Sylvie Albert, GF Webinar Notes for April 26, 2023

In an interview last week on *Behind the Tech Podcast* Bill Gates said, "Education is the most interesting application for AI." Do you think he is right, and how so?

In my opinion, AI is an additional tool that education cannot ignore, but it will be more or less useful depending on the topic and on its intended use. He talks about the ability of an AI to successfully answer a difficult test, which means that many functions will be able to be performed by an AI. But there are still many functions that need to be performed by a human – people who help people, people who make and fix things…

Bill Gates also said: "I think in the next five to 10 years, AI-driven software will finally deliver on the promise of revolutionizing the way people teach and learn".

Teaching and learning and two very different things – one is controlled largely by institutions (k-12, colleges, universities, accreditation bodies, and corporations), the other is a personal or family commitment to learning. Two different market segments that need to be convinced or incentivized to change.

One very appealing aspect of AI as an educational tool is the possibility of mass personalization in the self-help category. An AI can determine what you need and how you learn to give you the best tools to suit your style. You can use it as a tutor or as a feedback loop, something that many parents are ill-equipped to do. Or you can use it to do the work for you which will limit your learning. There are always positive and negative uses of any system and we need to account for the risks and how we will mitigate these.

There are many self-help tools available such as Khan Academy (130 M users); adaptive math programs such as NetMath or IXL that provide a cycle of mastery approach. These have been available for years, yet the uptake is minimal compared a worlwide child population of approximately 2B. To Bill Gates' point, technologies need to become more affordable and available, but there is also a socio-cultural challenge – we have left the job of education largely to institutions and therefore are reliant on them to adopt these technologies.

On the second issues of teaching, there is a need for change and an opportunity to use AI for bringing education to a new age. But of course, there is resistance to change. Where there are incentives, such as in assisting in research (as long as we can check the accuracy of data), or pedagogies that are forced to adapt because AI use cannot be curbed; or if there are broader perspectives that are accepted in what students need to learn, such as soft skills and critical thinking, and a tempering in our desire to control such things as writing skills (as we did with math and calculators), then perhaps there will be significant changes in teaching.

At the moment, we are holding the educational dam together with adhesive tape: attempting to keep up to GPT implications, more solutions sharing sites, fast-pace technological change, new educational providers, and varied educational practices across institutions – it is very

difficult to affect change in highly bureaucratic organizations such as schools to begin with, and more so when the environment is volatile and there is little opportunity to adapt to change before the next wave comes to you. Perhaps AI will provide some answers but I see it as another wave, not a significant game changer – at least not in the short to medium term.