



# Calendar 2024



This calendar contains illustrations and concepts of Systems Thinking. These are meant to help you get familiar with them. Hope you enjoy seeing, reading and understanding them. Have a great year 2024.



## **Systems Thinking**

is the process of understanding interactions between variables within a system and between different systems and how their interaction leads to emergence of change.

*To understand the emergence of honey, we have to study interactions between the bees and flowers instead of studying them individually.*

# January 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

*"All things appear and disappear because of the concurrence of causes and conditions. Nothing ever exists entirely alone; everything is in relation to everything else."*

*– The Buddha*



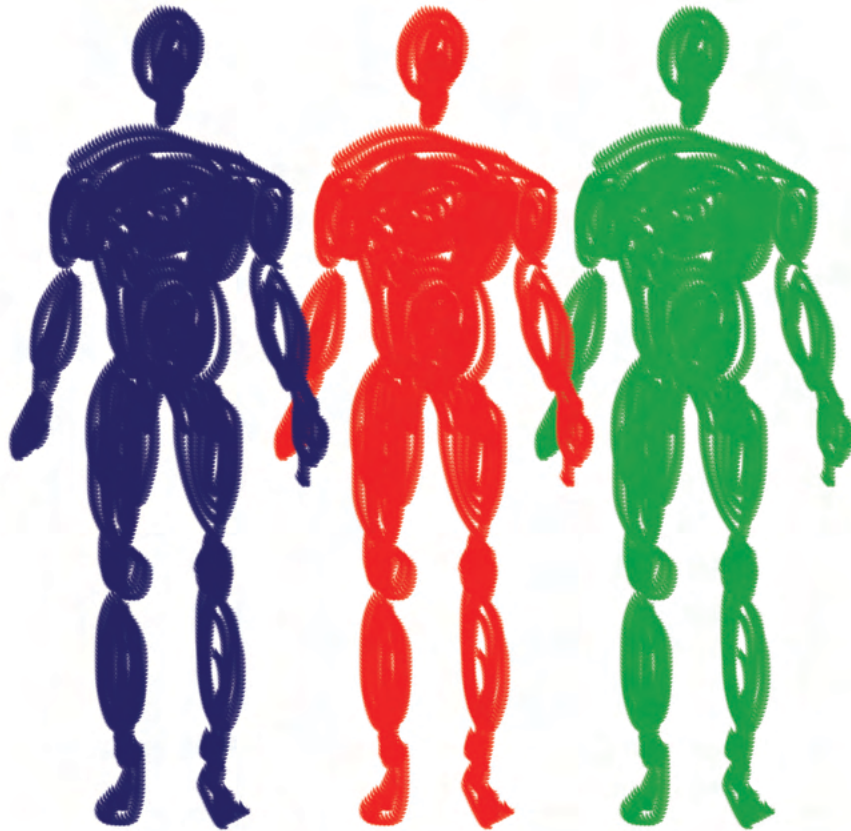
Parts mutually interact to produce **emergence of change**. The properties of emergence is different from the properties of parts.

*Different parts/elements such as tea leaves, milk, sugar and ginger interact with each other through heat and produce the taste of tea.*

# February 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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4	5	6	7	8	9	10
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*"Listening to both sides of a story will convince you that there is more to a story than both sides."  
– Frank Tyger*



A system is anything which has a set of elements which are *interdependent, mutually interactive* and produce *emergent outcomes*.

*Human body is a system which contains different organs which interact with each other to produce an emergent outcome called life.*

# March 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
31					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
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24	25	26	27	28	29	30

*“The system, to a large extent, causes its own behavior! An outside event may may unleash that behavior, but the same outside event applied to a different system is likely to produce a different result.”*

— Donella H. Meadows





"We are not able to get money because the market prices are low"



"We are not able to get money because all of us produced the same crop, which led to oversupply in the market. Next time we have to keep this in mind while planning"

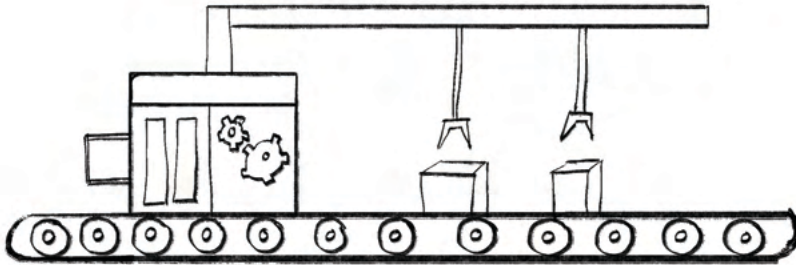
An **Endogenous Point of View** is a problem understanding approach which emphasises on system being the cause of a problem instead of something external

*In order to take an endogenous POV we generally expand the thinking boundary of a system to include the cause of problem.*

# April 2024

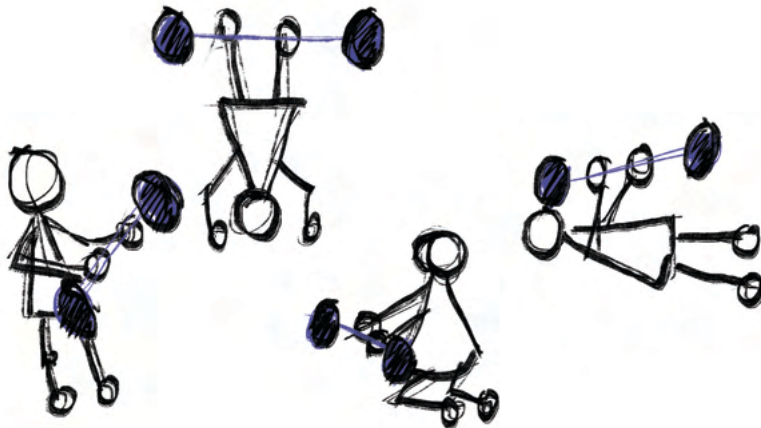
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28	29	30				

*"Yesterday I was clever and tried to change the world. Today I am wise, so I am trying to change myself."*  
-Rumi



**Types of systems:**  
Complex systems  
and Complex self  
adaptive systems.

*Machines are **complex systems**. But these cannot evolve by themselves.*



*Humans are **complex self adaptive systems**. They can evolve by themselves through learning.*

# May 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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*"Systems thinking is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing 'patterns of change' rather than 'static snapshots.'"*

*– Peter Senge*



0-10  
Years



11-19  
Years



20-60  
Years



60 & above  
Years

Spatial ↘

↖ Temporal



A **Boundary** is used to slice the complexity of a system. The boundary is used to separate a system in focus from the larger natural system.

*Boundaries are three types:*

1. *Spatial boundary: Eg. Administrative boundaries.*

2. *Temporal boundary: Eg. Phases of life in a human lifetime.*

3. *Dimensional boundary:*

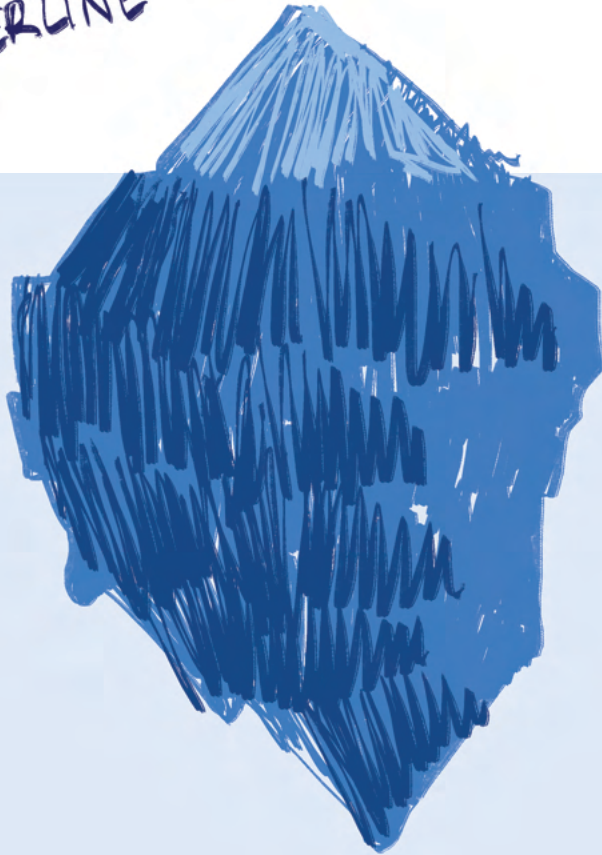
*Eg. Layers, Subsystems.*

# June 2024

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*"A bad system will beat a good person every time."  
– W. Edwards Deming*

→ WATERLINE



**Ice berg meta-  
phor** is a systems  
thinking approach  
which helps us to  
understand what  
is lying below the  
waterline and  
come to terms  
with the struc-  
tures producing  
the problems.

*We can only see less  
than 10% of an iceberg  
above the water sur-  
face. The remaining  
90% is submerged in  
the water.*

# July 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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*"If you do not understand your role in the problem, it is difficult to be part of the solution."  
– David Peter Stroh*





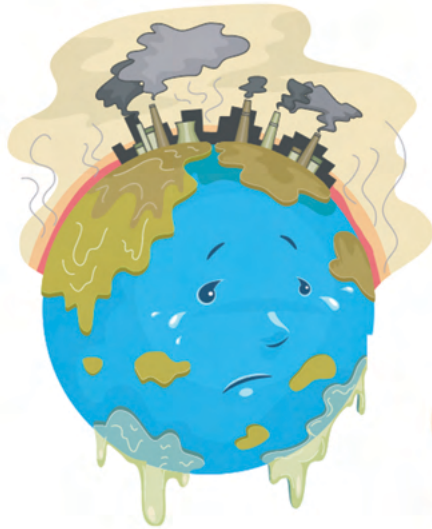
## Blind people and the Elephant.

*The parable illustrates how our partial understanding of the reality makes us believe that we know the entire reality, often leading to arguments and conflicts. Our mental models are only partially correct, full of untested assumptions about reality.*

# August 2024

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*"Pull a thread here and you'll find it's attached to the rest of the world."  
— Nadeem Aslam*



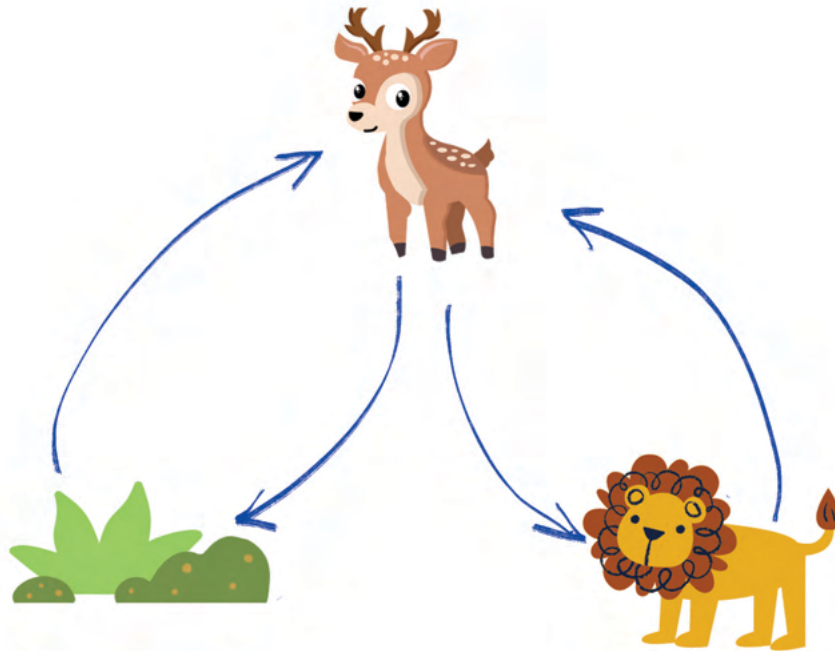
Adverse effects of some of our actions take time. These **time delays** cause blindness.

*Rise in average surface temperatures of Earth are attributed to Green House Gas emissions done over many decades, today we are seeing its effects through climate change.*

# September 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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*"The fundamental delusion of humanity is to suppose that I am here and you are out there."  
-Yasutani Roshi*



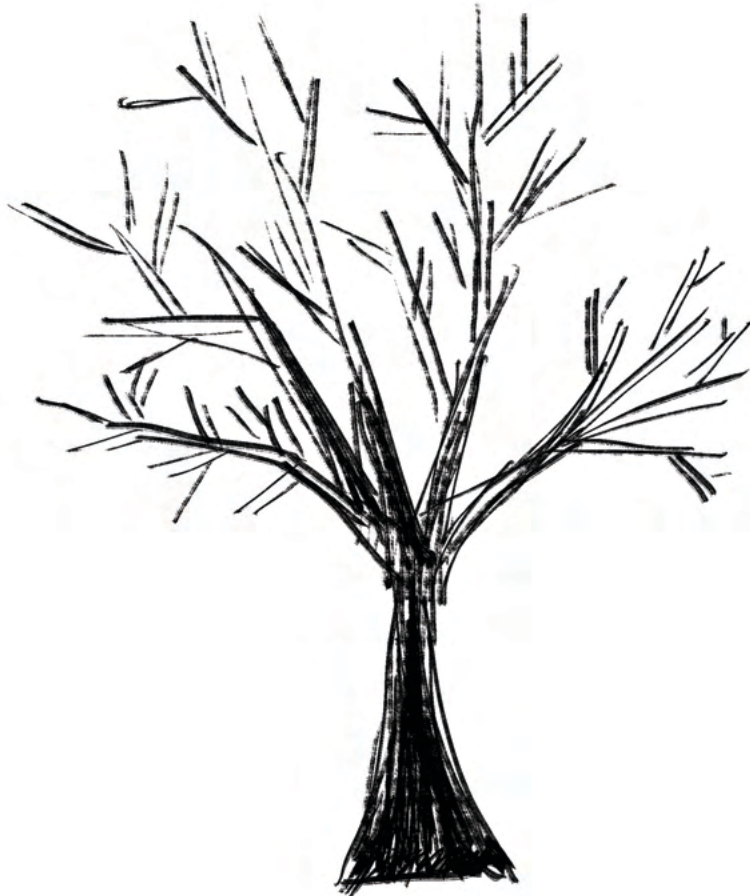
Every action taken produces a **feedback** which affects the action itself.

*As the population of deer increases the grazing increases which decreases the available grass for grazing. Less grass leads to decrease in population of deer. A similar feedback relation exists between the lion and the deer. Too many deer or lions will, in the long run, exhaust the food supply which lead to their own extinction.*

# October 2024

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*"We can't solve problems by using the same kind of thinking we used when we created them."  
- Albert Einstein*



**Fractal patterns** are never ending patterns which are complex and self replicating over time.

*Snowflakes, tree braches, leaf veins and pine cones are examples of fractal patterns in nature. Self replication leads to spread which eventually leads to scale.*

# November 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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*"When you change the way you look at things, the things you look at change."  
- Max Planck*





What are some of your **systems insights** from through out the year?

*These insights can be in the form of notes, feedbacks loops or in any other form.*



*Scan this QR code to contribute your systems insights to the Systems Thinking community.*

# December 2024

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

*"We shape our tools, and thereafter our tools shape us."  
- Marshall McLuhan*

Keep the **Systems Thought** alive using the following resources



[www.desta.co.in/resources/](http://www.desta.co.in/resources/)



[www.thesystemsthinker.com](http://www.thesystemsthinker.com)



<https://donellameadows.org/>



<https://systemdynamics.org/>

Reach out to us at: [info@desta.co.in](mailto:info@desta.co.in)

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