Thesis Portfolio

Developing State-Based Recommendation Systems for Golf Training
(Technical Report)

Sports Analytics: An ethical assessment of current regulations, current sources of risk, and future sources of risk
(STS Research Paper)

An Undergraduate Thesis

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SocioTechnical Synthesis

Athletes around the world are currently facing a daunting professional choice: whether to sign away rights of use and ownership of massive swaths of their own personal information to be able to optimize their game playing, and to benefit the big business of sports, or to attempt to maintain privacy and personal retention of information such as health records, genetic material, game stats over the years etc., possibly at a risk that they will be left behind as the industry moves forward with all of this data-driven "optimizing". It is apparent that more often than not, athletes are pressured to sign away their personal data without being fully informed of all of the likely outcomes of this action, both positive and negative. This research concludes that the implementation of this new technology has been rushed into and accepted widely by the industry in the race to get ahead of competitors, often without taking proper precautions to ensure that data-driven analytics used will also protect players.

The application of big data intended to streamline problem solving in the world of sports has recently transformed much of the industry in the name of efficiency, and often without taking full consideration of the negative or concerning outcomes of its usage. Less considered than the optimum upsides of "what new heights can be achieved with this information" are "who holds ownership of this information" and "what are the ethical implications of using it in this way?" In short, this STS research aims to consider how this new technology could be implemented in a way such that it does not also harm those it aims to benefit.

It is important to consider what negative effects will evolve from this technology before it becomes so integrated that no amount of regulation or recall could stop misuse and athletes are forced to give up all of their rights to have a successful career at the highest level.

Requiring stakeholders to integrate anticipatory governance to their work at the outset would require those entities to operate more responsibly, as they will be held accountable by a defined regulatory framework before even putting it into use.

Using a comprehensive case study and regulation review I will identify sources of risk and need for more concrete and specific regulation. The review of the current regulation surrounding the technology will assess the accompanying ethical pitfalls that are not currently addressed. The research will include an analysis of future horizons of this technology's evolution and possible hazards for athletes. Finally, recommendations to improve these issues will be provided.

Revolutionizing the field of sports analytics to promote a protection of athlete's rights will aid in ethically implementing the use of analytics in other industries in the future.