



34th Annual **INCOSE**
international symposium

hybrid event

Dublin, Ireland
July 2 - 6, 2024



Symbiotic relationship between neurodiversity and systems thinking

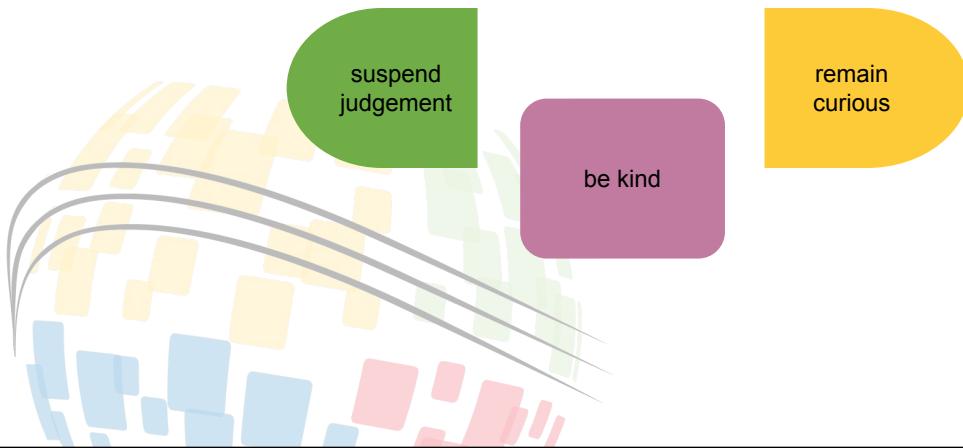
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Rules of engagement



Outline

- What
- Why
- How
- Reflections

“The blind may be musical, but being musical does not make being blind a gift”

(Young, 2012, page xv)

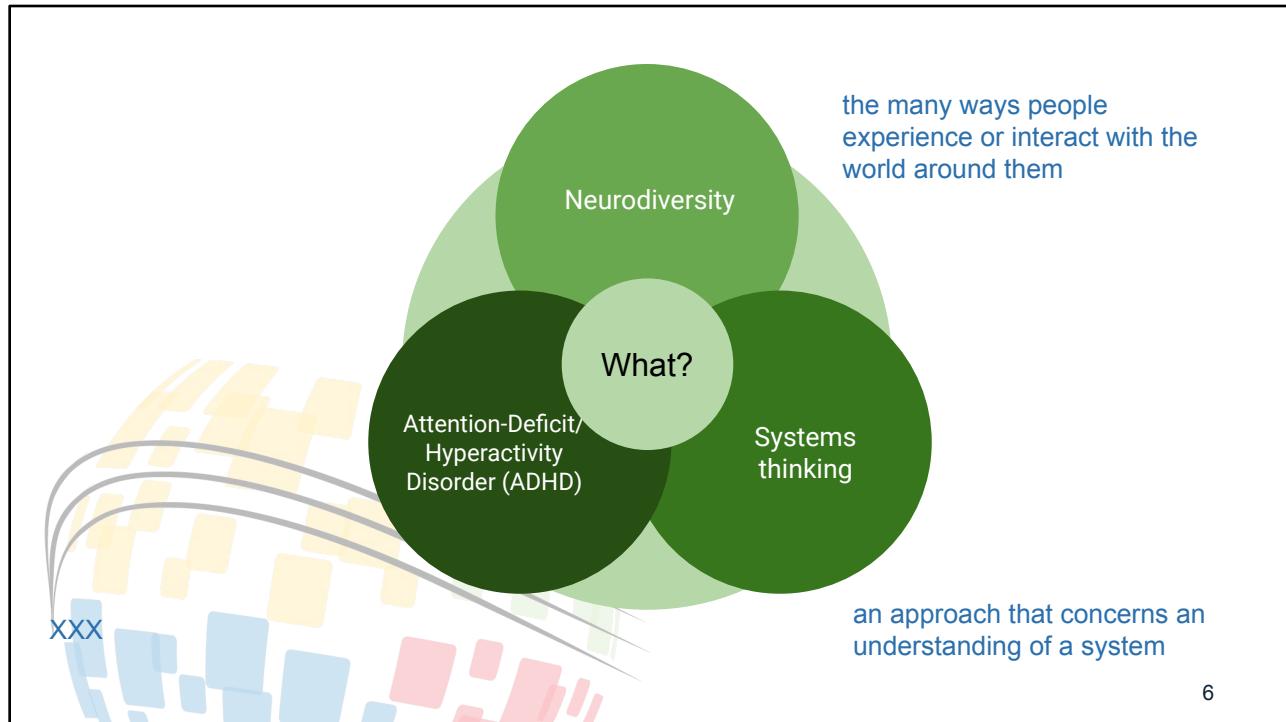


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Young, S. & Bramham, J. (2012). *Cognitive-behavioural therapy for ADHD in adolescents and adults: A psychological guide to practice* (2nd. ed.). John Wiley & Sons, Ltd.



What?



Neurodiversity:

Neurodivergent is a non-medical umbrella term that describes people with variation in their cognitive functions, and can include conditions such as autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD).

According to Harvard Health and Laura Boxley, Ph.D, neurodiversity is “the idea that people experience or interact with the world around them in many ways – some that may not be considered typical. It is based on the framework that “different” is not the same as “deficient”.”

Attention-Deficit/Hyperactivity Disorder (ADHD)

- ADHD is an established neurodevelopmental condition characterized by inattention, hyperactivity and impulsivity or a combination of these.
- It is a heterogeneous disorder, each individual is likely to present a different set of symptoms with a range of psychological strengths and weaknesses.
- The progression of ADHD is also heterogeneous with some individuals experiencing full remission by adulthood, some partial remission and others none at all.
- The reason people develop ADHD is not clear and most likely involves a range of genetic, environmental and psychosocial factors.
- ADHD is experienced by people throughout the intellectual spectrum.

Young, S. & Bramham, J. (2012). *Cognitive-behavioural therapy for ADHD in adolescents and adults: A psychological guide to practice* (2nd. ed.). John Wiley & Sons, Ltd.

Systems thinking

Systems thinking (Waters Foundation, 2018) an approach that concerns an understanding of a system by examining individual components and their linkages and interactions that comprise the entirety of that defined system.



Why?

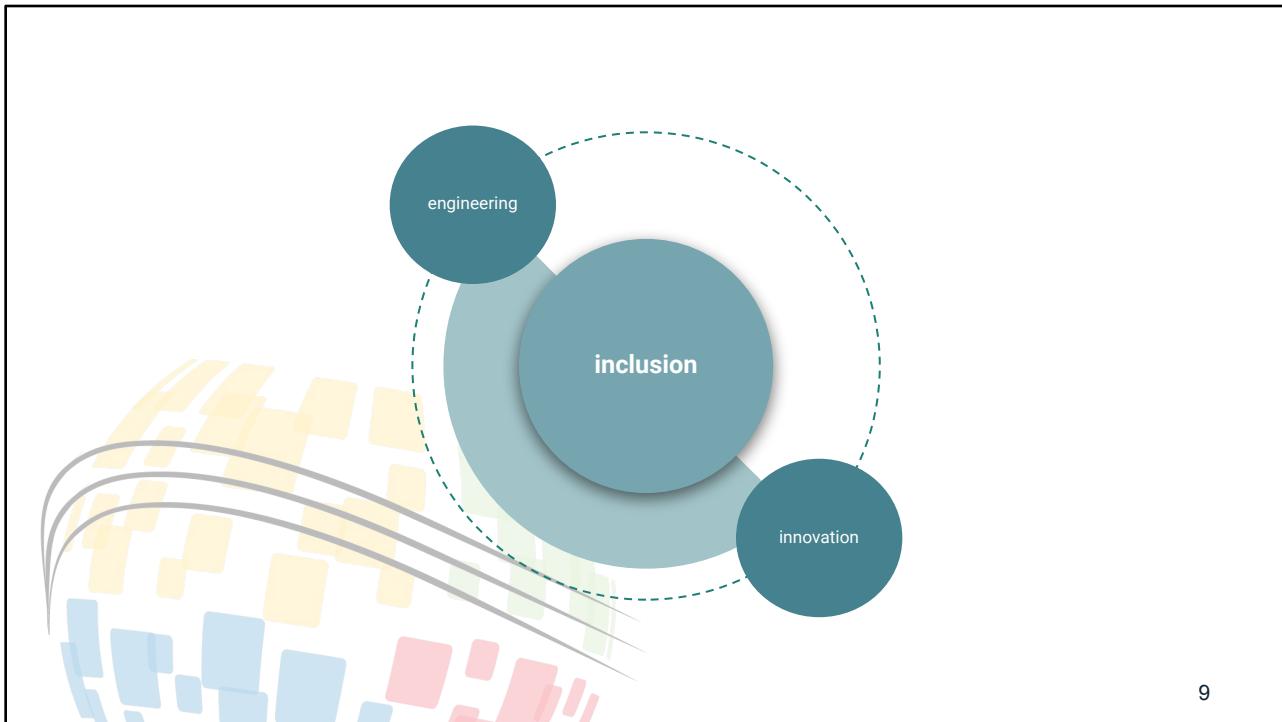
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Inclusion is about creating the space where team members, customers and communities in which we work and live in have a sense of belonging. As such, people are their authentic selves in the workplace and feel valued. They are willing to put themselves out there in sharing their thoughts and ideas. In both instances, research shows that diversity and inclusion encourages better creativity and innovation.

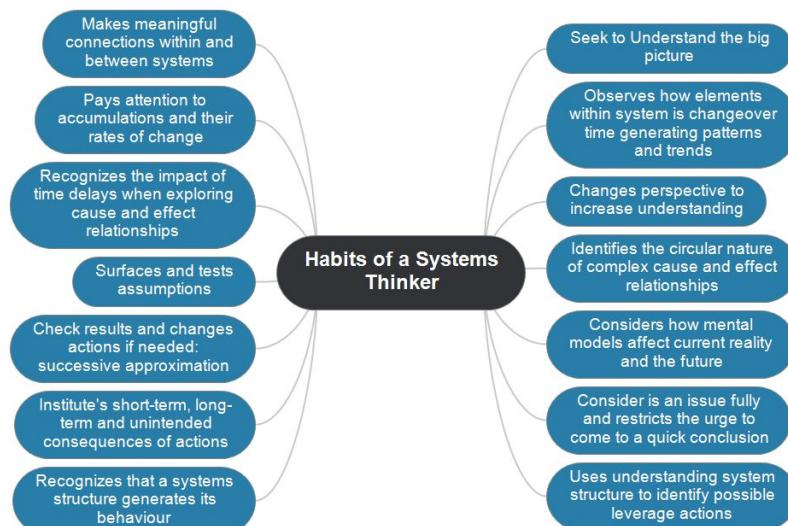


Systems thinking & ADHD

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<https://thinkingtoolsstudio.waterscenterst.org/cards>



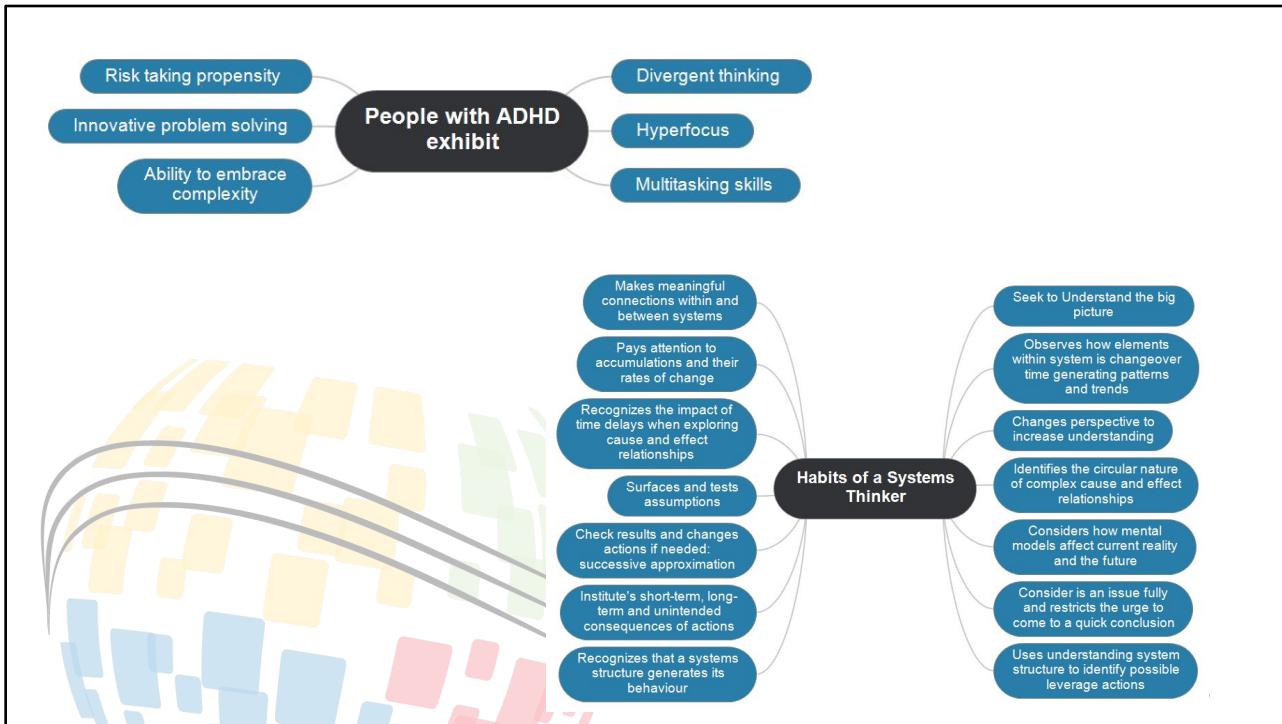
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Include reference

- Divergent Thinking: People with ADHD often have highly creative and divergent thinking abilities. They can see unconventional connections between ideas and think "outside the box." This creative approach is valuable in systems thinking, where unconventional solutions and the ability to connect seemingly unrelated elements are crucial for understanding complex systems.
- Hyperfocus: While individuals with ADHD may struggle with maintaining focus in certain situations, they can also experience periods of hyperfocus, during which they become intensely absorbed in a specific task or topic. This intense focus can lead to deep exploration and understanding of specific aspects of a system, allowing for in-depth analysis and problem-solving within that particular area.
- Multitasking Skills: People with ADHD often develop strong multitasking skills as a way to cope with their symptoms. While multitasking has its limitations, individuals with ADHD can manage multiple streams of information and inputs simultaneously. In systems thinking, the ability to juggle different variables and factors is valuable for understanding the interconnectedness of elements within a system.
- Ability to Embrace Complexity: ADHD individuals can sometimes tolerate ambiguity and complexity better than neurotypical individuals. Their minds are naturally inclined to handle a multitude of thoughts, ideas, and inputs simultaneously. This tolerance for complexity aligns with the systems thinking approach, which involves

- dealing with intricate relationships and interdependencies within a system.
- Innovative Problem-Solving: The creative and unconventional thinking style of individuals with ADHD can lead to innovative problem-solving approaches within systems. Their ability to see patterns, make unique connections, and generate novel ideas can be instrumental in finding innovative solutions to complex problems.
- Risk-Taking Propensity: Some individuals with ADHD have a higher tolerance for risk and are more willing to explore unconventional solutions. While this trait needs to be managed carefully, a healthy level of risk-taking can lead to breakthroughs in systems thinking, encouraging the exploration of uncharted territories and unconventional interventions within complex systems.

It's important to note that the benefits of ADHD traits for systems thinking may vary from person to person. Not all individuals with ADHD will possess these specific strengths, and the impact of ADHD on an individual's thinking style can be influenced by various factors. However, for those who do exhibit these traits, embracing and harnessing them can lead to valuable contributions in the field of systems thinking.



Questions for the audience

Questions for us



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