

Dead ends of specialization



Among scholars and knowledge makers in history, one can identify a large number of intellectuals whose interests lay in seemingly disparate spheres.

A poet and philosopher could also be an astronomer, technical innovator and mathematician. A traveller and writer could be a linguist and painter.

- Consider for instance Al Khwārizmī, Ziryab, Leon Battista Alberti, or Leonardo da Vinci.
- Each person's many spheres of knowledge created a syncretic world view that contributed to a broad perspective, an easy ability to see connectedness among multiple domains of knowledge of the natural world and human interaction.

With greater and deeper development of various fields of science, technology and even the social sciences, specialisation is inevitable and even necessary in the contemporary world.

This has no doubt yielded many important, even life-saving results. But, the fetishising of "expertism" and its blinding righteousness contributes to a host of problems that are being called the Anthropocene.

Whom can be called as Polymath? :

Polymaths are those who have a demonstrated track record of expertise in multiple, wide-ranging yet seemingly unrelated fields.

A polymath is a person whose expertise spans a significant number of different subject areas such a person is known to draw on complex bodies of knowledge to solve specific problems.

One can find numerous examples of such exemplary individuals throughout the course of history. Leonardo Da Vinci was a polymath; so was Galileo and Rabindranath Tagore. Even Sherlock Holmes is a polymath.

We need polymaths more than ever. Their skills and knowledge would be exponentially more impactful in solving modern-day, complex challenges rather than relatively simpler times of Renaissance.

The problem of Hyper-Specialization:

the problem lies with the inflexible structures and over-emphasis on hyper-specialization.

- In economic theory, lies the concept of specialization of labour.
- The more specialized labour, the higher your economies of scale and lower the average total cost.
- As more and more organizations adopted this concept to maintain a competitive edge in the marketplace, it led to the conversion of integrated job roles into modular job roles.
- This, in turn, created an entire army of experts who specialize deeply into one field of study.

While hyper-specialization helps to optimize the cost at the lowest levels of the organization, it restricts the experts who execute these hyper-specialized jobs from developing higher order thinking.

Almost always, these experts are

- Unable to look at the larger picture and
- Understand the implications of their insights.
- They fail to understand that their recommendations are just a piece of a larger puzzle.

Such lack of understanding is only perpetuated by the modern workplace culture that restricts executives from trying things beyond their job responsibilities. Human Resource professionals pad up the job responsibilities in the hopes to attract the best talent, however, only a fraction of those responsibilities are really undertaken by the employees.

Usually, a bulk of the work is outsourced to specialized consultants. Thus, a job role that seems like a polymath's dream ends up being just another specialized role in disguise.

Rigid Structure of Specialisation Victims will be Polymaths:

With increasing specialisation, what one gets are experts who do not understand the connections between knowledge systems and ways of knowing.

Instead of treating an approach to knowledge or a paradigm as simply a heuristic or a framework, they begin to regard it as fixed, offering specific solutions that cannot be argued against and carrying all truth.

The limits of each knowledge system are not part of the training and their own blinkers are not apparent to them.

The worst victims of such rigid structures are entrepreneurial polymaths.

Entrepreneurial polymaths excel at synthesizing ideas from multiple disciplines to develop organizations that are truly game-changing.

For example, consider Elon Musk's approach to entrepreneurship.

- His education in Physics and understanding of the obsolescence rate of heavy engineering machines allowed him to develop The Boring Company, a tunnel construction company with a mission to reduce the traffic congestion in Los Angeles.
- Since the heavy engineering machines follow a low obsolescence rate, it usually takes more than a decade to completely replace them.
- This allows to keep the overall cost low and make such ambitious projects feasible.
- If that were not innovative enough, Elon Musk raised the initial funding for The Boring Company by selling hats and flamethrowers.

Conclusion:

The academic system of rewarding greater specialisation has fed the knowledge industry and universities to prepare students in precisely this manner.

Policy makers are listening to the experts seeking their guidance, thus coming full circle and promoting further fragmentation.

The assault on nature from the ramparts of specialisation creates narrow reductionist viewpoints that are fiercely defended by specialists who seem to have a lot at stake in terms of careers and reputations.

Those at the short end are the most vulnerable creatures and humans on earth making up the vast connected webs of life.

As Max Weber wrote in *The Protestant Ethic and the Spirit of Capitalism*: "specialists without spirit, sensualists without heart; this nullity imagines that it has attained a level of civilisation never before achieved."