

INNOVATION IN IT

Drink your own champagne

Innovation and digital transformation are initiated from the business side – whether consciously or subconsciously. So, IT finds it difficult to absorb the new digital technology and activities into existing IT platforms, especially in areas like security and controllability. By implementing a digital transformation through the IT side itself, you can anticipate business demands and developments.

By applying DevOps, Agile, robotics, and chatbots, for example, in operational IT, you take intrinsic strategic steps in the digital direction. You can also go for far-reaching automation and analytics, and apply software and data science in your own IT domain. By taking steps in the digital direction yourself, you can – as we said – better anticipate the new developments that business customers want. You can help them in their digital transformation by acting as their digital partner, as it were.

Black box IT

We do not actually know what is taking place within our IT environment. The production line runs in fits and starts, and we spend a considerable amount of time monitoring, correcting and adjusting the technical settings of the IT environment – the configuration. Recording the multitude of settings in the traditional way is a never-ending task. The effect of changes is often unpredictable, which results in low quality and IT factories where many people are predominantly occupied with repairing the machine instead of with innovation. The application of digital solutions can improve this situation.

Robot-controlled

Change tack: develop a platform that

keeps a check on the configurations, end-to-end over all the IT components. A platform that provides people with the means to change, stimulate and improve the IT production line – without directly working 'low down' the configuration line themselves. In other words, a platform that provides uniformity for configuration management and – driven by SLA, cost, and compliancy requirements – automation for all IT components. A platform that is also continually interpreting what happens in the IT landscape, supported by machine learning. A platform that gives an uncluttered and situational view of the landscape; continually learning and predicting how the IT landscape is behaving and how it can be improved in the broad sense of the word. Seen in this light, it is actually an IT robot. You can even use a chatbot. The foundation is as-code, always. We manage the IT systems with code and recipes, just as a factory line is operated by a robot – along with the operator (i.e. software guy), who in turn operates the robot. This set-up is different to the one we are used to in regular IT operations. The robot takes over the traditional maintenance work within the platform. So – hands-off IT, driven by software and automation. Go digital in your own factory! If you can do that, you can also be your client's digital partner.

Other roles

Within IT operations, we traditionally recognise the role of system administrator, who is specialised in network, computing or application landscape. This is not the case within the robot-controlled IT platform. On the development side of the platform, a role is played by people with a totally different blood group: the specialist in semi-manufactured products, who clicks together infraproducts rather than building them himself; the software guy, who automates through pipelines and integrates everything through code;

the UX designer, who implements the reports for the end customer, and the data science specialist, who retrieves that data from the platform in order to make it even smarter through machine learning. And then there is the functional customer, who we give the role of product owner and innovation driver. So it is a different set-up to the one we are used to in regular IT operations. On the operations side of the platform, there are the people who manage the platform and make it smarter: the analytics expert and the robot operator. This operator is the new system administrator: a DevOps role with a strong software background, as he is the one who needs to be able to control the configurations of the target IT environments with robots.

Improvement activities

From this platform, IT operations are software-controlled IT, where DevOps engineers run operations as well as doing development. On the one hand, this is to automate their operations work, and on the other to bring it even more under configuration management, so that changes can come into production flawlessly through the pipelines. Incidents are discussed in an agile way through the retrospective, whereby the data scientist uses the log data to analyse what went wrong, and when and why, and the operator immediately sets improvement activities to prevent such an incident occurring again. These improvement activities are put on the Kanban board, so that they can be carried out as soon as possible. It is a continual improvement loop, in which innovation is incorporated into daily operations. This is not an easy process. It requires a cultural change and a strong CIO that appoints and manages young software engineers, data scientists, and scrum masters, in order to bring about this turnaround.

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