



NEW NORMAL NEW RULES

ECOSYSTEM REPORT

4th edition

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Last but not least, we would like to thank the sports tech industry stakeholders that have participated in this report by sharing their insights and insider stories. More than ever, we are stronger together.

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FOREWORD

Even the most renowned Zoltar fortune teller machine couldn't have predicted our new state of normal. So much has changed, and for many of us things will never truly return to the way they were. Whether we now find ourselves on zoom calls without any pants on or we are just starting to return to the restaurants we enjoy, the whole world including the sports tech ecosystem is very different. Despite the changes and challenges that have risen in our global community as a result of social isolation, the already digitized sports tech world has been gifted a chance to accelerate into new industry trends at an unprecedented pace.

Being based in the startup nation has given us at Colosseum a front row seat to this changing landscape and has allowed us to gather first hand experience in addressing the puzzles and opportunities that have arisen from our new normal. Our partnerships with high-impact organizations across the world, and our position in the hub of the international sports industry have allowed us to meet these challenges with a creative, globalized perspective.

Along with our data partner, Winarize, we've evolved and learned alongside the global leading sports tech startups in order to better evaluate and inform the sports tech ecosystem. While we had already predicted an uptick in new forms of social media based fan engagement, a rise in data driven athletic training, and a continuation of the streaming revolution, the new global context in which we live has only expedited these revolutionary changes to the sports tech industry.

The future of sports breathes in the sports tech game, and we are happy to share its new rules with our dear community. Enjoy the read!



Oren Simanian
Founder



winarize

THE GAME CHANGER

Winarize is the exclusive data partner of this report

As the world's largest open-source database of sports technology solutions and organizations, Winarize is an engine used to power our innovation and technology watch for our partners.

3000+

startups

650+

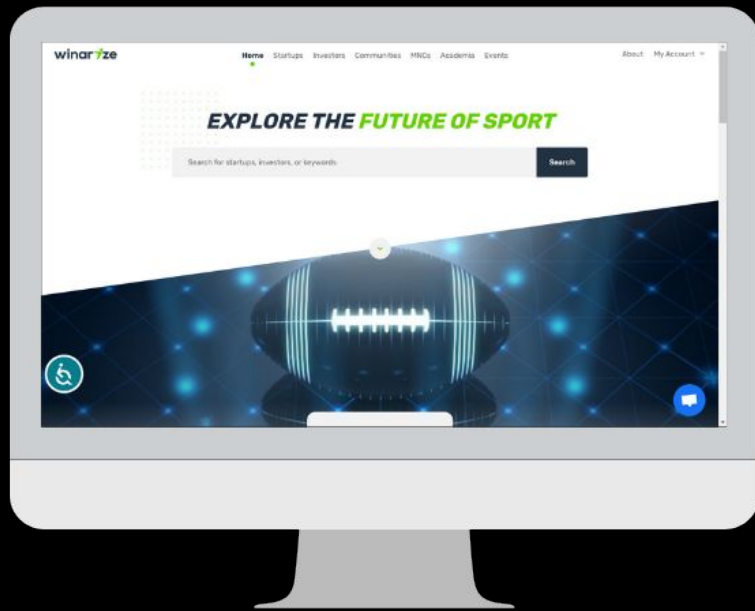
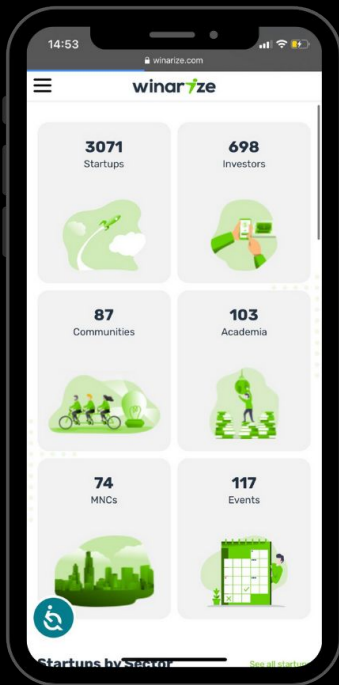
investors

80+

communities

100+

events



VISIT WWW.WINARIZE.COM & SIGN UP FOR FREE



We closed a partnership with EquaWeb to make our platform compliant.

EQUALWEB

Equalweb is a world leading solution for digital accessibility

OVERVIEW

In addition to the confirmation of our previous predictions, we've identified a few trends that are set to shape the sports tech world of tomorrow. Most notable of these trends is the stratospheric boost in social media content streaming and esports that has resulted from pandemic induced lockdowns. Sports fans are on social media 17% more during the lockdown, and nearly half of Gen Zers and Millennials binge game each week. With participation in these platforms shooting through the roof, it is clear that these two avenues of sports tech content creation will be key drivers of the industry going forward.

While digital content will grow at the forefront of this ecosystem in lieu of live sports, one glorious day in the not-so-distant future sports will return and teams will have to be ready. Stadium revenue and ticket sales will likely remain as an important, albeit smaller, revenue driver for teams and leagues. Soon enough the gates will open and the incessant hooping and hollering of gameday will return. A key to the new normal will be exactly how to create this return while remaining smart and safe. As leagues plan for the return of live sports, the focus will be on the health and safety of fans and players.

Access to stadiums will be heavily restricted, thermal cameras will likely be in place, and regular virus testing will be enacted for players. For the time being we will say goodbye to handshakes and team photos, but it's a small sacrifice for the return of the games we love.

As the Sports Tech world morphs and grows in the face of these business challenges it is important to also recognize other challenges that we face not only as an industry, but as a global community. Because before we are a company or an industry, we are a group of people who care about one another. We are proud to be a part of a sports world that has long been aware of its ability to enact social change, and we want to recognize upstanders in our community while maintaining the awareness to know that there is more work to be done to make the sports ecosystem more equitable.

We at Colosseum Sport are proud to share with you our detailed insights into the gears and cogs of the sports tech world as well as our data enforced forecast for what that world will look like tomorrow.



~~New~~ Trends

same

Despite the wild ride that 2020 has turned into, it has been filled with much affirmation and reassurance for the sports tech industry. While much of the world has been in a state of murky limbo, we have accelerated into the year with strength due to the confirmation of many trends we predicted in our H2 2019 report. Remote fans and athletes allowed for the discovery of creative fan-based solutions to sports' most pressing puzzles. Remote athlete development and fan engagement have been enhanced by our tech know-how and the streaming revolution has pressed on. In this section, find these trends, the key players and the new reality.

PUTTING THE BUZZ IN BUZZERBEATER

Social media has evolved far beyond a platform for watching funny cat videos and checking up on your friends. Sure it's nice to know what Larry from middle school is up to nowadays, but the majority of social media users have much more profound information to spread. And, like many other industries, the sports tech ecosystem is certainly aware of the ever growing impact and value brought by social media and the way sports fans interact with it.

By analyzing the content sports fans are drawn to, teams, leagues, and companies can tap into key sponsorship opportunities and a wealth of other valuable data. Additionally, it has the power to create buzz for events and products like never before.

Long after social media has been the focus of the entire business world, there is constant and impressive growth that can occur before social media reaches its full impact on the sports tech world.

44 MILLIONS

social media interactions during the SuperBowl 2020
Growth of 36% from 2019 ¹

TOP 20 ENGAGEMENT PER POST

January 1st - May 17th, 2020



Source: **Blinkfire Analytics**

During lockdown, sports leagues and teams took to social media to **stay in touch with fans**. Athletes took to livestreams to give fans much anticipated access to their home lives. By telling passionate stories, such as Carmelo Anthony's explanation to Dwayne Wade of how LeBron James saved his life, teams can garner the attention of **thousands of fans** in new ways. Athletes have also streamed their workout routines, such as the time Polish Bronze Medal winning Olympian Oktawia Nowacka posted her Pentathlon workout to Twitter. These athletes successfully engaged with their fans while motivating them to stay at home during the lockdown.

GROWING CIRCLES

While the recent global pandemic has halted many businesses in their tracks, including live sports, social media platforms are alive and well. In fact, they've experienced vibrant growth during the lockdown.

17%

growth of social media usage among sports fans during lockdown

+15

minutes of screen time every day²

In addition to the growth caused by that little extra alone time, teams are coming up with creative solutions to further grow their social media following.

Many teams have established digital "fan nations" that bring together like-minded fanatics into a team's central fan group thereby creating **stronger emotional ties** between a team and its fan nation. Not only are teams taking advantage of this growth to create new communities for fans, they're engineering new technologies that can be integrated into social media platforms to enhance the fan experience. The NHL was one of the first leagues to integrate an AI powered chatbot into their facebook messenger to provide fans with faster access to information and to boost merchandise sales, ticket sales, and sponsorship opportunities.

USING MESSENGER AS A KEY AVENUE FOR FAN COMMUNICATION RESULTS IN A CLICK-THROUGH RATE OF AROUND 25% COMPARED TO THE INDUSTRY AVERAGE OF 2%.



Communicating directly with fans and building personal relationships have become increasingly valuable for sports properties. One Israel-based Sports Tech software company, Pico, has made impressive strides with their personalized fan engagement platform. Powered by AI and Machine Learning, Pico helps teams turn engaged, anonymous online fans into identifiable profiles through fun, digital, unique fan experiences that support teams' business objectives. These social-media/web-based automatic messaging interactions help teams provide a more personalized experience for their fans. Pico has thrived during the COVID-19 pandemic, having recently secured a \$3M investment and doubling their number of customers. They now partner with 50 teams around the globe and hold offices in Israel, USA and soon Europe.

Turning likes into dollars

Of course, teams aren't putting this much effort into their social media accounts only for the likes. There is lots of money to be made by amassing viral videos and followers. An analysis of the 2018-19 NBA season shows that social platforms were responsible for delivering \$1.1 billion for brand partners. In addition to using social media to get fans into stadiums, teams are creating new forms of fan engagement to keep them coming back. The St. Louis Blues pioneered a unique method of doing so by asking fans questions about the game such as which team will be the first to score. Fans can get points for their correct answers and these points can be redeemed for prizes. The program has been incredibly successful with 70% of fans who play the game once coming back for more. This model has gained appeal among other leagues and teams for its incredible success and ability to engage fans in a new way.

While the NBA has been at the forefront of monetizing their social media following, individual athletes are succeeding at unprecedented rates too.

+70%
Increase in time spent on
Facebook, Instagram, Whatsapp during
quarantine ³

\$1.2 MILLION

in value per social media post is generated
by Kylian Mbappe ⁴

Brands are using athletes with
thousands instead of millions of
followers as micro-influencers.

Set on providing the perfect solutions for fan engagement and monetizing, the Israeli LVision created a new product for that purpose. Generating unique sports data and digital content, the company assists sports teams, bookmakers, broadcasters, media services, and athletes to set a new standard.

FanPoints serves as the perfect AI-based SaaS solution to increase sports fan engagement and user retention, covering soccer, basketball, tennis and more. The product offers a full match-center experience with unique pre match and live "betting" style personalized questions fully integrated with customers platforms, and largely based on social media interactions. Fans can gain points and win exclusive prizes fit for their rank and membership status, serving as an innovative solution to ensure customers monetizing.

LVISION

**“LVISION IS SET ON THE ROAD TO
BECOMING A MARKET LEADER,
OFFERING VAST SOLUTIONS TO EVERY
SPORTS INDUSTRY OUT THERE.**

Ido Lazar

CEO, and founder of LVision

FANTASY SPORTS BUT **REAL** RESULTS

While social media is a prime candidate for fan engagement growth during our professional sports drought, the NFL is working full steam ahead to prepare for the return of live sports by improving one of its biggest fan engagement tools: fantasy football.

THE GLOBAL FANTASY SPORTS MARKET IS EXPECTED TO REGISTER A CAGR OF 5% OVER THE FORECAST PERIOD 2020-2025.⁵

46 MILLION

US adults played fantasy sports in 2019, 84% of whom had a draft party with a median cost of \$653⁶

Globally, there were 90 million fantasy sports players in 2019

Additionally, research from the Fantasy Sports and Gaming Association (FSGA) shows that **64% of fantasy sports players** watch more live sports because of their involvement with fantasy sports. With this in mind, and the fact that fantasy football is one of the top two most popular fantasy sports, it is clear the NFL has a lot of potential to work with. In light of the obvious opportunity for growth, the NFL has partnered with Draft Kings to integrate fantasy zones into stadiums allowing for real time sports betting using smart TVs.

Kin to the world of fantasy sports is the world of sports betting, another industry that has seen ripe and creative ways to engage fans. As our internet world becomes more socialized, fans are showing the desire to control more and more of their gambling experience. Zen Sports, a peer to peer mobile betting app, thus allows fans to control everything about their bets from what the bet is on to the odds involved and even the outcome of the bet. The app uses its own system of voting, penalties, dispute settlement, and point allocation to assure all bets are fair, and all transactions are fair.

  **ZenSports**

Cutting edge training from THE COMFORT OF YOUR OWN HOME

After rebounding from backlash surrounding a holiday ad campaign, Peloton has been the face of the spike in tech powered home fitness. While quarantined gym goers searched for ways to stay in shape from home, Peloton put itself in a great position to absorb these wandering souls.

This massive boost in tech driven home fitness is yet another example of an already growing market that received a healthy boost from an otherwise economically damaging pandemic.

HYFIT: EVERY REP COUNTS

Even though people started to watch Chloe Ting workout videos on Youtube and sign up for services like Melissa Wood health or Peloton, the in-home-workout culture was a reality for many way before quarantine started. The packed scheduled and fast-paced lifestyle created the necessity for a solution to assist them in their fitness journey.

Noticing this gap, HyFit created a solution to provide not only the gear but also the guidance in-home athletes need: their first product, Gear 1.

The Israeli tech company created a set of smart gear devices connected to an AI software platform. With a smart fitness sensor, the users are provided with their stats and data in real time, allowing them to track their progress and create more high-impact workouts.

HyFit's app and gear are the workout wearable 2020 needed: train anytime, anywhere.



59% OF AMERICANS

don't plan to renew their gym memberships after Covid-19 ⁷



GROWTH OF 103%

in fitness subscribers on Peloton's app in the first quarter of 2020 ⁸



\$3.5M RAISED

from an angel investor

3000 UNITS

produced from its first product - Gear 1

1700 UNITS

delivered on its successful Kickstarter campaign



ENGAGING TECH FOR athlete development

Despite stay-at-home orders due to a global pandemic, people were finding creative ways to keep them on track and the professional athletes were the biggest leaders on the topic. Finding the right exercise and motivation were dilemmas faced by many of these athletes - not a surprise Serena Williams had to find entertaining games to keep a sane mental health.

In a world where sports were unavailable, adaption was the key factor for athletes in lockdown. Kid pools, at home gyms, children as workout buddies became a reality for those whom are used to have a big structure on a daily basis.

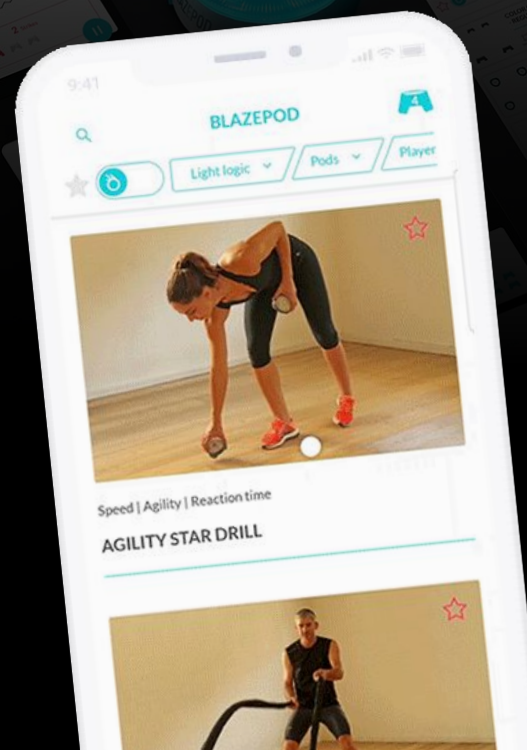
In addition, technology gained a new role in this new scenario: from cognitive training to health and diet solutions, big sports organizations got specially creative with their athletes in different spaces.

TRACK YOUR PERFORMANCE



In the mission to keep athletes engaged and in a long-term high performance bound, BlazePod is a company that introduces a revolutionary approach to training with exciting, innovative technology. Uniquely designed lighting Pods create visual cues and prompts to enhance performance and improve speed, agility and reaction times, while synchronizing neurocognitive functions and creating a sharper, better, more decisive athlete. The lighting "Pods" are controlled through B.L.E. technology by an app, that can be downloaded from the iOS app store or Google play, directly from your mobile device.

BlazePod allows users to reach beyond their limits with predefined training drills on the BlazePod app. The app also allows users to create custom drills to suit specific needs, and measure results down to the millisecond. BlazePod will challenge athletes while allowing them to manage their results and boost their performance. BlazePod is currently an integral training tool for athletes all over the world in all major sports at all levels. Formula1 drivers, MMA champions, soccer teams from the Premier League, Bundesliga, Belgian Pro League, Serie A, top basketball teams from the Euro League, and performance coaches training athletes from the NBA, WNBA NFL, NHL, AFL, NRL, ATP all use BlazePod's unique, fluid technology to enhance their training experiences.



PRO ATHLETES HOP ON

the wearable wave

Of course, just as athletes continue to receive cutting edge tech to aid in their workouts, the pros are focusing more and more on the ways that data analysis can take their game to the next level.

The French Football Federation and Catapult are approaching two years on their groundbreaking partnership that outfitted its affiliated teams with GPS and LPS wearable devices. Not only do these devices track performance for the sake of improving play, but they are also crucial in managing an athlete's workload, injury prevention, and recovery. With the 2015 removal of a FIFA regulation that banned technology in the pitch, wearable technology has spread rapidly throughout international football, and Catapult has taken full advantage of this new wave. Catapult is obviously just one example of a number of wearable tech companies that have been lifted to prominence by professional sports.

The global player tracking market is expected to register a

CAGR OF 24.9%

during the forecast period 2020-2025 ⁹

Catapult's tech is now being employed by

2970 TEAMS

in 39 sports ¹⁰

playermaker

TRAIN SMART, PLAY SMART

Another example of company that has been changing the game is Playermaker, a wearable for football performance analytics. An innovative athlete tracking platform, specifically designed for football at every level. Utilizing smart motion sensors on the athlete's boots, the company presents unparalleled insights on technical, tactical, physical, load, and gait analysis, for the players and coaching staff.

From developing athletes to elite athletes and professional players in the highest tier, Playermaker is a strategic platform for teams and individuals to improve performance over time. Playermaker raised US\$10m in November 2019, and is backed by former Alibaba CTO.



presence in

16+ COUNTRIES

and used by hundreds of teams

27M+

ball touches analysed and 164K+ player sessions tracked

30+ PERFORMANCE

metrics

3X MORE ACTIVE

players in less than 6 months

“PLAYERMAKER PROVIDES THE MOST ACCURATE DATA

AND IS THE LEAST DISRUPTIVE TO THE PLAYERS'

GAME.

Arsène Wenger

Playermaker investor and former Arsenal manager



COLOSSEUM

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BRAIN TRAIN

how athletes can use tech to train their strongest muscle

In addition to aiding in the physical development and health of athletes, tech can be used to evaluate the brain function and support on cognitive training. Professional athletes compete at the highest level of play, often playing multiple games a week in extremely high pressure scenarios.



ADVANCES IN SPORTS SCIENCES AND NEUROSCIENCES OFFER NEW OPPORTUNITIES TO DESIGN EFFICIENT AND MOTIVATING SPORT TRAINING TOOLS

In that matter, technology does not only ease the mental workload of professional athletes, but goes further on supporting recovery and improvement processes. Example of that is the brain-computer interface (BCI) - or mental visualization - a new technology that allows an individual to influence the environment through the thought.

In the sports world, this technology is used by athletes in training process and can assist on improving his/hers skills on the ground. Among them, BCI can substitute movements, repeat actions, improve nerve tissue recovery or more, while giving the athlete the unique ability to give oneself a pep-talk to improve confidence in the process and performance.



Brain training has been one of the most rapidly advancing frontiers of the sports tech industry. New methods and technologies are constantly being tested: one tech has been produced by i-BrainTech. i-BrainTech makes products designed to improve athletes' performance in competitive sports.

The company has introduced a novel system that incorporates **AI-based brain training to enhance KPIs of individual athletes**, as well as to empower coaches and sports directors with unique neuro-sport personalized insights, that help them better understand, train, and manage the player.

The company is collaborating with FC Zenit Academy, FC Shakhtar, and several Israeli football clubs. In 2020, i-BrainTech was accepted to Google Campus and selected to join TechStars. TechStars' worldwide network of investors, alumni, and mentors will further assist i-BrainTech in revolutionizing sports training, unlocking untapped human potential.



Writing this report with Netflix on in the background is indicative of one of television's greatest revolutions. No longer we are hooked to cable packages and satellite dishes. It seems as if each week new streaming services become available to the public. However, as movie and tv streaming evolves, the concept of internet streaming has oozed into new territory.

Now, the newest realm that has been conquered by content streaming has been the sports industry; and we have welcomed this new technology with open arms and minds. Once again, this arm of the sports tech industry has grown stronger as a result of the pandemic. Streaming of sports content has grown increasingly popular in its many faces. Most notable of these faces has been video game streaming.

Twitch, a platform for video game streaming, has seen its usage explode, and just like TikTok, reached a new baseline during quarantine.

7.4 MILLION

active streamers on Twitch in July 2020

F1 grand prix was one of the largest sports event on Twitch and reached over

30 MILLION VIEWERS

across all platforms, 2.7 million of whom used twitch to watch the race ¹¹

during the last quarter,



launched a new sports category with **amazon** to stream games from football clubs like Arsenal and Real Madrid



“FOR US IT WAS HOW CAN WE THINK CREATIVELY USING OUR DIGITAL INNOVATION TO CONTINUE SERVING OUR FANS. AT THE END OF THE DAY... OUR FANS ARE AT THE CENTER OF EVERYTHING WE DO

Julian Tan

Head of Digital Initiatives & eSports at Formula 1

STREAM THEATER

The rest of the sports world is not far behind on their heels. Even without live sports, content streaming is being produced at a rapid pace. Leagues recognize the powerful pull of anytime, anywhere content streaming and as a result have structured their companies to receive a third of their revenue directly from broadcast and streaming rights deals. Television streaming has already received a major boost as a result of the pandemic.

One of sports' largest content producers, ESPN, has taken full advantage of this growth...



big sports fans are spending **10% of their time** on Sundays consuming sports programming ¹²



Viewership for streaming services in particular is **up 52%** as compared to numbers from last spring

ESPN+



ESPN+ has grown rapidly to **7.9 million streamers** ¹³ as of the second quarter of 2020. One of their largest events of the year so far was the three day virtual NFL draft which featured a record **55 million viewers**. The event featured impressive collaboration among all draftees, teams, and the NFL in order to sync the 600 camera feeds into one fluid event.

Of course, even with its massive library of content and in-depth access to statistics, ESPN can't claim the whole sports streaming market. **Niche streaming services are popping up in droves to give fans anytime digital access to almost every sport.** One such purveyor of this content is Flosports, a startup that provides streaming abilities to sports leagues with passionate fans, but not enough following to attract ESPN streaming. While larger services are able to produce content despite the lack of sports events, Flosports, who recently signed deals with bike racing and horse racing leagues, is having to adapt in different ways.

FLOSPORTS

Because their road cycling event, Milan-San Remo, was canceled, they will be streaming last year's race so that viewers can participate in virtual watch parties while exercising alongside the racers.



From the niche to global

The world renowned football club, FC Barcelona, has also released its own subscription-based streaming service. Their OTT platform is available worldwide on mobile, PC, tablet and wifi connected TV for the club's 350+ million online followers. Besides on-demand access to games, past and present, there are exclusive series and in-house documentaries that offer fans an inside look into the lives of the players. **Barça TV+** is set to be one of the club's largest sources of revenue as the club makes the shift into a global entertainment brand.

Pixellot

the leader in AI-automated sports video production

Not only are streaming platforms at the cutting edge of sports tech, but the actual production of this content is rapidly being streamlined and enhanced. At the forefront of this production revolution is Israeli firm Pixellot: they automate production by using a multi-camera system that covers the entire field, follows the action and adds graphics, ads and AI-based highlights.

Today, Pixellot is the leading sports production company in the world in terms of live production hours. Currently, the company is producing and distributing thousands of games every day on a variety of platforms (web, mobile, OTT etc.) around the world.

Pixellot, who recently acquired \$16 million in funding, has new partnerships with PlayOn Sports and the NFHS Network in the United States. These partners in the United States have allocated \$200 million in funding for Pixellot's technology and, due to the current pandemic, have already installed 5,000 systems in US High Schools.



Alon Werber
CEO Pixellot

Photo credit: Michal Lubaton



90,000 HOURS

streamed every month

500,000 GAMES

produced in 2 years

Sports federations, broadcasters, right holders, production companies as well as the world's leading professional clubs from Europe and the Americas use Pixellot's technology

LiveU



OVER 3000

customers in 130 different countries



A WINNER OF

the 71st Annual Technology & Engineering Emmy® Awards



Another major player in sports production, LiveU is transforming the streaming game by providing high quality live broadcasting using new and unique tech. They are changing the rules for live news and dynamic sports coverage, with flawless 5G 4K HEVC live streaming and remote production. Together with its cloud-based management and next-gen IP distribution platforms, LiveU offers the most cost-effective end-to-end contribution, production and distribution solution. Their broad portfolio of products sets the industry standard for live video production ranging from their newest, portable production-level field units and smartphone app to satellite/cellular hybrid and external antenna solutions. LiveU's technology is the solution of choice for global broadcasters, news agencies, sports and entertainment, streaming live video to TV, mobile, online and social media.

Recently, LiveU has released LU800, it's all-in-one production-level field unit for live sports and news coverage. It combines multi-camera production and superior video and audio capabilities with mission-critical transmission in a native 5G unit. Since the start of the year, LiveU's technology has been used by multiple customers worldwide, including Tencent Sports in China, Mexican Soccer League, CBC/Radio in Canada, Abema TV in Japan, SBS in Korea, Deutsche Welle in Germany, SpaceX Crew Dragon, Shine TV in the UK, Taiwan-based 17 Live, and the Isha Foundation in India.

Without live sports, services like ESPN+ and Barça TV+ are having to get creative. To cater to sports viewers, virtual sports have been featured on streaming platforms. 11% of sports viewers have been watching such events, and this number jumps to 19% among millennials. This creative fix to our sportsless world is one of the many solutions that will likely stick around and grow even after the pandemic subsides.



THE **NEW** GAME CHANGERS

Our new normal has seen the fascinating merge between real sports and esports across various leagues from the NBA to Nascar. Events like these have been boosted by pro sports' strong social media presence, which has expanded to engulf TikTok too.

As we continue to play videogames and dance to the Toosie Slide, pro sports have been easing back into play with the help of tech savvy health and safety professionals. With digital fans in the stands, we are as curious as anyone to see how this plays out. Let's check out the second half of 2020's most notable sports tech trends.

THE ESPORTS EXPLOSION

To the many of us that have spent hours in front of our TVs playing FIFA or NBA2K, the growth of esports is no surprise. After all, 52% of Generation Z and 46% of millennials binge game each week. But even the most passionate gamer probably couldn't have foreseen the powerful, tech-infused collaboration between the world of real sports and esports. Pro sports have been taking the world of esports by storm in order to capitalize on the fast growing market.

After the Philadelphia 76ers became the first North American team to buy an esports team in 2016, many have hopped on the bandwagon.



2.5 billion gamers worldwide ¹⁴



The global gaming market will generate \$159.3 billion in revenue in 2020 ¹⁵



22 NHL teams have local esports tournaments



MLS has had a FIFA league since 2018



NBA is entering its third season of an NBA 2K league

This new wave has not stopped and new esports leagues and teams are popping up every day. In July, Veikkausliiga, Finland's top division for professional football launched its own esports league called eFutisliiga. One week later, the Singapore Premier League announced the inaugural season of its own eSPL in partnership with tech companies Redd+E Sports, Zenway Productions and The Gym.

TAKE ME OUT TO THE VIDEOGAME

Esports events have only grown more popular and more creative as a result of the pandemic. The many hours of lying dormant has altered gamer habits, desires, and affiliations. In fact, millennial gamers now spend more time watching others play video games than they do playing themselves.

DURING COVID-19

34%

of gamers played video games with their families more

27%

of gamers played to socially connect with others

16%

of gamers watched celebrities and athletes play virtual sports

8%

of gamers broadcast their own game for the first time ¹⁶



ENASCAR IRACING PRO INVITATIONAL SERIES RACE

In March 2020, real drivers were placed in simulators to race in a virtual competition that was aired live on FOX Sports 1

903,000

viewers

217,300

Twitter interactions

912,500

video views

the **most watched** linear esports broadcast in history



ONLINE NBA2K TOURNAMENT

In April, 16 prominent stars competed to to be crowned NBA 2K20 champion. The champion received \$100,000 to donate to Coronavirus charity of their choosing.

387,000

viewers on its marquee matchup between Kevin Durant and Derrick Jones Jr.

Events like these have contributed greatly to the growth in video game live streaming to the point where the top live streaming service for gaming has seen **50% growth in hours watched** during the pandemic.

THE GAMING FRONTIER AWAITS

Even as creativity and growth show their faces in conventional gaming, there is an even further frontier being tested. New styles of gaming are rearing their heads in the sports tech ecosystem:



CLOUD GAMING

allows users to play almost any game from any device

lower costs in purchasing a console that is compatible with a certain game

companies are able to attract lower income gamers and develop more holistic experiences for their customers



IMMERSIVE GAMING

system that features as much realism as possible

these games feature AI powered characters that live out full lives within a game's background

games like these provide users an engaging experience unlike that of a traditional gaming console



STADIA

Developed and operated by **Google**, capable of streaming video games up to 4K resolution at 60 frames per second with support for high-dynamic-range, to players via the company's numerous data centers across the globe, provided they are using a sufficiently high-speed internet connection

HALF-LIFE
ALYX

Half-Life: Alyx is a 2020 virtual reality first-person shooter developed and published by Valve. Between the events of Half-Life and Half-Life 2, players control Alyx Vance on a mission to seize a superweapon belonging to the alien Combine

Such expansions can spur demand for 5G and drive producers of cloud games to the top of the distribution network.

THE SPORTS

RETURN

Since the world of sports ground to a complete halt months ago, some leagues have managed to resume action, with others soon to follow. The KBO League (Korean baseball), Bundesliga, and NASCAR were among the first to return, followed by LaLiga and the Premier League. As the coronavirus pandemic persists, leagues face risk and uncertainty as they resume operations.

SAFETY FIRST

First and foremost, the health and safety of players must be ensured. Every league that has resumed play thus far has implemented guidelines to be followed by all players, coaches, and staff. The NBA has decided to create a “bubble” for its players, isolating the league in Disney World, Orlando. Besides frequent testing and social distancing, the league will give players an OURA “smart ring” to track key health metrics such as body temperature, respiratory functions, and heart rate. Originally designed to track sleep and activity, Oura realized that their ring had a unique ability to fight COVID-19. Able to track a player’s illness probability score, the ring can predict symptoms up to three days in advance. While some NBA players have expressed concern about wearing a tracking device, the Oura ring will surely prove valuable in monitoring player health.

NBA players are not the only athletes using cutting edge technology to ensure their safety. Newcastle United is one of more than 50 sports teams in the world using “Proximity Report,” from sports technology company Catapult Sports. The feature tracks how long a player has been in close proximity with others. In the event that someone tests positive for COVID-19, the team can trace who they have been in close contact with, for how long, and even during which specific training drill or exercise. It is evident that technological innovation will be key to maintaining the health of players as they resume play.

INJURY PREVENTION

Athletes returned to high-intensity play after months without action. They are also playing games more frequently in order to make up for lost time. While many players have had access to training facilities throughout the pandemic, nothing compares to the intensity of gameday. Inevitably, athletes are at an increased risk of injury. Footballers, for instance, must now finish their seasons in the summer heat, without having had a proper preseason to prepare their bodies. Statistics relevant to the Bundesliga showed that the rate of injury was significantly higher immediately after play resumed. Taking this into consideration, the Premier League, La Liga and Bundesliga implemented water breaks into games and added extra substitutions to allow players more rest. Measures like these seek to allow players the opportunity to ease back into action.

“THE BEST [FORM OF] INJURY REDUCTION FOR ME IS A STRUCTURE[D] AND STABLE TRAINING ENVIRONMENT... [AND THE ABILITY TO] RECREATE GAME CONDITION AT TRAINING.”

Pierre Barrieu

High Performance Expert - FIFA



REDUCTION OF 65%

in injuries and absences reported by clients

Getafe FC, one of their clients, have the lowest injury rates in La Liga for

3 CONSECUTIVE YEARS

One company that is actively working on preventing injuries is the California and Tel Aviv-based Zone7: they have developed a cloud-based platform delivering AI algorithms that analyze athlete data to reduce risk of injury and improve athlete performance. By analyzing data from thousands of athletes, they've found complex patterns that lead to injury or peak performance and applied these learnings to create optimal recovery and workload plans.

Zone7 is already live with over 30 teams in football, hockey and baseball. Analyzing 100 million hours of football (soccer) from La Liga, Bundesliga, Premier League, Serie A and MLS enables the company to create insights with unparalleled accuracy compared to existing tools.



Global Sports Tech Talks #8
The Sports Come Back



COLOSSEUM

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Technology is also available to help athletes better perform and recover by monitoring their sleep. Tracking sensors can identify whether the user was in deep/light/REM sleep, with some having features that track heart rate, breathing rate and snoring. Many are familiar with the wearable devices, such as Fitbits and Smartwatches that people can wear on their wrists. There are also sleeping mats and under the bed sensors, such as the **BeautyRest Sleep** tracker. This tracker is placed under the mattress, below the users head. It senses the pressure and force applied to the mattress and extracts key sleeping metrics. There are many new sleeping technologies being developed that can be utilized by athletes to achieve better sleep and ultimately provide them with longer lasting energy throughout their days.

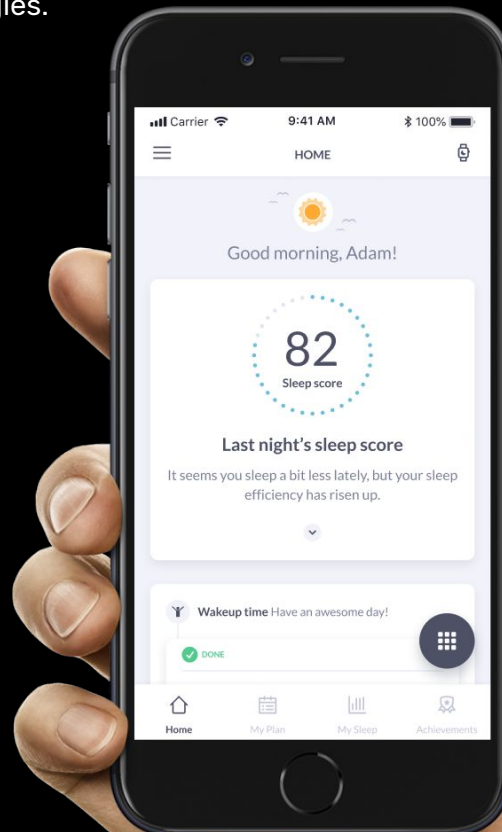
dayzz

Give your sleep the attention it deserves

One such technology is Israel's Dayzz sleep app. Dayzz is an innovative digital sleep solution, providing personalized sleep training plans to individuals across the US. The company's machine learning engine enables accurate assessment of common sleep disturbances and was **clinically validated** in collaboration with a leading US-based research institution. Based on big data analysis, the app constantly adjusts the users' training plans to fit their needs and progress. It offers the right intervention at the right time, with continuous support and unique motivational strategies.

Dayzz offers its sleep solution to US employers and payers to increase productivity and well-being, optimize healthcare utilization and reduce associated costs.

Thanks to advanced methods of data analysis, organizations are provided with periodic overview reports, presenting aggregated data about the sleep status of their members. These reports help them to better understand how they can improve experience and performance.



BETTER SLEEP PLAYS A KEY ROLE IN ATHLETES' PERFORMANCE AS IT IMPROVES MOTOR FUNCTION, REACTION TIME, MOTIVATION, FOCUS, STRESS REGULATION, MEMORY AND LEARNING. WHETHER YOU'RE A PROFESSIONAL ATHLETE OR TRAINING FOR YOUR 1ST 5K, SLEEP IS A CRUCIAL ELEMENT IN A HEALTHY LIFESTYLE.

Amir Inditzky

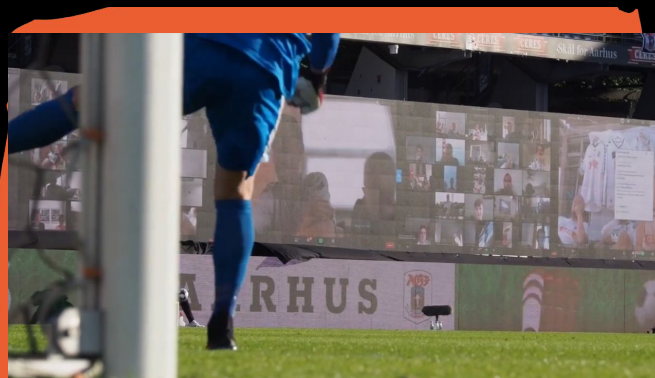
CEO & Co-founder Dayzz

creative REMOTE ENGAGEMENT

With fans unable to attend games in person, teams must find ways to keep them engaged from afar. Many teams have turned to Zoom, the go-to video conferencing service during COVID-19, to connect with their remote fanbase.

AGF, part of the Danish Superliga, hosted 10,000 fans at a Zoom watch party during one of their matches. Throughout the game, the faces of the fans were projected on a large screen, with their shouts amplified throughout the stadium.

This innovative approach sought to keep regular match-goers engaged, as well as provide the players the experience of playing for fans.



Photos credit: AGF TV video

Broadcasters have also taken steps toward creating resemblances of a crowd in the stands at games. Sound producers for the German Bundesliga, for example, extracted audio from previous matches that were then projected when those same teams played one another. On top of the basic rumble of the crowd, producers input audio samples for specific moments in a game. For instance, if there is a foul or penalty, a sound producer uses audio of a crowd's typical reaction to such a play.



WSC Sports



Press start

MAXIMIZE SPORTS CONTENT WITH AUTOMAGICAL VIDEO SOLUTIONS

Besides the auditory factor, broadcasters also have the job to generate tailored content in large scales, to assist the sports organizations in the journey to engage their fans. And it is clear that personalized, AI-generated content is the key factor in this case. This notion is further exemplified by WSC Sports' platform, which generates personalized sports videos for every digital platform and every sports fan - automatically and in real-time.

Currently being used by leading media rights owners such as NBA, MLS, FIBA, Cricket Australia, WarnerMedia, Discovery, Bleacher Report, and many others, WSC Sports' platform utilizes advanced AI and Machine Learning technologies to analyze live sports broadcasts, identify each and every event that occurs in the game, create customized short-form video content and publish to any digital destination. This enables partners to instantly generate and distribute professionally edited personalized clips and videos on a large scale, to engage audiences and maximize video monetization opportunities.



COLOSSEUM

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REFILLING POCKETS

These unprecedented obstacles are proving costly for sports teams. A global estimate of lost revenue hovers around \$12 billion. Teams and leagues must find creative solutions in order to alleviate this severe economic blow. Teams such as Maccabi Tel Aviv have added large high-definition screens alongside the court to feature advertisements.

+/- \$4 BILLION

estimated loss in live events by the end of Q2 '20, not even including the revenue lost on the NCAA tournament or NFL draft ¹⁷

“WE CURRENTLY DON'T HAVE THE SUPPLY CHAIN OF REGULAR SPORTS GAMES BUT WE STILL SEE THEM AS MAJOR ENTERTAINMENT EVENTS AND WE HAVE TO ENSURE THAT THE PLAYERS FEEL THAT THE GAME REMAINS A GAME AND IS NOT JUST TRAINING: THEY HAVE TO FEEL THE COMPETITION”.

Ofir

CTO of Maccabi Tel Aviv Basketball

Frank

Another avenue being explored is the world of augmented and virtual reality as a means of generating revenue. Augmented reality can boost the fan experience by allowing them to experience games as if they were sitting alongside the action.

“THERE IS AMPLE OPPORTUNITY FOR TEAMS AND LEAGUES TO CASH IN ON ACTIVATIONS BY SELLING AD INVENTORY TO BRANDS LOOKING TO CONNECT WITH CONSUMERS DIFFERENTLY.”

OTT streaming services will also prove crucial to engaging fans and generating revenue in the sports world. As referenced earlier, ESPN+ and Barca TV+ have already made strides in creating personalized content for consumers that keep them engaged with the sports world. As 100% of fans will be watching from home, these services will be incredibly profitable if they can provide consumers with a wide variety of content.



Global Sports Tech Talks #8
The Sports Come Back



LaLiga

@laliga

79

Following

1,7M

Followers

14,7M

Likes

Follow

#LaLigaSantander & #LaLigaSmartBank

See translation

www.laliga.com

TikTok

everyone

All the kids

ARE DOING IT!



@nhl

132

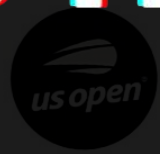
Following

951,2K

Followers

24,4M

Follow



@usopen

25

Following

132,8K

Followers

4,6M

Likes

Message

The official account of the US Open Tennis Championships | Aug 31 - Sept 13 2020



While we've already analyzed the impact social media has had on the sports world for fans, teams, leagues, and sponsorships, we feel it's important to highlight the newest darling of the social media world: TikTok. In the blink of an eye, TikTok has transformed into a social media heavyweight.

315 MILLION
downloads in Q1 2020,
best quarter by any app, ever ¹⁸

2 BILLION
is the number of times TikTok has been
downloaded until April 2020 ¹⁹

Like all industries, the sports tech world is always keeping tabs on which direction young people are headed because they are the trendsetters and the next generation of big consumers. The biggest sports leagues and teams in the world are taking note, and many have extended their social media outreach to this fast growing platform.



1.6M
FOLLOWERS



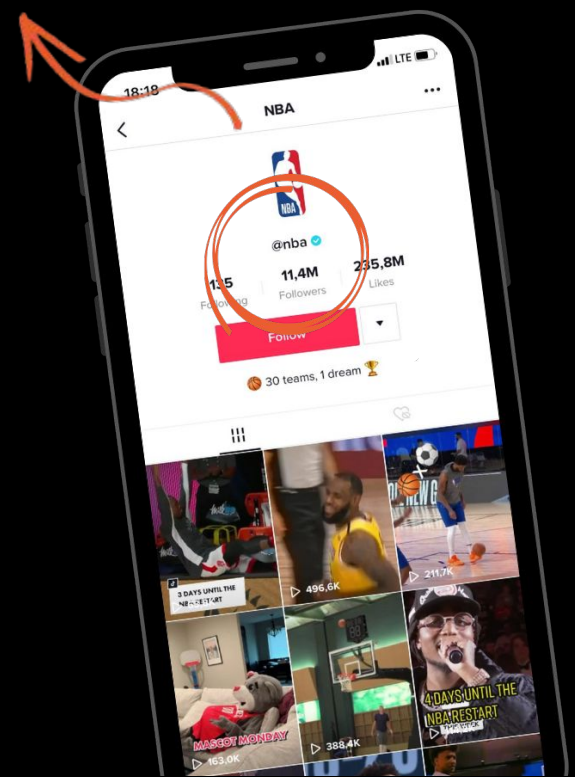
LaLiga
1.6M
FOLLOWERS



4.4M
FOLLOWERS

NBA holds alone more than
11+ MILLION FOLLOWERS

Just as leagues and teams have excelled in their navigation of the TikTok ecosystem, sports media outlets are similarly poised for success. During the first two months of the year, sports media outlets saw the largest success with an average gain of **401,000 followers** per account, followed by professional sports leagues, which averaged 309,000 more new followers per league. As teams and leagues continue to explore ways to monetize social media, and specifically how to appeal to young fans, TikTok will be a key network for doing so - if the US President, Donald Trump, set on banning the app in the country, doesn't follow through with it. If it does, what other app will fill the void?



STATE OF diversity

Sports have always had the ability to empower athletes of all kinds. The world of sports is unique in the sense that success is directly a dividend of effort and sweat. Unfortunately, this rule that largely applies to athletes has not always been applicable to the rest of the industry. We recognize this and we believe this battle is fundamental to the very nature of sports. On and off the field, we have dreams for a more equitable sports world, and it is our place as a player in the sports tech industry to advocate for and uplift diverse voices.

The
Perilous
Fight

Nation
anthem prote
led by Co
Kaepern
are fuelin
debate ab
privilege, p
and patriot
By Sean Gr

A sports world for all sports fans

Sports have long had a platform for enacting social change due to the large audiences available to professional athletes and companies. The world stage that athletes perform on is admired by billions across the globe. As athletes and brands continuously call for unity, diversity, and inclusion, it is our role to call for the same in our part of the sports world.

While the sports tech ecosystem proudly supports the creativity and innovation of stakeholders from all kinds of different backgrounds, we'd be foolish to ignore the work that still needs to be done to elevate voices that have previously been left out of the conversation. Among those that are still fighting for their voices to be heard in the sports tech ecosystem are entrepreneurs who are black and brown, female, disabled, and/or are a part of the LGBTQ+ community. While much is still to be done, solutions to these disparities have been rising at an incredible pace. In fact, the sports world as we know it is becoming more diverse, globalized, and inclusive. Washington DC's football team will be given a new name and similar changes are sure to follow around the United States so that teams will be represented by mascots that all fans can root for.

RACIAL DISPARITIES IN ENTREPRENEURSHIP and creative solutions

For Black and Brown entrepreneurs, this disparity exists far beyond the sports tech ecosystem. For many, it is hard to get off the ground for fear that their loan requests will be rejected. In fact, black business owners are roughly three times less likely to apply for loans for fear of rejection than white entrepreneurs. This fear can stem from the fact that black entrepreneurs often are unable to borrow from venture capital funds.

LESS THAN 1% OF AMERICAN VENTURE-CAPITAL FOUNDERS ARE BLACK

and few black business people are in positions of power within these organizations ²⁰

fewer than 1% of tech companies with black founders receive venture capital funding.

In the face of such an unbalanced playing field, angel investing and other nontraditional forms of raising capital have been employed by these entrepreneurs. Atlanta-based angel investor **Mike Ross** – owner of a successful construction program management firm – has distributed **\$10,000 to \$30,000** in seed capital to minority-owned companies like PartPic, Techturized, and Luma over the last three years. The same strategies that Ross has applied to these firms can be put to use in the sports tech ecosystem.

A similar strategy to Ross's is shown in New York City's Riverside Church where a fund was started to make low-interest debt capital—ranging from \$250,000 to \$2 million – available to minority owned and operated businesses. Applying low interest rates to small levels of capital and making them available to minority business owners is a proven method in uplifting their businesses. Applying these strategies can be crucial in leveling the playing field in the sports tech ecosystem.

do you know more initiatives?
lets continue the discussion!



FRONT WOMEN

Similar imbalances exist for women in the entrepreneurial world, and specifically in the sports tech world. In response to this, women have banded together to uplift themselves. One such group in the sports tech ecosystem is called Women in Sports Tech (WIST). WIST is a group of business experts, startup veterans, sports scientists, developers, product designers, marketers, and students who work together to create opportunities for women in sports tech. They do this by providing access to relevant industry knowledge and networking opportunities. WIST also helps to advance careers by providing access to scholarships for internships.

This career aid has been WIST's major area of growth according to founder Marilou McFarlane. Their fellowship program, which provides up to \$5,000 in grants and a \$2,500 stipend to college and high school students, has seen immense growth since its conception three years ago. At first, the program sponsored three students, and by 2019 a fourth was added on, but now thanks to their partnership with the NBA, WIST is sponsoring 15 students in 2020.

38% OF SMALL BUSINESS

owners are women

BUT ONLY RECEIVE 2%

of venture capital financing ²¹



“Our initiatives are designed to bring more minorities into the space not just to check a diversity box but because it [brings] huge returns in business.”

Marilou Mcfarlane

By creating opportunities for female students in the industry, they allow for the discovery and use of untapped talent of the likes of Angelina Lawton and Ashley Wellington-Fahey. Lawton is the founder and CEO of Sportsdigita, a dynamic tech company designed to enhance pitch presentations specifically for sales in the sports world.



Wellington-Fahey is another entrepreneur who felt that female fans were not being recognized for the powers they have to impact the sports world. Her app, **The Relish** is a response to this oversight and aims to engage specifically with female fans in order to let them flex their fanhood in ways previously only available to male fans. The app is a social media-based discussion platform designed to create communities of female fans. Both Lawton and Wellington-Fahey speak out against the male-centric culture of the tech world and are at the front of this changing tide.

Such activists for female professional advancement in sports tech spur even more groups to form to discuss equality in formal and informal ways. One such group is a non-profit called **Passion FC**. This group was founded by eight students from around the world who sought to discuss and eliminate gender barriers in football. They share their love for football and take pleasure in watching as women continue to excel in the sport.

sportifico

In addition to the sports tech activities and discussions, another startup is helping women athletes in the sports market. Sportifico, from Belgrade, assists women football players to reach their market potential and become influencers of the industry.

They already count with two successful campaigns with Adidas. Despite the global situation, Sportifico recently signed an agreement with several agencies representing female players in Europe, and initiated a project for organizing the Regional Women's League in Southeastern Europe.

Sportifico is changing the game when it comes to women's football players in Europe and it's only the beginning.

15.000 USERS

users to the specific platform for women's football only

5 CLUBS AND 100+ ATHLETES

signed recently. They are all playing Women's Champions League

“AS A WOMAN IN THE SPORTS INDUSTRY, I KNOW THAT NOW IS A PERFECT TIME AND WE ARE IN THE RIGHT MARKET. WITH ALL THE KNOWLEDGE, LOVE FOR SPORTS, AND AIM FOR FEMALE EMPOWERMENT, WE ARE READY TO CHANGE THE WORLD OF WOMEN'S FOOTBALL.”

Aleksandra

Founding Member

Stojković



CONCLUDING REMARKS

With one half of 2020 in the books, it is clear that we are not out of the woods yet. The world is still struggling to combat the pandemic and the global economy is sputtering as a result. We are proud of the innovation in the sports tech industry that has allowed us to weather the storm better than most. As we venture into the unknown we are excited to continue to facilitate the collaboration between the newest cutting edge tech and the old games we know and love. We watch carefully and with much anticipation as new trends unfold and we look to continue to provide thorough analysis and information to all players in the sports tech ecosystem. Because when it comes down to it, we are all players on one team. We win together, we lose together, and we learn together. We at Colosseum hope that this report is useful in spurring continued collaboration within our beloved sports tech ecosystem.

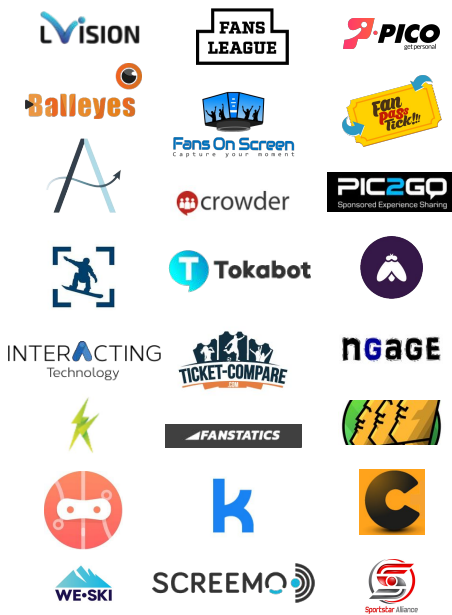
SPORTS TECH NATION MAP

powered by **winarize**

ATHLETE DEVELOPMENT



FAN ENGAGEMENT



SMART STADIUM



GAMING & ESPORTS



HEALTH & FITNESS



MEDIA & BROADCASTING

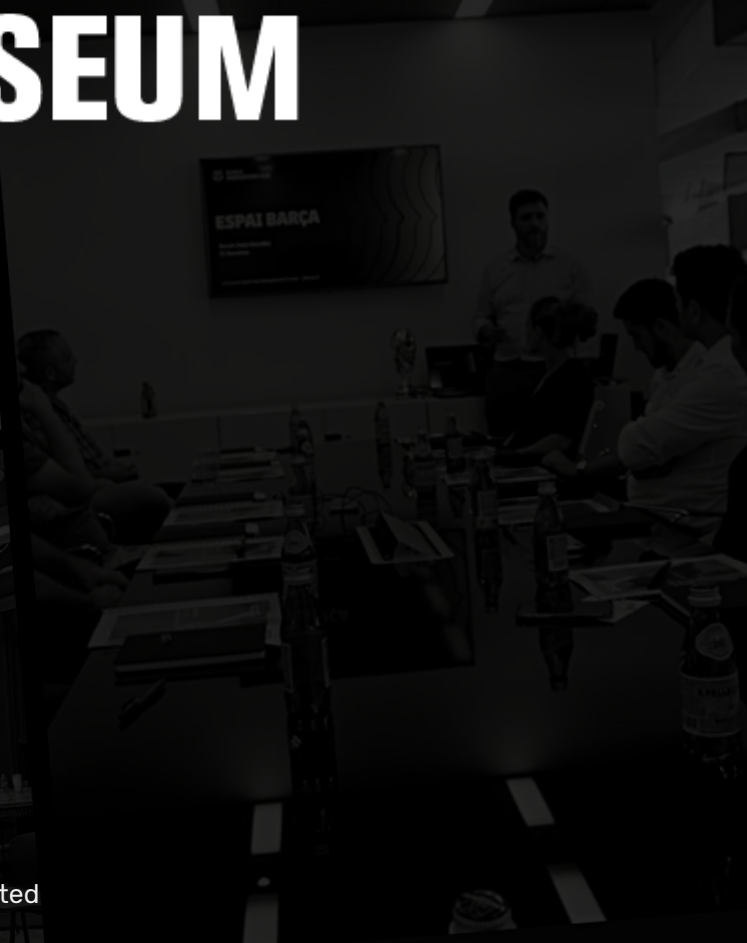


Click on the startups' logos for more information

מכון וינגייט
 המכון הלאומי למצוינות בספורט
 קול חדשנות בספורט
 Sports Tech Management



COLOSSEUM



ACADEMY

Colosseum created a catalogue of educational programs that enables all sports stakeholders to embrace technology and adopt an innovative mindset in order to reach their professional goals.

HIGHLIGHTS OF 2020

SPORTS STARTUP & MEDIA

Colosseum launched in January 2020 the first edition of the Sports Startup & Media program, organized alongside the Israel Football Players Organization (IFPO). SSM is a four months course addressed to premier league football players in Israel to boost all the stages of their careers by learning about new trends in finance, innovation, and sports business, as well as having the opportunity to gain practical experience in a sports tech startup in Tel Aviv.



LALIGA & IPFL EXECUTIVE SEMINAR

In July, Colosseum hosted a seminar in partnership with LaLiga and Israeli Professional Football League on Innovation for Sports Organization. 70 participants listened to 10 speakers from sports organizations talk for 3 hours about different topics regarding innovation and the new challenges and solutions.



Contact our Head of Knowledge, Tomer Yehudayan, for more information on how to develop your own course with us.

“THE REAL TRANSFORMATION OF THE SPORTS TECH WORLD WILL ARRIVE THROUGH CHANGING THE MINDSET AND TRAINING LEADERS, NOT ONLY THROUGH ADVANCED TECHNOLOGY”

Tomer Yehudayan

[email](#)

EVENTS



SPORTS TECH NATION 2020

Sports Tech Nation is the international summit of the sports innovation ecosystem where industry leaders meet the most disruptive players to build together the future of sports. This year, we are going online: an easy-access version for everyone: STN is the must-attend summit to get an edge of the ongoing revolution in sports.



1000+ participants



48 hours of event



70+ countries

REGISTER INTEREST FOR STN 2020



GLOBAL SPORTS TECH TALKS

We created the Global Sports Tech Talks with the goal to share insights, case studies, and keep the industry moving during this challenging momentum we've been facing and beyond. The GSTT kicked off in April and so far we've had ten sessions approaching different sports topics, including a special one in partnership with PlaySight.



800+ participants



45 countries



40+ speakers



10 sessions

REGISTER NOW FOR OUR NEXT SESSION

SPORTS TECH DEMO DAY

Sports Tech Demo Day is the first online demo day for startups evolving at the intersection of sports and technology.

Since the first edition, we already hosted three Demo Days, 17 startups and more than 300 participants.

REGISTER NOW FOR OUR NEXT SESSION



PROGRAMS

Colosseum created a series of growth programs to assist startups and help entrepreneurs shine at all stages of their development.



FUTURE

BY HIT

HandZone is our mentorship program in partnership with the innovation lab at the Holon Institute of Technology (HIT). We assist entrepreneurs, alongside industry experts, in taking their ideas out of the paper and becoming actual products.

The first wave ended in January 2020, with a demo day, and we are currently hosting the second wave with six entrepreneurs.

COLOSSEUM
Sports Tech
Serbia



Colosseum Sports Tech Serbia is a unique five-month program aimed to boost innovation in sport by connecting all the relevant players in the Serbian sports tech industry and providing support to early-stage start-ups.

The second edition of the program is currently running, in partnership with Science Technology Park Belgrade.



Get in Touch



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