The Matrix is driving the renaissance of the IT organization

Renaissance translates as ‘rebirth’, and is the name given to the period when Europe emerged from the Dark Ages into a more enlightened modern era. The Renaissance was a fiercely forward-thinking time. It spawned a scientific revolution where science, technology and culture began a cycle of mutual advancement with innovations such as the printing press, the mariner’s compass and the automation of human tasks by furnaces, mills and cranes. Talking to IT organization leaders in our research for this report, we were struck by a similar blend of technology-driven cultural change, an evolution we characterize as the renaissance of the IT organization.

The IT organizations of the future will look nothing like those of today. LEF has long noted the evolution of technologies and products from innovation through to industrialization. Competition drives this evolution through innovation in and adoption of new practices, technologies and models; over time they are made more efficient, cheap and safe until they are ‘industrialized’ commodities, fit for enterprise-scale IT. The same evolution occurs in the IT organization: once, all IT was provided in-house, now it makes more sense to buy services from the cloud.

For the next phase of digital technology evolution LEF chose the term Matrix to convey an intelligent societal infrastructure that mirrors and supports the full range of human activity. It captures the pervasive, aware, embedded, intelligent and autonomous technology landscape that is now emerging. The Matrix is changing not just the way that businesses and society innovate, operate and compete, but even the way we will think about ourselves in the 21st century. The Matrix is industrializing, helping to create new digital firms and accelerating the digitization of everyone and everything. Matrix-savvy firms use their IT organizations to digitize and evolve their business models, and this is changing the enterprise IT organization beyond recognition.

LEF predicts the end of the IT organization as we know it, but we’re looking forward to seeing its renaissance in the Matrix era.

IT organizations are evolving from the enterprise IT era to the cloud IT era and on into the Matrix IT era

We found that the IT organization is evolving from the enterprise IT era to the cloud IT era and on into the Matrix IT era, as shown below.
The enterprise IT era brought IT under control at the price of low innovation and slow change. Typically, ‘enterprise IT’ runs operational IT on owned assets or long-term, financially engineered outsourcing contracts, and ‘shadow IT’ in business functions is where most innovation takes place. Tight interdependencies and financial constraints create friction that inhibits business and IT change.

IT in the cloud IT era has evolved to be customer-centric, agile and asset-light. Many systems have migrated to the cloud – a vast software-as-a-service ecosystem offering best-of-breed business capabilities at the click of a button. There is growing participation in ecosystems. The primary unit of organization is customer/citizen-centric product and service teams whose team leaders are the new senior management. Agile and DevOps are pervasive in the business, delivery teams increasingly pick their own methods, and the organizational structure is becoming more dynamic, allowing teams to form in ways that best allow them to do their jobs, but overall we’re seeing a move to more flat, autonomous and empowered teams. There is a growing culture of innovation with psychological safety so there is no such thing as failure, just learning opportunities. These IT organizations have achieved escape velocity from their legacy and their agility delivers competitive advantage.

In the Matrix IT era, IT evolves into just Technology. Matrix firms create and magnify competitive advantage using Matrix-sourced capabilities, utilize new practices and ways of organizing, and define new cultural norms. Operational technologies that previously sat in the business are replaced by IoT-enabled devices, and machine intelligence is the only way to control and manage their scale. The heavy lifting of business service provision is done by service providers and the cloud provides infrastructure and software environments, so IT teams can focus on business issues and even merge with the business into product-centric groups. Teams are autonomous and empowered but are governed by a strong culture. There is no one-size-fits-all operating model, and the IT organization has teams that are agile and experimental, as well as teams that are more process-driven and risk-averse; but they can all be extremely innovative.

Most IT organizations are still in the enterprise IT era, anchored by the weight of their internal legacy and paralyzed by the fear, uncertainty and doubt of their stakeholders. The target is a Matrix IT era organization built for constant evolution. Many of the 50 organizations we spoke to are a hybrid of enterprise and cloud IT eras, and a few straddle the cloud IT and Matrix IT eras. IT organizations already partially in the Matrix IT era are almost exclusively found within ‘digital native’ businesses, unencumbered by the past.

**IT organizations (and their businesses) evolve from the enterprise IT era to the cloud IT era in three stages via four routes**

From our research we learned that the evolutionary journey from enterprise to Matrix eras is in three stages:

- **Stage 1 – Building situational awareness.** As our colleague Simon Wardley puts it, you can’t play the game if you can’t see all of the board. To prepare for the journey, you have to understand your organization, your user needs and competitive landscape, and use that information to prepare for the journey ahead. If you skip this stage, your efforts will fail.

- **Stage 2 – Building the IT organization for constant evolution.** This is about removing friction points, embracing the cloud and adopting a new dynamic operating model that enables innovation yet retains the levels of controls and risk that are right for you. We found the organizations we studied were taking four distinct routes to this end: buying all IT from a single technology vendor, controlling IT through a platform, using robotic governance, and deploying a cloud centre of excellence. The route dictates the form of the transitional organization, alongside and within the current structure. These routes are not mutually exclusive – we often discovered multiple routes being followed at different speeds in different areas of the business. The activities of Stage 1 equip you to choose the best route (or routes), based on the characteristics of your organization, your priorities and your environment.

- **Stage 3 – Evolving constantly.** Stage 3 is all about using your new sensing abilities and agility to systematically exploit the benefits of the Matrix and compete by evolving faster. Your business now has an operating model that enables it to be disruptive, adopt new technologies, play an important role in large ecosystems, defend against attack, and enter the Matrix era. Not all organizations are able to make it this far. Some will be constrained by their climatic conditions – where these apply across their industry, they will just evolve very slowly and suffer marginal disruption; where they are the result of bad past decisions, evolution will be difficult.
The full report explains the evolution of the Matrix, the role of digital mechanisms in creating competitive advantage, and the enterprise, cloud and Matrix eras of the IT organization. It describes in detail the three stages of evolution and the four routes that we observed within Stage 2, as well as some of the tools and techniques that will be used to navigate the journey.

The leaders have mastered a dynamic operating model

We cover the need for a dynamic operating model that allows domains of the business to operate efficiently and mindful of the climatic conditions they are subjected to. The most progressive organizations we spoke to were organized along lines that closely resembled LEF’s Pioneer, Settler, Town Planner model. The operating model was used not only to structure teams and apply the correct methods to the task at hand, but also ensured an evolutionary approach to the development and industrialization of their own applications and services.

What distinguishes these organizations is not the novelty of their technology but their mastery of the fundamentals of evolution.
The renaissance of the IT organization depends on rebuilding itself, and the business, for constant evolution

In the Matrix era, technology will be pervasive and evolution will be constant. Everyone in business, whatever their role, will be a skilled consumer of technology. Technology as a tool will become simpler, and heavily augmented with machine intelligence, giving a helpful steer. What was the IT function will be a technology capability embedded in the business, sitting directly with business groups and helping them achieve their needs. IT leadership will sit on the board; every company will be a technology-driven company and need a highly informed and situational-aware technology strategist driving the business strategy and models of the future.

The renaissance of the IT organization depends on it rebuilding itself, and the business, for constant evolution into the Matrix era. Welcome to the new Age of Enlightenment.
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We believe that as business and IT become inseparable, virtually every aspect of work and the modern firm will need to be reimagined, and this creates exciting new digital opportunities.

Through an annual membership programme of research, events, onsite workshops and advisory services, we support senior leaders in areas such as strategy, organizational change, executive education, talent development and the future of the IT function. Members enjoy personalized access to our global network of thought leaders, clients and leading practitioners.

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