Winston James: Peer evaluation

[Chirayu Salgarkar]

Fall 2024

Contents

1 Insights into SportVU by STATS Perform

1.1 Did well

Good speed of presentation.

1.2 Questions/improvements

However, am unsure how the product actually contributes to gambling - is the presence of a MoCap system directly increasing gambling propensity?

1.3 Introduction

Made by Gal Oz and Miky Tamir, 2005. Product under tech ecosystem government support, Israel Innovation Authority, Venture Capital. Israel had a very good startup culture at the time.

1.4 What did they make?

They made a 6 camera setup to do ball tracking, 25 times per second, with competition being GPS systems. There was clearly a high market at the time for this. Global sport market over 350 billion, grow to nearly $\frac{3}{4}$ trillion by 2026. Same with analytics. The technology led to a 30% increase in gambling addiction, increasing the CBA, and forming statisticians, fan interaction.

1.5 Patent application

5 patents, one patent is active. Two major patents: Real time objects tracking and motion capture in sports event, as well as Method and system for fusing video streams.

1.6 General timeline

Created in 2005, featured in tradeshop 2 years post, then demoed in 2009. Installed in all NBA teams by 2013, and replaced by 2017.

1.7 Research Goals

Wanted to find how copper droplets bind onto copper substrates, and how residual stress delaminates such droplets. This is significant becasue they are microdroplets, which is small. Also Cu droplet deposition, which isn't really well-studied - deposition of copper requires FIB-SEM analysis.

Analysis of Methodology: There is numerical and experimental testing. One case, one thermal condition. The way they describe the methodology shows thermal modeling, etc.

Issues: no measurment of surface roughness, one test case, and no imagery of droplet impact.

Analysis of thermal modeling was also conducted. This has some issues, in even thermal contact resistance. Mechanical modeling notates that mesh and mesh sensitivity analysis seems strong, but issue that there is assumption that droplet attachment of substrate is full.

2 Results and discussion

Notates weird drop morphology, and small "splat factor", this apparently undermines this entire research information. Authors argue that there's self-peeling, presenter holds skepticism. Droplet-droplet-bonding argument doesn't make sense for thermal modeling - experiemntal modeling.

3 Conclusions

Experimental data is still very important, but analysis terrible.