

Press Release

For Immediate Release

Hong Kong Computer Society 2012 Alan Turing Year Series

2012 “Alan Turing Centenary” Commemoration Mini-Exhibition Opens Today

A number of ICT leaders & Fans of Turing, Artists Together Commemorate Turing

June 13, 2012 • HONG KONG — the 2012 “Alan Turing Centenary”

Commemoration Mini-Exhibition Opening Ceremony organized by Alan Turing Year in Hong Kong, and co-organized by Hong Kong Computer Society, Hong Kong Better Culture Society and “2012 Alan Turing Year – Souvenir Scrap Book” Editorial Board opens today until June 30. ICT leaders and fans of Turing, together with many other artists and writers attended the opening ceremony tonight.

The Exhibition is to commemorate the great pioneer who has profoundly impacted current computer technology and his legendary life, in various artistic forms by well known local artists, from calligraphy, couplets, painting, comics, computer art, magazines, columns, to T-shirt design, poster of Alan Turing’s manuscripts, and “Turing Song” performance.

Artists contributing to the exhibition include: 張漢明, 林銳恆, 李永康, 古蒼梧, 馬龍, 方舒眉, 尊子, 利志達, 黃仁達, 杜杜, 羅啓銳, 曾小敏, 張翠娟, 周國強, 馮禮慈, 龍校長, 鍾志榮, 馮夏賢, 楊月波, 傅慧儀, 劉慈欣, 陸離, 連盈慧, 惟得, 卞小星, 綠騎士, 梁鵬威, 香山亞黃, Dominique Magny, Ahko, Tina Ko, Gerard Henry, Frank Vigneron, Cpak Ming, Angus Ting, Ben Cheung, and Robert Farringer.

Mr. Stephen Lau, JP, President of HKCS, said: “Alan Turing is an outstanding scientist, with significant achievements in computer science, artificial intelligence, developmental biology, and the mathematical theory of computability. His contribution in bringing peace to the world, by breaking the German naval Enigma code and saving British Navy during World War II, was also undeniable. Turing is the father of computer science and artificial intelligence, who had a marked impact on the development of today's computer and information technology, as well as modern life and business operations. HKCS aims at raising public awareness and their interest in IT through a better understanding of Alan Turing and his great contribution to human civilization, thus driving the advancement of information technology in Hong Kong.”

In commemorate of the Centenary of Alan Turing’s birth, the father of computer science and artificial intelligence, the year of 2012 is named the Alan Turing Year. Grand celebration events are held all over the world to praise Alan Turing’s contribution to

science and human civilization, places include Brazil, Canada, China, Czech Republic, France, Germany, Philippines, the United Kingdom and the United States.

Mr. Stephen Lau pointed out that since the very beginning of 2012, a number of major celebration events had been taking place globally, including Turing exhibitions, seminars, performances and competitions, in addition there are variety of special commemorations for this genius' centenary, including books and articles in printed media about Turing and his scientific theory, broadcasts, videos, music and even films. Most of these will be linked to places with close significance in Turing's life, such as Cambridge, Manchester and Bletchley Park.

Turing Year activities around the world are coordinated by the Turing Centenary Advisory Committee (TCAC) comprising of professors, specialists and academics from computer science sectors in different regions and different countries.

Turing Year Activities in Hong Kong

Mr. Stephen Lau further: "HKCS has launched before a series of Turing Year Activities, and was honorable to have invited Prof. Barry Cooper, Chair of Turing Centenary Advisory Committee (TCAC) and Professor of Mathematical Logic from University of Leeds, to present a public talk today on "Alan Turing and the Computing Revolution: Ten Big Ideas that Changed the World" in May. In addition, the popular science talk called Turing Trilogy on a) Universal Turing Machine; b) breaking the Enigma code; and c) the Turing Test, delivered by a noted popular science speaker, Mr. Cambridge Wong, is right on schedule. "Turing Trilogy Public Talk (Part 2): The Code War" will take place on June 22. Other activities HKCS will be involved are "Turing Centenary Commemorative Party" on June 23 and "Turing Commemorative Variety Evening" on June 28.

Mr. Stephen Lau encouraged Hong Kong citizens to actively participating in this meaningful activity series, to commemorating the pioneer of the computer science and artificial intelligence, and to discover how Turing change the world with computer science. He eagerly expects that people, especially young generation in Hong Kong, could follow Turing in active use of computer and ICT technology to change the world and create the future.

For more details about HKCS Turing Year Activities, please refer to the HKCS Turing Year page: http://www.hkcs.org.hk/campaign/HKCS_Alán_Turing_Year/#.

Worldwide Turing Year activities are available at:

<http://www.mathcomp.leeds.ac.uk/turing2012/>.

Alan Turing, the Father of Computer Science and His Unparalleled Contribution

Born on 23rd June 1912, Alan Turing was a Fellow of King's College, Cambridge University. In 1936, Alan published the landmark paper 'On Computable Number, with an application to the Entscheidungsproblem'. This paper became a mathematical proof on an important mathematical philosophical problem, the decision problem of the Formalism proposed by the great German mathematician, David Hilbert in early 20th century.

At the first part of his paper, he invented a mathematical tool for the proof, the Turing Machine that lays the theoretical foundation of modern digital computer. It was this by-product of the paper that had the profound effect of influencing the life of nearly everyone in this digital age.

The Turing Machine is a realization of computation mechanization and it also demonstrates the truly vital idea embodied in the modern computer, internally stored modified program, the idea of storing programs in the same form as data. Thus, a program can now be treated as data to another program.

In the same paper, he demonstrated this concept by writing a program, called the Universal Turing Machine (UTM), which read other programs (now treated as data to UTM) and simulates the behavior of the other programs. It is the same idea of modern computer: different programs running on the same computer.

More importantly, he also pointed out the limitation of the Turing Machine (thus modern computer) that it can simulate but cannot determine in advance whether the program it simulates will stop erroneously or not, which is also the limitation of modern computer. That is why there is no program that can do debugging, despite all the other powerful programs ever developed since then.

Alan has made contribution in helping England to fight against Nazi Germany during the most difficult period in World War II. During 1939-1941, Britain was nearly forced to its knee when her only supply line over the Atlantic was seriously cut off by the German submarines, the Wolf Pack. Alan Turing single-handedly broke the German naval Enigma code and thus, thousands of convoy ships were spared from the fatal submarine attack.

After the war, he was involved in the first few computer projects in Britain, the Automatic

Computing Engine (ACE) and the Manchester Mark-1. His UTM idea was picked up by John von Neumann and this was reflected in his First Draft of Report on Electronic Discrete Variable Automatic Computer (EDVAC). The following development became history and is well known by everyone.

Turing Test: Can Machine Think?

In 1950, Turing published a paper that has come to rival his 1936 paper as his most famous work. The paper asked a question that has reverberated in philosophy, cognitive science and computer science ever since: “can machine think?” The famous Turing Test was proposed and this founded the field of Artificial Intelligence (AI) research. Over a decade after the world chess champion was defeated by Deep Blue, the Turing Test is still not yet passed by any computer program, the Loebner prize of US\$100,000 waiting for the winner until now.

Despite the many significant contributions, his story was not well aware of by others until recent years. This is partly because his wartime effort was highly classified as national secret until the 70s and partly because the British government dishonorable treatment of his homosexual attitude that lead to his suicide with cyanide poisoning on 7 June 1954, at the young age of 41.

It was only in recent years that his name was getting more popular through a small group of people whole heartedly promoting his story and re-establishing his honor to the right proportion. In 2009, a petition urging the British Government to posthumously apologise to Alan Turing for prosecuting him as a homosexual received over 30 thousand signatures. Prime Minister Gordon Brown acknowledged the petition, releasing a statement on September 10, 2009 apologising to Alan Turing. The year of 2012 was even named as Alan Turing Year.

About HKCS

The Hong Kong Computer Society (HKCS) is a non-profit professional organisation established in 1970, which strives to improve and develop Hong Kong's Information Technology (IT) industry. Being the most well-established and the largest professional association in Hong Kong, HKCS is dedicated to promote the highest professional standards for the industry. HKCS members are from a broad spectrum of Hong Kong's IT industry, from corporate users to individual talents, all working together for the benefit of the industry.

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