

NERDERY'S 2023 GUIDE

# Dissecting Digital Transformation

# A letter from Mike Schmidt, CEO and Co-Founder of Nerderly

As predicted, 2023 has proven to be another year of needing to adapt quickly to an ever-changing business environment. With economic fluctuations causing leaders to assess priorities, ongoing investment in **digital transformation** can be seen as a risk instead of a growth strategy.

At Nerderly, we work with product and innovation leaders to correct this misconception about digital transformation and use it to find new revenue streams, optimize digital capabilities, quickly improve investment strategies for customers and create operational efficiencies.

In Nerderly's guide, "Dissecting Digital Transformation," our strategy, design and technology experts provide practical insights and share approaches that have driven our 20 years of success in leading companies through their digital transformation journeys, including:

- Research strategies to ensure the relevance of digital products
- Developing effective product teams
- Getting more from data
- Integrating new technologies with existing infrastructures
- Innovating to deliver ongoing value to customers



- Mike

# Components of Digital Transformation

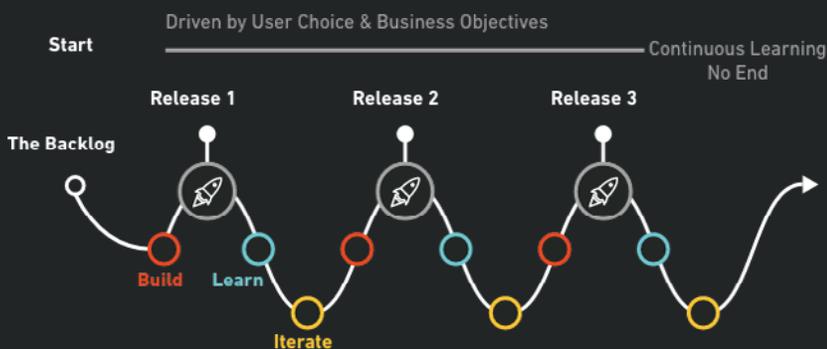
01. Teams and process .....	03
a. The product methodology and digital product teams	
b. Five reasons to make the switch to the product mentality	
02. Data and research .....	04
a. How to be a data-driven organization (and how to tell if yours is one)	
b. Ensuring positive user experiences through persona development and customer segmentation	
03. Customer experience .....	10
a. Research-driven design	
04. Technology and systems .....	15
a. Out-of-the-box is a myth	
b. Platform modernization: Navigating the build-to-buy continuum	
c. Strategically updating your systems	
05. Innovation .....	22
a. The innovation imperative: Understand where you fall on the innovation continuum	

# The product methodology and digital product teams

How we develop digital products has evolved. Today, consumers aren't focused on what the technology should be as much as how it supports their wants and needs.

The **thinking** = product **mentality**.

Success is measured by improved customer experiences, creating long-term value, and driving business outcomes.



The **process** = product **methodology**.

This is achieved by conducting ongoing user research and delivering frequent product releases – providing a faster, more adaptable process, allowing you to pivot when priorities change.

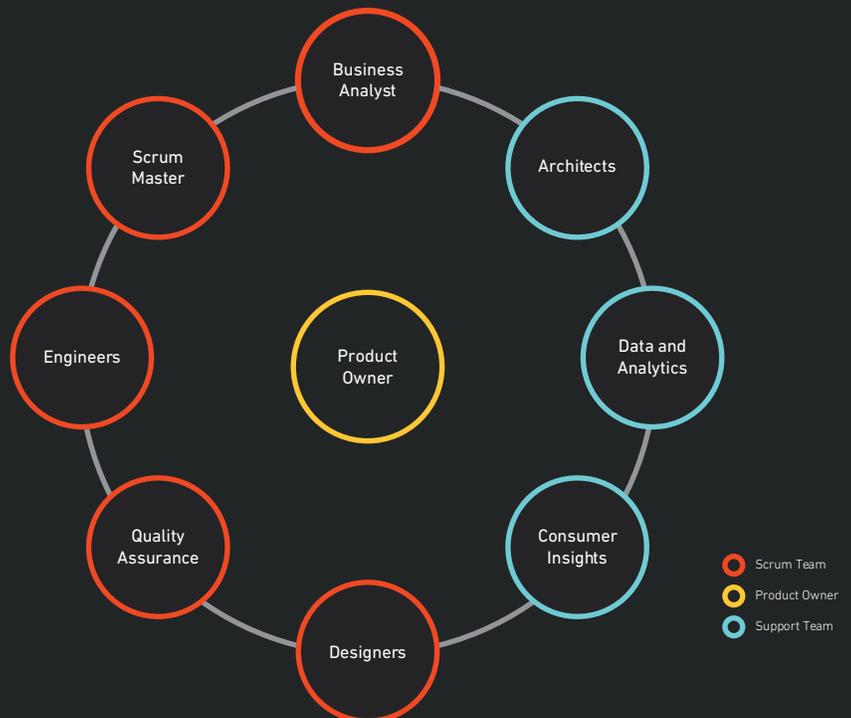
# A shift in team structure

As organizations adopt the product methodology, the team structure shifts. Within a project or waterfall framework, the project manager would typically lead the charge. Under the product methodology, the product owner is responsible for the product's success. The steps to bring profitable, problem-oriented products differs from developing tangible consumer products.

## Product Owners are a rare breed:

They are smart, creative, persistent, and have a rich understanding of the customer, data, business, industry and market. They center themselves within the product team and lead without formal reporting relationships.

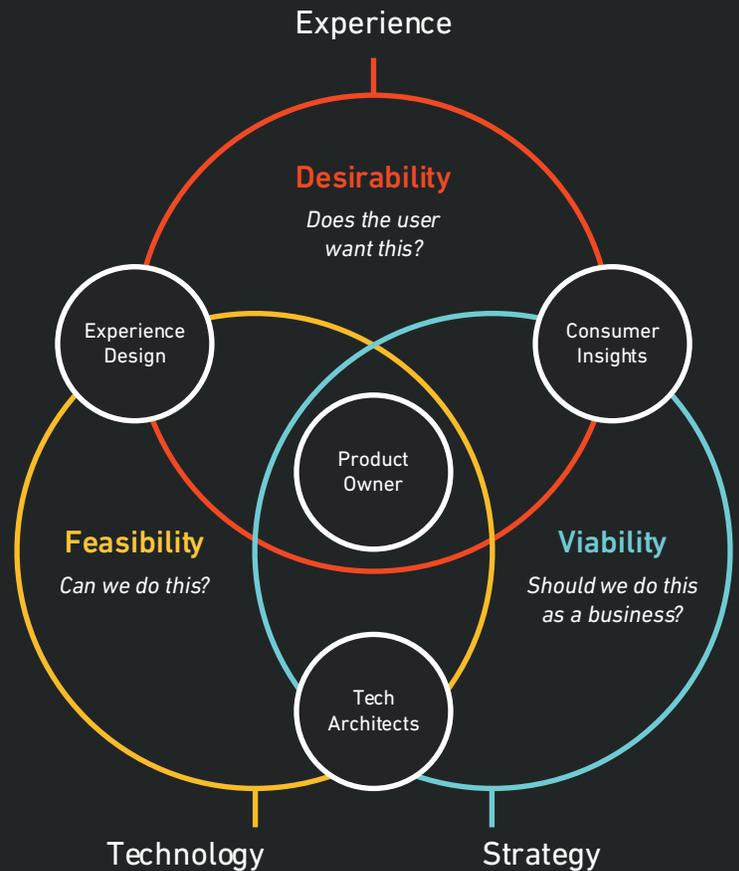
With typical project setups, siloes are inevitable and make collaboration and knowledge sharing challenging — leading to duplicative work and increased costs. The Product Owner helps teams work cross-functionally, uniting them around goals, excelling at change, and helping them better communicate roadblocks.



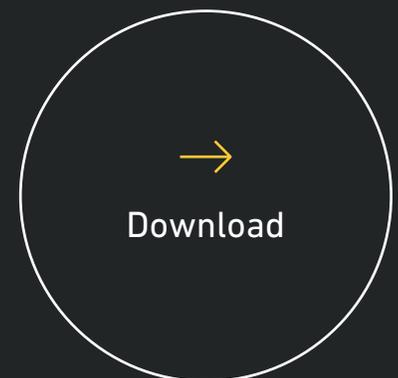
*This graphic illustrates the symbiotic relationship between product teams and roles. Depending on the engagement, more or fewer teams and functions may be necessary to ensure a successful product.*

# The intersection of desirability, viability and feasibility.

The product team ensures the product meets the intersection of desirability, viability and feasibility. Based on their discipline, product team members will naturally gravitate towards ownership of different priorities, causing some healthy and ultimately necessary tension. For example, engineers may focus more on what is technically possible and float toward the feasibility box. UI or UX designers, on the other hand, might be more concerned about how the user engages with the product. This balance of powers helps benefit the product as a whole. The product owner will help guide all the players to deliver a product that meets customer and business needs.



Want to learn more about successful digital product teams? Check out Nerdery's Digital Product Owner's Handbook.



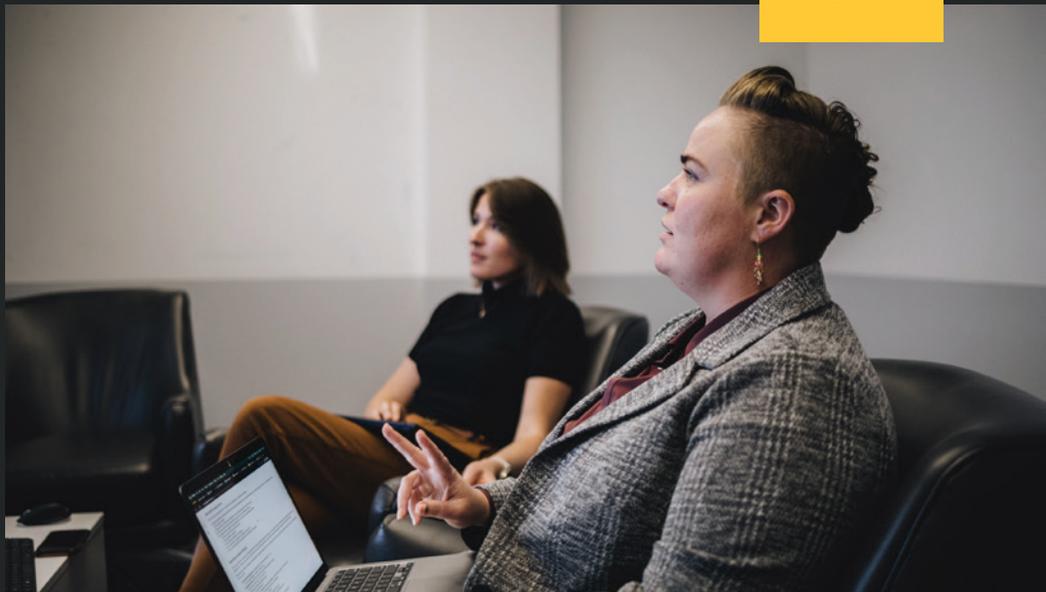
# Five reasons to switch to a product methodology

**Let's say you have a great idea for a leading-edge application on your organization's website.**

You've spent months compiling the right team, getting buy-in, designing and developing the product – all just to discover that once you're ready to deploy, your users' needs or the market has already shifted.

This is the danger of operating with a traditional project mentality. You are confined to fixed budgets and timelines, leading your team to build a solution that doesn't bring value to your business.

That's why organizations are making the switch to the product methodology. This process measures your success by improving customer experiences, creating long-term value, and driving business outcomes. This is achieved by conducting ongoing user research and frequent product releases – providing a faster, more adaptable process for developing products, and allowing you to pivot when priorities change.



# Five reasons to make the switch to the product methodology.

## 01

### **You have less risk**

Documentation that indicates which individuals and teams own which data and how much access they have.

## 02

### **You can see a return more quickly**

A list of all technology platforms used for managing data and how each is used.

## 03

### **You can ensure your product meets user needs**

Determines how long data is stored, where it is stored, and the process for removing data once it reaches the end of its lifecycle.

## 04

### **Your development process will be more efficient**

Meta-information includes descriptions within a site, app or platform to help make information findable through search and tagging. Having a consistent format and semantics guidelines for updating meta information makes looking for information easier.

## 05

### **The industry is shifting in favor of customized products**

Potentially one of the most important tools in the framework, security policies determine how data is stored and protected. It should also include protocols for data breaches if they occur.

# What you should know

## Stay flexible

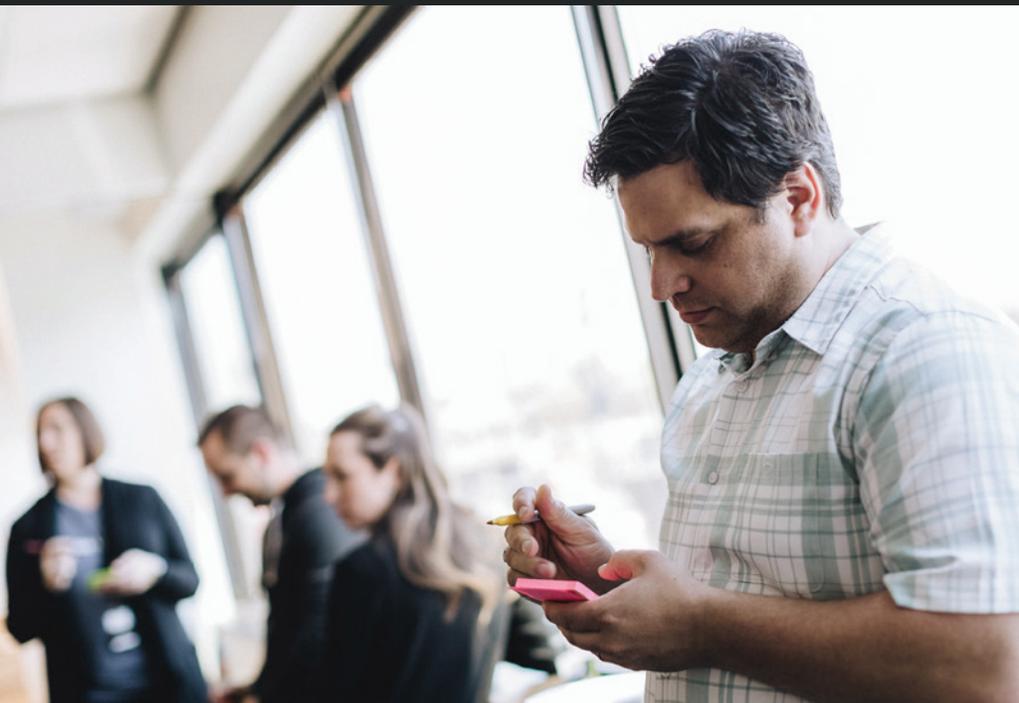
The product methodology helps you stay flexible to keep up with constant change, whereas the project methodology confines you to specific budgets, timelines and milestones that may lead you down the wrong path.

## Adapt quickly

Learning faster is everything in the digital economy. Failure to adapt to customer needs or delayed market entry with your product can set you up to fail, so your approach should incorporate user data and feedback with each release.

## Communicate better

Working cross-functionally helps teams unite around goals, excel at change, and better communicate roadblocks. With normal project setups, siloes are inevitable and make collaboration and knowledge sharing challenging, leading to duplicative work and increased costs.



Download the  
Five Reasons to  
Make the Switch  
Infographic



# How to be a data-driven organization

(And how to tell if yours is one)

**Organizations often overlook data as a separate entity and not as a **strategic component of success measurement**: a nice-to-have to help bolster success but not the basis for strategic planning.**

Being data-driven is more than a tactic or an as-needed approach to strategy or development. It's a foundation. A cultural mindset. It tells us everything we need to know about an organization's standing and what can happen next.

# Here's what a data-driven organization looks like.

## There's a culture built around being data-driven, and it starts at the top.<sup>1</sup>

Establishing a work culture that prioritizes data happens from the top down. When senior leadership cultivates a universal understanding that a product's success and future is based on data, it sets a precedent for everyone.

## Data is easy to access and understand.

Sometimes data can only be accessed or understood by certain people within the organization, making it difficult to get answers quickly. With universal alignment on goals and responsibilities also come universal practices on storing and saving data. A consistent approach eases the burden of tracking down the insights you need.

## Data-driven organizations know their data landscape.<sup>2</sup>

The platforms used to host and manage data are often owned by a select few, hold duplicative or out-of-date information, or contain so many filters that it's difficult to determine if the data it provides is accurate. Data-driven organizations often have well-documented policies and strategies establishing who owns and can access which data and how exactly it's shared across the enterprise.

## Data is used for decision-making and is tied to business goals.

As your organization works toward short- and long-term goals, the data you prioritize should tie to those goals. Let's say your goal is to increase revenue by 40% and use digital products to achieve those goals. Instead of looking at general metrics, take a step back and consider how product performance impacts revenue. Partnering with data scientists, agency partners, and stakeholders will make identifying which metrics will show progress toward that goal easier.





# What you should know

## Prioritize your data

Data should not be an afterthought or a “fudgeable” component of your business plan.

## Make a culture shift

It takes time to make a cultural shift toward becoming data-driven. It won't happen overnight, but the upfront work leads to more streamlined decision-making, and success is more assured. The more leadership support you have, the easier the shift will be.

## Data is your blueprint

Your data is your blueprint for making effective decisions. Without that blueprint, you may have the right tools and the team to make it happen, but you'll waste a lot of time and resources along the way.

**Do you know the difference between being data-driven and data-centric?**



See where your organization falls.

# Ensuring positive user experiences

Through persona development and customer segmentation

**As with any industry, technology companies must understand their users to ensure their product offerings are relevant and build experiences that drive engagement, nurture a brand connection, and maintain a competitive advantage.**

**Being data-driven** is more than a tactic or an as-needed approach to strategy or development. It's a foundation. A cultural mindset. It tells us everything we need to know about an organization stranding and what can happen next.

User understanding is often limited to age, gender and income level. While important, these demographic characteristics fall short. Psychographics are also a critical to user makeup and focus on understanding user needs, pain points, motivations, values and influences.

By understanding who your users are, how they think and what challenges they face, you can help ensure intuitive user experiences.

The guidelines below provide some use cases for common and trending ways to build user understanding. Even a small investment in consumer intelligence can yield big returns.



Learn how to  
develop digital  
products around  
your users

# Defining your users

User research helps you understand your user groups and how they differ. There's more than one way to define users, so you should choose your research method based on the priority unknowns about your product.

## 01

### Qualitative persona development

This exercise explores the characteristics, values and behaviors of your users. The first step is gathering existing knowledge and assumptions about your user base. This documentation jumpstarts research by providing assumptions about your users to validate or expand (as well as by enabling more targeted recruitment for research).

The next step is to conduct interviews with different groups of users to understand their needs, motivations, attitudes and behaviors about the product. Though persona information is incredibly useful for guiding large-scale product and market decision-making, as generalized sketches, they don't reflect the diversity of your user base entirely.



02

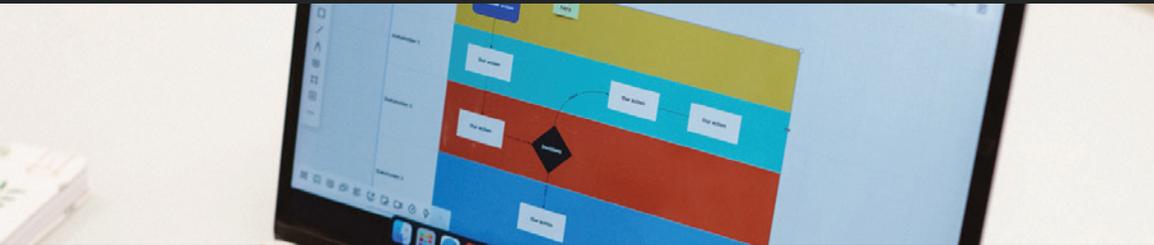
## Quantitative user segmentation

Quantitative user segmentation defines distinct consumer groups and the proportion of your market representing each group. This method generates numeric insights through quantitative surveys or behavioral research on a large group of participants. You can level up your segmentation strategy by combining quantitative and qualitative research methods; for example, conducting surveys to find out how consumers use your product and following up with interviews to identify the specific needs driving different uses or the pain points around them.

03

## AI/ML-based segmentation

For organizations further along the digital maturity journey, artificial intelligence and machine learning allow for micro-segmentation to create hyper-personalized digital experiences. As an example, AI is used for natural language processing on text data to infer user sentiments and values. Because it takes a lot of investment and time to build and maintain these models, they may not work for everyone. Still, we expect to see wider adoption, as companies that work to prioritize personalization, based on that demand, see a 40% increase in revenue compared to those that don't<sup>3</sup>.



# What you should know

## Know your users

Knowing your user implies you have a holistic understanding of their psychographics (needs, wants, expectations, behaviors) AND demographics (age, income, gender, profession).

## Invest in user research

Invest in user research to understand fundamentally distinct groups within your user base that may respond to and use your product differently.

## Define your users

There are many ways to define your users, each with advantages and drawbacks. The method you use should be selected based on what is most important to know about your product.

## Keep up with change

Understanding your users is an ongoing process, not a point-in-time effort. Keeping a pulse on your users' changing needs and expectations is necessary to keep your product relevant.

# Research-driven design

**As companies work to become more digitally adept and operationally efficient, they also want to differentiate by designing superior user experiences.**

Brands that prioritize UX and customer experience can generate nearly six times more revenue<sup>4</sup> than those that don't. They achieve this when their research and UX teams work together to design memorable, empathetic experiences.

# 6X

MORE REVENUE

Brands that prioritize UX and customer experience can generate nearly six times more revenue than those that don't.<sup>4</sup>

The key to creating a superior experience design is not an exceptional user interface and in-step with your competitors (though that's part of it); it's understanding and solving for the needs of your users – asking ourselves:

- **What are their goals?**
- **What problems are they trying to solve?**
- **What pain are they experiencing?**

# It starts with research

**Without the right data and context, you risk compromising your product's success and innovative ideas.**

Deep insights from users on what they desire most from product features lead to business success and a compelling ROI.

Research methods — such as user interviews — offer you key insights into product development by:

- Gaining a comprehensive and dynamic understanding of the user experience
- Aligning user needs with business objectives
- Achieving competitive advantage by ensuring you stand out in a cluttered marketplace
- Prioritizing based on the essential features for both users and business objectives
- Creating an optimized pricing strategy



# Applying research to UX

Experience design is deeply rooted in empathy and radically focused on human and business outcomes. It doesn't stop at the empathize and define phases; gathering and implementing feedback and insights into every design iteration is essential. The best way to achieve that is by having insights, strategy, design and technology teams work collaboratively.

Input from multiple perspectives – along with research and insights – helps you develop a sound product roadmap while minimizing risk.



Every digital product is designed with unique functions and capabilities, but getting there requires answers to five pivotal questions:

01

**Do we understand the users' pain points?**

02

**Have we identified user experience areas to encourage stickiness or productive friction?**

03

**Does our solution solve user problems?**

04

**Have we filled the gap left by other products?**

05

**Do we have a plan to prioritize resources and features?**



**When research and design work together, they are more likely to achieve business outcomes and help ensure product loyalty.**

The goal for every digital product should be to achieve deeper connections with customers to speed up time to value so they continue to choose your product time and again.

## Design with empathy

Design with empathy, ground your experiences in your customer's needs.

## Team collaboration

Superior and enduring experiences emerge through collaboration.

## Foster understanding

UX Designers promote understanding the customer needs, business objectives, and competitive offerings.

### Case study:

**Find out how a global life sciences company implemented UX best practices to triple their e-commerce sales in six months!**



[View project](#)



# Out-of-the-box is a myth

**When making a technology investment, sometimes businesses look for the most cost-efficient option thinking it's the safest option, which usually means out-of-the-box solutions that can serve a broad function.**

The problem with going that route is that it's virtually impossible to meet all of your technical requirements without some kind of optimization – turning what should have been an easy product into something custom anyway.

All in all, your technology should meet your customers' needs. Sometimes that might be an off-the-shelf solution that checks all the boxes, but this can often lead to generic customer experiences that fail to make users feel understood.



01

**Myth:**  
**It's cheaper to buy  
an out-of-the-box  
product**

Too often, we hear about clients who got on board with packaged software where the price tag sounded great, but once implementation got going, it was far from a great match. To fit the off-the-shelf product, you need to adapt your business or your customer's behaviors to how the software works and its limitations when it should be the other way around. If you had to pay extra or short your customers on necessary features, you won't realize the full potential of your product.

02

**Myth:**  
**Out-of-the-box  
software is broad  
enough for everyone**

Packaged software has multiple uses, but often only one or two are necessary, or the ones you need are unavailable. Let's say they release a feature that breaks the application. Then the vendor creates a customized version of their own software. So now you are paying to upgrade or maintain irrelevant features. You have to wait on the vendor to make enhancements to the core product and you're not in control of the updates.

03

**Myth:**  
**Custom products are  
difficult to update and  
maintain**

Aside from the price, customers tend to shy away from the term "custom" because they think it implies more complexity to maintain when patches or new features are released to the standard version. Complex integration layers are built between the software and your existing systems to avoid changes to the packaged software. So you end up with custom software anyway and are now that custom software is tied to a specific vendor's product. If you ever decide to cut ties with that vendor, you're also throwing away your integration software.

# What you should know

## Integration software

Complex integration layers are built between the OOTB software and your existing systems. If you ever decide to cut ties with that vendor, you're throwing away your integration software.

## Off-the-shelf products

If you try to make off-the-shelf products work for multiple business or customer needs, you end up paying more for features you'll never use or features that don't work for your unique needs.

## Custom doesn't mean expensive

Just because something is "custom" doesn't mean it's more expensive. If a vendor decides to update and increase the price of their packaged software, you have to pay for, upgrade and maintain functions.



See how custom digital product development can accelerate your growth.



Get started

Platform modernization:

# Navigating the build-to-buy continuum

**Companies are always looking to shore up digital capabilities by modernizing platforms and information technology systems.**

But where to start? Platform modernization isn't a cookie-cutter solution that fits every company and situation; rather, an ongoing effort to tailor your technology for specific business needs.

Your first step toward enterprise-wide platform modernization projects should be getting your team to agree on what will influence your platform direction, such as your:

- Industry
- Business goals
- Competitors
- Company size

# Signs you need to modernize your technology platforms

01



## Security and compliance

Software versions and patch levels are out-of-date, leaving you at risk for known security threats.

02



## Performance can't meet demand

Your business is growing, and your process to maintain the digital systems is struggling to keep up.

03



## Spending on maintenance outpaces innovation

Your organization spends too much time and money on patches, backups and troubleshooting software issues. The potential cost for maintenance could be better spent creating innovative systems that lead to a competitive advantage.

04



## Platforms are spliced together by workarounds

Much of your business information is duplicative and spread across disparate platforms. It takes more time for your team to keep the existing platform running instead of reengineering the old technology and inefficient processes.

05



## Project delivery isn't based on business goals

You avoid critical projects that support new priorities because of the unknown ripple effects throughout the enterprise.

## Modernizing on a build-to-buy continuum

Once you decide to modernize, how do you get there? **No single off-the-shelf software effectively covers the needs of every business.** So do you build custom? The answer lies along a continuum of build-to-buy components assembled together. Doing this allows you to take advantage of the ease of commercial applications, satisfy your users' specific needs with custom technology and optimize the value that still exists in your legacy systems.

## Put into practice

Imagine you're a technology leader for a well-known brand that deals with a broad portfolio. The business has a history of making acquisitions and bringing new companies under its banner. Your software packages that support this acquisition provide sufficient functionality but lack visual appeal and branding. Legacy software may meet your functional requirements but doesn't "feel" like a fit for your brand or customers.

Do you need to build a new system from scratch to gain user satisfaction and brand consistency? Or do you try to adapt your current systems to incorporate this new line of business? Neither.

By skinning the acquired business's systems with custom UIs that offer cohesive branding, layouts and design, you can retain the existing systems and fill the experience gap. This approach helps modernize user experiences with the same legacy system's components.



# What you should know

## Create a flexible ecosystem

The path to platform modernization is rarely a case of build or buy but a mix of the two. To create flexible and efficient ecosystems, IT leaders should focus on the options available across the build-to-buy continuum.

## Use custom strategically

Leveraging custom digital products at specific points in your ecosystem will allow you to get the most value out of your commercial products, the most user satisfaction and the most efficient use of your resources.

## Signs to update legacy systems

Stay vigilant for signs that you need to update your legacy systems. Otherwise, you may be risking revenue, customer loyalty, and productivity losses, or worse – letting your competitors get the upper hand.



# Strategically update your systems amid seismic business change

**If there's one certainty executive leaders have learned in the past three years, it's that digital technology will continue to influence the strategic direction of most companies.**

A McKinsey survey found that company responses to COVID-19 accelerated the adoption of digital technology by several years—and many of these changes could be here for the long haul. “To stay competitive in this new business and economic environment,” said McKinsey & Company, “it will require new strategies and practices.”

CEOs continue to invest in technology, particularly the digitalization of customer experiences and e-commerce efforts, but by leveraging the systems in place today and piloting new features incrementally, the cost investment can be more manageable.

**“To stay competitive in this new business and economic environment it will require new strategies and practices.”**

- McKinsey & Company



# The delicate balance of want vs. need

A need is a critical component that is core to providing an experience that is functional, compliant and secure. A want is any new digital features that enhance a platform but aren't critical to it working. While it may be tempting during times of economic uncertainty to only prioritize the needs, never investing in the wants could allow your competitors to get the upper hand.

## Test and measure potential offerings

By piloting new updates with a limited test audience, you can gather data around which investments will yield the highest value and catch any issues earlier. Testing a prototype allows you to validate your idea before making the whole financial investment. Whether your ideal solutions revolve around AI, data analytics, or e-commerce platforms, "advances in technology are so powerful today that this becomes a framing factor for what business strategies will be – not just a tool to help enact them." (Gartner, 2021)



Learn more about digital product testing and optimization.



# What you should know

## Process and prioritize

You must have a communicated process of thinking strategically about your technology spending to stay competitive in this new economic environment. Start by knowing your customer and business goals and prioritize accordingly – your team should know the difference between a “want” versus a “need.”

## Incremental technology testing

Testing new technology updates and features in incremental stages can help you determine where to invest further, saving time and resources while delivering value to your customers.

## Making technology investments

Making proactive, healthy technology investments can help you get in control of your business’s direction – instead of letting the economy or competitors force your hand.

The innovation  
imperative:

Understand  
where you fall  
on the innovation  
continuum

88%

PURCHASE INFLUENCERS

Global purchase influencers tell us that improving their ability to innovate is a priority.<sup>5</sup>

Companies know they need to innovate in the face of rapid technological change, rising customer expectations, and threats from new market entrants.

In a recent survey from Forrester<sup>5</sup>, 88% of global purchase influencers tell us that improving their ability to innovate is a priority — but 91% of purchase influencers executing on their organization's top priorities expect this initiative to be challenging, if not daunting.

A part of that is the perception of innovation.

# The innovation continuum

Product innovation is the process of creating or optimizing a digital product to meet, exceed and anticipate future customer needs in a way that hasn't been done before. It exists on a continuum with three main points: core innovation, new product innovation and transformational innovation. Your place on that continuum depends on your digital maturity and ability to support those innovation efforts.



See how developing an e-commerce platform drove 10-20% in cost efficiencies

## ● Core innovation

Core innovation is about improving existing capabilities in existing markets. Those mature in this area have a pretty clear idea of their users' needs and problems and know what skill domains are required to solve them.

## ● New product innovation

Developing new products allows a company to draw on existing capabilities for new uses. They require fresh, proprietary insight into customer needs, demand trends, market structure, competitive dynamics, technology trends, and other market variables.

## ● Transformational innovation

This is how most of us view innovation. It happens when the market becomes more competitive, technological shifts occur, or other changes in the marketplace and consumer needs force you to innovate not just your products but your business model as well.

# Breaking through innovation barriers

Once you've identified where you exist on the innovation continuum, you're able to triage the common innovation barriers and how best to combat them to enable growth. Those blockers are, lack of organizational alignment, siloed ideation, decision-making without data and insights, and executing an idea without testing.

**Overcoming these barriers is easier said than done and will admittedly take time.**

But these changes to your delivery process and organizational planning can help break through these common blockers.

01

**Do upfront goal-setting before moving forward with an innovation initiative.**

When your team can rally around achieving specific goals early on, it makes it easier to test and prioritize ideas if they're working towards something specific. The decision to move forward or scrap an idea is easier if you can determine whether or not it accomplishes those goals.

02

**Talk to your users frequently and regularly.**

Your users will always be the best measure of your innovation efforts. To get to the point of innovation, you need to figure out what works and what doesn't. Something to remember: wherever there's frustration for your user, there's an opportunity.

03

**Structure your teams to be able to innovate.**

When setting up your innovation teams, there shouldn't be a hierarchical chain of command; rather, a team to support true collaboration – and collaboration happens only when product, design and engineering work out solutions together.

# What you should know

## Identify where you are on the continuum

Define your innovation charter: Your vision, goal, objectives and tactics center around where your organization exists on the innovation continuum.

## Best ideas come from a diverse group

Strive for cross-functional, organization-wide innovation teams, as the best ideas come from diverse groups of people.

## Find a balance

Balance innovation efforts across the innovation continuum. Allow different initiatives to take shape over time and try not to focus on innovation initiatives that drive short-term ROI.

## Ensure action after ideation

Assign an executive sponsor for the innovation initiative to allow for healthy debates, improvements, and the possibility of the idea becoming a reality.



**Get started  
with your digital  
transformation  
by connecting  
with Nerdery's  
Digital Experts.**

**877.664.6373**

**info@nerdery.com**

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## Sources

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