

Theoretical Background

There are three main concepts that form the basis of the ChallengeX method

COMPLEX ADAPTIVE SYSTEMS

The term complex adaptive system has been developed by scientists of the Santa Fe Institute. They understand those systems as a large number of agents who act according to a certain set of rules. All of these agents interact with and adapt to each other. Complexity research tries to understand the common indicators and dynamics of such systems or networks. As opposed to a traditional scientific approach, which would expect to find an overriding plan for the entire system, complexity scientists model the interaction of all agents according to their local principles, which does not allow the creation of patterns. They show how the principle of self-organization leads to the emergence and preservation of order from a stadium of low order or complexity. This leads to fundamental structural innovations as opposed to superficial changes. No outside design is forced upon the system but an orderly behavior, sometimes even in the form of evolution and innovation, is developed from simple rules.

Many analogies of this research can be used for working within organizations. The dynamics at the edge of chaos, i.e. the simultaneous stability and instability can be used as prerequisite for innovation. This in-between state shows radical unpredictability over certain time spans resulting in the notion that uncertainty within a growing system is unavoidable. The absence of an overriding plan allows the emergence of creativity and innovation as a collective phenomenon.

These insights strongly contributed to the design of ChallengeX. According to these we use very simple principles that create a multitude of iterative and diverse occasions for reflection and relation. We use clear and organized elements as well as elements without any structure. The focus on adaptive challenges results in working on the edge of chaos. We trust in the development of new orders in the thinking and acting of our participants who in their authenticity and actuality are utterly unpredictable.

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TECHNICAL VS. ADAPTIVE CHALLENGES

Richard Pascale and his colleagues focus their work on the adaptation of complexity science on working with organizations. One of the key aspects is the differentiation between technical and adaptive challenges, a distinction first introduced by Harvard University scholar Ron Heifetz. Technical challenges are characterized by the ability to use certain techniques and methods to create successful results. This involves high predictability and forecasting.

Adaptive challenges involve the managing of many non-linear factors. This means to develop new methods and techniques to create successful results. There is very low predictability and forecasting. Misunderstanding and conflicts are prevalent but the possibility for fundamental innovation is high.

When highlighting this distinction it becomes clear that certain paradigms in management sciences largely negate these differences and focus on the technical view on existing challenges. But most everyday situations within companies are characterized by a mix of both forms. The understanding of this distinction is a key subject of ChallengeX.