1. Really?
   1. There’s a lot of talk about **AI** taking over **jobs**, replacing **humans**, and even running our lives. But how did we get to that conclusion? Is it even **realistic**?
   2. We can’t just extrapolate today’s AI advancements and assume AI will inevitably reach human-like **intelligence**. That’s like saying if you keep adding enough features to a **car**, eventually, it will be able to walk, climb, and jump like a human.
   3. But cars are not even close to human **legs**, and AI is not even close to the human brain.
2. Why?
   1. Let’s start with the **fundamentals** to understand this.
   2. How is AI **Modeled** Today? AI, particularly **deep learning**, is loosely inspired by the human **brain’s** structure. Neural networks mimic how neurons connect and how **synapses** fire.
   3. But there’s a huge missing piece—AI does not capture the **neurochemistry**, **biological** learning, or **adaptive** processes that make human **cognition** so unique.
3. Me
   1. During my **doctorate** in Artificial Intelligence, I built models that simulate different aspects of intelligence—**computer vision**, **neural networks**, and **machine learning**. Then and now, these models mimic the human brain structure because they are relatively easier to model. We don’t fully understand or know how to model the other aspects.
   2. That’s why AI today does not **think**, **feel**, or **adapt** like humans do. And that’s a fundamental limitation.
4. Car analogy
   1. Think of AI like a **car**. It’s incredibly fast and efficient in structured environments like on **roads**. But take that car off-road, put it on **rocky terrain**, or ask it to climb a set of **stairs**, and it’s completely **useless**.
   2. Humans, on the other hand, can **walk, run, climb, crawl**, and **adapt** to most environments they’re in.
   3. However, many people extrapolate today’s AI advances to predict that it will have **human-like cap**abilities in a few years. While these predictions are made based on multiple factors, such as **technology**, **scaling laws**, and **emergent behavior**, they are also hyped in the media.
   4. Again, a car is great, but you are unlikely to scale it with features to make it perform like humans with legs and hands.
   5. AI differs from the human brain in fundamental ways. For example, we know that the human brain can do so much with just 20W of **power** (less than the energy for a light bulb), while **ChatGPT** with GPT-4 consumes about 500,000W per instance.
   6. Or that even a kid can see one **elephant** and recognize any elephant in any pose, while today’s AI needs to be trained on thousands of **elephant images**.
5. So What
   1. With that established, we can agree that AI thrives when given clear **goals**, data, and defined rules. But throw it into a messy, **unpredictable** situation—an ethical dilemma, an emotionally charged discussion, or a creative problem—and it **struggles**.
   2. Humans, on the other hand, rely on **neurochemistry** to adapt, feel, and reason intuitively.
   3. So, AI definitely lacks the neurochemical parts. These tiny **molecules** in our brains regulate **learning, emotions, motivation,** and **adaptability** in ways AI simply can’t replicate.
6. Neurochemistry
   1. Here are a few of them, and there are over a hundred of these – so imagine the **complexity** of the **chemical environment** in our brain.
   2. **Dopamine** is the “feel-good” chemical that drives curiosity and motivation. AI doesn’t crave learning or feel satisfaction from problem-solving.
   3. **Serotonin** is the neurotransmitter that affects confidence, mood, and emotional intelligence. AI can analyze emotions, but it doesn’t *feel* anything about them.
   4. **Oxytocin** is the “trust” hormone that helps humans build relationships. AI can process words, but it doesn’t actually care about people.
   5. **Cortisol** & **Adrenaline** regulate stress and resilience. Humans get stronger through challenges. AI just follows instructions without personal growth.
   6. Without these, AI is just math—powerful, yes, but incapable of real **emotional intelligence**, **motivation**, or self-driven **growth**.
7. The Skills That Keep You Relevant
   1. So, if AI lacks these chemical-based human capabilities, humans still have a **competitive advantage**. If we focus on developing these biochemically driven skills, AI and human cognition can **complement** each other instead of competing.
   2. Let’s see what some of them are so we can develop them. This gives **hope** to people who are not necessarily technical or have to know how AI works.
   3. **Emotional Intelligence** (EQ) & Human-Centric **Communication**: AI can analyze text and speech, but it doesn’t understand emotions. When humans communicate using words, we can change tone, timing, and reading between the lines. The human edge here is: **leadership, negotiation, coaching, sales, therapy**.
   4. **Creativity & Innovation**: AI can remix existing ideas, but it doesn’t have that “aha!” moment. Creativity isn’t just data—it’s emotion, intuition, and unexpected connections. The human edge here is **art, music, storytelling, design, and entrepreneurship**.
   5. **Adaptability & Learning** from Failure: Humans don’t just learn from data—we learn from struggle and experience. AI can optimize based on past patterns, but humans can reinvent themselves in the future. The human edge here is: **Management, consulting, problem-solving, and entrepreneurship.**
   6. **Ethical & Moral Reasoning**: AI follows rules. Humans interpret them. Ethical dilemmas require nuance, and real-world decisions are messy. The human edge here is: **Law** (not the paperwork part), **politics,** and **ethics**.
   7. **Physical & Kinesthetic Intelligence**: AI can power robots, but it doesn’t feel the weight of an object or adjust intuitively to the world. Human motor skills much more flexible than AI. The human edge here is: **Surgery** (though robots help here for precision), **sports**, and **performing arts**.
8. The Future: AI as a Tool, Not a Threat
   1. Rather than fearing AI, think of it like a **super-powered** **assistant**. It can handle repetitive tasks, analyze massive datasets, and **free up time** for us to do what we do best—create, connect, and innovate.
   2. The key is to double down on being human. Develop your **emotional intelligence**. Train your **adaptability**. Build deep, **meaningful relationships**. Those are things AI can’t replace today.
   3. But you must take **responsibility** for your own growth. Your manager or mentor may guide you, but then again, your manager may be a **powerless cog** in a large organizational machinery.
   4. In the world of work, AI will take over repetitive, structured tasks. But the most valuable jobs—the ones that require **creativity, adaptability, and deep human connection**—will belong to us for a long time.
   5. We can take a lesson from **evolution**, and by Darwin's Origin of Species, it is not the most **intellectual** of the species that survives; it is not the **strongest** that survives, but the species that survives is the one that is able best to **adapt and adjust** to the changing **environment** in which it finds itself.
9. Closing
   1. If you enjoyed this video, like, share, and subscribe for more AI updates. For a one-page visual of this and all future videos, please sign up on my website. Thanks for watching.