Variety (glossary)

From SEBoK

variety

(1) A measure of the connectivity between system elements (Ashby 1956)

(2) Interacting systems stability increases with variety, and with the degree of connectivity of that variety within the environment (Hitchins 2007)

Sources


Discussion

(1) Is a cybernetic term used to define the number of available connections between elements, and thus the potential routes for control actions.

(2) Is a systems engineering definition, in which variety of connections between elements is used as a way to increase the stability and potential of a system to achieve its goals. Hitchins refers to this as Connected Variety, and also discussed the limits on this connectivity applied by availability of time, space, resource.

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