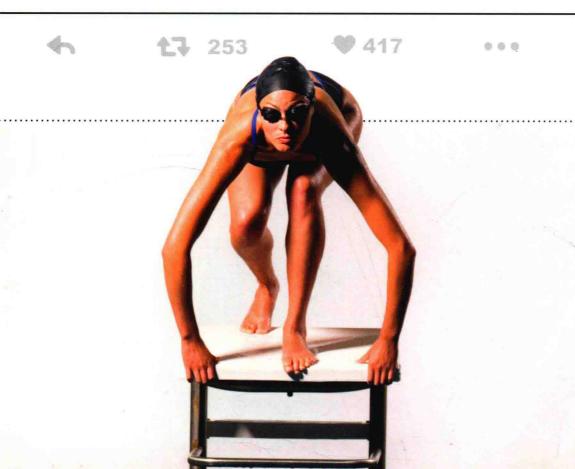
SPORT 2.0

#TransformingSports
foraDigitalWorld
@Andy Miah



"For those who think technology has transformed sport, think again—the revolution is only just about to begin! In Sport 2.0 Miah provides a glimpse into the future—a fusion of digital and physical worlds, where sport will be shaped by those able to imagine and harness the disruptive power of digitization."

—MIKE CAINE, Professor, Sports Technology & Innovation, Loughborough University

"Many scholars tackle the key sports issues of today, but Miah is one of the few who address the key questions of tomorrow. No one can predict the future, but Miah's work establishes the parameters in which that future will unfold. For those wishing to ask 'What's next?' Sport 2.0 is an essential read."

—ANDREW C. BILLINGS, Ronald Reagan Chair of Broadcasting, University of Alabama

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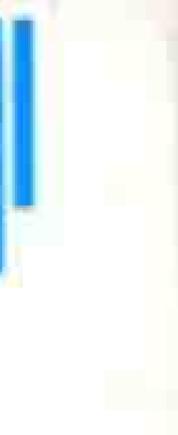
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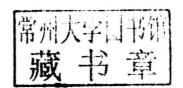




Sport 2.0

Transforming Sports for a Digital World

Andy Miah



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Intelligent exoskeletal devices (data gloves, data suits, robotic prostheses, intelligent second skins, and the like) will both sense gestures and serve as touch output devices by exerting forces and pressures. ... Exercise machines increasingly incorporate computer-controlled motion and force feedback and will eventually become reactive robotic sports partners. ... Today's rudimentary, narrowband video games will evolve into physically engaging telesports

William Mitchell (1995, p. 19)

William Mitchell's vision of future human—computer interactions helped to shape my interest in the relationship between sports and digital technology. His vision of a world where "intelligent exoskeletal devices" augment the range of human functions and the sensory experiences we enjoy resonated with my own views about the direction sports would take—a view that was also influenced by what was happening in biotechnology. In the late 1990s, cyborg researchers were drawing attention to the common ground shared by digital and biological systems, revealing new possibilities for how their integration could permit our experiencing a new kind of corporeal presence. In this context, it was becoming clear how such approaches to being in the world could create new kinds of possibilities in the realm of performance, not just in sports but in music and dance too.

Small changes in established sports also suggested that the structural parameters of sports were not sufficiently robust to accommodate the changing biological capacities of techno-scientific athletes—athletes whose careers, minds, and bodies had been shaped by insights from sport science and technology. For example, the ever-increasing speeds of men's tennis serves generated debate about changing some elements of the sport's physical dimensions—for example, increasing the size of the ball or raising the

height of the net. While members of the governing bodies of established sports considered how to modify their games to maintain their integrity, others considered how new kinds of sports, designed for these enhanced humans, may emerge. In the case of the latter, Mitchell imagined a world of "remote arm-wrestling, teleping-pong, virtual skiing and rock-climbing"—a veritable feast of cyborgian experiences made for our growing bionic capacities.

Mitchell's posthuman future coincided with another of my influences, typified in the performance art of Stelarc (Smith 2005). Rarely does one find reference to Stelarc in the sports literature, but his pioneering work in exploring the cyborg interface has relevance for how one imagines the future of sports. Stelarc's exoskeletal machines and digitally immersive devices offered a glimpse into a future in which our movement and thoughts would be mediated by technology—a future in which artificial intelligence converges with robotics and new forms of human agency bring forth new ways of experiencing embodied action. Back in the 1990s, many of these possibilities were realized only in the creative performances of artists such as Stelarc, in the novels of authors such as William Gibson, and the writings of intellectuals such as William Mitchell. Some of the ideas seem crude today; when they were first articulated, however, rapid accomplishments in digital technology were beginning to show how such scenarios could soon be realized. As the new millennium began, the development of digital technology by a new generation of netizens was provoking a shift in how people consumed media, and a population of "prosumers" (Toffler 1970) was beginning to emerge. These new digital communities were more concerned with producing digital media content than with consuming it, and this growing desire to be active rather than passive in our technological culture does much to help explain why these possible futures are so compelling.

As digital devices and sports cultures develop, humanity comes ever closer to an era of virtually constituted sports performances in which the primary medium of participation is not a physical playing field but a digitally mediated space. Consider the recently launched Oculus Rift experience produced by the company Virtually Live, which uses motion-tracking technology to capture the movements of players within a live soccer match. It then translates the data into a computer-generated Oculus experience, allowing the user to feel as though he or she is a spectator within the stadium, sitting

in the stands and watching the match in real time. A number of questions pertinent to this book arise from these prospects. For example, how would such conditions change sports experiences, physical activity, and people's sense of what it is to be embodied? How would the technology change the social meaning attributed to sports, the social function of sports, and the way in which sports create participatory communities? Would sports begin to occupy a different place within our social and cultural lives, if our experience of them is played out in virtual realities? Furthermore, what are the consequences of making corporeality a surrogate to a virtual economy, thus creating a physical culture that is defined largely by digital interactions? Would we even make the distinction if the simulation were perfect?

Finding ways to answer these questions—and others that follow from them—is what interests me about the subject of digital sports. This book begins by considering how such technologies challenge how we think about performance, liveness, and the idea of the virtual, then explores how sports are delivering new kinds of experiences through digital technology. Thus, the book first investigates what is understood by a number of concepts that are brought into question by these developments. Specifically, it considers the meanings of "sports," "games," and "play" and how our understanding of them changes when they are situated within a taxonomy of digital leisure practices. It also explores the differences and the similarities between the two primary cultural experiences under discussion: sports culture and digital culture. For instance, how does play within computer culture differ from play within sports? Are there similarities that explain their convergence and that permit one to argue that games occurring within virtual worlds should be afforded the same status as sports? These initial inquiries also outline the range of digital sports subcultures that have roles to play in articulating the rich history of what I call "Sport 2.0," a term that denotes a transition from an analog to a digital way of producing and experiencing sports.

Experiences within virtual worlds have already become inextricable from many other aspects of living. From remote surgical procedures in medicine to managing the global economy, life online is a constitutive element of many societies around the world today. And to varying degrees, participation in a digital economy enables people to traverse other technological divides. For example, in developing countries with limited technological infrastructure or little economic stability, the use of mobile telephones

has been a crucial part of the local economy for at least a decade (Plant 2003), and the rise of smart devices is growing especially quickly in such areas. Furthermore, digital products have become a constitutive feature of the creative and cultural industries—which include sports—and they are intimately connected to how licensing, sponsorship, branding, and a host of other creative media practices are monetized. Digital products are also central to strategies for optimizing the commercial potential of any brand.

Perhaps most crucial is the fact that life online occupies the space around our most intimate (private) and most collective (public) experiences. For example, in November 2015, when terrorist attacks by ISIS took place in Paris, one of the most immediate reactions was from the social network Facebook—not just the users, but also the company. Their collective intervention was to encourage their users to change their profile pictures so as to incorporate the colors of the French flag. Overnight, millions of Facebook users' identities became politicized by Facebook's enabling them to take part in an act of solidarity, which changing one's profile picture was designed to convey. Thus, a social-media platform had allowed millions of people to unite around a single gesture, fusing a universal symbol with a unique image—one's photograph—in an act of visible defiance. Of course, these are not simply gestures of solidarity, and later in the book I will consider the complex geopolitical effects of such gestures and how one cannot regard social-media platforms—especially large ones—as simply politically neutral social spaces. Indeed, this aspect of social media raises important considerations for why they often act as editorialized platforms, not just distribution networks for content produced by other editors.

How processes such as those described above are affecting sports experiences, and, more broadly, what this may mean for how we make sense of the role of sports in society, have been largely overlooked. Moreover, while aspects of the subject are pertinent especially to the internal logic and ecosystem of sports, they also speak to wider societal concerns. For instance, chapter 10 discusses how users of social media reacted to the involvement of British Petroleum (BP) in the 2012 London Olympic and Paralympic program. BP was a leading domestic sponsor whose involvement attracted considerable controversy and resistance, most of which was made manifest within digital environments. In this case, the reactions were underpinned by a wider concern about climate change and the use of fossil fuels. The Olympic Games are often subject to similar attacks, criticisms, and even