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Paper/Article name:	<b>Absorptive Capacity</b>
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Overview:	Short note on absorptive capacity of agents (individuals) and agencies (corporations) operating in social systems.

**Absorptive Capacity**

Absorptive capacity is defined as the ability of an organisation to locate, appreciate and assimilate the value of environmental perturbations, which are internal or external stimuli or information).

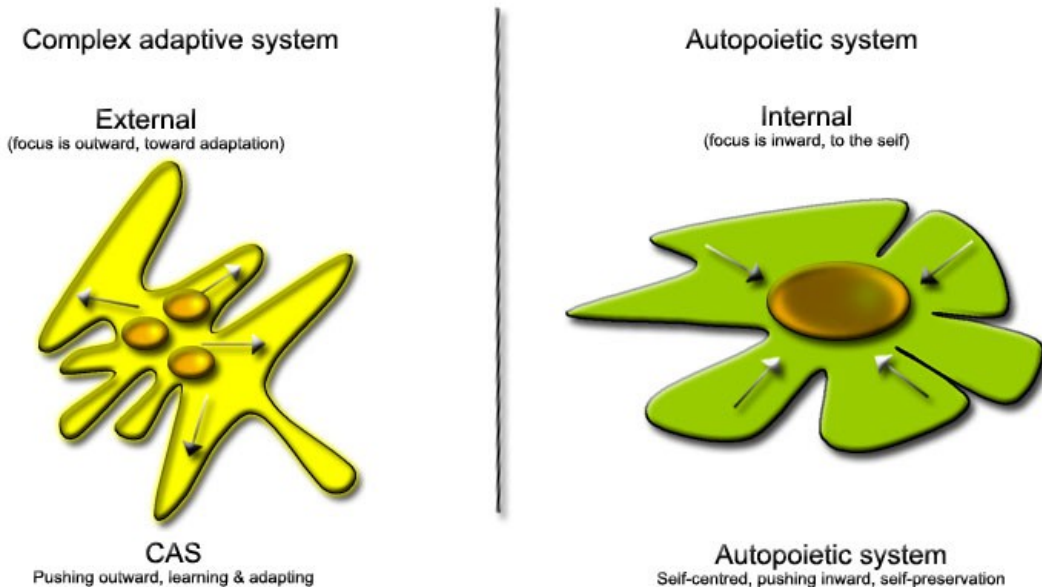
Absorptive capacity, a term introduced by Cohen and Levinthal (1992), works both at the individual and the organisational level - at the individual level, accumulation of prior knowledge enhances the ability to acquire new knowledge, which can be helpful when dealing with uncertainty; At the organisational level this action is shaped by its structure in conjunction with the absorptive capacity of its people or human capital. Typically this is usually achieved by "gate-keeping" or "boundary spanning" activities with the external environment (outward-looking absorptive capacity), as well as interaction within sub-system (like divisions or units in a corporation, usually called inward-looking absorptive capacity); Interaction between sub-system (multi-directional absorptive capacity). This is similar to Requisite Variety whereby any regulator, must have greater Variety than whatever is being regulated, or if not, then such a regulators should have variety absorption capacities like Attenuation, Amplification, Supplementation, etc.

The effect of absorptive capacity is cumulative since it enhances the capacities of both agent and agency, to assimilate and exploit new knowledge and to evaluate the importance of new technological advances, depicted in the illustration below having an inward and outward disposition.



## CAS Vs Autopoietic systems

These two diagrams highlights the essential difference between a complex adaptive system, and that of an autopoietic system. The CAS being oriented toward learning and adaptation, whereas the autopoietic systems tend to have an inward focus, i.e. self-preservation..



A low level of absorptive capacity may hinder an agent or agency's appreciation of emerging new technologies and opportunities, making them reactive. However, too much exposure to information or data, could lead to confusion and information overload.



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A robust absorptive capacity however, will help agent and agency to be more proactive and exploit emerging new technologies and market opportunities. Absorptive capacity is a requirement to function effectively and creatively today, and since absorptive capacity is a function of knowledge, it can be increased by agent and agency through basic systemic and complexity training and development.

This is another reason why it is important to identify an agent and agency's core competencies and plan to enhance and leverage these. Since each entity is unique, it's considerations in this regard will necessarily be unique as well.