

The Return of Homo Economicus and Unbounded Rationality

In the beginning, there was **Homo Economicus**.

- An extraordinary man**
- Endowed with great sagacity**
- Unlimited cognitive ability**

Homo Economicus's peculiar abilities were foundational to the development of neoclassical economic theory before being eschewed in favor of Bounded Rationality. But perhaps modern technology has made Homo Economicus relevant again, this time in a more practical way.

Homo Economicus gives way to Bounded Rationality

Homo Economicus was an idealized conception of man constructed by economists to give logic and coherence to their subject.



Homo Economicus's time was short-lived. Ultimately, Homo Economicus would fall out of vogue because his peculiar abilities were simply too stylized vis-a-vis an ordinary man.

- Homo Economicus always had perfect and complete information, but man never did.
- Homo Economicus could foresee the implications of his contemplated action with perfect clarity, but man could not.
- Homo Economicus could calculate in real-time precisely the benefit that would accrue to him from his chosen action, but man could not.

Bounded Rationality became the new foundation.

Bounded Rationality recognizes the limited information that man has available to him as he makes decisions.

Man's decision-making is never optimal. Not because he cannot access the information he requires (though this may also be true), but because he cannot access all the information that he requires and compute an optimal decision in a reasonable amount of time.

Constraints on man's ability to consume information have the deleterious effect of limiting his ability to learn and, therefore, to adapt and coevolve with his environment – quickly and at scale.

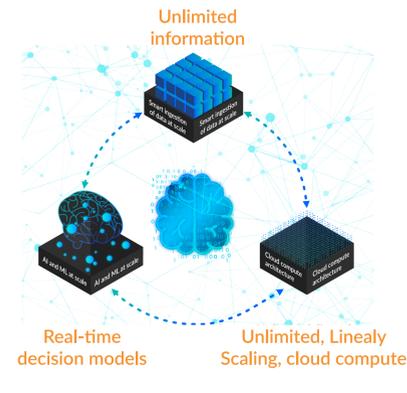
BOUNDED RATIONALITY

Limited Information



An enterprise's ability to quickly (learn and) adapt is becoming its most potent weapon against its rivals. CEOs that fail to recognize this do so at their peril.

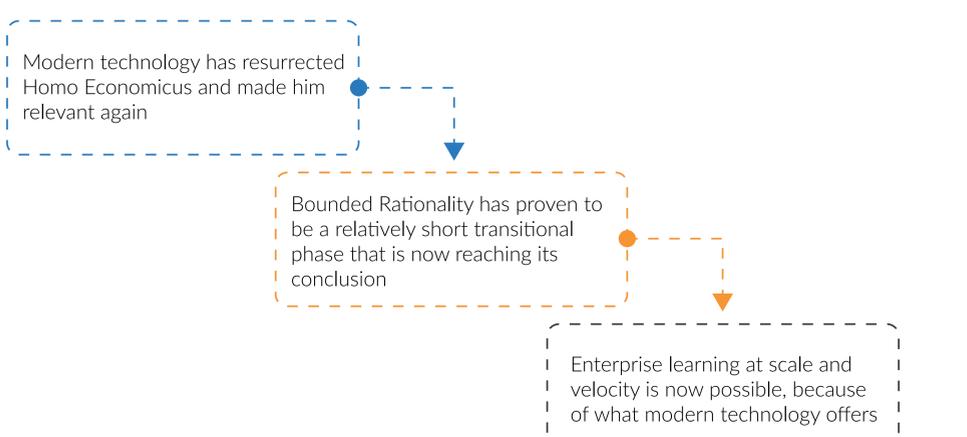
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Homo Economicus was merely ahead of his time, because it is now possible to have practically unlimited information and cognitive ability and to compute optimal decisions in near real time. Technology has enabled this for us.

Indispensable technologies for enterprise learning:

- Big data technologies**
Today's big data technologies make it possible to identify, acquire, and deliver structured, unstructured, graphic, video, and sound data (or information) in near real-time, or better, at great velocity and scale. As our digital world becomes increasingly instrumented, acquiring and consuming data in real-time is increasingly an imperative; nay, it is an indispensable enterprise competence because it is the first step in enterprise learning.
- Massively parallel and scalable cloud computing architectures**
The exponential growth of data of all types is a well-known phenomenon that is expected to continue for the foreseeable future. The idea that any one company can build and maintain the technology infrastructure needed to consume the volume and velocity of data reasonably necessary to drive their learning process and, hence, their adaptation and evolution as an enterprise is a fleeting one. Cloud computing is not optional for an enterprise that intends to thrive in this digital age.
- Advanced analytics leveraging Artificial Intelligence and Machine Learning**
The process of harnessing and exploiting an enterprise's corpus of data cannot be complete, nor will it be feasible, without leverage from analytical techniques, particularly artificial intelligence and machine learning techniques that leverage huge volumes of data and, hence, rely on cloud architectures for their efficacy.



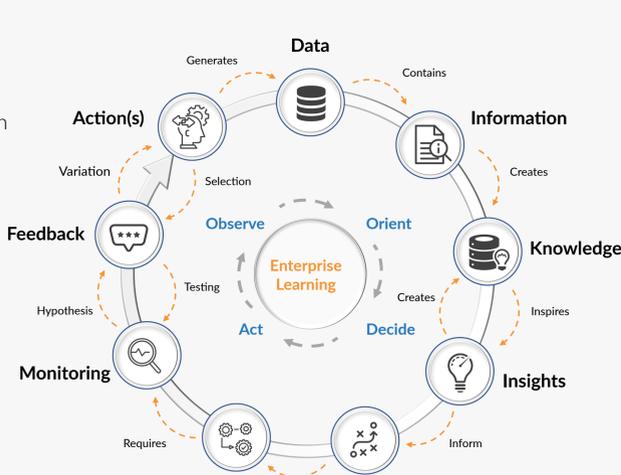
Information Architecture is Foundational for Enterprise Learning

Inner Loop

A very simple model of learning. After some number of iterations through the loop, the actor and the environment converge or align on the actor's expectation. Learning is manifest in this outcome. The speed at which this outcome is achieved is the speed at which the actor has learned.

Outer Loop

The role that data plays in the learning process. As more data is consumed, more information is acquired, and more knowledge is created. The greater the amount of knowledge informing the strategy process, the more efficacious the actions will be that are selected to pursue specific business objectives. Data is everything!



- The enterprise that is able to acquire and leverage data at scale is the best equipped to learn at velocity.
- As long as the enterprise learns something from each iteration of the loop and acts appropriately, convergence or alignment will occur.
- The faster the enterprise can cycle through the loop, the faster convergence or alignment will occur.
- If an enterprise is looping quickly through the process, it can even make bad decisions at low cost, so long as it corrects them on future iterations. Convergence is guaranteed.

So be bold!

Making "just noticeable differences" each iteration through the learning loop is a recipe for mediocrity at best, and failure at worst. CEOs need to go all in with their Chief Information Officers to enable enterprise learning, because if they do not, there is a large risk that they will face a real competitive crisis in relation to their competitors that do.

