Staying Sharp

Scientifically proven exercises to boost memory and focus

THE TECH NEST

About us

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Agenda

- Need for Staying Sharp
- Developing an engaging experience
- Demo
- Challenges and Setbacks
- Future of the platform

Need for Staying Sharp

As people age

The Brain

Certain parts of the brain shrink, especially those important to learning and other cognitive activities, as well as different types of memory which become worse with age.

Blood Flow

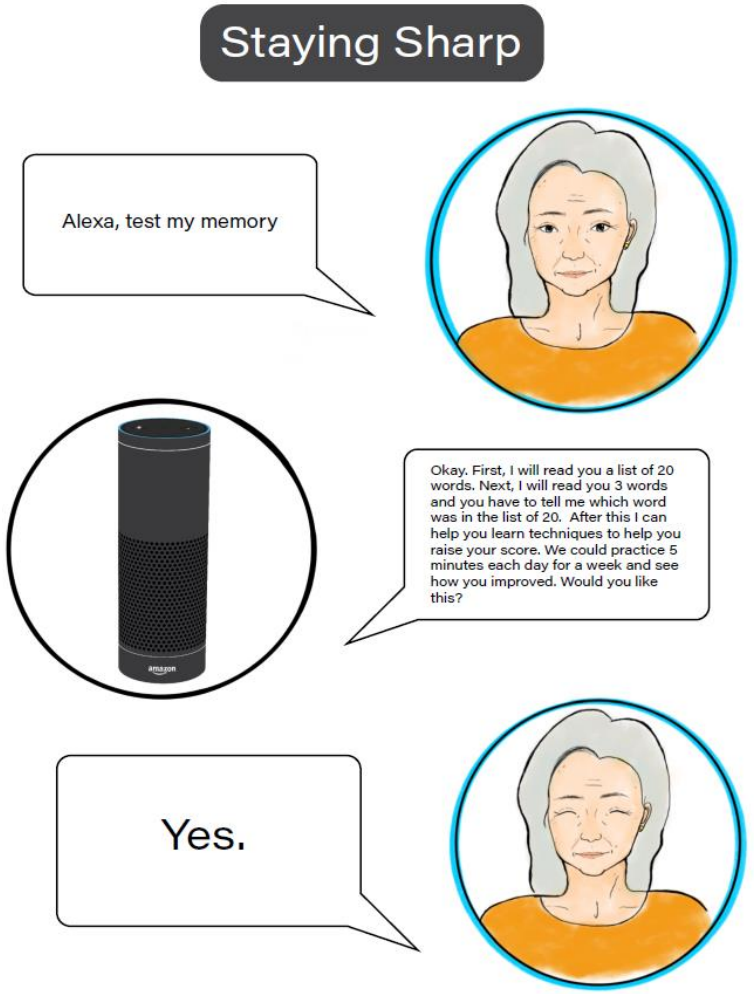
Blood flow in the brain decreases with age. Vascular factors not only contribute to cognitive problems in ageing but also to the two most common dementias.

Neurotransmitters

Neurotransmitters such as dopamine and serotonin see a decline in levels with age, affecting cognitive and motor abilities as well as synaptic plasticity and neurogenesis

Staying sharp as a platform is scientifically proven to help counteract the effect of these issues by improving the users' cognitive abilities

The Alexa Platform



- Users can choose from two types of memory games
  - Number
  - Words
- The game proceeds according to type chosen and then let's the user switch games once they are done with the first one
- Non-Linear elements:
  - Help
  - Tips
  - Instructions
  - Restart
  - Stop

  Enable full control over the program

The Development Process

- Incorporated feedback from Alpha testing.
- Made the game intuitive by making a new data type.
- Rewrote dialogues to make them clear, concise and user friendly.
- Used randomly generated compliments and motivations, in addition to changing the way Alexa says content to make her sound natural and fun.
- Made Alexa re-prompt the user if they remained silent or said something unexpected.

The Development Process – Contd.

Created feature for users to ask for help in case they forget the words/numbers

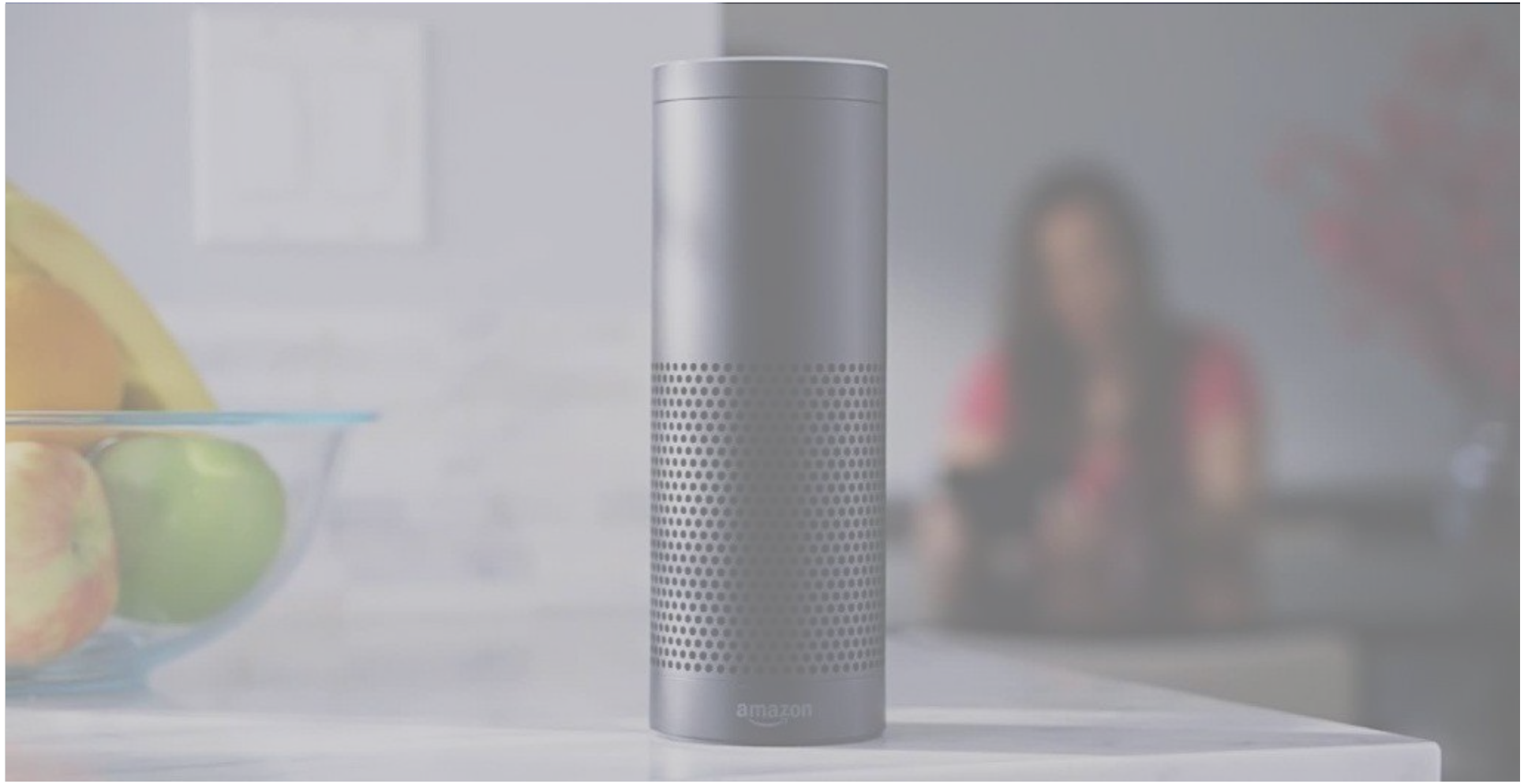
Added functionality to let users switch to the other game after finishing the first and keep track of the scores in both games.

Developed context based instructions that the user can ask for in case they are confused.

Introduced various commands such as tips, restarts and so on to provide the user with more control and make the program more intuitive.

Designed visuals for the skill by displaying a Staying Sharp card in the Alexa app as well as Alexa devices with screens.

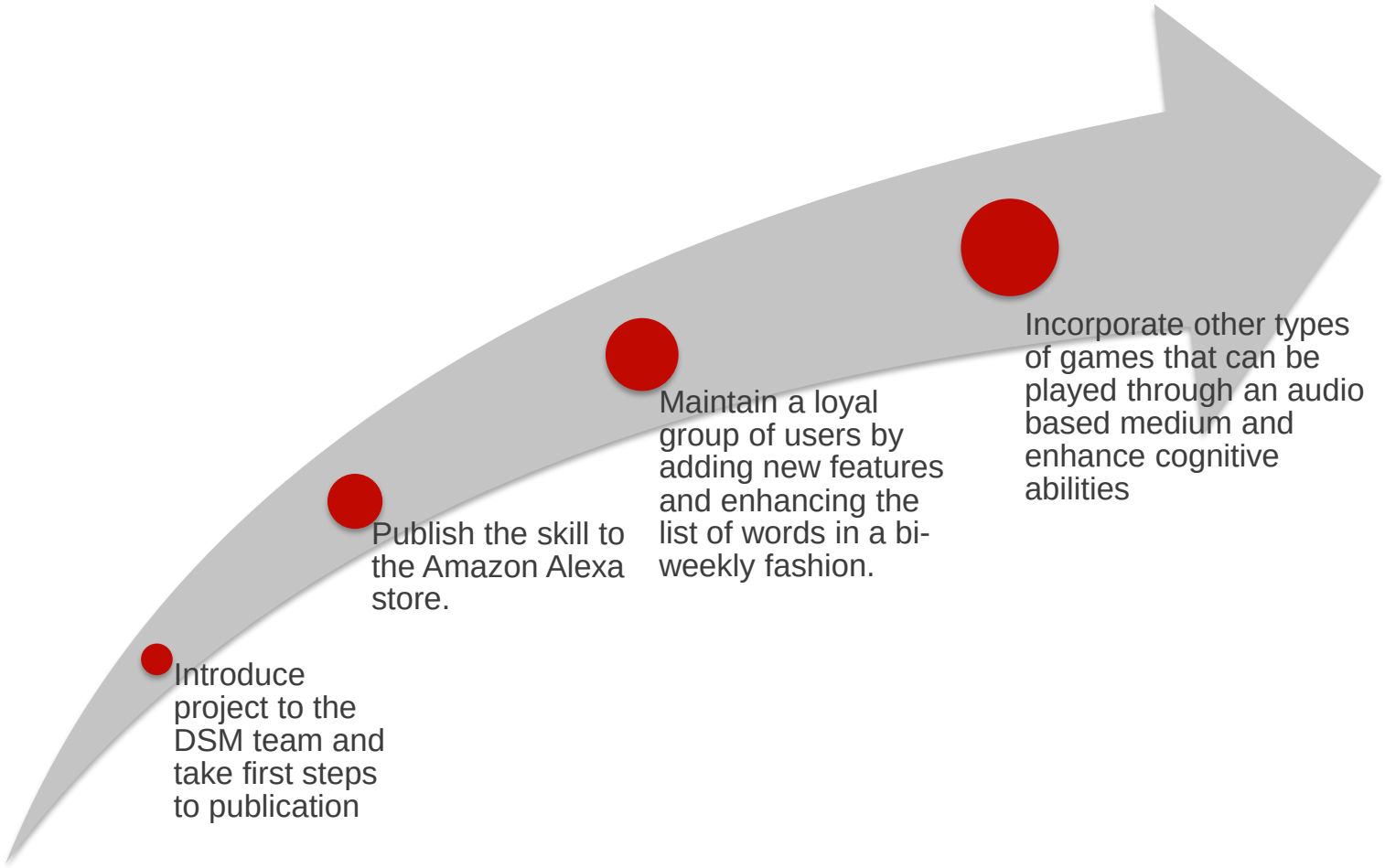
Demo



Setbacks and challenges

- User centric design: Understanding how a user might interact with Alexa and using dialogues to guide them
- Understanding code written by others in order to make meaningful contributions
- Limitations stemming from Alexa hardware, programming language intricacies
- Handling bugs arising from feature updates in order to maintain game consistency

The Way Forward



Thank You

Citations and Bibliography

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Ageing and the brain. (2006) *Postgraduate Medical Journal.* Retrieved February 2006, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2596698/