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**THE DIGITAL REVOLUTION**

My name is Tsunekazu Takeda. I am President of the Japanese Olympic Committee, a member of the Executive Council of the Association of National Olympic Committees (ANOC), and a member of the IOC Coordination Commission. I am also an Olympian.

It is a great pleasure for me to attend this XIII Olympic Congress. I would also like to express my gratitude to the ANOC President Mr Mario Vázquez Raña, who asked me to deliver this presentation here today.

My theme is the Digital Revolution. I am no technical expert in this area, but I would like to speak on this issue from three perspectives: that of an Olympic athlete, an executive official of a National Olympic Committee (NOC), and someone on the “organising” side.

Experiences throughout my career have given me some insight into the question of how digital technology can benefit our lives in the Olympic Movement.

I have come to realise that there are many things that can be done better by digital technology than manually, from both the athletes’ and the spectators’ perspectives. I am also aware that digital technology is already contributing greatly to the Games.

I would like to divide my presentation in two parts. The first is to inform you of how digital technology can be used from an organiser’s viewpoint. I will introduce to you the idea of Accreditation Cards and tickets, and what kind of potential they have when combined with digital technology. I have sought advice from Dr. Ken Sakamura, a University of Tokyo professor, who is a world authority on ubiquitous networking, as well as an EU consultant.

The other aspect I would like to discuss is that of digital technology, already in use for recording athletes’ results at competition sites.

Nowadays, digital technology is an important tool in making our lives more comfortable and convenient. The word “ubiquitous” comes from Latin and means “existing everywhere.” A “ubiquitous society”, therefore, is a society where people can obtain any kind of information anywhere.

Let me introduce to you some innovative ideas in relation to the future use of Accreditation Cards and tickets at the Olympic Games.

The Olympic Games is an event for which not only athletes, but also officials, sponsors, the media and spectators from all over the world, visit the host city with excitement and enthusiasm to capture the spectacle of athletes challenging the limits of human capability.

For a short period of time, the host city becomes a cradle of language, customs and culture. In other words, all sorts of nationalities gather in a place, as their home, during the Games. The Accreditation Cards or Olympic tickets are an essential aspect of involvement in the Olympic Games.

Imagine if these Accreditation Cards and tickets were to have a broader function than just identification, or granting admission. This would certainly be an improvement to our Olympic experience. By using digital technology, an Integrated Circuit (IC) public transport ticket can be embedded in an Accreditation Card or Olympic ticket.

The ticket would look like a hologram, but actually the shiny area is also an IC chip, which allows the holder not only to ride on public transport free of charge during the Games, but also obviates the need to inspect tickets at the admission gateways to public transport. You simply pass through the gates and board the railway, subway, or bus.

But above all, please let me tell you about a completely new device, which we call Digital Signage (DS). This signage will help everyone: the Olympic Family, thousands of volunteers, and the millions of people who come to the Olympic Games. It is a system of large displays and “place-and-read” scanners for tickets and Accreditation Cards embedded with digital chips using integrated circuits.

Digital signage will allow users to receive information on competition schedules and venues and so on. Using the embedded navigation system, people can reach the venues or tourist sites of their choice without losing their way, and can even find their seat inside the venues.

At first glance, this DS may look like a tall plasma television screen. All kinds of information can be embedded in DS or electronic bulletin boards, and updates of the latest information can also be obtained at any time via the internet.

On arrival at the station, where the DS is prominently displayed, you have two options: the “Olympic Games” or “Tourism”. If you select “Olympic Games”, in the case of an IC ticket, the exact event venue will automatically be read, and will appear on the screen. The information on the screen can be forwarded to a mobile phone or other device, rather than printed out on paper, which is an additional environmental benefit.

If your hold a ticket in front of the DS, the language of the country where the ticket was purchased will be automatically selected. The language can be changed and, once you have made the change, the chosen language will be displayed from that time on.

It will also show the competition schedule relating to your ticket and, soon after, will display the exact route to the venue.

As well as the competition schedule, we aim to provide more advanced information to enhance people’s enjoyment of the Games. For example,
competition results, information about athletes and start lists will be available on the screens, as with the INFO system.

When you arrive at the stadium, the DS screen shows you where your seats are and how to reach them. Also, when the holder passes through the venue gate, seat information appears on the control screen of the Venue Manager. Seat information can be centrally managed by the Organising Committee, and this will help solve the problem of vacant seats, which are signalled instantly.

The Accreditation Cards and ticket technology are just examples of possible future developments. Of course, we need consultation with the IOC if we are to make it all happen to enhance the Games experience.

Now, let us look at things from the athlete’s perspective. According to the book published by the International Association of Athletics Federations (IAAF), *Progression of IAAF World Records 2007 Edition*, it was in 1964, at the Tokyo Olympic Games, that electronic timing was first officially used for the 100m events.

Now, 45 years later, athletes are blessed with more advanced forms of digital technology. A good example is the “photo finish.” Nowadays, many sports adopt this system: a photograph taken at the finish position shows the finish time and assists competition officials in ascertaining which athlete is the winner, even when the differences are measured in fractions of an inch, or hundredths or thousandths of a second.

In the past for field events, such as the shot put, hammer throw or long jump, we had people running around with a measuring tape to determine the distance, each time an athlete completed an attempt. Now, the distances are measured electronically. And even more advanced technology is being tried in field events. I have learned that a system based on video images, which can measure athletes’ performances instantly, is soon to be adopted.

Under the eye of digital technology, athletes are able to trust competition officials and feel more secure, knowing that their performances will always be measured accurately.

To sum up, I think you will agree with me that not only the organisers of the Games, but also athletes are benefiting from the revolution of digital technology.

However, each stakeholder – IOC, NOCs, IFs and others – need to take a minute to think carefully about digital technology:

- Adopting high technology in all types of competition environments or administrative organisations, and creating custom-made systems, would cost a substantial amount.
- We need professionals and supervisors to teach institutions how to use these systems.
- We need to promote and experiment with the system to be used in every country and every competition.
- We also need the understanding of our sponsors, if we are to receive financial help in establishing such systems.

This means we – the IOC, NOCs and IFs – all need to come together and cooperate, if we are to take advantage of this technology. High technology is only effective when it matches the needs of the stakeholders.