Chapter 1: Go to the source

I have run out of petrol.
I find the nearest petrol pump and get petrol.
I do not like the quality of the petrol, but I have no choice.
So, I did solve my problem.

I found out the birthday of Munir was transposed.
I went to my records and fixed it.
So, I did solve my problem.

I was doing IMS support and was working on customer problem.
I did not have a proper test bed, so I did lots of jugar and resolved it.
So, I did solve my problem.

PIMS ran out of masks and they were 10,000 short.
So, they bought 12,000 masks.
So, they did solve the problem.

NFV was doing deployment and one configuration was incorrect.
After 2 days they figured it out and fixed it.
So, they did solve the problem.

Aisha asked me for promotion.
I look at her records and she deserved it.
I gave her the promotion.
So, I solved the problem.

And so on and so forth with examples.

In each case the problem was solved. So, what is there to discuss?

Thairo, Thairo, Thairo…….There is a lot to discuss.

Problem solving has two aspects.
Solve my particular problem immediately. It is needed. See the first example. It has to be solved right away. Solving for the present.

Now make sure it does not happen again. This is the second step, which we mostly miss. We are so elated (party) with our solution, that we forget to think about solving it for future.

It is good to think about feeling happy about the solution. But do not be satisfied. Khush hona zaroori hai, laiken mutmain na hona.

Now you have to go back and do root cause analysis. What caused this problem? What could I have done to prevent this from happening? In most cases, most problems happen because someone overlooked something.

Most problems are caused by human errors. And are not cause of machine errors. Most problems happen *because we did not think about them.* Really, we did not think about it. That does not make me a good engineer. As an engineer I pride on my analytical abilities. But what separates a good engineer from an amazing engineer is the ability to think. Think ahead. In business terms, it is called risk factors.

Maybe we do not have good processes.
Maybe we do not have enough resources.
Maybe we do not have the right people.

We may or may not be able to solve all of the above. But we DID make a conscious decision. Anjaney mein nahin hua.

So, let's look at the above examples. The first aspect is good, but I will focus on root cause and solving for future.

I have run out of petrol.
Why did I run out of petrol?
I will make a habit of filling my petrol whenever I am down to quarter tank.
If I take a long drive, I will fill the tank the day before. I will refill it when it is half empty. Or every Saturday.

I found out the birthday of Munir was transposed.
What caused the problem? It was month/day transposition.
Where did that happen? It happened in the input form.
I will redesign the input form, so this confusion never happens again.

I was doing IMS support and was working on customer problem.
I realized I do not have a good test bed, so I cannot properly test my solutions.
I will go and ask for my manager to get me a test bed.
But before I do that, I will design a test bed and give it to him.
Why did I not ask before? Because I assumed it cannot happen.
I will not use any assumptions in future.

PIMS ran out of masks and they were 10,000 short.
Why did we run short?
It is a new normal, so I should change my buying pattern.
I need to evaluate the new circumstance and come up with new ordering levels.
I have to get approval from my administration.
I will get multiple vendors.
Perhaps I need to reevaluate and redefine my specifications and see the cost impacts.

NFV was doing deployment and one configuration was incorrect.
Why was this configuration incorrect?
Did someone change something without updating the document?
Did someone change something without informing stakeholders?
Maybe I will deploy an auto notification tool to inform stakeholders of change (new innovation idea !!!)
Maybe I will create a rule in my team, that all changes must be approved by at least 2 people.

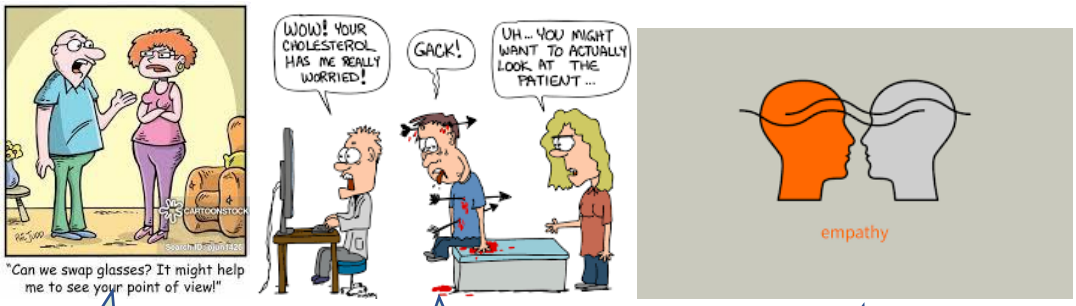
Aisha asked me for promotion.
How will her promotion impact other people in the same situation?
Do we have the budget for this promotion?
How will that effect the motivation level of other colleagues?
Maybe we should change our policy book to prevent such problems?
Why did we not identify this before she did?
Maybe I can create an automation tool? Or a calendaring solution.

So, when you encounter a problem.
Solve it for present.
Solve it for future.

Every problem is an opportunity for innovation.

Most problems are related to lack of systems/procedures/tools or an inadequate of the same.

Chapter 2: Empathy



The ability to see what others are thinking and wanting

The ability to really SEE what the other person's need are and not what you see.

Listening to people.

Customer: I want you to make me a parser module.
Engineer writes the parser module in C.

Customer: I want you to create a test specification.
Engineer writes a test specification and also the test cases.

Management: I want a report of all engineer 2 in the company.
HR makes a report of all engineers 2 in the company with their names.

Customer: I want a VOIP product with database.
Engineer designs a VOIP product with 500G of memory.

Nothing wrong with the above. They all did what was asked.

Or did they? Aha.

Empathy means listening to the customer/mgmt. But what does listen mean?
My customer told me to write a parser module. I did listen to him and I built it.
But did you really listen?

Listen does not mean JUST listening to the customer. It means CARING about the customer/mgmt. If you truly cared about the customer, you will have asked several questions. You have to go and understand WHAT he/she is REALLY thinking/wanting. To understand the true needs of the customer, you must be asking lots of questions.

But where do those questions come from? I cannot seem to think of any questions.

All the questions will come to you ONLY if you truly started caring about the customer and his project.

But how do I care about the customer/mgmt.?

The first step is to stop caring about yourself too much.
Just because you know C, does not mean all the world wants C. They might need Go.
Do not worry about your glory. Think how can I make the customer succeed. How can I make him/her look nice? Think of others. Think of their needs. Their wants. Their desires.

Most times the customer is not able to express their true intents. Not everything required is written in SOW. Go beyond SOW. Ask questions.

What do you need:

- Demo or full version.
- What are your priorities in terms of module development?
- Should I do full testing or should I do test in phases, if you want it quicker.
- Do you want performance at any COST?
- How important is delivery times?
- Do you want full documentation?
- What is the real intention of your ask? Is it a demo? Is it going to a conference?
- Is latency more important or accuracy?

Aur hazaroon aur sawal khayal mein aatey hain.
Sawal aatain hain, only if you care. Only if you have empathy.

Bottom line: Genuinely Care about Customer's Real needs.
And the answer lies in the questions you ask.

This is the single biggest success factor for xFlow.
It has gained respect with customers.
It has helped avoid millions of problems.
It has helped deliver the best product for the customer needs.

Customer: I want you to make me a parser module.
Engineer writes the parser module in C.
Customer wanted this in Go language because all his other modules are in Go, but our engineer wrote in C and now it has to be re-written. Did not ask the right questions.

Customer: I want you to create a test specification.
Engineer writes a test specification and also the test cases.
Customer wanted a very good specification only. But the engineer took only half the time for the specification and in trying to impress the customer, took the other half in writing test cases.

Management: I want a report of all engineer 2 in the company.

HR makes a report of all engineers 2 in the company with their names.
Mgmt. really wanted a report with names, salary amounts, date hired and managers names. But the HR person did not ask questions.

Customer: I want a VOIP product with database.
Engineer designs a VOIP product with 500GB of memory.
The customer wanted the design for 500GB, but also wanted scalable to 5PB. Since the engineer did not ask, it was not designed to be scalable.

Your true empathy and caring are only determined by the number of questions you ask.

I will find the true intent of the customer,
I will do so by asking a lot of questions,
Which will give me good understanding of his needs,
And will result in perfect deliverables,
Which will make the customer look good,
Which will make my relationship with the customer better.

I do all of this because I care about making my customer/mgmt. happiness.

From their happiness I derive all my glory.

Chapter 3: Data to Action

In this section, we will look at how we convert data points to actionable items.

e.g. PTA chairman told me that 5G will be coming to Islamabad in next six months. This is just a data point. What do I do with this information? I can create a plan. I can look into markets. I can go talk to Telenor. I can start hiring and training some engineers. I can start reading up on 5G. That's it. Convert data points to points of action. Record them. Plan them and perform action on them.

I will take an example to walk you through.
There are 4 steps.

Step 1: We recorded meeting minutes.
Step 2: We took each point and converted this into an actionable item.
Step 3: We recorded this into our task list.
Step 4: We performed the tasks.

Meeting with Paul - May 12, 2020

Attendees
xFlow: Abdul, Farhan, Fazal, Munir, Nasir, Wajeeha
Dell: Paul

Notes

- Investigations of monitoring tools such as Netdata and PCP. We now need to deploy the tools for the remaining unanswered questions*
- We have discussed our internal Documents with Paul like Spirent vs Yardstick and Testing tools doc. We will upload them to Wiki and share the link with him and Team.
- From now on the Sync up meetings will be scheduled every Tuesday. Right now, only Kurt, Sambhu, Surya and Paul will be invited. We will decide later for other team members. Maybe we should invite Gopi. (Question to ask from Ashok)**
- Create a page on wiki and list all the acronyms for JS performance project***
- Paul will create a Jira board and the next meeting will be focused on future plans (mostly focused on investigation items). It will be discussed in context with stories on JIRA.****
- Paul has shared a list of his Hardware. We need to share the topology and stamp/s composition according to the work for which we need the stamp.*****

* What is our plan of action? What are the tasks created from this?

** Regarding invitations. Send an invite to Gopi. But in that invite tell him in words that we are having this weekly meeting and then ask him if we should invite him. In other words, get his permission first and then invite him.

*** We already have this on our task list. Correct?

**** Let's create a task for us, to create suggested epics and stories. Fazal can help.

***** Ok...creating a final stamp is negotiated between Paul and xFlow. Should we let Paul lead in deciding the makeup of the stamp. I recommend that. Unless we have strong technical objections to this. Paul has given a list of HW. What does that mean to you? Answer this question. Please be cautious and not get too distracted by this item, specially there is so much uncertainty right now. ALL DOCS TO BE UPDATED and communicate with NFV.

These were all recorded in the Performance task list.

As you can see this is the pathway for converting raw data points to actionable items. Think of the full journey. I guess in our language it is called packet walk. Think packet walk. It has to start somewhere and end somewhere. Packets do not stop at a server in middle; they have to hop and hop till it reaches its destination.

Keep asking what next.

Take your data to its ultimate end.

Data to Action.

Chapter 4: Problem Breakdown

Also known as WBS- Work Breakdown Structure in formal Project Management.

All it means is decomposition of the problem.
Break the problem down into small parts.

I am not directly addressing WBS. That is a different science.
I am addressing how we **think** about problems.

e.g. Problem Statement: I want to travel to Turkey.

Let's look at the elements.

- What dates will I travel?
- How long will I go to Turkey?
- Do I have enough vacation days?
- Where will I stay there?
- What is the language they speak?
- What about Turkish currency?
- Do they have halal food?
- What about my current project deliverables? How will they be managed?
- What is the weather there? Do I have the right clothes?
- How much will it cost?
- Where do I get the money from?
- What about my parents? Who will look after them?
- Where do I buy the cheapest ticket?
- What about my visa? What are the requirements?
- Do I know anyone there?

As you can see there are lots and lots of questions. This is not a full list.
If you address most of the questions, you will have a successful trip.
If not, your trip will not be so optimized. E.g you got everything figured out, but you did not ask how long the visa will take.

Problem tu koyi bhi solve kar deta hai.
Laiken baat quality ki ho rahi hai.

If you want to present a quality solution, then you must go deeper and wider.
You will find independent tasks, dependent tasks, sequential tasks, smaller tasks, bigger tasks, easier tasks, difficult tasks. Etc.

This will help you:
- Finish the easy non-dependent tasks quicker.
- Address all aspects of the problem.
- Provide a solution which is good quality and lasts longer.

Let's take another example:
Problem: I want to steal Rs. 2000 from Waheed's wallet.

Let's try to break that down.

- I will find out if he brings his wallet every day.
- I will try to find out if he carries that much cash.
- I will try to find his normal routine.
- I will figure out if he carries that much cash in the first week of the month (after salary).
- Does he ever leave his wallet on his desk? At what times? Maybe namaz time.

Bad example. Let's take another example.

One of my tests of MDF failed. Let's first break it down.

- It could be the code.
- It could be the test itself.
- It could be the test bed.
- It could be the test tool.
- It could be the test itself should not have been used.
- It could be the configurations.
- It could be I had input the wrong parameters.
- It could be the OS installation was not correct.

Once I list these, I can check against all of them and verify and identify.
If I hurry and just change the test parameter, it may pass, but perhaps the setup was incorrect, so the whole result is now doubtful (maybe I will find it out later).

I have benefited from this problem breakdown a lot. It helps we prioritize and time manage problems. Easier ones are done quicker. It helps me understand dependent tasks. So, I can now do one and then another.

In this chapter I am not teaching you how to properly breakdown and organize a problem.

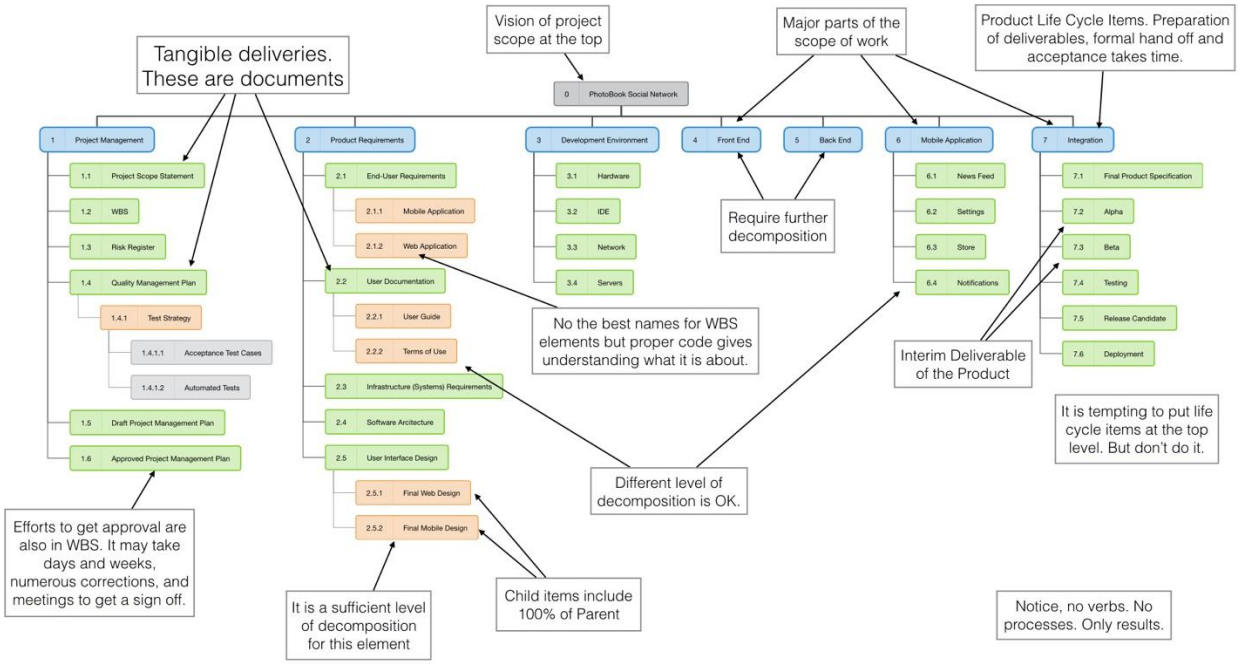
I am hoping you will learn the art of thinking how to break down a problem and why it is so important to do so.

I use this in my everyday life. Work problems, family problems, financial problems, relationship problems (yahan bahoot kaam aata hai).

Any problem, all problems, however big or small, should be broken down and then analyzed.

I will deal with prioritization and problem solving in later chapters.

Following diagram is just one example. Use your own imagination to create different kinds of charts for your problems.



Chapter 5: Problem Prevention- duur andeshi


Problem solvers are ordinary people.
People who prevent problems are extraordinary.

People who solve problems are given kudos.
People who prevent problems are given promotions.

So how do I prevent problems?
To prevent a problem, you must see into the future.

How do I see into the future? Wo tu kisi ne nahin dekha hai.

It is easy.

Start with THINKING.

Visualize. Imagine a complete code on day 1.
What does it look like?
You may not have a clear picture, but you can have a fuzzy picture.
A fuzzy picture is better than no picture.

Try to imagine an architecture on day 1.
What does it look like?
You may not have a clear picture, but you can have a fuzzy picture.
A fuzzy picture is better than no picture.

A fuzzy picture will give you some information. It is always better than no picture.

Time Horizon

In the picture above, if I look at the last frame, I cannot make it out it is jelibi. But I at least know it is something orange color. That is good data point. At least I know it is not purple (bengain).
Agar manzil pata nahin hai, raasta kaise chuno gy?
That is why it is important to look ahead.
Visualization is the best technique.

Close your eyes and picture the future in your mind.
Play it like a movie.

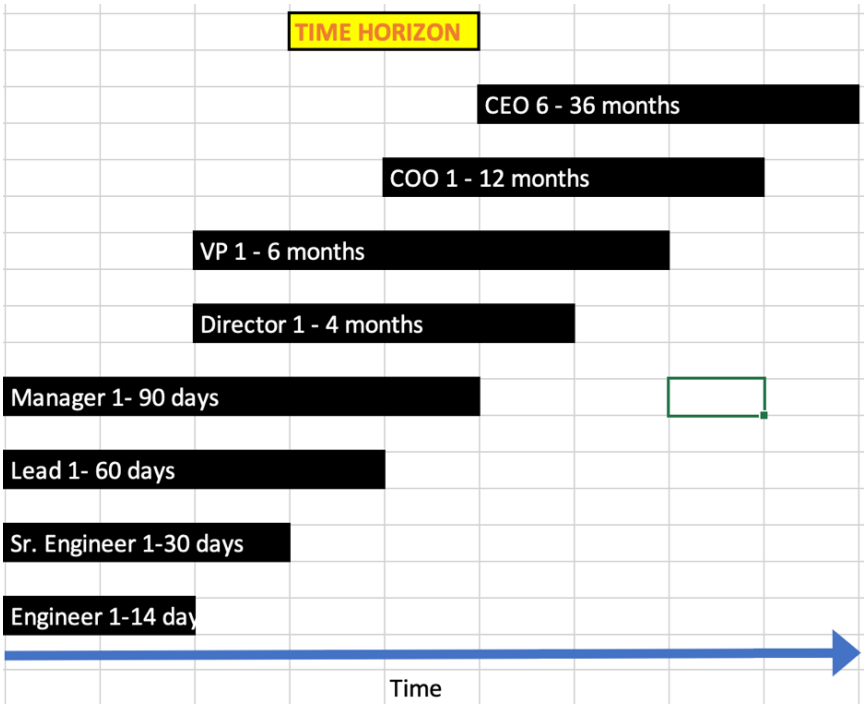
So how do we fill in the fuzzy picture?
Where do we find the data to fill in and bring a clear picture?
Two elements: Experience and Learning.

Some of you may not have sufficient experience.
In that case, use learning.

Go study. Go learn. Google it.

This technique of looking into the future is also called pro-active approach.

Next sawal. How far into the future should I look?
Mushkil sawal hai….
At least start looking into one week ahead…
Aaadat se banao.
Then keep extending it.

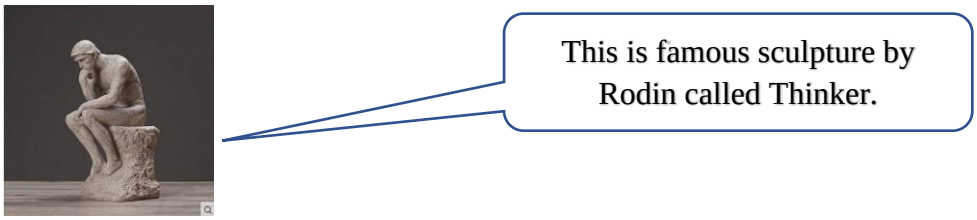


Picture above is not accurate, but is used to convey a concept. Data is not accurate.

For example, I have to think about the future all the time.
Present time is important and I pay attention to it, but I also have to think of the future.

I will encourage everyone to think about future. And then ACT accordingly.

Tu friends, sirf think nahin karna hota hai.
Wo tu first step hai.



Then you convert that thinking into action.
Make plans.
Write your plans. Write your task list. ACTION.

THERE IS A DARK SIDE.
Thinking ahead ka aik dark side bhi hai.
By thinking ahead, you will prevent lots of problems.
Problems you will never have to solve.
So, you will not get shabashi.

So, think, do you want shabashi or do you want to move your life ahead.

On a personal level, I enjoy the company of problem preventers.

Task: Take your own project and apply above to it. Tell me what you learnt.

Chapter 6: Engineering vs. Humans

Two kinds of variables:
Ones that we can define clearly. If I need more memory, I add memory.

Ones that we cannot define clearly. How many servers should we have in our data center? When should we open our office? Who should we hire, Adnan or Ayesha?

What is engineering?
It is mostly if-then principles.
It is deterministic logic.
I can create a SW to do anything.
If I want a packet to go from parser to correlator, I can write a code.
I can write the code to make the packet go anywhere.
I have control over the code I write.

Same for hardware.
If I want 10G processing, I can add a 10G NIC.
If I want 40G processing, I can add a 40G NIC.

In other words, I can code my SW to do anything I want.
If I want more processing, I can select Xeon instead of Pentium.
It is my decision. In my control.
This gives engineers a sense of control. That they can find a way to any answer they want.

It is predictable.

As you see, we get a sense of control.
My control. My decision.

Let's evaluate aisa kyoon hai?

It is so, because there are very very few variables to manage.
Making decisions is generally easier in engineering.

A different example: growing a plant.
There are lots of variables. Seed quality, soil, moisture, water, nutrients, climate etc.
Lots of them we can control, e.g. seed quality, soil, moisture and some we cannot, like weather. So, understand variables that you can control and some you cannot. Knowing the difference between the two is wisdom.

Example of stock market. Too many variables, therefore we cannot find any 'correct' answers. In this case, we do not even know all the variables that impact stock price. That is why we cannot predict near term or long term prices.

Example of Covid: Way too many unknown variables. Hence no one is clear about what to do.
When will the vaccine be available?
Does Hydrochloroquine work?
Can kalongi treat my symptoms?
What is the impact of temperature?
What is the impact of BCG? Etc.etc.

Let's now look at humans.
Humans have feelings, instincts, desires, goals, dreams, history, family considerations, job considerations, financial considerations, health, good day/bad day etc. Way too many variables. We do not know at any point which are the active variables.

It is very difficult to predict how humans will behave. Once I told someone: aaj aap bahoot piyari lag rahi hain. Jawab: Kiya mein kal achi nahi lag rahi thi?
Koon ye predict karta?

Recently I told a joke to a friend and he got upset. When I explained the context to him, he found it okay.

So too many variables when dealing with humans.

You are engineers, but let's look at your day at work.
You ask the office boy about your lunch.
You talk to Faisal Qureshi for admin work.
You talk to Tayyaba for your leaves data.
You talk to your colleague about the task you are working on.
You talk to your lead about technical aspects of deliverables.
You talk to your manager about your holidays.
You talk to Ashok sometimes about newer projects and ideas.
You talk to customers about their needs.

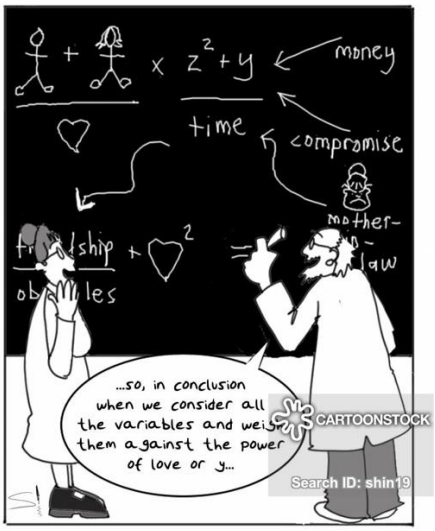
As you can see throughout the day, you deal with humans more. Above list is only office, add to this your interactions at home.

And I can bet the interactions are not as smooth or predictable as your terminal.

Final thoughts:
Understand the variables.
Distinguish between variables that can be resolved and ones that do not yield simple answers.
Look at the total set of variables.
When the variables are too many, bara mushkil hota hai kisi aik nateja pe aana.
Understand the fact, that when you deal with humans, relax, do not try to control the outcome. Humans are not if-then entities. Do not use your engineering control on humans. Be ready to accept different answers than you expected.

When dealing with humans, be cognizant of what you can control. Human interactions are not ‘logical’. Actually, they are logical, we just do not know all the variables.

It took us almost 1.5 years to get a PO from Dell Dubai. They had told us 2 weeks. So, we need to learn how to deal with those humans. You cannot apply engineering logic with humans. This will help you when you deal with customers. Sach mein, there is absolutely no logic. Ask anyone on the team that talks to customers. There are only a few customers over the years, that I have found to be reasonable, most drive me crazy. But I have learnt not to harm myself. Chill. Aisa hota hai, when dealing with people.



How scientists propose

Chapter 7: Focus

If there is a lesson which is the most important, this is the one.
This is fundamental.
If you learn this, everything else is aassaan.

Related words:

- Focus
- Intentional Listening
- Context Switching
- Active Listening
- Being in the moment
- Being Mindful

In this chapter, I will discuss two inter-related concepts, Focus and Intentional listening. These go together.

The skill of **intentional listening** involves suspending all judgement, quietening your mind and focusing on the other person. It involves you giving them your undivided attention to truly understand what they are saying. Really great listeners don't just **listen** to the words that are spoken.

It also means you are focused on the problem, person.
It means your mind has no other thoughts.
It means your mind is in the present moment.

Most of the time, when talking to friends, our mind wanders.
When we are at our computer, we have several tabs open and are switching.
Focus is the ability to stop switching.
Focus does not come from focus (heavy philosophy).
Focus comes from getting rid of other thoughts. Thoughts which do not relate to the present moment.

When I am talking to a person, my entire mind, my body, my senses are all looking, assessing, thinking about the person/problem. I get rid of all other thoughts. My entire being, har sans, har darkhan is in the present moment.

Yes, I have lots of other problems in life, but at that time, at the moment, every breath I take is focused on that person/problem. There are no other thoughts.

If someone brings me a problem of performance or VOIP, at that time, I will focus only on that. Yes, there are hundreds of other issues in the company. But in that moment, that becomes my entire world, my entire universe. If you are talking to me about design of VOIP software, I am not thinking of Airship, I am not thinking about my cousin Sunita, I am not thinking about rent payment to STP, I am not thinking about Covid, I am actually not thinking of anything else in my life, but design of VOIP.

And in that fully immersive moment, I can clearly see all the related issues, all the possible solutions, all the possible questions.

My daughter Rachna is a neuro doctor and I asked her. Can a person do parallel thinking. Can I have two thoughts at the same time. She says no. You can switch quickly between two thoughts, in seconds maybe, BUT at any time point of time, your brain can only have one thought.

This is what we normally do. When watching Netflix, I am thinking of dinner.
When I am designing my test cases, I am thinking of what next movie I will watch on Netflix.

Play the video below. This is from the movie Queen.
In less than 60 seconds, she goes through 10 different thoughts.

See how the mind wanders.

https://youtu.be/S6DbSAPfE0w

Real story: Once I went to a restaurant with my wife. We went early. There were very few people. We were there for about 1.5 hours. When we got up to leave, I noticed that the entire restaurant was full. While I was with her, I did not even know what was going on around me. What people were coming and going. My full focus and attention were on her. So, when we were leaving, I was shocked to find so many people in the restaurant. I did not even notice. My mind was focused on her and what she was saying the whole time.

No matter what you do in life. At that moment you must focus on what is in front of you. If you are reading a book, stay away from whatsapp. You can switch between thoughts, but no so fast.

I am writing this chapter. No, I did not finish it in one go. As I am writing this, there are no other thoughts in my mind. After some time, I will take a break and then think of something else.

When you talk to anyone, like customer, think about him/her. What is it that will make them truly happy? They are saying one thing, but what is it they truly want? Ask clarifying questions. Focus on the customer needs. Forget what you know.

Focus will bring quality work.
Empathy is part of Focus. When you are focused, you tend to have more empathy. You are listening more. You are concerned more about the problem/person.

End story:
When you are discussing anything, be in the moment. Be present. Listen with intention. Take all other thoughts away. If you are eating jelebi, savor it, look at the color, the texture, discern its elements, its taste, be one with the jelebi. (Jedi* mind technique).

* Do millennials even know what is Jedi or Yoda?

How to?: Try this in your next meeting. Consciously be actually present in the meeting. Let go of any other thoughts. Pay attention to what is being said.

Chapter 8: Chooti cheezain

Fazal asked me: Why do you get upset about small things? Is the company not doing well?

Answer:
First the big picture. With the Grace of Allah, xFlow has not been impacted by Covid. Financially we are solid. Our customers are doing fine. Our projects are all on track. Our employees have behaved exemplary. In fact, we are talking about hiring, about expanding, product development, about investing.

So, why does Ashok get upset?

My philosophy is that I do not make a distinction between small tasks and big tasks. To me these are just tasks. Work is the same. If I am cleaning my office desk or negotiating a half million contract, I treat it exactly the same. I give it the same focus, same love, same attention. I do not distinguish between chooti cheez hai ya bari cheez hai.

SMALL THINGS MATTER

Life is nothing but a series of small tasks. We have to do them all, small or big. My satisfaction derives from the quality implementation of a task, however big or small it is. When I clean my home, when I vacuum my apartment, it is done with exactly the same love and concern, as I do talking to Dell.

I focus on the quality of my implementation. I do not care about the size of the task. That is why I used to care about the color of the dining table cover in our office. The same care I give to VOIP. To me they are exactly the same. It is work.

Sometimes the clock in the office used to be crooked, I would fix that.
The carpet outside our front door used to be crooked, I would fix that.
I would review if we have extra table tennis balls or not.
I focus on maintaining the task list.

Most people distinguish between big work and small work, important or not important, critical or not critical. I absolutely do not.

In my world 99.9% of the tasks are chooti cheezain. By paying attention to small tasks, by doing those small tasks well, I prevent Big problems from happening.

I pay attention to the grammar in the email, the font type or font size. In our documents, I focus on page breaks. This may sound ridiculous to some. But my life phalspha, is that one must treat each task the same. All tasks have to be approached with the same love, same enthusiasm regardless of the size of money or the importance of the task. No such thing as a small task.

Think back to old times. What do you remember about your friend? About your mom? About the neighbor? About your brother or sister? It will always be the small things; they said and did. Ami meray 5th bday per bahoot sarey balloon lain thein. That is all you remember. The small acts.

Bottom line: All jobs small or big, work or personal are equally important. Do the small job with just as much perfection, as a big job. Do the small job with the same love and attention as a big job.

https://youtu.be/1jqSK8Qv4ZY 2:33 to 2:58. Steve Jobs

Do those small tasks with love, not for others, but for your own pride and satisfaction.
Apne Khushi ke liye. Do not worry about the boss.
Are you proud in your own heart?

That my dear is the root cause analysis of why small things upset me.

Famous saying for why small things matter:
For want of a nail a horseshoe was lost,
for want of a horseshoe a horse went lame,
for want of a horse a rider never got through,
for want of a rider a message never arrived,
for want of a message an army was never sent,
for want of an army a battle was lost,
for want of a battle a war was lost,
for want of a war a kingdom fell,
and all for want of a nail.

Chapter 9: 360 view

Ami: beta aik pau shakar le aao
Alina: Kyoon ami?
Ami: Aaj halwa banaoon gi
Alina: Halwey mein aur kiya hota hai
Ami: aata, ghee, elaichi, zafran, pista

Alina: Tu, wo sary cheezain hain aap ke pass?
Ami: Arey haan, pista nahin hai, wo bhi le aana
Alina: Halwa kis ke liye bana rahi hain
Ami: Tumahrey abu ko bahoot pasand hai
Alina: Laiken, Ami, un ko tu diabetes hai, aur doctor ne mana kiya hai
Ami: Arey haan, aisey karo, sugar substitute le aao.
Alina: Baqaya sari cheezeain hain, sirf pista aur sugar substitute le aoon.
Ami: ji, beta
Alina: Ami, halwa tu aap har haftey bana ti hain, kyoon na main, aik kilo le aaon.
Ami: Haan beta, ye tu sahi baat hai.

This is called Systems approach.

A system is a set of interrelated parts, which work together to achieve certain goals or objectives. **Ludwig von Bertalanffy** is called the Father of System Approach.

According to Sir **Ludwig von Bertalanffy**, “In order to understand an organized whole, we must know both the parts as well as the relation between them.”

According to Sir **Ashok**, in order to understand the part, we must understand the whole system and their relationships **and** their current and future states.

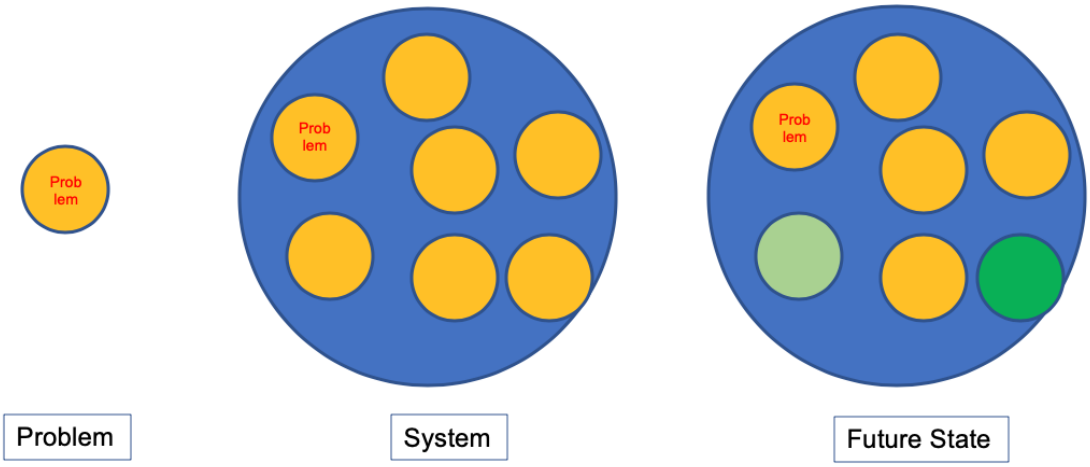
You must not try to solve the individual problem. Look at other parts of it. Other components of it. Look at the current and future states.

Zahid: I want to monitor video traffic. Make me a module?
Sarmad: Where do I store the data? I need to do sizing of the product based on customer need? How much traffic is sent on the link per minute? How is this module going to integrate with the customer traffic? How are we going to deploy this? You mention video traffic, do you also want gaming traffic? Does the customer want alerts? Does the customer want historical data? What are preferred outputs?
Zahid: Shabash beta.

Zahid: I want you to make me a VOIP SW?
Hassaan: But sir, we also have to look at Isilon, we have to look at database architecture, we also have to look at NICs, we also have to look at deployment, customer integration. Due to Covid, we have to look at deployment and logistical challenges as well.
Zahid: Shabash beta.

In the example of Alina, she not only addressed the sugar issue, she looked at the entire halwa system. Not only she looked at the other components of the halwa system, she also addressed the future issues as well. And addressed constraints of her father’s diabetes as well.

So, when you are working on a component, look at the **entire system**. Also look at its future state. Look at all the components and its **relationship** to each other.



Chapter 10: Career Planning

Career planning is an ongoing process through which an individual sets **career** goals and identifies the means to achieve them. The process by which individuals **plan** their life's work is referred to as **career planning.**

There are two sections, philosophy and practical.

Section 1: Philosophy

In all of my life, I have come across hundreds of people, who think they can plan their life. Their careers, their marriages, their family. In every single case, with absolutely no exception, their realities were different from their plans. Including mine.

One must have a plan. I agree, that we should have a plan. But let's dig deeper. A plan is a rough outline of our desires. It cannot be what exactly happens. For your plan to be exact reality, you must have control over the world. And you do not. Your type of job impacts you; your family impacts you; the economy impacts you. How many plans have changed because of covid? Probably true in everyone's case.

You lost your job, so what happened to your plans? Airlines are shut down, so what happened to your travel. You wanted a big wedding, now you cannot. So, what happened to your plans?

Arey bhai, itna gharoor maat karo. You are a small part in a bigger picture.
Do not take your plans so seriously.

This plan vs. reality problem is increased in engineers. Because engineers are taught logic and they have learned to control software. In most cases, they control software to bring out their desired outputs. But dooston, you cannot control life.

Phir se, I have never met a person, whose plans and realities are the same. In some cases, better and in other cases, worse. Never exactly the same.

xFlow: I have no idea what it would look like in 5 years. I do plan things, I dream things, but I let my reality guide me. I never knew that on Dec 25, 2017, I would get a call from Dubai to start MDF. I never knew that on May 8, 2008 I would be invited to NUST to start xFlow. I never knew that 2 weeks ago, I would be asked to look at Dedup. I had not anticipated Ceph, Airship projects.

So, I do plan, I do jad-o-jahed, I work hard and I let the opportunities come to me. I believe in Allah. Success will come with my hard work and His blessings.

jo mil gayā usī ko muqaddar samajh liyā
jo kho gayā maiñ us ko bhulātā chalā gayā

Let's say you planned that in 4 years, you will become a manager at xFlow. Now after 2 years xFlow wants to offer a manager's job. Are you going to refuse? What if Google offers you a job? Are you going to refuse, because it is not per your plans? At that time, you will forget about the goals, but right now you want to be adamant about your goals !!!

Point being: Do not believe you control your life and your career. This is step one.

Plans are good, are necessary, but do not take them so seriously.

Plans can actually BLIND you. They stop you from seeing opportunities. Allah gives you opportunities all the time, but can you see them? No, because you are busy making plans. Life happens when you are busy making other plans.

Look at what life has offered you. Embrace it. Work hard towards it. Make it the most impressive delivery ever. Don't question the wisdom of the universe.

Jo milta hai, wo karoo.
Jo karte ho, wo dil se karoo.

I have always been a student of successful people. In all my studies, I have found the above two lines are common in all of them.

I do not try to control the world.
I look at opportunities that Allah is giving me, I take it, I work hard and for some strange reasons, Allah shows me another opportunity.

I have heard the following from some of the people:
I do not like MDF, I want to do NFV.
I do not like C, I like Java.
I do not like development, I want to do testing.
I do not like ETSI, I want to work in Airship.
I do not like Cloud, I want to work in IoT.
I want Devops. I want this and I want that.

Pagal ho kiya.
Allah ne aik opportunity de hai. Us ke kis kis naimnatoon ko thukraoo ga.

Do not chase shiny objects. They are temporary. All technology is temporary. It is the problem-solving skills that are important. Does not matter what technology it is.

To build the best career path, excel is whatever you are given.
If life gives me MDF, I will build the best MDF ever.

Aik sawal hai? Mein kaise karoon?

Section 2: Practical approaches

So, what are some of the practical approaches.

Make some goals. Build some flexibility into your goals/plans. Goals can be, I want to be a manager, I want to be an expert in K8, I want to learn management, I want to get certifications etc. Communicate these to your managers. Let it be known. Managers do not read minds. So, before they make their own decisions about you, tell them about you. If you talk to management, most likely they will support you.

Next show some effort towards the goals. Read, view, go to internet, start writing, start engaging.

Rule of 3. You must have at least 3 mentors. Find some mentors. Your peers are not mentors. They are in the same boat as you and cannot give you good advice. Discuss with your own management. Find mentors outside the company, but at senior levels. Find them yourselves. You can find mentors with customers, in open source communities. Local CEOs etc.

Do not shift companies too quickly.
If you shift companies too quickly, you are saying the management is dumb and you are smarter.
It is telling me you cannot handle problem situations. It is telling me the first problem you encountered, you want to bail. You will not make it to senior positions, if you jump around.
In the new company, you may not have supportive leadership.
Now if there are hardship issues and if you need money for some medical care…take the new job.

Career planning tips for within company growth:
Ask questions. Management loves questions. It shows you are concerned. You are participating.
Participate in management activities. Show them your support. If we start gup shup group or learning group, how many of you have contributed to it? How many of you have liked it? Management is putting in efforts, show your appreciation. Ask tough questions from management. Why are we not doing xxxx? Why did you make this decision?

Next is opportunities:
I started my software company in 2002, when I was sitting in a plane and the guy next to me started talking about having a problem in SW. I immediately jumped on it. I told him; I will do it. NUST invited me to come and visited them in 2008 and I said yes. Remember the word YES. It is the best word when you encounter opportunities. These can be volunteer opportunities also. Just say YES. And then work hard and commit. I have noticed a lot of you are used to saying NO. Or say, we will discuss it later. In 2017, Etisalat called and asked if we could do MDF and I said yes. It is not that you say YES, but how quickly. What is your initial reaction? Of if management comes and asks you a question, jump on it. You never know in life, where the best results will come from. In 1980, IBM approached 3 people to help build DOS. One of them told IBM, come tomorrow, today I am busy. They immediately went to see the second guy and he also said something like that. Then they approached Bill Gates and he said YES. What a difference it made in the history of computing. The only problem with opportunities is called “Opportunity Costs” in economics. It means to get something, you have to give up something, so you have to weigh the differences and select the more optimized one. So, if your boss comes and asks you to do something, be willing.

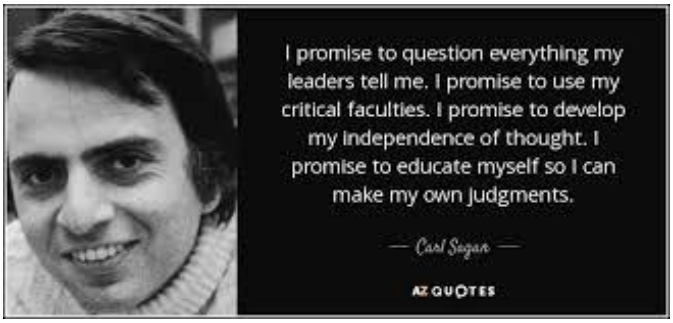
Next is learning. Keep learning. Get certifications. Take classes. Discuss with mentors. Read blogs in your domain. Find experts in your domain and discuss with them. Contribute to open source. Learn things besides your domain. Cross domain learning is very important. Learn to play music. Or Art. If you are a developer, learn testing and vice versa. Do deployments. Do rack and stack. Do puzzles. Read a book on history. You may take an art class and the guy next to you is VP at Google. Who knows?

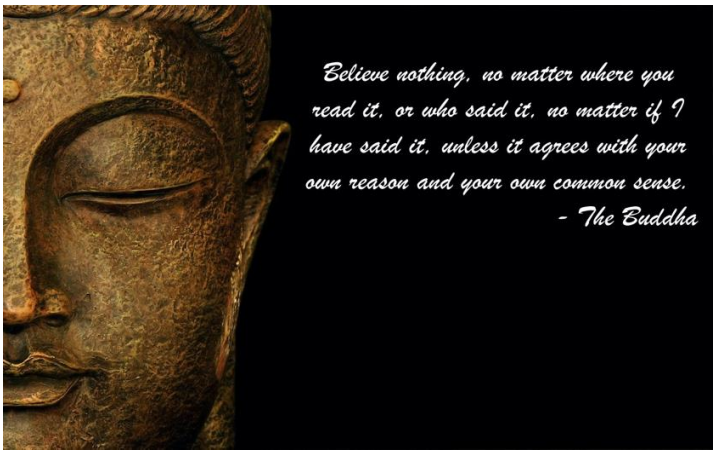
It is not just important to know 10 things, it is more important to know them well. So do your tasks well. Go into details. That is where the true learning, hence growth is.

And finally, you have to make a decision. Long term, medium term or short-term optimization. Sorry you get to pick one. There are pros and cons for each path.

Chapter 11: Curiosity

The **3** main components of **scientific attitude** are curiosity, skepticism, and humility. Always ask Why? It is the single most important factor for learning. Be curious about every little thing. Ask questions.





So why are we not curious- an anthropological explanation:
In our culture, the biggest thing we are taught from birth, baroon ki izzat karte hain, waldeen ki izzat karte hain. Nothing wrong with that. But what does izzat mean?
In our definition, it means obey. No matter what they say, you have to obey and also obey without questioning. Well, I say, we obey, *but we can also ask why.* That is not bizzati. You should respect your elders, but now that you are adults you can ask why. You can still obey them, but ask why, so you can also learn. I think we need to redefine what izzat means in our society.

Then we go to school/colleges/universities and we are taught to obey our teachers. Ironic isn't it. We go to these educational institutions and we are not allowed to ask why. That is the antithesis of learning. Learning means questioning, but we cannot.

Then we get jobs and we are taught never question your boss, since your salary is so important.

Also, in our political history of rajahs and shahenshahs, it is not polite to ask questions. (polite choro, sar kalam kar diya jaye ga).

Lastly, we come from a militaristic culture, where we are taught, do as you are told and do not question your superiors.

So, all of the above, keeps our mouths shut and we never express curiosity and dheerey dheerey we kill our curiosity and hence learning and growth.

Soocho…Be curious of the above.



Tu iski daawa kiya hai?
Start small. Whenever you see a word or an acronym (TLA), that you do not know, go ask or google it. Aista, aista, you will develop curiosity. If your boss asks you to do something, always ask why? Not in a pejorative sense, but with genuine curiosity. Thale Thale develop ho jaye ga. In the Silicon Valley culture and in most western cultures, it is considered a sign of intelligence to ask questions.

In this century....the key is not how much you know, what technology you know.....The real key is how fast can you learn something new....It is your adaptability, your willingness and your speed of learning that matters.

Advanced students ke liye: Look up Socratic method.

Chapter 12: Knowing your roots

In my life experiences, I have come across lots of people who have regrets in life.
One of the biggest regrets is not knowing your roots.

I have also studied people who are weak in character. Generally, the common thread is not knowing your roots.

So, what do I mean by roots? Roots means your past, people and place. The 3 Ps.
By past, I mean your history, by people I mean your friends and relatives and by place, I mean your place of birth.

I have met a lot of people who were born and had their initial life in villages and then they move to the city or foreign country and they feel ashamed of their villages. They do not mention it. And even if they do, they underplay it. They become the gora babu. These people generally become weak in character. By denying your past, you weaken yourself. By proudly wearing the badge of your past, you become stronger. You have more confidence in life. So, go visit your childhood places regularly. Be proud of it and it will strengthen you.

Some of us do not know our ancestry that well. As you grow older, you will regret it and cannot do much about it. Understand your heritage. Talk to your mother/father about their lives, understand how they lived, how they survived, how they struggled, how they faced challenges. You will learn. Sit with your grandpa/grandma. Love them, ask them their stories. Know your cousins and uncles and aunts. Yes, I do know there is family drama involved, but it will better prepare you for the future. Learn from them.

Be proud to wear your shalwar kameez. Be proud to wear your sindhi topi, or pushtoon cap.

Have respect for your past, people, place..
If you do not respect them, that means you do not respect yourself.
If you do not respect yourself, then no one else will.

We are like trees. The deeper our roots are, the stronger we become.

If you have weaker roots, you will never thrive, never grow, never become stronger.

So, go out and talk to your parents and grandparents, before they die. Learn about your roots. It will make your better appreciate them. It will make you stronger. Be Proud of who you are.
Written by a proud sindhi from Hyderabad.

Chapter 13: Appreciation

When I was young, we will go shopping in the mall. There were cheap stores and expensive stores. We could not afford expensive stores. But I would still go to expensive stores, like Tiffany and go see their merchandise. I would appreciate the beauty of craftsmanship. Now I was not jealous. I was not envious. I just admired it. I know I cannot buy it, but still I can admire it. Some of my friends used to take me to expensive stores to help them buy. I would be objective. Never have I felt jealous. Never did I feel the need to own that. Never did I feel empty or dejected because I cannot have it.




I can admire Nanga Parbat. Yes, I know I cannot buy it.
I can admire Eifel Tower. Yes, I know I cannot buy it.
I can admire what Edhi has done. No, I do not need to buy his foundation.
I can admire Adnan Aamir sherwani. No, I do not need to possess it.

So, we have to separate the concept of **appreciation from possession**.
I can only appreciate if I can possess something. Not a good thought.
If you can learn to separate, you will be the happiest person.

Second related concept is comparisons.

Nasir is a better programmer than me. I hate him. Not good.
Nasir is a better programmer than me, let me learn from him…Good

Allah has made us all different, we are unique. Anmol. So, learn not to compare. We cannot be like anyone else. We have to see ourselves as unique. Try not to be like other people. Learn parts of their lives from them, but try not to be the same. Kawa chala hans ki chal.

I can admire Mahvish. I can learn some parts of her, but I cannot be her.
I cannot be like Fazal, Majid, Hayee, Sana. I admire them.
There will always be someone richer than me, more intelligent than me, more handsome than me, a better person than me. Maybe more skilled.

Fallan Fallan has seen Switzerland. Do not compare. Be happy for them.
Fallan Fallan is a better DevOps than me. Do not try to copy them. Be proud that you have a friend like that.

Be your own person. Learn to accept and embrace yourself.

Do not get me started on fair and lovely. 

Chapter 14: Framing a question

Fazal: I am not well; can I be excused from the meeting.
What is wrong with this question?
He is giving the decision making to me. I can choose to answer either way. Yes or No.

What he should have said was:
I am not well, so I will not attend the meeting.

This means he has made a decision and is merely informing me and not giving me the choice to decide.

This becomes very important. Few examples below:

Ibrahim: Mr. Customer, we have completed the module as per the SOW. Is that acceptable to you or would you like more?

Wow..what a dangerous question. Of course, the customer will always want more for the same money.

Homework: reword the above Ibrahim question.

Another example:

Sana: Mom, can I go out with friends for 2 hours?
What's wrong with that? She has given the decision making to her mom.

Another way to frame this question is:
Sana: Mom, I am going to fallan fallan friend's birthday for 2 hours and I am going with Ali and will be back at 10pm.

Most likely the mom will say okay, because it sounds reasonable.

Zahid: AbduSami, can you finish this module in 3 days? Not good.
Zahid: AbduSami, I want you to finish this module in 3 days. Good

Ashok: Kinza, will you marry me? Not good.
Ashok: Kinza, I want to marry you. Good.

Hayee: Paul, should I test with Spirent or Geekbench? Not good
Hayee: Paul, I am going to test with Geekbench. It gives the same results as Spirent and is cheaper. Good.

Shopkeeper: If you buy more eggs, it is cheaper…Not good.
Shopkeeper: Aik aanda aik rupaya, das ande, sath rupaya….Good

Especially when you are talking to customers, never give them open ended choices. Frame your question so you get desired answers. So, think carefully before you ask questions. Ask yourself, what is the answer desired by you and then frame your question accordingly. Ask them one specific question at a time. Do not ask complex questions.

- Plan your questions. ...
- **Know your purpose. ...**
- Speak your listener's language. ...
- Focus your questions so they ask one thing at a time. ...
- Ask only essential questions.

Now go practice on your parents/relatives.
Meray sath panga nahin karna.

"Always stress the positive. Instead of, 'Give me the cash or I'll shoot,' try, 'Hand over your money and no one gets hurt.'"

Now I will teach you the opposite of above.
When you want to learn, forget about all the stuff above.
When learning, ask open ended questions.
Do not plan, do not think, do not have an agenda. Just keep asking questions, any type of questions, till you are satisfied with answers.

So again, understand your purpose, are you informing, are you asking for a decision, are you wanting to learn.

Chapter 15: Disagree & Commit

Concept of *Disagree and Commit.*

In USA, in general there is a concept of Disagree and Commit. What does that mean?

In general, work is assigned by customers to management. Management in turn assigns the work to engineers and they are supposed to do that. Most times, this model works reasonably well.

Management understands that if they do not do customer's work, they will lose the customer and the revenues. Engineers understand that if they do not do the work, they will lose their jobs, since the customer will cancel the project.

This part is understood.

Now let's dig in.

This is my observation and could be wrong. My answer to the above is generalized. It is not about these specific people. Please focus on ideas and not names. This is a very fictional review. ***All characters*** *and events depicted in this discussion are entirely* ***fictitious****. Any similarity to actual events or persons, living or dead, is purely coincidental.*

Now let's say Zahid says to use a distributed design for MDF. And Majid says we should use an integrated approach. Both have their reasons. Now what happens? Both are very confident of their designs and are not able to logically convince each other.

What should happen?

Before I answer this question, let me tell you, in general, management will always have more data points than an engineer. That is a given concept. Why, because they talk more with the customers at higher levels. This point has to be understood. There is no such thing as a single correct answer in engineering. 2+2, can be 2, 2.0, 2.00, 2.000 etc. Understand that. A solution which is best for performance, may be very costly. The best solution may take 1 year, but I need the product in 3 months. Engineering decisions are normally **negotiated.**

Stop and think about the above.
Tick.Tock.Tick.Tock.

Now that you understand the above. The fact is that there can be lots of solutions and lots of different architectures to the same problem. The answer will depend on context and a very very good understanding of what does the customer really want.

Which brings me to another point.
Customers are very very complex. Engineers tend to look at life as black and white. It is not so. What does Arkady want? It is not simple. I cannot use the SOW which he wrote as the only data point. I have to use my knowledge of Dell, of Dell engineering group, of contracts, of budgets, of future impacts, of Arkady's personality, of his unsaid desires etc. to make the decision.

Engineers who are close to customer's know this better.

But always remember management will always have more data points/context than engineers.

So, in summary:

a. There are multiple solutions to each engineering question. Accept that.
b. Management always will have more data points for context that any one engineer.

Now let's go back to our question.

Distributed design- Zahid OR
Integrated design- Majid

Based on the above discussion, we should choose Zahid's design. Why? Zahid has more context and more data points than Majid. Not because it is the best solution, not because it is the most elegant design. But because Zahid has more knowledge about Customer needs.

All of the above was a prelude, preface to answering the topic. What is the concept of Disagree and Commit?

Disagree and commit means that Majid should accept Zahid's design. What does accept mean? He must work as hard, with full commitment, as he would have if we had selected his design. You can disagree with management and that is fine and frankly encouraged. But once management makes a decision, you must, must follow it with all your heart. You can remind the management, that you still do not agree with him. But your work has to be with full commitment. That is the concept of Disagree and Commit.

Please think about the above.

Next topic.

Why do I tell you about this concept?

But before I tell you about this concept, let me take you on another path.

I have noticed for the last 10 years that engineers are willing to commit to customer projects, but not to any innovation. I have suggested at least 10 ideas, hw configuration automation, test case database, CAP, QA group etc., but most have been rejected by our own management and also our own engineers. That much is a fact.

Why?

I have several reasons (opinions). Engineers feel a sense of accomplishment, if they get good feedback from customers rather than our own management. There is a gora is good mentality as well, which we cannot deny. If Arkady said you are good, has more weight than if I said the same thing. Also, there is a sense of accomplishment, since there are revenues tied to customer project, so the engineer feels a sense of accomplishment. In our own project, there is no revenue right away.

We need to learn to self-evaluate the above. How can we get out of this thinking? How do we feel a sense of accomplishment for our own ideas?

Now back to the question, why I am introducing this concept of Disagree and Commit.
We have to do this if we are ever going to build our own projects.
We have to get over this hurdle, learn from the past, otherwise we are doomed to repeat the past. ***We have to learn to disagree and commit even if our own design or own idea was not selected.***

Btw: If you ever want to see this in action, ask anyone in military. It is an absolute requirement.

PS: Even if you do not comprehend the instructions given to you by your manager, you must do it. Even if you do not understand, even if you disagree, even if you do not have the skills, you must, must do the job with full enthusiasm….This brings concepts of Rizq. No job is big or small. Job is job. Work is work. No matter what it is. You were not born to be a DPDK specialist. You were not born to do Java. You were born to do great things. Any work is a blessing. Do not distinguish between types of work.

Corollary concept of Agree and Discommit

This is a very evil concept. It is heinous. This is where major failures in your life will come from. You agreed to something on my face. The minute I left the office, you decided not to do it. Or do it different from what we agreed. Meri marzi.

Management is not as stupid as you may believe. They hate this with passion. They also have long memories. So, when the next promotion comes up or an exciting opportunity comes up, management will remember all of these.

This is not threatening you. This is explaining to you facts of life. You may agree or disagree, but imho, this is an undeniable fact of human behavior.

I have seen this happen too many times for the last 10+ years at xFlow.
I will respect someone who disagrees with me.
I will not respect people, who will commit to my face and then do something entirely different behind my back.

Why is this bad? Let's say we take the previous example. Zahid told Majid to use the integrated design. Majid agreed on Zahid's face. Zahid told Ashok about the decision. Ashok told Dell about the decision. Dell told Etisalat about the decision. Ashok told Shahid to buy 2 servers for the integrated design (which cannot be used in distributed design). Zahid told Zeeshan to take other project servers out and put two servers for this project. Tayyaba hired 2 engineers for his design.

As you can see there are a lot of subsequent actions, decisions, money, resources, time that have been expended based on the agreement between the Zahid and Majid.

Now if Majid decided NOT to do per his agreement, how much time, money, customer satisfaction, fights we are all going to have? Do you want that to happen? Remember you can never blame management. We will in this case always remember that Majid disobeyed the agreement.

Now, in xFlow we always give you the opportunity to debate, discuss, have opinions. But once you agree, you must not discommit (btw, no such word).

Argue with us. Present your case. But if you tell me something on my face, I believe you. I believe you have understood it well. (that is why I say ask questions for clarity).

Not only I believe you agreed, I am now going to make decisions based on that. I will inform the customer based on that. I will spend money based on that.

So, my dear, you cannot discommit. You must follow what was decided. You can come next day and re-argue. You can keep trying to convince management to change their mind. But you cannot behave contrary to your words. If you said it, you must follow through.

Btw, if you did not say anything, agreement or disagreement, management construes this as agreement. So, think about this sentence.

By verbally not disagreeing, you are agreeing.

Chapter 16: Pride & Arrogance (Fakr & Garoor)

Pride means that the work I have done, I will be happy to show someone.
Arrogance means that I am too good. I do not need to learn anymore.
Our challenge. Most engineers in xFlow know more than their batch mates.
Why? Because in xFlow we have provided that environment of learning.
So, their reference point is their batch mates.

Learning is exploding, it is not increasing in velocity, it is not increasing in acceleration, it is actually exploding.

So compared to your batch mates, you may know more stuff.
But compared to the overall knowledge you know very little.

I am studying more hours per day then I did when going to university.
I am totally humbled by the sheer size of knowledge available today.

So, please do not be arrogant. Do not have garoor.
Understand you know very little and in fact you will never ever become an expert in this new century. The paradigm has shifted. Before people with 20 year experience were considered experts. Now it is not true.

Our young NFV team, Perf team, Airship team is continuously teaching senior Dell engineers what they should be doing. So instead of arrogance, become a life long learner.

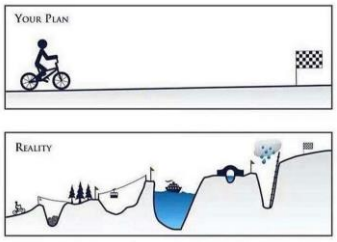
Now let's talk about pride.
Pride is the fakr that I have done a good job. Let's say you have written a document. Are you proud that you have done a good job? Will you show this document to a potential employer as an example of your work? This can be code, can be document, can be email. Are you satisfied that you have given it enough love, enough thought, enough ownership? Do not make a distinction, ye tu internal hai, so why should I care about formatting. When you go home, is there a smile on your face, yar, aaj tu best code likha tha. Best code means it has to be better than yesterday. If you write an email, do it with love. Be proud of your work. In xFlow your work is seen not only be internal management, but also by several external folks, including customers and customers of customers. Pay attention, when you are doing any task. Active focus when doing any task.

I use the word love. Whatever task I do, I do it with love. I do not know how else to explain this. It has my name on it. So, I want to make sure everyone appreciates my work.

When I write this document every week, I go over formatting, I go over spelling. Every week.
I am proud of this document and would not mind sharing it with others. I put my heart and soul in this. I write it with love.

So next time your write a status report, task list or any technical document, do it with love, be proud of what you write.

Chapter 17: Planning



Planning is a technique to minimize future problems.
So, you decide. Do you want to be busy in future, solving these problems or do you want to invest your time in learning, progressing for your own careers? Your decision.

Most problems are avoidable. Not all.

More planning = Less problems in future.

How to start planning? IT HAS TO BE TOP DOWN.
You cannot start planning at the lower level. Lot of people do that.
It is a meaningless exercise and in fact you are just increasing your problems.
It is better NOT to do planning rather than start at lower levels.

In the picture above, maybe I will not be able to solve all the problems, but I can surely minimize them.

So, what are the tools for planning?
There are many, many tools. Gantt charts, PERT charts, Jira and many more.

I believe in simplicity. A simple task list with very few columns.
A big picture overview.

Make that your master plan. From there build detailed plans for each module or each task.

e.g. Data Analytics Project.
Build an overview task list first.
Then develop task list for Development, DSC, Test, Deployment.
All sub-task lists have to always sync with the master task list.

Task lists have to be reviewed every single day. Kiya bola? Every single day. Otherwise this is useless. It is better not to write a task list, rather than **not maintain it.**

If you task list is not updated on daily basis, please, please do not create one.

Someone has to own the task list. So, insure there is ONE person identified who owns it.

Also plan ALL THE WAY TO CONCLUSION of the project.

Share the task list with all stakeholders.

I do not know for fact, but I believe 40% of NASA budget goes to planning.

Chapter 18: Sense of Ownership:

Disclaimer: This does **not** apply to most xFlow employees. But good to know.

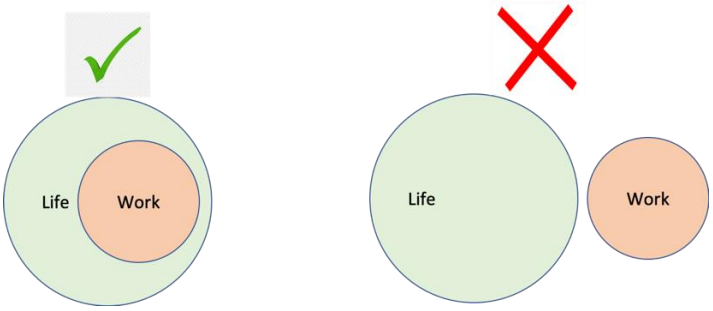
Bahoot tough hai explain karna. Because wo na hamne sunna hai, na kabhi dekha hai, na parha hai…wo hamarey genes mein nahin hai.

Still I will try to explain. It has to do with the cultural mind-set.

Why do we apply for jobs in Pakistan? What is the mindset?
Job is just nokri. It is a means of earning a paycheck.
With that money we want to live our life. I am not sure what is the definition of life.
So, we do the bare minimum. Kabhi employer ko apnaya nahin, kabhi kaam ko apnaya nahin. Kabhi project ko apnaya nahin. Just day dream kartey hain. Is paise se ye karoonga or wo karoonga.

What we forget is this:
This job can lead to my better future, so I should own it.
This job can help me make friends, so I should own it.
This job can help me learn, so I should own it.
This job can give me promotions, so I should own it.
This job can open up future possibilities, so I should own it.
This job gives me the emotional sense of relevance, so I should own it.
This job gives me pride of accomplishment, so I should own it.

I have never ever been able to separate ‘work’ and ‘life’. Work is a subset of life and not separate from it. Work is part of life. Though life is more than work.

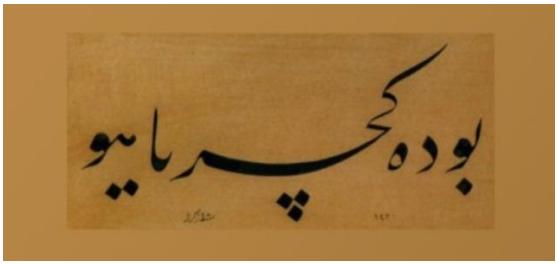


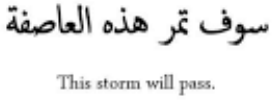
Ownership is a concept where you FEEL responsible for the success of the project/product. You are also Accountable for the success of the project/product. If there is a delay YOU are responsible. It is YOUR fault. If it is successful, you get the kudos.

You worry. You are scared. You are proactive. You think of risk mitigation. You plan. You organize. You learn from experienced people. You solve problems. You document. You communicate.

So, the above is the litmus test for knowing if you have sense of ownership or not. Go ahead and take the test.

Chapter 19: Resilience





"One day Solomon decided to humble Benaiah Ben Yehoyada, his most trusted minister. He said to him, "Benaiah, there is a certain ring that I want you to bring to me. I wish to wear it for Sukkot which gives you six months to find it."

"If it exists anywhere on earth, your majesty," replied Benaiah,

"I will find it and bring it to you, but what makes the ring so special?" "It has magic powers," answered the king. "If a happy man looks at it, he becomes sad, and if a sad man looks at it, he becomes happy." Solomon knew that no such ring existed in the world, but he wished to give his minister a little taste of humility.

Spring passed and then summer, and still Benaiah had no idea where he could find the ring. On the night before Sukkot, he decided to take a walk in one of the poorest quarters of Jerusalem. He passed by a merchant who had begun to set out the day's wares on a shabby carpet. "Have you by any chance heard of a magic ring that makes the happy wearer forget his joy and the broken-hearted wearer forget his sorrows?" asked Benaiah.

He watched the grandfather take a plain gold ring from his carpet and engrave something on it. When Benaiah read the words on the ring, his face broke out in a wide smile. That night the entire city welcomed in the holiday of Sukkot with great festivity.

*"Well, my friend," said Solomon, "have you found what I sent you after?" All the ministers laughed and Solomon himself smiled. To everyone's surprise, Benaiah held up a small gold ring and declared, "Here it is, your majesty!" As soon as Solomon read the inscription, the smile vanished from his face. The jeweler had written three Hebrew letters on the gold band: gimel, zayin, yud, which began the words "Gam zeh ya'avor" — "**This too shall pass**."*

At that moment Solomon realized that all his wisdom and fabulous wealth and tremendous power were but fleeting things, for one day he would be nothing but dust."

Shared by Wajeeha Hamid.

Chapter 20: Time management

The whole idea of time management is to do things in less time. Efficiency. I have 4 tasks. I can do those in 4 hours total or 8 hours total. I prefer 4 hours. Qyoon? Then I can use the extra time to relax, enjoy, do other things. Simple. If you like this concept, read on.

Recurring Tasks:
These are tasks which happen at fix intervals consistently. Weekly status report. Monthly salary preparation. Monthly invoice. Quarterly feedback. These can be daily, weekly, monthly etc.

Example: I have to send my new chapter every week on Fridays. I have done this for 20 weeks now, without one mistake. How do I do this? The key to any recurring task is prep work. Preparation. I do *not* sit down on Fridays and start thinking what I should write. I am writing this chapter, 7 days before the due date. I have a note pad and I note down thoughts on it. I have at least next 6 to 8 chapters written. Some are just ideas. Some are half done, some are almost completely done. That is my preparation. I keep adding to it as thoughts come to me. Then one week before, I make a decision on what chapter I will send. In the next 7 days, I keep improving it. So, when it comes to Friday, I am always ready to send. No panic. No afra tafri. No urgent meetings or phone calls. No failures. No excuses. My next two chapters are 95% complete.

Example: We know we have to pay the salary end of the month. We know it will take 10 days of prep time. We know several people are involved, Fazal, Tayyaba, Shahid, Khalil, Bank, Ashok etc. So, every 18th of the month we start our prep cycle. By 28th it is executed. We never panic. We are always relaxed because of our preparation.

Example: If you have a status report to send every week on Friday's, do not start writing it on Friday. Start writing it on Monday. Keep editing, updating and you will feel relaxed. Friday you just hit send.

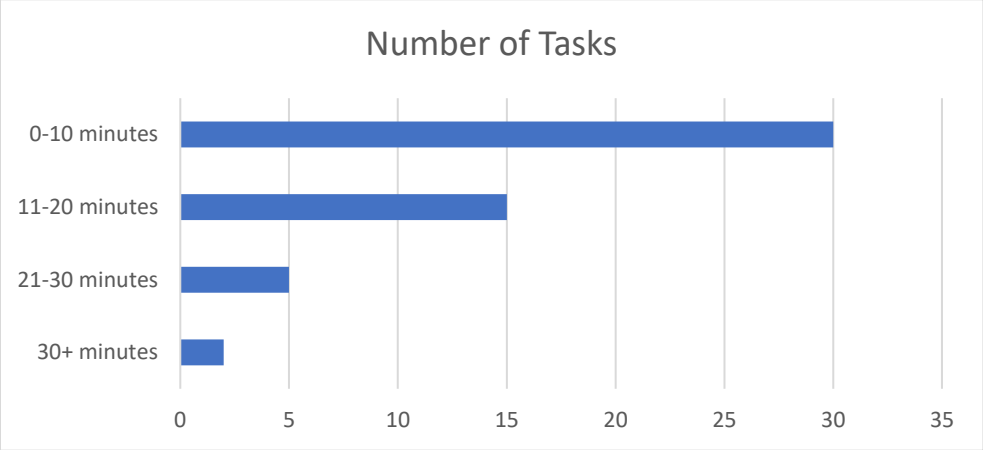
Example: I use a lot of non-perishable things in my house. Toothpaste, shampoo, soap, hair oil, shaving cream, shaving lotion, detergent, toilet paper, sugar, salt, rice, garbage bags, etc. I have never run out of those. Never a panic moment. Jaldi se ye lay aoo, wo lay aoo. I have a 2-3-month stock of everything. When it reaches 1-month level, I just re-order it. Koi pareshani nahi. Saves me tremendous amount of time and pareshani. I use my extra time to relax.

Bottom line: For recurring tasks, spend a lot of time on preparation, working ahead of time and PLANNING.

Pareto Principle:
https://en.wikipedia.org/wiki/Pareto_principle

There are lots of techniques for tasks prioritization. Some say do urgent tasks first, some say important tasks, some say critical tasks etc. I do not use any of those ideas. *I divide the tasks by time*. If you have 100 tasks, 80 of them can be done in 20% of time. Most tasks are of very short duration. Very few tasks require longer time.

So, there are different strategies. I try to finish my short duration tasks immediately. So I can give pure focus on those tasks which take longer time. I am not distracted mentally by fifty other small things.



This is called the 80/20 rule. Go ahead and test this hypothesis. Basic rule, if the task can be done in 5 minutes or less, do not write it down, Just Do It (Nike). Do it right there and then. Usi waqt. Usi pal mein. So, if you have 25 tasks in a day, you can finish 20 of them in 2 hours. Now you have rest of the day to focus on only 5 tasks. Those tasks are probably very important and they need your attention. And you mind is relaxed because you have only 5 tasks.

So next time, I ask you to send me a calendar invite, do so right there and then. Do not wait.
Learn to update task list in real time and do not schedule it.
Send some quick email, do it in real time.
Update skype groups immediately.
Try not to schedule small tasks.

Bottom Line: Always do the easy task first and **instantly.**

CAUTION: This theory works 99.9% of time. There will be moments, albeit very few, where you have to work on an urgent task first.

If you apply only these two principles, you will see your productivity rise substantially.

The best tool for time management is extensive use of calendar.

Homework: Apply these two principles in your tasks for tomorrow.

Chapter 21: Budget & Savings

Budgeting, Finances are almost the same for both individuals and companies. Some terminology may differ.

In my life, I feel I lost a lot of years, because I did not understand finance. Nobody taught me. We do not teach this to our young population. It is very important to understand financials. With money we can buy all the things we want in life. Maybe you want to travel, maybe you want to do a course/degree, maybe you want to get married, maybe buy a house, maybe take care of parents. So, it is important to have at least a basic understanding. Consider this chapter 1 in your financial learning path. Explore internet.

	Personal	**Business**
Income	Salary	Revenue
- Costs	Expenses	COGS + Operational
= Profit	Savings	Profits

In this section, I will focus on personal only. Business is almost exactly the same.

1. You must have a long-term horizon. Stop thinking of next week. Think at least a few years ahead. Young people, who are not married or do not have any children, never understand the costs, which happen, when you get married or have children. Even just the act of marriage is costly. Shamianey ke paisey kahan se aayiengay. When you are young and unmarried, your expenses are low.

2. Make sure you have some savings. What if you lose your job? What happens if there is a family emergency, your dad is sick? What happens if your younger sibling needs money for college and your parents are not rich? Always have savings. You decide how much, but you must have savings every month. Create a separate savings account and every month put something there. They key is consistency. Leave enough in your current account to manage any temporary emergency. Make a rule, you will not touch the savings account for any temporary emergency. Come up with a figure that you can put in your savings account every single month. It can be Rs. 1K, 5K, 10K etc. You will be surprised how much it becomes in a short period of time. Katra katra darya bunta hai (could not resist).

Summary:

- Fix a small amount that you can easily afford, even it is Rs. 500.
- Do it every single month.
- Resist the temptation to take out money. Leave it for something very important.

Go to Khan academy to learn more. Start this discussion with family and friends.

PS: In xFlow we all sleep peacefully because of our savings.

3. Expenses = Salary – Savings
   Look at your expenses carefully. Do not be kanjoos. But also, do not throw away money. Analyze your expenses. Record it on excel for few months. You will see patterns/percentages (data analytics). If you notice you are spending 40% of your salary of dresses/lipstick, then think. Since we do not collect data, we never realize. I am not telling you where to spend the money. I am just saying, collect the data and then decide. You will be surprised at what we call leaky buckets. Every month you may be spending too much money on coffee, eating out, dresses, presents etc. You decide where to save. Also always give some to charity/Zakat. It is important. That my dear friend is called budgeting. Bara simple hai. Excel zindabad.

4. Dictionary. Some definitions are important.***
   Liquid assets: Things that can be easily converted to cash. Illiquid assets are those that cannot be converted to cash easily. Checking/Saving accounts are very liquid. You can take the money out the same day. Car/Bike is slightly not liquid, since it will take a week to sell the car and get money. Gold is also in the middle. Property/House are not liquid. It will take a very long time to convert property into cash. So understand different types of assets vis-à-vis liquidity.

   Simple interest = principal × interest rate × time
   If interest rate is 10% and you put in Rs. 1000, then every year you will get Rs. 100 extra as interest. Rs. 1000 is called the principal. You will get the same Rs. 100 every year.
   Year 0 = Rs. 1000
   Year 1 = Rs. 1000 + 100 = 1100
   Year 2 = Rs. 1000 + 100 + 100 = 1200

   Compound Interest = Compound interest also called interest on interest, is applied to the principal but also on the accumulated interest of previous periods. It also depends how frequently the money is being compounded. Is it every month, every quarter, every year?

   Compound interest = p × [(1+interest rate)n−1]
   where p=principal n=number of compounding periods

   Year 0 = Rs. 1000
   Year 1 = Rs. 1000 + 100 = 1100
   Year 2 = Rs. 1100 + 110 = 1210

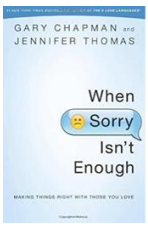
   *** https://www.investopedia.com/terms/i/islamicbanking.asp

Islamic Banking has two fundamental principles: sharing of profit and loss, and the prohibition of the collection and payment of interest by lenders and investors. Islamic based banks offer profit and loss and not interest. The purpose of explaining this is not to give opinions, but to provide definitions. Your investments should be based on your own personal belief systems. I am not suggesting one over the other, but solely to provide you definitions and knowledge.

Then there are other instruments, such as government bonds, saving bonds etc. You can save to buy property. Property in general, over a long period of time, has always been the best historically. Sometimes there are ups and downs, but in general having your own home is better. So, save for that. Some people buy gold.

Stay away from risky investments. Take risks, but carefully. Take enough risks, that you can afford to lose and not be in the streets. Remember this adage: If it sounds too good to be true, it probably is. People will tell you how to double your money in few months. In real life it is not possible (except lottery).

We will cover investments in future chapters. Although I strongly recommend to get suggestions from family and friends.



Chapter 22: Sorry

This is the worst word in the English language for me.
By saying sorry, saab muaff jo jata hai.

When you make a mistake, it always costs someone. If you write a bad code and you have to write it again, you just cost your company money. If you do poor testing and there is a field failure, you just cost the company.

Do not get me wrong, it is very important to say sorry.

But that is only the first precedent step. You MUST follow it up with other steps:

a. Genuine remorse. Do you feel guilty? Do you feel bad? It is important to have those feelings.
b. Are you willing to pay for that mistake? How will you pay? Aka retribution.
c. Are you going to learn from this? You do not want to repeat the same mistake again.
d. Are you going to make any changes in yourself, because of that mistake (behavior change)?

So, saying sorry is never enough. Let's look at it in a comprehensive way.

Sorry + Remorse + Retribution + Learn + Change = Best outcome for oneself.

How do I pay for my mistake? It can be several ways. It can be money; it can be extra time. If you do not pay, the universe will extract the pound of flesh anyways. So, better you pay. It is cheaper.

If I ever make a mistake with a customer, I will do extra free work for him.

I made a mistake in my design document How do I pay? I will work extra time to fix it.

Mistakes are good, are encouraged, since they contribute to learning in life.

How do I know I have made a mistake? Either self-realization (if you have empathy) or if others point it out to you. Do not be defensive. Accept criticism. This will make you stronger for future.

Remorse comes from empathy. If you have empathy, you will understand remorse.

But koshish kar ke yar, NEVER repeat the same mistake.

Homework: go evaluate any mistake you have made in the last 2 weeks and apply the above principles.

How to say sorry?

Just saying the word sorry is never enough. Never ever just use the word 'Sorry'. Have the decency to at least the say whole sentence. "I am sorry" Better yet, say

You must say "I am sorry because I did xyz…"
You MUST explain what are you sorry for.
This will also help you understand the mistake you made.

Chapter 23: Art of Delegation:

Why do we delegate?
So, we can do more work, get more responsibilities, progress in life, move forward.

What is the prerequisite for delegation?

Trust. You have to trust people. If you do not trust the person you are delegating to, then do not delegate. But if you do trust the person, then read below.

What are the steps?

a. Teach the person IN DETAIL how to do the task.
b. Then let him do the task and YOU MUST watch him do it.
c. Step b, can be repeated few times.
d. Next, let him do the task, without you watching.
e. Now monitor the task, verify it.
f. Next, keep **monitoring** the task for a few more cycles, till you are satisfied.

What are the responsibilities of the person given the task?
The delegatee must keep **informing, communicating** throughout. It cannot stop. Ever.

What are the responsibilities of the person giving the task?
The delegator must have **patience.** Must really want to teach. Explain not just the problem, but the **full context** and the stories behind the stories. Must teach intent. Must teach **WHY** we are doing a task.

The key is constant monitoring and that can be accomplished if the delegatee keeps you informed.

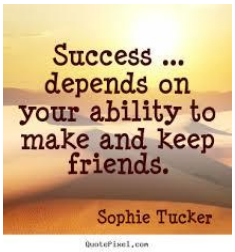
If you miss any of the steps above, delegation fails.
Both parties have their own responsibilities.

Famous Saying:
Delegation does not mean abrogation of responsibility.

RESPONSIBILITY WILL ALWAYS BE YOURS.

Homework: Now review your delegation. See if you are following the above steps.

Chapter 24: Friends



Dosti aik naimat hai.

Warren Bufett and Bill Gates: Pick your friends wisely.
Warren Buffett has taught so many lessons appealing to our common sense. One of them was recently highlighted in Bill Gates' memorable Happy 90th birthday message to his close friend: "Of all the things I've learned from Warren," says Gates, "the most important thing might be what friendship is all about. As Warren himself put it a few years ago when we spoke with some college students, 'You will move in the direction of the people that you associate with. So, it's important to associate with people that are better than yourself. The friends you have will form you as you go through life. Make some good friends, keep them for the rest of your life, but have them be people that you admire as well as like.'"

There is another saying: You are the average of your five best friends.

The word friend has two pahloos. Private and Professional. For private friendship, I will not comment much, but just to say try to select friends, who truly believe in friendship and are positive in nature.

But the other pahloo is professional friends. I keep saying get mentors. Dosti karo, with senior people. Only they can teach you and help you grow. It does not matter whether they are from xFlow or outside, but have some friendship with talented people, smart people, learn from them.

You alone cannot conquer the world. No one has. You have to surround yourself with people with more talent than you. I have a few friends like that and I am constantly looking for more. People who can teach me, who can give me feedback, who can criticize me.

How?
These days with the world going digital, it is easy. Join groups, forums, find people the world over. Discuss, comment, contribute. Open source is another great avenue to make friends and learn.

Chapter 25: I want to work on Technical matters only.

I have heard this mantra from too many engineers.
So, I wanted to understand that. What does this mean? I only want to do technical things.
Koi samjhai mera ko.

Some are very obvious non-technical jobs. Admin, HR, Operations, Finance. Okay I agree with that.

So, you do not want to become a lead, since you think you will lose your technical edge?
So, you do not want to get into managing a project, since it is not technical.
So, you do not want to be a CEO since it is not technical.
So, you do not want to talk to all customers, since not all of them are technical, e.g. Dell Dubai.

Is testing or QA technical for you?
What about training in various areas? Should we stop that, since it is not technical in **your** field.

Please guide me. I think you mean the following are NOT technical and should be removed:

- We send you to conferences and should never do that again, since it is not directly technical in your own field.
- We send you to give lectures at universities. We should stop that, since it is teaching and not technical.
- Fire the SQA/Testing team, since per your definition they are not technical.
- Fire Awais in training, since it is not technical.
- Fire Faisal Mumtaz (data center), since he is not technical per your definition.
- Stop all planning sessions for projects, since they are not technical.
- Fire Zaryab/Hassaan, since they talk to customers and that is not technical.
- Never give any contextual information to engineers, since it is not technical.
- Insure that you never ever talk to customers, since 80% of it is not technical per your standards.
- Shut down Support group, since it is not technical.
- New customers have several initial meetings with us. We should not invite you because these are not technical in your own field, but are new fields.
- Remove table tennis, since it is not technical.
- While we are firing everyone, lets fire Faisal and Shahid as well.

On the other hand, following technical things have been offered and rejected by you.

- Started CAP. No one could finish it in 6 months.
- Offered a class on Algorithms, only one responded.
- Offered someone Apprenticeship program, but was rejected.

- Offered certifications, but few people wanted to use it.
- Offered free technical books, but not one person wants it.
- Used to buy raspberry Pi and auduino..Not one wanted it.
- Sent a few people to Belgium and all they did was sight seeing.
- Asked a few people to update the IoT protocol book. No response. I guess not technical per your standards.

For our CAP project, no one considered how to install it at a customer site or to maintain data. Is that also not technical.

Take example of MDF. If it is one site, it has a certain architecture. The minute you add another side, the entire architecture changes (central server). So, I should not allow the engineer to ask me or the customer how many sites, since it is a non-technical question, according to you.

I have had interesting interactions with the Etisalat teams. Six months into the project, I ask them, have you seen the SOW, have you read the SOW, have you updated the SOW and they always say NO. So, SOW is non-technical and we should stop writing that. Sahi hai?

Confused right?

I asked someone to give me an example and they said I want to be like people who give talks at conferences. Have you ever looked at their titles? These are generally all, Directors and VPs and not developers. 80% of their time is non-technical per your definition. So, you just contradicted yourself.

The reason you do not want to do ‘non-technical’ things is that you think you will lose your edge. So, has Fazal/Usman/Noor/Sana/Farooq/Wajeeha/Hayee/Ibrahim/Sheryar/Alina/Ihsan/Ashok lost their edge?

Pagal ho? You cannot work on the parser for the rest of your life. Great engineers are those that understand the **system** and not a module. To understand the system, you have to talk to management (both internal/external). I remember in IoT project, the customer did not understand the value of testing. I had to explain to the customer the importance of testing. You as engineers have to understand not just what is a parser, but where is it used, how is it used. All of that information can change the design and architecture of your product.

I will not say further, but in my entire life experience the best engineers are those that understand modules, systems, management, customers, processes, environment etc.

And a final best example of a great engineer is Arkady in Dell. He is a Sr. Director. He talks to Ahmad Farooq on technical details, but talks to me about contracts. Another best example from our company is Fazal. He is management, but he understands technology more than anyone in the company.

In developed countries, young engineers fight to get promoted. My experience in Pakistan has been reverse. People fight with me NOT to get promoted. Weird. Strange.

Think. Discuss. Debate. Understand. Help me.

Chapter 26: Do not take the obvious for granted.

Suggested by Zaryab.

https://youtu.be/WkT0BtfOB-M

What did you learn? Kindly share your thoughts on our skype learning group.
I find a lot of lessons in this one.

Chapter 27: What is a company?

This is a beginner's guide to understanding a company.
A company is an independent, self-surviving entity primarily to conduct business.
It has its own identification number. In Pakistan it has what is called an NTN number, similar to CNIC number for humans. So, it has its own existence.

A company provides liability protection to its owners. If the company does something wrong, you can sue the company and not its owners, hence the name limited liability company. It limits the liability. In Pakistan we usually attach the suffix, Private Limited. In USA we use corporation (or corp or Inc or Incorporated) as a suffix. German companies use GmbH. In France it is S.A. etc.

The company is formed by shareholders. People who put money in. They decide how much each person owns or it can be a single person. The key to understand is that the person(s), also called shareholders, own the shares. They do not own the company directly. So, it is the shareholders who own the company. Shares can be bought or sold or given away.

e.g. Jeff Bezos owns 11.1% of Amazon shares. Bill Gates owns 1.36% of Microsoft shares. The founders of Google own 5.5% (Sergey Brin) and 5.7% (Larry Page).

I am going to define several roles. All roles can be done by one person, but that person will be identified as having many roles. The first role we understood was share holder, someone who owns shares and there can be many many people or a single person.

Now in mid to large companies, the major shareholders do not run the company. The elect a board of directors. The board of directors in turn elect a chairman of the board. The board meets once a month or quarter or annually. The board does not actually run the company. It sets big strategic visions, looks at compliance and the general directions of the company. The board of directors now hire management. Larger companies have a very long hierarchy of management, smaller companies do not.
Following is the chain of hierarchy of a large company.

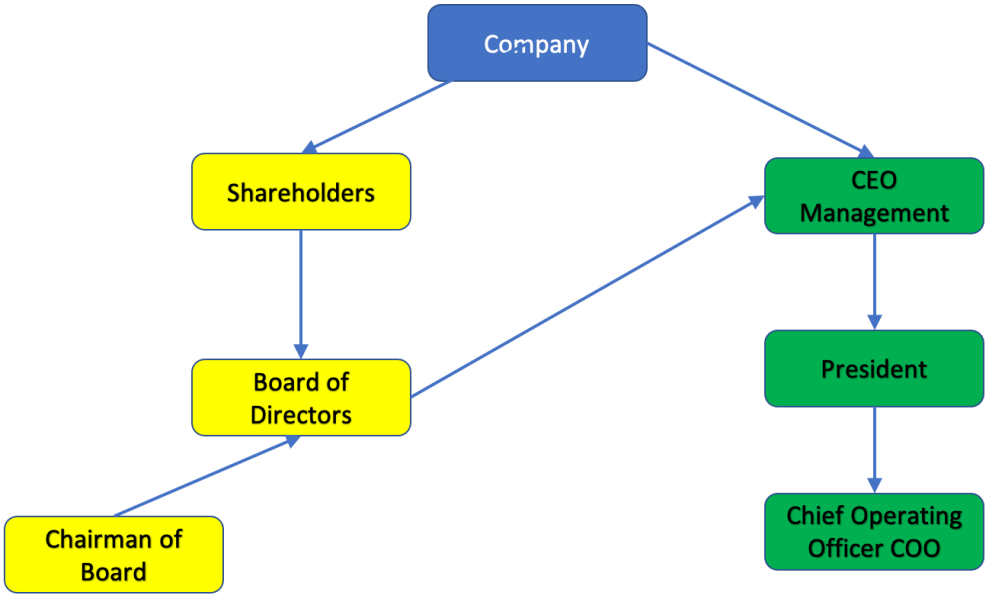
Shareholders elect board of directors, who in turn appoint
Chief Executive Officer, who appoints
President, who appoints
Chief Operating Officer, COO, who in turn appoints
Vice Presidents and so on.

In smaller companies, CEO, President, COO is all one person.

Make sure you understand all the roles highlighted in Red are different. A person can have any collection of these roles. For example, a person can be a shareholder, CEO and President. Or a person can just be a president only. Separate the roles from people in your head.

Marketing, Admin, Engineering, Finance, Operations, HR etc. report to the Management.

My key point today was to separate and make distinction between shareholder and management. Samajh aai?



Disclaimer: There are lots of variations. This gives a generic representation of a company.

This was a very basic primer on corporations. There are lots of topics. If you have any interest, google it or contact me.

Further study:
Different types of companies
Different types of shares
Companies can own other companies
Profit vs. Non-Profit.
Private vs. Public.
Founder
Funding- VCs and angel investors
Dividends
Tax implications

Fun fact: East India Company, who ruled India was actually a company. In later years UK took control of India from East India Company. A company owned a country !!!

Chapter 28: If You Regularly Use These 3 Words, You Have Higher Emotional Intelligence Than Most People

Source: Inc.com. By Jason Aten

There are any number of things about being a leader or entrepreneur that are hard. Starting a business is hard. Hiring the right people is hard. Convincing people to pay you for the product or service you offer is hard.

None of those things, however, are nearly as hard as admitting you don't know something. That's just baked into the recipe for humans.

And yet, there are three words that, if you use them regularly, will make you a better leader and--for that matter--better person.

"I don't know."

Look, I realize that very few people ever want to say those three words. In many cases, it feels like admitting failure. That, it turns out, is exactly why it's so powerful when we do. No one does that.

In many ways, if you're responsible for leading anything, you're responsible for providing information and making decisions that affect the work and lives the people around you. That means there's a level of pressure to get it right, and there should be. The stakes are high.

But that's not the same as having to know it all. Often, it's hard to know if you have the best information. It's hard to know if you're making the right decision. In many cases, no matter how accomplished or experienced you are, there's still plenty you don't know.
I don't say that as a criticism, but rather as permission to say it out loud. It's true for all of us, even though most of us would rather dig a tunnel with our mouth than admit that we don't know something.

But, we don't. And, once we recognize that, we can do something about it.
Sometimes, admitting it means you'll find someone who does and hire them to do it better than you could have anyway. Or, maybe it means giving someone inside your company the opportunity to teach you something and grow in their own leadership.

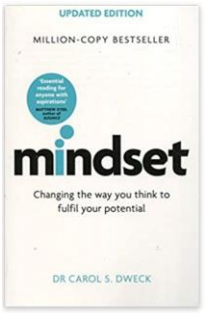
Sometimes it means accepting that there's an important piece of information you need in order to make the best decision, and having the humility and self-awareness to acknowledge it and start to learn.
Sometimes it means sitting across from a customer who has a question that just might be the difference between making a purchase from you, and finding someone else to meet his or her needs. In that moment, the last thing you want to say is "I don't know."

A funny thing happens, however, when you do. You have the chance to demonstrate that serving your customer is more important than appearing to know everything. You show that

you're confident enough to admit that you don't know, hopefully with an assurance that you'll find out and follow up.

That takes an incredible level of emotional intelligence. It takes self-awareness, confidence, and self-control--three things that make all the difference between ordinary and extraordinary leaders.

Chapter 29: Mindset



the established set of attitudes held by someone.

- Either I'm Good at Something, or I'm Not. ...
- I Can't Learn Now; It's Too Late. ...
- There's No Point in Trying if I'm Going to Fail. ...
- I Take Feedback as a Personal Attack. ...
- I Always Struggle With... ...
- I Feel Threatened/Intimidated by the Success of Others.

A **mindset** refers to whether you believe qualities such as intelligence and talent are fixed or changeable traits. ... People with a fixed **mindset** believe that these qualities are inborn, fixed, and unchangeable.

What is 2% mindset? It's been dubbed 'The **2**% **Mindset**'. Only **2**% of the population go for their dreams with confidence and excitement. Only **2**% of the population choose happiness and fulfillment. ... 98% of the population enjoy being like everyone else and simply let life push them into submission because they have no guts.

How your mindsets affects success? A change in **mindset affects success** by way of transforming **your** perspective and attitude towards challenges and letdowns, in addition to having the confidence to pursue new ideas. It gives you the motivation to improve yourself to be able to **succeed**.

It is not just personality, intelligence, or talent that influences success or failure; it is also the way people view themselves and their abilities. Whereas people with a fixed mindset believe their abilities are carved in stone people with growth miset believe their abilities are changeable.

Chapter 30: Crowd-Sourcing

No one person has the best ideas. Can never have.

LEGO established the LEGO Ideas platform, where users can submit their ideas for new LEGO sets.

PepsiCo occasionally solicits input from consumers on varying products, such as the time they asked customers to share their favorite new potato chip flavor for the company's Lay's brand. An astonishing 14 million submissions were raked in.

In 2014, McDonalds decided to give their customers free reign and submit ideas for the types of burgers they'd like to see in store. They could create their perfect burgers online and the rest of the country could vote for the best ones.

Netflix ran a competition to improve their recommendation engine.

Fazal setup a meeting with Arkady. He wrote all his questions and shared with me. I made some minor tweaks. He then had a meeting and wrote down all his discussions. From there we came up with an actionable plan, which will be helpful to him and to xFlow.

I have a habit of asking lots of people about my ideas and thoughts. In every single case, it has been improved by feedback.

So, why do most people not seek feedback? I am not a psychologist; I can only assume Ego and Fear. My ego prevents me from asking questions, showing my vulnerabilities. My fear of job, my respect, etc. prevents me from making good decisions.

Strongly recommend to get in the idea of crowd sourcing. Now even big companies are doing it. What happened to their ego and fear? They set it aside, since the benefit is much better than the loss of ego.

Start with small things. I have to go to Nadra for some processing. Share this with a friend. He/She might give you some insights from their experience. You do not have to ask for questions, just tell them what you are planning to do.

Once I went to Milan in August. I had not discussed it with people. When I arrived there, the whole town is closed in August due to holidays. Most boring trip. Wish I had discussed with people.

Once I contracted with a large company. Wish someone had told me, they turned out to be very unethical.

Seek advice, share your thoughts. The feedback will make your decisions much much better. Let go of ego.

Chapter 31: Ability to Think

In all of these years, I have been spending most of my time with you. I have never tried to teach you technology. Why? Isn't that what CEOs of technology companies are supposed to do?

I write chapters. I talk to several of you and discuss matters for hours. I spend about 80% of my time working with you. Not customers, not finance, not contracts. I will work on our aliases on skype.

What am I trying to do?

Answer: To make you self-reliant. How?
It is very very easy to teach a certain technology. So many resources for that. Lazy leaders do that.

I am trying to make you self-reliant.
We encourage you to talk to customers directly. This helps you learn so many things. How to talk to customers without management being present.

If you notice, I teach you the following things:

a. Have good Habits
b. Develop Ethical Values
c. To think for yourself

These three factors will lead you to Self-Reliance. Where you are not dependent on me. To create judgement. To THINK on your own. To be independent. To be tackle any situation which you may encounter.

I can teach you how to deal with xyz situation. But then you will not know how to deal with abc situation. I teach you how to deal with any situation, which comes from Good habits, Ethical values and the ability to think for yourself. You are competing with yourself only. Not your teammates, not your competitors. Build yourself, step by step. It is not going to happen in minutes, so be patient. Build on these every day. Learn to give your opinions. Speak out.

So, understand that. I will teach you habits, values, and thinking. Technology you can learn for yourself, because I am teaching you how to learn.

For long term success, you must have these three factors.

My job is to coach you, mentor you, to help you grow your mind.
Your job is to take care of projects and customers.

So, tell me, what are the issues you are facing? Where are you stuck? Where do you want to go? I will help you. That is my job.

My job is tough. I can measure easily how many courses you have taken on coursera. It is very difficult for me to measure how you have grown over a period of time. I cannot measure it weekly. I do not have the metrics. I hope you keep on learning and think for yourself.

This is tough for me. I really do not know how to do it. I keep trying new ways. New methods. I need your help. Teach me how to do it. Share your ideas and thoughts with me. Help me Durdana.

Chapter 32: KPIs

After the farming age, came the industrial age. Industrial age was about machines. People were still needed to run those machines. I remember working during college in a machine factory in Chicago. My job was to run the punch press. Every 3 seconds I had to press a button, for 8 hours a day. The company wanted more and more parts. So, my KPI was how many parts did I produce. Even today, in Amazon distribution warehouses, they keep track of how many packages you are able to pack per hour. In the industrial age, lots of metrics were developed. How many parts did you produce? How late did you come to work (attendance system)? How many holidays did you take? The idea was machines could not do the work by themselves, it is humans, like me, who had to press buttons. Machines were very expensive, so the company cared about the machines and not humans. It did not take intelligence to run these machines. They were designed very cleverly, so any idiot can run the machine. Brain was not required. In fact, I remember in my early days at AMD, we used to hire people, who the following qualification: Can you walk straight and chew gum at the same time (joke!).

Punch Press

So, companies developed metrics for measuring human performance, just like they used to measure capacity of machines. In other words, we became machines. Even today if you go to rural Punjab to any brick making factory, same KPIs are still used.

This is where the concept of working day came from. Start at 8am. End at 4:30pm. 2 fifteen minute breaks. Half hour lunch. MBA flourished. MBA designed everything to maximize productivity. Better value for shareholders.

Then came the computer age. Here we wanted to use people's brains, and not their physical work. But, But the MBAs were still learning the old methods. KPIs. So we started using the KPIs like how many lines of code did you write today? We still kept some of the old KPIs, like starting times, lunch times etc.

The problem at Stanford, MIT, Harvard was they could not quantify KPIs for the brain. They still cannot. They are trying.

So how do we go to the new century using last century KPIs. It is confusing. Since I cannot develop KPIs for human brain, I will use the old KPIs based on physical work.
In xFlow, we knew from day one, that we have to focus on developing the human brain. There are no available tangible KPIs for that. Without tangible KPIs, it is hard to measure. So, what to do? Kiya keya jai?

We made the following decision. We are not going to use any of the old KPIS from last century, these do not apply to us. We will continue with intangible KPIs, till one day society can figure out how to measure those. (There is ongoing work at Google, Amazon, Microsoft, Apple etc. on that).

Following are our KPIs that we have been using. Note, we do not have a KPI of your start time, how long did you take for lunch, and where did you go in the afternoon?

Our principle, objectives, goals, vision, mission was to develop the best engineers from Pakistan. It still is to this day. And all of our actions, KPIs are in sync with that goal.

Yes, I will admit it is very very difficult to measure it tangibly. But I can say with full confidence, that we are meeting our KPIs. That is why I always say, challenge the status quo. Koi cheez pathar pe nahi likhi.

Our KPIs: Measure karna nahi aata.

Engineers	**Customer**	**Financials**
How well are you learning?	How satisfied is the customer?	Are we able to manage our cash flow to insure our obligations?
How often you ask questions?	How many complaints did we receive?	
Are you actively managing your growth?	How many compliments did we receive?	
Did you truly understand the customer intent?	Did the customer come back to us for more projects?	
Did you insure you and the customer are in sync. with the overall objectives?		
Did you meet the customer deadlines?		
What is the quality of your work? Must be more than what the customer expected. This includes documentation.		
Did you train other teammates?		
Were you honest with management?		
Did you keep management updated on the progress?		
Did you keep the customer updated on the progress?		

Several of you will raise a point. Bhai sahib if you cannot measure the KPIs, why do we have metrics in our annual performance review. Sshhh..Do not tell Fazal.

These are compromises to account for FAIRNESS. How do we give raises in a fair manner, so there is no favoritism? This is very very difficult. So, we had to compromise and come up with some basic metrics.

If you have better suggestions, frankly I am searching for those. But before you give me any new ideas, kindly think through them before you share.

Chapter 33: Circles of Competence- pathway to learning

Aaj kal ki dunya mein learning aasaan hai,
Aaj kal ki dunya mein learning mushkil hai.

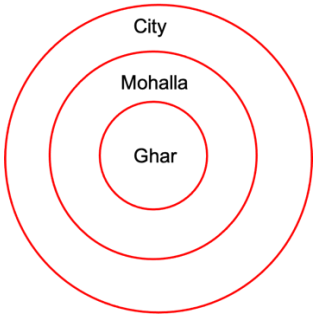
Easy because there is so much available.
Mushkil because there is so much available.

What is the whole idea of learning? We learn, so we can grow in our careers. Faster the better. How to learn fast? It requires strategy. It requires planning. It requires thinking.

So, what is our strategy. I am not saying this is the only strategy. But this is what I use till I figure out something better. I will share with you what I use in xFlow. It is called Circle of Competence.

I use the concept of Circle of Competence. It has three circles:

Ghar = Core competencies
Mohalla = Adjacent and emerging competencies
City = Non adjacent competencies



Ghar = Core competencies = SDN, NFV, Cloud, Security, Development, Testing, Deployments. These areas are what we know best. We have the resources, knowledge, skill set to perform these projects. We spend 80% of our time in our Ghar.

Mohalla = We keep an eye on adjacent technologies. E.g. Data analytics, BI, IoT, Blockchain, Databases, App development, PenTesting, Product development, Serverless computing, 5G, Edge, AI/ML etc. We keep an eye on these. We learn a little bit about these. We are not very good at this yet, but perhaps one day these will become part of our core. So, we try to learn a little bit about them. Once we get a project in these areas, we bring them in our ghar. We keep an eye in our mohalla for new potential spouses. We get to know them. And if we like them, one day we bring them to our ghar (marriage). We spend about 19% of our time in the mohalla checking out the scene.

City = We actually do not care much about this. Nanotechnologies, 3D printing, Genomic areas, Health tech, Fintech, Agritech etc. We spend only 1% of our time here. We might know some buzz words but not much.

All of the above is by design. By thoughtful design. By conscious decision making. By planning. By thinking.

Our Ghar becomes bigger and bigger with time. That is growth. But it is thoughtful growth and not random growth.

We started our Ghar with SDN, then married OpenStack from the Mohalla, then married NFV, then married Security and our ghar kept getting bigger and bigger. Growth.

Now you can apply the same principle for your growth.

a. Write your current core competencies
b. Now define adjacent areas that you wish to learn.
c. Now create a schedule for learning
d. Do it.

Simple. Na?

Time Problem:
A lot of you millennials have a different construct of time. You measure time in minutes. Your long-term view is 8 hours. Whatsapp generation. Instant answers. No need to think. No context required. No background info required. No diligent work.

Good luck with that.

Data from previous generations and including this generation of innovation begs to differ with your view. You are in a rush. I want that promotion in 2 months. I want to invent something in 24 hours. Kiya? Demagh ko zara theek karo.

Most of you are seeking affirmation, platitudes, shabashi every day. I will create an app, which will send you a whatsapp message every day from me automatically, saying: Shabash beta. Kiya zabardast kaam kiya hai. Will that make you happy? I doubt that.

So, first calibrate your time horizon. Arey baba you will live to about 125 years old (new technologies). Kahan ja rahe ho. Manzil tu define karo. Bus, bhagey ja rahe hain. Iss duniya ki bheer k shaba bashana.

Slow down. Too much shit coming down the pipeline. So, stop, think, define your objectives (in writing) and make a plan. Sabh kuch nahi kar saktey, even in 10 lifetimes.

So what I never became a great musician, I became a good engineer. Kafi hai.

I like bhiryani, korma, chapli kabab, pulao, barbeque etc. But aaj sirf aik dish khayoon ga. Us ko enjoy karoon ga. Issi mein khush rahna seekhoon ga. Kal korma kha lein gy…Laiken aaj sirf ur sirf bhiryani ka luft loon ga. Enjoy today.

Ye bahoot lamba aur taweel safar hai. Har pal ko enjoy karo. Aur manzar bhi aaeen ga. Zara sabr. Hole Hole, Thale Thale.

For deep thinkers: Thinking should be Infinite. Actions must be Finite.

Chapter 34: Predictability – a management perspective

	Average Performer	Highly Intelligent
Reliable	10% Raise	20% Raise
UnReliable	Fired	See Below

How does management view predictability vs. intelligence/skillful people?

Reliability means, are you regular? Do you come to work on time? Do you work daily? Do you meet your project needs? Do you have regular work hours? Are you predictable? Are you dependable? Reliability, Regular, Predictable, Dependable.

By average performer, I mean someone who has reasonable command of his domain. Not very skilled, but average.

By intelligent people, I mean someone who is very skilled in his field. Someone who is very good at problem solving. These people can be eccentric sometimes as well.

Why do I love USA? Most interactions are highly reliable. Every morning, hot water is there, heater is there, internet is there, wifi works all the time. If I call the bank, my work will be done. If I order something from Amazon, it will be delivered on time.

Ab Pakistan ko le lo.

When I get up in the morning, I do not know where the dharna is on that day. Lots of time the hot water is not working. Wifi is not very reliable. Masi nahin aayi aaj. Doodh khatam ho gaya hai, so no chai. Mobile band hai (pata nahin kitni daer k liye). Light chali gayi.

You do get upset. Hai na? Because no one likes unpredictable behavior.

The primary aspect from a management perspective is Predictability. Management seeks predictability in everything. In customers, projects, revenues, etc. They hate unpredictable behavior. For example, if my customer tells me he will sometimes pay me 10 days after project and sometimes 2 months after project, I will not like it.

E.g., Dell pays us fixed 80 days after acceptance of invoice. It is not very good, but we love it. It is highly predictable. It does not change. We can plan. ETSI pays us 2 weeks after each milestone. We love it, it is predictable. The biggest factor in management is predictable behavior. When I am in Pakistan, everyone knows I will be in the office by 9am. It is predictable. UAE is highly unpredictable in terms of requirements and we curse them every day (sometimes twice a day). UAE is highly unpredictable/unreliable in issuing POs. We curse them every day (sometimes twice a day). We know our rent at STP goes by 10% every year. It is tolerable, because we can predict it, plan for it.

In our data analytics project, I cannot tell you when Hassaan/Zaryab will go to the site. I hate it. I cannot plan my project. I cannot plan my resources.

So, intelligence can be valued provided the person is reliable/regular/predictable.

If intelligence is accompanied by unreliability, it becomes a challenge for management. These kinds of people are very difficult to manage. I used to work with T.J. Rodgers (founder of Cypress semiconductor) at AMD. Every day between 2pm-3pm he used to go for a jog. Even if the president wanted him, he was not available. He was eccentric. But the company tolerated him, because he was brilliant and his eccentricity was not egregious. Eventually he left the company and started his own. He was predictable.

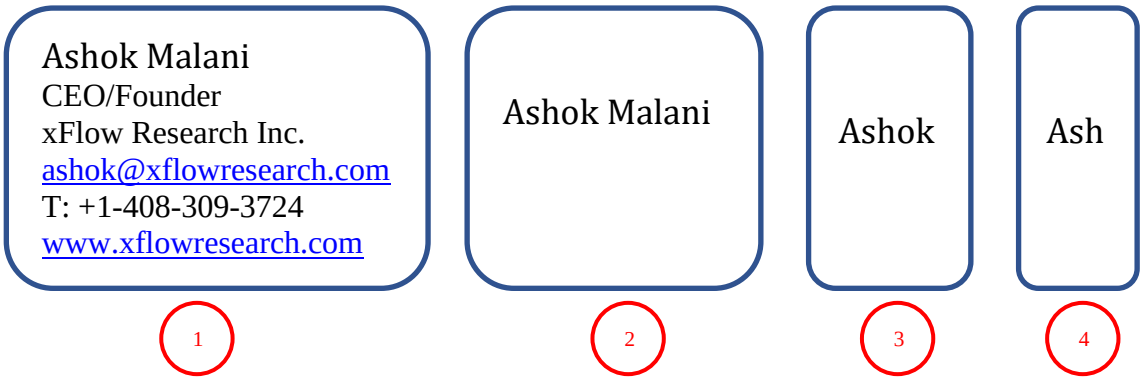
We once hired a very brilliant senior person and fired him in 3 weeks. Because he did not want to be reliable/regular/predictable.

Kahani ka khulasay ye hai, k management loves regular behavior, predictable behavior above anything else.

And on top of it, if the person is very intelligent, sooney pe suhaga.
Regular does not mean you have to come to office at 9am. It means that whatever time you set, repeats every day. Aaj ye, kal wo, acha nahin lagta.

Can I rely on you? Can I depend on you? Can I trust you? These all come from predictable behavior.

Chapter 35: Email signatures



How do we write our signature on emails?

We all love ourselves. We think we are the best people in the world. Some of us are more narcissist than others. Some of us carry huge egos. Some of us are desperately trying to be noticed. Some of us think we are too important and that everyone in this whole universe should know us. We are sometimes in love with our names. We think that is the best ever name ever invented.

Yes, you are beautiful. Yes, your name should be known in the whole wide world (pata nahin humility kahan chali gai? dhoondho uuse).

Well, I am not going to blow your bubble.

I am just going to tell you my version of professionalism. About right protocols to use for signatures.

#1 – Use this for ***ALL*** of your professional/work related emails. ***Always.*** I have known Dell people for the last 7 years. Till this day I use this type. Yes, they know me. But still, I use this protocol. It is professional. Whether it is first time or 10 years, if it is work related, use this style. People should be able to reach you via phone/email. Sometimes girls do not like to add their phone number and that is understandable in our culture. Your choice.

#2, #3 – Use this with your close friends. People who know you. Sending your friends #1 is pretentious. So, use this style. Never use this style in work/professional settings.

#4 – This is reserved for parents, siblings, spouse, BFF, Tinder, GF/BF, etc. Someone very close to you.

I tend to write ‘warm regards’ just before my signature. Your decision.

As you move from left to right, the relationships are getting closer and closer. Jaise jaise rishtey barhte hain, naam choote choote hone lagte hain.

Chapter 36: Think Infinite, Act Finite

Think Infinite:

Aik secret batata hoon. Thinking is free. No charge. Then why we do not do it?
Dream big, reach for the stars, sitaroon se agay bhi soocho…etc.etc.
Yes, I agree. Dream, Imagine.
Dream of things that are not there. Nobody thought that our phone will have more computing that Apollo 11, which went to the moon. But aisey kar ke dikhaya.

What is reality? Reality is that which we can dream.
What is the reality of your life 2 years from now on? Secret batoon? You get to decide. You decide what your future is going to be. Yes, it is true. It depends on how broad you can imagine.

Your destiny is in your own mind. You decide your destiny. Tomorrow's reality is not decided by horoscopes. It will be decided by what we do today. So, think big. Do not think based on the constraints of today. Think of tomorrow without constraints. I am poor, so tomorrow I will also be poor. Why? Go work hard, earn money and you can be rich. I cannot ask this girl to marry me because she is very rich. Arey yar, did you ever ask her? Change your arc of life, change your trajectory. Who is stopping you besides yourself? We **self censor** ourselves. Worst kind of censorship. We put all those chains of "Aisey nahin hota hai" on ourselves and make it impossible for us to do anything. And then we say, 'Dekha meine kaha tha, aisey nahin hota". Self fulfilling prophecy. Break those chains first. I cannot work on this project because I do not know DPDK. Why? Go learn DPDK. Who is stopping you?

You cannot dream big, unless you break the chains first. 12 years ago, all my friends said you cannot make a high tech company in Pakistan. Engineers are lazy and inexperienced. Look at xFlow today. We decided not to listen to all those nay sayers. We said, no. We will make our own reality. People are good. People are honest. People work hard. Look around you, isn't it true. Tomorrow's reality is to the extent what we can think today. There is no limit, no constraints to your thoughts. You can even think of defying gravity, escape time-space paradigms.

Quaid dreamt of Pakistan, a concept which did not exist. Just by dreaming, it became a reality.

Arey friends, there is no cost to dream. If you dream small or big, it is still free. So why not imagine big.

Infinite thinking. I always have had two quotes on my skype profile. Deny Reality (I wrote that) and Do not take the obvious for granted (quote from a neurosurgeon).

I am responsible for my future. No one else is. If I do not progress much in life, it is because I let the chains of today hold me from my future.

Homework: Think of things that are stopping you from dreaming. Maybe the mother always says: Ye nikama hai, kabhi kuch kar ke nahi dega. Or the father says: Ye tu kali hai, iski shadi nahin hogi. Look inside you, who is telling your not to dream.

Act Finite:

Dreaming big is good. Do not let go of those dreams. Now you want to translate those dreams to reality. We live in this world of reality. We cannot make our dreams true in one day. It takes time. It takes steps. So, do it step by step.

Sir Syed envisioned creation of a Muslim state in 1906. Pakistan became a reality in 1947. It took 39 years to make it a reality. Lots and lots of steps in between. He could not make his dream a reality in 1 year. It took 39 years.

So, we must take small and **finite** steps every day. Make a plan. Have the dream as a goal, but today focus on your step for today. No, you cannot skip steps. To make xFlow of today, we have taken lots and lots of small steps for the last 10 years. Now we are taking new steps daily to make the xFlow for the next 10 years.

I want to learn Linux. That is a dream. Now to learn that, I will take the course on Linux academy. The course has 18 chapters. I will break it down in steps and plan one chapter every 4 days. So, in 72 days I will complete the course.

Each step is Finite. Just like we breathe, one breath at a time. Act means action. Each step is action.

Example: How many presidents are there in a company? Finite thinking answer is one. Infinite challenges the question. Having one president is a norm, not a legal requirement. That is the way we have done for many years. Well, I can challenge the norms. Why not have 2 or 3 or 4 presidents in a company. At first glance it may not make sense. But think deeper and you can see a very good case that can be made to have multiple presidents of a company. So even things we believe cannot be challenged, can be challenged with Infinite thinking.

Homework: Take a dream, break it down into steps. Plan it and ACT FINITE.

Reference: https://howtocreateyourownlife.com/think-big-imagination-and-the-law-of-attraction

Chapter 37: Tashakur

I am thankful to Allah for my life.
I am thankful to Allah for giving me wonderful friends at xFlow.
I am thankful to Allah for giving me good health.
I am thankful to Allah for giving me blanket for the cold weather.
I am thankful to Allah for giving me food enough for my sustenance.
I am thankful to Allah for giving friends at xFlow, who teach me every day.
I am thankful to Allah for giving me the courage to make a change in my life.
I am thankful to Allah for giving me friends in all the ex- xFlow friends.
I am thankful to Allah for giving me two wonderful, loving and caring daughters.
I am thankful to Allah for giving me the life experiences and keeping me safe.
I am thankful to Allah for giving me the opportunity to work in my own homeland.
I am thankful to Allah for giving me customers, who adore us.
I am thankful to Allah for giving me the shafqat for working hard.
I am thankful to Allah for giving me friends, who guide me through life.
I am thankful to Allah for giving me an opportunity to make a difference in life.
I am thankful to Allah for giving me a positive attitude in life.
I am thankful to Allah for giving me the patience to wait for the future.
I am thankful to Allah for giving me the most wonderful ancestors.

I pray to Allah to show me the right path.
I pray to Allah to show us all mercy.

I promise Allah that I will try hard to follow the righteous path.
I promise Allah that I will work hard.

Chapter 38: Understanding the concept of Roles

Role also means function or job responsibilities.
I will ask you to breathe through your ears and not your nose. What will you tell me?
Sir ya tu aap pagal hain, ya aap ke demaag ka tawazn kharab hai.
Yet, when I ask an engineer to do engineering, they normally turn around and give me marketing advice.

Kindly explain the above two sentences to me. In one case you are calling me a pagal and in the other case, you are doing exactly that.

It is very important to accept your role and function that are given to you. Once you have excelled at your role, you can start entering other roles/areas.

In Silicon Valley this part is clearly understood. Kurt never claims to know marketing, he is a good engineer. Everyone knows not to get engineering advice from Anil, since he is in sales. If I want a contract from Dell USA, I negotiate with Arkady/Gopi and not Sambhu.

Then why in Pakistan, all engineers want to give me business advice, marketing advice, management advice. Now I do not mind taking that advice, had the engineer finished his engineering tasks first. But the engineer says, I do not care about my engineering tasks, but I want to give you management advice.

This is tough for me. I am not able to absorb this inconsistency. Apna kaam tu nahin kareingay, but aap ka kaam aap ko samjhaingey.

True story: Teresa Meng used to teach PhD students at Stanford. She came up with an invention of a new wifi chip. She talked to the president of Stanford, John Hennessey. He liked the idea. Together they made a company called, Atheros. Next, they both went to a VC and asked for $20M. The VC said I will give you $25M, BUT both of you are not qualified to be the CEO and we will hire someone from outside. They agreed. Teresa became a CTO and the company sold for $3.2Billion to Qualcomm.

Similar story of Raghib and Cavium. Cavium sold to Marvell for $6.5 Billion about 2 years ago. Raghib must have made probably at least $50M. But he was assigned to be a CTO. He was the founder and inventor of the first Cavium chip, but he accepted that role.

In both cases, the inventors/founders were relegated to a smaller role.
They understood that each person plays a different role. No person can be good at all the roles.

So why do all engineers in Pakistan, keep giving me marketing, financial, business advice, while they are not doing their own engineering jobs? ***Help me understand why this is prevalent in Pakistan?***

You need to analyze that and share your thoughts with me.

All I can tell you is that we all play a role. For a plane to run on time, the pilot, ticket agent, steward, baggage handler, fuel pump operator, Air traffic controller, gate agent etc.etc. each have to play their own roles. The pilot cannot tell his CEO that he should charge more or less for the tickets. Ye baat zeeb nahin deti. If the gate agent says, I will fly the plane, will you board it?

If the nurse says she will perform surgery on you, will you like it?

In our company if Adil the office boys tells me he wants to negotiate the next contract with Arkady, it will end in disaster. If Faisal Mumtaz tells me he wants to do salary processing next month, it will be a disaster. If I told Shahid to do Mahvish's role, how many of you will subscribe?

Each is a specialist in their areas.

Recent kahani:
Ashok: Afzal, aap ye feature add kar do
Afzal: Sir ye feature customer nahin khareeday ga.
Ashok: Afzal, I am telling you to make this feature and not sell this. Selling is my job.
Afzal: But sir, the customer will not buy this feature. However, I have this new idea for a module, let's do that.
Ashok: I am the CEO role. You are the engineering role. I am telling you to make this feature.
Afzal: Sir kuch bhi kahain, I may agree to your face, but I will not do this sincerely, since I believe you are wrong. I will teach you marketing.

Request to all: Kindly let me what to say to this person?

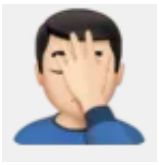
We all play our own role.
Let's know our role.
Let's do a magnificent job at our roles.
Let's not teach others how to do their jobs.
Let's excel at our jobs first.

My experience says, people who have progressed fast, have done their jobs very well first, before venturing into other roles.

As engineers, your future is in upgrading your technical skills.
If I ask you technical question, try to answer with a technical response.
Build your technical skills, strengthen your engineering skills.

Kindly read the chapter on Disagree and Commit.

Ufff…….



Chapter 39: Task Closing- definitions, engineering perspective

Never thought I will ever have to define simple English words. But I have been having challenges with the word “completed”. Is the architecture document completed? Yes, sir it is. Can I see it? Not yet, we are working on it. But you told me it is completed. Yes, it is completed, but we just need to finish some diagrams. Acha bhai, this is a binary question and not a quantum question. It is either competed or not completed.

Do you have a test plan? Yes, we just finished 80% of our testing. Na bhai, I am asking do you have a test plan. Yes, we do and in fact we have completed 80% of our tests. Arey bhai, kindly listen to my question. I am asking about the test plan. Acho wo, no it is almost completed. But how can you complete 80% of testing, if you have not completed your plan. It is a prerequisite. It is a precedent step. Sir, you do not understand. It is very complicated.

What is your SW package definition? I know it. But does the team know. Yes, everyone knows. Did you tell them? No, but they should know. Are you all on the same page? Yes, we are.

Everyday, when we open our emails, there are at least 5 new tasks. This happens every day. If we do not complete 5 tasks per day, the backlog will keep growing. This is not a good situation. Under no circumstance you can allow your backlog to grow. Why? Because the team will get impacted. Customer will get impacted. If you do not have enough resources, tell your management. But keep completing tasks. And by completing, I mean fully completing.

So, what do most engineers do. They mark items completed in their head, even though they are not completed. There is a phrase for it. Sweeping it under the rug. The engineers become ostriches. They pretend the task is closed. They do not care about completeness or quality. Instead of bubbling the issue, escalating it, asking questions, they just pretend it is closed.

If I take 20 lakhs from you and give you a pretend car, will you like it? So why would our customer like your pretend work?

Then I came across another challenge. Definitions. Is the test cases document complete? Yes sir it is. Now in the mind of engineer it actually is complete. He/She is convinced of that. He/She is telling the truth. But when management looks at the document, it is far from completed.

So, what to do? Simple yar. Have your documents reviewed by peers/management for feedback. Simple na? Most engineers do not have their documents reviewed by another person. So they believe they are correct.

You should be proud of your documents. You should share those with pride. Are you hiding your document? Are you afraid it will show your incompetency?

A human mind cannot deal with too many open threads. Close them.

Bottom line: a task is never completed unless it is reviewed by management. Focus on good writing and proper documentation. Try to get your tasks fully completed, so you can focus on future learning and moving on to bigger things.

Chapter 40: Stakeholders

Shareholder. This means someone who holds the shares. Companies have shares, which represent ownership. Shareholder is someone who owns part or full company. These can be public companies, like Google or private companies like xFlow. But both companies issue shares. For public companies such as Habib Bank you can buy the shares in the stock exchange.

Stakeholder: A **stakeholder** is anyone **who is impacted** or **has an impact** on the project.

Who are the stakeholders at home? Parents, spouse, children, siblings, relatives etc.
Who are stakeholders at work? Employer, HR, IT, management, manager, team mates, vendors, customers, third parties etc.

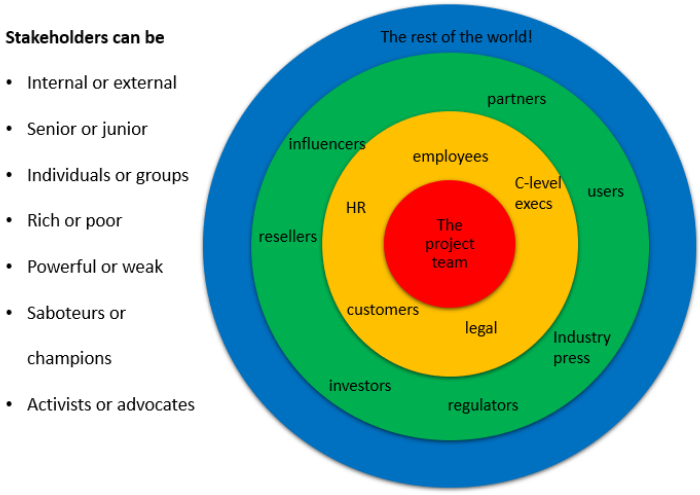
A stakeholder is anyone who has interest in that particular issue?

Who is the stakeholder in DellNFV project? Kurt, Sambhu, Gopi, RedHat, our team, our management, and to some extent Dell customers.

Who is the stakeholder in Data Analytics project? Dell, Etisalat, End Customer, Telmatics, Secure Domain, NIC vendor, our team, our management etc.

So, when you do a project you have to understand all the stakeholders and their roles. You have to consider the impact or involvement of each of the stakeholder. It is not just the customer. You have to make sure all the stakeholders are informed with information which is relevant to them.

Classic example is marriage. How many stakeholders are there? OMG..where do we start? Each and everyone of our family has a say. Each and everyone of the spouse family has an interest. Caterer, venue people, friends, food people, card printers, florists, ghorey wala, mithai wala etc. Nightmare.



Always understand who the stakeholders are in any project. Understand them. Always ask your manager this question, BEFORE you start any project.

You HAVE to cater for ALL stakeholders. Above all you have to keep all stakeholders informed.

Chapter 41: Processes

Here is my approach to Processes.

I believe there have to be processes in any company. If you did not get your paycheck on the 1st and our payday became variable, would you like it. Most probably not. So here you believe that processes are very important. If you go to the airport to catch a flight, I am sure you want processes followed. How about if universities said exams will not be by process and it will be up to each professor's discretion, will you like it? How about Independence day on Aug 14th. How about if we decide that the PM will decide each year the date of Independence day?

Why do we like processes? Because there is predictability. We like things to be predictable. That is why processes are important.

The key element of the process is that it is followed. What is written is what is done and what is done is written and secondly the process is known by everyone.

Processes do not have to be perfect. It can be an imperfect process. Processes evolve with time. So, an inefficient process is always preferred to no process.

It is not important that it is my process or your process. That is totally irrelevant. The author of the process is not important. Having a process and following it is important.

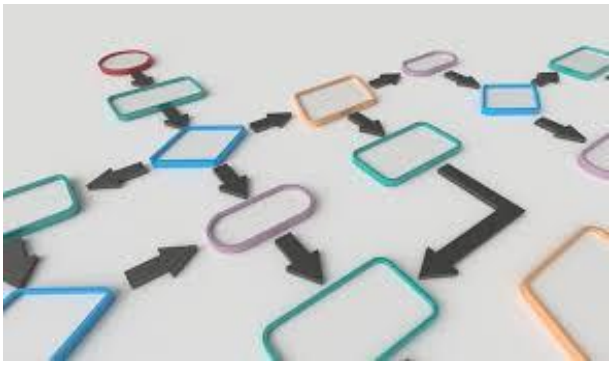
How do we develop process? First step is to have an owner, which is usually the manager. He/She has to own the process and play a vital role in development and deployment of the process. Next the process owner has to talk to stakeholders to get ideas about a good process and not decide unilaterally that they know everything. They must get inputs from stakeholders. Next the manager needs to WRITE the process himself/herself. Next is to circulate the draft to various stakeholders. Next finalize the draft. Have a meeting with all concerned and go over the process. If mistakes are discovered in the process later, the process can be changed and updated.

He/She has to ensure that the process is ***being followed***. That the process is documented. This is where the real problem occurs. ***The process has to be followed***. This is where most people fail. It is easy to write a process. It can be done in few hours. But now for ever you have to monitor that the process is followed. In most cases, the writers of the processes, do not follow their own process, which they have written themselves. This requires commitment. If you cannot follow the process, then something is wrong with your process. Go ahead and change the process.

You cannot say I will only follow processes that I have developed. You have to follow other processes as well.

Example of processes in xFlow type of company:

- Hiring process
- Salary process
- Raise process
- Promotion process
- Admin process
- Training process
- IT process
- Documentation process
- SW code process
- Testing process
- Deployment process
- Support process
- Etc. etc.



Bottom line:
A process must be there for most of the work.
Process must be followed.
Process must be known to all relevant people.
Process can be developed by anyone.

Tools: A key tool for process is checklist. Use these as much as you can. Develop them.

Chapter 42: What is Experience?

If I am 40 years old and I have worked for 18 years, so I have 18 year experience.

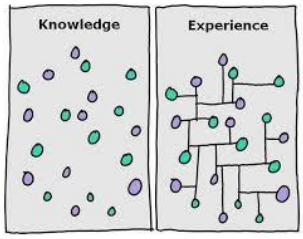
I am 26 years old and I graduated 4 years ago and have worked for 4 years, so I have 4 year experience. I am still in university and I have never worked, so I have no experience. My father just retired and he worked for the government for 40 years, so he has 40 years of experience.

We measure experience by number of years. Ghalat. Ghalat. Ghalat.
The problem is that this was the measurement in the last century. So, we have continued to use this definition.

Experience is NOT measured in time.
Experience is number of things you have done. Things you have learned and applied.
I went to Turkey for a visit, that counts as an experience. I wrote the module for parser, that counts as an experience. I used a new tool, that counts as an experience. I learnt and applied a new language Rust, that counts as an experience. I went to do skiing, that counts as an experience. I went and bought ghust for my mom, that is an experience. I went to the excise office and got my car sticker, that counts as an experience. I wrote the SOW, that counts as an experience. I negotiated a new contract, that counts as an experience. I wrote the test plan, that counts as an experience. I did configurations on RHOSP, that counts as an experience. I did payroll processing, that counts as an experience. I went to the bank and opened a savings account, that counts as an experience. I gave a lecture at my university or at my office, that counts as an experience. I am writing this chapter, that counts as an experience. Meine paroosan ko algebra skihai, that counts as an experience. I cooked dal today, that counts as an experience.

Reading a book is not counted as experience for me. Learning does not count as an experience for me, unless it is applied in real life. Once it is applied, it is counted as an experience.

Learning by itself is not experience. But experiences are learning. You cannot learn by reading, until you experience it. Reading about fire is not enough, you have to touch fire to understand it. So, application of learning is what transforms it to an experience. You can read about learning to drive a car, but that is not very useful, until you actually drive a car.



Doing things is what counts as experience. The more things you do, the more experience you will have.
How to get more experience? Do more things. But how? There are a million opportunities at home, at work, in the community. So, I do a lot of things. Some fail. But that is exactly the point. That failure is what is called experience. Now I know what not to do. So, experience is not just learning what to do, but also what not to do. I went to Naran and stayed at Hotel Lovely. It was horrible. Now I have experience. I will know where not to stay next time.

Some examples (only a few) for you to consider. Teach your nephew/niece about SW. Improve something in the office. Help your dad to do budgeting. Help your mom clean the house. Contribute some code or bug fix to open source. Help management by making a good task list. Help customer by making a good API document. Aur han, wo parasoan ko networks sikhao. Play guitar. Go for a hike. Volunteer at home, work, community, friends. Help someone. Learn to ride a bike (for girls). A 20 year old can have more experience than a 40 year old.

Do more. Action. Your KPI is the number of things you do and thereby accumulate experiences.

Chapter 43: Escalation

Ashok: I would like you to get the test document from the customer by Feb 14th, because we have dependencies on the next tasks.
Shaila: I will try sir. Today is only Feb 3rd.
Ashok: Today is Feb 11th, were you able to get the document?
Shaila: No sir. He is on vacation and will be back tomorrow.
Ashok: Today is Feb 14th, did you get the test document from the customer?
Shaila: No sir, I left him a message and also sent email, but no response yet.
Ashok: Today is Feb 20th, did you get the test document?
Shaila: No sir. I called him and he said he will give it by Feb 25th.

The above will sound familiar to lot of our engineers. It is common.

When you fight with your little sister and she is not doing what you want, you go straight to your mom/dad. That is escalation.

Most people, when given a task, think it is about them. No, it is not. It is about the project/product or the customer. You will be judged if you completed the task on time or not. You cannot blame 3rd parties or other people or team mates. I hear this very often.

There are two components. Inform. Escalate.

Shaila's job was to inform me on Feb 6th and tell me she has not completed the task. She is having trouble getting the document from the customer. Perhaps we will intervene.

Escalation is a concept that you have to bring to the attention of your managers, issues that you think will not be solved by due date. So, you have to inform the manager ahead of time, that there is a risk of not getting it done. Maybe I can call the customer's boss and get it done.

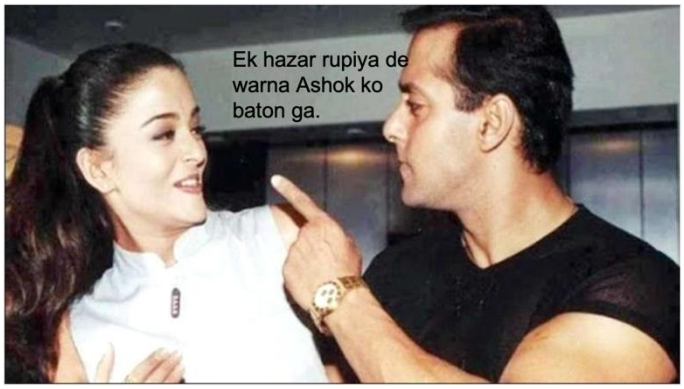
Take our Admin for instance. I try to work with Faisal, and I will not tell Fazal. But if I feel, Faisal is not going to deliver on time, I will call Fazal (before the date) and ask him to get it done.

Remember again, you are being judged if the quality of your work is good **AND it is timely.** Time is very important. You must get your work done on time, since there are other people waiting for your output, so they can do the next task.

Set aside your ego. It is not about your ego. It is not considered a failure that you sought help from management. What is considered a failure is that you did not complete your task on time.

Escalation means bring the issue to the attention of your lead, manager, president. Bring the issue before the due date and not on due date. Seek help.

Seeking help is considered a weakness in our culture. Not so in the west. Management is more interested in getting the task done on time. They really do not care much who did it. They will give you shabashi, they will respect you if you get the task done on time or before. They will not care how you got it is done.



So, if you are stuck. You cannot get something done, ask for help. Escalate. Start with your lead, if he/she is not helpful, ask your manager, then the director, then president, then CEO. Keep escalating till you get resolution. Do not be afraid of asking.

Finally, you will be judged by your **timely delivery** and not who you asked for help.

Chapter 44: Opportunities and how to deal with them

My story: My first job was at AMD. I was hired as a manufacturing engineer. That department had about 75 people, working 24x7 (three shifts). 3 months later, my manager asked me if I can take over maintenance for all 3 shifts. I said yes. 3 months later, he asked me if I can supervise the second shift production (3:30pm to midnight). I said yes. So, I was doing all three jobs. 2 years later the reliability manager asked me if I can become a reliability engineer. I said yes. 1 year later the QA manager asked me if I can become a QA engineer. I said yes. 1 year later, my QA director asked me if I can become a QA Manager in Austin. I said yes. 6 months later, they asked me if I can additionally become Document manager. I said yes.

Next story is at a small semiconductor company IMP. I was having a tough time in my life and wanted a simple job. So, I applied as a manufacturing engineer. 3 months later my VP told me he wanted me to become a manager and he fired my manager. 3 months later he asked me to take over purchasing. I said yes. 3 months later he asked me to take over IT. I said yes. 3 months later he asked me to take over Production and Inventory control. I said yes. 3 months later he asked me to take over maintenance. I said yes. All job concurrently. 6 months later, the VP of Sales, asked me to take over order management. I said yes. So, I had two offices in two buildings. First half I was working for one VP managing all those departments and the second half I was reporting to a second VP doing Sales support. All jobs concurrently. Same pay.

Wajeeha Story: She started working on Keymile project (SDN) for a German customer. 6 months later, I asked he to work on OSM. She said yes. 1 year later, I asked her to lead the vBRAS team. She said yes. 6 months later I asked her to work on NFV. She said yes. 6 months later, I asked her to work on performance. She said yes.

Faisal Soomro has a similar story.

Shahid was hired for Admin. I asked him to take care of financial and official matters. He said yes. Today he is in charge of all of our financial matters at xFlow.

Mahvish had approached us and she wanted to do training. I asked her if she can do life coaching instead. She said yes. What an incredible journey for her and us.

Fazal Story: I asked him to work on Hadoop. He said yes. In fact, he did a live presentation in the Open Stack summit in Barcelona. Next, I asked him to manage the NFV team. He said yes. Next, I asked him to manage the performance team. He said yes. Next was Airship and ETSI after that. Next, I asked him to manage admin work. He said yes. Next was HR. He said yes. Next was IT. He said yes. Next was finance, he said yes. Next was managing our UAE corporation. He said yes. Next, I asked him to take care of all contracting with Dell USA. He said yes. Next was to completely take over ETSI (technical and contracting). He said yes.

In 2008, Dr. Arshad asked me to help NUST. I said yes. Today's xFlow is a result of that yes.

The key was, all of us were not trying to control our lives. We let the universe decide our direction. We just accepted what was offered, worked hard and excelled in it. No questions. We did all those jobs, with love, with passion, with dedication, with excellence. We listened to what the priorities that were asked by management. We supported management. All these interesting assignments (rotations) were determined based on management priorities.

It is a matter of attitude. Are you coming to work with an open mind or you have already made your own decisions and are wanting management to support your decisions?

Or do you want to support management needs? Huge difference.

If Etisalat says they want MDF, I do not go and tell them they should do IoT. If Arkady ways he wants Huge Pages, I do not go and tell him that he should go and work on hybrid cloud. They are my bosses. So, I listen to them. I try to understand their pain points.

If you start listening to management, eventually management will start listening to you and will respect your opinions. That is exactly what is happening with my bosses, the customer. Now they respect my opinions.

Today Hassaan called me and shared an idea. He got my full support. Why? He always supports me, when I need help.

Titles do not matter.

Does management play favoritism? Absolutely, definitely YES!. Management will always favor those, that support them in time of need. That is always remembered. Management will listen to your ideas, to your needs, to your wants only if you listen to the pain points of management.

And that is how you create opportunities for yourself.

Question: If I ask a developer to work on testing, will you?

Chapter 45: Adaptation

https://www.youtube.com/watch?v=JH2nXMv6yZI This was shared by our Muhammad Farooq. It is a history of rise and fall of Intel.

Roman empire lasted ~1000 years
British empire lasted ~400 years
Mughal empire lasted ~300 years
Mongol empire lasted ~100 years

Some empires lasted longer than others. Why? Adaptability. They adapted to new circumstances.

Many tech companies have come and gone. Replaced by new entrants. Some companies have lasted longer than others. The companies that have lasted longer have adapted. If the railroad companies adopted car manufacturing, they would have lasted longer, but they did not.

In 1960s/1970s PIA was the foremost airline in the world. If PIA has kept changing to new circumstance, they would have improved. But they stopped innovation, stopped changing, became stagnant.

TIPS was the foremost telephone manufacturer in Pakistan. All phones were built by them. But they did not change to the new world of mobile phones. So, they are dead. NED was the best engineering university in Pakistan, now they are not. Why? Did not adapt to new circumstances.

Silicon Valley started with semiconductors, moved on to PCs, moved on to Internet, moved on to nano-tech, moved on to bio-tech, Virtualization, etc. Always evolving. Shedding its past to move to the future. That is why it still survives, still thrives. It changes, adapts.

xFlow started in SDN, moved to OpenStack, moved to NFV, moved to testing, moved to product development, moved to deployments, moved to trainings…Always evolving. That is why we survive. I do not think I will recognize the xFlow of 2040.

To survive, to grow, one must adapt, change, learn new things. This applies to companies, countries, dynasties and yes individuals. For you to thrive in this world, you must be updating yourself, changing yourself all the time. That is survival.

Chapter 46: Anatomy of Success Factors

Recently xFlow has been selected to host interoperability testing for NFV on xFlow's data center by ETSI. People accessing our data center will include major Telcos in Europe and major companies like Tata. Wow.

So, how did that happen? What were the factors of such a success? There are three factors.

1. Luck. Allah's will.

2. Individual initiative: Sana and Hammad took this **initiative**. They took this action to convince ETSI to make us approved data centers. They then worked with IT to setup the environment. So individual initiative is very very crucial.

3. Management planning: We invested in ETSI 3+ years ago. We invested 2 resources to OSM. We signed up for becoming a founder member of OSM. We pay Euro6000/year for ETSI membership. That was the investment. xFlow invested in Data Center equipment and housing. That is called duur andheshi. Thinking and **planning** for the future. Having patience in understanding some initiatives take long long years. And long investments will bear fruit in future. Planting the seed and nurturing the plant development.

Lessons for success are simple.

- Individual initiative. You can take it to.
- Management has to think long term and invest in people, equipment, processes and finding the right partners. And Management has to learn to be patient.

Together we can all be successful.

Chapter 47: Analytical Thinking

The best words in English language I like to hear from Engineers: Why? What? How? Where? These all stem from curiosity. An engineer who does not have curiosity is like a person without clothes.

For support we have to do Root Cause Analysis (RCA). Actually, one should do RCA on just about everything in life, not just technical support.

That requires a lot of curiosity and data analytics.
Why? Why? Should be asked a lot.

Steps:

1. Problem documentation: Ask questions. Where did the problem occur? Any data available? How did you find out about the problem? What happened because of the problem? When did the problem start? Etc.etc. Lots of questions. This all has to be written form (not verbal).

2. Urgency determination: Here you have to determine if this is a problem, which needs immediate solution or you have time for analysis. If this is an immediate problem, do step 2a first. If this is not an immediate threat, go to step 3.
    a. Look at past history. Quickly check with relevant team members. Have we seen this before? Who can help solve this? Usually this is a band aid solution to immediately satisfy the client. You still have to follow the rest of the steps.

3. Hypothesis formation stage: Here we determine some possible causes. Let's not be arrogant here and say I know it. Ask colleagues, ask manager, ask mentors. Create a list of hypotheses. Write the possible reasons. Because you will have to test this. Now comes the caveat. Lots of engineers will give a quick answer if they have seen this problem before. They say I know it. Well, if you have seen it so many times, why have you not solved it forever? Why am I seeing the same problem again and again? That means you have either not solved it or have made an engineering determination, that it cannot be solved forever. Hanji, sahi hai na? We forget the concept of metadata. If you are seeing the same problem again and again, then why not analyze the metadata this time? Don't be a donkey and keep doing the same thing. That is what donkey's do.

4. Hypothesis Testing stage: Design your experiment first. In writing. Do not assume, I know it. How will you test? What matrix are you going to use? Design your test. Have it verified by colleague or manager. Write it down. Write all details. Define test bed in detail, with version numbers etc. Now perform your tests. Record data. Data is what data is. Do not attempt to force the data to match your confirmation bias.

5. Analysis stage: Now that you have data, we need to review the data. What is the data telling us? We need to analyze the data. We need to understand the data. At this stage you may have to go back to step 3 and repeat.

6. Conclusion step: Here you ought to write your conclusions. Your recommendations. Maybe there are choices, in that case, write those options for management. Maybe there

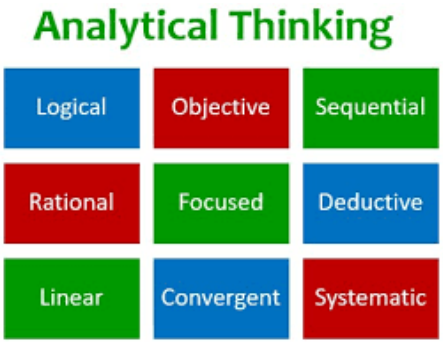
are multiple fixes, short term, medium term and long term. Get this step reviewed by management before posting. Discuss with Management what options are proper. Management will have inputs into the proposed solution. Do not do it alone. Listen to management perspectives. Management looks at the same problem with a different perspective. Listen to it.

In all cases, you must follow these steps in the right order. Do not skip steps, no matter how smart you think you are. Sequence is important. Always get second opinions. Always check with management.

Example provided by Noor:
An example would be, the incident of a router crash, where the question is to replace the router, or simply try to fix it somehow (a band-aid solution).
The engineer's mistake would be to compare and contrast nice technical features of both routers and forward this document to management. Which is entirely useless.
He/She should instead, focus on how this new router will:

1- possibly prevent future outages, saving down time, and increasing user satisfaction
2- providing additional venues, which management can explore for employees (e-g better Wi-FI speeds)
3- be cost effective (in terms of being long-lasting)
4- help in future scaling (which management could be planning, for instance management plans to hire 10 more employees, each with 2 Wi-Fi devices, meaning 20 more devices in the Wi-Fi network, therefore scaling of this network is critical, something the engineer would miss).

This would be the right way to introduce "why the new router" to management, instead of saying the new router has this fancy new technology and supports up to 10 Gbps.
In short, observe empathy with management, for the best of both parties.



Chapter 48: Growth and Control Part 1

Amazon just announced Andy Jassy will be the new CEO of Amazon replacing Jeff Bezos, who was the founder. Think why that happened.

The goal is growth. Progress comes from movement. Harkat mein barkat hai.

Let review the transition of Fazal to become President. There are two people involved. Me, who is the current president and Fazal who is going to be the president.

How does it happen?
Firstly, I have to make a decision to give up certain control. Ouch. This is the toughest part. Most of us cannot give up control. Why? Because we are darpok. What will happen to me if I give this up? I am certain of my current position. I am venturing into unknown. I am afraid. Dar lagta hai. Nokri tu kahin nahin chali jae gi. If Fazal is better than me, what will people say about me. My ego will get hurt. He will get more respect than me. I do not like it. People will call Fazal to ask questions. Meray ko koi lift nahi kariega. Fazal will be invited to all important meetings. He will negotiate and sign all important papers. Customers will like him more than me.

So, what should I do? Make him unsuccessful and then people will say wah wah to me. Hmmmm..sochna parey ga.

This my dear friends is the biggest stumbling block for moving ahead. This is a very tough decision. Manta hoon mushkil hai.

Think about this. How will you act? Do introspection. What should I do?

Part 2 to come later.

Chapter 49: Growth and Control Part 2

We learnt in Part 1, that to grow one must learn to give up control.

There are 4 conditions to give up control. All 4 conditions are must. Meeting 3 conditions is not enough.

Conditions:

1. I must be willing to give up control in a very conscious and decisive way.
2. Receiving party MUST want to take control. Not willing to, but wanting to.
3. I must be willing to put in efforts to train the person. Time, energy, deliberate desire.
4. Receiving party MUST be wanting to learn. In a very deliberate way.

So, if someone does offer you these opportunities, understand it, recognize it and grab those immediately. University prepares you to get started in life. It does nothing after that. With a university degree you can get your first job. That's it. To grow in life after that, I believe in RECOGNIZING opportunities. Opportunities are given to us on a daily basis. In most cases we do not recognize those. I do not blame you. No one has taught you how to recognize those opportunities. Un pe naam nahin likha hota hai. Koi label, ya bill board nahin hota hai (sorry Insta nahin hota hai).

Understand condition number 2 and 4. Read it a few times. Understand it.

And you will grow.

Chapter 50: Work Ethics around the world

These are my observations and opinions, not necessarily facts.

I am not providing any judgement, merely stating what I have experienced. Small data set. I am not suggesting any preferences.

European: They believe in strict home and work life. When you are at work, you do work only. But after work hours, you are not supposed to touch work. No laptops, no learning, only family, friends and fun. They strictly maintain hours and a lot of this is driven by legal requirements as well. When Europeans go on vacation and they take very long vacations, they just have true fun. They are not thinking about work. They will not respond to your email on weekends or after working hours. At the same time, their productivity is high, because when they work 8 hours, they actually work those hours. Strong ethics. Strange, they work the least amount of time, but highly productive. Europeans believe in work life balance. (Southern Europe, Italy, Spain has slightly different take on this).

Silicon Valley: There is no time separation between work and life. These are inter-mingled. You may take care of family member during work time, but you can also work at night or weekends. If you send an email, do not be surprised to get a response at 11pm or even on weekends. 24x7. You can see by my emails, skype messages etc. In general SV people will put in a lot more than 40 hours per week. 60 hours seem to be the bare minimum. Are they more productive? A datapoint is that most new products/companies come from SV. They are driven. They want to innovate. They want to get ahead. Very driven culture. All we talk about every day is startups, even if we are grocery shopping, the clerk will probably mention a start up. It is in the air. We learn startups by osmosis. It is all around us. **The metric for work is completion of task and number of hours are not measured.**

USA minus SV: Rest of the USA is not like SV. So, if you go to Iowa or Tennessee, they separate work and life. They follow almost the European model; except they work longer hours than Europeans on average.

China/South Korea: It is very simple there. There is no life. Just work. Chinese will work 12 hours for 7 days a week.

India: Indians also work very long hours. They are desperate to get ahead. There is poverty there, so they want to get out of poverty and rise up. Very strong education culture. They do not work the kind of hours Chinese do, but they come close. Indians have very very strong work ethic. Lot of focus on education. Work is associated with religion. So, Indians everywhere in the world will work very hard and will be highly educated.

Middle East: God gave them money (oil), so they have never learnt to work hard. They do not want to create anything. In the 1400-1600 (pre-oil), they did a lot of contribution to Science, medicine etc., but it all stopped three hundred years ago. Since they have money, they just buy stuff. They do not believe in work ethics. Almost every professional I know in ME has a side business. No loyalty to their work or worry about their future.

Pakistan: From 1947-1970, Pakistan had a very good work ethic. It was progressing very well in science and industry. We built industries, PIA, educational institutions, Nobel prize, Nuclear

science, etc. Not sure what happened, but after that it not only slowed down, but actually went the other day. Most parents till today encourage their children to find government work (few hours or none, haram). I get very surprised by today's parents. I am not talking about xFlow. We are an exception. But in general society has become corrupt, likes to find short cuts, jugar etc. And a total absence of work ethics. Maybe we are not as poor as China and India, so we do not see the necessity of working hard. **The metric for work is number of hours worked and not completion of task.**

Interesting discussion you can have: Why are these societies different? What are the underlying causes? Do you have a different opinion?

Chapter 51: Why Ashok loves car dashboards

I ♥ dashboards.

When I am driving, I need to know speed. Am I driving too fast or too slow. It tells me how much fuel I have, so I can make decisions of filling it again. It tells me what gear I am in, so I am not driving in the wrong gear and hurting my piyari car. It tells me the temperature. And so many things.

The beauty is that it ALWAYS gives me status. Even when things are fine.

Imagine a car without dashboard. We will substitute it with a voice system. All it tells you “all is fine”. Are you going to like it? What do you think of this idea? Should we develop it? Will people like this?

That is all management expects. Information. That is all. They want information not to check on you, but to check on the project/product/activity. Just keep everyone, management and team members informed. Simple baat hai. If you do not, management is wondering (using neurons, bandwidth), kiya ho raha hai. Allah karey saab theek ho. Not a very good idea.

Even if everything is good, still inform. Just like a car dashboard. It gives you info even if everything is fine. You feel relaxed. You do not have uncertainty. No tension.

That is all we ask for. A dashboard equivalent. There are so many tools to inform team / management. Use skype, email, google docs, phone, whatsapp, Instagram, apps, etc.etc. So many of them. Just use them. Write down something daily. What did you do today? Where did you get stuck today? What are your concerns? Etc.

Since I do not have dashboard, I worry about everything everyday. That is a lot of pressure on me. Acha nahin hota, agar aap bata detay. Will save me from worries.

So please help me. Just drop a short note in skype group. Frequently.

Some examples below, why information is important.

The above grocery item tells me the price, price per ounce, name etc. So, this label info is very useful to me.

This sign tells me status of my airline. What I should expect?

J Dot banner. It gives me info. It helps me make decision. Sale Yay !!!.

Jira Dashboard. Tells me about all open tickets.

Chapter 52: GNS3 Journey of Exploration

Dec 2: An idea came, while working with OS10 training. Noticed very little participation of Dell in GNS community. Decided to do a PoC and share with Dell

Dec 15: PoC developed in one week.
Dec 17: Presentation developed for Dell.
Dec 21: Sent presentation to Dell Networking and had few initial meetings.
Feb 11-25: Engineering meetings.
Feb- 28: SOW finalized

We accomplished all of this in about 2 months.

What was the result of our initiative?

- We get to work with a new Dell Division: Network Engineering.
- Our engineers will learn higher level engineering. Growth. Rotation.
- More new ideas like SONIC OS development, Fabric Design Center improvements etc. for future contracts.
- Personal development for our engineering. They learn more. They grow.
- Contacts with highly experienced engineers. Our engineers will interface with senior people.
- Learn more about open source.
- More contracts for xFlow.
- More respect for xFlow.
- More hiring and opportunities in Pakistan.
- Best of all, we just increased Pakistan's engineering reputation. (we are ambassadors).

We need to do more of these initiatives. Proof is above. Share ideas. Think constantly. Grow. Be creative. Lead. Agile thinking. Yes, you can do it. Sirf Neeat Banao.

Caveat: I do realize doing exploration is exciting. It motivates us. However, remember, yaad rakho, you cannot abandon your prime job. You cannot abandon your current assignment to pursue this. The current assignment has to be done with the same love and care as before.

Secondly, do not jump too quickly from one exploration to another. Give it some time. Do more research before you abandon that.

Kudos to Zeeshan, Aqeeb, Hayee, Noor, Farhan, Naeem. Collaboration and team work.

Current rules for exploration:

- Idea or PoC must be clearly specified.
- It should be small enough, so it can be done in 4 man months.
- We should already know at least 50%+ of the technologies. (Idea ought to be extension of our current work). E.g. No Fintech.
- The use case must be specific and a customer already identified, who can use this.
- Do not worry about selling, marketing, revenues etc.
- Company will invest in YOUR ideas and hence your growth.

Chapter 53: People Who Adopt These 5 Verbal Habits in 2021 Have Very High Emotional Intelligence

(From Inc. Magazine)

They're easy changes really, just a matter of memorizing phrases. Let's get started.

1. "Tell me more."
This is one of the most powerful phrases in the universe, and it's my favorite one for improving emotional intelligence. It's also nearly all-purpose. You can say "tell me more" in almost any situation, and you'll do things like:

Reassure the other person in a conversation that you're interested and listening.
Avoid the temptation of turning the focus of a conversation from the other person to yourself.
Set yourself up for silence, which as we'll see below is a powerful tool that emotionally intelligent people use.

Just imagine any conversation you've had -- especially if it turned awkward or unsatisfying. Imagine replacing however you responded with this three-word phrase.

For example, imagine a friend tells you: "It's hard to focus on work, since I'm stuck at home with the kids doing 'virtual' school.' on a computer all day"
Most of us have been trained to try in a situation like to say something like, "It's hard at our house, too," or else, "Can't you just have your kids work downstairs while you work upstairs?" But neither is really satisfying. Try replying instead with our three-word magic phrase, "Tell me more," and you reach a deeper level of conversation.

You're giving the emotionally intelligent response, inviting your friend or colleague to share, explore, and maybe even find a solution.

2. "Thanks for your understanding."
We're going to use this phrase as a replacement for something else: "Sorry."

Not that you should never apologize. Of course you can, when you have wronged someone and you want to make amends. But many of us use that word too often, when we don't truly mean to offer an apology.

Examples:
"Sorry I missed the meeting."
"Sorry we can't meet your deadline."
"Sorry I didn't go to your party."

So much about emotional intelligence involves shifting the focus of interactions from yourself to others. But the pseudo-apologies in these situations put the focus squarely on you.
Also, you were probably taught as a child that if you say you're sorry for something, you should try never to do it again. But I'll bet you're probably going to miss more meetings in the future, right? There will be deadlines you won't meet. You'll skip parties once in a while.

Consider instead how the message changes if you phrase each of these examples like this:
"My boss needed my help on something at the last minute, so I I missed the meeting. Thanks for understanding."
"We have so many commitments right now, and shipments are delayed, so I don't think we can meet your deadline. Thanks for understanding."
"I wanted to go to your party, but by the time I got home, it was so late -- I realized I'd only be able to come by for 10 minutes. Thanks for understanding."
It's subtle, but this phrase combines gratitude, sympathy, and other-focus, all in one package. It's very powerful.

3. "Hello."
Wait, you might say. "Hello?" Doesn't everybody say hello?

Actually, no. Pay attention to how people open conversations, and you'll see that they more often start with open-ended questions -- questions that everyone knows they have no desire to know the answer to.

I'm talking about things like:
How're you doing?
What's going on?
How are you?

It's the rare person who wants a truthful answer: "Well, I have a headache, and the check engine light is on in my car, but my daughter got some good news the other day about her college applications, and I..."
Uh-huh. I mean, if you're truly a friend or truly interested, great, maybe you want to know.
But the vast majority of the time, we ask these conversation openers expecting rote replies--phrase uttered so quickly and automatically that the phrases become contracted words:

"Good-n-you?"
"Aw, nothing."
"Notsobad."

At the very least, even if you do care about the person's answer, everyone knows that your goal is to move past the answer and get to the point of your conversation: "Sorry to hear about your headache, but I need your help to..."

I know this sounds incredibly semantic, maybe even hair-splitting. But, opening instead with a declaration -- basically anything that doesn't involve a disingenuous question that you don't really want the answer to -- is an improvement.

Examples:
"Hello."
"Great to see you."
"Thanks for coming by."
See what I mean? These are neutral/positive messages -- neither particularly other-centered nor self-centered. Try them out, and I think you'll notice an improvement.

4. "Am I making sense?"

This is another super-powerful phrase, and you're going to use it in place of two others: either, "do you understand?" or else, "do you have any questions?"

This is the phenomenon that results in people speaking declarative sentences with a rising pitch that is more commonly applied to asking a question.

Some people say it's a bad habit, or suggests a lack of confidence.
But, I've come to realize it's a very powerful, emotionally intelligent mechanism that enables people to make suggestions, tune in with their audiences, and pull the other people in a conversation along with them--even when they have less power than everyone else.
Let me put it a different way. Imagine I have to explain something complicated to you. At the end, I can ask three different things. What subtle message is contained in each phrasing?

First, "Do you have any questions?"
The default answer to this question is, "no, I don't have any questions." Thus, it requires a bit of bravery even to be the first to ask. Why do you want to create that hurdle for the other people in a conversation?

Second, "Do you understand?"
This is other-centered, of course, but it can put people on the defensive. The subtle message contained herein is that you've explained perfectly; perhaps we need to work on the other person's remedial understanding. You can do better.

Finally, "Am I making sense?" or another similar question.
This is powerful in its humility. Here, we're shifting the presumption so that if there's been a breakdown in communication, it might be your fault (you haven't made sense) as opposed to the other person's (they just didn't understand).
That makes it much easier for the other person to respond truthfully and completely.

You might have to overcome a bit of vanity -- "I know I'm making sense; I've explained this to hundreds of people." But the point isn't to pump up your ego.
Instead, it's to use an emotionally intelligent strategy to facilitate communication -- and make it more likely as a result that you'll get what you want and need.

5. Absolutely nothing.

You know that old saying: "Don't just stand there. Do something!"
People with high emotional intelligence prefer the opposite: "Don't just do something. Stand there!"
Or else its corollary, "Don't just say anything. Keep quiet!"

Saying nothing means you're not saying something stupid. It means you're giving yourself time to think before replying.

It also means, since people are naturally inclined to fill silences, that you're inviting others to say something -- maybe something something they haven't thought out as well as you might.
This is a good time to point out a misunderstanding about improving emotional intelligence. Since it can lead to more conciliatory conversations and better relationships, there can be a tendency to think it's about being nice.

But to be cold-eyed about it, being nice is a tactic, not a goal.

Imagine a negotiation, for example: You make an offer, and the other person makes a counteroffer. Instead of continuing, you simply stay quiet.
It's "your turn to talk," and yet you're not saying anything.
As a result, you seize control of your emotions, as theirs. Maybe the other person wonders if he or she has killed the deal. Maybe they sweeten the counteroffer before you've said a thing.

I remember reading an article about how car dealerships used to use a two-word phrase to take advantage of people's natural inclination to want to say something. It went like this:
Dealer: "I'm sure we can find a great car for you. What's your budget?"
Customer: "My limit is $25,000."
Dealer: "Up to..."
Supposedly, a non-zero number of customers would take the bait, and reply with a higher number. "Maybe we could go to $29,000."

Chapter 54: How do I get a Promotion?

The objective is to get ahead in life. To grow. To have more money, so we can enjoy better things in life. So, we can provide better for our loved ones.

How do we get ahead in life?
So, I will not discuss exceptions like inheritance or lottery. That is luck and it certainly plays a role in our lives. But that is something we do not control. So, we need to focus on things we can control.

We rely on constant promotions. Promotions generally come with pay raises.

So, again the question becomes how do I get a promotion?

To understand this, let's first look at it from a management point of view and then we will come to steps you can take.

Management Point of View (PoV): Really, I do not have to write anything but two words – **Work Ethics.**

The priority from management PoV is simple. We expect loyalty to your task, project, assignment, deliverables, customers. We do not necessarily expect loyalty to the company. That is dal pe tarka.

We promote you, **not** because you know the next role. We promote you because you have shown that you can deliver. We promote on attitudes and not your aptitude. We evaluate on the following:

- Do you generally complete your task on time?
- Do you support management initiatives?
- Do you communicate clearly?
- Do you take the effort to understand the culture and policies of the company?
- Do you work well with all the stakeholders? Including management.
- Are you proactive? Do you clearly state your point of view and give suggestions?
- How much headache are you for the management? Do you make them follow up with you? Do you make them chase you all the time? Do you save management time, or do you suck up management time/bandwidth?

All of the above are related to your efforts.

So, we promote you to the new position, ***not*** because you know the details of the new position, but we measure how well you are doing in ***your current position.***

Again, the measurement is not loyalty to the company, but loyalty to your work. We also take into consideration your thoughts and desires.

Now what should you do to get the promotion?

- Have a positive Attitude towards your work/assignments/tasks
- Work Ethic – *Kiya kahoon?*
- See above list

Chapter 55: xFlow Financial Philosophy

Each company has good years and bad years. That is very normal. Almost all companies go through this cycle. That is well understood.

So how do companies operate in general?
Companies are formed by certain people for their own benefit.
The founders/owners wish to extract maximum profit for themselves.
When times are good the owners take most of the profit and buy cars/homes and other things.
When times are bad, they layoff people, to maximize profits or limit their losses.
The company is created for the sole purpose of providing profit to the owners. That is why you see CEOs driving fancy cars and live in fancy homes or send their children abroad. Greed.

How is xFlow different? Very different. xFlow was created to benefit and grow their employees. First of all, xFlow is an Amanat for the future generations. I do not own it in a philosophical sense. It was designed to be owned by its employees. And they too will not own it and treat it as an amanat for the next generation. xFlow is designed for the next 1,000 years.

So, what do we do in xFlow? In good times, we save money for the future. In bad times, we use that money from our savings. We invest in our people. We provide for people's growth. We invest in trainings, life coach, travels, certifications, classes, seminars etc. We invest in our people, by sending them to teach, for conferences etc. We provide for decent benefits. We insure your health and safety. We insure your mental well-being. We want to invest in your future. We want to build you so you can reach higher than the previous generation.

We do not throw away money in good times. In bad times, we do not *reduce* our standards of living. We are consistent. We do not layoff people during bad times. The founder/ceo/management does not spurge on themselves. I eat simple, use careem, live in a guest house, in both good times and bad times. Consistency. I make sure you travel well, stay in good places and can maintain a decent standard of living. Fazal always stays in a better hotel than me when vising Austin. When we had people in Austin, we provided very well for them, with nice apartments and car.

We always save money (10-24 months of expenses) for bad times. We never have to worry about your paycheck. There is no uncertainty ever. We can sleep peacefully knowing we will never hurt you. If we have surplus, we invest in your ideas. We hire more people for growth. Our growth is very sustainable. When we hire a person, we ask ourselves, can we sustain that person over a long period of time?

So, we walk the middle path. No total ayashi, neither total kanjoosi. But consistency.

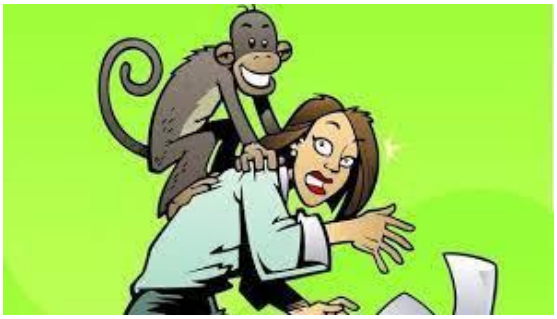
Bottom line: This company is an amanat for generations. We invest in our people, so they can build a better future. So, go ahead and build your future. *The world is waiting for you to arrive.*

Keywords: Building futures. Consistency, Sustainability. Caring. Middle path.

Chapter 56: Monkey off the back

Tasks for generating salaries every month:

1. Download the data from WebHr and Review it- Shahid
2. Update the data as needed- Shahid
3. Approve the salary sheet – Fazal
4. Verify amount is in Bank- Shahid
5. Ask for money transfer- Shahid
6. Transfer money to account – Fazal or Ashok
7. Generate tax calculations – Shahid
8. Update tax details in WebHr – Shahid or Faisal
9. Provide data to accountant – Shahid
10. Generate Bank submission record – Shahid
11. Submit the record to bank for payment – Shahid



As you can see there are several steps/tasks to be accomplished. These are all small and quick tasks. The sooner I complete my task, the next person can do their task. So, the task is the monkey. Sooner I get rid of my task, it goes to the other person.

Same applies in all projects. Several people have to do tasks, so the next person can do his task. Dev—Test---Deployment---Verification---ATP.

So, the idea is to get rid of the monkey from your back and pass it to the next person.

You should not have too many monkeys on your back.

Get rid of them as soon as possible. If it is a small quick task, do it right away.

Every day we get new tasks. So, the goal has to be that we should do more tasks per day than are given to us on the average. That is the goal. So always do the quick one first.

I have asked Noor to get me a book from Saeed Book Depot. That is one monkey on his back. Not sure how many monkeys he has.

I have asked Shahid to make me some reports. Not sure how many monkeys he has on his back. You have to get rid as many monkeys as you can. I will not stop. My new requests will keep on coming. Now how many tasks can you do in a day.

Now you will say, development is different. There is only one monkey, a big one. I have to write the entire parser module. Not correct. You can always break down your big task into small ones.

Take minutes of meetings. Well start writing them as the meeting is going on. After meeting, take a total of 2-3 minutes to clean it up and send it out. Your task is complete in 3 minutes.

Chapter 57: Decision making and informing

Four words we are going to talk about:

- Responsibility
- Authority
- Decision Making
- Informing.

At xFlow, we like to give responsibilities to all people. Managers are not the only ones with responsibilities. Each of us has to be responsible for their own work. We encourage giving responsibilities to each and every one of you.

But with each responsibility we also give authority.
Let's see some examples.
Fazal has the responsibility to ensure enough staffing for our projects. With that he has the authority to hire people as well.
Faisal M. has the responsibility to provide laptops to new hires. With that he has the authority to purchase new laptops.
Hassaan/Zaryab have the responsibility for deploying our hardware at customer site. With that they have the authority to hire a vendor like Secure Domain.
Shahid has the responsibility to process payroll. With that he has the authority to process it at the bank.

These have to go together.

Next two words are Decision making and informing.
Regarding decision making. Yes, we all have the authority to make decisions at some level. My take is that all decisions must be made with consensus, with discussions. A single person should not make decisions on their own. They should seek feedback. I could be proven wrong, but I believe I have rarely made any decision without consulting someone. At one level, yes, I do admire people, who are decision makers. I consider myself to be one. However, at another level, I believe that decisions are best, if they have input from other people. I would like to encourage you to do both. Make decisions, however have it validated by others.

Last point is informing.
Let's say you have the responsibility and authority and you made your decision, you still have to inform relevant people. So, in some cases, I will make a decision, but it is my duty to inform the other person. This is the part where people make mistakes. They do not inform.
Example: We have asked Faisal Q, to hire an admin person. We have given him the responsibility to find such a person. We have given him the authority to make his own decisions. He decides. Good. But he should inform relevant people throughout the process. At each step of the process, he should inform management. He will not be seeking approval. He is just informing.
Example: Sheryar has decided to use Go language for IMS. Yes, he has the responsibility and authority to make that decision. But he will have to inform management at each point of the process.

So, remember, always inform.