TeamViewer

Case Study

UNIVERSITY OF DALLAS

Opened in 1956 through the stimulus of the Sisters of Saint Mary of Namur and a group of dedicated laypeople in partnership with the Diocese of Dallas, the University of Dallas is a Catholic institution welcoming students of all faiths. Offering a comprehensive list of bachelor's, master's, doctoral, and continuing education programs, the university attracts highly motivated students from around the world.

Located in Irving, a city of over 200,000 with six global Fortune 500 headquarters, the university's campus is an oasis in the middle of the vibrant Dallas/Fort Worth metro area.

Challenges

- Enable collection of multitudes of data to search for new exoplanets
- Increase student access to robotic telescopes in a variety of locations to collect data
- Create opportunities for multiple students to use remote telescopes and collaborate in their studies and discoveries
- Increase interest in high school students in STEM courses

Solution

From helping astronomy students decipher the wonders of the heavens, to encouraging future generations to become curious about the universe around them, TeamViewer has opened the eyes and minds of countless stargazers. TeamViewer even helped students discover a rare new star.

TeamViewer Enables Students to Reach Toward the Stars

The Physics Department of the University of Dallas supports many opportunities for undergraduates and high school students to learn more about astronomy and the universe around them.

During the summer undergraduate astronomy and astrophysics research program, students receive grants from the university to dive deeper into their field of study and enhance their knowledge of stars and exoplanets while developing real-world research skills, which are used in their 35-page thesis written by the end of the semester.

In order to accumulate all the data needed for this advanced semester of study, students must collect and review hours of image data captured for astronomical phenomena using telescopes.

For the first three years of the program, students had limited availability to this data since the collection was done manually—usually involving spending many nights on top of a mountain with only a telescope and their data.

This caused a variety of problems for the summer research semester, including having to deal with poor weather conditions and collecting only so much data as one person could collect in such a short period.

To provide students with access to the data and opportunities for them to fulfill their academic dreams, the university needed a better way for them to gain the insights and information they needed to complete their summer thesis and graduate to the next level of academia.

TeamViewer Helps Gather Galaxies of Information

Three years ago, the professors, working with other universities and telescope sites, decided to use a remote support solution to enable students to gather data from a variety of locations, no matter what the weather was like in Dallas and without having to spend all night on a mountaintop.

After researching a variety of solutions and weighing the features with the costs, the university picked TeamViewer as their solution of choice.

And it's no wonder they decided to go with TeamViewer. Renown theoretical physicist and cosmologist, Stephen Hawking, used TeamViewer's remote capabilities to access his telescope remotely.

"Well, the first couple years, I noticed distinctly that we were able to get much, much, much more data doing it remotely than having the students sit on the mountaintop and taking the data," explains Arthur Sweeney, laboratory manager, adjunct professor, and engineer.

In fact, TeamViewer enabled the undergraduates to acquire so much data that they have more than they need. Since making TeamViewer a standard part of this program, as well as other programs in the department, the University of Dallas has become one of the first colleges to implement remote telescope operations into its undergraduate research and courses.

A New View of the Stars

The University of Dallas has partnered with the University of North Texas to share observatory information remotely. This enables the students from each university to access one another's' telescopes and captures a plethora of useful data for their theses.

"It's about the research, but it really gets the students more involved and excited in astronomy," says Richard Olenick, professor of physics at the University of Dallas.

Using telescopes in other parts of Texas, students have greater opportunities to capture and review data no matter the weather conditions of where they are physically located, since they can remote into an observatory that has clear skies—perfect for stargazing.

Since working with TeamViewer, students have been able to compare and combine the data they have gathered and analyzed with historical information, creating an opportunity for them to get real-life experience sharing their findings with their professors and other academics through papers and publications.

This ability to remotely access other telescopes has changed not only their studies and how they do research, but also made it possible for even greater discoveries.

"In the three years since we first started using TeamViewer, we've discovered a new type of rare star," shares Richard. "We used the remote observatory to line up and review all the data to help us write our paper."

And this discovery wouldn't have happened without TeamViewer's remote capabilities.

"Whereas if we had to take students out somewhere on a mountaintop and do the data collection and observations, we couldn't do it, since this discovery wasn't made during our summer term," explains Richard. "Students didn't have time with their standard course load to be physically in the observatory, but with TeamViewer, they could monitor the star's activity and examine data right from here."

And TeamViewer's Windows integration and ability to work alongside other software platforms seamlessly simplified the in-depth exploration of these students without any hassle.

"When we connect through TeamViewer, we're connecting to a computer, but we're also running about five other software packages simultaneously on that other computer," says Arthur. "We never have a problem with TeamViewer and these specialty software programs which makes it a big positive for us. TeamViewer seems to be pretty darn bug-free, which is great."

TeamViewer Bridges the Gap on Earth

Richard and Arthur have been able to expand students' horizons even outside of Dallas. Whether teaching a class in Dallas or North Carolina, Richard' has helped students enrich their knowledge and expertise by accessing telescopes in remote parts of West Texas.

TeamViewer's remote capabilities have also enabled exceptional high school students to take part in astronomy research.

"This past summer, I was mentoring two high school students—one in College Station, Texas, three hours outside of Dallas, and one in Louisiana," explains Arthur. "The students would hook up to a remote observatory on the Red River in Gainesville, Texas, and a remote observatory in West Texas every clear night and take data using TeamViewer."

With TeamViewer's intuitive interface, Richard and Arthur were easily able to teach the students how to run the remote capabilities during the day, so they could run the observatories on their own. This helps students get about 90% of their learning done in the classroom and with the final 10% of their learning completed at night.

"It would be impossible for these students to go to the observatory in person," says Arthur. "But once they get to know how to use TeamViewer and the other programs we use in the observatory, the skies—and beyond—are the limit, no matter where they are."

The great divide in where students may be located means multiple students may need to access the telescope at the same time, both during class time and when collaborating on research projects.

One of the key features that sets TeamViewer apart from its competition is its ability to allow more than one user to access the observatory remotely at a time. This feature is priceless to the students of the university's physics department.

Engaging Future Scientific Exploration

Youth from elementary to high schools are focusing more and more on developing Science, Technology, Engineering, and Mathematics (STEM) skills. To meet this demand with future college students, the University of Dallas Physics Department has been conducting outreach activities with schools in order to draw more attention to astronomy, as well as other science-focused curricula.

With the huge explosion in the use of robotic telescopes and other roboticized sciences, it only makes sense to introduce students to robotic observatories.

"Many educational foundations and organizations use robotic observatories and astronomy projects just to bring young people into the STEM area," says Arthur. "Robotic observatories are another way of getting young people excited about astronomy."

On the other hand, the team has been able to expand their interactions and work with NASA in terms of collecting data and research using the Kepler Space Telescope, a satellite telescope.

"The Kepler Telescope gives us unprecedented clarity in the data," says Richard. "We submit proposals to NASA for targets, and if they deem it scientifically worth it, they will collect the

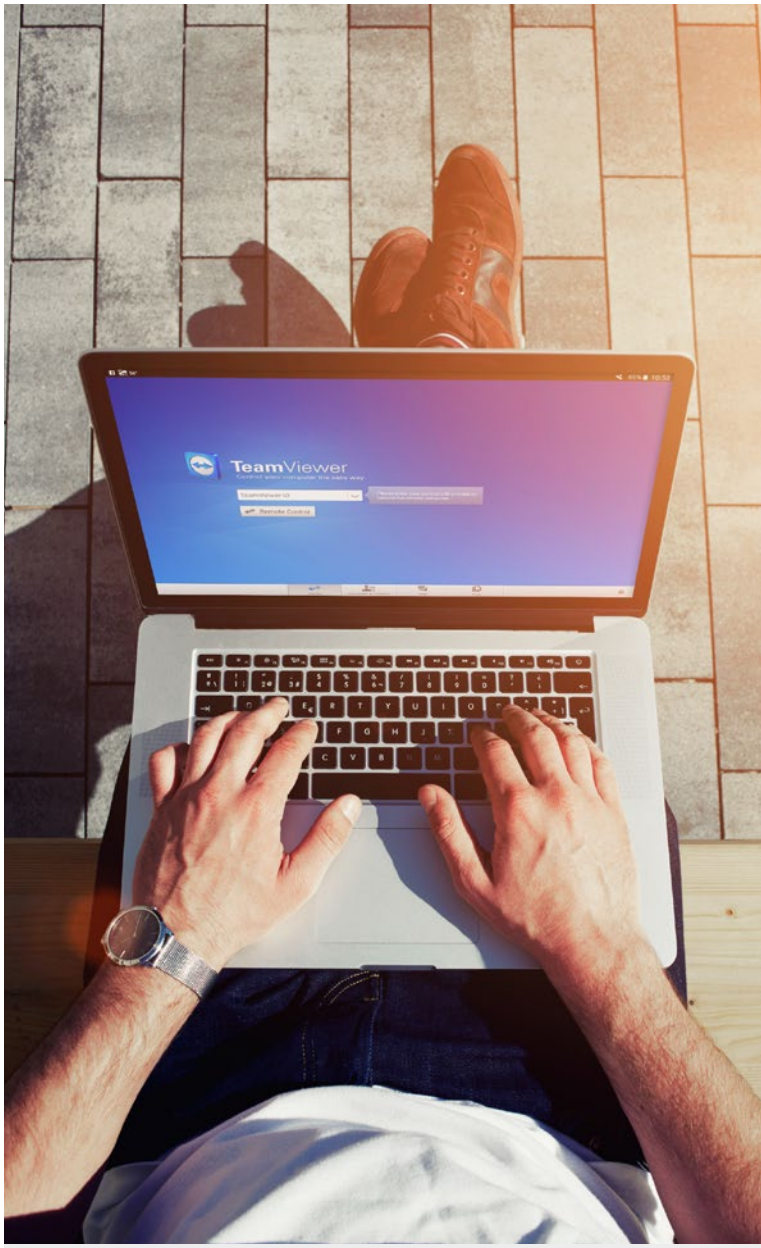
data and let us have it, which is a great benefit for our research."

Once the data has been collected from Kepler, the professors and students are required to follow up with Earth-based telescopes to re-examine and follow up on the data .

"That's where TeamViewer has been great," explains Richard. "TeamViewer allowed us to tell NASA that we can do follow-up observations from Earth on their satellite data. Without TeamViewer and that ability, we wouldn't have been able to apply to NASA to do that work."

From helping astronomy students to decipher the wonders of the heavens to encouraging future generations to become curious about the universe around them, TeamViewer has opened the eyes and minds of countless stargazers.

"We couldn't do what we do without TeamViewer's capabilities," says Richard. "It's simple to use and opens the doors to so many possibilities for our students. It's just great."



TeamViewer US LLC

TeamViewer is a leading global software provider for remote support, remote access, monitoring, and team collaboration. TeamViewer's flagship product has been activated on more than 1.7 billion devices to support over 8 billion users sessions making it the most trusted remote support solution globally.

For more information about TeamViewer, visit: www.teamviewer.com

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