IT'S FOOD JIM, BUT NOT AS WE KNOW IT!

SEPTEMBER saw the 50th anniversary of *Star Trek*, a franchise with wondrous technology that caused many scientists to look at the stars and dream, and cause many engineers star-sized headaches.

Engineers have been using some of the Trek-inspired tech for a number of years now and are responsible for developing other technologies featured on the show. It's safe to assume almost every engineer has used a smartphone or tablet and some have used a handheld sensor apparatus that resemble a PADD or Tricorder. As a fan, it can be amusing to see hundreds of people adopt Data's 'scanning' pose while searching for WiFi signals.

Engineers have been involved in developing transparent aluminium armour or aluminium oxynitride (ALON). ALON is a ceramic material that starts out as a powder before heat and pressure turn it into a crystalline form, similar to glass. Once in the crystalline form, the material is strong enough to withstand bullets, or to make a tank for two humpback whales to be taken to the 23rd century like in *The Voyage Home*. Thanks for the formula Scotty! (Sorry for making you use a keyboard.)

Then there's the Replicator, a device that can make food, drink, or any number of objects appear out of thin air. The speed isn't quite there yet but the principles are familiar to chemical engineers through 3D-printing pipes, tools and other objects. In Issue 900 we reported on a team from VTT in Finland that is 3D-printing food with the vision of designing vending machines that dispense customised snacks on demand. Even though it's not on the same scale as voice ordering a full-English breakfast and having it appear within three seconds after a heavy night on Klingon Blood Wine and Romulan Ale, engineers will get us there eventually. In the (relative) short-term future, we will have to put up with machines that take minutes to print, and the physical and verbal abuse people will hurl at them when they only print 80% of the caramel in their half-chocolate half-gelatine monstrosities that will have the consistency of savoury Starburst and taste like Dairy Milk Caramel flavoured chewing gum.

Speaking of Dairy Milk Caramel flavoured chewing gum, that could potentially become real! Mondelez, owner of the Cadbury brand has announced plans for a US$10m R&D centre for chewing gum and other sweets in Singapore, despite its strict laws prohibiting the import and export of chewing gum.

Mondelez said earlier this year that Singapore's tough laws on chewing gum "make it difficult to find taste testers and developers with personal experience".

In spite of the difficulties, the centre is expected to be complete by the second half of next year. You could say Mondelez is nothing if not Enterprise-ing.

Comedy card game *Cards Against Humanity* has re-opened applications for its Science Ambassador Scholarship, which is a "full ride" scholarship for women studying STEM subjects. The winner will receive full tuition to study at a US college or university for up to four years.

The game's motto, "a party game for horrible people" proved its maker can be nice by raising over US$975,000 so far for the scholarship fund through sales of its US$10 Science Pack. The question-and-answer deck is based on "the hit system of knowledge known worldwide as 'science.' "

Players can make combinations of ridiculous and humorous statements including: "A study published by *Nature* this week found that – Explosive decompression – is good for you in small doses", and "Hey there, Young Scientists! Put on your labcoats and strap on your safety goggles, because today we're learning about – Getting really worried about global warming for a few seconds!"

The game has offended a number of people with its adult-rated content, but underneath the potentially theophobic, homophobic, racist, and sexist remarks, there is a sense of altruism from the game's developers who mostly have backgrounds in science and technology.

Jenn Bane, community director for *Cards Against Humanity*, said: "Ask a kid to draw a scientist, they'll draw a man in a lab coat, because science and mathematics are historically male-dominated fields...With the Science Ambassador Scholarship we hope to help change the public perception of what a scientist looks like."

The scholarship applications will be judged by a board of over 60 women who work professionally in science, including representatives from NASA's Jet Propulsion Laboratory, Harvard Medical School, the Smithsonian Institution, and the US Army Corps of Engineers.

The scholarship is open to anyone who identifies as a female and is studying or is planning to study a STEM subject at a US institute. The deadline for applications is 11 December.