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Want to make it big in animation? Know your maths

By Tania Tan

BE A nerd...and be proud of it. This attitude may even win you an Oscar.

It did for self-professed 'complete and utter geek' Dr Douglas Roble whose passion is both numbers and movies.

He won an Oscar technical award at the 71st Academy awards in 1999 for a computer software program that automatically tracks camera angles.

Film-makers then use this to digitally input monsters, people or whatever else their imagination allows them to.

The win was nothing short of 'geek heaven', recalled Dr Roble.

The creative director of special effects company Digital Domain has worked on several notable projects, including the Titanic, where he was responsible for recreating the horrific sinking of the doomed cruise liner.

Recent collaborations also include last year's Oscar-nominated World War II films Letters From Iwo Jima and Flags Of Our Fathers, directed by Clint Eastwood.

People he has met include the 'gorgeous' Charlize Theron from Aeon Flux and the 'super hot' Jennifer Garner of Alias and Elektra fame.

He spoke to The Straits Times last week when he was in town for the Symposium on Mathematics and Science in Digital Media, Technology and Entertainment.

The event was organised by the mathematics department of the National University of Singapore (NUS).

The one-day conference at Raffles City Convention Centre saw a crowd of about 400, including members of the public, students and specialists in the field.

Passionate and talented experts like Dr Roble are just what Singapore hopes to nurture in its future generation of computer specialists, said NUS mathematics professor Chong Chi Tat.

While natural talent and creativity are key elements in becoming a successful computer graphic artist, what many people do not realise is the importance of technical know-how,

said Dr Roble.

His advice to budding animators: 'Know a little math.'

For instance, it takes hundreds of mathematical equations and calculus to digitally render the movement of a single strand of hair.

The infocomm industry - a new pillar of Singapore's economy - surged to a record \$45.4 billion last year, and with it, interest in various IT disciplines including digital animation.

World-renowned animation school DigiPen also recently set up shop here, giving the local talent pool an added boost.

Dr Roble's love affair with movies dates back to when he was a teen. And the one that started it all was George Lucas' 1977 Star Wars Episode IV: A New Hope.

He has watched it 28 times.

When asked if working in the film industry has affected his enjoyment of movies, he said: 'Yes, to a certain extent. I keep wondering how others did it...but I still love movies.'

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