## On being a Jack or Jane of all trades

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At a book launch recently, I heard Capt. Gopinath speak. Capt. Gopinath, as we all know, is a man of many hats — an army man, farmer, and entrepreneur. I know the HR Head of a large IT firm, who has completed his PhD while working a busy day job and runs marathons regularly. My work creates opportunities for me to meet and greatly admire people who do several different things and do them well. This led me to think if the common cautioning of 'don't be a Jack (or Jane) of all trades and master of none' is worth revalidating.

Humans are multi-potential: American writer Robert A. Heinlein in his science fiction novel *Time Enough for Love* says, "A human being should be able to change a diaper, plan an invasion, butcher a hog, conn a ship, design a building, write a sonnet, balance accounts, build a wall, set a bone, comfort the dying, take orders, give orders, cooperate, act alone, solve equations, analyse a new problem, pitch manure, program a computer, cook a tasty meal, fight efficiently, die gallantly. Specialization is for insects." Humans are multi-potentialities and some even polymaths, i.e., those with wide, varied, and encyclopaedic learning.

## What makes some people polymaths?

- They often have an anchor subject from where they build. For example, Geology played a seminal role in Charles Darwin's life and work in Biology. His study of volcanoes and fossils informed his later theories of Evolution and Natural Selection. Leonardo da Vinci, who is probably the most well-known polymath, extended his skills in sketching to painting, mixing colours, understanding chemistry, leading to human physiology, and then to anatomy, building from one to the next.
- They cross-leverage one output to the other. Charles Babbage conceptualised the digital programmable computer from his understanding of silk printing and Johannes Gutenberg invented the movable type printing press adapting it from the wine press. The French mathematician and polymath, Henri Poincare's work habits were referred to as a bee flying from flower to flower. In academia and in particular social sciences, doctoral work often leads to a book while in physical sciences, researchers often take their understanding to investments and consulting.

• *They self-educate*. Their curiosity is immense, and their learning is continuous. They are constantly seeking solutions to real problems, experimenting, discovering relationships, and extending learning from one experience to the next. Charlie Munger, Vice Chairman of Berkshire Hathaway and one of the most respected investors of all time credits reading 500 pages a day – his children even call him a book with legs – to his success. Benjamin Franklin, who was a scientist, writer, statesman, and more, dedicated 1 hour a day or 5 hours a week to learning and reading (similar to Michael Simmons' 5-hour Rule).

The world's problems are complex, and we need polymaths to lead: The big challenges facing the world (e.g., climate change, a future pandemic, and hunger crisis) require an understanding of multiple disciplines. Solutions to a complex problem like climate change will require insight into natural sciences, economics, and geopolitics, to name a few. Those with an encyclopaedic understanding of issues are best placed to lead such initiatives.

**Does this mean specialism is not necessary?** Definitely not. The argument here is to have a deep specialisation supplemented with an interdisciplinary understanding. In Tesco, the British retailer where I worked for many years, this was called the *Tesco T*. General managers and business leaders would be expected to have depth and breadth and know everything about one function and many things about other functions.

Malcolm Gladwell in his book 'Outliers' asserts that the key to achieving true expertise in any skill is a matter of practising for at least 10,000 hours. If that is the case, then staying on a skill for 6-8 years should make one an expert. Ideally, in a professional career of 35 years, 5-6 such areas of expertise can be built. It is said that the Nobel Laureate Subrahmanyan Chandrasekhar shifted his focus area every 10 years, covering a wide array of research topics like stellar structure, quantum theory, and hydromagnetic stability.

The NationalEducation Policy (NEP 2020) recognises this: NEP 2020 recognises the benefits of interdisciplinary learning and has introduced flexibility in course selections. The new programs encourage students to choose across disciplines, develop peripheral vision (as opposed to tunnel vision!) and think about new possibilities. Interdisciplinary learning will lead to forming of multiple capacities, such as idea synthesis, rapid learning, and adaptability.

It is quite likely that students may fail when they step out of their comfort zone to try new things. For interdisciplinary education to succeed, it needs to be supplemented by a culture that does not stigmatise failure. As for the annoying question that children are often asked, 'What do you want to be when you grow up?', let's just say to them à la Dr. Seuss, 'Oh, the places you will go!'