



**The International World Wide Web Conference Committee Selects  
“Earthquake shakes Twitter users: Real-time event detection by social sensors”  
for the 2022 Seoul Test of Time Award**

*Research published in 2010 to be recognized by IW3C2 for being the first to consider social media users as “sensors of the real-time world”*

Lyon, France, April 27<sup>th</sup> 2022 – The International World Wide Web Conference Committee (IW3C2) announced today that the 2022 Seoul Test of Time Award will be presented to the authors of the paper “Earthquake shakes Twitter users: Real-time event detection by social sensors”; Takeshi Sakaki (*Hotto Link Inc.*), Makoto Okazaki (company employee) and Yutaka Matsuo (*the University of Tokyo*)

The award will be presented during the opening ceremony of the 31st international conference in The Web Conference series hosted by the team in Lyon on the Web. This year we are celebrating the fact that the conference is now The ACM Web Conference. See <https://www2022.thewebconf.org> for details.

The paper was first presented at the 19th International World Wide Web Conference in Raleigh, North Carolina, USA in April 2010. It now has more than 5030 citations and has become foundational research in the area of cyber-physical research.

This paper was selected as at Seoul Test of Time award winner by a committee of notable Web researchers and former program committee conference chairs, chaired by Yoelle Maarek, who remarked that "This work is one of the first published studies that considered social media users as "sensors of real world-events". In this seminal paper, the authors demonstrated how, by monitoring the Japan Twitter feed, they could detect 96% of serious earthquakes and most importantly alert users subscribed to their earthquake reporting system faster than the Japan Meteorological Agency could at the time. This work opened a new school of research using humans as real-time sensors in numerous other domains ranging from epidemiology (detecting outbreaks of diseases) to live traffic information (e.g., reporting accidents or hazards on the road)."

Dame Wendy Hall, Chair of IW3C2, said: “In 2010 Twitter and other social media platforms were still very much in their infancy. This paper predicted that Twitter would become a sensor for real-world event detection, something that is entirely main stream today. You hear about it first on Twitter.”

Takeshi Sakaki, one of the authors, comments: “We are very happy to receive this award. Our research had a major impact on other researchers because it related to the big changes in the Web at that time. That change was "from physical to social", which means that information from the physical world is posted on social networks. There is another change happening now “from social to physical”, which means that information from social networks affects the physical world to a significant degree. These changes in the Web will lead to exploring new research frontiers.”

Because of the on-going global public health crisis caused by Covid-19, the 2022 conference is taking place fully on-line from April 25-29<sup>th</sup> 2022. The local organising committee in Lyon, France, has worked very hard to ensure that the conference will as ever provide a forum for industry professionals, researchers, policy makers, developers, and other practitioners to reflect on, discuss and debate the evolution of the Web, and its impact on society and culture while identifying future opportunities and research directions that can help us create a Web that is open, safe, inclusive, balanced and indeed global.

**About the Seoul Test of Time Award**

Inaugurated in 2014, the Seoul Test of Time Award is made possible by the generous contribution of the organisers of WWW2014 held in Seoul, South Korea, in April 2014. It is awarded annually to the author or

authors of a paper presented at a previous World Wide Web conference that has, as the name suggests, stood the test of time.

The first Award, presented at WWW2015 in Florence, was made to Google founders Sergey Brin and Larry Page, for their world-changing paper 'The Anatomy of a Large-Scale Hypertextual Web Search Engine', originally presented at the World Wide Web Conference in Brisbane in 1998.

### **About the IW3C2**

The International World-Wide Web Conference Committee is an Association that organises global academic conferences on Web technology: <https://www.iw3c2.org/conferences>. For further information contact: [contact@iw3c2.org](mailto:contact@iw3c2.org).

### **About The Web Conference**

Since its first event, in 1994 at CERN, the Web Conference (formerly the WWW Conference) has provided scientists, researchers, policy makers, activists and technology industry leaders with the forum to discuss the evolution of Web and its impact on business, culture and society. The conference is organized each year by a local team of volunteers in different parts of the world in collaboration with the International World Wide Web Conference Committee (IW3C2).

### **Future Web Conferences**

In 2022 IW3C2 hands over the management of The Web Conference series to the Association of Computing Machinery (ACM) and it becomes a full ACM conference. The IW3C2 will continue to exist to manage the Seoul Test of Time award but it will no longer be responsible for managing conferences.

### **About ACM**

ACM, the Association for Computing Machinery, is the world's largest educational and scientific computing society, uniting computing educators, researchers, and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.