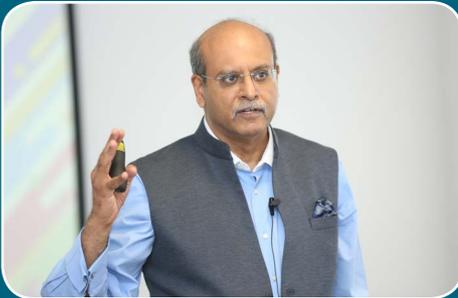
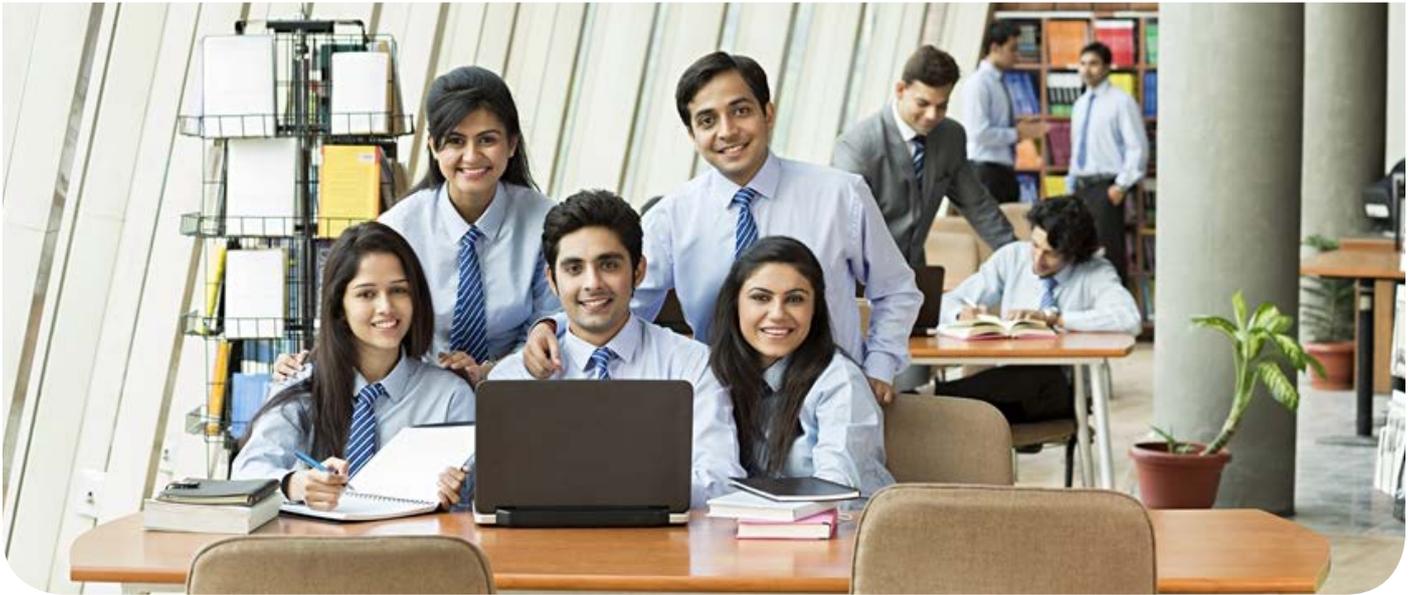




INDIA
DIGITAL SUMMIT 2018
Education

Transforming Education for the Digital Era

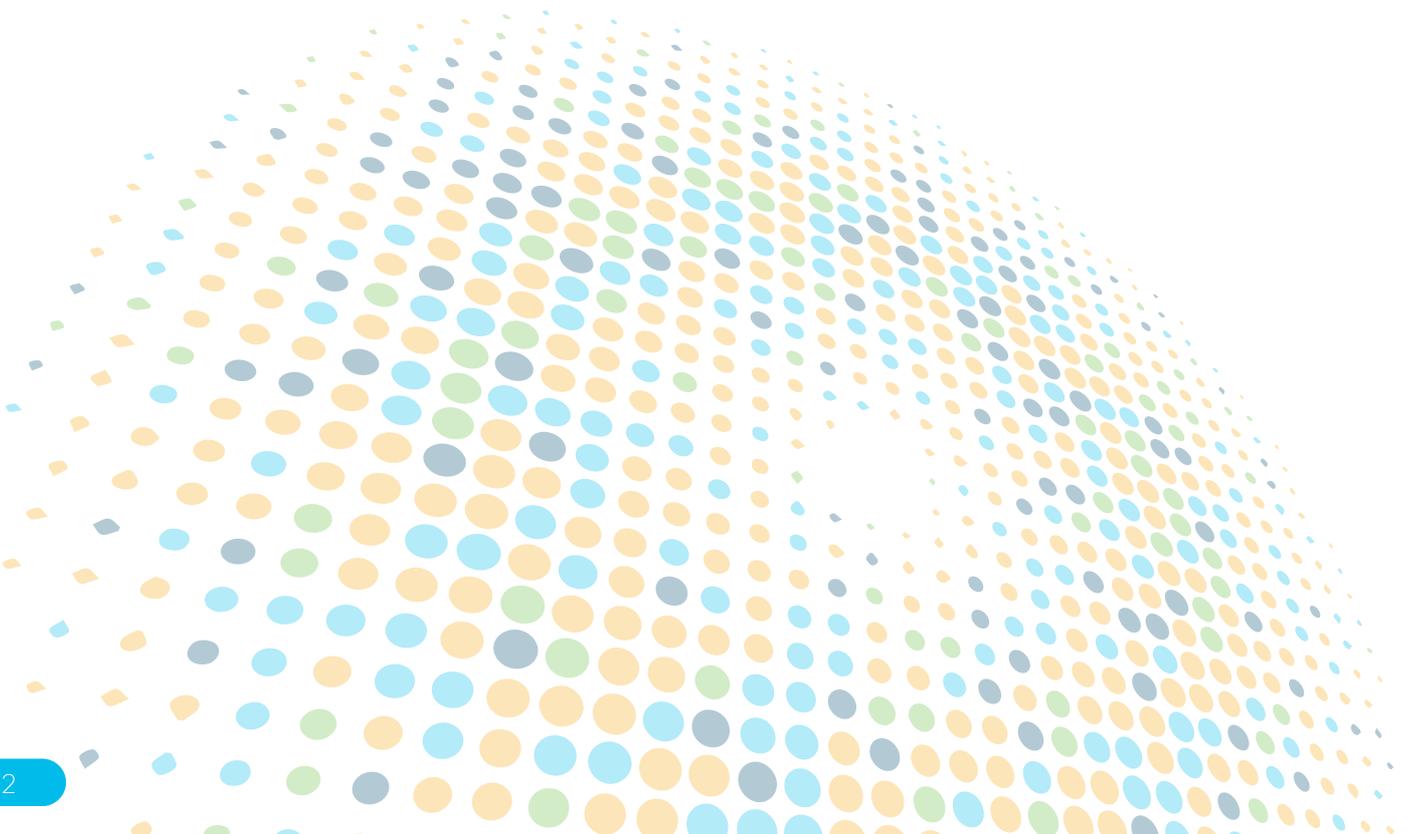




About the Cisco India Digital Education Summit

The Cisco India Digital Education Summit 2018 was organised in response to the rapid pace of technology change and the intensifying competition occurring in higher education globally. From teaching and learning, to research and administration, all aspects of education are being disrupted. The Summit was aimed at exploring and sharing perspectives on a number of questions:

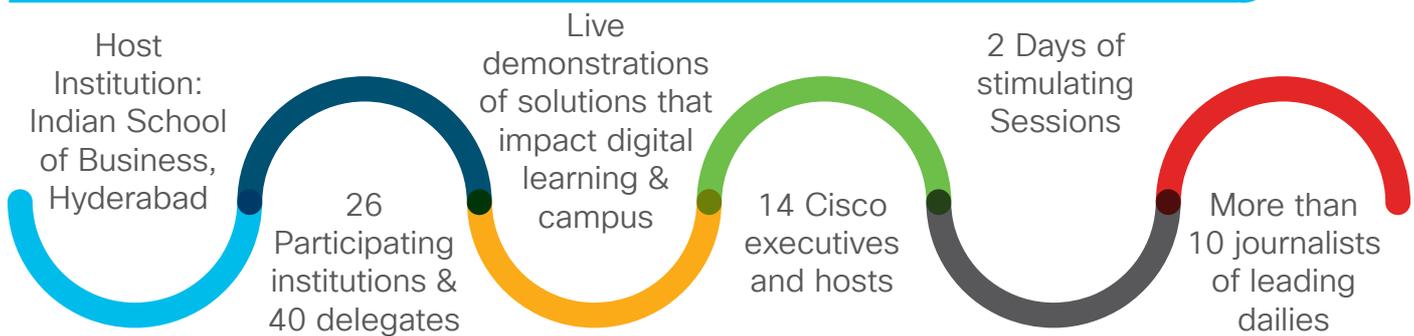
- What opportunities exist for universities to harness digital?
- Who is doing digital and innovation well, and what are the results?
- What are the new business and operating models for education?
- What does a digitised university look like, and how to get there?
- What might the future look like for Institutes?



Executive Summary

The Cisco India Digital Education Summit 2018 has recently been concluded and it marked the beginning of a new transformational journey for the Indian education sector. The initiative was kick-started at the Indian School of Business, Hyderabad campus and it witnessed a presence of 40 delegates from 26 Educational institute/Universities across 16 cities. In addition, 10+ journalists from premier media houses gave media coverage to the event.

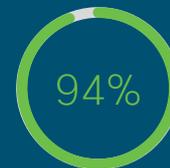
Summit Highlights



Positive Feedback



of the attendees found the sessions and keynotes extremely insightful and relevant



of the attendees showed interest to know more about Cisco products

Customer Testimonials

“The sessions were very informative with prominent speakers. The information will enable me to frame the roadmap for our future projects.

- Brigadier
Jaideep Suri
The Delhi Public
School Society

“The event was very informative and educative. Extremely well organised and managed. Overall excellent program.

- Himanshu Patel
Mudra Institute of
Communications,
Ahmedabad

“I came to know how the digital evolution is shaping up and it is very useful for both faculty as well as students.

- Venkateshwar
Rao Pasam
Malla Reddy
Engineering College

“Very useful information about digital learning.

- Sathish
Kumar B
Koneru
Lakshmaiah
Education
Foundation

The audience

The Summit included 40 delegates from schools, higher and vocational education and training from across India. It provided the opportunity for Vice Chancellors, Chief Operating Officers, Chief Information Officers and teaching and learning executives to share views in an immersive peer-to-peer environment.

Event program

Major elements of the Summit program included:

- **Immersive experience in the ISB Hyderabad Digital Campus**
The opportunity to experience as well as hear about ISB's digital vision. The campus visit included investigation of ISB's learning spaces, strategies deployed to activate the ISB campus and a campus tour
- **Industry perspectives**
The summit was attended by senior executives from Cisco to provide industry perspectives on the impact of digital on educational outcomes. The specific themes related to network platforms, cyber security, digital collaboration, IoT and analytics
- **Hands-on: Digital Strategy**
Live demonstrations of latest university-relevant technology and digital services gave delegates the opportunity to understand what is available and how it could be used on a smart campus. Demo zones were set up for Digital Learning & Digital Campus solutions where solutions like Auto Attendance, Cisco Kinetic for Campus, Virtual Classrooms & Remote + Continuous Learning Solutions were showcased during the demo
- **Media Briefing**
A press meet was organized to share Cisco's vision for Digitizing Education in India. An extensive media demonstration was carried out to showcase how technology and Cisco's products and solutions can transform the Indian education system
- **Cisco Webex Teams**
All delegate interactions & event updates were facilitated on Webex Teams with a result of most delegates active on the CIDES2018 Webex Teams Space exchanging notes and taking the ideal collaboration benefits



Indian School of Business, Hyderabad: Using digital to drive its teaching and research agenda

THE INDIAN SCHOOL OF BUSINESS (ISB) evolved from the need for a world-class business school in Asia. The founders, some of the best minds from the corporate and academic worlds, anticipated the leadership needs of the emerging Asian economies.

- The ISB is committed to creating such leaders through its innovative programmes, outstanding faculty and thought leadership. Funded entirely by private corporations, foundations and individuals from around the world who believe in its vision, the ISB is a not-for-profit organisation.
- Indian School of Business is regarded as one of the most digitally-advanced, fastest growing and innovative B-Schools globally.



Digital Campus

Internet of Things (IOT) enables digital transformation of traditional education campuses into Digital Campuses. The Digital Campus is not only efficiently operated and managed with smart and intelligent technological innovation (Smart Facilities), it also offers engaging and collaborative work environment (Smart Workspaces) for all to thrive upon, that combines with innovation applications and services (Smart Services) that enables new and transformational business and educational models that delivers greater business & educational outcomes.

Smart Campus is the foundational campus solution that addresses generally the physical environment like buildings, sport facilities (stadiums, pools), roads, car parks, and utilities services like energy systems, lights, lifts, air-conditioning, waste disposal, etc.

We believe Digital Campus is a mindset in the following ways:

Improved student engagement plus experience:

Attendance, emotion tracking, analytics (big data) and applications to improve student life (food, beverage access, etc.)

Better access to digital economy skillsets:

Cybersecurity, data analytics, and visualization

Operational Efficiencies:

Digital parking, digital security (location based) and energy management, all enhancing data to take informed decisions

Better learning outcomes:

Technology enabling pedagogy, video integration, collaboration tools connecting people and crowd sourcing of skills plus time

Contemporary industry partnerships: Actively engage growing industries as rich sources of IP, technology, and relationships

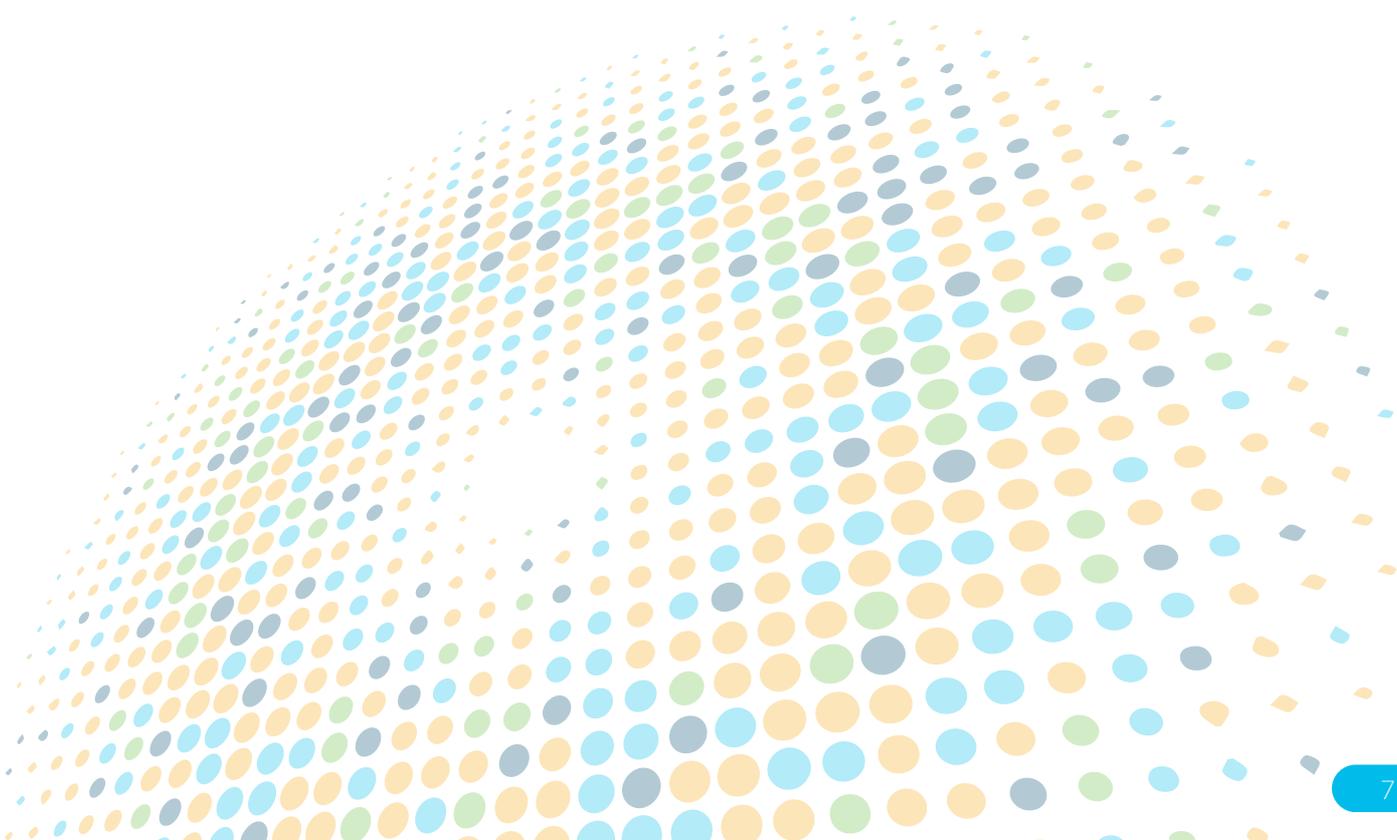
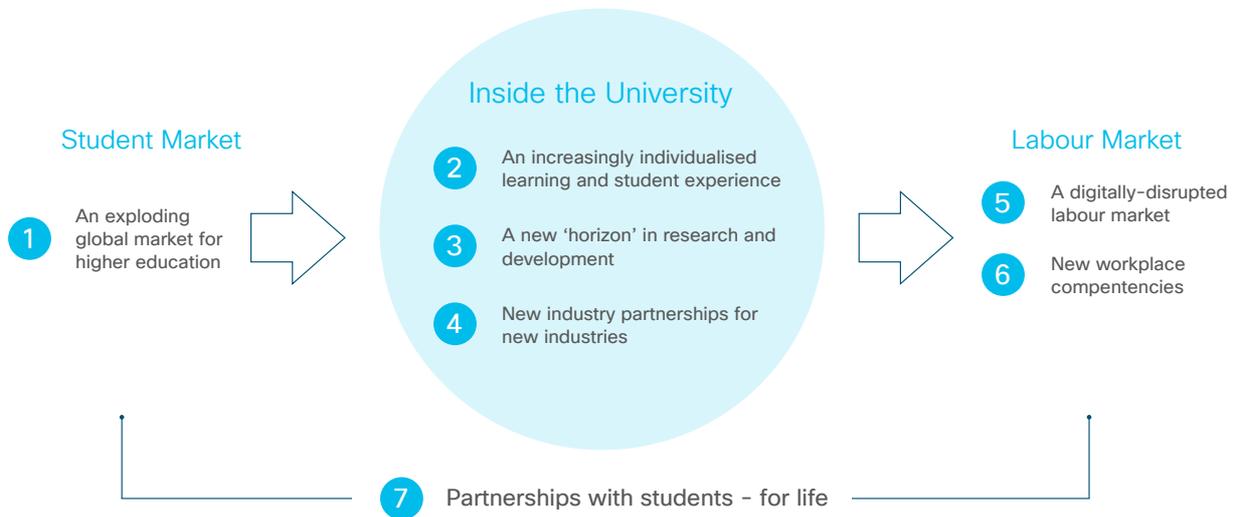
Connected community:

Serves as a community hub driving growth, sustainability, and a resilient economy, both locally and regional.

The nature and level of digital disruption in education

The education sector has experienced major change and its pace is accelerating. All aspects of education are being impacted – inside and outside the institution. From a student’s perspective, the dramatic changes are opening up new global markets and increasing student expectations about what a ‘campus experience’ means. Inside the university the digital revolution is creating challenges around personalisation of learning at scale, creating opportunities to explore new horizons in research and forcing institutions to re-evaluate the approach to and value of industry partnerships. Digital is also impacting the labour market – both the loss of jobs through automation but also the creation of new jobs. Up to 85% of jobs that will exist in 2030 haven’t been invented yet.¹ Digitisation is also reducing the focus on technical mastery to development of new workplace competencies such as collaboration and critical thinking.

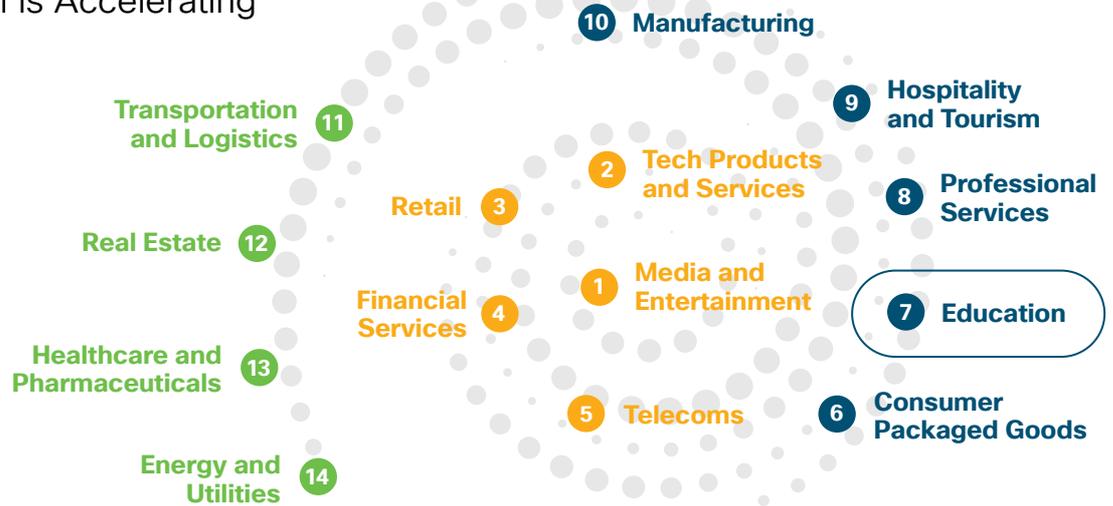
Impact of digital in the higher education sector



The education sector still lags other industries in terms of disruption. Cisco's Digital Vortex study drew on the perspectives of nearly 1000 global leaders to track the pace and extent of change. Education ranked in the top 10 (seventh) but still well behind the media and technology sectors.

Different industries' proximity to the digital vortex

Pace of Disruption is Accelerating



Useful links:

[know about Digital Vortex](#)

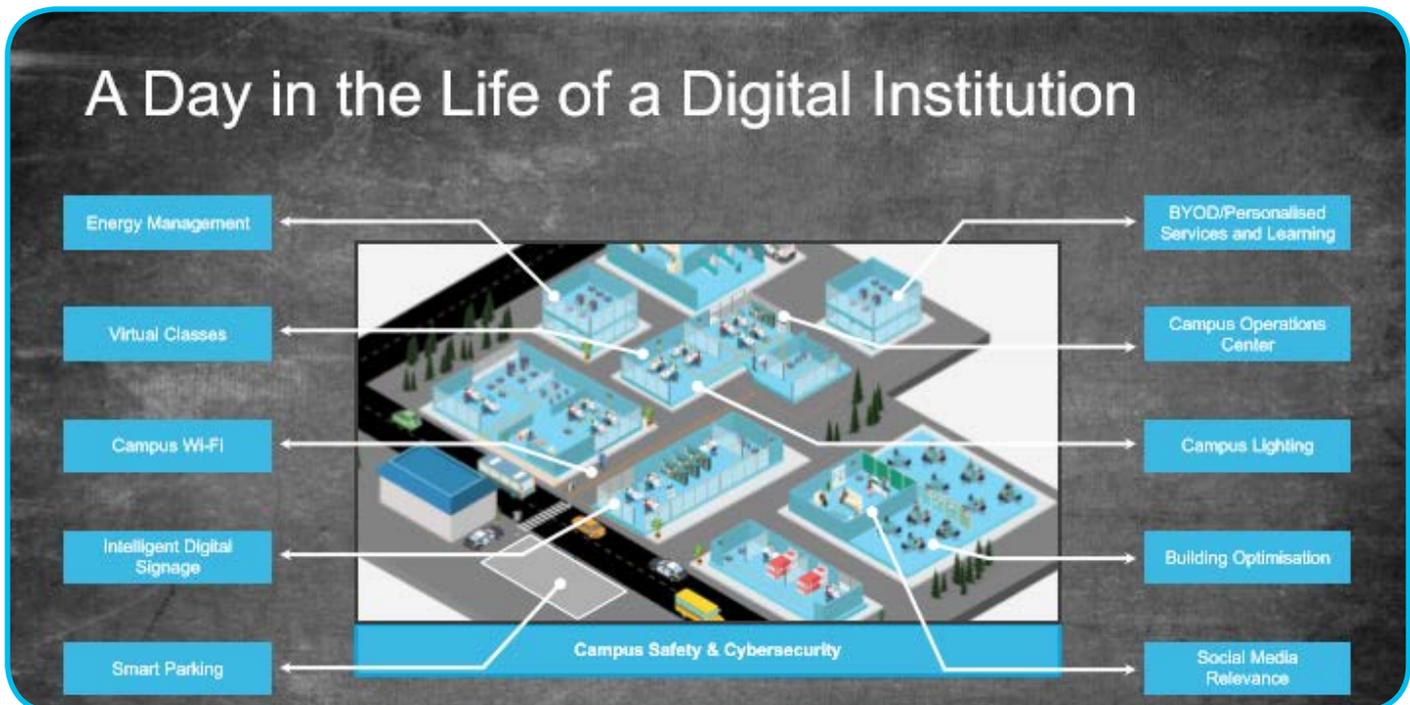
[Competing in the Digital Vortex](#)

[Life in the Digital Vortex](#)

[Public sector & the Digital Vortex](#)



A Day in the Life of Digital Institution



Digital Learning

The Education landscape is now a highly connected learning environment, with the proliferation of mobile devices and the expansion of high-speed broadband infrastructure globally. Therefore, Cisco's Digital Learning strategy and messaging is perfectly placed to help educational institutes achieve greater business and educational outcomes. The solutions set within the Digital Learning domain specifically addresses the teaching, learning and research imperatives of educational institutes.

Some of the solutions Cisco has built around Digital Learning are as follows:

Connected Learning

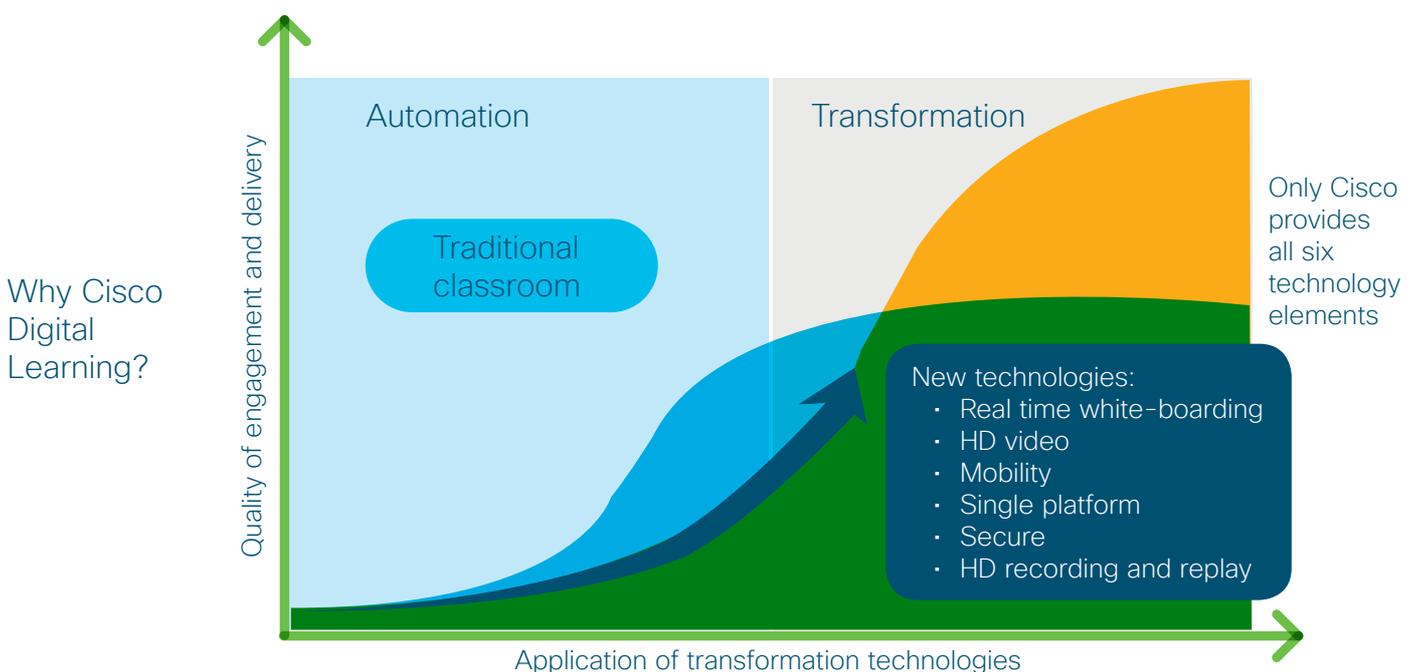
Connected Learning is about creating a foundational technology-enhanced learning environment, fully leveraging BYOD (Bring Your Own Device), mobility, security and Internet access to enable a blended and seamless learning experience - Anytime, Anywhere, with any device, to any resource.

Learning Spaces

Learning Spaces are becoming one of the most discussed topics with Education Line of Business decision makers, as the attention turn from administrative efficiencies of education delivery towards that of academic effectiveness. This in turn drives the focus on learner engagement, and effectiveness of these technology-enhanced learning spaces in engaging learners and educators, effectively. Given the tech-savviness of the new generation of learners, the seamless engagement across learning spaces are also critical considerations.

Seamless Classrooms

Learning today is not confined to 1hr class or the physical boundary of the school. The latest industry trends suggest learning to be continuous - before the class, during the class & even after the class. Students should have access to a digital platform where teachers can give pre-work, record live lectures, to be made available on the same platform & answer queries/ doubts after the class on the same platform - making it a seamless learning experience. This digital platform becomes a single window of engagement for all the stakeholders of a particular stream.



Media snapshots

Cisco's blueprint to tap into digital education segment

With nearly 30% of India's current population being in the age group of 0-15 years, and the digital education market growing at 11% every year, the segment is poised to be digitally disturbed giving scope for a huge digital revolution in the country.

To tap this market and overcome challenges like capacity, scale and quality, Cisco announced a Blueprint for Digital Education that allows colleges and universities to enable students learn anywhere with Cisco Connected Classroom solutions which use the Cisco Digital Network Architecture (Cisco Network intuitive) and collaboration solutions such as Cisco Webex teams. Sudhir Nayar, Managing Director, Commercial Sales, Cisco India and SAARC, told reporters here on Thursday that the challenges faced by the Indian education system that consists of over 1.5 million schools, 35,500 colleges, 750 university and 260 million students could be tackled by Cisco blueprint that provides all solutions except generation of content.

Empowering educators

By offering educators and students more ways to connect, engage, manage and succeed, the Cisco blueprint aims to help colleges and universities create a completely-integrated digital environment.

Students can learn anywhere, anytime and on any device. Cisco's highly secure core network and unified voice, video and wireless communications would empower the educators, administrators and students alike. The new platform also helps in turning institutes into smart places that automatically tracks students' attendance and progress.

At the same time, the Cisco Connected Campus provides extensive network analytics to help administrators make data-driven decisions while managing facilities, lighting, parking and transportation.

Smart learning

Cisco blueprint aims to help colleges and universities create a completely-integrated digital environment

Students can learn anywhere, anytime and on any device

It helps in turning institutes into smart places that automatically tracks students' attendance and progress

'Cisco Connected Campus' provides extensive network analytics to help administrators make data-driven decisions while managing facilities, lighting, parking and transportation



Media coverage

The Hindu

Cisco launches blueprint to tap into digital education segment

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The Hindu Business Line | India Finance News

Cisco eyes digital learning business

Cisco is eyeing an unfolding opportunity in the country's digital learning market. The \$2-billion market is expected to grow at 11-12 per cent in the next three years as the education market touches the \$140-billion mark by 2020 from the present level of \$97 billion.

Telangana Today

Cisco launches digital education projects

The digital penetration in education has been growing at a much faster pace when compared to other sectors. And in order to transform the sector, Cisco on Thursday announced a Blueprint for Digital Education. The networks company that is closely working on the Smart Cities project in India is looking to change the way educational institutions function and teach in India. And for this purpose, the company has launched 10 new digital solutions that will create software-backed infrastructure for institutions depending on their needs.

Eenadu

Digitalization role increasing

Education is at the heart of new digital economy and the digital learning solutions' market in India is currently at \$2 billion – the second largest market for digital education after the US, global networking giant Cisco said here on Thursday. Realising the need to skill students in disruptive technologies like Big Data analytics, Artificial Intelligence (AI) and cyber security, global networking giant Cisco on Thursday announced a "Blueprint for Digital Education" here.

Business Standard | The Quint | Gadgets Now | SME Times | The Siasat Daily | Millenium Post | Navhind Times | Western Times

New Cisco blueprint to skill students for New-Age technologies

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Divya Gujarat | Gujarat Pranam | Metro Herald | Prabhat | NCN | NRI News | India Reporting | News Experts

Cisco launches blueprint for Digital Education

The Blueprint for Digital Education is based on Cisco's highly secure core network and unified voice, video, and wireless communications, which are protected by state-of-the-art security solutions and lay the framework for connected campuses, empowered educators, informed administrators, and students who have the tools they need for success in a new digital world.

DT Next

Cisco to tap USD 2 billion Indian digital education biz

Realising the need to skill students in disruptive technologies like Big Data analytics, Artificial Intelligence (AI) and cyber security, Cisco on Thursday announced a "Blueprint for Digital Education." The blueprint will allow colleges and universities to enable students to learn anywhere with "Cisco Connected Classroom" solutions which use the Cisco "Digital Network Architecture" (Cisco DNA) and collaboration solutions such as "WebEx" online meetings and Cisco "Spark" all-in-one communications solution.

SME Street

Cisco Offers a Comprehensive Digital Offering for Indian Education Sector

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Major themes and conclusions from the Summit

While Cisco is a source of technology, expertise and infrastructure it also provides education institutions with a connection into the global digital economy, research and networks. This capacity to convene is a major reason why Cisco brought together institutions from across the region for the summit. Another major motivation for the Summit was Cisco's deep interest in education:

1. Cisco has a strong education DNA and was founded at a university (Stanford University in the US) and continues to invest disproportionately on research, development and innovation.
2. Education is a major market that values partnerships with industry and investment in robust, scalable and secure infrastructure and has been an enthusiastic promoter of collaboration.
3. Education is a catalyst for growth and efficiencies across the wider economy. Universities transform industries with their research and the K12 and vocational education sectors are a major source of talent pipeline for economies across the Asian region.
4. Education is at the heart of the innovation agenda and universities in particular play a critical role in helping to solve the big economic, industry and community problems.

5 Major themes arising from the Summit



Theme 1



Driving competitive advantage through innovation

The importance of innovation was a recurring theme during the Summit. Education institutions are realising that innovation is a mindset as well as a process, and bringing about culture change is one of the most challenging barriers to innovation.

What's driving momentum

Innovation is motivated by different factors in different countries. In Japan and South Korea there is recognition that incremental efficiencies will not keep their knowledge-intensive manufacturing industries competitive. In India there is an understanding that innovation is essential to solving its wicked problems at scale. In the ASEAN region innovation is seen as critical to differentiating in competitive markets and in Australia there is recognition that Australia's innovation output is lagging. Universities understand they need to develop innovation capability and be a source of IP and talent.

Major advances and trends explored at the Digital Education Summit:

- Putting infrastructure and processes in place to drive innovation rather than expecting it to happen.
- Commitment to experimentation and 'ring-fenced' proofs of concept. Starting small and proving fast allows universities to quickly seize momentum and scale around innovation.



Theme 2



The digitisation of learning and smart classrooms

Technology has traditionally been an augmentation tool in teaching and learning, particularly in distance learning. Educational institutions are now recognising that they have only scratched the surface of what's possible with digital learning and student experience. Digitally empowered education can create immersive and engaging learning experiences, innovative pedagogical approaches and new business models.

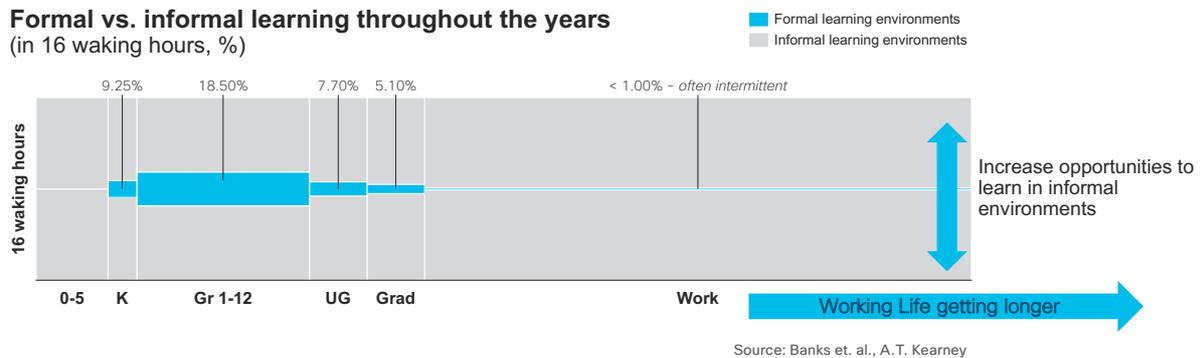
What's driving momentum

Investments in digitised learning and smart classrooms are driven by four factors:

1. Evidence that technology-enabled learning (e.g. flipped/blended learning) is more effective.
2. Changing student preferences and an expectation that learning will be practical rather than abstract, collaborative not individual and that it will equip them with skills required to succeed.
3. Industry now expect new graduates to be digitally literate, work effectively in teams, be strong communicators, have an entrepreneurial spirit and be adaptable lifelong learners.
4. Capacity to deliver learning at scale and create more adaptable/immersive engagement. Lifelong learning is particularly critical given the size of the market opportunity and recognition that flexible and informal learning will almost certainly require investments in digital.

Formal versus informal learning and the opportunity for institutions to capitalise

If we are going to live longer, we will have to take advantage of the many opportunities to learn



The primary success criterion for education is stimulating the desire to learn more

Next Gen Learning

Before

Before the actual class, students start interacting with peers and teachers in the spark room

During

During the class, teacher uses the spark board, discusses the topic with students. All the white boarding gets saved into the Spark rooms including the entire video recording.

After

After the class, students continue with their learning and start engaging in the Spark rooms.

Major advances and emerging trends discussed at the Digital Education Summit

- Radically new models for packaging education. Institute's work in micro-credentialing with Industry demonstrates the potential for universities to take existing courses, unbundle and then re-package them for new markets and new types of learners.
- Incorporation of artificial intelligence (AI) and augmented/virtual reality (VR) into the learning process. These new technologies are creating new frontiers in learning. Cisco WebEx Teams (Formerly Spark) is equipped with AI and VR to create an innovation platform rather than an application. The platform provides for continuous innovation and integrates with existing learning systems.
- Mass adoption of Smart Classrooms and evolution of learning spaces. Many institutions at the Summit had deployed Smart Classrooms or were committed to this path. Institutions reported that they were embracing Smart Classrooms because they embed digital into the learning experience, open up new learning models and improve learning outcomes.



Theme 3



Partnering with industry for Growth

A number of Institutes at the Summit spoke of the importance of deep industry partnerships to ensure they remain relevant connected and equipped to meet digital economy challenges.

What's driving momentum

Institutes are increasingly dependent on industry. Research funding is disproportionately directed to applied projects and students expect exposure to industry as part of their learning.

Major advances and trends explored at the Digital Education Summit:

- **Industry-focused innovation centres:** While IoT has been a major focus the remit is expanding to include any technology capable of solving critical business issues. Cisco's network of innovation centres – and the ecosystem of industry members – is an asset all universities in the region can access.
- **Multi-faceted partnerships:** Universities are increasingly viewing their major procurement relationships through a partnership lens. In an environment where industry is valued universities want genuine strategic partners who provide leading edge technology and much more. Cisco's partnership model with universities was demonstrated at ISB and proves what can be achieved with trust, mutual value and the proper commercial framework.
- **Cisco Networking Academy:** The Cisco Networking Academy has trained six million people globally since 1997, including a recent expansion into cyber security and IoT. The networking academy's cyber and IoT curriculum is no longer just a stand-alone certification; it is being integrated into degrees micro master credentials. Given the move towards flexible learning and micro-credentials, Cisco believes that more Institutes will look to leverage industry curriculum to create stand-alone endorsed industry credentials with minimal effort.



Theme 4



Building a secure, scalable digital institution

Universities have made major investments in campuses, systems and people. Digitisation offers the capacity to re-imagine utilisation of spaces, places and people to drive efficiencies and engagement. Universities in particular have invested heavily in connectivity – particularly Wi-Fi – which can be re-purposed to enable a range of new applications and digital services.

What's driving momentum

Interest in digital campuses is driven by hyper-competition in high education and the expectation that they can do more with less. Increasingly institutions are also recognising that any infrastructure also needs to be secured against a growing number of more sophisticated cyber threats. Institutions realise that digital presents opportunities for quick wins in efficiencies in areas such as energy management, building utilisation and surveillance, as well as opportunities for improved student engagement and research output.

Major advances and trends explored at the Digital Education Summit:

- Leveraging Wi-Fi technology to drive specific applications. Two solutions were showcased during the Summit: 1) Auto Attendance of Students entering the classroom with no room for errors & in less than a minute and 2) Cisco Kinetic for Cities – integrated solution to manage parking, lighting, waste, environment & security in the campus.
- The move from perimeter based defence to fighting cyber security from the inside out: Cyber attackers pose a major threat to Institutes in terms of their own IP but also the IP they own about students, suppliers and industry partners. Institutes such as Deakin University now recognise they can't keep attackers out of their network so they must find a way to detect and deal with attackers quickly. Deakin's decision to use Cisco as its primary cyber security partner was based on the fact that as its network infrastructure provider it had better visibility of their threat landscape than anyone else.

Cisco Smart Campus

Smart lighting

- Adaptive lighting
- Scheduling
- Auto failure reporting

Campus safety

- Surveillance
- Real-time situational awareness

Parking

- Live parking available (driver assistance)

Environment

- Pollution /pollen monitoring

Waste management

- Recycling waste monitoring



Data input (sensors)

- Waste sensors
- Camera
- Parking sensors
- Lighting sensors

Data output (apps IFs)

- Digital signage
- Mobile devices
- NOC

Smart campus architecture for connectivity & management

Theme 5



The importance of a digital platform for education

One of the major conclusions at the Summit was that technology matters. New technologies and new digital platforms create value that was impossible to realise previously. Social media platforms are an example; people always had the innate desire to share and communicate frequently but didn't have the platform to do this efficiently and effectively until social media arrived. The analogy is equally applicable for large institutions. Platforms to effectively collaborate and automate operations have not existed until now, unlocking lots of new potential.

What's driving momentum

Investment in new digital platforms is driven by issues at the core of education institutions:

- To improve student engagement, outcomes and employability
- To create greater research and innovation impact
- To realize operational efficiency and commercial sustainability
- To enhance collaboration with industry

Analogue-only education institutions will likely not exist in coming decades – a truth embraced by all delegates at the Summit.

Major advances and trends explored at the Digital Education Summit:

- **The notion of 'platform value':** Cisco sees its value in three areas. The Summit explored its value from different lenses, including the perspective of institutions in the throes of digital disruption themselves. While the network has traditionally been seen as infrastructure to drive cost and experience benefits it is now a platform for learning, teaching, research, operations and smart campus administration.
- **The network as a platform for innovation:** The 'demo' sessions at the Summit showcased a range of specific applications offered by Cisco as well as third party providers. Just as the IOS platform spawned an app store the Cisco platform has done the same for firms focused on wayfinding, attendance tracking, visualisation, room utilisation and learning analytics. The platform also provides a platform for researchers, teachers and administrative staff to innovate and experiment on.

New definitions of value in education

Cost Value	Experience Value	Platform Value
<ul style="list-style-type: none"> • Improved operational efficiency of admin & management • Smart workspaces, buildings, lighting, parking 	<ul style="list-style-type: none"> • Digital learning spaces • Smart campus services: way-finding, congregation, physical security • Cybersecurity 	<ul style="list-style-type: none"> • Blended learning approach at scale • Analytics improve student services • Resource management

Sources of value Cisco offers to the education sector

Conclusions about where to next

Education like all industries is being disrupted, with the pace of disruption likely to accelerate, creating both opportunities and challenges for Institutes in the region. The Digital Education Summit provided a forum for Institutes to understand what is possible with digital and how Institutes are responding.

Challenge	Opportunity
How to respond to a new cohort of learners that have grown up in a digital first and mobile first world	Smart Classrooms and digital campuses that embed digital into the student experience
How to efficiently scale what works in teaching and research	Invest in digital platforms, not just point solutions
How to innovate consistently and safely	Deep industry partnerships built on trust
How to makes sense of all the change and disruption that is occurring in all aspects of vocational and higher education	Understand the institution's digital readiness and realise value from digital, not just do more digitally
Ensuring that critical data, systems and infrastructure are protected from the cyber threat	Adopt a network rather than perimeter-based defence that focuses on time to detection/harm minimisation rather than the false hope of keeping all threats out

Practical next steps to better identify and capture opportunities related to digital education

- Request a Digital Business Roadmap session. This capability can be leveraged as part of strategic road mapping sessions that typically involves a large number of stakeholders in a specific ecosystem. To learn more about the process and potential benefits contact cides@external.cisco.com
- Initiate an innovation project or proof-of-concept with a Cisco Innovation Centre or a Cisco partner at one of a number of locations across the Asia Pacific Region. The centres are intended to provide opportunities for industry, community, government and universities to collaborate on problems that matter. Centres in the Asia region are focused on different industry sectors and more information can be found at <https://www.cisco.com/c/en/us/solutions/innovation-centers.html>
- Request a Smart Classroom demonstration. The best way to appreciate the immersive quality of Cisco's Spark platform and Spark Boards is to see it being used in an education context. Smart Classroom demonstrations can be organised by contacting cides@external.cisco.com
- Request a ThingQbator Lab discussion. Please write to cides@external.cisco.com
- Visit Cisco Experience Center to have hands on experience of Cisco Technologies, please reach out to your Cisco Account Manager or write to cides@external.cisco.com