USU

Spotlight on Artificial Intelligence

How AI increases capacities in IT service while lowering costs

Content

Introduction

AI in ITSM: Boost capacities for strategic IT management

In Gartner's 2020 CIO Survey, 66 percent of respondents said they had their hands full just running day-to-day operations. The large-scale retreat to home offices made the situation even worse. At the same time, the COVID-19 pandemic is intensifying the pressure to innovate: Management has largely recognized the optimization potential of the digital transformation for the entire company and is urging IT to implement appropriate solutions and projects.

Switching our viewpoint, we asked what opportunities Artificial Intelligence, the supreme discipline of digitization, offers IT management itself to open capacity for value-creating activities. As a result, we identified several focus areas that we have summarized in six points. By starting with end users, you can kill two birds with one stone: You improve service and, in doing so, increase satisfaction. At the same time, you greatly lighten your help desk's workload. In addition to AI-based virtual agents and assistants, we also look at the possibilities of big data analytics: Predictive analytics and pattern recognition help optimize services and IT products, and uncover vulnerabilities that include internal and external fraud attempts.

Beginning with the extensive toolbox called "Artificial Intelligence," we identified the tools we consider most promising and realistic for IT service. With these as food for thought, our goal is to enable you to create your own AI agenda. With **USU IT Service Management** we offer you a ready basis for reducing IT costs and complexity, cutting response times, and making your users happy.

[1] https://blogs.gartner.com/rene-buest/2020/05/27/the-future-of-service-delivery-is-an-equilibrium-between-enterprise-it-and-digital-business/

What AI can do for IT service

Quick assistance

Virtual agents reduce the work-load for first-level support. They answer FAQs and resolve issues.

Filter knowledge

Virtual assistants help your IT service desk staff find the right information to complete their tasks.

Connect properly

In turbulent times, **Predictive Routing** lightens the workload by automatically routing requests to the proper agents. Thanks to NLP (Natural Language Processing), AI can assess the urgency of a matter and prioritize business or proj-ect-critical requests.

Preventive action

With **Predictive Maintenance** you can act before disruptions impact your operations.

Identify optimization potential

With continuous **Request Analysis** you can identify vulnerabilities in IT services and support processes. The feedback can be incorporated into product development.

Detect fraud

With AI-based **user profiles**, harmful behavior from within or outside of the company can be immediately detected and stopped.

> **Some people worry that artificial intelligence will make us feel inferior. But that would mean everyone in their right mind would have an inferiority complex when they see a flower.**
>
> Alan Kay, visionary computer scientist and musician

Quick assistance

Virtual Assistants ease the workload for first-level support and quickly assist end users:

- They can capture and transmit all tickets. This is estimated to reduce the time needed by humans by three minutes per ticket.

- They reset passwords, lock accounts, and assign permissions. In doing so, they handle tasks that take up to twelve minutes and make up about 30 percent of service desk inquiries.

- They answer questions about the ticket status (saving three minutes of work time, 15 percent of requests).

- They resolve e-mail issues and network-related faults. These are major obstacles for users but can usually be resolved in just a few steps.

Unlike rule-based bots designed purely for automation, virtual assistants work with AI-based algorithms. Technologies such as NLP (Natural Language Processing) allow them to understand what is meant by various phrases: They know the statements "I can't send e-mails" and "Outlook doesn't work" mean the same thing. For a positive customer experience, virtual assistants are often integrated into familiar chat solutions such as Slack. Voice applications are also available.

Filter knowledge

Virtual assistants filter knowledge for the service desk and let employees complete their tasks in a targeted, quick, and efficient manner. Due to an abundance of information, agents often can't find the information they need for the case in question. On the other hand, the AI-based assistant recognizes similarities between incidents and suggests the resources that agents need. As the quality of the suggestions is assessed, the algorithm is continuously improved through ML (machine learning). However, virtual assistants depend on powerful and well-maintained **knowledge management** to provide proper support.
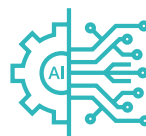
Connect properly

Change is coupled with uncertainty: With everything being different in the unfamiliar home office, pandemic-stricken colleagues expect the technology should at least work smoothly. The result: countless inquiries about laptop connections, logins for remote access, VPN support. For the service desk, it is essential to know in advance whether these are routine questions or whether specialists need to be called in. If it's the latter: Who is the right person? This is where Predictive Routing comes in. Instead of having the service center go through the queue one by one, AI can give users simple help with videos, tutorials, or checklists. If the issue is more complex, thanks to NLP, the solution understands it and can route callers correctly. This has a positive impact on satisfaction and performance.

In connection with COVID-19, the term "triage" became sadly familiar. Times of crisis teach us that IT service's resources are not always sufficient. In this context, triage means prioritizing projects and requests according to where resources can best be deployed, are needed most, or will have the greatest impact. NLP-based AI can assess the urgency of a request and prioritize business or project-critical requests for forwarding. Information about the person's position in the company and their individual profile can also be used.

Preventive action

Predictive Maintenance plays a valuable role in operational planning: With AI predicting maintenance needs, components can be replaced before they fail. The more tickets this prevents, the more effectively the service team can work on value-adding activities. Downtimes that impair user productivity can be reduced to a

minimum. By evaluating usage data, AI can optimize the use of individual components. Since repair times and costs can also be included, companies also obtain information that can be incorporated into **Software Asset Management**.

Identify optimization potential

AI provides many starting points for identifying optimization potential: Applications that accumulate too many requests could use an overhaul. AI recognizes patterns in incidents and helps IT departments address causes and standardize solutions. It may also provide information for product development. When used as a virtual trainer, AI can also improve the user experience of service employees by identifying redundancies in workflows or showing ways to improve tasks categorization and the knowledge base structure.

❞ Some people call it Artificial Intelligence. But in reality this technology is going to make us better. Instead of Artificial Intelligence, I think we're going to expand our intelligence.

Ginni Rometty, former IBM CEO

> **Digital workplace leaders will proactively implement AI-based technologies such as virtual assistants or other NLP-based conversational agents and robots to support and augment employee tasks and productivity. However, these AI agents must be properly monitored to prevent digital harassment and frustrating user experiences."**

Helen Poitevin, senior research director at Gartner

Detect fraud

Using standardized user profiles, AI can significantly raise the level of security in the company. It registers small deviations in behavior – anomalies no longer go unnoticed. An observation period of just a few months is enough to gain an exact picture of the users: Some repeat the same work steps every day and always work from their home office. Others turn on their laptops in different places. When they are engrossed in a task, they might work late.

If AI detects differences in the time, location, device, or browser compared to usual user behavior, or uncovers suspicious activity, such as large amounts of data being deleted or downloaded overnight, protective mechanisms can be initiated: The account or access to certain content can be temporarily blocked, two-factor authentication can be required, or an alert can be sent. Thanks to self-learning algorithms, the AI also incorporates behavioral changes into the user profile, which rules out the possibility of the system "overreacting."

In addition to the high level of protection, the major benefit of this approach is that security management is shifted from the users to the back office: If deviations can be quickly identified and internal or external fraudulent activity can be prevented, IT no longer needs to require two-factor authentication for every login session or a login reentry after every break. The employees work in a secure environment, without the inconvenient processes. Of course, the priority is the personal rights of those involved. As with other AI applications, when users are transparently informed about the purpose behind collecting their user profiles they are more likely to give their consent.

> **If you talk to a human being in 2035, you're talking to someone who is a combination of biological and non-biological intelligence.**

Ray Kurzweil, nonfiction author and visionary

Fazit

IT service management ensures future viability

As part of IT service today, Artificial Intelligence represents an abundance of possibilities. The most useful approach will vary from company to company. Solutions such as **USU IT Service Management** will remain the standard tools of choice. Even a powerful digital **self-service solution** reduces the number of tickets by a fifth. It also improves the user experience, accelerates processes, such as service requisition, and lightens the workload for the IT service desk through automation. With an **IT & Service Monitoring Tool**, you can comprehensively monitor systems, services and processes with a high degree of automation. Once the foundation of mature software and service solutions is in place, AI components can be added one by one to open new possibilities. With decades of experience in making processes better, we are happy to evaluate and implement these follow-up projects together with you. Take us at our word and rely on our expertise!

About USU

USU is a leading global provider of intelligent software and service solutions for IT & Customer Service Management. Our solutions enable companies across the globe to respond to the shifting needs of customers and employees in today's digitized work world: By using our solutions, companies can implement simpler workflows, offer smarter services, lower costs, be more agile, and reduce risks. With more than 40 years of experience and locations worldwide, we will take you successfully into the future.

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