Will Robots Be Our Future IT Auditors?

Rob Fijneman

We are confronted with changes in technology every day; some are corollaries of an evolution, but we also are faced with revolutionary changes. Disruptive is the phrase often used to indicate that we are in a stable world with occasional disruptions. In 2035, change will be the norm and stabilization will be called disruptive. We will be part of a technological ecosystem, in which robots monitor and – if necessary – audit complex technology systems. Will there still be a role for us as technology advisors and auditors?

Digital labor is a relevant discussion in many companies. After digitalizing back offices in former years, the full chain of processes is being digitalized and business models are changing rapidly. Basically, new business concepts are introduced across all sectors; technology does not wait for us to get organized. We are learning how to use big data concepts, we have started to learn from data patterns and predictive analytics are being used. There is no indication these developments will stop.

Board members struggle to adopt these technology changes timely while trying to keep a balance between running the business with huge investments in "older technology" and changing the business with disruptive technology. Technology advisors and auditors are often consulted to sort out these dilemmas, to give advice with respect to the required investments, to regulate governance and also to audit the current technology quality and technology plans. This provides a comfortable picture for advisors and auditors. In KPMG's Advisory practice the technology component constitutes a huge part of our focus on transformational processes with our clients. We help shape the future agenda of our clients, and this undeniably requires technology skills. Specialists in technology are

Digital labor and robots are driving compliance and control

Interventions are needed to avoid technology advisors and auditors becoming irrelevant

scarce, data science is today's sexiest job and universities are starting up various master programs in data science and technology. This promises a golden future.

To Keep Pace with Change ...

Today's technology kids will be leaders in 2035, having technology fully embedded in their DNA. The "fear, uncertainty and doubt" attitude currently prevalent among board members will be replaced by agile and innovative thinking when it comes to technology. This will impact the demands that will be made on future technology advisors and auditors.

Key question is if the consultants and auditors will manage to change simultaneously, and rapidly enough. Robotics in consulting and auditing could become a reality. Asset-based consulting models are indicating that times are changing. Technology will change the current business models.

The IT audit discipline struggles to keep abreast of the pace of change. Audit models will need to be adopted, data analytics will introduce a full data-driven audit approach potentially replacing many of today's audit techniques. Also the profile of IT audit in terms of scope, added value and the required common body of knowledge of IT auditors is the center of attention.

One can't help feeling that we are ruled by compliance and risk-adverse approaches leading to a relatively slow change agenda in our profession. We have seen other industries being swiped away due to lack of speed, and potentially this could also happen to the consulting and audit professions. Technology could take over the control and monitoring of activities, cognitive learning models can be used to improve processes, robots can be trained on a permanent basis to become better auditors. Ideally everything gets secured by design, and there will be no need to have concerns once tested and put in operation. At the same time this thinking creates opportunities. Who will validate the quality of the initial rules built into the fully automated control, monitoring and auditing systems? Someone will have to define and validate the rules used, so the technology advisor and auditor could still have a vital

role. Revolution is probably needed to shape ourselves for these new roles and position ourselves differently in the future value chain.

... More Is Needed

My inaugural speech at Tilburg University in 2005 also focused on the future of IT auditing. It elaborated upon the potential of IT auditing being limited or unlimited. Ten years further down the road changes seem disappointing. The audit profession has not really reshaped its audit methodologies, we still respond to remarks made to our audit opinions and do not have a fully proactive agenda ourselves. Recently the IT audit profession body in the Netherlands started discussions with the Universities to revisit the common body of knowledge of IT auditors, to extend the scope to IT governance and assurance, and to define the curriculum needed to develop future-proof IT auditors. These initiatives are positive, but not disruptive enough to reposition ourselves with a view to the new technology ecosystem.

Last year we celebrated 25 years of IT auditing at the TIAS School for Business and Society. At KPMG we have had a focused technology team since 1973, which was started up to support financial auditors in validating the reliability of financial systems. Today our work covers the full IT life cycle both in terms of advice and auditing. We can build on these strengths to re-invent our profession, to continue to be a technology partner in new ecosystems and to secure a public trust role regarding technology. To innovate we need to engage start-ups, to discuss new business models with today's technology whizz kids and to start testing new audit techniques rapidly. The future is ours, if we start changing today.

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