INTRODUCTION: A TALE OF TWO CULTURES

Many CIOs look to the fast-moving retail tech markets for insights into the future of technology. Here’s a cautionary tale. For over two centuries, the Encyclopedia Britannica was the world’s preeminent reference source. It epitomized a culture of rule by experts—a central authority determined the priorities, the work was conducted by a cadre of prequalified experts, the findings were centrally controlled, and a finished product was distributed to the masses.

In 2001, Wikipedia was born, using a revolutionary technology platform to create a completely different cultural model. Priorities and work assignments were generated by popular consensus. Work was distributed across tens of thousands of end-users. Most significantly though, Wikipedia instilled a culture of trust—end-users were trusted and empowered to create the content, to maintain quality control, and to adhere to minimal, but strict, standards set forth by management.

In just over 10 years, Wikipedia had 950 times the content¹ and approximately 500 times the readers that the Encyclopedia Britannica had at its peak.² And, in 2005, a respected scientific journal found that Wikipedia’s content was on par with the venerable Encyclopedia Britannica for accuracy and quality of research.³ In 2012, after nearly 250 years in operation, the Encyclopedia Britannica shut down its print publications following a plunge in sales and lack of interest by its former customers.

The lesson for the CIO and the enterprise? Digital transformation is not just about devices and hardware. It must be accompanied by a shift in culture—one that trusts its workers, that empowers them with technology and that enables users to become the creators. This is a change in the equilibrium between the worker and management—a transition that the now marginalized Encyclopedia Britannica failed to make.

This article, which is supported by data from a Forbes Insights/VMware survey of more than 2,000 CIOs and end-users worldwide, highlights the changes that are driving today’s new “digital culture” within companies, and how CIOs can create an environment that allows employees to innovate and thrive in their digital workspace.

¹Business Insider, May 2012.
² Wikimedia Foundation Report, 2012. Includes visitors to related sites such as Wikidata and Wiki Commons.
³ Nature, Internet and Encyclopedias Go Head to Head, December 2005.
THE DIGITAL CULTURE WARS: THE TECHNOCRACY

Only a few years ago, the digital culture of companies operated along the lines of a benevolent dictatorship. “IT was the source of all knowledge, and the employee had to come to IT for permission to do almost anything,” says Sumit Dhawan, SVP and general manager of end-user computing at VMware.

This was a culture defined by a lack of trust. It was assumed that employees would make the wrong technology decisions, select the wrong device and prevent integration across the enterprise. The sheer number of technology variables forced IT to push for uniform solutions, and the relationship between IT and end-users was one of command-and-control. The technocracy—or rule by experts—dictated the devices you would use and the common standards that had to be met.

A key cultural assumption was that technology was a dark art reserved for the expert. Even small projects depended on participation and sign-off from IT. “One of the consequences [of this] was that the IT function became a brake on innovation and technology development within companies,” adds Dhawan. “IT could not keep up and still keep control.”

This command-and-control model had its merits—reduced vendor costs, easier integration and common security standards—but as Dhawan observes, “This model led to a limitation of choice. Employees were not allowed to reach their remarkable potential with the technology before them.”

This model also led to “shadow IT,” with employees choosing to use devices, software and systems outside the approval of IT. “The irony of this is that IT’s efforts to keep control led to a loss of control,” says Dhawan. “By moving IT into the shadows, it created a security environment that was more dangerous to the company.” In the end, it has been employees who forced a shift in their companies’ digital cultures.
THE EMPOWERED EMPLOYEE AND COMPANY PERFORMANCE

One of the most profound shifts in business has been the migration of powerful technologies into the hands of the end-user. For further detail on how apps are driving company performance, see the Forbes Insights/VMware executive summary, “The Impact of the Digital Workforce: The New Equilibrium of the Digitally Transformed Enterprise.”

As that report highlights, apps, or end-user-centric software, have now become a critical part of an employee’s workday. In fact, the survey found that it’s not just Microsoft Office, email and a few in-house applications employees are using to get their jobs done. Rather, they’re using quite a few. (Chart 1)

The use of apps by employees can be the competitive difference in the market. However, this kind of change can only take place in an environment that trusts and makes technologies readily available to its employees.”

SUMIT DHAWAN
SVP AND GENERAL MANAGER, END-USER COMPUTING, VMWARE

Chart 1. How important are the following applications in your work?

<table>
<thead>
<tr>
<th>Application</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editing and file sharing (e.g., Office 365, Google Docs, Dropbox)</td>
<td>88%</td>
</tr>
<tr>
<td>Virtual meetings and videoconferencing</td>
<td>87%</td>
</tr>
<tr>
<td>Project management</td>
<td>85%</td>
</tr>
<tr>
<td>Expense management</td>
<td>78%</td>
</tr>
<tr>
<td>Employee benefit management (pensions, retirement, vacation, etc.)</td>
<td>78%</td>
</tr>
<tr>
<td>Time and billing allocation</td>
<td>78%</td>
</tr>
<tr>
<td>Content and knowledge management systems (WordPress, Drupal)</td>
<td>76%</td>
</tr>
<tr>
<td>Business social networking</td>
<td>69%</td>
</tr>
<tr>
<td>Contractor management</td>
<td>69%</td>
</tr>
</tbody>
</table>
employees want and need, anywhere and from any device (we define these as companies with a Digital Workspace) see greater performance and more productive employees than those that don’t (companies with a Traditional Workspace). More than three-quarters of end-users in Digital Workspace companies say apps accelerate their decision making (compared with just 39% of end-users in Traditional Workspace companies) and increase personal productivity, among other things. (Chart 2)

“With apps, there are a thousand little improvements every day [at the employee-level],” says VMware’s Dhawan. “This is when the employee innovates and becomes more productive.” But the impact does not stop with the employee. These thousands of efficiencies aggregate to improved performance at the enterprise level, leading to higher revenue growth, wider margins, global capabilities and better overall operating efficiency. (Chart 3)

This performance improvement can be game-changing. “The use of apps by employees can be the competitive difference in the market,” says Dhawan. “However, this kind of change can only take place in an environment that trusts and makes technologies readily available to its employees.”

### Chart 2. Impact of Business Apps on End-Users

<table>
<thead>
<tr>
<th>Impact</th>
<th>Companies With a Digital Workspace</th>
<th>Companies With a Traditional Workspace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerated decision making</td>
<td>39%</td>
<td>77%</td>
</tr>
<tr>
<td>Increased personal productivity</td>
<td>14%</td>
<td>63%</td>
</tr>
<tr>
<td>Helped me accomplish more in my workday</td>
<td>6%</td>
<td>38%</td>
</tr>
<tr>
<td>Reduced time spent on manual processes</td>
<td>12%</td>
<td>54%</td>
</tr>
</tbody>
</table>

### Chart 3. Importance of Apps on Company Objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Companies With a Digital Workspace</th>
<th>Companies With a Traditional Workspace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing revenues</td>
<td>31%</td>
<td>88%</td>
</tr>
<tr>
<td>Reducing costs</td>
<td>43%</td>
<td>67%</td>
</tr>
<tr>
<td>Building global capabilities</td>
<td>33%</td>
<td>65%</td>
</tr>
<tr>
<td>Improving overall efficiencies</td>
<td>39%</td>
<td>73%</td>
</tr>
</tbody>
</table>
SIX HALLMARKS OF THE NEW DIGITAL CULTURE

So how can CIOs create this kind of environment and sustain a digital culture? Empowering the employee has to go beyond just devices and apps. It will require a rebalancing of the traditional relationship between the CIO’s function and the end-user. Here are the six hallmarks of a digital culture that will allow employees to innovate and thrive in their digital workspace.

1. APPS—MAKE THEM AVAILABLE AND EASILY ACCESSIBLE

Given the undeniable benefits of providing employees with the apps they need to get their jobs done, this step seems like common sense. However, 82% of companies either don’t provide all of the apps employees need or want, or don’t make them easily accessible.

“Apps are the tools employees are using to change the performance of the company,” says Dhawan. “It is the responsibility of the IT function to make sure employees have the apps they need to do their jobs, and to make them fully accessible so employees can do their work when and where they need to.”

Not having apps available and easily accessible will reduce the productivity of employees to the point of being a competitive disadvantage in the market.
2. AGILE PLATFORMS—SCALE YOUR TECHNOLOGY AND SOLUTIONS TO MATCH TODAY’S DIGITAL CULTURE

The Forbes Insights/VMware research found that today’s CIO must support an average of 11 devices, eight security programs, seven cloud services and a maze of other tech solutions. This complexity can’t be managed with legacy solutions—today’s new digital culture demands an agile technology foundation to match.

3. TRUST—COMMUNICATE TO EMPLOYEES THAT THEY ARE TRUSTED TO DO THE RIGHT THING WITH TECHNOLOGY

“This is a big leap for traditional IT,” says Dhawan. “This is an acknowledgment by IT that technology-led innovation and execution can, and will, take place with each individual employee.” Without this acknowledgment, employees, and ultimately companies, won’t thrive.

4. KNOWLEDGE SHARING—IT EXPERTISE IS NO LONGER REGARDED AS FOR EXPERTS ONLY

Technology is seeping into every part of the business, and it is no longer the sole domain of the IT department. The result is that end-users are becoming more adept at tech decisions, and are providing the business domain knowledge essential to the solution. This demands an environment of collaboration and partnership, not one of expert-driven control.

5. COLLABORATION—TRANSITION TECH POLICY FROM COMMAND-AND-CONTROL TO PARTNERING AND INFLUENCING

Employees are becoming more comfortable and more capable in making their own technology decisions, a freedom they’re not going to give up willingly. As a result, CIOs must create an environment of collaboration and partnership instead of authoritarian rulemaking.
6. CONTROL—RECOGNIZE AND RECLAIM OWNERSHIP OF THE PARTS OF THE ENTERPRISE THAT DEMAND CENTRALIZED CONTROL

“The CIO has to keep control of three things: a common experience, access to the network and unified command of security. The new employee freedoms take place within these boundaries.” Fragmentation of decision making in these disciplines can ultimately make integration impossible and can even jeopardize the security of the company. The CIO must know where to retain control, and where to relax the boundaries.

Business apps and productivity tools are rebalancing the relationship between technology, end-users and the IT function—a shift that’s ultimately impacting company culture. This new culture—one of trust, accessibility and collaboration—enables individual employees, and ultimately their companies, to thrive.

“There are going to be companies that win and lose in this new digital landscape,” says VMware’s Dhawan. “One of the factors that will separate the two groups will be whether their workforce is truly enabled to innovate and drive digital transformation. Culture, trust and sharing control are important because it will be humans, not robots, that will transform companies.”

“There are going to be companies that win and lose in this new digital landscape. One of the factors that will separate the two groups will be whether their workforce is truly enabled to innovate and drive digital transformation. Culture, trust and sharing control are important because it will be humans, not robots, that will transform companies.”

SUMIT DHAWAN
SVP AND GENERAL MANAGER, END-USER COMPUTING, VMWARE
ABOUT FORBES INSIGHTS

Forbes Insights is the strategic research and thought leadership practice of Forbes Media, a global media, branding and technology company whose combined platforms reach nearly 94 million business decision makers worldwide on a monthly basis. By leveraging proprietary databases of senior-level executives in the Forbes community, Forbes Insights conducts research on a wide range of topics to position brands as thought leaders and drive stakeholder engagement. Research findings are delivered through a variety of digital, print and live executions, and amplified across Forbes’ social and media platforms.

FORBES INSIGHTS

Bruce Rogers
CHIEF INSIGHTS OFFICER

Erika Maguire
PROGRAM DIRECTOR

Casey Clifford
DIRECTOR, ACCOUNT MANAGEMENT

EDITORIAL

Kasia Wandycz Moreno DIRECTOR

Hugo S. Moreno DIRECTOR

West Coghlan REPORT AUTHOR

Zehava Pasternak DESIGNER

RESEARCH

Ross Gagnon DIRECTOR

Kimberly Kurata SENIOR RESEARCH ANALYST

Sara Chin RESEARCH ANALYST

SALES

North America

Brian McLeod EXECUTIVE DIRECTOR
bmcleod@forbes.com

Matthew Muszala DIRECTOR
mmuszala@forbes.com

William Thompson MANAGER
wthompson@forbes.com

EMEA

Tibor Fuchsel MANAGER
tfuchsel@forbes.com

APAC

Serene Lee EXECUTIVE DIRECTOR
slee@forbesasia.com.sg