



GENERATING DIGITAL IMPACT

Design Thinking innovation for business processes and operations

An overlooked key to growth, not just cost



Despite the innovation promised by digital, many large companies still struggle with realizing its benefits—and for reasons often not related to technology. A human-centered approach focused on external and internal customer journeys that cut through organizational silos, supported end to end by reimagined process operations, can provide an effective and scalable solution suitable for complex enterprise environments.



TABLE OF CONTENTS

| | |
|---|----|
| 1. Why we need innovation in business processes and operations | 4 |
| 2. Where does Design Thinking add value? | 7 |
| 3. How Design Thinking works in business process and operations | 8 |
| 4. A case in point: designing change management | 14 |
| 5. Design Thinking: a catalyst of change for the digital enterprise | 15 |

INDEX OF FIGURES

| | |
|---|----|
| Figure 1: A more practical approach to designing and transforming is needed..... | 4 |
| Figure 2: Most effort in products, evidence shows much value created elsewhere | 5 |
| Figure 3: Value creation in 10 years—spot the design thinking intensive firms | 6 |
| Figure 4: Situate the need across the innovation spectrum..... | 7 |
| Figure 5: Leverage Lean Digital accelerators..... | 8 |
| Figure 6: Enables cross-functional experiments and build, end to end..... | 8 |
| Figure 7: Innovative human centered approach for radically new solutions | 9 |
| Figure 8: Six tenets that enable innovation in large enterprises | 10 |
| Figure 9: INNOVATION by design—the process..... | 10 |
| Figure 10: Research based persona and journey exploration | 11 |
| Figure 11: A defined set of activities and design framework..... | 12 |
| Figure 12: Enabling rapid experimentation and testing | 13 |
| Figure 13: Organizational development is also part of design thinking prototypes | 14 |

Why we need innovation in business processes and operations

While some businesses are harnessing digital and reshaping how they engage with their clients, many large and complex enterprises struggle to adapt to rising customer experience expectations—whether from external or internal customers. The latest study by Harvard Business Review Analytic Services¹ in association with Genpact Research Institute indicates that only 21% of companies are truly reaping the transformative value of digital. Making digital work at scale is still a challenge for many. Innovation’s power is often fragmented, hamstrung by the disconnect between the modern front end and a manual, dated back office. As a result it tends to remain reactive rather than dynamic and doesn’t scale.

This problem has stubbornly resisted traditional transformation methods and is at the root of a “digital divide” between leaders in the adoption of digital technology and analytics, and the majority of enterprises. Figure 1 qualitatively illustrates

Innovation’s power is often fragmented, hamstrung by the disconnect between the modern front end and a manual, dated back office

these challenges. A large part of the issue lies in the inability to experiment quickly in large operations. Additionally, organizational silos and the risk aversion of many in operations make cross-functional, creative cooperation a comparatively rare occurrence. This has seriously impacted innovation in process operations as well as enterprises with well-established product R&D where it has been observed that powerful technical solutions are often those that elicit superior emotional responses.



Figure 1: A more practical approach to designing and transforming is needed

¹ <http://www.genpact.com/lp/what-is-holding-back-the-digital-revolution>

Part of the problem stems from a fundamental underestimation of the importance of innovation outside of product design. Figure 2, based on experience and observations over the last decade, emphasizes the diversity of innovation value sources, and highlights how business processes are at the core, not just of the scalability, but

also arguably the design, of much innovation that evolves beyond mere invention. Companies like GE, Amazon, ING, and (arguably) Uber and Apple have long understood that product innovation requires a more holistic focus—a focus that starts and ends with customers, and the enterprise processes that ultimately impact them.

| Product | Service | Brand | Business model | Value chain | Process* | Channel | Experience |
|---|--|--|---|---|--|--|--|
| <ul style="list-style-type: none"> ▪ New features ▪ Aggregated feature, bundle ▪ Ease of use ▪ Safety ▪ Environmental ▪ Mass customization ▪ Product systems ▪ Platform | <ul style="list-style-type: none"> ▪ Product as a service ▪ Productized service ▪ Product/service platform ▪ Financing/leasing ▪ Guarantees ▪ Personalized support | <ul style="list-style-type: none"> ▪ Extension ▪ Co-branding ▪ Private labels ▪ Certifications | <ul style="list-style-type: none"> ▪ Pricing model ▪ Pay per outcome vs pay per resource ▪ OEM, licensing, royalty ▪ As a service vs product implementation ▪ Managed outcome for client | <ul style="list-style-type: none"> ▪ Systematic M&A ▪ Strategic alliances ▪ Supply chain partners ▪ Shared/utility back office ▪ Organization ▪ Knowledge management ▪ Distributed/remote organization ▪ Open innovation/social network | <ul style="list-style-type: none"> ▪ Outsourcing ▪ Intelligent process automation ▪ Crowdsourcing ▪ Standardization ▪ Radical efficiency ▪ Design ▪ Production flow | <ul style="list-style-type: none"> ▪ Multi channel ▪ OEM/ Partner ▪ Flagship stores ▪ Direct to consumer | <ul style="list-style-type: none"> ▪ Deliberate orchestration of any relevant previous characteristic to deliver cohesive, designed human-centered experience |
| <ul style="list-style-type: none"> ▪ SAP ▪ P&G ▪ Intel | <ul style="list-style-type: none"> ▪ GE Maintenance ▪ GE Capital ▪ Uber | <ul style="list-style-type: none"> ▪ Virgin ▪ Nike | <ul style="list-style-type: none"> ▪ GE pay-per-use models ▪ SFDC.com | <ul style="list-style-type: none"> ▪ Oracle ▪ Amazon | <ul style="list-style-type: none"> ▪ GE Capital Services (1995-2005) ▪ Google | <ul style="list-style-type: none"> ▪ Amazon ▪ ING direct | <ul style="list-style-type: none"> ▪ Apple ▪ Tesla |

Figure 2: Most effort in products, evidence shows much value created elsewhere

Against this backdrop, Design Thinking should not be perceived as a “soft” concept better suited for marketing or user-interface teams. While these groups have indeed been the first to harness its power, Design Thinking has been at the core of the success of some of the most valuable companies in the world. Figure 3 illustrates how, over the past ten years, companies rooted in engineering and Lean Six Sigma have been surpassed in value by firms which embraced digital practices and routinely use Design Thinking practices to drive the design of their solutions.

Part of the problem stems from a fundamental underestimation of the importance of innovation outside of product design

Market capitalization of the world’s most valuable public companies

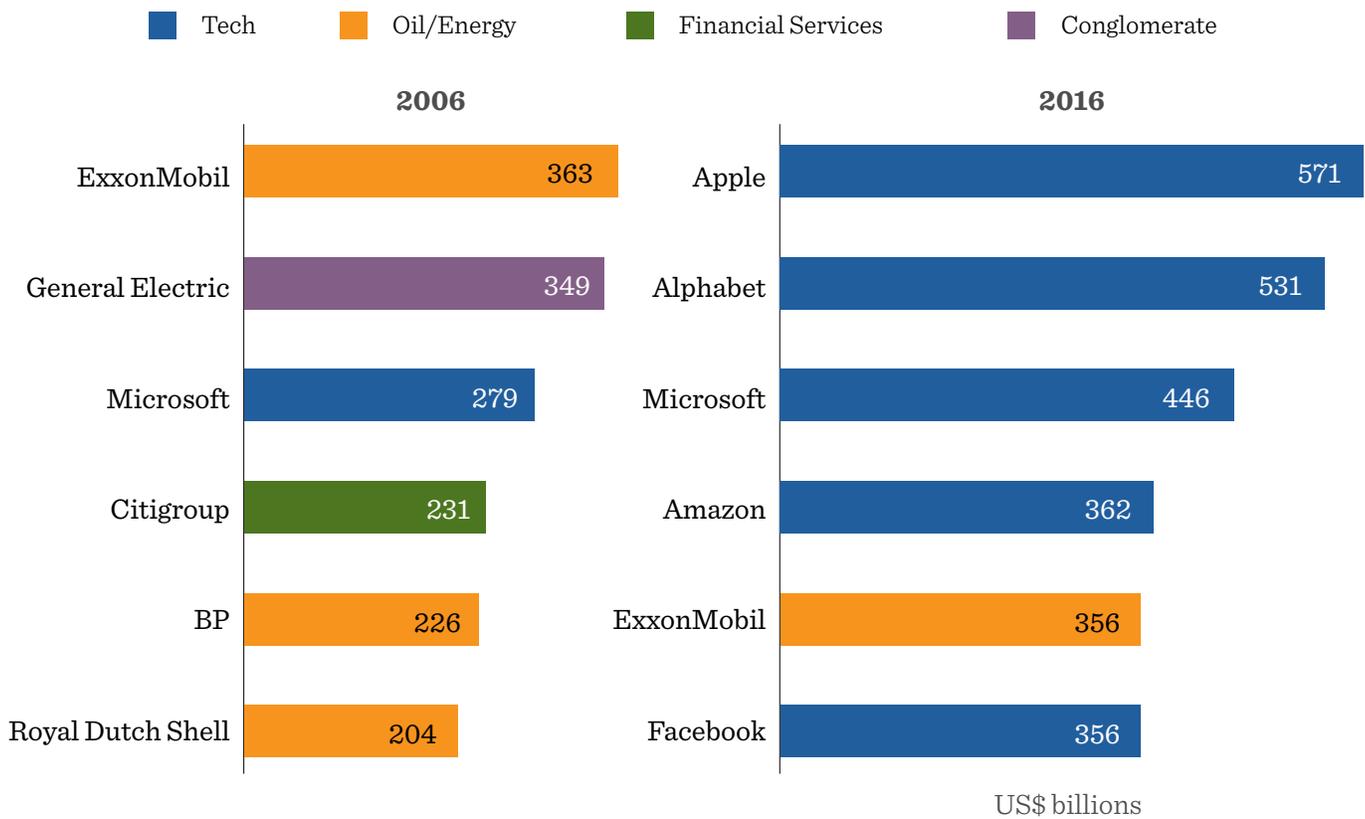


Figure 3: Value creation in 10 years—spot the design thinking intensive firms

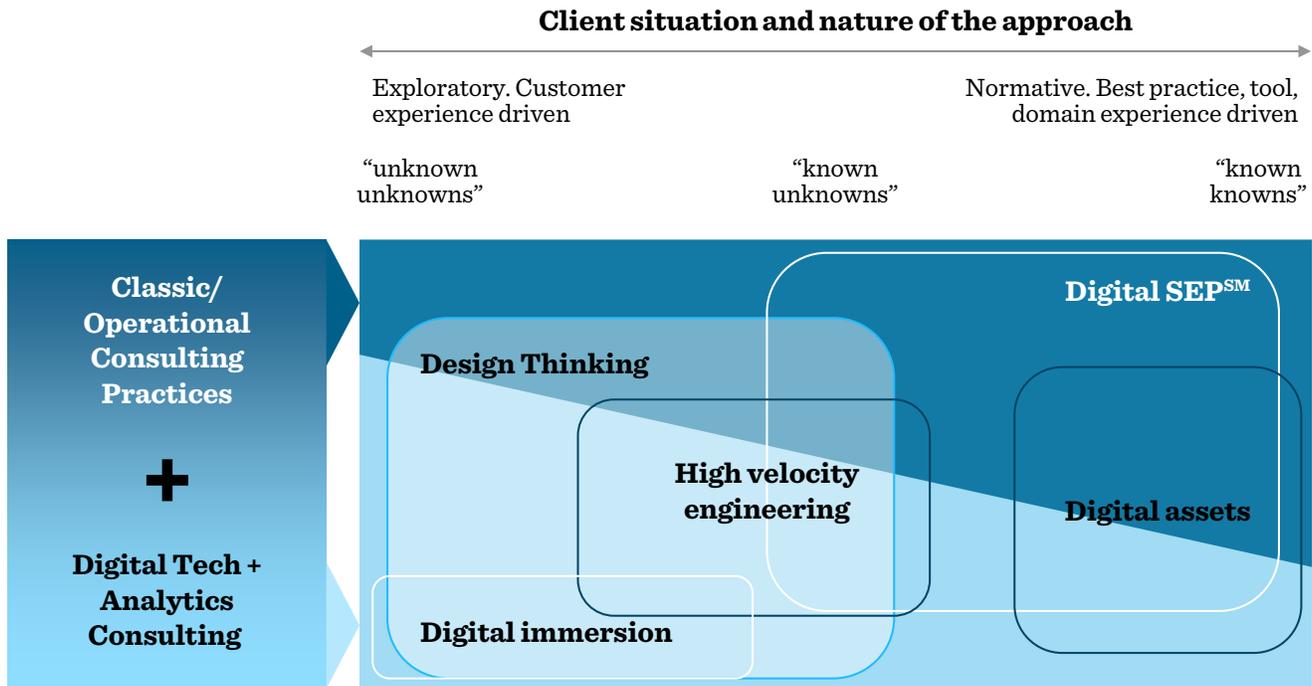


Figure 5: Leverage Lean Digital accelerators

Design Thinking is typically, although not exclusively, used by digital or creative professionals, but it can also complement and enhance a number of other methods, from “digital immersions” into ecosystems of startups to pre-existing digital assets and best practices frameworks (e.g., digital Smart Enterprise Processes—SEPSM).²

How Design Thinking works in business process and operations

Design Thinking is a human-centered approach to innovation that integrates customer emotion and empathy, the possibilities of digital tech and analytics, and the requirements for business success. It crystallizes customer experiences into an executable prototype, and enables cross-functional

experiments—and ultimately builds—end to end, across the enterprise, processes that serve a specific business outcome.



Figure 6: Enables cross-functional experiments and build, end to end

² <http://www.genpact.com/why-genpact/smart-enterprise-processes>

A common mis-perception is that Design Thinking is commonsense—that most engineers (or process engineers) would be able to master it easily. RIM (Blackberry), Nokia, and other companies that have fallen from seemingly uncontested leadership positions offer clear examples of how design-driven engineering firms often miss a crucial point: powerful technical solutions are often those that elicit superior emotional responses, and it isn't trivial to build

innovation processes—and indeed an innovation culture—able to harness both engineering and human centered design.

Figure 7 shows how the approach followed by Apple for its iPhone was elusively simple, but required a subtle yet pervasive change of perspective, tied to a culture that obsessed over how things feel, not just what they do. The same lens can be applied to process design.

Typical approach solve bottoms up at individual solution level first



Best approach understand the client/user experience, and iterate cheaply first



NOT “how to build the best mobile with best combination of best equipment” BUT
“How to connect people to the world (beyond people), and increase their self confidence through a stylish device that extends them”

Figure 7: Innovative human centered approach for radically new solutions

| | | | | | |
|--|---|--|---|--|---|
|  |  |  |  |  |  |
| Place customer emotion — identified through customer experience/ journey , at the heart of the design process and don't just use customers as starting point | Suspend judgement and generate unconstrained ideas that create the best experience for customers | Keep it " Lean and Agile " – aim for smallest viable solution that generates customer value | Look to competitors and new technologies/ startups for inspiration and direction as well as for potential partners and providers of services | Focus on reaching the fastest path to experience to enable rapid testing with customers | Continuously iterate designs based on customer feedback and increasingly refine solutions— experiment before freezing requirements |

Figure 8: Six tenets that enable innovation in large enterprises

While Design Thinking requires far more than template checklists, some principles are often applicable and worth remembering—six of them are listed in figure 8.

Generally, the path to field test is fairly fast. Figure 9 illustrates the Genpact Innovation by Design (IbyD)³ approach that delivers a high-fidelity prototype able to be translated into functional, minimum viable

product (MVP). In very simple situations, such as those related to the creation of quick standalone applications (especially mobile), a good prototype is achievable in a matter of weeks. However, in process operations that impact multiple groups of stakeholders and hinge on pre-existing legacy systems and processes, a more thorough and methodical approach is required.

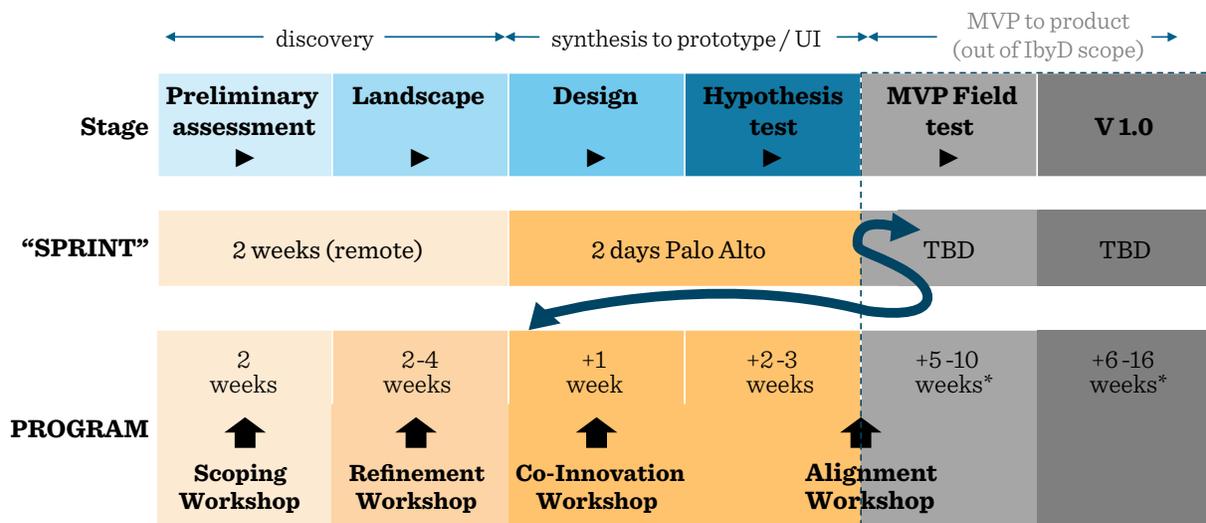


Figure 9: INNOVATION by design—the process

³ www.genpact.com/lp/design-thinking

Discovery phase

The discovery phase, explained in some detail in figure 10, helps teams “fall in love with the problem” before “falling in love with the solution,” countering the typical bias of experts. Despite a very qualitative streak and deliberate focus on people and their emotion, this phase often includes the analysis of quantitative fact bases that are the typical precinct of business analysts, management consultants, or Lean/Six Sigma black belts. The process allows the participants to get up-close and personal with the change challenge by using the lens of “personas” to represent those impacted by the change. Personas can help illuminate issues, opportunities, and ultimately action plans and interventions to address the change—to design those interventions with representatives (or proxies) of those personas, and strive for delight, not burden.

Design Thinking is a human-centered approach to innovation that integrates customer emotion and empathy, the possibilities of digital tech and analytics, and the requirements for business success

The outcome of this process culminates in a fast prototyping session to determine how much change the organization can absorb, and how to administrate that change.

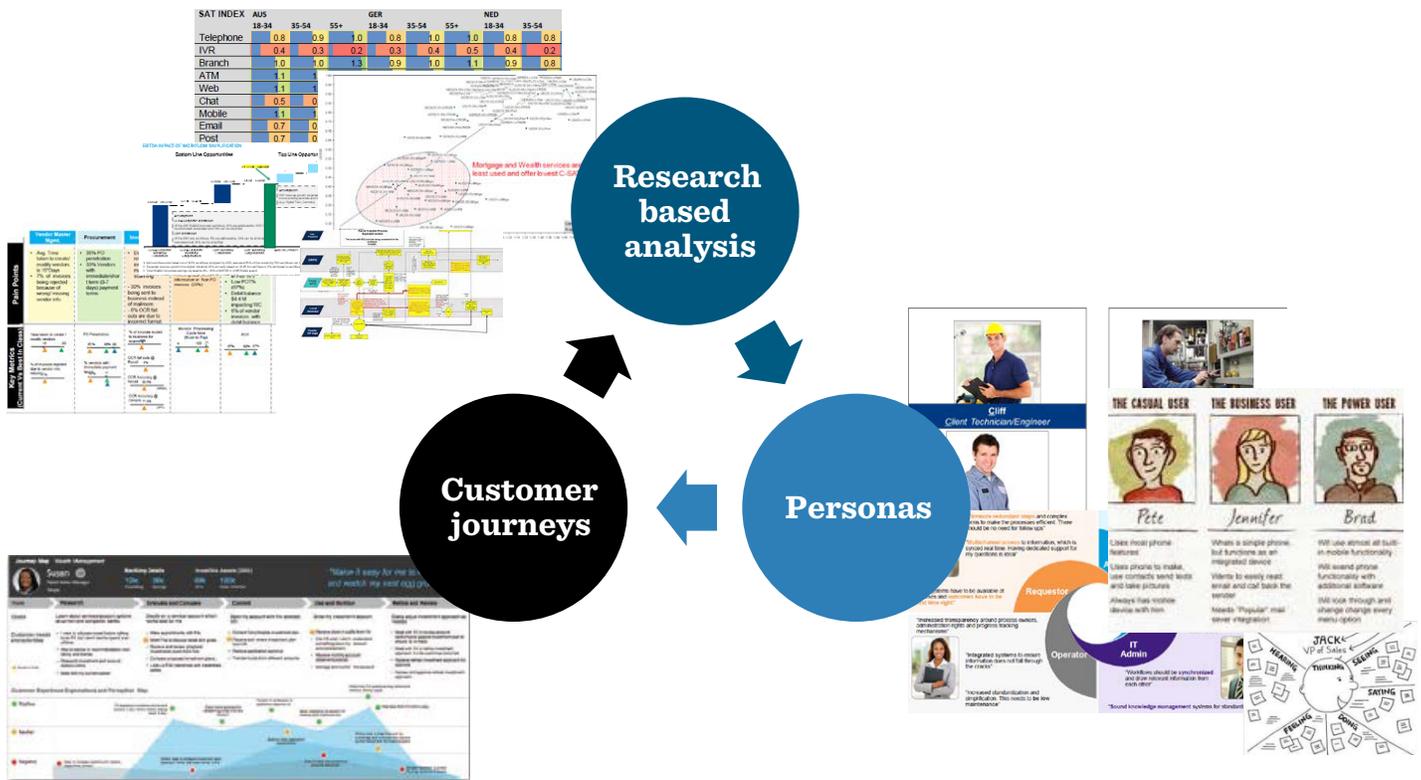


Figure 10: Research based persona and journey exploration

The biggest challenges in this prototyping step relate to the inability of many operational and other “left-brained” executives to let go of their bias for logical, process-oriented thinking, and embrace a shift of perspective that turns the spotlight on human emotions. The consequences of failing to do so can be severe: the depth of human exploration achieved is typically directly correlated to the originality of the solutions designed at the end of the effort.

Synthesis phase

Discovery phase gives way to a synthesis period where the objective is to “design for desirability, not viability,” so that unconstrained ideas can emerge and help the teams stretch their thinking. Figure 11 shows a typical approach (in this case, utilizing some of the methods of the LUMA Institute⁴).

A significant pitfall in synthesis phase stems from the inability to focus on the most important problem, as opposed to uncritically accepting the pre-existing description of the problem—which may inhibit the generation of breakthrough perspectives.

A common mis-perception is that Design Thinking is commonsense—that most engineers (or process engineers) would be able to master it easily

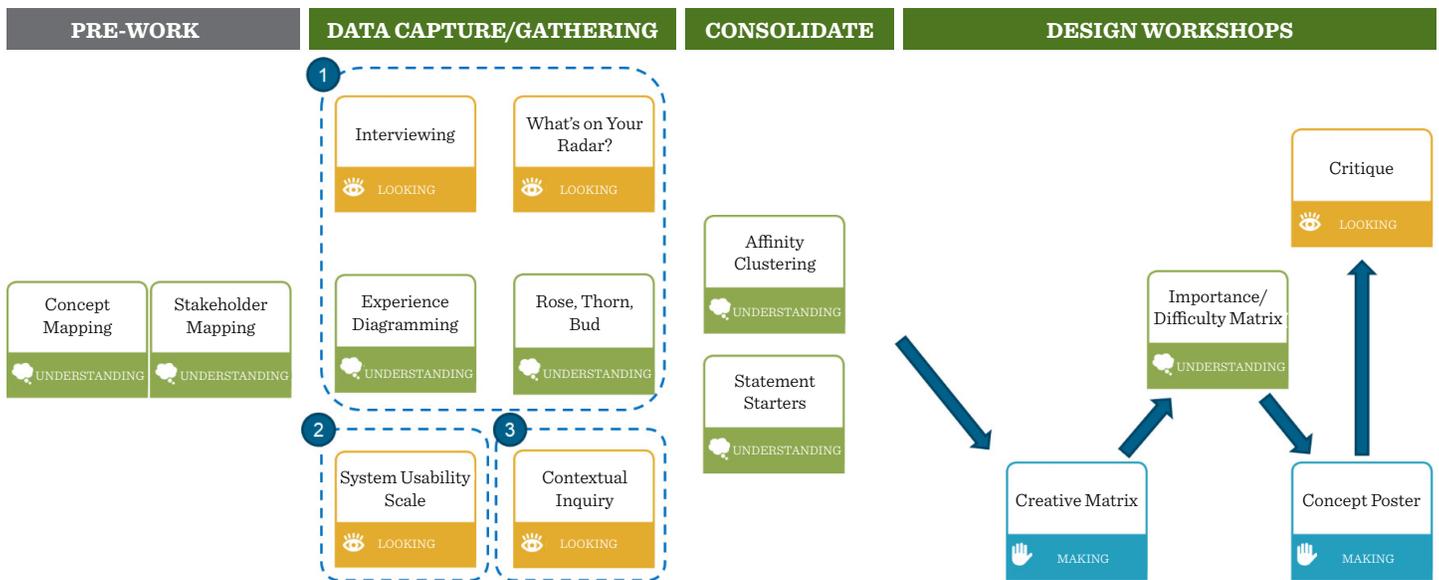


Figure 11: A defined set of activities and design framework

⁴ <https://www.luma-institute.com/>

One now-famous example⁵ that illustrates this pitfall is the “engineering bias” that many experts and professionals have. Challenged to make elevators in tall buildings faster, a constructor would typically turn to the elevators’ manufacturer, whose engineers’ first reaction would be to try and increase the quality of the machine’s component—typically resulting in significant additional cost and complexity. But a design thinker might instead reframe the question away from the pre-defined frame of reference to ask, “How might we reduce the time perceived by the passengers?” This in turn quickly leads to the commonly adopted and extremely cost-effective solution: placing a mirror in the elevator. A mirror serves the purpose of distracting the attention of the

occupants, reducing the sensitivity to the passing of time, and ultimately making the time feel shorter.

After the synthesis phase, the prototype step starts, enabling rapid experimentation and testing as illustrated in figure 12. Prototypes are essentially stories: initially simply narratives sketched on deliberately scrappy flipcharts, they can be increasingly refined through user interface (UI) mock ups. They’re critical, because they enable team members to expose the concepts to a variety of people, facilitating the gathering of useful feedback that can be quickly injected into the next iteration of the story.

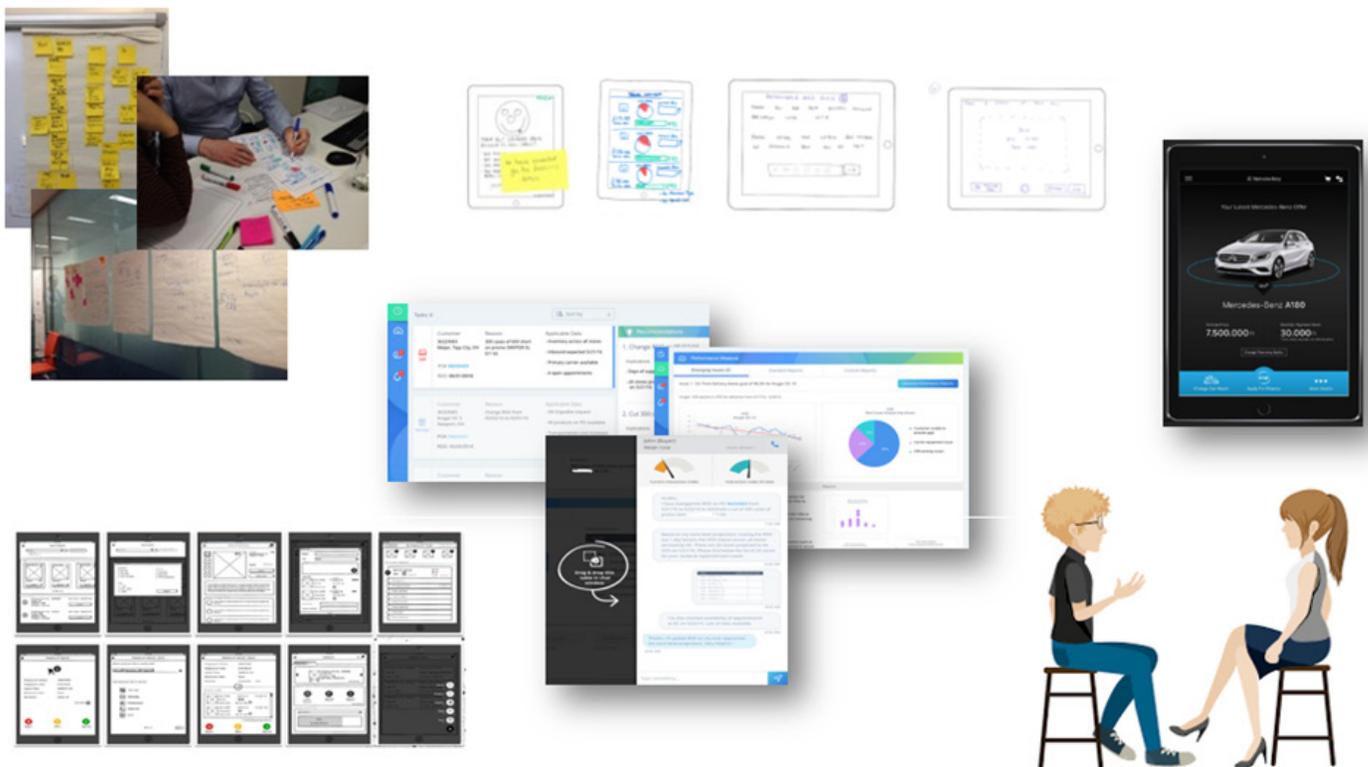


Figure 12: Enabling rapid experimentation and testing

⁵ <https://hbr.org/2017/01/are-you-solving-the-right-problems>

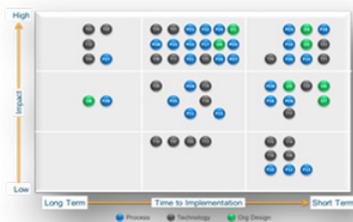
The biggest challenge in prototyping part of the project is often the frequent lack of a truly cross-sectional set of people, which is necessary for sketching unusual solutions and eliciting incisive critique. Additional problems may arise from team members' poor storytelling abilities, as these abilities are foundational to receiving meaningful, accurate feedback.

The last phase of the synthesis—especially important in large and complex operational change efforts—relates to the planning of the organizational change necessary for the prototype solutions to be effective. That process is also a crucial part of the solution to be tested, and is often given too little attention, especially considering the importance it has in complex enterprise environments.

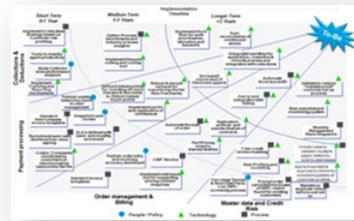
A case in point: Designing change management

The application of Design Thinking for change management is worth reviewing in detail. While change management is often considered an ancillary part of every enterprise transformation solution—a kind of “necessary evil”—it shouldn't be: human interaction lies at the heart of successful business change and indeed failure to drive appropriate change management lies at the core of many failed or delayed transformation initiatives.

Anyone who's experienced the ease of signing up for financial services provided by “fintech” disruptors (e.g., Mint, Personal Capital, Rocket Mortgage,



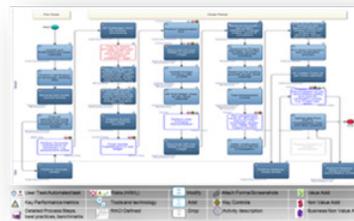
Heat map for all prioritized opportunities that are identified as a part of the transformation roadmap



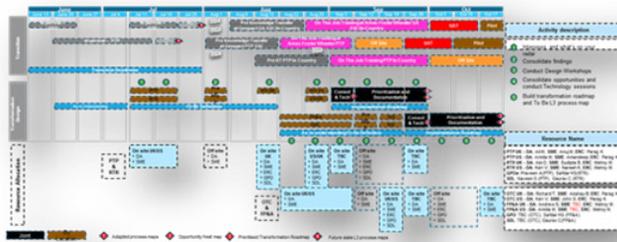
Transformation roadmap

| Project Description | Owner | Sub-objectives |
|---|---|---|
| <ul style="list-style-type: none"> Align 2015 plan of 2015 year at 70 days in year group Align 2015 plan of 2015 year at 70 days in year group Align 2015 plan of 2015 year at 70 days in year group | <ul style="list-style-type: none"> Align 2015 plan of 2015 year at 70 days in year group Align 2015 plan of 2015 year at 70 days in year group Align 2015 plan of 2015 year at 70 days in year group | <ul style="list-style-type: none"> Align 2015 plan of 2015 year at 70 days in year group Align 2015 plan of 2015 year at 70 days in year group Align 2015 plan of 2015 year at 70 days in year group |

Project charters for selected few projects that will need to be implemented in the first 3-6 months



Global Process Blueprint for each process in scope at Level 3 with embedded revised controls environment to enable SOX compliance



Mid-term transformation plan

Figure 13: Organizational development is also part of design thinking prototypes

Lemonade) intuitively understands how the process of “switching” can be made easy (e.g., auto-transfer of financial transactions notifications from the bank’s system to the new service), and even pleasurable. Anyone who’s upgraded from an old to a new iPhone knows that changing phones is an elating experience these days—even though, in the past, this was not the case. We can also think about how theories from behavioral economics, plus “flow experience” concepts⁶, have shaped our understanding of how people make initially painful decisions, such as commencing training for a half marathon.

The same can happen with enterprise change, as it is ultimately about each person’s individual change. Today, Design Thinking is increasingly used for the design of that change. Any large-scale, complex transformation should include Design Thinking practices and sessions to help keep the customer (internal and external) front and center. The objective is to design the change itself as a solution, aiming at ensuring that the participants feel thrilled about it, countering “resistance to change” with steps that make people “long for change.” To do so, teams must harness the ideas of a range of stakeholders through a facilitated process using workshop-type sessions in purpose-built environments.

For instance, one can solicit unusual solutions by thinking about how to form connections between two new organizations that are forced to work together—say, a business unit and a shared service or outsourced provider. Another source of radical inspiration could even be drawn from the work of many people and organizations during the Cold War, or by methodically identifying the informal network of people who participate in the process above and beyond what is visible in workflows or org charts.

The key is to step away from a mechanistic process view, and engage in a human-centered exploration of the emotions underpinning the capability and willingness of people to embrace an inflection in their lives. The use of personas can help focus on people being displaced by the new ways of working, staff

whose job will change, new employees, and their supervisors and executives.

The major benefit is that the process of designing the change solution, because it requires co-creation with some of the people who might have initially opposed the change, may in time turn those same people into converts and even evangelists.

Conclusion: Design Thinking is a catalyst of change for the digital enterprise

By taking customer journeys as a lens when aligning the organization from end to end, Design Thinking processes and operations combine human-centered design principles—often well understood by marketing groups, yet largely foreign to mid- and back-office operations executives—with operational savvy.

Design Thinking instigates deep understanding of the human side of the people involved in the flow of work required to create superlative client experiences and facilitate quick iteration of ideas. This is made possible through a holistic approach—such as Genpact’s Lean DigitalSM—that harnesses digital technology and analytics through a business-domain lens, and uses Lean and human-centered Design Thinking principles to identify solutions which are practical and effective to implement⁷.

The fundamental advantage of such a method is that it helps craft radically creative solutions—solutions that are often less complex to integrate with the existing legacy operations, easier to adopt for the individuals impacted, and easier to implement. These are important aspects in a world where digital transformation will require a continuous state of change for many functions, and a radical openness to the advances of new technology.

The main limitations to the deployment of Design Thinking efforts in end-to-end operations are twofold. Firstly, the scarcity of individuals able to lead such

⁶ [https://en.wikipedia.org/wiki/Flow_\(psychology\)](https://en.wikipedia.org/wiki/Flow_(psychology))

⁷ www.genpact.com/leandigital/

projects, who must possess both Design Thinking skills as well as a good understanding of business processes and operations. Secondly, many enterprise sponsors, accustomed to the relatively lower risk of more incremental Lean Six Sigma or IT projects, are reticent to embark in efforts that aim for disruptive solutions with somewhat less predictable outcomes.

A careful assessment of the pros and cons is a prerequisite for a successful Design Thinking effort in process and operational areas. Companies that collaborate with external partners to complement their capacity and capabilities increase their

chances of digital transformation success—as a recent study found.⁸

The opportunity however is very significant. Just as Lean and Six Sigma principles reinvented how large enterprise processes work, Design Thinking has started to empower middle and back offices, together with front-office operations, to harness the power of digital and ultimately deliver not just on the traditional cost-reduction agenda, but rather on organizations' new mission to deliver superior customer experiences while achieving unprecedented growth and agility.

⁸ <http://www.genpact.com/lp/what-is-holding-back-the-digital-revolution>

About Genpact

Genpact (NYSE: G) is a global professional services firm focused on delivering digital transformation for our clients, putting digital and data to work to create competitive advantage. We do this by integrating lean principles, design thinking, analytics, and digital technologies with domain and industry expertise to deliver disruptive business outcomes – an approach called Lean DigitalSM. We deliver value to our clients through digital-led, domain-enabled solutions that drive innovation, and digital-enabled intelligent operations that design, transform, and run clients' operations. For two decades we have been generating impact for clients including the Fortune Global 500, employing 77,000+ people in 20+ countries, with key offices in New York City, Palo Alto, London, and Delhi.

For additional information, contact, technology@genpact.com and visit, <http://www.genpact.com/lp/design-thinking>

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