where machine-driven systems require convenience: like in health care systems, or building mechanics. Makers in this space would need to find an art of counterbalancing convenience with inconvenience, slowness with speed. Intentionally designing experiences which allow us to move forward efficiently, and other times, slow us down.

Another problem with anti-convenience technologies is that they may not be particularly popular with users. If we truly value getting lost, going through heart-break, speaking to strangers, or any of the other human experiences anti-convenience appears to promote, then why don't humans fight back against technologies which infringe on these values? Afterall, no one forces you to use TicTok and you are completely at liberty to head out right now without a map and get as lost as you like. But like technology companies, end-users are also at the whims of capitalist western ideologies: there are many structural and societal reasons which drive our behavior away or towards actions which benefit us in the long-term. Open any self-help book or diet regimen to unpack that psychological can of worms. Furthermore, enforcing slowness or

inefficiency feels like an affront to our agency as human beings: afterall, I can binge as much Netflix and McDonalds as I like! Users need to maintain their freedom to make personal choices which may not be the best for them long term.

The success of an anti-convenience framework depends on users acting on their values which oppose convenience. Just making the technology and hoping users will use it seems short sighted, additional incentives, like the 4 day work week or universal basic income, may also assist in allowing users to detach themselves from choices based purely on convenience. And users are already demonstrating a desire to act from places of deeper need. Apps which turn your phone to grayscale to reduce feelings of phone addiction, and food services which connect users to leftover produce demonstrate a collective push-back against technologies of consumption. Though the funding body alone does not ensure its own effectiveness, the collective growing appetite for services with deeper values and dissatisfaction with systems of power are promising indications of a future decentralizing convenience.

The proposal to fund anti-convenient technologies is not without challenges which pose their own interesting ethical questions. But on-balance I believe that making any effort to redirect our intentions towards deeper, more meaningful, and healthy ways of living are necessary steps to creating a flourishing world with technology.