Do Things Scientifically

Translated by ChatGPT.

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We aim to achieve a goal, and we want to accomplish it scientifically and efficiently. The scientific spirit can be applied to all aspects of life, not just limited to scientific fields. What is the scientific spirit? It's about questioning, thinking, and making every effort to understand the truth and the reality. It's about understanding why things are the way they are and figuring out the best way to proceed, leading to certain outcomes.

For example, let's consider the question: Is large-scale autonomous driving possible within the next ten years? Imagine a future where every vehicle on the road operates without a driver. We go to work, get into the car in the garage, and it autonomously takes us to our destination while we enjoy using our phones or listening to music. We can go wherever we want, even more convenient than calling a rideshare service. We don't have to worry about parking; the car parks itself. Currently, the consensus in the industry is that intelligent vehicles are the result of a software revolution. Software defines smart vehicles.

If we say we want to start a company in autonomous driving, is that the right question? In the scientific field, the most important thing is to ask the right questions and maintain a questioning attitude. So, how do we enter this field? We can read relevant books, study how established companies operate, keep ourselves updated on the latest developments both domestically and internationally, and seek advice from relevant experts in various aspects like technology and the market. We can study the history of automobiles, understand their core technologies, and grasp their past and present.

However, there's another approach called the first principles, as mentioned by Elon Musk. This means starting from the actual problem at hand. Is autonomous driving possible? What are the differences between computers and human brains? Can a computer understand complex road situations? How does computer vision differ from human vision? We critically think about these questions and challenge all existing approaches. We wonder if anyone knows the solution; if they did, it would have been implemented already. In natural sciences, something is either right or wrong. An idea, no matter how many people believe it to be correct if proven wrong by experiments, then it is indeed wrong. That's the essence of science.

Throughout human history, many people have been wrong, and innovations have continually occurred. Truth often lies in the hands of a few, and sometimes no one knows it. Nature doesn't lie, and it doesn't play games with us.

Similarly, when creating products and aiming for user growth, the same principles apply. We can learn about a hundred methods to acquire users and achieve growth in the market. We can collect information and ask people, then practice some of those methods ourselves. Another approach is to observe and understand how

the first hundred users found our product. In a way, we are our product, so we can reflect on how we built relationships with others from childhood, and why some relatives and friends stayed close to us. Where are people? Where are our potential users? How can we attract their attention, communicate with them, and make them start using our product? How should we design our product so they stay and continue using it throughout the year?

We can also observe how we get to know people and use various apps on our smartphones. Where did we hear about them? Which apps do we continue to use? Which ones are we willing to spend money on, even if it's only once a year? Many people using a particular approach might indicate a potentially large market. We often learn about certain individuals, events, or products through our social circle; this could be an essential channel for spreading the word. How can we encourage people to share our product? We also often receive requests from friends to participate in group discount shopping; this can be a good growth method. By engaging users in games and offering benefits, we can encourage them to spread the word. In this world, if one person does something, many others will follow. If one person spends money in a certain way, many others will do the same. If I behave this way, many others will behave the same way. If I pay once, many others will do the same.

Similarly, we can apply the scientific spirit, the spirit of questioning, to all of these aspects. Why don't people want to use our product? Is it because they don't understand it or because it's not user-friendly? Why don't I use certain products myself? What kind of people do I like, and what makes me dislike others? Why haven't I stayed with someone or a certain product for an extended period? The world is driven by desires, so why do I sometimes have desires, and sometimes I don't? What is essential in achieving goals?

So, we have discussed two things: how to enter the field of autonomous driving and how to create a product and acquire users. We can apply the scientific spirit to these endeavors. The truth in natural sciences seems simple. A feather and a lead ball, when dropped from the same height, will reach the ground simultaneously. Code is either right or wrong, and if there's an error, there's always a reason for it. However, human behavior and reactions have many rules, but often they are quite random.

Regarding humans, common sense is crucial. Generally, everyone prefers cheaper products. People like money and freedom. A person's wealth, abilities, and reputation largely determine their influence, the willingness of friends to listen to them and help them. Whether they post in their social circle once a day or a few times, sharing their daily life or motivational content, is not that crucial. For a product, what it can do, how good it is, and whether people can afford it may decide whether people will need it, while the way it's promoted, like having a product launch event or creating various content for promotion, may not be as significant.

Common sense is simple, and the principles are straightforward. We may not need to find rules for everything; sometimes, doing things simply and well is enough.

How to do things scientifically? For each task, we have two basic methods: learning through imitation and exploring through thinking. We can gather a lot of information and ask others how they do things, then imitate them. Alternatively, we can think deeply, observe ourselves and the world, consider the essence of things, test our ideas through experimentation, and iterate continuously.

As time goes by, we'll find that exploration through thinking becomes more and more critical. Imitation often only allows us to learn the surface of things, while exploration through practice often leads to a better understanding of why things work or don't work.

People who succeed in their first entrepreneurial venture may face failures in their second attempt. When you're deeply involved in something, it's challenging to see the reasons behind success, and we often attribute success to our own abilities and efforts. However, the overall environment plays a significant role. People's needs and lifestyles are constantly changing, and the economic environment is always evolving. Five years ago, we reached users and understood their needs differently than we do today. What's essential is to evaluate the reasons for our past achievements and consider which aspects to carry forward and which to improve. How will our efforts lead to results in the long run? What kind of person do I want to be five years from now? What should I do today to achieve my desired goals? With the end in mind, how should we work hard today? What can I do?

In this rapidly changing world, thinking and acquiring knowledge and methods become increasingly important. Technology has also widened the gap between the rich and the poor. An engineer may earn ten or twenty thousand a month, while many other jobs still pay only a few thousand a month. A more skilled engineer may earn four or five times more. There are also various levels of internet celebrities who earn fortunes at an alarming pace. Perhaps we should look at the median income, observe the lives of our friends, not engage in comparisons, maintain a peaceful mindset, and focus on learning more every day, thinking more every day, and practicing more every day.

Jack Ma, Wang Xing, Zhang Yiming, and others have learned how to manage teams and wisely spend billions or hundreds of billions. They understand what people need and have glimpsed into the future.

Doing things scientifically means applying the spirit of science, which involves questioning, exploring, and thinking. We can apply this spirit to every aspect of life. I find it increasingly enjoyable to approach things with a questioning attitude. By questioning, we can see new and unique aspects of things, discovering the other side of the truth. Questioning means not accepting things at face value; it means not worshiping things but rather examining them from higher perspectives. It makes thinking exciting.

When we talk about science, we aim to make new discoveries and innovations. Compared to imitating, learning and imitating the methods of others are relatively easy. If something has been done before, it proves that it's feasible. Although we may not be able to do it ourselves, there will always be someone else who can. However, being the first to achieve something earns admiration. This is innovation. People haven'

t done it before, and someone shows that it can be done. They demonstrate how this can make human life more convenient. From then on, this knowledge can be passed down, benefiting future generations.

Some say that human knowledge isn't handed down like a bucket of water from one generation to the next. Instead, it's grasped and learned by those with an enlightened mind, who then add new innovative knowledge to the existing pool. They wait for those with a keen interest to discover it. We can leave something on this planet, but our lives are short. In the past, books were a means of leaving knowledge, and now, there are various information carriers. I have learned a lot of knowledge from the internet. However, I possess only a small fraction of my knowledge. But today, I can enjoy various conveniences everywhere—whether at home, in the office, in the city, or during travels—thanks to knowledge and technology. Some people have mastered this knowledge and created products or services, which they provide to me. Some knowledge has been passed down for hundreds or thousands of years.

Let's apply the scientific spirit, the spirit of questioning, to everything. Perhaps, in doing so, we may come up with innovative ideas and achieve innovation. In questioning, we find novelty in things, and we discover different sides of the truth. Thus, innovation becomes an exhilarating experience. So, it's essential to foster a sense of freedom in our future generations—to freely question, explore, and continue the journey of humankind, continuously seeking new ways to solve problems.

Let's conclude with the words of Richard Feynman from "The Meaning of It All." In the past, humanity stagnated because people didn't try new ideas. Humanity has remained stagnant for a long time. We must not allow this to continue. I hope our future generations will have the freedom to question, explore, and continue this journey of humanity. I hope they will keep finding new ways to do things, solve problems, and make discoveries.