

Digital Business Success Requires App Dev Teams With These Culture and Mindset Traits

Published: 15 February 2018 **ID:** G00349774

Analyst(s): Adrian Leow, Elizabeth Golluscio, Keith James Mann

Any developer can become a high achiever, but misaligned team dynamics can derail efforts to modernize application development. Application leaders must help foster a company culture that will attract and retain the best combination of talent available.

Key Challenges

- Digital businesses find that creating an app UX that leads to high adoption and retention is extremely hard, because it requires expertise in high-demand skills such as customer insights, user experience design, software engineering and product management.
- When strong talent in development teams leave, the apps they led development on quickly become obsolete, and the team rapidly declines in terms of innovation, app improvements and iterations.
- Establishing "psychological safety" within a team is, by its very nature, dependent on the individuals, team and organizational culture, and historical norms, and is very hard to change.

Recommendations

Application leaders responsible for application development strategies for digital business should:

- Base their hiring and evaluation on the individual's sense of purpose, autonomy and mastery of skills, which will support their digital initiatives. Engage marketing, PR and HR colleagues to help attract high-performing individuals.
- Lead by example by first educating, training and promoting the ideal behaviors themselves. Cultivate a "growth mindset" across the extended app development team, including designers, engineers, testers and product managers.
- Create a "psychologically safe" environment by encouraging a team dynamic in which developers can be forthright, regardless of their position or tenure.

Table of Contents

Strategic Planning Assumption..... 2

Introduction..... 2

Analysis..... 4

 Base Your Hiring and Evaluation on Individuals' Sense of Purpose, Autonomy and Mastery of Skills
 4

 Cultivate a "Growth Mindset" Across the Extended App Development Team..... 6

 Establish a "Psychologically Safe" Team Environment to Embody the New Norms..... 8

Gartner Recommended Reading..... 9

List of Figures

Figure 1. The Digital Business Forms the Foundation of the Digital Civilization..... 3

Figure 2. The Three Things Knowledge Workers Pursue..... 5

Figure 3. Growth Versus Fixed Mindset..... 7

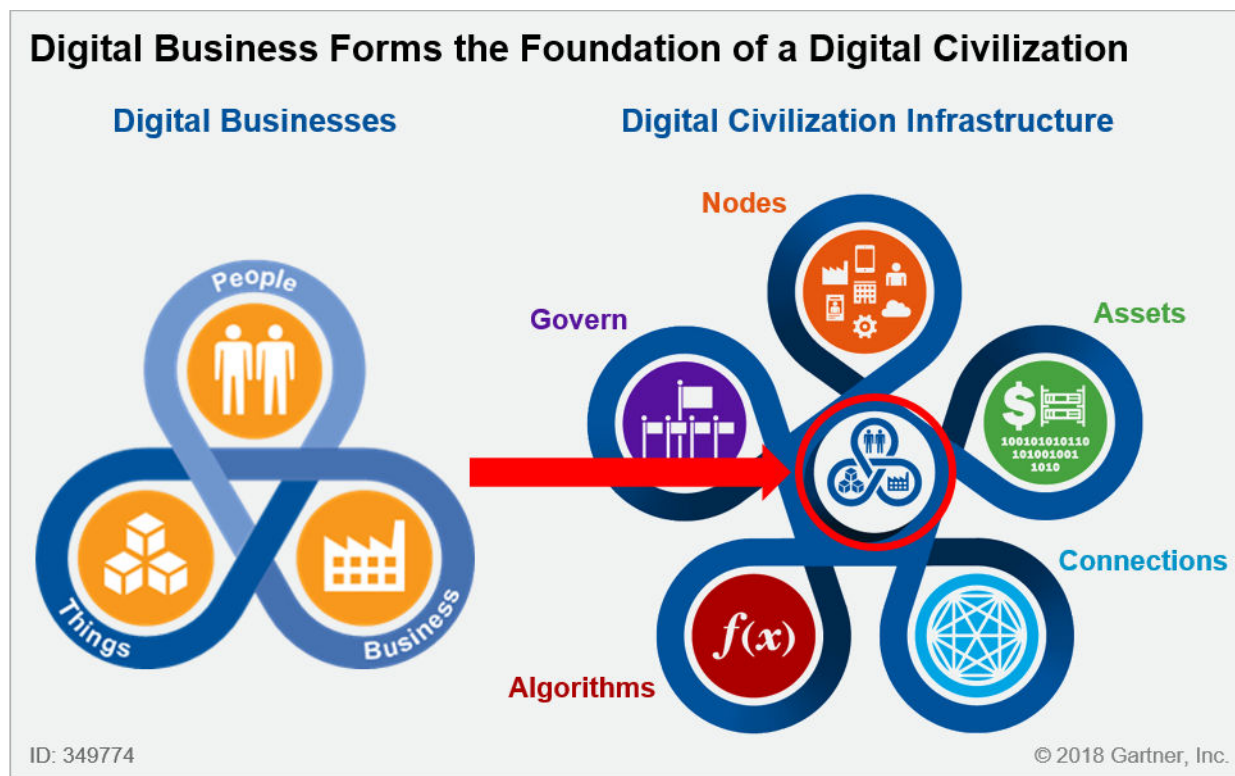
Strategic Planning Assumption

Through 2023, 60% of enterprises will establish psychologically safe environments that will create the best high-performing app development teams.

Introduction

Digital business blurs the line between the digital and physical worlds. The organizations that will succeed in this new, disruptive business model are those that combine the power of businesses, things and, most importantly, people, and understand their roles within the extended ecosystem in which they play (see Figure 1).

Figure 1. The Digital Business Forms the Foundation of the Digital Civilization



Source: Gartner (February 2018)

Based on an analysis of the 3,160 responses to the 2018 Gartner CIO Survey, it is clear that a wall exists between early digital experiments and pilots, and initiatives that have achieved digital scale. The results show that from the perspective of businesses that want to scale their digital activities but are struggling to do so, the biggest brick in the wall is culture (see "The 2018 CIO Agenda: Mastering the New Job of the CIO"). One striking finding is that the use of digitalized products and services is expected to drive new forms of revenue, business value and customer or citizen engagement. The next stage of this journey is to expand beyond experimentation and pilots to industrial-grade digital platforms that deliver the crucial economies of scale and scope. App development will form a centerpiece in many successful digital business strategies, but building apps with high adoption and good UX takes more than technical proficiency and good design skills.

In order to build and maintain a high-quality app portfolio, application leaders must understand the nuance of attracting and retaining talent that have values and mindsets aligned with mission and culture of the organization, which also implies that organizations need to have a clearly established culture to attract such talent. This requires a healthy and psychologically safe team environment within a "growth mindset" organizational culture. "Psychologically safe" means making coworkers and team members feel that they will not be punished or humiliated when taking interpersonal risks, such as asking for help, admitting mistakes and vulnerabilities, or expressing concerns. This concept is discussed in "How to Make Collaboration Work With Gartner's ACME Framework."

Application leaders must espouse the nuances of attracting and retaining high-caliber people in a competitive global talent market. This approach can also be generally applied to any team looking to improve the performance and digital dexterity of the unit.

Creating killer apps at scale and building sustainable innovation will not be solely dependent on development platforms and technology. Achieving this requires an individual and organizational shift in mindset, and the cultivation of a positive and empowered company culture.

Analysis

Base Your Hiring and Evaluation on Individuals' Sense of Purpose, Autonomy and Mastery of Skills

Application leaders recognize that they must work hard to draw the best and the brightest to their organization and keep them there. Many, however, struggle to execute this task effectively. While some have turned to technology and others have promoted networking, few have been truly innovative (see "Competing for Top Talent: Build the Talent Platform").¹ Leading organizations successfully attract and hire high-performing talent who positively contribute to the organizational culture by doing away with conventional job descriptions. Indeed, they pursue more creative and open hiring methods that focus on common values of culture and passion over mere technical competency and skills.

An application organization's brand forms the basis of its recruiting strategy. Application leaders must contribute to, establish and maintain that brand. Most application leaders will have limited influence on their organization's overall public brand and top-level employer brand (if one exists), but will be free to derive and manage a suitable employer brand that is specific to the application organization.

The first step in this process is to understand where there is an intersection between what your organization can offer and what target candidates desire. To many application leaders, this is simply a question of whether their budget can meet their candidates' salary expectations. While competitive compensation is important, money is ineffective in motivating knowledge workers.² Instead of focusing on cash, consider how your organization can meet the full range of what employees want and need.³ To stand out, organizations must provide the three things that skilled knowledge workers pursue and are motivated/attracted by: autonomy, mastery of skills and purpose. In application development, this manifests in the following manner:

Figure 2. The Three Things Knowledge Workers Pursue

The Three Things Knowledge Workers Pursue		
Autonomy	Mastery	Purpose
<ul style="list-style-type: none"> Create self-organizing agile teams 	<ul style="list-style-type: none"> Provide extraordinary opportunities for honing software development skills and becoming an expert in the field 	<ul style="list-style-type: none"> Foster a company culture based on a sincere, meaningful mission and shared values, which are accomplished through software products that delight users
ID: 349774		© 2018 Gartner, Inc.

Source: Gartner (February 2018)

Organizations succeed in providing *autonomy* through self-organized teams and tribes, which flatten hierarchies and promote leadership over management (see "Flattening the Application Organization — Everyone Must Be Part of the Agile Value Stream").^{4,5} They also offer team members the freedom to decide how they achieve goals together, which is paired with ownership of the solutions they create and responsibility toward stakeholders. Emphasize such aspects of your organization's structure in your brand.

Mastery of skills is not something that organizations can provide directly; individuals must pursue it. Organizations can help by providing training (which can include books and videos, as well as instructor-led courses), mentoring, coaching, access to IT resources such as cloud-based virtual machine instances, development tools, and permission to use these resources and tools to pursue projects for the benefit of the open-source community. Just as importantly, organizations can provide time and flexibility in pursuing mastery of skills, and demonstrate an appreciation of the value of craftsmanship.⁶

Purpose motivates individuals and unites teams. It describes the direction in which application leaders ensure that everyone is moving, and prevents autonomy from leading to chaos. Define your application organization's purpose by rephrasing and focusing your organization's public mission statement. Make it meaningful, immediate and relevant to application development by specifying the role that applications play in accomplishing the organization's goals.

When your approach to ensuring autonomy, mastery and purpose is understood, your next task is to construct and publicize a compelling message to potential employees. Marketing and PR colleagues can be an excellent source of help. They can assist in touching up your message, but

more importantly, they will help deliver it to your audience. Some organizations extensively publicize their employer brand — even those they are not aiming to attract know of it.

Continuously monitor and maintain your brand. Consider whether it reflects your organization's actual structure, values and behaviors. Even small details can give hints — to employees, candidates and hiring managers alike — of the organization's true culture.⁷ Ensure that hiring and evaluation decisions reflect each individual's compatibility with, and commitment to, your brand. Everyone will pursue autonomy, mastery and purpose, but in successful organizations, their pursuits are aligned.

Cultivate a "Growth Mindset" Across the Extended App Development Team

For an app development team to understand and benefit from a growth mindset, application leaders must believe that intelligence and abilities can be developed over time with the right environment and encouragement. Do not assume that a person's skills and abilities are fixed. The term "growth mindset" has been highly popularized by Carol Dweck, the Lewis and Virginia Eaton Professor of Psychology at Stanford University, and expert on mindsets. In Dweck's 2006 book, "Mindset: The New Psychology of Success," she describes how individuals who possess a growth mindset express traits such as enjoying challenges, striving to learn and consistently pushing their own potential to develop new skills.⁸ Intelligence and talent are the starting points, and are supplemented by continual learning. Those who embrace this mindset see challenges as opportunities to grow and learn, and they are resilient, even when faced with failure. This growth mindset will stimulate innovation among app development team members because of its focus on learning and growing as the way to reach a goal.

It is critical to understand how the core beliefs of our mindsets frame attitudes and behaviors toward uncertainty. This is because the path to an organization's digital business transformation has also created a level of uncertainty in the transformation process, as it's a new competency that many application leaders are unfamiliar with. The growth mindset is well-matched to uncertainty, as it enables an app development team to embrace uncertainty as a challenge that will be tackled with successive learning along the way.

Applying a growth mindset will help development teams embrace the concept of "failing fast," which is important in iterative agile development as it ingrains individuals with the mindset that fear of failure should not be a deterrent to experiment and innovate. Instead, developers quickly learn to improve and move on to the next iteration. Development teams will begin to rapidly build apps that have better UX and engagement, rather than following the quest to build the perfect app on the first go, which could derail their digital business initiatives.

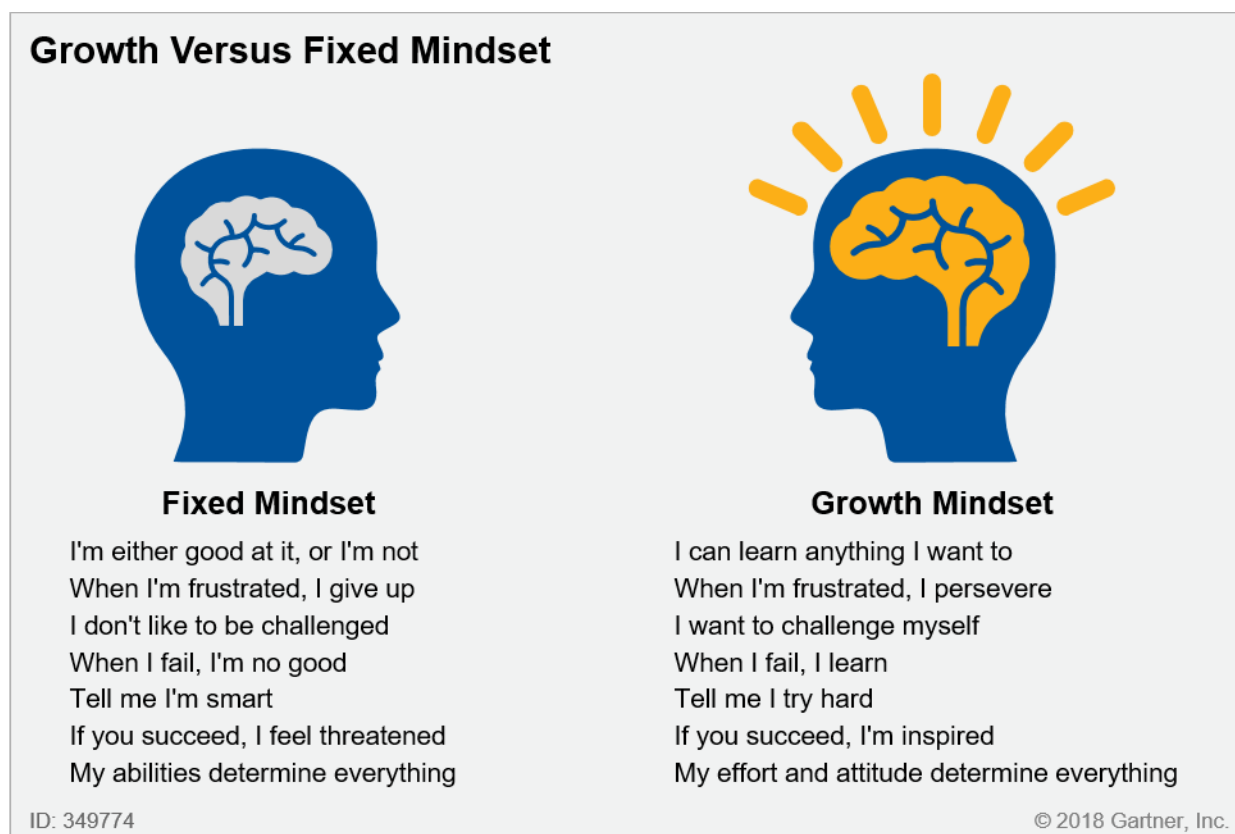
In "Foster a Growth, Not a Fixed Mindset," it is recommended that application leaders actively spot the signals that demonstrate a fixed mindset in their enterprise, and actively encourage employees to take on challenges. This is because individuals with a fixed mindset believe that their basic qualities, such as character, intelligence and creative ability, are fixed traits. They also believe that these innate talents, not effort, are the reasons for their success. They may be worried that if they fail it will make them appear stupid. They may also worry about not meeting the expectations of others, and may view leadership behaviors as inadvertently reinforcing fixed mindset actions. This

mindset can negatively impact situations such as app development where creativity and innovation enable agility and experiments that will create a path forward.

One of the key steps in establishing a growth mindset is for application leaders to reward the effort, strategies and progress of employees who take the initiative to come up with creative solutions. The values that application leaders exemplify can set the foundation for an enterprise that embraces a growth mindset. Application users can use the following principles, and those shown in Figure 2, to identify, encourage, acknowledge and reward behavior that reflects a growth mindset:

- We value passion, dedication, growth and learning.
- We don't expect that you are always an expert; you are here to learn and grow.
- We expect you to try, stretch and take reasonable risks.
- We reward teamwork, effort and process — not just success.
- We learn from failures and apply lessons learned in the future.

Figure 3. Growth Versus Fixed Mindset



Source: Gartner (February 2018)

Every app development team, and organization as a whole, will contain a mixture of people with fixed and growth mindsets, but Dweck's extensive research suggests that a person's mindset is malleable. It is not reasonable to look to eliminate the fixed mindset completely. However, it is important to significantly shift focus to the wider adoption of the growth mindset by modifying approaches to existing processes such as hiring practices, leadership and group norms, performance appraisal processes and key performance indicators (KPIs).

Establish a "Psychologically Safe" Team Environment to Embody the New Norms

Psychological safety is the shared belief that a team is safe for interpersonal risk-taking. In psychologically safe teams, members feel accepted, respected and "safe" to voice their concerns about reaching target goals and objectives. They also feel free to express their true feelings and thoughts, without any fear of negative consequences to their status, image or career opportunities. In a 2012 study within Google, researchers found that "psychologically safe" teams performed better.⁹

Creating "psychological safety" within a team, however, is a complex process. While the emphasis is on communication and empathy, there are few formulas to follow to create it. In most organizations, performance appraisals, compensation and advancement may have little or no relationship to a person's contribution to fostering psychological safety within his or her team. Managers can often crush psychological safety themselves with their words, actions and/or nonverbal communications.

In fact, tackling toxic workers is a prerequisite for building psychological safety within the team and broader organization. Companies that avoid hiring a toxic worker will be better off financially — by a ratio of nearly 2:1 — than they would through hiring a "superstar." Therefore, the "war on talent" should be reframed: Consider addressing toxic employees, who can bring down team performance by 30% or 40%, rather than just searching for a hero app developer to boost your digital initiatives (see "Maverick* Research: Tackle Toxic Workers to Improve the Employee Experience in the IT Organization").

Application leaders responsible for innovation teams must lead by example in this human endeavor and embody the new norms they want to foster for better team outcomes. For example, one Google manager found that his team did not score highly on psychological safety. To embody the new norms he wanted to foster, he shared a very private matter — his Stage 4 cancer status — with the team at an off-site meeting. That immediately changed the dynamics in the group, and others then shared their own very personal concerns (for example, health or relationship difficulties), which dramatically up-leveled the raw communication and empathy among the team.

It takes a courageous leader and/or team member to "break the ice" within a team at this level. Many application leaders may resist the need for this level of team intimacy, or question its real impact on developing better web or mobile apps. "What does this have to do with digital innovation?" an application leader might wonder.

High-performing teams that enjoy this level of emotional and psychological safety have the team environment in which they can voice radical business and product ideas, embarrassing ignorance on a topic, and/or sensitive personal preoccupations that are distracting them from work-related

challenges. People need to be sensitive to cultural differences while "debating" the merits and demerits of a particular app feature, for example. Silence is not treated as acceptance in all cultures. This is where application leaders play an important role in ensuring that an open culture provides "psychological safety" and developers don't hold themselves back. Opinions can "make or break" an app.

In essence, effective collaboration is built on the fertile soil of emotional and psychological safety among a cognitively diverse team. Application leaders and their teams should take the following steps to achieve this:

1. Start familiarizing yourself with the concepts of autonomy, mastery, purpose, the growth mindset and psychological safety.
2. Work on improving your own growth mindset and behaviors to foster psychological safety within your team.
3. Socialize the benefits of these concepts among your peers, managers and direct reports, and encourage your HR and talent acquisition peers to do the same.
4. Review and modify performance management processes and KPIs for individuals and teams to ensure that a person's growth mindset and psychological safety contributions are rewarded.
5. Showcase examples of individuals and teams' improvements in this area; highlight what "good" looks like to develop new norms across the application team.

To read more about how Microsoft is applying these principles within their organization, see Gartner research, "A Growth Mindset Can Help CIOs Reboot Leadership and Culture for the Digital Era."

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"Digital Business Requires a New Mindset, Not Just New Technology"

"How Digital Businesses Attract and Retain the Best App Development Talent"

"Foster a Growth, Not a Fixed Mindset"

"How to Make Collaboration Work With Gartner's ACME Framework"

"Recipe for Digital Workplace Execution: Transform the Corporate Culture"

"The Key Fundamentals Required to Scale Mobile App Development"

"Shell's Recruiting Strategies Seek to Attract Quality IT Talent to the Energy Industry"

"Volvo Cars Uses Innovation as a Recruiting Tool"

"The Effects of Social Software on Your Employer Brand"

Evidence

- ¹ ["The 2014 Recruiting and Retention Survey Is In...How Do You Compare?"](#) HR Daily Advisor.
- ² D. Pink. "Drive: The Surprising Truth About What Motivates Us." Canongate Books. 2011.
- ³ ["A Theory of Human Motivation."](#) Psychological Review.
- ⁴ ["Spotify Engineering Culture \(Part 1\)."](#) Spotify Labs.
- ⁵ J. Appelo. "Management 3.0: Leading Agile Developers, Developing Agile Leaders." Addison-Wesley Professional. 2010.
- ⁶ A. Hunt and D. Thomas. "The Pragmatic Programmer: From Journeyman to Master." Addison Wesley. 1999.
- ⁷ ["You Can Tell How Happy Employees Are by Looking at These Subtle Details of Office Design."](#) Quartz.
- ⁸ C. Dweck. "Mindset: The New Psychology of Success." Ballantine Books. 2007.
- ⁹ ["What Google Learned From Its Quest to Build the Perfect Team."](#) The New York Times Magazine.

GARTNER HEADQUARTERS**Corporate Headquarters**

56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Regional Headquarters

AUSTRALIA
BRAZIL
JAPAN
UNITED KINGDOM

For a complete list of worldwide locations,
visit <http://www.gartner.com/technology/about.jsp>

© 2018 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. or its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. If you are authorized to access this publication, your use of it is subject to the [Gartner Usage Policy](#) posted on gartner.com. The information contained in this publication has been obtained from sources believed to be reliable. Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information and shall have no liability for errors, omissions or inadequacies in such information. This publication consists of the opinions of Gartner's research organization and should not be construed as statements of fact. The opinions expressed herein are subject to change without notice. Although Gartner research may include a discussion of related legal issues, Gartner does not provide legal advice or services and its research should not be construed or used as such. Gartner is a public company, and its shareholders may include firms and funds that have financial interests in entities covered in Gartner research. Gartner's Board of Directors may include senior managers of these firms or funds. Gartner research is produced independently by its research organization without input or influence from these firms, funds or their managers. For further information on the independence and integrity of Gartner research, see "[Guiding Principles on Independence and Objectivity](#)."