

Cover Story**Interactive Digital Media****6 Touch-Based Programming for Robots**

Tangible user interfaces make programming a robot easy.

8 Designing Cute Interactive Media

Research into “cuteness” could help digital media designers make their products more appealing.

10 Even Better than the Real Thing

The future of interactive digital media is about understanding the mind-brain problem, suggests brain scientist Dr Kenichiro Mogi.

12 Breathing Life into Machines

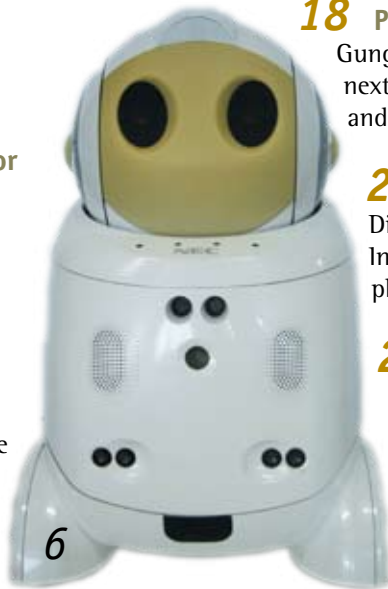
Thanks to the rapid advancement of technology, robots now have the potential to act as intelligent companions for humans.

14 Interactive Storytelling

wlzQubes™ unite traditional storytelling with mixed reality.

16 Game to Learn

Integrating virtual reality, mixed reality and serious gaming environments into classrooms is not without challenges, but the results could transform the way students learn.

**18 Preparing NUS Students for Careers in IDM**

Gung-ho students can excel in a course that teaches next generation games and interactive technologies and encourages learning through doing.

22 Soul Man

Director of the Interactive and Digital Media Institute, Professor Ryohei Nakatsu, talks about his plans for the center.

24 From 2D to 3D via Shape Palettes

A new interaction approach termed “Shape Palettes” should make it easy even for amateur digital artists to create three-dimensional content.

26 Digitizing Plants

Snapshots from a handheld camera can provide data to build computer models of plants ranging from bushes to trees.

28 Music made Richer

Stimulating the senses of touch and sight for an enhanced musical experience.

30 A Next Generation Music-Based Social Network Game

Players must DJ to win respect in local research institute’s offering to the gaming industry.

31 Immersive Audio Communication in Virtual Worlds

A peer-to-peer network will allow large group interactions without requiring vast bandwidth.

33 Personal and Portable, Plus Practically Panoramic

Mobile and ambient display and control of virtual worlds.

36 The Interactive Road

Swedish research looks to mobile technology to increase social interaction in traffic.

38 Vision-Based Human Activity Understanding

Software that can interpret video footage of human behavior may greatly enhance the intelligence and scalability of city-life surveillance systems, and consequently better protect social security.



40 Martial Arts are Opening Act for Cultural Heritage Programme

The NUS Department of Computer Science begins programme to digitize cultural heritage with a motion capture event.

42 Making Digital History

Three-dimensional scanning techniques can preserve threatened cultural heritage.

44 Computer Science Meets Social Science

The Events in the World project applies social science theories to digital media.

46 A Computational Approach to Culture

Interactive software can provide new ways to understand and explore different cultures.

49 An Inspiration Seeker

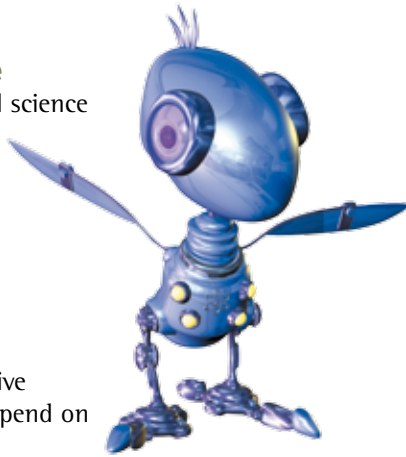
Sam Furukawa believes the future of interactive digital media will be shaped by artists and depend on collaboration.

55 Groundbreaking Development for Reclamation Projects

Civil engineers fight challenges faced in land reclamation.

57 Analysis of Facial Images for Acne Treatment

Computer science development tackles problems of inaccuracy in facial analysis.



58



Departments

1 Editorial
Interactive digital media.

4 In Brief
Innovative highlights in various fields.

5 Industry Updates
Significant industry developments.

Spotlight
58 Orchid Draws US Epilepsy Specialist to Singapore
Steven C. Schachter hopes that traditional botanical medicines may yield new treatments for epilepsy.

62 Young Innovator Strives for Personalized Vaccines
Victor Joo Chuan Tong blends computer science and biology in his research.

66 Events Calendar

68 Contacts



57

Features

50 Driving Research into Standards
An I²R perspective.

53 To Prototype or Not to Prototype an Invention

The timing of filing a patent application when constructing a prototype or pilot plant constitutes as much a business strategy as a patent law.