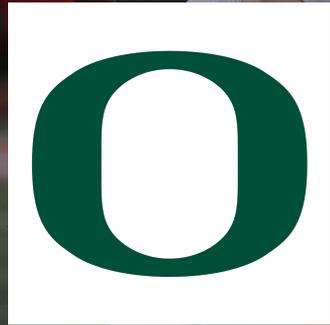




Smartabase



University of Oregon

About the University of Oregon

The Oregon Ducks are the intercollegiate athletic teams that represent the University of Oregon, located in Eugene. The Ducks compete at the National Collegiate Athletic Association (NCAA) Division I level as a member of the Pac-12 Conference. With eighteen varsity teams, Oregon is best known for its American football team and track and field program, which has helped Eugene gain a reputation as Track Town, USA.



Opportunity

The Marcus Mariota Sports Performance Center is widely recognized as an innovation leader in college sports. As such, the University of Oregon performance staff recognized a chance to build something greater than themselves: an athlete-centric, data-informed model that enabled practitioners, sports scientists, and coaches to set athletes up for success on and off the field. To support this multidisciplinary approach, they needed a human performance optimization (HPO) platform that would collect athlete data in a standardized way from multiple inputs, centralize it for analysis, and present it in a way that was usable for all stakeholders.



Challenge

With 20 sports and over 500 student-athletes, Oregon's performance team is tasked with overseeing a wide variety of needs, goals, and intended outcomes for each team throughout their seasons. Finding a system that could effectively serve all the competitors, coaches, and staff involved in each program while also uniting disparate data sources and workflows would be difficult. Another obstacle was the frequent staff turnover in college athletics, which necessitated building robust processes around a unified platform to provide continuity.



Solution

Smartabase supports the three stages of Oregon's player development lifecycle: profiling, loading, and monitoring. Data-backed solutions also extend to availability, hydration tracking, wellness questionnaires, data visualization and reporting, and more. Establishing benchmarks and norms for each individual by sport and position enables staff to develop all qualities objectively over time, while also solving problems for coaches and increasing athlete buy-in. They continue to customize and expand the use of the system to support their evolving needs.



Impact

As an all-in-one data management and reporting solution, Smartabase reduces effort and makes information actionable faster. Collaborating with coaches to create tailored dashboards gives them relevant insights when they need it to make timely decisions. Individualized athlete profiling informs more precise load planning, skill development, and strength and conditioning programming, while sharing more information with athletes improves their engagement in Oregon's human performance program.



Smartabase



The Opportunity



It's a long journey to meet everyone where they're at, understand their needs, increase their engagement, and then follow through with the delivery of tools that have an impact on how they operate on a daily basis. That's at the heart of what we do.

- Jordan Troester is the Director of Performance & Sports Science



The University of Oregon's Marcus Mariota Sports Performance Center was one of the first dedicated sports science facilities in collegiate athletics in North America. Funded by Nike founder Phil Knight and other backers, it brought together best practices, industry-standard technologies, and expert resources to further human performance for the school's student-athletes.

"Part of our growth story is the journey of shaping a vision for the impact we're going to have, and then engaging stakeholders around that vision for how we can operate collaboratively as a team," said Jordan Troester, Director of Performance and Sports Science at the University of Oregon. "We're big believers that a centralized platform for information and decision-making is maybe the most important part of that. Smartabase is one of the key pieces."

To create an athlete-centric approach, Troester and his colleagues knew they would have to combine individualized athlete profiling and programming with a data-driven, line-of-best-fit approach that could be adapted to the specific needs of each sport. "Our performance team serves 20 sports and over 500 student-athletes," Troester said. "Each sport has its individual needs and nuance, but we want a lot of the principles, concepts, and fundamental pieces to be constant across all our sports. We believe in the value of consistency and our ability to develop larger and larger databases for benchmarking and creating norms across athlete populations."



The Challenge



We don't monitor all of our teams – it's just a handful that we use wearable tracking devices with. What we see too often is that people think they need to get GPS because everybody has it.

"Staff turnover is one of the biggest challenges in all of sport because when a new coach or leader comes in with an entirely new staff, the direction completely changes," Troester said. "You might have to start over or throw out everything you had."

This loss of institutional knowledge creates a steep learning curve for new employees, reduces the usefulness of performance data, and hampers the continuity of informed coaching, care, and service to student-athletes.

Oregon's performance team saw the potential to future-proof their efforts by incorporating sustainable systems and processes into their overall philosophy that would offer continuity if staff left. "Our vision is to build something that's bigger than any of us," Troester said. "There's knowledge and energy around what we're trying to



accomplish as a group. If one of us were to leave, someone else could easily come in and pick up those pieces. It wouldn't be a total transition because we're building the systems and processes as the core of our philosophy."

Another challenge the performance team faced was putting the brakes on the trend of acquiring new tracking technologies just for the sake of it. They realized that while some athlete monitoring can be useful, too much could undermine the impact of an HPO solution. "We want to make sure that our thought processes and framework are built out before we add the information or technology to it," Troester said. "If a coach can't give us their plan for the six-week preseason, then there's no sense in us tracking and telling them what they did."

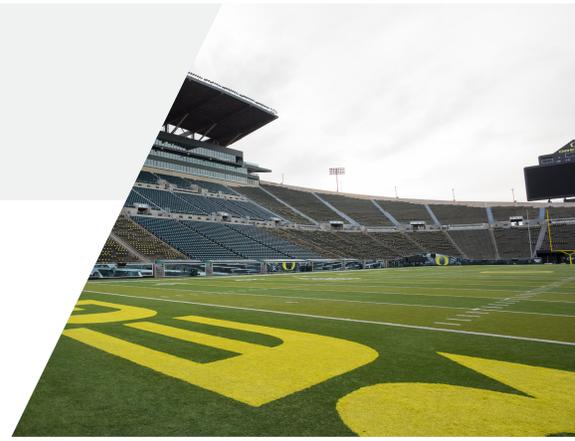




The Solution



On a team-by-team level, Smartabase has increased the capacity for individualization within our training.



While every college sports program wants to see positive changes in its win-loss record, Oregon's performance staff balances delivering short-term improvements with a patient approach to sustainable student-athlete development. This involves utilizing Smartabase to collect, collate, and analyze data, and then make it actionable.

Player Profiling, Load Planning, and Monitoring

Oregon's performance staff takes a three-part approach to athlete development across all sports. "We profile, load, and monitor adaptations in the process," Troester said. "Then we use those results to re-inform our needs analysis and the training plans for our athletes. Ultimately, all three of those pieces become a constant cycle in which they're directing and informing each other."

Smartabase collects multiple data streams that, when compared against historical metrics for all of Oregon's student athletes, generate percentile ranks and standard scores. Speed, power, endurance, strength, and other attributes are evaluated through individual assessments and overlaid with aggregated data to establish norms and thresholds.

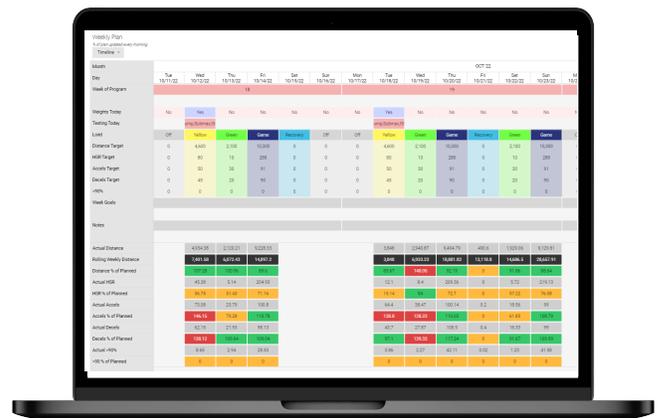
"Our goal is to understand each individual sport, profile its demands, and see what it takes for our athletes to be successful, whether that's the physical requirements, quantifying technical and tactical skills, or helping coaches better understand recruiting," Troester said. "Then we quantify our athletes' capacity. Creating robust and standard systems enables us to say how the team as a whole is doing, where an individual athlete is, and, given their sport and position, which benchmarks they have to meet to be successful. This is how we prioritize their needs and individualize elements of their training."

The load phase comes next. Whereas many sports organizations emphasize performance monitoring, Oregon chooses to focus most of their efforts on creating precise, detailed plans that prepare each athlete based on data-driven insights.

"We believe in load planning, as opposed to load monitoring, and our historical data is what allows us to understand fluctuations during periods of time and what those targets or benchmarks should be," Troester said. "For example, going into preseason, we know the total weekly load that players are going to be exposed to. We collaborate with our strength and conditioning staff and sport coaches to work six to eight weeks out so that we can gradually build up to those loads we're expecting. Loading is the plan for how we're going to improve any given quality."

Smartabase is equally adept at supporting the third phase of Oregon's athlete preparation methodology: monitoring. This involves capturing real-time data that is compared against individual targets and milestones to measure progress and guide interventions and programming changes.

"We have a good tool in Smartabase that allows us to input our load progressions and plans," Troester said. "And then once our data is uploaded, we have an automated way to see how the actuals for the day compared to our plan. If the team did 200% of our planned accelerations and decelerations in practice today, we might suggest to the coach that we look at the types of drills we're using and the duration we're doing them for. Now let's try to learn from that a little bit. The ability for this feedback to be relatively automated goes a long way for us investing in conversations and education with our coaches, instead of just creating a report that tells people what they did but doesn't really help them get better."



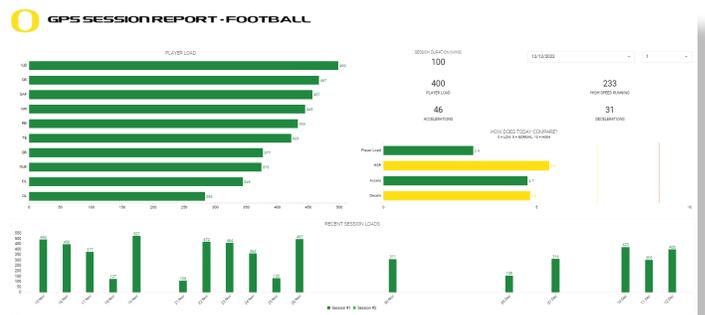
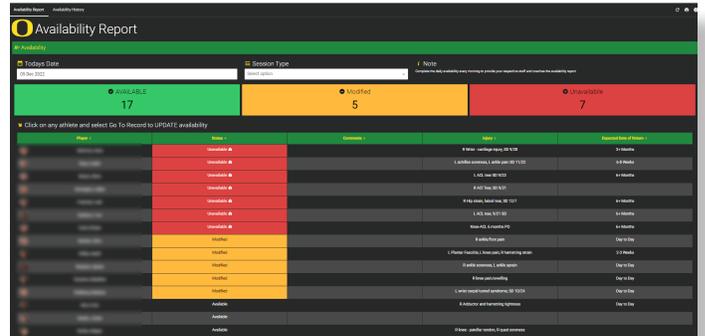
Data Visualization and Reporting

Collecting and analyzing student-athlete data is important, but it's how it's communicated back to end users that makes the real difference in performance and wellbeing. Troester works closely with Oregon's coaching staff to ensure information is shared in useful ways.

"It's been good to build our Smartabase dashboards to the point where they're what our coaches want, and they're consistent with the terminology, messaging, and thought processes that we use with different teams," he said. "We're performing group and individual historical calculations within the platform, and then reporting that in a way that connects with our users."

Typically, there's a delay between when data is collected and when it can be interpreted and acted upon. Smartabase has helped Oregon's performance team eliminate such gaps.

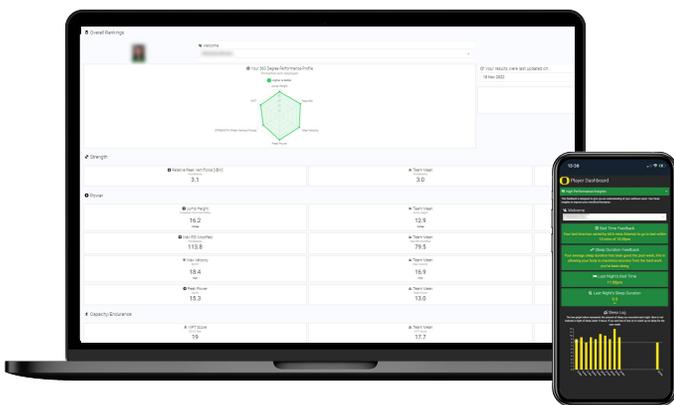
"Making workflows more automated in Smartabase has been really valuable for us because we can do force plate testing on a team of athletes and 10 minutes later, have the report with several individuals highlighted," Troester said. "The coach can then have quick conversations with them about the outcomes that need to happen on that given day."



Athlete Availability

To plan effectively for practices and games, Oregon's coaching staff needs to know which athletes are available for selection, sidelined, or can participate with certain limitations. Smartabase combines medical, performance, and wellness information to provide a clear view.

"We believe that availability is the one most important metrics outside of wins and losses," Troester said. "It's something everybody can rally around, and strength and conditioning coaches and athletic medicine, nutrition, and sports science staff can influence. Ultimately, the coaches need to understand how their decisions influence availability. They're the most bought in because they want their best players healthy and available on game day. We've tracked availability separately in Smartabase because we didn't have that capacity within our EMR."



Wellness Questionnaires and Athlete Dashboards

As valuable as all the objective data Oregon is collecting on its student-athletes is, it provides another layer of context when subjective information is added into their individual profiles. "A good portion of our athletes are using the Smartabase mobile app and doing wellness questionnaires on a daily basis," Troester said.

Engaging with student-athletes through a convenient mobile app also gives Oregon's staff the ability to improve athlete education and accountability. "Moving forward, we'll improve our ability to push information back to our athletes through the app," Troester said. "We believe that for anything we're asking them to do, we need to make sure we're adding value back to them. So they're seeing their results, they understand what they mean, and they know what action to take."



The Impact



Within our framework, everything comes down to a process of data collection, analysis, and intervention, which is displaying or reporting the information in a way that makes taking action simple. Smartabase has been really good for us.



When Troester started his current role, Oregon was manually uploading most data streams. Now, they're benefiting from Smartabase's extensive integration capabilities to get data into the system via APIs and processing it faster so actionable takeaways are more readily available.

"In the two and a half years I've been here, we've significantly increased the automation of data ingestion, analysis, and reporting," Troester said. "One of the biggest benefits is the efficiency and timeliness of data processing. That has an impact on our staff and the time we spend on those tasks, and also on our users. It provides comfort, confidence, and empowerment to go to Smartabase and get the information themselves sometimes, as opposed to waiting for someone within our staff to email a report to them."

Initially, Oregon used Smartabase primarily as a centralized repository for its student-athlete data and utilized multiple third-party tools to analyze and present it. Now that they've expanded the role of Smartabase, it is being utilized as a truly comprehensive HPO solution.

"Earlier this year, we completely abandoned external visualization and reporting, and everything's done within Smartabase," Troester said. "There has been a massive improvement in our workflow now that we don't have to wait for a data scrape or refresh reports externally. We can just count on information being there." Sometimes the benefit of using an HPO platform like Smartabase

can be assessed in an objective manner, such as by the reduction in preventable injuries or improved outcomes in training or competition. Another way Oregon has found to gauge its impact is to evaluate touch points with the most important end users of all: student-athletes.

"Our goal is engagement," Troester said. "In our weekly departmental meeting, we go through each dashboard and ask, 'What have our interactions been like on a scale of quantity from zero to 10 this week?' Then we look at our impact. So on a weekly basis, we see that fluctuation in the number of interactions we're having with a particular sport and the impact that we're having with those. It's purely subjective, but that's something that we do to evaluate the influence we're having."

With Troester and his colleagues continuing to extend the reach of Smartabase, it has become a single source of truth within Oregon athletics that is not only delivering efficiencies now, but also setting the human performance program up for continued success.

"As we've invested in the development of Smartabase, it's helped to solidify our thinking and the execution of our overall philosophy, and become a driver of that," Troester said. "The impact is hopefully far beyond any of us as individuals here at the University of Oregon – it's in processes and systems that endure and can continue to be built upon in the future, as opposed to being scrapped and started over with changing staff. From an organizational standpoint, that's huge."

About



Smartabase

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smartabase.com/contact

Smartabase, owned by Teamworks, is a part of [The Operating System for Sports™](#). Originally founded in Brisbane, Australia in 2003, Smartabase is a global leader in using data to optimize human performance. As a performance and analytics platform, Smartabase is the source of truth for national sporting federations, Olympic committees, many of the world's highest-profile sporting teams, military research and operational wings, and performing arts organizations. For more information, contact us at sales@fusionsport.com.

