### Google adds visual search features in shopping

Alphabet Inc's Google on Wednesday unveiled search features coming soon that will put images rather than text at the heart of queries and potentially expand its role in e-commerce and its dominance in online video.

Google had said in May that advances in artificial intelligence software would begin to allow searchers to mix photos and text to find whatever they are after. During its live-streamed Search On conference on Wednesday, it said those promised features would arrive within months through its Google Lens search tool.

"With this new capability, you can tap on the Lens icon when you're looking at a picture of a shirt, and ask Google to find you the same pattern but on another article of clothing, like socks," Senior Vice President Prabhakar Raghavan said.



"This helps when you're looking for something that might be difficult to describe accurately with words alone." The technology also sorts within videos, including on Google's YouTube, already the internet's biggest streaming service.

"Your bike has a broken thingamajig, and you need some guidance on how to fix it," Raghavan said. "The point-and-ask mode of searching will make it easier to find the exact moment in a video that can help."

Users will be able to run reverse-image searches when surfing on the Google iOS app or the Chrome desktop browser. Selecting an image will pull up similar online visuals, which could help shoppers find where to buy items seen in photos and ultimately lead them to Google Shopping, it's rival to Amazon.com Inc's marketplace.



# Netflix acquires first video game studio

Netflix has announced the acquisition of its first video game studio, as the streaming giant bids to expand its entertainment empire with a push into the lucrative gaming sector. The company announced Tuesday that it has bought the California-based Night School Studio, best known as the creators of paranormal thriller game Oxenfree.

Netflix had indicated its intention to venture into video games in July, eyeing potential hits based on the storylines of popular TV series. The company said Night School's "artistic excellence and proven track record make them invaluable partners as we build out the creative capabilities and library of Netflix games together".

Night School co-founder Sean Krankel said in a blog post that it was "a surreal honour" to be the first games developer to join Netflix. "Netflix gives film, TV, and now game makers an unprecedented canvas to create and deliver excellent entertainment to millions of people," he wrote. "There's a kaleidoscope of butterflies in our team's collective stomachs."

Netflix has already signalled that access to the games it develops will be included in customers' membership. The streaming giant said in August that it was starting limited testing of its gaming capabilities, with Android users in Poland able to try two games based on its "Stranger Things" horror series.

Along with its interest in games inspired by television, Netflix has previously developed various TV shows and movies based on games. This week it announced it has commissioned a third season of "The Witcher", which is based on a series of fantasy novels and video games. A kids' TV show based on "Sonic the Hedgehog" is due to be released next year, while a series based on multiplayer battle epic "League of Legends" is out in November.

Netflix's expansion into video games comes as it appears to be reaching a saturation point in the United States in terms of the number of households it can reach. The company has openly said it competes with hit games such as Fortnite for people's online entertainment time, and analysts suggest offering games could help attract new subscribers.

The global gaming market now exceeds \$300 billion, according to an April study by consulting firm Accenture. Netflix has recruited a video game veteran, Facebook's Mike Verdu, to lead its gaming team.

# EDITOR'S NOTE A new day

October's second issue begins as a new day as we, the toggle helm team, is reduced to a ragtag assembly of two. Quartermaster Nahaly Nafisa Khan jumped ship and it's just me and the captain holding the deck for now.

Our supplies run low, and we do not know what waits for us next weekend. Perhaps we'll drift into oblivion. Perhaps we'll hit a supply depot on the way and jump back into the game. But until then, enjoy what we've scooped up for you this week.

And if you are interested in being our new quartermaster or even just a regular crew, shoot us an email at toggle.tds@gmail.com. Check our Facebook feed for more details on these positions. *Toggle log 689, over*.

Zarif Faiaz, Sub editor



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## BUET grad's AI startup raises \$4.1 million

#### ABDUS SALAM SHAWN

Al startup GrayMatter Robotics, headed by BUET graduate Ariyan Kabir, has raised \$4.1 million in seed round funding. Stage Venture Partners and Calibrate Ventures led the round, along with 3M Ventures, OCA Ventures, Pathbreaker Ventures and B Capital Group.

The company, founded in 2020 by Ariyan Kabir (CEO), Brual Shah (CTO) and Satyandra (S.K.) Gupta (Chief Scientist), develops software and AI algorithms to create robotic assistants that help humans more safely and effectively do surface treatment tasks such as sanding and



spraying on manufacturing lines. GrayMatter Robotics implements its software with commercially available robots, sensors and end-of-arm tools and enables them to treat any unique part. It uses machine vision and path planning to identify the part's geometry, pick up the right tool to process the part, figure out its material and which process to use, and then program the robot arm in the correct motion and execute the operation.

Ariyan Kabir said, "We are currently working with specialty vehicles manufacturers, aerospace companies and metal fabricators. Our focus now is on building solutions for surface finishing & treatment applications, and we wish to expand in the vast \$100+ billion markets in the USA."

"The first priority of GrayMatter Robotics is to make human life easier and safer while putting them to more valuable tasks," he added.

According to reports, the newly raised funds will be used to expand the company's hiring, speed up the development of next-generation products, and engage with a broader customer base.