The High Cost of Complexity

As designers, we read a lot about the value of simplicity. And for good reason. Simplicity is the outward expression of good design, built on a careful understanding of user needs and behavior, referenced against design patterns and aesthetics that exist in culture. We know our brains prefer simplicity because it signals accessibility, predictability, and reliability. As consumers, we act on this preference through the products and services we choose and rely upon.

Writing about the value of simplicity is important. But it's also easy, and can border on the obvious. Looking beyond the pandemic, towards optimism and recovery, maybe greater attention should be directed at why we continue to tolerate the burden of complexity at work and in our lives.

Complexity can be comparatively hard to visualize as it is both varied and abstract. So perhaps it's easier to think of complexity as bad debt. A poor choice made long ago that carries a punishing rate of interest. Like debt, complexity gathers and compounds over time. It limits choices and hobbles an organization's ambition.

Here, we will look at the impact of complexity in marketing. How the carried debt of complexity mars consumer experience and product design. How it gums up process and innovation in organizational environments. And how it hamstrings agility in MarTech stacks and IT infrastructure.

Complexity and Experience Design

As consumers, more and more we are the beneficiaries of great design. Over the past decade or so, we have been re-conditioned to expect the things we use to be intuitive and reliable. As a member of Generation X, it's funny to recall how much time was once spent reading instruction manuals for things like electronics and appliances. The burden was once on the user to learn how someone else had chosen to design and explain the use of a new oven or stereo or insurance policy. Now the inverse is true. We expect these products and services to conform to the way we learn, which is largely through the act of doing. Form should express function and inform use.

But for every Nest thermostat or RobinHood trading app, there are hundreds of dense, unreformed products and services that throw the obligation of learning back at the user. What these products say - be they applications, or websites, or physical experiences — is essentially, "what you're looking for is probably in here somewhere, you figure it out."

Nowhere is this more true than in the healthcare industry. A recent study by Statista Research shows that only 4% of patients use applications developed by healthcare systems. It's not because people don't care about their health or that they fear technology. It's because the vast majority of these applications suck. Objectively. And patients know it. They are a patchwork of poorly designed, sloppily integrated tools made worse by dense, jargon-filled content and the dehumanizing use of creepy, grinning stock photography. Compare this to the adoption of online banking, travel, or retail commerce, industries that have crossed the chasm from the simple provision of functionality to careful, human-centered design.

Nest thermostat

RobinHood trading app

Complexity and the Workplace

Poor consumer experience is, more often than not, a symptom of organizational complexity. No company intends to develop an uncompetitive product or to deliberately fail to engage the needs of the user. These shortcomings are usually a result of the self-imposed limitations of the organization rather than a lack of ability or vision.

Complicated, bureaucratic organizational structures are often paired with equally complex processes and workflows. Designing great products and experiences is intricate, nuanced work. Threading insights and decisions up and down hierarchies and between multiple departments bleeds out the purity and simplicity of a compelling proposition, design, or idea. It also dramatically slows things down while adding cost.

A 2017 HBR article on bureaucracy describes the cost exacted by organizational bloat, friction, insularity, disempowerment, and politics. To think again of complexity as debt, one can easily see how much money and effort is directed at servicing a broken process, rather than realizing the value of an investment.

And complicated organizations don't just compromise product vision and execution. They also impact the bottom line. A study by IDC shows that complexity and its resulting inefficiencies can cost organizations up to **20% - 30%** of their annual revenue.

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Complexity and IT Infrastructure

If complexity exists in product experience and in organizational structure, it will very often exist in infrastructure as well. Seams, drop-offs, and limitations in the customer experience can frequently be traced back to a lack of integration between components in the MarTech stack. The idea that a fast, contemporary, customer-first experience can be built on top of piecemeal components that were never intended to work with one another is, at best, wishful thinking.

Great, systemic, integrated experiences are built on a broad technology vision and deliberate choices. Reaching the goal of a highly personalized, cross-channel customer experience starts with a solid architecture of full-featured, interoperable platforms that bring internal departments together, particularly customer-facing groups such as sales and marketing.

Like organizational structure, complexity creeps into infrastructure over time. It is often the result of decentralized decision making and a tendency to hold onto aging infrastructure. A 2019 study of US Government agencies found that up to 80% of IT budgets were directed toward the service and maintenance of legacy systems. The cost of running outdated systems cripples investment in forward-thinking initiatives that can drive customer personalization and innovation.

A second, and somewhat paradoxical challenge to IT infrastructure, is the investment in expensive, high-powered marketing technology tools, followed by the use of only a fraction of the available functionality. This shows how good decisions can be quickly undone without alignment and organizational will.
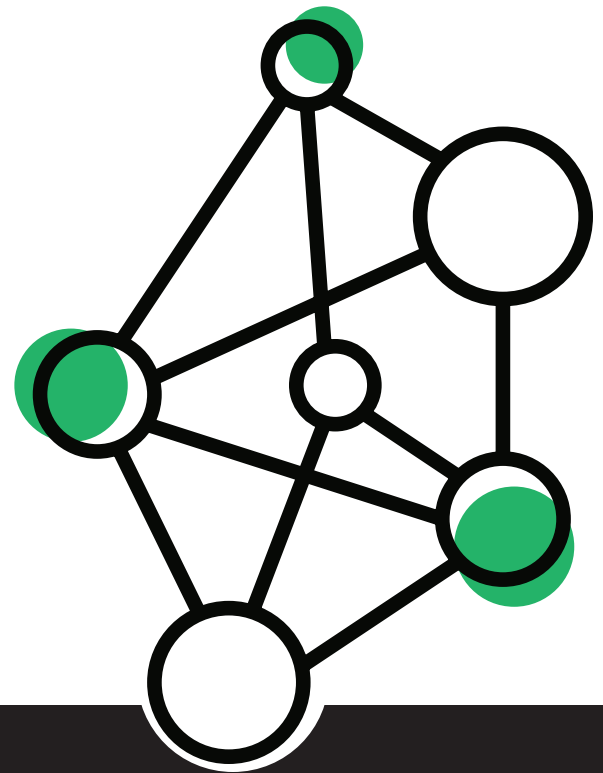
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What We Can Do

Returning again to the analogy of a high-interest loan, organizations can build toward better customer-facing experiences, more responsive internal structures, and more powerful infrastructure by developing plans to pay down the debt of complexity.

This means making a sober, objective assessment of the quality of the end-to-end customer experience. Focus on the moments and actions that matter most to the customer, and design content, tools, and services that meet or exceed those needs.

Look critically at how the organizational structure can better support the needs of the consumer. Make it easy to form lean, cross-disciplinary teams who work in service of a shared goal. Streamline decision making and promote accountability. Most importantly, set up systems that actively listen to the voice of the customer and respond quickly to opportunities to improve.

And lastly, create a vision for the integrated customer experience. Evaluate how well the technology infrastructure aligns with this vision, and how well it will support continuous evolution and change.

Of course, none of this is easy. But the cost of sustaining complexity is so much worse. And maybe simplicity is just around the corner.

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Matt is a believer in simplicity, brevity, and smart design. He recently joined MERGE from Bloomberg Media, where he was the Global Head of CX. Over the course of his career, he has led product development and marketing relationships at R/GA, Arnold, and Havas for companies like Nike, Blackrock, and Unilever. He has been very fortunate to be a contributing part of many high functioning teams, whose work has engaged users, delivered bottomline value to brands, and has been recognized at award shows across the globe.

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