Empower teachers and students with innovative technology

Creating a collaborative learning environment with Dell and Intel

Transforming teaching and learning with technology for a digital world

Technology is critical to student and teacher success in primary and secondary education today. Students no longer respond to the old, static model of a teacher standing in front of a classroom to deliver knowledge in the form of a lecture.

Instead, students need an environment that delivers flexible, on-demand approaches that support individual learning styles and help drive a passion for learning. They need an environment that adapts to their needs and allows them to proceed at their own pace.

Dell and Intel, and their Intel Unite® Solution for Education, can help create and sustain that learning environment.

With the Unite solution in place in the classroom, students can share ideas more efficiently, and teachers can make their lessons more interactive and improve the learning experience for students.

Moving beyond legacy classrooms

Legacy classrooms—those that feature traditional, one-size-fits-all instruction—no longer work. They should be replaced with flexible, on-demand approaches that reflect the needs of students today. That's as true for universities as it is for primary and secondary schools.

Students no longer respond well to, or learn effectively from, static teaching methods. Instead, they need an interactive, collaborative environment.

According to the International Society for Technology in Education (ISTE), educational technology can play a key role in providing that. Technology helps personalise learning and enables teachers to closely monitor and respond to student engagement. Student-centred learning moves students from passive receivers of information to active participants in their own discovery process. What students learn, how they learn it, and how their learning is assessed, are all driven by each individual student's needs and abilities.

Teachers will continue to play a significant role in facilitating learning. Teachers can encourage student-centred learning by allowing students to share in decisions, by believing in their capacity to lead, and by remembering how it feels to learn. With access to data that provides insight and a vast array of digital tools and resources, teachers can facilitate learning environments that meet the needs of all learners. This helps students develop the skills needed to successfully transition to college or the workplace, and equips them with the skills they will need in an ever-changing world.

The problem is that many of today's educational facilities were built for teacher-led instruction. What's needed are learning spaces where nearly everything is moveable and usable by students or teachers for interactive learning.

Fortunately, Dell and Intel together can help reinvent the learning environment so that it encourages interaction and collaboration.

Dell and Intel can help you transform your education space

Dell and Intel have joined forces to offer the Intel Unite® Solution for Education. It helps schools take a fresh look at their learning environments and apply cutting-edge technology to transform collaboration in education while inspiring the next generation of students. This innovative education solution can wirelessly connect a variety of both new and legacy computers to allow real-time content sharing, visual collaboration and presentation controls all in one place.

Transform your classroom in four steps

Follow these steps to turn your classroom into a smart, secure and collaborative learning environment:

- Start with a Dell OptiPlex 7060 micro-PC enabled with vPro™ technology and Intel Unite software. Serving as the hub device, the small but powerful OptiPlex 7060 desktop provides leading security and performance as well as innovative wireless capabilities.

- Next, connect the Dell OptiPlex to one of many compatible Dell displays such as the pen-and touch-ready Dell 55" 4K Interactive Touch Monitor C5518QT, Dell 86" 4K Interactive Touch Monitor C8618QT, or Dell 70 Interactive Touch Monitor C7017T. These displays enable interaction in classes like never before, with exceptional touch-screen accuracy, crisp text and bright images— even in fully lit rooms.

- Include a lightweight service running on your existing infrastructure, which orchestrates and manages the solution across devices and hubs throughout the network.

- Then, ensure each of your compatible, networked computers have Intel Unite software installed.

Once setup is complete, you can turn on the collaboration between the display and PCs, meaning your classes can start on time and your students stay engaged.

Because Intel Unite software can work with a variety of operating systems such as Chrome OS, and Windows 7, 8.1 and 10, schools can concurrently connect a mix of compatible PCs in the same session to display different pieces of content simultaneously.

And within the session, instructors can keep lessons on track with sharing and viewing controls in the Intel Unite software. This allows teachers to have the option of previewing content before displaying and the ability to disconnect a displaying PC, which may be useful if you have a student who decides to stop following the rules.

Once Intel Unite is installed in the infrastructure, it's easy to manage and modify installations across hundreds of classrooms, using Intel® Active Management Technology brought by the Intel vPro platform, for tasks such as patch-pushing and remote device management.

For a look at how Intel Unite has already made a difference in education, read how Maryville College offers students engaging classroom experiences, with enhanced collaboration via quick, hassle-free connectivity to displays and projectors from multiple device types.

With wireless connectivity, your school's Dell Chromebooks including the **3180**, **3189**, **3380**, **5190** as well as the **5190 2 in 1** can interact using Intel Unite with other networked PCs in the school such as Dell Latitude **3380**, **3190** and the **3190 2 in 1**.

What you need to get started

Dell and Intel have what you need to upgrade your educational display technology for all types of learning institutions.

To create wonder for young minds and encourage learners to aim higher at both primary and secondary levels, we recommend the Dell 55" 4K Interactive Touch Monitor C5518QT or the Dell 86" 4K Interactive Touch Monitor C8618QT; and the Dell OptiPlex 7060 Micro PC with Intel® Unite™, plus accessories. Classroom collaboration becomes intuitive and seamless thanks to innovative technology, allowing simultaneous screen interaction via touch and stylus with up to 20 points of touch. Teachers can stream their lessons so students can interact, take notes and save content on their own devices, with DisplayNote software.

At the university level, we recommend the Dell 55" 4K Interactive Touch Monitor C5518QT or the Dell 86" 4k Interactive Touch Monitor C8618QT plus the OptiPlex 7060 Micro PC with Intel® Unite™, creating an all-in-one solution when inserted into the dedicated slot and accessories to bring the lecture hall to life. Educators and students can grab content from the cloud and share it without having to connect their personal devices. Assistant educators can also gain access to the network and lesson plans without needing any additional devices.

Conclusion and checklist

Technology can play a significant role in delivering immersive learning and smarter collaboration for students and teachers, which can help improve classroom productivity from primary schools to universities.

Creating a modern environment fit for collaborative learning requires matching the right hardware and software to each teaching and learning environment. There's a combination of Dell OptiPlex 7060 Micro with Intel Unite® software, Intel vPro, and Dell projectors for every teacher and student need in every education space and at every type of institution.

Here are some key steps to creating a collaborative student-centred learning environment:

- ✓ **Align devices** with learning objectives and uses.

- ✓ **Involve students in decision-making,** which encourages them to take responsibility for learning.

- ✓ **Encourage classroom collaboration,** by setting the desks up in groups that encourage sharing among students and with the teacher.

- ✓ **Think beyond the classroom** to ensure seamless integration with external devices.

- ✓ **Have a comprehensive strategy in place,** and make sure teachers are involved in planning it.

- ✓ **Make it interesting.** Something that was boring on paper will still be boring on a computer screen.

- ✓ **Use technology to encourage creativity,** not rote learning.

- ✓ **Use technology** to let students learn from themselves and each other.

- ✓ **Allow students to bring virtually any device** and connect and collaborate in the same room.

- ✓ **Encourage professors to present remotely.** With online courses, for example, education can be extended beyond the traditional classroom walls to almost anywhere, and, in the process, attract the best and brightest from all over the world.

Remember that educational technology has many benefits, not least of which is that it makes learning more interesting and exciting for students and makes teaching more dynamic. Be confident that Dell and Intel technology, featuring the Intel Unite® Solution for Education, will help you reap those benefits and many more.