

Starwars style holographic 3DTV could be a reality by 2018, experts say

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(PhysOrg.com) -- A 3D television system which would display holographic images floating in mid air - reminiscent of a famous scene from Star Wars - could be a reality in households within the next decade according to findings by a team of University of Aberdeen academics.

Led by Professor John Watson from the University's School of Engineering, experts from the institution were partners in a four year European Commission (EC) funded project to investigate the underlying principles, technologies and practicalities of introducing 3D TV systems

to the mass market.

The findings of the project suggest that a stereoscopic 3D TV with the viewer wearing 3D glasses is near market and may only be a few months away.

More advanced systems based on autostereoscopic technology, which do not require the wearing of glasses, are being piloted by several TV manufacturers and are only two or three year away from market.

Whilst the ultimate 3D experience, using fully interactive floating holographic images - similar to that which is seen when Princess Leia appears in front of Luke Skywalker as a hologram in Star Wars - could be on the market by 2018.

The University is one of 19 institutions across Europe, brought together under an EC Network of Excellence in the €6 million research project coordinated by Bilkent University in Turkey. which concluded this month.

The team of experts from the University undertook detailed analysis into the technologies of 3D visual displays the applications which would be spawned from such systems and the laser technology required to record programmes to be broadcast on this type of system.

The research coordinated by Professor Watson, drew upon expertise from key institutions from countries including Finland, Bulgaria, Turkey and Germany as well as the UK.

Professor Watson said: "The aspect of the work in which we were involved aimed to further investigate the crucial progress needed in the development and implementation of TV's which would receive and display programmes incorporating 3D images.

"Our research also looked at how 3D imagery may be used in various areas of technology including medicine, air traffic control, underwater measurement, computer graphics and gaming in order to gain a better understanding of what is needed from this technology and what applications would make best use of it.

"Our findings into how 3D TV systems would be packaged as a product suggested that either a small table with an imaging hovering above it, or a wall mounted television with an image coming out of it, would be the most feasible options.

"In order for 3DTV to become a reality, a number of significant technological developments need to be made. Importantly this includes the development of technology to allow programmes to be created which can be televised in this format and the ability to transmit the vast amount of information needed to realise a fully 3D image. If 3DTV is holographic then this would involve the use of cutting edge laser technology during the programme filming process.

"It's likely that within three years we will see a TV on the market which will use autostereo systems to create 3D images, so that viewers do not need to wear traditional 3D glasses. However, in ten years time it is highly probable that TV using holographic images which would appear to float as if in mid air will be available for consumers to purchase."

Provided by University of Aberdeen

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