

## Process Innovation in a Digital World

Remember when the typical reengineering approach boiled down to eliminating, simplifying and automating processes? Seems quaint at a time when digital technology allows companies to transform how they operate, from one end of the value chain to the other. Breakthroughs in areas such as communications technology, analytics, Big Data and the Internet of Things have ushered in an entirely new set of tools to generate more value for customers. The goal of reengineering hasn't changed, but the means have become significantly more powerful.

Consider automation. For years, companies have automated specific manual tasks, such as factory work or office functions. But today they can automate whole processes. Uber, for example, manages more than 1 million drivers around the world with software that allocates work and provides feedback on how the work was performed. Cloud platforms such as Amazon Web Services have automated the provisioning of services, allowing end users to bypass company IT departments and sign up for software services with a credit card.

Similarly, digital technology has turned outsourcing on its head. The traditional model, of course, means offshoring certain operations to reduce cost through labor arbitrage and specialization. But today, technology has shifted the calculus on many of those moves. Instead of resorting to massive call centers, for instance, many companies are creating online self-help tools and community forums to handle many service requests. That allows them to run much smaller but more sophisticated call centers to handle bigger problems that can be true deal breakers for customers.

It's also true that large companies can now source capabilities at scale in ways never before possible. General Electric, for example, maintains a large internal data-science staff, but it still taps outside expertise to help solve problems. Data-science communities like Kaggle, for instance, allow GE to post analytics chal-

lenges online that can attract 200-plus data-science teams in a competition to find the best solution.

As the costs of computing, storage, networking and software development plummet, every area of business has similar opportunities to rethink how it delivers value. Amid the tidal wave of potential technologies, the hard part is developing a clear playbook for assessing which solutions create value rather than just ramping up complexity. In our experience, the most effective reengineering efforts flow from two key principles:

- Not everything demands fixing, and not every solution involves a major capital investment. Many good, low-cost solutions are coming to market using existing technology applied in fresh ways. Despite the allure of Big Data analytics, for instance, sometimes a “small data” fix, such as cleaning up a customer database, can lead to robust revenue opportunities like cross-selling.
- For those processes that do need attention, it is critical to define what success looks like and move swiftly to get there. Digital reengineering should rely on an Agile development process, in which the company deploys a solution quickly and uses a disciplined test-and-learn approach to define the model that works across functions. The objective is to create processes that are simple, intelligent, shared, automated and real time.

**Simple processes.** Digital tools can eliminate non-value-added activities from many processes and functions by combining steps, consolidating participants and eliminating the need for interaction. A good example is what's happened to sales pipeline planning tools. Legacy systems require salespeople to enter data about customer interactions and pipeline changes even though the timing of their quotas sometimes encourages less than punctual reporting. Next-generation approaches pull calendar and messaging data to auto-populate and assess the pipeline, taking the human factor out of it.

**Intelligent processes.** Digital tools enable companies to gather data in vast quantities, which is radically changing how management teams operate their businesses and measure results. But data overload is also a constant threat. What's critical is to reduce data flow to the essentials and focus on the few metrics that matter. Creating a leading-edge customer experience, for instance, relies on knowing the relative value of individual customers, their preferences and their past experiences. With that intelligence, leading airlines can predict when a top customer might be disappointed by a delay and proactively offer a solution. Lagging airlines still need to send repetitive surveys, asking customers whether they had good or bad experiences.

**Shared processes.** Communications technology allows processes to operate beyond the four walls of a company. A great example is software code sharing. GitHub, a massive open-source code repository that hosts more than 38 million software projects, allows users to tap the experience and knowledge of a community of more than 15 million developers. Taking advantage of open-source code and building upon it saves millions of hours of development time and massively improves the quality of the code.

**Automated processes.** Automation these days doesn't just involve freeing humans from simple tasks. It's about delivering better experiences and value by automating intelligence. In branch banking, we've found that up to 70% of customer interactions, such as

checking a balance or doing a wire transfer, are unnecessary. These are targets where automation can improve customer experience and efficiency. In other industries, data analytics tools can help manage and automate operational issues, such as growing inventories, pricing dynamics and maintenance.

**Real-time processes.** As important as intelligence and clarity are when it comes to reengineering processes, there is also a speed imperative. Making processes efficient is a given. But digital technology allows companies to gain intelligence in real time. Companies can monitor customers on the fly and embed tools to gauge their loyalty, improve service and inform product choices. Data can be updated continually to provide users with the latest information about any aspect of operations. Leading jet engine manufacturers, for instance, have digitalized their platforms to perform real-time analytics to enhance efficiency and improve safety of their aircraft engines.

Not every process will share each of these characteristics. As companies begin the reengineering journey, they should focus initially on opportunities that can enhance current strategic advantages or address specific weaknesses. Looking at processes through this set of lenses, however, can provide critical context for understanding how digital technology can help add speed, intelligence and productivity, and how far the company's processes are from full potential. 🔄

By *Chris Brahm and Peter Guarraia*

## Key contacts in Bain's Digital practice

### Americas

**Chris Brahm** in San Francisco ([chris.brahm@bain.com](mailto:chris.brahm@bain.com))  
**Greg Caimi** in San Francisco ([greg.caimi@bain.com](mailto:greg.caimi@bain.com))  
**Peter Guarraia** in Chicago ([peter.guarraia@bain.com](mailto:peter.guarraia@bain.com))  
**Elizabeth Spaulding** in San Francisco ([elizabeth.spaulding@bain.com](mailto:elizabeth.spaulding@bain.com))

### Asia-Pacific

**Yan Kang** in Beijing ([yan.kang@bain.com](mailto:yan.kang@bain.com))  
**John Senior** in Sydney ([john.senior@bain.com](mailto:john.senior@bain.com))

### EMEA

**Laurent-Pierre Baculard** in Paris ([laurent-pierre.baculard@bain.com](mailto:laurent-pierre.baculard@bain.com))