LOOKING AHEAD

ENSŌ FORESIGHT 2022
START TO BUILD YOUR COMPANY'S FUTURE NOW!

NTT Group

ENSŌ
The Space for Creators

NTT DATA R&D experts are continuously analyzing real-world case studies and various sources to identify the most significant technology and societal trends, that we believe will drive change over the next three to ten years. The Business Trends provide our perspective on the evolution of society and business. The Emerging Technology Trends summarize our views on innovative technologies and their impact on the world.

BUSINESS TRENDS

IT for Transcending Established Boundaries

BT 02

As IT manifests itself as an indispensable infrastructure for businesses and service providers, established boundaries become less distinct, allowing organizations to expand into new sectors and industries. At the same time, digitalization and automation require roles, accountabilities and responsibilities to be newly defined and distributed.

Considering the increasing momentum in connectivity worldwide, organizations are more and more forced to step into other industries to create comprehensive customer experience. The automotive industry illustrates this well by expanding their connectivity services to various IoT-related industries, thus broadening their in-car services.

This transformation clearly sees the consolidation of infra-structures customized for the needs of specific industries. Similarly important is the increased focus on regional privacy and regulatory requirements as well as the emergence of standards reflecting digital ethics and sustainability related value systems.

IT as a Growth Leader

BT 01

The evolution of IT Infrastructure and expansion of smart services open up new potentials for business consolidation and growth.

In the upcoming years, there will be a strengthened focus on function- and service-oriented business models rather than on hardware-only or hard-coded products.

This evolution is driven by the massive spread of connected devices and cloud-hosted services that benefit from an increasing frequency of update cycles and a strong focus on customer experience.

Data- and AI-based insights will not only contribute to accelerate value creation, but also support the emergence of entirely new business models.

IT for Searching for New Norms

BT 03
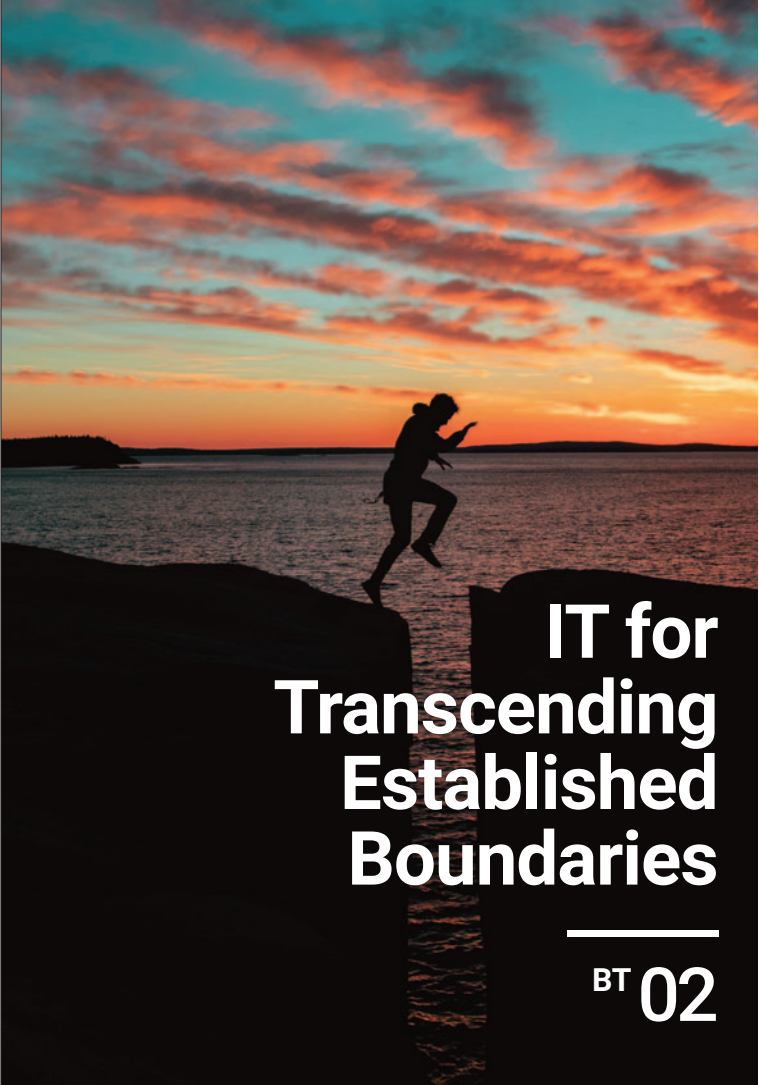
As new ways of communication, work and value creation emerge from digitalization, organizations face the challenge to address the increased demand for ethical and sustainability standards. Currently, digital solutions are both contributing to emerging frameworks and adapting to them.

This balancing act is not only about creating ethical, sustainable, secure and future proof solutions. In fact, organizations face an unprecedented need to gain and nurture public trust by demonstrating transparency and accountability in their application of technology.

A successful implementation of these changes will require all parties to contribute, from end-consumers to service providers, from certifying bodies to governments, from technology builders to users.

EMERGING TECHNOLOGY TRENDS

Massive AI will Unlock New Possibilities

ETT 01

In the past years, we have seen AI-based solutions and services evolving from being experimental gimmicks to becoming the core of various solutions that support crucial decision-making, operation and production.

In parallel, the capabilities of these solutions and services have been massively improved, opening up possibilities for self-learning and even self-supervised operations. This shift towards intelligent automation and augmentation tackles challenges related to labour shortage and facilitates the emergence of new business opportunities by making data more actionable.

However, most AI-based applications and operations still lack adequate mechanisms to identify quality changes over time and mitigate data shift. As a consequence, organizations now face the necessity to establish supervising standards and provide quality gates in order to make outcomes of partially or fully automated processes transparent and ensure accountability.

Shape-Shifting IT Infrastructure

ETT 02

Over the last years, the existing IT landscape has strongly shifted towards cloud-computing infrastructures, thereby becoming increasingly homogeneous yet providing a fertile ground for digital businesses.

This evolution evens out the necessity of in-house IT competences and gives a wide spectrum of companies the opportunity to continuously and flexibly adjust their digital offerings to a highly dynamic market environment.

Meanwhile, infrastructure providers tend toward optimizing utilization of hardware resources to reduce costs and environmental footprint. In parallel, they bet on further developments in semiconductor technologies to provide the required room of improvement for software transcendence.

Software will Become a Point of Growth

ETT 03

Software is the power behind a whole range of new solutions, approaches and business opportunities. In fact, digitalization was until recently mostly seen as a kind of toolset that would transfer existing processes in a more connected environment, making access, communication and scalability faster and easier.

Today, software is becoming more and more a driving force behind new business and working models, thereby enabling an unprecedented interconnection of different stakeholders and industries.

In this context, it is crucial for organizations to enable experts to integrate business knowhow into existing or newly created services and solutions, which is why low-code, no-code or self-integrating software is gaining traction. This evolution also tackles organizations' chronic difficulty to attract a capable workforce and maintain their ability to pursue efficient product development and business operation.

Renewed Recognition of Data as the Driver

ETT 04

Business outlook and perception is defined by the ability to grasp and analyse current situations and decide upon strategies. Undeniably, data is the indispensable element underpinning its realization. However, comprehensive, accurate, immediate and reliable data still comes with a cost. Organizations need to put together and maintain applications and infrastructures in advance to obtain and utilize a suitable data flow.

With accurate and actionable data, organizations will be able to create digital twins of existing or even conceptualized products, services or customers in the digital world and simulate their interactions in different scenarios.

On the flipside, regulatory bodies are modifying or enacting acts and regulations that would further control the collection and utilization of data. Organizations will need to pay extra attention to geographical restrictions to avoid unexpected loss of business.

In addition, distributed ledger technology has given birth to new modes of interacting with data and new business models. This includes decentralized data management, tokenisation and cryptocurrencies. New opportunities shall emerge with the development of these approaches.

Technologies will intervene in the remaining areas of our world that have not yet been penetrated by human intelligence, from optimal content delivery plans to the discovery of new materials and the search for the origins of life itself.

By simply looking at the development of hybrid work models, in conjunction with the pandemic, technology has shaped a new way of working. Businesses have closed down their physical offices, employees are moving out of the city and corporate travel rates are dropping. A new era has started.

In the meantime, automation of processes and services are constantly gaining ground. Apart from automating mechanical or industrial processes, novel endeavours such as machine-readable legislation or influence engineering are blossoming. The future of technologies entails endless possibilities and they are transforming our lives.

Opening the Way to the Unknown Future

ETT 06

With an increasingly reliable, performant and highly connected IT infrastructure, the physical and digital worlds tend to converge gradually, creating a space from which new possibilities emerge. This shift will redefine our way of working by making digital tools intelligent, autonomous and capable of complementing the human workforce.

In parallel, hardware excellence, computational power and advanced calculation models contribute to creating replicas of the physical world in a way to simulate complex environments and forecast decisive outcomes. Such replicas also enable the creation of an augmented overlay of our physical world, creating an entirely connected environment with instant digital interaction at anytime and anywhere.

Expanding beyond augmented reality, the world has entered an era where new realities can be created. The metaverse empowers individuals and businesses to explore the unlimited possibilities of recreating their own desired world while interacting with others. Within the freedom of its nature lies endless opportunities.

Approaches to the Physical World

ETT 05

FROM PAPER TO DEFINITIVE ACTION

"If you do not change direction,
you may end up
where you are heading"
Lao Tzu, Chinese philosopher.

But to remain a profitable and sustainable business, which direction should you take? Set your course to your desired future with one of our foresight formats, that we have developed in our co-creation and innovation space "Ensō – The Space for Creators".

Ensō Foresight Workshop **MICRO**
Spend half a day with us and let us dive deep into 1-2 selected foresight topics, full of interesting insights, interactive parts and great discussions.

Ensō Foresight Workshop **MEGA**
In one full day, we will deep dive into 4-5 selected foresight topics, make the topics tangible by showing live demos and give you some tips on experimenting with latest technology on your own. In several interactive sessions, we will work together on tackling challenges and creating solutions that work first time.

Ensō Foresight Workshop **GIGA** *Most Impact*
If you spend two days with us, you will gain insights into the future of society, generating an understanding of your future customers. Using a human-centered design approach, you will build visions for your products and services while getting to know relevant technology by trying out demos in a "Tech Fun Fair".

Ensō Foresight Keynote
With a keynote speech, we can give many people new insights and impulses to use in a short amount of time. Using stunning presentations and high-quality visualizations, we make it easy for people to follow and to keep the key aspects in their minds during their daily life.

Don't wait for the future to happen.
Contact us and let's start creating it!

foresight.ensot17s.com

NTT Group

ENSŌ
The Space for Creators