

Project Description: Data in Professional Sport

Overview

The overall goal of this project is to develop a Discussion Paper that explores and maps the rapid and unchecked acceleration of data capture, aggregation, and analytics in Australian professional sport.

From monitoring cricket bowlers using accelerometers and footballers with GPS-enabled chest-harnesses to exploring facial recognition of athlete's emotions, data is now considered the holy grail in player monitoring and performance.

Australia has a historic opportunity to set forward-looking data governance standards and legal and ethical limits on data collection and use, to anticipate and respond to the implications of these practices for athletes' rights and protections, the organisational practices of sporting organisations and third-party vendors, and the state and stakes of fair competition in professional sport.

Building on Australia's proud history and leading international role in sport and sport science, this project confronts a rapidly changing ecosystem and a public policy conversation as significant as the issue of drugs in sport. "Technological doping" is a known phenomenon with respect to hardware in sport, and its regulation when it comes to software – data aggregation, analytics, and competitiveness – is long overdue.

Currently, there are no formal processes in place to regulate, approve, or oversee the application of digital technologies and data collection and use in Australian professional sport, leaving athletes exposed to potentially unequal bargaining positions and unfair organisational practices. The future of our athletes and the integrity of our sporting codes demands better.

Project structure

The first stage of the project is a Roundtable on 23 September to initiate conversation on the key issues, which will include representatives from major sporting codes in Australia, international sporting leagues, player associations, major sports industry vendors in data and analytics, and the Australian Institute of Sport.

An Expert Working Group has been formed by the Australian Academy of Science to steer the project and draft the Discussion Paper. Australian Academy of Science Fellow and UNSW Professor Toby Walsh has been appointed Chair of the Expert Working Group. Other members of the Working Group, assisted by sub-groups as necessary, will draft the chapters of the Discussion Paper from three core perspectives: scientific/technological (led by A/Professor Jacqueline Alderson and Jason Weber), legal (led by Professor Lyria Bennett Moses and A/Professor Julia Powles), and societal/ethical (led by Professors Anthony Elliot and Mike Innes).

Public submissions are invited until 14 October and, along with an extensive period of consultation, will inform the work of the Expert Working Group. The Expert Working Group will provide a discussion paper draft for review. Following review, a final version will be approved by the Academy of Science's executive committee for publication in early 2021.

Project report

A proposed report structure is as follows:

- **Introduction**
 - Aims and imperatives of the project
 - What is the current “state of play” in terms of data capture, aggregation, and analytics in professional sport?
 - What is the “state of play” with respect to legal parameters and ethical guidelines for collection and use of data in professional sport?
 - How is the application of digital technologies currently overseen in major sporting codes in Australia?
 - How does the regulation of technology and data in sport differ from typical regulatory practices surrounding scientific and medical research (e.g., NHMRC, NIH), human performance enhancement (e.g., drugs), technical regulations (e.g., cycling, motorsport, athletics, Paralympics), and labour and workplace protections?
- **Scientific/technological perspective**
 - What data do we collect? How is it stored? How is it used? (summary only; further details to be listed in an appendix)
 - What is the technological maturity of data science and use in Australian sport? What happens in other jurisdictions?
 - How might the collection and use of data develop in the future?
 - What are the third-party relationships involved in collection, storage, and use of data? In what ways are for-profit companies involved?
 - What information ought to be available to understand how data is treated, models are developed, and predictions are made? How can this be validated? Is there a difference when this is developed in-house within a sporting team or by a tech vendor?
 - What is the nexus between performance data and health/medical data?
 - Case studies: collection and use of data.
- **Legal perspective**
 - What is the current legal status of data collected from and around sport and athletes? What frameworks exist? What different perspectives exist as to rights over data?
 - What collection restrictions exist around data capture, and what *should* they be?
 - What use restrictions exist, and what *should* they be?
 - Data rights - what are the rights of an athlete surrounding the collection and use of their data? Does an athlete have a right of refusal and a right to data erasure and correction (especially post retirement)? Do athletes have greater interests in data that may have impacts on their health?
 - What is the maturity of the Australian legal context? What are the potential stress points? What are the international developments?
 - Confidentiality - what restrictions exist around the practices of sporting organisations and third-party vendors when it comes to data collection and use practices? What limits should apply to enable greater transparency and accountability?
 - What are the legal gaps and what are the ways they can be addressed by governance frameworks, standards, rules and legislation?

- **Social and ethical perspective**

- What is “fair play” and how can it be maintained when it comes to the use of data? Given the way that fair competition is regulated through, for example, soft caps on spending, salary caps, preferential draft selection, and regulated and prohibited hardware and substances, what are the appropriate settings around use of data analytics and tech products?
- What is the bargaining position of athletes with respect to data collection and use in player contracts? Do athletes have genuine choice?
- What are some of the concerns that athletes have raised around data collection and use, either during or after their professional careers?
- What issues are raised in particular around data collection on female athletes, Indigenous athletes, and athletes with a disability?
- What are the harms associated with perpetual and permanent data collection during an athlete’s professional career? What are the risks of data collection off the field, including the collection of information on an athlete’s personal and private life?
- What is the role and position of players’ associations in advocating for the data rights of professional athletes? What can Australia learn from international experience in players’ associations, both positive and negative?
- What are the data governance opportunities for sporting organisations?

This proposed structure will be used to guide the deliberations of the expert roundtable, and will be modified based on advice from experts.

Project scope

The project focuses on data collection and use in the major professional sports in Australia. Out of scope for the purposes of this project are the following topics:

- Practices in community and grassroots sports;
- Practices of the Australian Institute of Sport and state institutes and academies;
- Technologies of sports officiating;
- Use of data for sports betting and wagering;
- Testing and regulation of doping in sports; and
- Regulation of medical data.

Project sponsor

The project is supported by a grant from Minderoo Foundation’s Frontier Technology initiative. Minderoo Foundation is a modern philanthropic organisation that takes on tough, persistent issues with the potential to drive massive change. The Frontier Technology initiative seeks to advance education on the societal impact of new technologies and technological change, drive policy reform to ensure accountability in the tech ecosystem and protections from harm for the benefit of the public, and address the widespread violation of human rights associated with the unfettered use and abuse of personal information in the tech ecosystem.