

Design & Capital



By [dom](#)

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<https://medium.com/@DominicJWhite/design-capital-9eabcb596681>

Why do we become designers? For some people, it's about creativity; finding some level of fulfilment in making, in drawing, in printing, in coding, in writing or visualising new things and having them exposed to the world.

For others there is an ethical or moral call, a desire to make the world a better, more functional and easy place to live, so we all can focus on the things that matter.

For others still, there is social cachet — being a designer, in the age of the iPhone and App Store, of Jony Ive, of ubiquitous experience, is *cool as hell*.

In my experience, few do it for money, or for pure financial gain. Certainly design can be lucrative, can pay above the odds for the difficulty and stress involved in the actual work, but it's rarely the primary reason someone would give if you asked them.

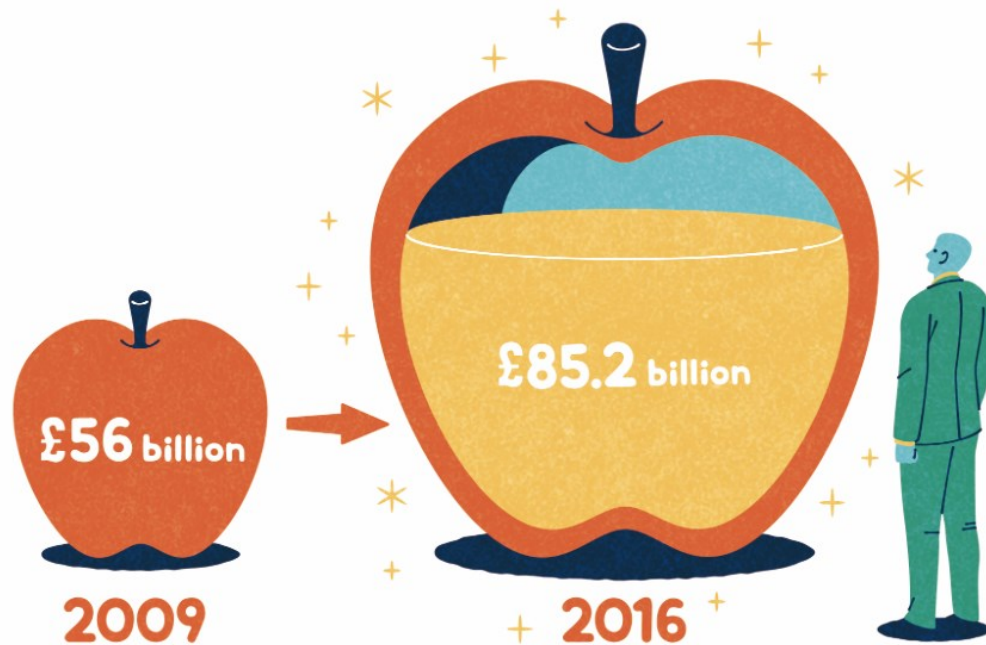
After all, if they were after money, they could probably do something else.

They would, in fact, likely quite resent the commerciality of what they do — finding it desperately *uncool*, a fetter on their productivity and creativity, an annoying barrier to really good work. There have been thousands of books written on how annoying and stupid clients are, how broken, corrupting and one-sided the client-designer relationship is.

As such it's profoundly odd that designers and capitalists have such a deep and symbiotic relationship. Capital is the mechanism by which designers justify themselves. Were we to ask the Design Council (the representative body for design in the UK) why somebody ought to pay to hire designers to create a new product, rather than leaving it to engineers or strategists or planners as we might have done in decades past, we hear familiar refrains on a theme — that design has a fantastic return on investment.

That symbiosis goes both ways. The proliferation and dissemination of design is how capitalism increasingly justifies *itself* — much as it doesn't stand up to much serious scrutiny, the claim that anyone criticising capitalism or the historical development of the world under capitalism does so using an iPhone or a Macbook is one of the [stickier memes on the internet](#).

The existence of high-tech, well-designed and cool products is an intrinsic justification for the capitalist megastructure — and that even its most trenchant critics use them is further evidence for how effective capitalism is.



Isn't this pretty! I'm not sure what it means, but wow! Gorgeous!

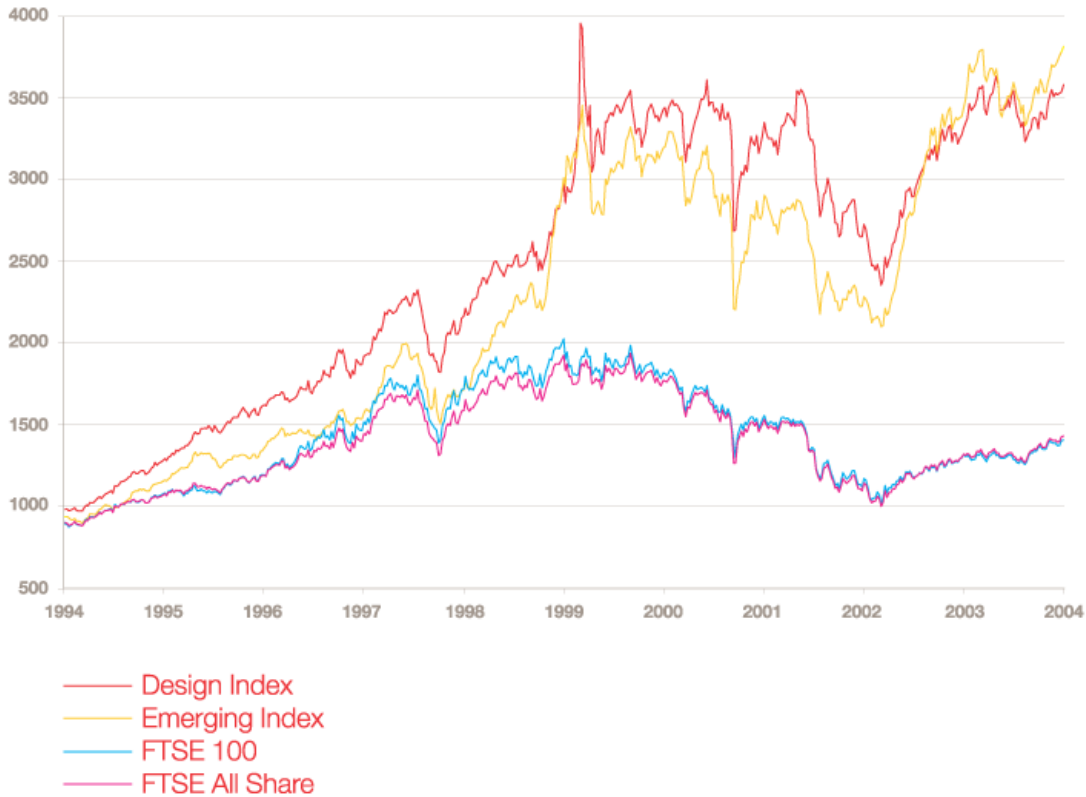
This mutual appreciation is highlighted most keenly whenever the Design Council creates a report quantifying to capitalists the actual capital difference of employing designers and design methodologies. We are presented with shiny graphics, like the above, outlining the colossal impact of design on the bottom lines of companies large and small, and celebrating the fact that design-led companies grow larger faster than others.

It's not just appearances, though — a firm's deployment of design theories and processes has a material impact on their financial wellbeing.

My friend and fellow Hyper Island alumnus Daniel Santos has written an excellent article [introducing the data on the capital impact of design here](#), but in broad strokes the summary is this:

- Design-led companies grow faster and have higher capitalisations than their design-ignorant competitors
- Design-led companies are more likely to increase their market share than their design-ignorant competitors

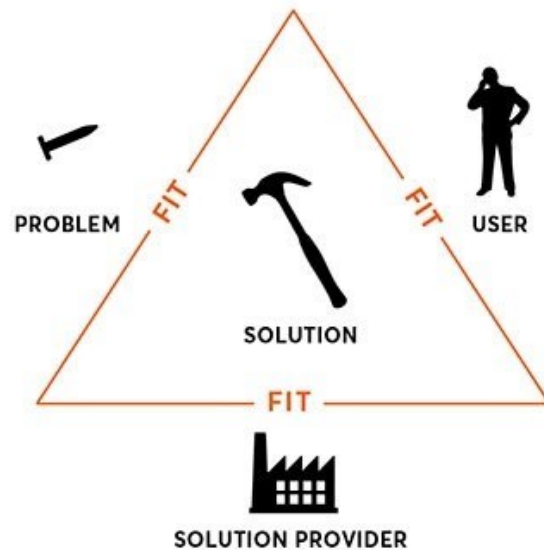
Chart 1: Ten-year performance 1995-2004



The Design Council's selection of design-led publicly-traded companies outpacing the FTSE100 over 20 years.

For the sake of this piece being a short introduction, I'm going to [defer to the Design Council](#) to define what a 'design-led organisation' is and how they work, and take their opinion as authoritative for now (the emphasis in the quote below is mine).

*[Designers] focus is on designing solutions for — and often with — others to achieve a desired future state (i.e. strategic objective). The concept of "fit" is key in this process. **Design is ultimately about generating a fit across a number of different elements.** This diagram is of course an oversimplified representation and lacks the richness and complexity that surrounds these elements in reality, but it is still useful helpful for understanding key relations around "fit".*



While they go into more detail in the full piece, ultimately the crux of their point is this — design is the process of ‘fitting’ thoughts and ideas to problems, people, and institutions, with a particular future state in mind.

As such *design-led organisations* are those who are centred on these relationships; between problems and users (finding out what users find difficult, how they deal with them, where they are most keenly felt, etc.), between providers and users (how their interactions look and feel, when and where they happen, etc.), and so on.

* * *

Which leaves us one vitally important question: **what is going on here?** Why should designers, who would be far happier claiming to be in their jobs for the sake of creativity, to help people live happy lives, to be cool and different and make cool and different things, be *better at capital accumulation* than the rest of the FTSE100? Why would a focus on the ‘fit’ between problems, users, ideas and institutions have anything to do with capitalisation?

Is there a fundamental connection between the theories and processes of *design* and *capital accumulation*? What does it mean for designers like me if there is?

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For our first theory to explore this question, let’s check in with Jony Ive.

Jony is *Chief Design Officer* at Apple, and probably one of the designers you would think of if someone asked you to think of a designer. He creates incredibly pretty objects that are in very high demand, and are very good examples of fitting solutions to user's problems.

Design has made him and his company incredibly, unbelievably rich.

How does he think it works?

"We've tried very hard to be very clear, and this is absolutely sincere, that our goal at Apple isn't to make money," he said.

"We're not naive. We trust that if we're successful and we make good products, that people will like them. And we trust that if people like them, they'll buy them. Operationally we are effective and we know what we're doing and so we will make money. It's a consequence."

Jony Ive [speaking to Dezeen](#)

Even if you are *not trying* to make money, Jony believes, through the production of good things and a focus on the relationships between those things and their users (and with an effective enough office) you will succeed financially.

Here there is a *fundamental* overlap in design orthodoxy and neoclassical economics, and that overlap lies in the concept of **utility**.

Utility is what we look and sort for in transactions, what we derive from whatever we consume and exchange our money for. We order our choices on what to spend our limited resources on based on the amount of utility we will extract / consume / gain from them.

This process can be mapped onto something called an indifference curve.

As a deliberately simple example, say you have 20 bananas and 20 apples, and you like both fruits pretty much evenly — the utility you'll get from an additional apple is roughly the same as an additional banana.

If you have no apples and 20 bananas, though, the utility you'll get from a single apple is much greater than the utility you'd get from *another* banana, of which you already have loads.

You can plot this on a graph, like so:

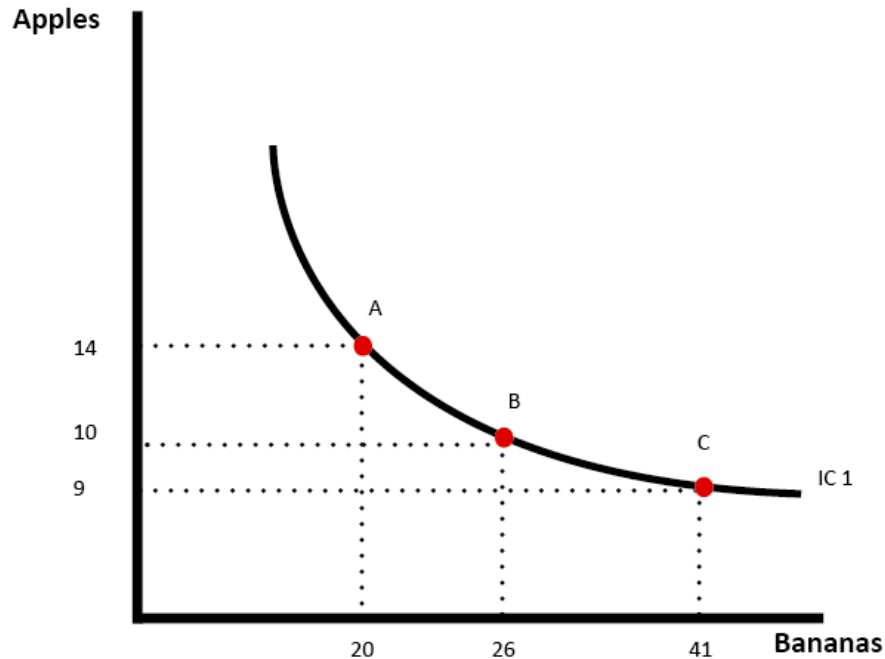


Image from Economics Help

Design is, as such, **the process of deliberately increasing the utility and reducing the marginality of an object or process**, by investigating and changing the relationship between users, problems, solutions, and providers.

That is, making it more initially desirable, and reducing the fall in desirability as your ownership of or participation in the thing increases.

Focusing on how individuals make those choices, getting closer to their preferences and how they sort and order through them, how each of these things relates to their lives, means that design-led companies are more likely and better able to make things that people will choose over other things.

Even if you don't intend to make money, by focusing on the relationships between users, problems, solutions, and themselves as providers, you will create things with more utility and less marginality which will intrinsically be more desirable.

So, yes. There is a fundamental connection between design and capital. It lies in the basic, foundational unit both trade in — **subjective individual utility**.

Designers are allowed to have their cake and eat it a bit, here — they really can believe and feel that their work is doing good, is interesting, creative and valid, without worrying about a corrupting effect coming from it having to be profitable or commercially-viable; in fact, the more profitable and commercially-viable it is, the better it is at meeting the real needs of people!

This is a *hugely* tempting thing to believe. It means that by making a lot of money with one of your products you really are helping people live their lives more happily and less miserably.

I would say above and beyond anything else this thinking is the ideology of our age. When politicians and the Davos set talk about entrepreneurs succeeding in business what they're talking about is this process — you making a thing that people like, and that thing making you successful by virtue of it meeting people's actual needs.

The inverse of this process, of course, is that if you are not rich through the thing you have made, it is because you have an insufficient understanding of the relationships between your product, your users, and their problems.

* * *

Utility is an initially appealing and neat way of explaining the phenomena, but it's also completely unempirical. It's a tautological and circular means of justifying and exploring behaviour. To paraphrase Joan Robinson,

Utility is the quality in commodities that makes us want to buy them; that we buy them proves they have utility.

As [Unlearning Economics](#) writes, [there are huge issues](#) with the concept. Do we mean that utility is a cumulative thing, like *experience* or *memory*? Do we accrue them in points, like coins in a video game? Or are they *perishable* — are we forever chasing our next utility-hit, always unsatisfied with our lot?

Is utility a universal, fungible quality? Is our experience of the utility of a new apron the same as the experience of utility of bungee-jumping? Can we 'fix' the disutility of attending the funeral of a loved one by matching it with the utility of, say, playing with a yo-yo?

This is without our considering the basis of utility — from where do our desires and needs emerge? Given the massive proliferation of advertising spending over the past century, how much can we say that our preferences are not not *literally dictated* by the people making the things we buy? Is our appreciation for Coca-Cola really indicative of anything embodied in that variety of sugar-water, or is there something additional to the thing in-itself? If we allow for social cachet to be bundled into the utility of a given object, what *isn't* included?

These are all slightly facetious (again I don't mean this to be an exhaustive critique, yet) but indicative of a general issue with the concept.

It is impossible to predict what would give us utility before the fact — conveniently economic theory has invented "revealed preferences", the idea that the purchase of a thing is indicative of our having seen the utility of it, but this is so unhelpful as to *not even be wrong*.

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So, utility. Why do people like the things designers make? Because they're useful. Why do people buy the things they buy? Because they're useful. Ergo, designers succeed under capitalism because they make useful things.

This is the orthodox theory linking design and capital. Frankly it isn't much use to anyone. It has no predictive or analytical potential, and there's no real way of falsifying it, disproving it, or really even *questioning* it.

Asking why a particular process would result in higher capitalisations and being told the answer is "because of subjective utility" is the rhetorical equivalent of asking someone why they're good at running and them saying "because I can put one foot in front of the other very quickly". This is just running described in a different way, and to hear such is to hear an elision of the actual physical processes at work underneath.

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Note on Marx and LTV

At this point I should say I don't know of a connection between the labour theory of value and design, and it's hard to conceive of how the mechanisms of user-centred design and Marxian economics inter-relate. If anyone out there has seen or done work on this I'd be interested to see it! Though I have to admit I fear it would run into the same conceptual issues as utility — what counts as "socially-necessary" abstract labour time? Then there's the [transformation thing](#)...

* * *

So what's left as a way of explaining, with some empirical rigour and even a little falsifiability, the accumulation of capital and the mechanisms of capitalism and how they relate to design processes and theories?

For our second theory to explain the data we turn to a pair of esoteric and brilliant political-economists called Jonathan Nitzan and Shimshon Bichler, and their theory of *Capital as Power*.

I don't want to explain every aspect of their theory (there are a bunch of interesting [shorter explainers](#) and [interviews](#) as well as [their colossal magnum opus freely available online](#)) but there are a couple of really key concepts that need explaining before I link them into design theory more tightly.

1. Measuring Capital *instead of Justifying Utility*

Firstly, and most importantly, is that their theory doesn't traffic in *utility* or suggest there is an underlying real force underneath our transactions. Instead they start from the data that actually exists under capitalism: capitalisations and prices.

Capitalisation they describe as a *symbolic fictional entity*, a ritual used by capitalists to discount expected future earnings in an object or process to their present value, with that discount being dictated by the risk that those earnings won't be made.

Piotr Dutkiewicz: And how does this mechanism of capitalization actually work?

Shimshon Bichler: Take the example of a capitalist who considers buying (or selling) an Exxon share with expected annual earnings of \$100. If the discount rate is 10%, or 0.1, the capitalist will capitalize the asset at \$1,000 (to verify, expected earnings of \$100 on a \$1,000 investment represent an expected return of 10%, or 0.1). The expected earnings themselves are partly objective, partly subjective. The objective part is the actual earnings that will become known in the future, say \$50. But the capitalist in our example expects \$100, meaning that he or she is overly optimistic. We call this over-optimism "hype," and this hype has a quantity – in this case, 2 ($=\$100/\50). If the capitalist were overly pessimistic, with a hype of say $1/2$, the expected earnings would be only \$25. The discount rate is also made of two components: the normal rate of return – say the yield on relatively safe Swiss governments bonds – and a risk assessment. In our case, the normal rate of return may be 5%, but if Exxon is assessed to be twice as risky as Swiss government bonds, the discount rate will be twice as high, at 10% ($=2 \times 5\%$).

This is mathy but quite simple — stuff is *capitalised* at the rate I expect to draw an income from it, minus my estimate of how likely I think it will be to not provide that income.

This process has been in existence, they say, since the 16th century, and outdoes any world religion both for the speed with which it has gained followers and for the total amount of believers. There is now almost nowhere on Earth where this logic is not one of the primary interactions ordinary people have with one another (through things like rents and mortgages in the places we live).

Capitalisation, they say, is *everywhere*. There is nothing that escapes the grasp of the discounters. Wherever there is income, some new thing produced and distributed, there is the potential for capitalisation. As Bichler says,

Since income streams are generated by social entities, processes, organizations and institutions, we end up with capitalization discounting not the so-called sphere of economics, but potentially every aspect of society.

Human life, including its social habits and its genetic code, is routinely capitalized. Institutions — from education and entertainment to religion and the law — are habitually capitalized. Voluntary social networks, urban violence, civil war and international conflict are regularly capitalized. Even the environmental

future of humanity is capitalized. Nothing escapes the eyes of the discounters. If it generates expected future income, it can be capitalized, and whatever can be capitalized sooner or later is capitalized.

The universality of the ritual, the regularity with which it occurs and is practiced, and our continued and continuing collective adherence to it prompt Nitzan and Bichler to look for a similarly totalising social structure on which to pin it (emphasis mine):

*The encompassing nature of capitalization calls for an encompassing theory, and the unifying basis for such a theory is power. The primacy of power is built right into the definition of private ownership. Note that the English word “private” comes from the Latin *privatus*, which means “restricted.” In this sense, **private ownership is wholly and only an institution of exclusion, and institutionalized exclusion is a matter of organized power.***

*Of course, exclusion does not have to be exercised. **What matters here are the right to exclude and the ability to exact pecuniary terms for not exercising that right.** This right and ability are the foundations of accumulation.*

2. Relativity instead of Subjectivity

The second thing to note here is that power is not a thing *in itself*. Power is a social force, situated in relationships between people rather than in people themselves.

Like utility, is isn't directly observable — we cannot say of an individual in a vacuum that they are, objectively and without question, powerful.

Unlike with utility, though, this barrier is not insurmountable — in much the same way as we can examine and explore gravity by observing the quantitative relationship between mass and acceleration, so too can we examine and explore power through observing capitalisation and how it *creates and reorders* hierarchies and societies (more on this later).

3. Differential Accumulation instead of Profit Maximisation

The third thing to note is that they do away entirely with the idea of profit *maximisation* — no human has an infinite hedonic drive, we aren't interested individually or collectively with infinite consumption. Instead, capital is *differentially accumulated*, success as a capitalist (or as a normal person earning a wage!) is measured according to how other people are performing by comparison.

Jonathan Nitzan: Power is never absolute; it's always relative. For this reason, Shimshon Bichler and I argue, both the quantitative and qualitative aspects of capital accumulation have to be assessed differentially, relative to other capitals. Contrary to the claims of conventional economics, capitalists are driven not to maximize profit, but to “beat the average” and “exceed the normal rate of return.” Their entire existence is conditioned by the need to outperform, by the imperative to achieve not absolute accumulation, but *differential accumulation*. And this differential drive is crucial: to beat the average means to accumulate faster than others; and since the relative magnitude of capital represents power, capitalists who accumulate differentially increase their power – that is, their broad strategic capacity to inflict sabotage.

To explain how this works on a small scale it's quite helpful to work out another deliberately simple example. Let's say you've been looking for a new job, and at long last you've had two offers — the work is exactly the same, but they have different pay and different locations.

The first has a salary of \$100,000 and you'd have to live in the rich part of town, where your colleagues, friends and neighbours are all earning more than double what you do, over \$200,000.

The second has a salary of \$75,000 and based in the cheaper part of town, where all your colleagues, friends and neighbours are earning much less than you, about \$30,000.

Where do you think you would be happier?

On first glance you might think you'd have to be stupid to turn down a \$25,000 salary increase, right? In fact your salary doesn't mean much on it's own — [your happiness is more closely linked to your relative rank](#) (among your neighbours, your friends, people in your age group, etc.) than your absolute income.

We are happy with a poorly-paid job so long as the people around us are paid even less.

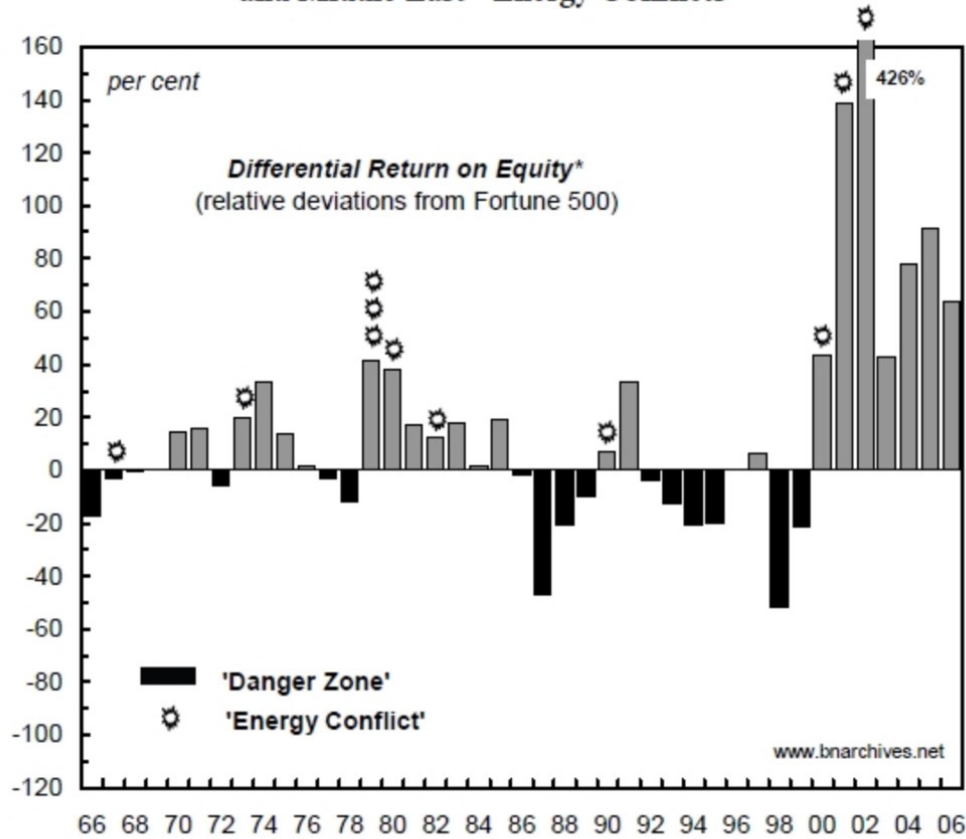
So, your differential position is your relative rank among peers on a given axis. These can be social (the amount of people you manage, the number of people following you on twitter, the depth of your contact book), financial (the amount of money you earn per year, the value of your house, etc.), cultural (the books you read, the films you like, the music you listen to), religious (your memorisation of scripture, the amount you tithe, etc.), all kinds.

(I promise Nitzan and Bichler are more eloquent and convincing, and write in more depth, than I am here — I'd urge you to go read [Capital as Power](#) if you can, it's totally [open and free](#)!!)

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As an example of the sorts of analyses we can begin to perform by looking at capital as power, and as a worked example of how capital as power has predictive and analytical potential, Nitzan and Bichler point to conflict in oil-producing states in the middle-east.

Figure 1
**The Petro-Core's Differential Accumulation
 and Middle East "Energy Conflicts"**



* Return on equity is the ratio of net profit to owners' equity. Differential return on equity is the difference between the return on equity of the Petro-Core and the Fortune 500, expressed as a per cent of the return on equity of the Fortune 500. For 1992-3, data for Fortune 500 companies are reported without SFAS 106 special charges.

NOTE. The Petro-Core consists of British Petroleum (BP-Amoco since 1998), Chevron (with Texaco since 2001), Exxon (ExxonMobil since 1999), Mobil (till 1998), Royal-Dutch/Shell and Texaco (till 2000). Company changes are due to merger. The Energy Conflicts include: the 1967 Arab-Israel war, the 1973 Arab-Israel war, the 1979 Iranian Revolution, the 1979 first Israeli invasion of Lebanon, the 1979 Soviet invasion of Afghanistan, the 1980 Iran-Iraq war, the 1982 second Israeli invasion of Lebanon, the 1990-1 first Gulf War, the 2000 second Palestinian Intifada, the 2001-2 U.S. invasion of Afghanistan and the launching of the "War on Terror" and the 2002-3 second Gulf War.

SOURCE: *Fortune*; Standard & Poor's *Compustat*.

[...] conventional economics has no interest in the differential profits of the oil companies, and it certainly has nothing to say about the relationship between these differential profits and regional wars. Differential profit is perhaps of some interest to financial analysts. Middle East wars, in contrast, are the business of international relations experts and security analysts. And since each of these phenomena belongs to a completely separate sphere of society, no one has ever considered linking them in the first place. And yet, as it turns out, these phenomena are not simply linked. In fact, they could be thought of as two sides of the very same process — namely, the global accumulation of capital as power.

To get a sense of this process, consider the following relationships evident in the chart. First, every energy conflict was preceded by the large oil companies trailing the average. In other words, for an energy conflict to erupt, the oil companies first had to differentially decumulate — a most unusual prerequisite from the viewpoint of any social science.

Second, every energy conflict was followed by the oil companies beating the average. In other words, war and conflict in the region — processes that social scientists customarily blame for “distorting” the aggregate economy — have served the differential interest of certain key firms at the expense of other key firms.

Third and finally, with one exception, in 1996–7, the oil companies never managed to beat the average without there first being an energy conflict in the region. In other words, the differential performance of the oil companies depended not on production, but on the most extreme form of sabotage: war.

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So how would a *power-centred design theory* explain the increased differential accumulation of ‘design-led’ organisations?

Power-Centred Design (PCD)

If the focus in neoclassical models of design (‘user-centred’ design) is in the individual experience of the use of something and the extraction / consumption of utility, what is the focus in a power theory of design?

Design as it exists and is practiced today is not a tool for unleashing creativity, for fixing human problems, for improving products and services. In fact, seen through a power perspective, it is a means for redistributing technology differentially to create and reorder social hierarchies.

There’s one more thing to explain before I can go into detail about what that means and what evidence could be collected to validate or falsify the theory, and that is what I mean by *technology*. Here I’m going back to Nitzan and Bichler again, who take influence from Thorstein Veblen:

Technology — or the ‘immaterial equipment’ of society, as [Veblen] liked to call it — was not just another ‘factor of production’, however important. Instead, it was the vital cultural substance that made raw materials, machines and physical human labour useful in the first place: ‘To say that these minerals, plants

and animals are meaningful — in other words, that they are economic goods — means that they have been brought within the sweep of the community's knowledge of ways and means' (Veblen 1908: 329). Without this 'immaterial equipment', he argued, the physical factors of production were economically meaningless objects.

For instance, the usefulness of any given computer depends crucially on the current state of technology. With the arrival of new software, the hard-ware quickly ends up in the junk heap; the new technology makes it socially obsolete, and although it may have lost none of its operational features, it is no longer a 'capital good'.

Or rolling history in reverse, a modern factory producing semiconductors would have been a worthless (and indeed meaningless) collection of physical objects during Veblen's time — first, because it could not have been operated; and second, because its output would have had no perceptible use. In these and all other cases, the transformation of a physical object into an economically useful capital good can neither lead nor lag the existing 'state of industrial arts'. The same logic applies to labour power and raw materials. A jungle tribesman would be lost in a modern factory, much as a bank manager would be lost in the Sahara desert. Similarly, ancient stone utensils are as useless today as was petroleum before the invention of modern combustion engines.

So technology is the sum total of human cultural knowledge in altering our environment and ourselves, and only finds use in a social context. As such when I talk about design *redistributing technology differentially*, what I mean is that design is a tool for practically applying knowledge over the ways and means we can interact with our environments, ourselves and one another to new or altered social contexts according to a hierarchical, exclusive, and *exclusionary* logic.

As somebody who has designed products before, who has worked as a UX designer, as a visual designer, as a content designer, who has applied design theory to things like organisational development, I have to admit that this is an odd thing to hear.

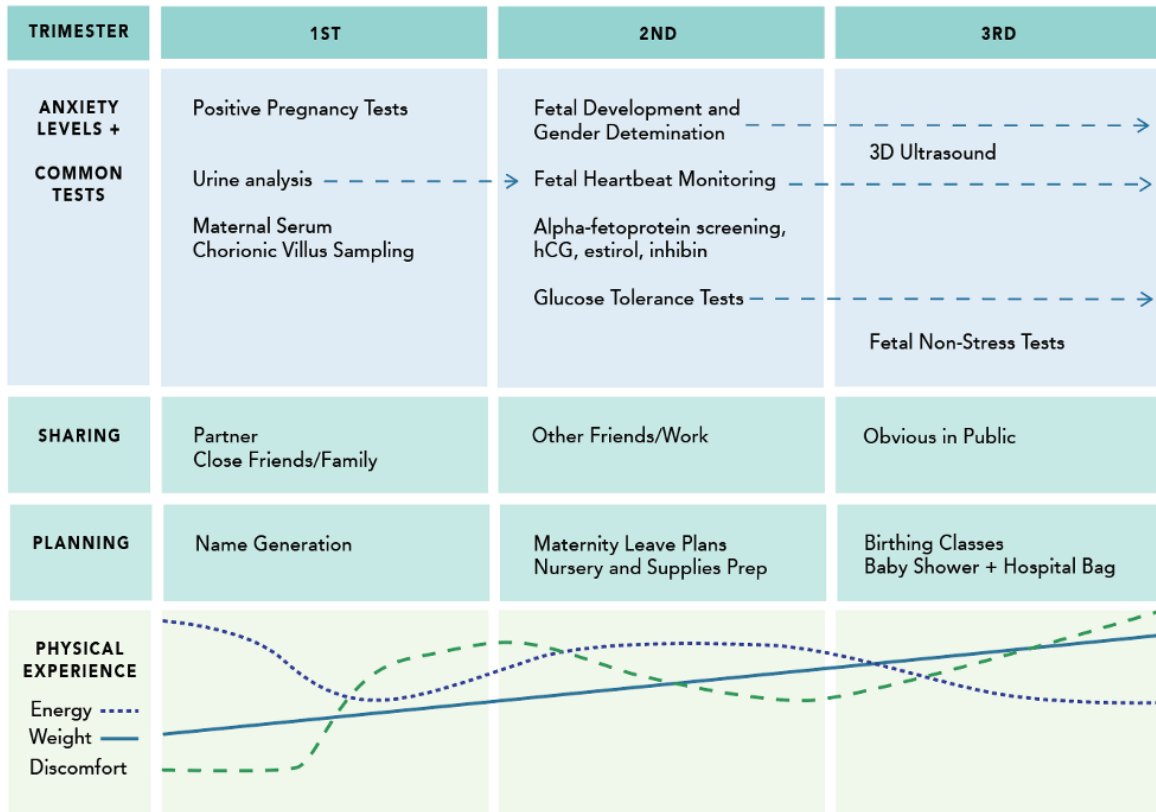
I'm keen not to start throwing charges of false-consciousness around at practicing designers, so it's useful to work through some examples of what this all means in practice and how our use of design theory and practice contributes to the differential, exclusionary distribution of technology.

Journey Mapping

Journey maps were one of the first things I came across in design theory that clicked as *fundamentally useful* in my head. They're a fantastic example of the kind of thinking a 'design-led organisation' would be doing — they are built to examine the fit between problems, existing or proposed solutions, users, and providers.

Here's one that Nielsen Norman Group, an influential company in empirically-centred user experience design research, put together as a demonstration. It's an experience map for a pregnancy.

EXPERIENCE MAP *Example (Pregnancy)*



NNGROUP.COM **NN/g**

What is being tracked on these maps is, basically, utility over time in a given interaction between a person and something else (in this case, *a pregnant person and a healthcare system*).

So, what can designers do with this tool? What can't we do?

1. **We *can't* normalise these graphs.** It is impossible to attach numbers to them, like *experience points*. That means it is impossible to compare one map to another and decide which one we ought to seek to change first. We can't overlay one graph onto another (e.g., overlaying the experience of oncology patients and pregnant people in the same hospital) and decide which thing to focus on first, because the magnitudes of subjective experience are not comparable.
2. **We *can* compare in-group experience.** While it's impossible to compare a map of one journey to another, different journey, we *can* compare how different participants in a single journey feel about particular interactions and transactions and create differential portraits (that is, we can say that a particular transaction is more stressful for one group of participants than another).

3. **We can capitalise.** What designers actually do with these graphs is perform a kind of *inverse* capitalisation of the problem — that is, we roughly calculate the expected future costs to the user of bumping up one of the troughs on the graph, and from that create an expected future market for solving it. Every design-led company is doing this — the justification for product decisions is “#A of users will spend \$X fixing this problem each over the next Y years, meaning a total addressable market of \$Z”.

In summary — designers *aren't* able to use journey maps to decide which journeys to prioritise on the basis of feeling (or pain, or joy, or any emotion), but they *can* decide which members of a group they can dedicate resources to based on the future costs to those members of fixing it of their own accord, and they can *further* differentiate within that group based on material, measurable things like disposable income, location, free time, etc.

So once we have that knowledge — let's say that we've found a group of users who would spend £££ every year trying to make their experience of coming up with a name for their baby less annoying — we can begin to use our inverse capitalisation as a costs-limit (guaranteeing *eventual* profits) in applying new or existing technology to their social context.

So even though you've created something to help people, and it really is helping *some people*, it's ultimately a differential distribution of technology, with that differentiation being effectively guided by the income of the group with a capitalisable future spend.

Given that income is, more than any other factor, **dictated by hierarchical position** (number of subordinates in a firm), **what you're doing is matching the differential, comparative experience of a given object or process to the social power that person holds relative to other people experiencing the same process; that is to say, reordering a hierarchy of experience to more closely match hierarchies of social power.**

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This is just one tool, and it's not examined in a great deal of depth, but I think it's an interesting and useful way of how we can look at design in a power context.

So, what's going on with design and capital accumulation?

Why do design-led organisations perform differentially better than others?

Because they are the same process at different scales.

Design is the 'micro-economics' to CasP's 'macro-economics'. It is the mechanism by which everyday activities are endlessly recapitalised and differentiated, the means by which hierarchies are established and reordered.



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