The Class Reminiscences of Nov 20!!!

As it was revealed, the ambiguity is an intrinsic element of the divergent Battles. Nonetheless, there is also interest in different approaches regarded to innovation, such as sensemaking, science in action and black swans. From the previous class, the insights from the science in action highlighted the practice as the corner stone of any invention. Since scientists have different perspectives, and they share their thoughts in order to discover new ideas ¿How can we enter in the circle?.

Exploring the **principles** of **science in action**, we can find the first rule that states the fate of facts and machines is in later users' hands; and the quality of such inventions are a consequence of a collective action. To exemplify, at first sight selecting Android over iOS to target a bigger market segment is reasonable, whilst developing augmented reality can be more attractive for the iOS segment. Despite the fact that Android is more affordable than IOS, the iOS users are willing to buy applications that Android users are not willing to. Hence, IOS has a higher potential for users than Android. This latter example assigns a quality to a machine or a device that we recognize as a seed.

Furthermore, the first **method** of **science in action** tends to study things before those are blackboxed, so the focus is the scientific activity and not the readymade science. Currently, there are fewer barriers to access knowledge in comparison to the sixties decade. Even though, still the scientific literature exhibits a low rate of citations and roughly 80% is not cited. Indeed, the expected citations for an article are around 17, meanwhile if an article is not cited at all it is not unexpected.

Moreover, throughout the second principle the scientists and engineers are recognized as representatives of their own inventions. Thus, such inventions are shaped by the hands of others instead through the foundations of the mechanism. So, ¿what is the relationship between science in action and innovation? The constant feedback, since it is essential to develop companies.

From another stance, the **Black Swan** theory by Nassim Taleb, it makes a depth look into the unpredictability. Considering a cause and effect perspective, the complexity of the environment has the potential to create unexpected events, and the improper manage of such events can produce catastrophic results. To subjectively exemplify, the first reaction could be either to treat the black swan as an exception and observing it as an outlier, or try to adapt to it as our definition is wrong, or reject it due to the black swan is not a swan. Accordingly, the theory introduces the notion of mediocristan and extremistan. Usually the mediocristan is represented as a normal distribution under well know probabilities, demonstrating relations such as a low impact and highest probability and also a highest impact and low probability relation. Conversely, the extremistan states that an accurate prediction is not feasible since the events are improbable as occurrences, although if presented it would have the highest impact.

Lastly, the problem of induction is also in synch with innovation. Despite that an experience can confirm a truth, still we ignore if that condition will remain immutable forever. As the assumption of the Russell's Chicken, that chicken was fed routinely ignoring that someday it would be cooked. For instance, the real state bubble affecting over half of the U.S. states represented a major crisis (see The Big Short movie).

Hope this helps, All the Best,

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