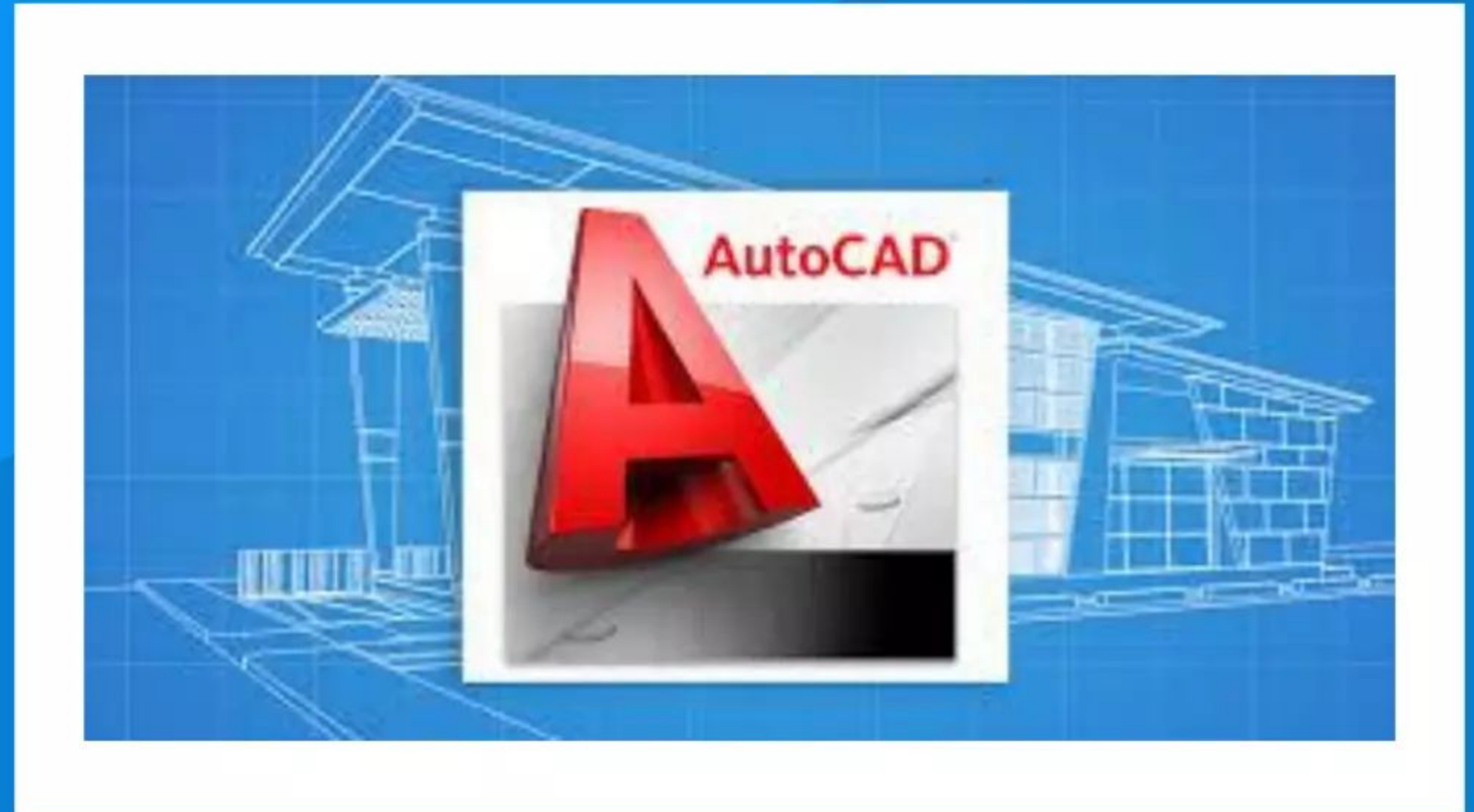# Draw IT Network Diagrams Like a Pro Using AutoCAD

Roger Mujica

NetCom Learning

AGENDA

- Introduction to Network diagrams

- Types of Network diagrams

- How to draw a Network diagram on AutoCAD

- Common Network diagram errors

WHAT IS A NETWORK DIAGRAM?

A network diagram is a visual representation of network architecture. **It maps out the structure of a network** with a variety of different symbols and line connections.

It is the **ideal way to share** the layout of a network **because the visual presentation makes it easier for users to understand** how items are connected.

What is network topology?

Network topology refers to the arrangement of elements within a network. Like network diagrams, network topologies can describe either the physical or logical aspects of a network. Logical topology is also known as signal topology.

Different topologies are best for certain situations, since they can affect performance, stability, and other outcomes.

TYPES OF NETWORK DIAGRAMS

Network diagrams may include hundreds of different symbols. These can range from a PC to a complex server rack to a cloud-based storage system.

Key in mind that the symbols may be brand-specific, generic, or a combination.

In AutoCAD we can prepare Blocks with these symbols according to brand-specific or generic, so your company can create a custom library of symbols for their own organization or its customers allowing users to modifying these symbols and adding more to their workflow.

Sample of Network Symbols

CLOUD

FIREWALL

TERMINAL

ADSL/ DSL

SERVER

ROUTER

SIGNAL

TYPES OF NETWORK DIAGRAMS

Types and Uses of Network Diagrams

Network diagram demonstrates how one computer or system is associated with others.
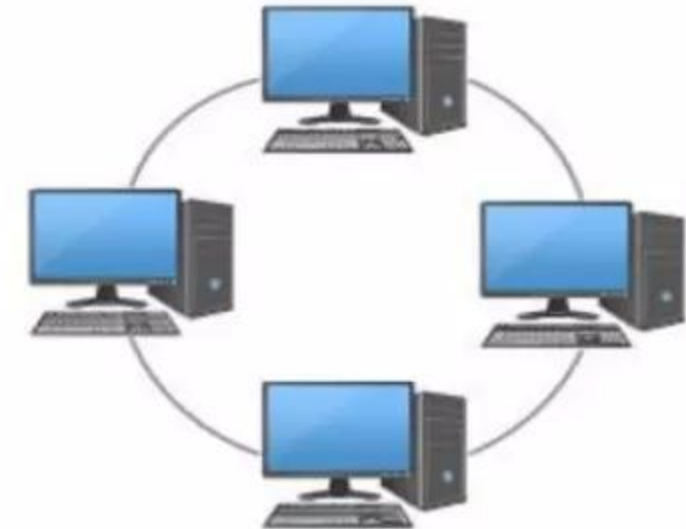
This is very especial and useful when trying to track down problems or when designing a new system.

Often the root of a problem can be traced more easily by observing and analyzing how the computers and components in the system are connected.

Bus, linear, Ethernet, or backbone topology

Token ring topology

Star topology

DRAW IT NETWORK DIAGRAMS LIKE A PRO USING AUTOCAD

❑ Demo in AutoCAD and Sample

COMMON NETWORK DIAGRAM ERRORS

There are 3 most common Network Diagrams errors

- Looping ⟶ The situation wherein you end up making an endless loop in the network diagram

- Dangling ⟶ The situation where an event is disconnected from other activity. While an activity is merging into the event there is no activity which is starting or emerging from that event.
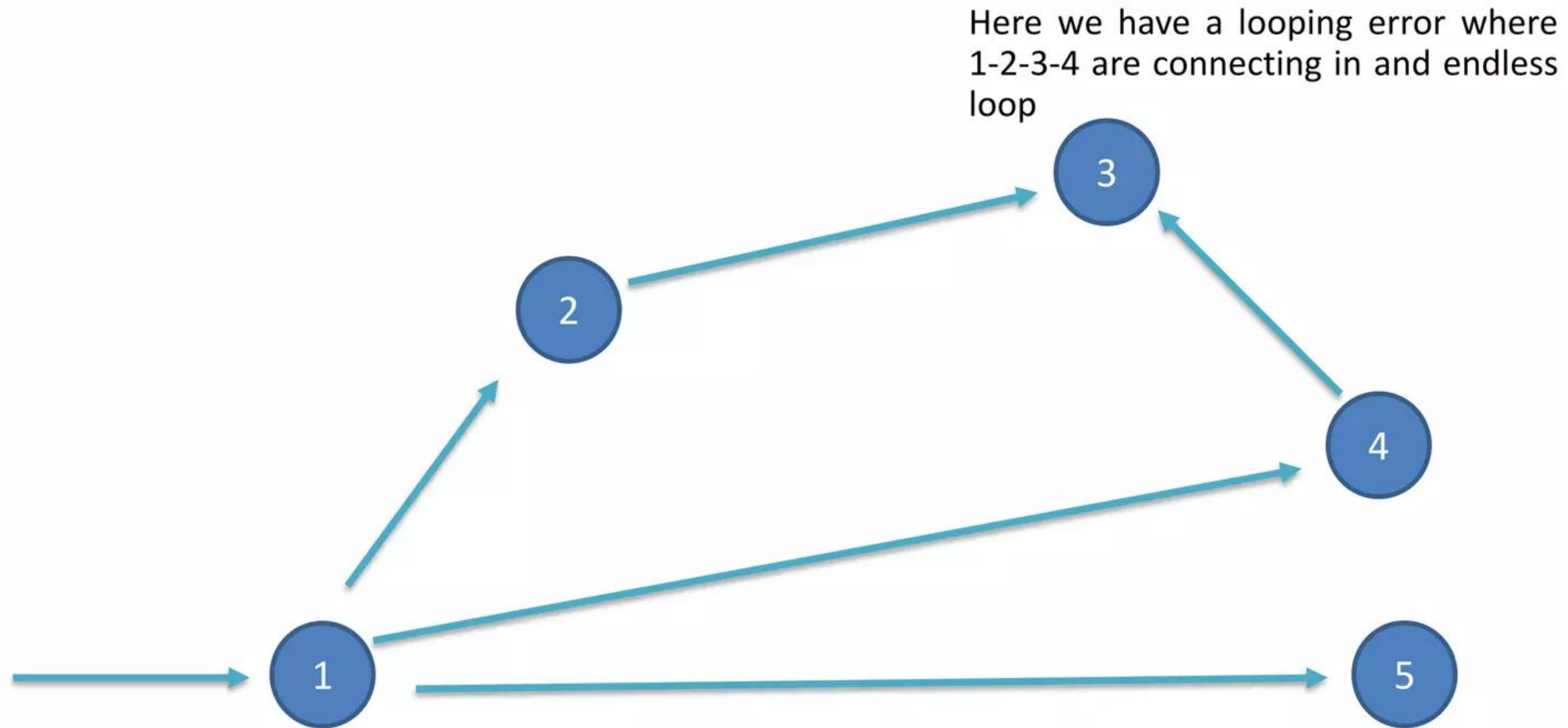
- Redundancy or Dummy ⟶ The situation does not exist and is imaginary. It is used in the network diagram (usually represented by a dotted arrow) to show dependency or connectivity between two or more activities.

COMMON NETWORK DIAGRAM ERRORS

Samples of Network Diagram Errors

- Looping

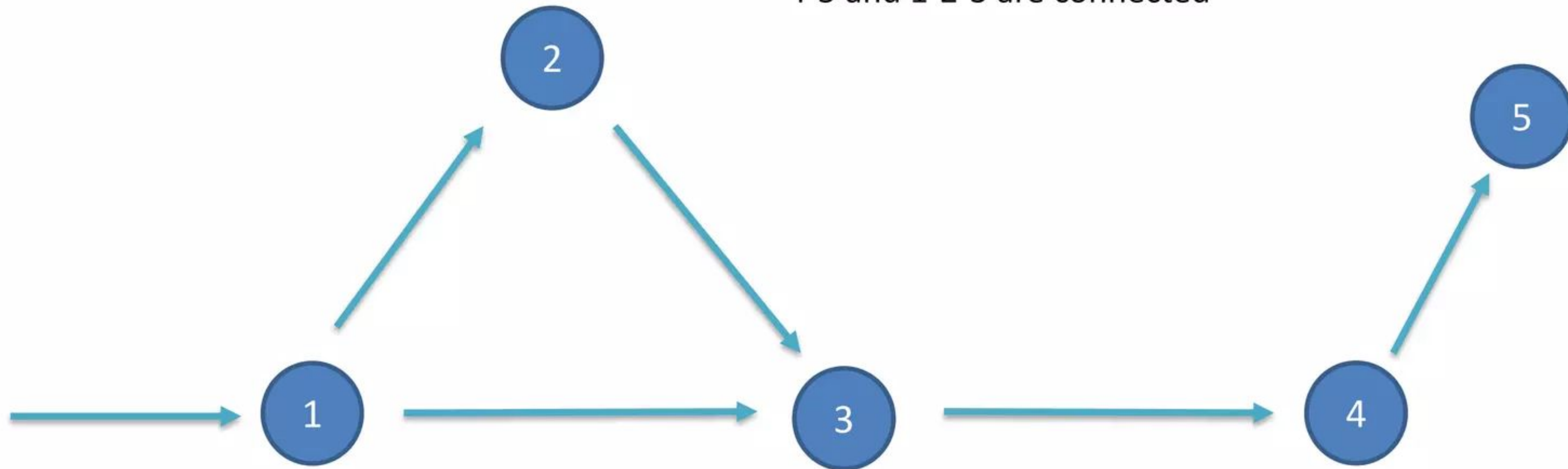Here we have a looping error where 1-2-3-4 are connecting in and endless loop

COMMON NETWORK DIAGRAM ERRORS

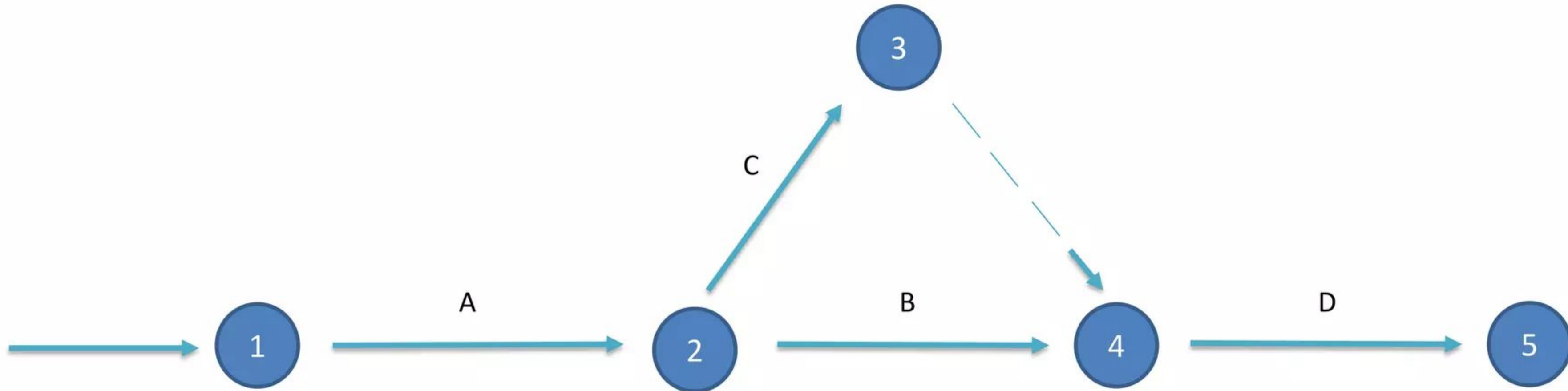Samples of Network Diagram Errors

- Dangling

Here we have a dangling error where 4-5 and 1-2-3 are connected

COMMON NETWORK DIAGRAM ERRORS

Samples of Network Diagram Errors

- Redundancy or Dummy

A Dummy Network error occurs here between 3-4

COMMON NETWORK DIAGRAM ERRORS

Some suggestions to avoid having these errors:

- Avoid using arrows that cross each other

- Use straight arrows

- Do not represent time with the length of arrows

- Always use arrows left to right.

- Use minimal dummies (use it for your drafts if needed)

- The network should have only one entry point known as start event and one point of emergence which is known as the end event.

DRAW IT NETWORK DIAGRAMS LIKE A PRO USING AUTOCAD SUMMARIZING

As the name suggests, **Network Diagrams are a visual representation** of a cluster or a small structure of networking devices. It not only shows the components of this network but also depicts how they are interconnected.

While network diagrams were initially used to depict devices, it is now widely used for project management as well.

Network diagrams can be of two types

Physical: This type of network diagram showcases the actual physical relationship between devices/components which make the network.

Logical: This type of diagram shows how the devices communicate with each other and information flows through the network. It is mostly used to depict subnets, network devices, and routing protocols.

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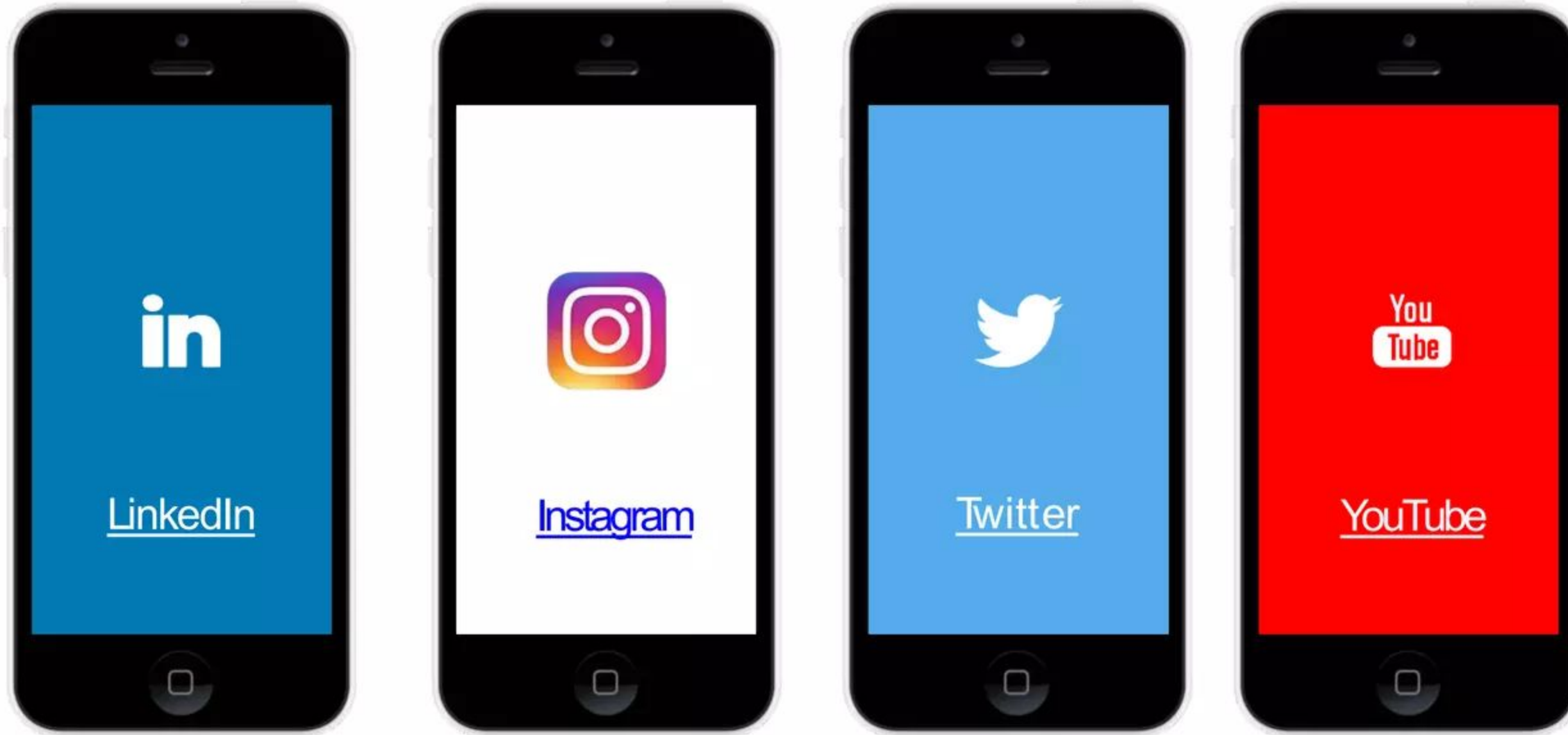
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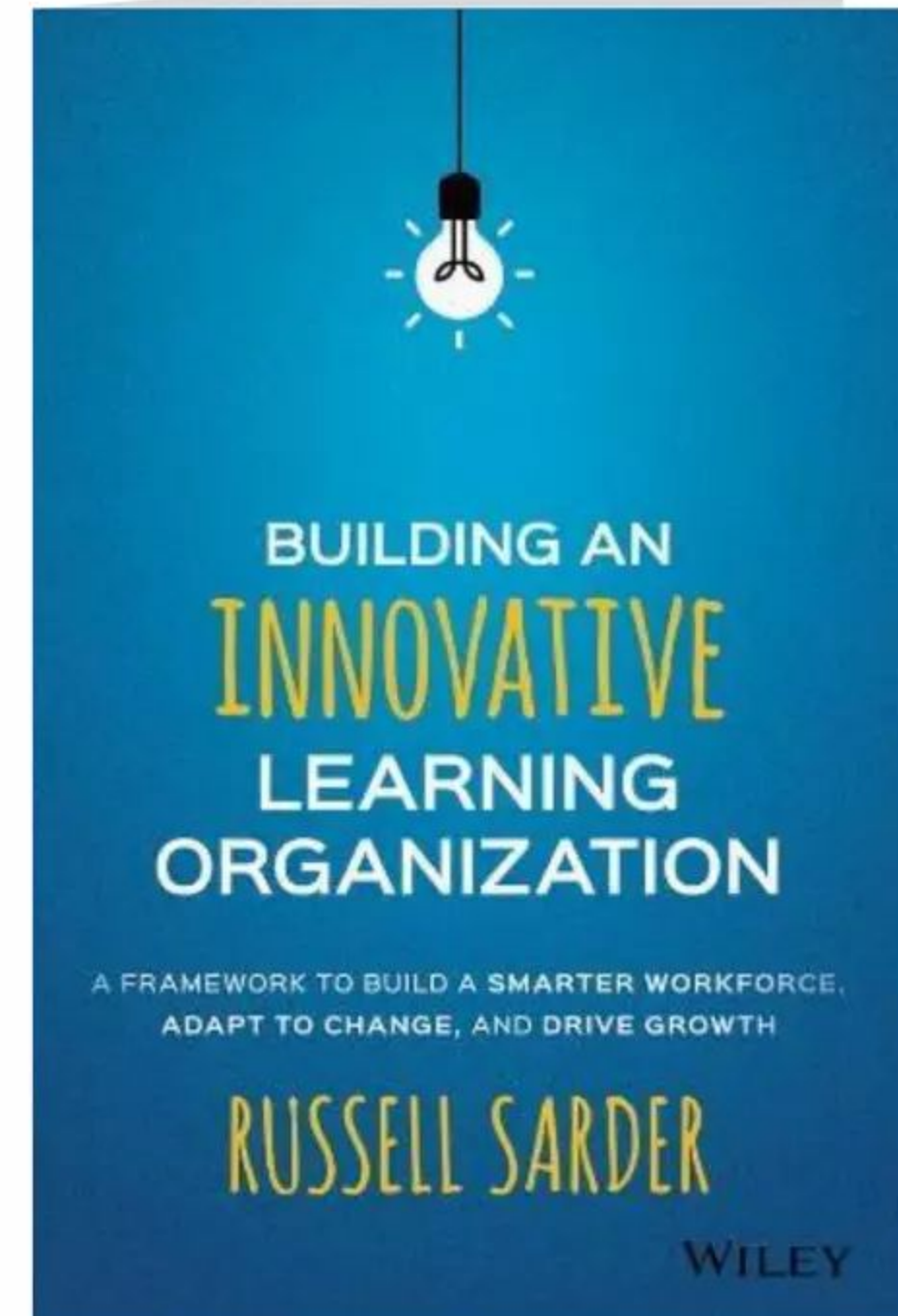
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