

Input and output in Life. What changed my life. Quantifying life into two quantities.

Alex Zheng – Wednesday, January 21, 2026 12:35 A.M.

“The translation game. Translating input to output and finding the best input to output.

Should I go to class? Can I translate that to output, is it best translation I can do right now?”

Note that We'll be referring to the input and outputs of humans, as that is what we are, and we care about **our** successes, actions, feelings. Though this can apply to anything with ****agency****.

Virtually speaking, success in our life is based on one's output; the value one's actions create from interacting with the environment. On the other hand, our inputs in life are our knowledge, intuition, and experience, which have been inputted into us and received from our environments. We are the sum of all our unique experiences, genes, and knowledge.

Back to describing output canons. Example, a person starting a successful company versus one failing to start a company and going bankrupt. The outputs, or the yields, or the value created from these two persons, is that one succeeded and another failed in their endeavours, or, one of them had actions lead to fulfilment and another distress. That is how their outputs interacted with the environment. It is one's output onto the environment, that is, society or the world, that depicts one's success, both to oneself and others. Success is based on how well one's output are received by the world. So, it is one's yield, output, produce, and therefore, the effect of one's actions that determines one's success and one's livelihood. Our outputs are our life.

To make this clear in short, it is widely agreed and obvious that success, in whatever domain one references to, is a measure on how well one's actions lead to positively viewed results on an environment.

Now, input. Input is the effect of the environment on us. It effectively represents the value a person receives and thus it is one's inputs that form wisdom - experience, knowledge, and judgment- which then leads to hopefully good outputs. To be succinct, input is what leads to output. Input is a quantity of information (good or bad) one has received/subjected to (genetic). This receipt of knowledge, input, can be externally learned (from other people's outputs), generated by oneself ('thinking critically to generate new ideas'), or given subconsciously (genetic/predispositions). Input would be referred to as intelligence, knowledge, wisdom. Good inputs and good outputs are generally positively correlated. The most important thing: All outputs reflect/imply an input, but an input does not reflect/imply outputs. That is, for every piece of knowledge you gain, one does not necessarily act upon it. One doesn't generate value from all inputs. And this lesson is about realizing one's full potential by ****outputting**** maximum value into the world through one's ****inputs****. This means using and acting on ****all**** your inputs - skills, knowledge, and experiences, **otherwise value is lost from input to output**.

Output dwarfs input in value. Output is a direct reflection of input. So, truly, output is the only thing that should be considered in life, as it is a sign of your input (ability) and the direct value you have created through your output (positive change hopefully). Input has no agency on the world and creates no output or value into the environment. Basically, success is based on maximizing the translation of your inputs to your outputs. Your input or intentions don't matter; output represents your input. But don't get it wrong, if your input is to be fake being nice and lie to other people, your output will show this fakeness.

To be succinct. Maximize output, as input is generally sufficient in aspiring individuals. Input should be expanded when inputs dry up. But until then, keep translating the energy. Be an efficient input-output machine.

Let's talk about finite state automata to reference this. One's state is the state one is in, whether positive or negative. This state describes your life. It describes what type of output you are putting out in life. *One's life is a measure of one's outputs*. Say you're a founder directing an

ai company, that would be your state. Your state directly depicts your outputs in life. The transitions, or words, in this automaton, would be inputs that result in you moving states. Background info. In finite semigroup theory, semigroups exhibit cyclic behaviour due to finiteness, leading to eventual cycling. By always applying the same input operator, or transition, one eventually enters a cyclic group. Note that the inputs to your state would be FINITE since the amount of knowledge & ideas on this earth and information in the universe can be considered finite. Hence, we have a transformation semigroup. Note: closure exists since one's states are only earthly/mortal states. So, the conclusion is: 1) hopefully the cardinality of your state set is rather large and monotonically increasing in value from inputs. 2) hopefully, your transitions are changing and unique. Mapping this to life, the key takeaways from semigroup theory is: (1) ensure your inputs lead to improving state changes (obvious). (2) spend time and learn valuable, but new information \[CRITICAL]. (3) Make sure your life's states is very large, as this also minimizes cycling - have a broad life. Also, (4) just hope one's states are not cyclic, as this is defined by the creator of the transformation semigroup and the algebraic definitions. This may be a bit confusing, but it is very dangerous to not learn nor experience NEW things, beneficial things of course!!

Stay in the tail of a semigroup (with a positive state trajectory), avoid idempotents (elementary collapsing)!

Now, the enveloping idea: What to Output? This idea is crucial in realizing why some people are more successful. They have better outputs. Sounds simple. But it's not. Why is a PhD researcher researching clean energy less paid than a offshore oil rig worker? Bad analogy. Why is math researcher researching economics (Jim Simons wannabe), less paid than a quantitative researcher? It is because though their inputs may be similar in their degree, knowledge, and intelligence, one has decided to be a quant, and hence their output is more valuable, by that input variable, decision-making, they generate more value. Hence smartness and ability to decide what to output is KEY. This skill is the most important input. Hence why Jim Simons went from math to mathematical finance and started the quants. The key message here is, yes, better inputs lead to better outputs, but on the same level, a discreet, overlooked input, that is, one's decision on what to output, is just as important. Someone with great inputs but a poor ability to output good outputs is not powerful to someone with good inputs but a better decision on how to output better outputs. On the other hand, someone with good inputs in both pure

knowledge and decision making, will generally overpower some with less quantities in both. Hence be smart - in knowledge and critical thinking!

Takeaway: think about your future aspiring outputs and work on increasing your raw inputs (knowledge) with your decision-making skills (a type of input that must be maximized) to achieve value, that is, your desired output! Make sure input yields to direct output, otherwise value is lost!

But don't overlook inputs, once one starts to maximize output efficiency w.r.t. input, then input becomes the most important thing. For me, I must maximize output. ****This means thinking critically and consciously on the value put out into this earth and generating fruit and a positive yield. Thinking clearly and controlling your spirit, relaxing, slowing things down, and having a right mindset, to be productive and generate value from all things learned! ****

P.S. Make sure your inputs in life are secure, as they effect your outputs. Iron strikes irons. The 5 closest people you are with determine virtually all aspects of your life.

Bucket your life into input and output. I am doing so. This makes one realize the criticality of what one receives and puts out into this world!!!