

Flexible Intelligence: Stretching Skills, Creativity and Imagination

*Insights from Future of Innovation Lab x
Lee Kuan Yew Centre for Innovative Cities*

NEED

We need a better understanding of the tasks and interactions where humans and AI excel, individually and as a team, across all roles, fields, and domains.

OPPORTUNITY

By working and learning with super creative and experienced professionals, we can discover a deeper understanding of where AI is a tool, teammate and neither. In this Explainer, we show how in the domain of Fitness. We do so via a reconstructed conversation between a researcher and a highly accomplished fitness instructor of their experiments and discussions over a year.

01. What can AI do better than humans

Speed, structured knowledge, pattern detection, contextual recall

"Sometimes [AI response is] better than a textbook, because it's in everyday language."

02. What can humans do better than AI

Embodied teaching, emotional sensing, creative improvisation

"It's a personal ritual that connects me to my craft and to my students."

03. What can AI and humans do better together

Blend insight with judgement, amplify originality, stimulate creativity

"GPT can be my learning and teaching partner, but I bring the soul."

BIG TOPIC:

What Happens When A Super Creative and Experienced Fitness Instructor Meets AI?

As AI becomes a more present force in education and wellness, its role remains fluid. Sometimes it is a tool, sometimes a partner, and sometimes a prompt for deeper reflection. What happens when a seasoned practitioner and a curious researcher explore this together?

What follows is a year-long conversation that blends experimentation and discovery. It reveals how human intuition and machine intelligence might begin to move in sync.

Credit: photology2000

Characters:



Researcher: Curious, methodical, and passionate about the intersection of education and AI.



Fitness instructor: Bubbly, experienced, and open-minded, with nearly two decades of teaching Pilates and Fitness classes. Has a creative and fine arts background.



Snippets of key quotes from the conversation:

*“Not AI versus humans. But AI plus human. **Like a duet.** Not a solo”*

*“AI can teach the **what**. But only a human can teach the **how it feels**”*

*“**AI makes you more human**, if you use it wisely”*

*“It’s like GPT was **my second pair of eyes**. But I had the hands, the heart, and the judgement.”*

- Fitness Instructor

What Happens When A Super Creative and Experienced Fitness Instructor Meets AI

Scene: A quiet Toast Box outlet after class. The Fitness Instructor is sipping kopi di lo siew dai (her favorite). The Researcher opens her laptop.

RESEARCHER

You know how we've been chatting about whether artificial intelligence (AI) could be helpful in your teaching? I've been thinking... what if we document this whole exploration as a conversation?

FITNESS INSTRUCTOR

I love that idea. **A real-time exploration.** Like Pilates for the mind! But remember, we're still just experimenting.

RESEARCHER

Exactly! It's not about jumping in blind. It's about asking smart questions. Like: What can AI do better than us? What can we do better than AI? And how might we work better together?

FITNESS INSTRUCTOR

(nodding) That third one is the magic, right? Not AI versus humans. But "AI plus human." Like a duet. Not a solo.

01 What AI Seems to Do Better

RESEARCHER

Let's start with the obvious. What has AI helped with so far?

FITNESS INSTRUCTOR

When I asked GPT-4o how to explain ribcage breathing, it instantly gave me a structured explanation, complete with metaphors and video links. It was like having a research assistant whispering in my ear.

RESEARCHER

So it's fast. And well-informed?

FITNESS INSTRUCTOR

Yes. It's like it's read every anatomy textbook and YouTube tutorial out there. I used to spend ages Googling or flipping through manuals. Now, with one prompt, I get a clean answer. Sometimes better than a textbook, because it's in **everyday language**.

RESEARCHER

That sounds like a clear win for AI: content retrieval and summarisation. What else?

FITNESS INSTRUCTOR

It helps me brainstorm class routines. I tried to prompt, "Give me a 60-minute Pilates class for older adults focussing on spine mobility," and boom. I get a list of exercises, warm-up ideas, even suggested durations.

RESEARCHER

Do you follow them as it is?

FITNESS INSTRUCTOR

(laughs) **No way. It's like getting a raw dough recipe. I still need to knead it, bake it, and serve it with my own flair.** But it saves me from starting with a blank page. And occasionally, it suggests an exercise I haven't used in years.

— “ —

It's like getting a raw dough recipe. I still need to knead it, bake it, and serve it with my own flair.

— ” —

02 What Humans Do Better

RESEARCHER

Okay, what about the things AI can't do? What still needs that human touch?

FITNESS INSTRUCTOR

Where do I start? When I teach breathing, I show students how my ribs expand.

Sometimes I let them place their hands on my ribs, or I gently touch their backs to guide their movement. AI can't do that. It can say what to do, but it can't feel or sense what the student's doing.

RESEARCHER

So physical feedback. Embodied awareness.

FITNESS INSTRUCTOR

Exactly. And **emotion** too. When a student feels frustrated, I can adjust my tone, offer encouragement, or crack a joke to lift the energy. AI doesn't have that gut sense. It doesn't read the room. It doesn't feel.

RESEARCHER

That's true. Even if AI had a webcam, it wouldn't have your empathy.

FITNESS INSTRUCTOR

And don't forget **improvisation**. Last week, my class was intense for students. I offered some of students options instead. AI wouldn't know to do that unless I told it. It doesn't sense class mood.

RESEARCHER

So it sounds like humans are better at being present: in body, mind, and heart.

FITNESS INSTRUCTOR

Yes. AI can teach the **what**. But only a human can teach the **how it feels**. Teaching is a relationship. A dance. AI doesn't lead, and it doesn't follow. It just answers. Oh, by the way, there's the **human part of preparation. I still love drawing my lesson plans with pen on paper**. It clears my mind. I sketch sequences, muscle groups, sometimes little stick figures. Believe it or not, I still use correction fluid! It feels alive, handmade. **There's something grounding and deeply satisfying about creating with my hands.** AI can generate clean, digital charts. **But those messy little drawings? That's where my intuition comes through. It's a personal ritual that connects me to my craft and to my students.**

RESEARCHER

I've been joining your Pilates and fitness classes for over a year now. I really enjoy them. Your sense of humour makes the class so engaging. I still remember last week, we were doing that Pilates move where the right leg stays still and the left leg moves out to the side. You joked, "The left leg has run away from home—离家出走 liao!" Everyone burst out laughing.

FITNESS INSTRUCTOR

Haha, yes! See, that's something GPT just can't do. **As instructors, we feel the mood in the room.** We know when to add a little humour to make the class more fun and encouraging.

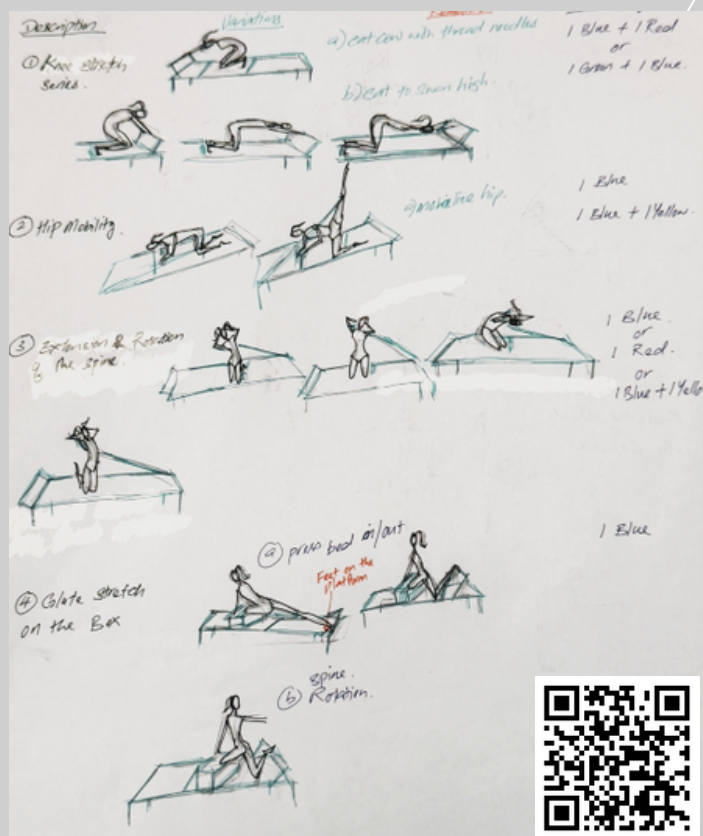
RESEARCHER

Exactly. That's your signature teaching style. It's like listening to Lang Lang play the piano, you can tell it's him because it has his unique touch. Not something a robot could replicate.

FITNESS INSTRUCTOR

Right! Every instructor has their own style. My students come back to my class because they enjoy how I teach, my style.

Credit: This drawing was published with the permission of the Fitness Instructor. Scan the QR code to see the animated version done by Researcher.



03 What We Can Do Better Together

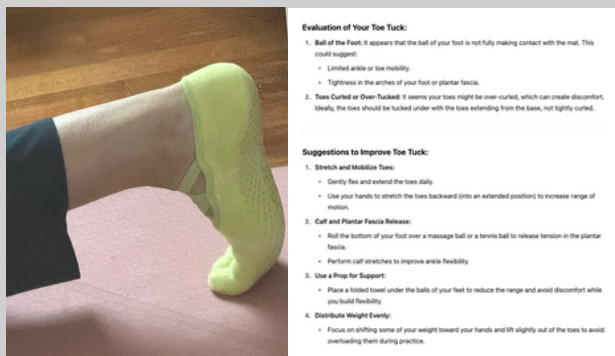
RESEARCHER

Let's talk synergy. Can you give me an example where working with AI made you better?

FITNESS INSTRUCTOR

Sure. One of my students was experiencing toe pain during a "tucking the toe" exercise. I asked her to take a photo of her posture at home. When I looked at the image, I noticed her forefoot wasn't fully making contact with the mat. To double-check, I uploaded the photo to GPT-4o, and within seconds, it identified the same issue. The diagnosis matched mine exactly.

GPT's diagnosis of "tucking the toe" movement"



RESEARCHER

So GPT spotted it in seconds?

FITNESS INSTRUCTOR

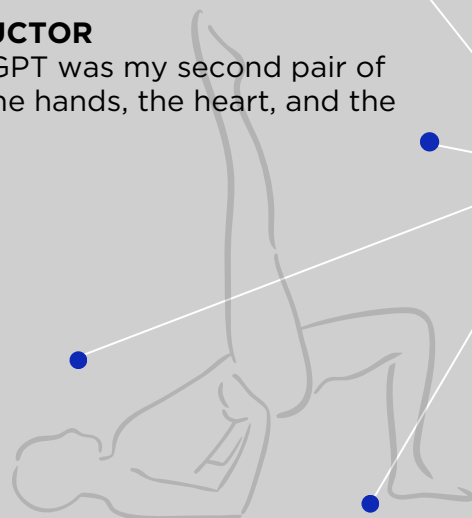
Yes. But then I used my knowledge to test and adjust. GPT also suggested putting a towel under her toes, which sounded odd. We tried it. Didn't work. So I went back to my trusted method: adjust foot placement, support the knee, use a foam pad. Problem solved.

RESEARCHER

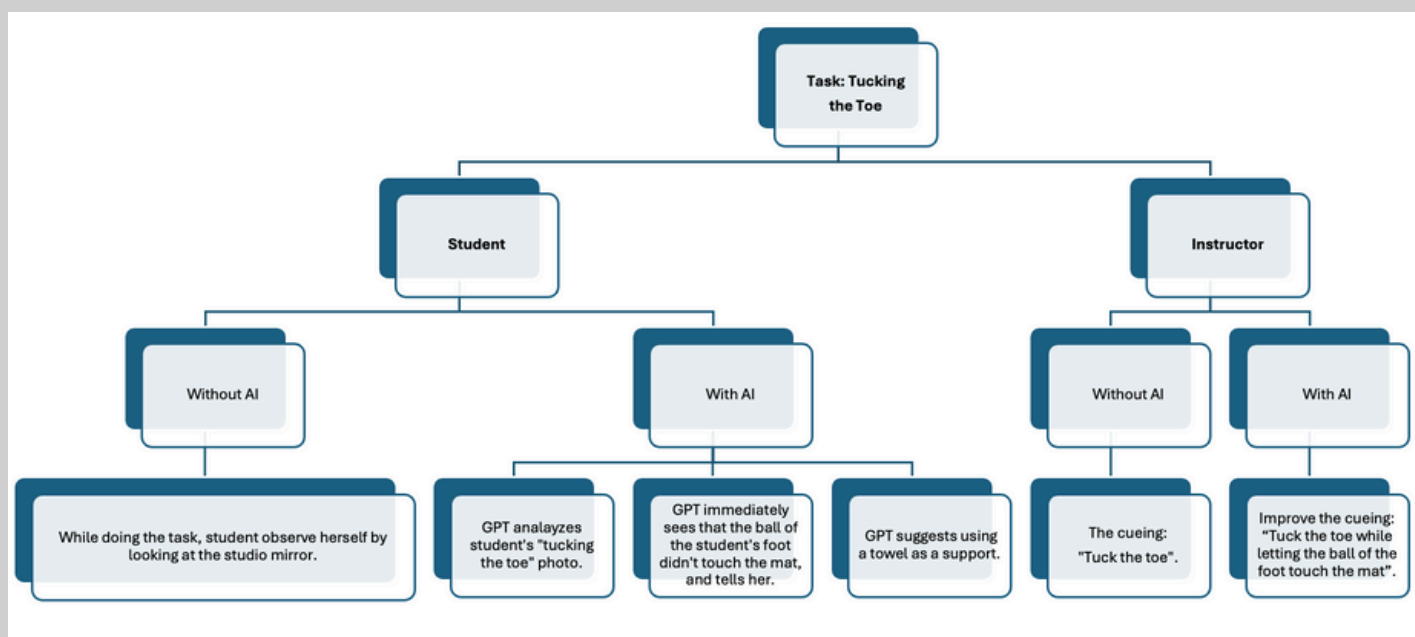
That's a beautiful example of human and AI working together.

FITNESS INSTRUCTOR

Exactly. It's like GPT was my second pair of eyes. But I had the hands, the heart, and the judgment.



The HumanXAI diagram by researcher using the case study of "tucking the toe".



The Questions We Keep Asking

RESEARCHER

Let's bring it back to our three big questions.

FITNESS INSTRUCTOR

Go for it.

RESEARCHER

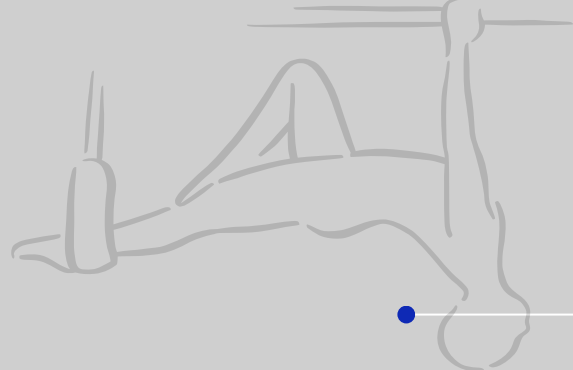
1. What can AI do better than humans?

FITNESS INSTRUCTOR

Information. Speed. Variety. Planning ideas. Diagnosing from photos. It's like an endless encyclopedia and brainstorming buddy in one.

RESEARCHER

2. What can humans do better than AI?



RESEARCHER

Do you worry about AI replacing instructors?

FITNESS INSTRUCTOR

Not really. At least not in my kind of teaching. You can't outsource human presence. My students don't come just for exercises. They come to be seen, heard, and supported.

RESEARCHER

Still, I imagine there are worries. About dependence? Or AI giving wrong advice?

FITNESS INSTRUCTOR

Definitely. GPT once gave me a cue that didn't feel right. It was too generic, maybe even risky for some bodies. I ignored it. You need experience to filter. I worry that less experienced instructors might copy-paste. Some instructors might end up relying on AI too much—and when that happens, they could get a bit lazy or stop thinking things through on their own.

FITNESS INSTRUCTOR

Teaching with human touch. Adapting in real time. Motivating students. Sensing feelings. Building trust. Connecting.

RESEARCHER

3. What can AI and humans do better together?

FITNESS INSTRUCTOR

When AI gives me suggestions, I always use my own experience and judgment to decide what works. I mostly see AI as a **tool**, but sometimes it feels like a learning or teaching **partner** too. I'm quite creative. I usually have lots of ideas on my own. So it's not that I need to use AI, but when I do. GPT can be my learning or teaching partner, **but I bring the soul**.

Hopes, Worries, and What's Next

RESEARCHER

So critical thinking matters.

FITNESS INSTRUCTOR

Yes. AI is a **mirror**. If you ask good questions, you get good insights. But you need to know how to ask. And how to assess the answer. Need human's teaching experience and domain knowledge to judge the answer. AI **makes you more human, if you use it wisely**.

RESEARCHER

I love that. **"AI makes you more human, if you use it wisely."**

FITNESS INSTRUCTOR

Exactly. **It doesn't take away your intelligence. It invites you to use it more deeply. More creatively. Maybe even more compassionately.**

A Thought for C-Suites and Executives

RESEARCHER

Let's imagine we're sitting not in this café, but in a boardroom. The people across from us are CEOs, innovation leads, heads of HR, and wellness program directors. What would you say to them about AI and fitness education?

FITNESS INSTRUCTOR

I'd start by saying: Don't just ask what AI can do. Ask what AI can help your people become. That's the real return on investment.

RESEARCHER

That's powerful. Could you say more?

FITNESS INSTRUCTOR

Sure. Instructors like me, we're not asking AI to replace us. **Don't drop AI into your teams without direction. Give them training. Encourage curiosity, not fear.** Reward thoughtful experimentation. Show that AI is here to help humans thrive, not to measure or monitor them.

RESEARCHER

That's key. It's about framing AI correctly.

FITNESS INSTRUCTOR

Yes. **If you want innovation in your wellness or education programs, listen to the people on the ground. Co-create the solutions.** Ask your instructors: What part of your job drains you? What part excites you? Use AI to reduce the first and enhance the second.

RESEARCHER

So in your view, the most future-ready organisations will be the ones that pair smart tools with smart people, and let them evolve together?

FITNESS INSTRUCTOR

Yes. The future of work isn't AI or human. It's AI with human. And when done right, that makes both stronger.

RESEARCHER

If you had one takeaway for executives, what would it be?

FITNESS INSTRUCTOR

Don't invest in AI to cut corners. **Invest in AI to grow capacity. Help your people do their best work, in the most human way possible. Then it will be 如虎添翼** (Chinese version of "Like a tiger with wings").