Q&A with the Academy Award-winning AI engineer

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CEO of AI avatar start-up Soul Machines explains the power of p based models with AI

AI engineer Mark Sagar is best known for his ability to create life-like animations technical efforts in *Avatar* and *King Kong*. Sagar first revealed his incredibly reali avatar in 2014 and continues to refine the virtual baby by combining his vast kn graphics, human physiology and artificial intelligence. Most recently Mark found to bringing his work on emotionally responsive avatars to businesses.

What compelled you to work on BabyX and teaching systems to learn?

like, emote and learn through experience in the way we do?

Our experience of the world depends on our actions, perceptions, emotions and motivation for BabyX was to create a holistic biologically-inspired model of the c and processes from which the behavior we so often take for granted emerges, a theories of our nature and to show how the various underlying systems intercon

What advances in your project excite you most?

We are currently working on the next version of BabyX which is much more deta even has digital lungs since breathing is an important component of simulating to be able to play with virtual objects and draw on the screen to creatively intera excited about what the creative possibilities may be between humans and mach

Your work has often stood at the intersection of creativity and science. Do yc someday be taught to be innately creative?

Yes, I do. We want to start exploring what may be the motivating systems with th development. I think creativity play is key to exploration and discovery, so makir naturally curious is key. Beauty is a really interesting question, but I think it—par to harmony and clarity and resonance in stimuli which have or suggest biologica seem to be innately rewarded to seek harmony in nature—it resonates with our pleasure circuits—so we seek beauty. So does this mean we need to bootstrap th it something that emerges? But what a wonderful question to explore.

> "I think we will see increasing use of virtual assistant interface and when dealing with more complex or u requiring dialogue and feedback."

Looking ahead three to five years, what do you think interaction between hu look like?

Interacting with machines will make increasing use of our natural faculties. I thi machines is dependent on the task. For example, it may be easier to type in a su dictate it, or to point to a location on a map rather than enter coordinates.

We will see computers able to have reasonably natural chat and conversations i voices will include a degree of emotional tone, etc. in the response. However, th will mainly use large statistical models based on conversational data rather thar grounded understanding, so it will still be more pattern matching rather than un generalizations across different topics may be possible with the machine recogr

In terms of machines having the proper grounded understanding, or context, in experience of the world that it can relate to directly or build metaphors from, in progress in this area, but still at a basic level.

If you had to choose one area in AI outside of your current focus that you thi biggest impact on our lives within the next few years, what would it be?

We have had an exponential rise in the amount of video posted online through s increased use of video analysis in conjunction with contextual analysis will end u important learning resource for recognizing all kinds of aspects of behavior and wide ranging social impact from security to training to more general knowledge

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