

#### The Flow System

team science. thinking, distributed leadership, and entangles the three helixes of complexity consists of the Triple Helix of Flow that complex environments. The Flow System understanding of how to operate in A system of learning and



#### Complexity Thinking

and complex adaptive systems. the understanding of uncertainty A new form of thinking to aid



## Distributed Leadership

executive/organizational). , mətəyə meət flum, meət , leubivibni) sisylene fo organization while supporting several levels that crosses functional lines within an Distributed leadership is a holistic model team-based organizational structures. that address complexity and support integrates several leadership theories A leadership model that



## Team Science

teams, and small groups in the workplace. all things related to collaborations, A multidisciplinary field that studies



## Lean Thinking

The Flow System has the Toyota Production System and The Toyota Way as its foundational principles (customer first, respect for humanity, eliminate waste, continuous improvement, respect for people).



## **Complex Adaptive Systems**

Dynamic, open, and self-organizing systems without constraints or boundaries that interact with feedback mechanisms to become adaptive.

 Image: Second system

 Image: Second system

## Sensemaking

A methodology designed to aid our understanding of complex problems, conditions, or environments.

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## Weak Signal Detection

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Weak signal detection (WSD) relates to alertness, attending, and seeing without order.

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## The Cynefin<sup>®</sup> Framework

A decision support framework that considers the dynamics of situations, perspectives, conflicts, and changing environments.

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#### (SA) Complex adaptive systems

unique environmental needs. forces and emerge to new states to meet they continuously learn to adapt to external feedback mechanisms. CASs are dynamic, systems with limited constraints and are dynamic, open, and self-organizing



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## Sensemaking

in representative actions. processes and interactions resulting alqitlum gnivlovni stnava batzaqxanu of ambiguous, complex, unknown or aids agents in their interpretation



## (ni-vən-duy) nifəny

chaotic, and aporia/confused (Snowden, 2021). five domains: clear, complicated, complex, states—order, complexity and chaotic—and framework consists of three ontological ways we can never understand. The Cynefin and the experiences that influence us in multiple factors in our environment is a Welsh word that signifies the



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threats that exist in the environment. involves identifying opportunities and future changes at an early stage, and is a method for detecting signs of



## Storytelling and Narratives

Knowledge creation through people externalizing their sense of understanding.

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## **Empirical Process Control**

Interchanges between organizational knowledge (knowledge of an organization) and individual knowledge (knowledge in an organization) require empirical process controls to deliver value to the customer.

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## **Constraint Management**

Managing limitations or restrictions that affect the behavior of agents.

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#### Network analysis

network analysis (SNS). analysis to social systems is known as social or between organizations. Applying network such as in the interactions between teams or linkages, between components, allows us to view the interactions,



## of people's experiences **Externalization**

what is occurring in complex environments. to form a more significant representation of connected events) and stories we can begin narratives (a spoken or written account of and sense of understanding. Through



#### The interchanges

testing/modification. and empirical testing, and theory development/refinement, operationalization steps: empirical observation, theory controls for delivering value. Four general organization" require empirical process organization " and "knowledge in an between "knowledge of an



## Constraints

organizations in complex environments. constraints becomes essential for teams and enabling constraints and remove inhibiting constructed. Knowing when to implement They are self-derived and cognitively affect the behaviors of agents.

#### A prototype

is a representation, a physical model, or a formula of a complex problem. Through continuous testing and refinement, prototypes make a part of a complex problem concrete, contributing to a better understanding of complexity.



#### qool AGOO ədT

is a dynamic depiction of one's decision-making processes. There are four primary stages (observe, orient, decide, act) with feedback and feedforward loops. The OODA loop is not linear and entry can begin at any of the four stages, depending on the context or situation.



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#### Scrum the Toyota Way

is a training program designed to enable organizations to understand the boundaries between systems thinking approaches and complexity thinking strategies through the application of the Scrum framework as a behavioral pattern, as well as a range of tools and cognitive skills.







## The OODA Loop

The observe-orient-decide-act loop is a non-linear decision-making model or guide for action.

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Environment in which team members can freely express their opinions and ask questions without being ridiculed or reprimanded.

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## **Active Listening**

A pattern of listening. Active listening is a communication method that allows all parties the benefit of understanding the message.

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## Leader's Intent Leaders focus on desired outcomes (intent and guidance) rather than specific results. Individuals and teams

are free to find their way.

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## **Shared Mental Models**

The development of a collective understanding of, perception of, or knowledge about, a situation or process shared among team members.

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## Psychologically safe

environments are where team members can freely express their opinions and ask questions without being ridiculed. The best descriptor is that team members and employees are free to be candid (Edmondson, 2019) as long as their views and criticisms remain professional.



#### Active listening

is an essential leadership characteristic that can be developed. It is the process of listening attentively while someone else speaks, paraphrasing and reflecting what was said, and withholding judgment or giving advice.

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#### **Leaders**

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must be capable of communicating their vision and expected outcomes (intent and guidance) to their followers and teams. Leaders fix the environment, not the people. Leaders make it safe to fail, not stressful. Leaders acknowledge fail, not stressful. Leaders and skills.



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represent the cognitive structures represent the cognitive structures shared between members. All members must have a shared understanding of the available resources. Members also need to know the competencies and skills of other members.

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## **Decision Making**

Decision making is a collective activity involving discussion and debate to make the best selection among several alternative options.

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## **Bias Toward Action**

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A leadership technique that empowers both leaders and teams to make their own decisions in times of uncertainty.

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## Collaboration

The process of two or more people, teams, or organizations working together to complete a task or achieve a goal or an outcome.



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#### Wardley maps

visualize the structure of a product or service, support a leader's situational awareness, aids in developing shared mental models, and highlights activities that are visible and invisible to the customer.

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#### Decision-making

is a continuous process that draws on our abilities, experiences, and motives. Team decision-making involves an agreement of the problem, access to all necessary information, resources and the requisite knowledge skills, and and the requisite knowledge skills, and

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#### Bias towards action

is a leadership technique that empowers both leaders and teams to make their own decisions in times of uncertainty. Developing a bias towards action is the combination of a willingness to take initiative, act boldly, a millingness to take initiative.



#### A form of interaction

among knowledge creators to complete a task or goal. Effective collaboration requires communication, active listening, tequisite resources, shared sharing, diversity, requisite resources, shared

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Coaching is a role that is designed to assist employees and team members in increasing their capacity, allowing them to manage their processes, to develop their full potential, and to become independent.

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## Organizational Design

A step-by-step methodology that identifies dysfunctional aspects of workflow, procedures, structures, and systems, and realigns structures to fit current organizational goals.

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## **Complex Facilitation**

A Technique used to identify unknowns using cognitively diverse groups who are affected by the complex problem.

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#### **Quidoso**

involves developing skills and techniques, motivating team members, instilling meaning and clarity to work, providing feedback, helping others to coordinate activities, and supporting team members to become self-leading and independent.



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## Complex facilitation

techniques purposefully introduce uncertainty into the process. Complex facilitation is designed to get participants comfortable with navigating uncertainty, the unknown, ambiguity, etc. It is designed to get participants uncomfortable with being uncomfortable.



#### Organizational design

analyzes processes, people, and movement. The following steps aid leaders in understanding: Step 2: How people interact with the process. Step 3: Understand how people move in relationship to the process, work, or objects. Step 4: Movement of objects and materials.





## Human Centered Design

A process that involves participation from all stakeholders during the design stages that includes the human element in the design.

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## Team Design

The way teams are composed, assuring that the team has the requisite knowledge, skills, and abilities to complete the team's tasks.

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## **Goal Identification**

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The desired outcome expected over a specific period.

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#### Teamwork Training

is an approach in which teams are used to increase individual procedural knowledge and proficiency in doing a job (taskwork), along with developing interpersonal skills (teamwork), to function cohesively as a unit or team (performance).



## Human-centered design

involves participation from all stakeholders (e.g., community members, customers, designers, employees, manufacturers, suppliers) during the design stages. Human-centered design places the uset, customer, and stakeholders at the center of the design process.



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ensures team members have the knowledge, skills, and abilities to accomplish their stated tasks. Team design takes into consideration: the type of team, type of tasks, technical skills required, team size, teamwork skills of members, and goal alignment.



#### Goal identification

is the desired outcome expected over a specific period. Goals occur at different levels of analysis. Proximal goals are specific to individual teams, and distal goals connect proximal goals to broader organizational outcomes.



## **Developing Cognitions**

The acquisition, storage, transformation, and use of knowledge that is shared among team members.

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## Team Learning

Team learning is an emergent outcome of teamwork.

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#### Situational awareness

of future states. of the current situation, and projection in the environment, comprehension involves perceptions of elements



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what resources are available to each member. external contacts members might have; and knowledge, skills, and experiences; what who is working on what task; members' At the team level, members need to know: knowledge, skills, and dispositions. cognitions involves developing

## Team members

communication, coaching, and cognition. processes: cooperation, conflict, coordination, Team members need to manage core conditions: composition, culture, context. have little control over influencing



#### The acquisition

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member interactions. process. A shared outcome of team and experience as an ongoing reflective of team members through interactions of knowledge, skills, and abilities



## Red Teaming

A cognitive approach to develop new pathways to better decision making within teams.

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## (Eam effectiveness (TE)

is a function of teamwork (TW), taskwork (TK), performance (PF), team member satisfaction (CV), and customer satisfaction (CV). TE = TW + TK + PF + CV



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#### Red teaming

rigorously challenges plans, policies, systems, or assumptions by adopting an adversarial approach. Red teaming to mitigate cognitive bias, enhance critical thinking skills, create self-awareness, and thinking skills, create self-awareness, and improve empathy.



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## (STM) **sm**9teve m69titluM

she defined as two or more teams working towards a common superordinate goal (distal goal or MTS goal). Multiteam systems are structured so that each team has its own set of goals (proximal goals) and has at least one shared goal with the MTS (distal goal).

