



## Business transformation is reaching across old industry boundaries

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The U.S. Government introduced Standard Industrial Classification (SIC) in 1937 to classify industries and better describe and track the economy. That was revised in 1997, and the North American Industrial Classification System (NAICS) became a way to monitor emerging industries. In 1999 (the year both Salesforce and Napster were born), Morgan Stanley Capital International (MSCI Inc.) and S&P Global developed the Global Industry Classification Standard (GICS), seeking to offer an efficient investment tool to capture the breadth, depth and evolution of worldwide industry sectors. They wrote:

**“With globalization, industry sectors increasingly reflect dynamic interactions across world markets. To interpret the complexity and pace of industry movements, a consistent and comprehensive global industry classification standard is critical.”**

GLOBAL INDUSTRY CLASSIFICATION STANDARD (GICS), MSCI.COM.

We believe these tools are becoming outdated.

Today, companies must reinvent themselves, pivot, adapt, and change to survive and thrive in the Digital Economy. The descriptive walls that used to neatly separate Media & Entertainment, Transportation, Financial Services and the like are dissolving. We work with customers straddling so many of those boundaries that we had to recategorize and find new vocabulary to describe the market segments in which we innovate and add value. We don't want legacy terminology to limit our thinking about what can be launched to a generation of open-minded customers.

Look at these recent corporate news stories and see how they blur industry lines:

### Amazon

As Amazon continues to disrupt high streets, shopping malls and the price of urban square footage in the physical world, it is also **the** major cloud technology platform hosting the data of Airbnb, Tata Motors, Pfizer, and the U.S. Government.

Amazon recently announced an initiative to provide health coverage to 1 million employees working for Amazon, JP Morgan, and Berkshire Hathaway – to be focused on employee satisfaction and to ensure that their healthcare services are better and cheaper. Amazon has set its sights on reducing inefficiency in the \$1 trillion health insurance market.

**So, which vertical describes Amazon?**

## AT&T

AT&T finally won its case against the Department of Justice, which cited protection of the consumer as an objection against the proposed M&A activity with Time Warner. No doubt further media consolidation around the world will ensue. The complexity of the media landscape is beyond the scope of this narrative, but the themes are instructive in pointing to the world we live in and how quickly things are changing.

AT&T is synonymous with the history of the telephone. It was effectively a 'natural' monopoly in the U.S. until 1982. In subsequent years 'telecommunications' was still a good catchall for its advances in wireless, cable (and including its aborted attempt to acquire T-Mobile US in 2011). Things really started to open up with AT&T's acquisition of the satellite television operator DIRECTV in 2014. The Time Warner deal makes describing AT&T even more challenging.

Telecom appears to have permanently fused with other ingredients in the descriptive soup: Media, Publishing, Content, Film, TV, Web, Broadband, Mobile. Consumers are very likely to be buying new subscriptions and digital products from the AT&T group, rather than traditional physical retail or competing online propositions.

This is no longer Telecom as we know it. With Time Warner, AT&T gains HBO and CNN and access to the Warner Bros film archive. It will have become a giant at the intersection of content creation, distribution and analysis.

**So, which traditional vertical can still claim to be home to the modern AT&T?**

## What is a digital transformation?

This story of material and dynamic disruption and the re-imagining of entire industries is evidence that 'Digital Transformation' is a genuine imperative (we challenge you to think of a business that could willfully ignore the benefits of digital and still continue to grow). The phrase itself needs a little closer scrutiny. In our minds '**Digital**' signifies the advance and ubiquity of technology combined with a cornucopia of ways to use it to tantalize employees, investors and customers. Modern service offerings that will convert prospects to customers must be easy-to-understand and useful to the point of being hard to reject. They must be designed well, and they must use data to personalize the offerings over time. If you get all that right, you will deliver value to your business using technology.

'**Transformation**' highlights the need for a seismic change of culture, mindset, and (potentially) people. Companies must be customer-centric (in action, not just in the marketing spiel). They must listen to and be part of a dialogue with customers to continually improve the relevance and appeal of their offerings. This is the revolution that many companies need to undergo to modernize fast and shed the perception of them as being out-of-touch with customers (and too much in love with their own backstory). Once that has been tackled, these same companies need further innovation to improve: to disrupt their competitors and stave off disruption themselves. If they don't have innovation in their DNA, they need to transform themselves so that they do. Some DNA gene resequencing may be required.

Post the revolution, comes the new normal of everyday evolution.

AT&T can't just buy companies to get the badge that says, 'Digital Leader'. They could try to do it indiscriminately with their buying power alone, but they appear to be approaching it with a more astute hypothesis. CEO Randall Stephenson openly says they need acquisition to "get closer to the (digital) customer." AT&T is cleverly learning from innovative pure play disruptors. It is also studying other market leaders to understand their appeal. Like any company, it must continually aspire to be better, smarter, more useful and more nimble in getting new services to market that excite the needs and expectations of customers.

Today, you are only as good as your offering or somebody else wins your business. If you are still leading solely with the history and trustworthiness of your business in your industry (rather than the relevance and quality of your product), you will sound like a dinosaur company.

A Financial Services company may well talk up '70 years of investment success,' but if they only talk about that in direct mail collateral or on TV, then they won't be attracting a digital generation who don't look at mail or TV! Ten days to open an account with a wet signature and an exchange of paperwork doesn't sound as straightforward as 90 seconds to open an account with the likes of Ellevest or Robin Hood or E-Toro. It sounds like a quaint, opaque and old-fashioned way of handling money, when set against a digital offering that manages money with an intelligent, transparent, real-time, self-service investment tool.

#### NESS 7 PRIMARY DOMAINS

- Smart Mobility
- Smart Living
- Smart Machines
- Content
- Smart Commerce
- Customer Engagement
- Reg-Tech

## Ness Domains

Many research firms study the big fish that the world's leading brands historically turned to for help with technology on their journey to digital maturity. However, we continue to see the traditional SIC/GICS lens being used to assess and benchmark their capabilities and offerings. As we have noted above, modern shape-shifting digital businesses are no longer easily poured into a SIC/GICS bucket – when buckets themselves feel like the wrong metaphor (even within this sentence).

With advances in the adoption of technology, there are (and will continue to be) moments where those advances intersect with urgent business needs in specific areas that ignore (old) industry lines. Observing the increasing frequency of these moments provided the insight for Ness to create our Domain approach.

Ness defines the new world in terms of **Domains**. It offers us a flexible taxonomy designed to absorb inevitable change (more shape-shifting), and the moments where business problem and technology solution intersect, like finding an old colleague on LinkedIn who fits a job vacancy or beautiful matches on a dating app. Domains don't respect traditional vertical boundaries. We work in them with entrepreneurial clients who are determined to drive business growth, find operational efficiencies, and uncover insights in their data to drive more of all three. Unlike 'verticals' Domains are not purely about the companies within. A Domain is a broader construct that embraces the customers and the users and the rest of their lives away from interacting with the company. Domains cover data, digital and identity, privacy, connectivity, automation and global networks. It's a much more exciting construct to write about and explore in conversation. It's also a much more satisfactory way of explaining how companies might 'do an Amazon' in the future. Amazon was clearly in retail initially. It got into hardware, then software and now healthcare. A move into financial services, education and construction can't be too far over the horizon.

Here are a couple of examples of the Domains we are working in:

## Smart Commerce

Most people would instinctively associate PayPal with payments. How do we categorize payments today? Of course, 'payments' covers retailers (physical stores and e-commerce) and financial services, but digital payments are inextricably linked to digital identities, which are associated with notions of trust, probity, privacy and security. A PayPal account has become a safe, secure and efficient way to roam the Internet (for buyers) and a trusted mechanism (for sellers) to complete transactions. They have achieved acceptance by fitting neatly into an evolving ecosystem of smart, modern commerce.

PayPal has made it easy to integrate its lightweight business APIs with a vast range of other digital businesses. Those businesses market themselves and focus on their Unique Selling Propositions (USP), while PayPal helps them collect revenues. That is a lovely division of expertise and one the Internet has encouraged to cross borders and industries. Smart Commerce is therefore the Ness description of a Domain, which traverses those borders and industries with an eye on creating business value. It is much larger than payments because, on top of financial transactions, it covers

exchange of value such as that inside loyalty programs, social groups and a new wave of subscription services. Companies from banks to retailers and everything in between have the need for Smart Commerce technology, Domain expertise and business strategy to help their businesses thrive.

## Smart Machines

Industrial companies of all sizes are focusing more and more on finding value in the collection, visualization and analysis of data ingested from sensors on their machines and environments they work in. One Ness customer, Solar Turbines (a Caterpillar company), uses such information to drive condition-based maintenance and predictive analytics for its turbines. This integration of sensor data into the customers' maintenance strategy leads to a highly efficient process for gathering intelligence to better schedule the efficient repair and improvement of turbines. These efforts are saving the company and its customers millions of dollars in ongoing maintenance costs. It is also a new service revenue stream with enormous potential.

Whether the machine is a turbine, oil rig, or washing machine, end-of-life predictions and condition-based maintenance are important differentiators in winning new business and generating new service revenues. In addition, the information gathered through this process can lead to important value-added insights for all customers. Driving efficiencies and enabling revenue-generating innovation are important parts of the Ness Domain story. We are working towards enabling product companies that build machines and create machines that are as smart as possible, as these point to a new wave of data-driven chargeable services that customers will find essential.

## Digital Identity

Domains symbolize a movement towards a more imaginative, flexible, and open-minded business future. In parallel, the evolution of digital identity symbolizes a much more fluid, user-centric construct that companies and brands need to understand. Customers are now much more than 'just' a physical being; they are a more complex and intriguing collection of digital behaviors and data trails – in addition to those vital statistics that signify they are alive and sentient.

"I am not a number, I am a free man" went the chant in the TV show *The Prisoner*. In an era of fake news and social media echo chambers, we can see that our personal identity, freedom and rights to privacy are being challenged by technology ('if you are not paying for the product, then you are the product'). Identity can be both protected and compromised by technology. How does a company position itself to sell me personalized yet transparent services, while respecting my rights to privacy? We didn't say this was easy, but this is a paradigm that needs confronting. At Ness we believe that honesty is the only way to navigate this minefield.

My identity as a citizen has different dimensions than my social media identity and the identity I cherish as a parent, a soccer fan, a blood donor, or a George Orwell nerd. We see the concept of identity – and my giving or withholding permission to access each one separately – as an essential component of the Domain narrative. My iris may soon unlock a rental car for me to drive in a frictionless transaction, but the payment gateway may require access to an encrypted token representing my right to drive (because I can pay, and I am not banned from driving). The token might prevent the rental company from getting to know much more about who I am and where I live. None of the many dimensions of my identity pay any respect to these old-fashioned industry boundaries, and my identity serves different purposes depending on what I am doing at the time. In the rental car example, I may be interacting with an automotive brand, a financial institution, and a holiday company – which vertical is that? These modern dynamics are embedded in the fabric of this Brave New World, and Ness is a partner embracing the opportunities on offer to those who confront these challenges.

## Summary

As historic definitions dissolve and truly customer-centric digital propositions become essential for companies to survive, companies must go where the demand is, and that means growing beyond the steadfast definition of the (old) vertical they work in.

If General Motors will be selling rides rather than cars, it will be a transportation solutions provider rather than a carmaker. That is a profound change in corporate identity. Similarly, JPMorgan Chase, Goldman Sachs and BBVA have publicly recognized themselves as technology companies, rather than banks. They are embracing a modern view of a changing world and acknowledge that they should be judged against technology competitors like Google and Amazon, as well as Wells Fargo.

Ness brings the critical outside-in perspective and mix of business and technology expertise that companies need in order to modernize and continually evolve their view of their own businesses. We have subject matter knowledge – acquired over many years in adjacent industries, verticals, sectors AND Domains – but, critically, we bring a digital mindset. We know from experience how much innovation a cross-functional team with skills in design, data and development can bring to life in a given time. The Ness Domain construct allows us to focus on critical areas of modern life and accelerate the business transformations that are imperative for our customers.

## About Ness Digital Engineering

Ness Digital Engineering designs, builds, and integrates digital platforms and enterprise software that help organizations engage customers, differentiate their brands, and drive profitable growth. Our customer experience designers, software engineers, data experts, and business consultants partner with clients to develop roadmaps that identify ongoing opportunities to increase the value of their digital solutions and enterprise systems. Through agile development of minimum viable products (MVPs), our clients can test new ideas in the market and continually adapt to changing business conditions—giving our clients the leverage to lead market disruption in their industries and compete more effectively to grow their business. For more information, visit [www.ness.com](http://www.ness.com).

