IFE
IMPACT REPORT
March 2023 - February 2024

**Institute
for the Future
of Education**

Tecnológico
de Monterrey

Dear Friends,

We are thrilled to present a summary of our achievements and impact for the period spanning from March 2023 to February 2024. This has been an extraordinary year, and as we reflect on the journey we've undertaken and the milestones we've achieved, we are reminded of the significant strides towards our purpose of improving higher education and lifelong learning through research-driven educational innovation.

Through a diverse portfolio of initiatives, the Institute for the Future of Education engages in partnerships with academia, industry experts, policymakers, and visionary leaders to shape the future landscape of education. This report is structured into four sections, each highlighting results and impact of our open collaborative platform: Interdisciplinary Research, Entrepreneurship and Technology Transfer, Impact Projects and Consultancy, and Outreach and Community Building.

We also take this opportunity to express our profound thanks to our many partners, collaborators, and supporters, which have very much been the wind beneath our wings, as we continue to soar to new heights.

I invite you to explore our impact report. We trust that it will inspire new conversations, ideas, and potential collaborations.
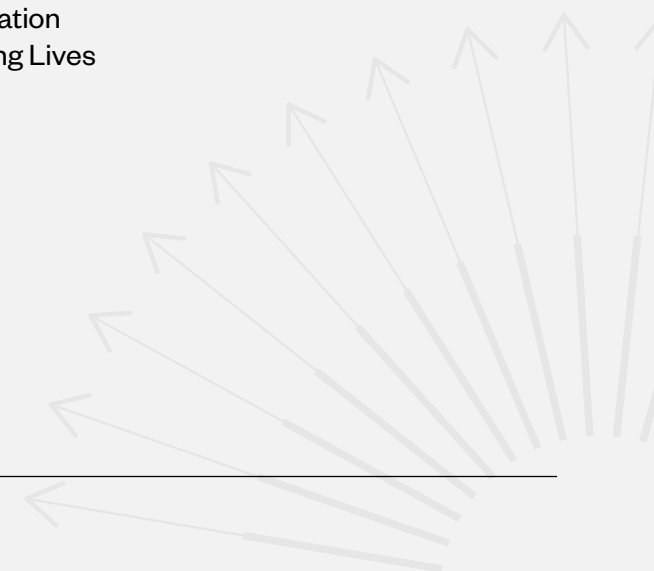
Warm regards,

MICHAEL J. L. FUNG
Executive Director
Institute for the Future of Education
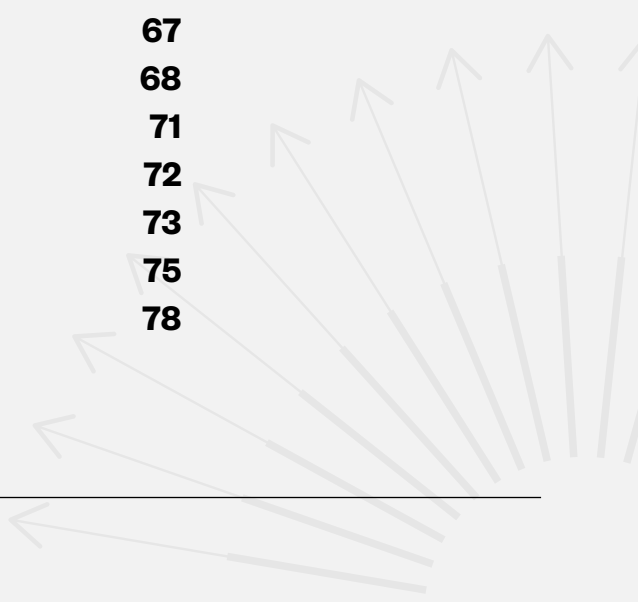Transforming Education, Improving Lives
tec.mx/en/ife

INDEX

ABOUT IFE

The **Institute for the Future of Education** (IFE) has the dream of improving the lives of millions of people around the world by transforming higher education and lifelong learning.

As we navigate the evolving landscape of work, it is imperative to envision a transformative future for education that caters to academic achievement, skills mastery, and the preparation of graduates for the labor market. This necessitates a paradigm shift characterized by nonlinearity and high flexibility, ensuring education remains responsive, relevant, and effective in meeting the changing needs of industries and society.

IFE's Key Themes for the Future of Education: Towards a FAIR Approach

With **FAIR** as a new vision for education's future, higher education institutions are confronted with the responsibility of ensuring quality and relevance while prioritizing access, inclusion, and efficiency.

F **A** **I** **R**

Fit for Purpose
Design pedagogical, neurocognitive, and technological approaches that lead to effective learning.

Adaptive
Create flexible and convenient learning modes with multiple progression pathways.

Inclusive
Bring quality education opportunities to all, including underserved communities.

Relevant
Anticipate and respond to the dynamic changing needs of industries and society.

THE FIVE GRAND CHALLENGES FACING EDUCATION

To achieve these objectives, several challenges need to be tackled, including, but not limited to:

1. **Quality:** Elevate learning outcomes by transforming teaching & learning to be engaging and motivating.
2. **Relevance:** Skills development to support worker job mobility and companies' business transformation.
3. **Access:** Scale up quality higher education and lifelong learning opportunities for all segments of the population.
4. **Inclusion:** Make education affordable to different learner segments.
5. **Efficiency:** Design effective competency-based learning systems to increase educational quality and efficiency.

IFE OPEN COLLABORATIVE PLATFORM

To address the five grand challenges in education, the Institute for the Future of Education was established as a platform to support interdisciplinary research, promote entrepreneurship and technology transfer, provide educational innovation services, disseminate knowledge, and deliver impact to our stakeholders.

5 Grand Challenges

1. Skills development
2. Scale up quality education for all
3. Engaging and motivating teaching & learning
4. Effective competency-based learning systems
5. Affordable education

IFE's Initiatives

Interdisciplinary Research

Entrepreneurship and Technology Transfer

Impact Projects and Consultancy

Outreach and Community Building

Audiences

Higher Education Students

Lifelong Learners

Industry / Workforce

IFE INTERNATIONAL ADVISORY BOARD

The **IFE International Advisory Board** aims to chart a course toward a more inclusive, innovative, and impactful future for education. This board has representation from university leaders, education thought leaders, international organizations, global foundations, edtech industry and investors.

MAIN OBJECTIVES

- **Provide strategic guidance and advice to the Institute for the Future of Education.**
- **Shape the overall strategy and initiatives of the Institute.**
- **Guide its leadership on specific subject matters.**
- **Facilitate connections with new audiences and partners.**
- **Help to strengthen the Institute's international presence.**

The **IFE International Advisory Board** convened twice a year, with one meeting held in person during the **IFE Conference** on January 23th to 25th, 2023, and the other conducted online on May 19th, 2023. During these meetings, the Board conducted deep discussions to shape the strategic direction of the **IFE**. This involved assessing current initiatives, exploring new opportunities, and prioritizing areas of focus. Additionally, board members provided valuable insights on emerging trends in education, technological advancements, policy implications, and best practices.

We want to express heartfelt gratitude to our board members for their time and commitment toward the success of IFE.

IFE INTERNATIONAL ADVISORY BOARD (IAB) MEMBERS

Courtney Brown
Vice President of Strategic Impact and Planning
Lumina Foundation

Alejandro Caballero
Principal Education Specialist
International Finance Corporation (IFC) World Bank Group

Paul LeBlanc
President
Southern New Hampshire University

Gina Parody
Former Minister of Education
Colombia

Feniosky Peña-Mora
Executive Vice President of Research
Dean of the School of Engineering and Sciences
Tecnológico de Monterrey

Maia Sharpley
Founder and Managing Partner
Odonata Ventures

Matt Sigelman
CEO
Burning Glass Institute

Raúl Valdés-Cotera
Chief Programme Coordinator
UNESCO Institute for Lifelong Learning

Michelle Weise
Founder
Rise and Design

José Escamilla
Secretary of IAB and Associate Director
Institute for the Future of Education
Tecnológico de Monterrey

Michael J. L. Fung
Chair of IAB and Executive Director
Institute for the Future of Education
Tecnológico de Monterrey

Juan Pablo Murra
Rector of Higher Education
Tecnológico de Monterrey

Guillermo Torre
Rector of TecSalud
Tecnológico de Monterrey

INTERDISCIPLINARY RESEARCH

The following initiatives promote a culture of research to address educational challenges through interdisciplinary collaborations and knowledge exchange. They focus on designing research projects aligned with educational goals, collecting and analyzing data, and collaborating with other researchers and educators to improve teaching practices and learning outcomes.

INITIATIVES

- **Research Lab**
- **Living Lab & Data Hub**
- **Novus**
- **Impact Measurement**
- **Writing Lab**
- **IFE Europe**

RESEARCH LAB

The **Research Lab** is committed to producing groundbreaking interdisciplinary research aimed at addressing the pressing challenges facing education globally.

Educational Impact

- Generating relevant research outputs.

- Creating intellectual property that leads to technology transfer and entrepreneurship.

- Improving the educational experiences and outcomes of learners.
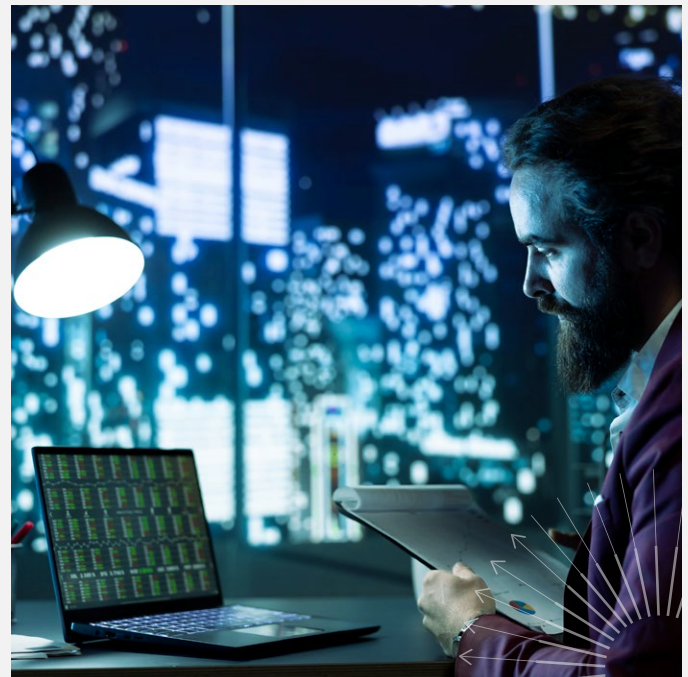
Research Lab comprises four research units:

- **Competency-Based Education (CBE)**

Development of robust approaches and methodologies conducive to the effective implementation of CBE systems.

- **Educational Technology**

Exploration of educational technologies to improve learning outcomes and scale solutions that promote inclusivity and diversity in global societies.

- **Effective and Engaging Learning Models**

Development of learning models designed to foster engagement and motivation across a diverse spectrum of learners.

- **Policy, Governance, and Systems**

Formulation and analysis of public policies, regulatory measures, governance frameworks, and best practices to advance systemic change in higher education and lifelong learning.

Results

148	$12.4 MILLION MXN	8
Annual publications	Fundraising attraction	Total research projects

3,237	122 Q1/Q2
Quinquennial citations	Publications

Some of the ongoing research projects in the Research Lab:

DigiUGov

The goal is to contribute to an inclusive digital transformation within university settings across Colombia, Mexico, and Europe. This initiative also aims to provide support for researchers engaged in digital teaching and research projects.

Dynamic Model of Future Skills for Industry 4.0

This initiative is supported by artificial intelligence methodologies and principles. Its primary objective is to establish a comprehensive global taxonomy and framework delineating skills and competencies. Furthermore, it tries to predict the expected needs of jobs in the industry 4.0 field by 2030.

Gender Issues and Psychosocial Factors in STEM Higher Education Institutions

It aims to foster a synergistic relationship between academia and industry by formulating recommendations covering teaching-learning methodologies, institutional policies, and industry practices. Additionally, it promotes the engagement and advancement of women in Science, Technology, Engineering, and Mathematics (STEM) professions, facilitating their progression towards successful professional trajectories.

Open Educational Model for Complex Thinking

The enhancement of proficiency levels in the domain of complex thinking competency and its corresponding sub-competencies is pursued through the development and evaluation of an open training model.

Ecosystem for Scaling Up Computational Thinking and Reasoning for Complexity

It aims to undertake the conceptualization and construction of a digital ecosystem centered on computational thinking, which seeks to simulate diverse real-world scenarios across a spectrum of complexities using artificial intelligence technologies.
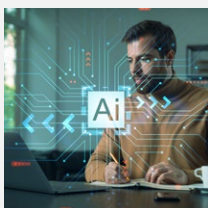
Education 4.0 Platform to Strengthen Scientific, Technological, and Social Entrepreneurship

This initiative undertakes the development, experimentation, and implementation of an online educational platform distinguished by its functionality and service offerings. These are grounded in artificial intelligence, multimedia integration, and interactive, gamified user interfaces, facilitated by Industry 4.0 technologies.
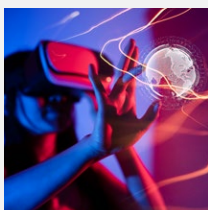
Simulating for Learning

The creation of an Education 4.0 platform designed to strengthen and promote scientific, technological and social entrepreneurship, through the formation of complex thinking skills for higher education students and lifelong learners.

i-Classroom

An intelligent, non-invasive monitoring system designed to analyze students' engagement and self-awareness levels in real-time during classes. This system generates a comprehensive set of analytics that captures both group dynamics and individual behaviors.

Highlights

i-Classroom

I-Classroom is an intelligent, non-invasive monitoring system that estimates the levels of engagement, attention, distraction, and interaction during a class, generating a set of metrics of group and individual behavior. **I-Classroom** incorporates three components: A system of sensors deployed in the classroom, software based on deep neural network pipelines, and a data visualization panel of engagement status and metrics. Such data informs the instructor on how the activities are being developed and students' engagement. Also, the system stores periodic logs with the learning analytics values and environmental information for future data analysis about cognitive processes.

I-Classroom employs cutting-edge artificial intelligence and video analysis to meticulously gauge students' engagement on an individual and collective basis. Through a sophisticated fusion algorithm, it combines engagement metrics derived from attention, distraction, and interaction cues manifested by students during a classroom session.

The innovative system estimates seven distinct descriptors: the assistance ratio, attention ratio, positive emotions ratio, positive body

Educational Impact

- Simplifying the process for teachers and educational institutions to measure classroom engagement and interaction.

- Facilitating the adoption of learning strategies tailored to individual student needs.

- Expediting testing and research on innovative pedagogies, physical classroom configurations, and emerging technologies.

action ratio, professor-student interaction level, student-student interaction level, and student-object interaction level. **I-Classroom** connects visible facial expressions, body language, and the presence of learning materials in a classroom within the predefined class setup, as dictated by the professor, including focal attention points and critical learning materials. This revolutionary system redefines measuring student engagement, ensuring a more comprehensive understanding of the learning experience.

Example of a dashboard for real-time visualization of classroom behavior

" It was an honor to contribute to the creation of tools that directly impacted academic success and the continuous improvement of education.**"**

Santiago Conant
Research Professor in Intelligent Systems
School of Engineering and Sciences
Tecnológico de Monterrey

" I am convinced that this project addresses a sensitive educational need and provides an innovative solution.**"**

Jesús Beltrán
Director of Leadership
School of Medicine and Health Sciences
Tecnológico de Monterrey

" I am very excited to collaborate with the Institute for the Future of Education's Research Lab team on the iClassroom project because of its potential to augment what teachers can do in their classrooms using Artificial Intelligence in a responsive way. The integration of state-of-the-art technologies and human-centered design approaches allows for the creation of a more effective and adaptive educational environment depending on students' attention levels. This project not only seeks to enhance the learning experience, but also to empower teachers with digital educational tools that respect and prioritize the needs of students and their teachers. It is an honor to be part of this innovative initiative that promises to transform education.**"**

Roberto Martinez-Maldonado
Senior Lecturer in Human-Computer Interaction and Learning Analytics
Jacobs Foundation Research Fellow 2021-2023
Faculty of Information Technology
Monash University

DigiUGov: Digitalization Meets University Governance

The **DigiUGov** project aims to enhance institutional support for academic staff in digital teaching, resource and training courses exchange, and university administration digitalization in Latin American and European higher education institutions. By January 2025, its goal is to establish partnerships, sustainable structures, and governance mechanisms in participating institutions.

Accelerated by the COVID-19 pandemic, Latin American and European higher education systems are undergoing significant digital transformation. The **DigiUGov** community prioritizes equity and diversity in digitalization efforts, ensuring non-discriminatory access to digital teaching and administrative services.

The project targets students, researchers, administrative staff, and higher education representatives aiming to raise awareness of diversity dimensions like ethnicity, race, gender, and socioeconomic status.

Educational Impact

- Promoting European strategies globally

- Equipping graduates and researchers with future-proof digital and diversity competencies

- Ensuring customer-oriented and accessible e-learning and administrative services.

DIGIUGOV
Digitalization Meets University Governance

digiugov.com

The two-year-long capacity building project is coordinated by the University of Potsdam and funded by the European Commission; the seven partner institutions are:

- **Universidad Jaume I, Spain**

- **Universidad de Caldas, Colombia**

- **Asociación Colombiana de Universidades, Colombia**

- **Universidad Pontificia Bolivariana (Seccional Bucaramanga), Colombia**

- **Pontificia Universidad Javeriana (Cali), Colombia,**

- **Tecnológico de Monterrey, Mexico**

- **Universidad de Guadalajara, Mexico**

This close collaboration promotes international structures and enables mutual learning, for a more flexible and diverse teaching, research and management.

> " The demand for appropriate use of digitalization in teaching, research, and administration is growing. At the same time, there is a significant uncertainty regarding the opportunities and risks of digital transformation. These challenges are common to a lot of universities around the world. Therefore, together with our partners -higher education institutions from Spain, Mexico, and Colombia- we initiated the **DigiUGov** project."

Hendrik Woithe
Chancellor
University of Potsdam

> " **DigiUGov's** ambition is to establish a sustainable collaboration among the eight universities that work in this project in Europe and Latin America. We want to learn from each other, and help us navigate the digital transformation."

Nadine Shovakar
Advisor for Structural Development
University of Potsdam

> " It was not just about creating or developing digital competencies; it was also about establishing sustainable structures that allowed us to continue our work."

Carolina Alcantar
Postdoctoral Researcher
Institute for the Future of Education
Tecnológico de Monterrey, Mexico

> " The most significant impacts where related to seeking innovative, open, and shared solutions as well as establishing networks that allowed us to continue collaborating."

Virginia Viñoles Cosentino
PDI - Project Management
Universitat Jaume I, Spain

Quote sources: DigiUGov. (n.d.). About. DigiUGov. https://digiugov.com/about/
DigiUGov. (2023). Digiugov Final. https://digiugov.com/wp-content/uploads/2023/12/Digiugov-Final.m4v

LIVING LAB

The **Living Lab** facilitates experimental research and project development leading to the creation of new technologies in authentic learning environments.

This initiative serves as a network for conducting experimental research at **Tecnológico de Monterrey**, connecting its academic and scientific community with international institutions and EdTech companies for interdisciplinary collaborations.

The approach of the **Living Lab** has fostered synergies among universities, research centers, and EdTech companies, strengthening higher education and lifelong learning research and the development of educational technologies.

Educational Impact

- Enablement of research and development of projects through tech-based calls and the Experiential Classroom.

- Engagement with students and faculty members through **Living Lab** experiments.

- Contribution to the enhancement of educational technologies and educational innovation.

Results

+900
Students and faculty members engaged in experiments and activities

2
Successful EdTech Validations

3
Workshops with

+50
attendees

6
Projects initiated by Tech-based Calls and the IFE Experiential Classroom

4
Ongoing EdTech Validations

6
Seminars with

+900
online visualizations

Organization of the EdTech Call at Edutec Panama with **+200** Attendees

Cyber-Physical Learning Alliance Summit (CPLAS 2024)

During the IFE Conference 2024, the first edition of Cyber-Physical Learning Alliance Summit (CPLAS 2024) was organized in collaboration with the **Singapore University of Technology and Design** (Singapore), **Tecnológico de Monterrey** (Mexico), **Aalto University** (Finland), **Hong Kong University of Science and Technology** (Hong Kong), and **Zhejiang University** (China).

The goal of this alliance is to unite the cyber and physical worlds to provide immersive and interactive learning experiences. These experiences can be utilized by students and instructors present in a classroom or laboratory at one educational institution, along with other students or teachers participating virtually from remote off-campus locations.

This Summit allowed to share current practices and advance the field of Cyber-Physical Learning, mainly focused on Artificial Intelligence, Educational Models, Learning Analytics, and Ethics. Thanks to the events of this Summit, two more universities joined the alliance: **NEOM University (Saudi Arabia)** and **The University of Toronto**.

Results

15 Events

20 Speakers from **8** Countries

+3,550 In-site attendees

+182,000 Online visualizations

> " Cyber-physical learning combines technology with a human-centric approach that covers socialization, peer learning, student well-being, ethics, data privacy, and much more. "

Chong Tow Chong
President of SUTD

Source: Ramírez, V. (2024, January 24). Tec and 4 universities announce the Cyber-Physical Learning Alliance. Tecnológico de Monterrey. https://conecta.tec.mx/en/news/national/education/tec-and-4-universities-announce-cyber-physical-learning-alliance

Research and Development Calls

SEREX Immersive Learning Experiences Development

This call enabled **three projects on new immersive learning experiences in augmented reality**, involving pedagogical experts from **Tecnológico de Monterrey**.

EdTech Call at Edutec Panama 2023

This call enabled **one research project** aimed at scaling and streamlining teacher training at the **University of Panama** for the effective development and reinforcement of digital competencies. The project **involved over 200 teachers**.

Launch of Living Lab EdTech Marketplace

Within the **XXVI Edutec Conference** in Panama, the **Living Lab** launched the **EdTech Marketplace**. This is a platform that promotes connections between established EdTech companies and researchers. The main aim is to engage in educational research projects developed in real-context user-centered learning environments.


The following are the current members open to engaging in educational research at the EdTech Market place: **Algetec+ (Brazil), Wisdolia (USA), Sync (Mexico), Eureka Simulations (Spain), Musa (Peru), SEREX (Mexico), Labsland (USA), and Scintia (Mexico).**


Visit The Edtech Marketplace

Experiential Classroom

The **Experiential Classroom** serves as a disruptive environment for experimental research, featuring a modular learning space where researchers, faculty members, and companies can conduct educational research using multi-modal technologies. This innovative environment facilitated the launch of **two new research and development projects:**
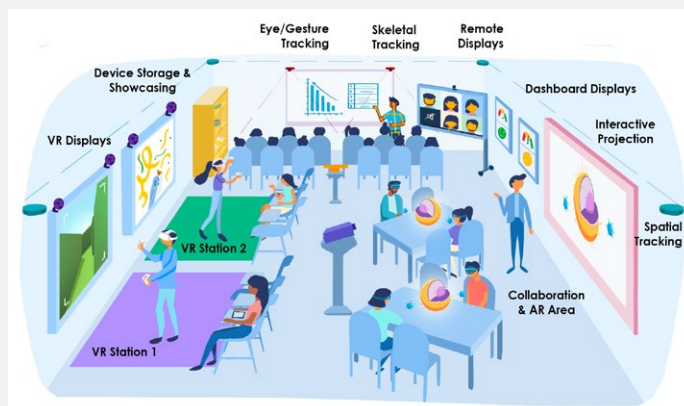
NPFC-TEST

The Neuronal, Physiological, and Facial Coding (NPFC) experiment aims to capture brainwaves, digital biomarkers, and facial expressions to gauge learners' concentration, motivation, and emotional state.
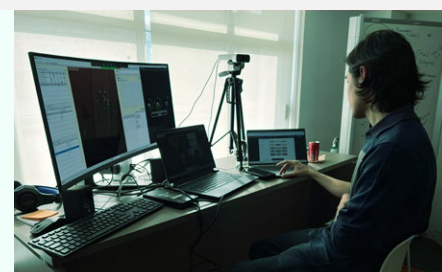
An initial outcome of this venture was the creation of an algorithm with an accuracy rate of 88%. Such algorithm was crafted by a Tecnológico de Monterrey master's student and it employed brainwave data to evaluate a learner's concentration.

GTL-MARS

In this project, made in collaboration with the **Global Teamwork Lab (GTL)** and involving **Massachusetts Institute of Technology (MIT)**, **The Hague University of Applied Sciences (THUAS)**, and **Rijksuniversiteit Groningen (RUG)**, students engaged in tackling optimization challenges within a simulated Martian colony via Zoom. This experiment aimed to collect audio and video data to evaluate remote teamwork performance.
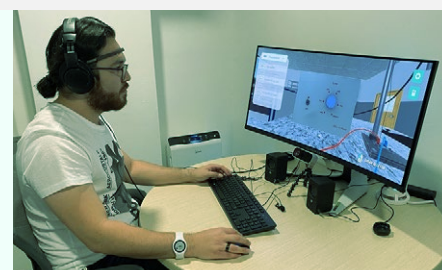
An early achievement of this experiment was the development of an algorithm that analyzed conversational patterns within team interactions.

The comprehensive datasets from both experiments are presently undergoing documentation and will be accessible to researchers through the **Data Hub.**

Highlights: EdTech Validation

MUSA (Peru)
musa.la

Musa is a startup from Peru offering a micro-learning platform through WhatsApp.

Beneficiaries

- **190 students** from **39 academic programs** participated, gaining free access to **Musa** for 2 months.
- Participants learned about personal finance and gender equality topics.

Main Findings

- Perception of positive learning gains.
- Satisfaction with the learning flow.
- Creation of positive experiences with the platform.
- Ease of concentration when using the platform.
- Positive valence with the content and the clarity of its presentation.

Scintia (Mexico)
scintia.com

Scintia (Mexico) is a startup offering an educational platform in biotechnology and synthetic biology. It incorporates cutting-edge technologies and educational resources for teachers and students in high schools and universities.

Beneficiaries

- **20 students** from **8 academic programs** participated gaining free access to practical workshops on synthetic biology and biotechnology.
- Participants learned with **Scintia's** Learning Management System (LMS) and hands-on experimentation.

Main Findings

- Positive impact on learner's emotions, such as confidence and happiness.
- High satisfaction with LMS and experimental resources.
- High satisfaction with the acquired theoretical and experimental knowledge.

> " Our experience with the **Living Lab** has been really positive. They helped us validate **Musa's** methodology. The study we conducted with them enabled us to have academic support and to conduct an analysis of the impact and effectiveness of our methodology."

Mónica Ramos
Co-founder and CEO of Musa

Highlight: Automation and Process Control Lab

The launch of an Automation and Process Control Lab is the result of the **Living Lab** technology-based call of 2022. It was sponsored by **Algetec+**, an institution/program of **Tecnológico de Monterrey**, Campus Puebla

This laboratory was inaugurated to facilitate the development of a project held by two researchers aiming to evaluate and compare the impact on teaching and learning. This was done by integrating physical and virtual laboratories.

> " The idea arose from analyzing what was missing to unlock the potential of mechatronics students. While Tec offers a curriculum, there was still something lacking. We aim to make learning easier for students to assimilate, particularly ensuring that they can carry it with them throughout their lives."

Marybeth Flores
One of the two Professor, Researcher, and Project Leader
Tecnológico de Monterrey

> " This new laboratory equipment helps us give meaning to the theory and hypotheses we develop on paper or on the chalkboard, in other words, we measure the real impact of the processes."

Paola Otamendi
Mechatronics Student
Tecnológico de Monterrey

> " It is an initiative we want to promote, not only for the Puebla campus, but for all campuses in the Central South Region."

Jorge Reyes
Director of the Regional Department of Mechatronics
Tecnológico de Monterrey

Quotes source: Tec de Monterrey. (2023, May 23). Experimentar: Tec Puebla inaugura laboratorio móvil de mecatrónica. Conecta. Retrieved June 03, 2024, from https://conecta.tec.mx/es/noticias/puebla/educacion/experimentar-tec-puebla-inaugura-laboratorio-movil-de-mecatronica

DATA HUB

The **Data Hub** offers access to curated and anonymized data collections from **Tecnológico de Monterrey**, collaborating with international researchers to foster data-driven research in educational data mining and learning analytics. It also offers consulting services to tackle challenges in higher education, such as student dropout rates, and lifelong learning consultancy to bridge skills gaps between academia and industry.

Educational Impact

- Collecting research data through open science research calls guided by international advisory boards.

- Integrating the research data into an anonymized Data Warehouse.

- Organizing workshops to identify trending research topics by leveraging their data assets.

Results

20
Curated Data
Collections

3
Data Driven
Calls

59 institutions from around **24** countries have requested data, including:

- Saudi Arabia
- Algeria
- Argentina
- Belgium
- Bolivia
- Brazil
- Canada
- Colombia
- Ecuador

- Spain
- The United States of America
- The Philippines
- Guatemala
- Hungary
- India
- Israel
- Mexico

- Morocco
- The Netherlands
- Pakistan
- Peru
- The United Kingdom
- The Czech Republic
- Turkey

Future Leaders Program Call

The main objective of this call was to study students' profiles to foster social mobility and empower talented youth seeking access to higher education.

Results

The call attracted participation from:

13
Teams

43
Researchers

7
Countries

Also, from esteemed institutions such as:

- **Harvard University**
- **Yale**
- **The University of Texas at San Antonio (UTSA)**

Competency-Based Higher Education Call

This call seeks proposals aimed at promoting the analysis of competency-based education within the higher education sector.

Considering its growing importance among academics and in the labor market, this model is the primary focus, with the goal of enhancing understanding and exploring its implications.

Student Dropout Call

This call invited proposals that highlighted innovative solutions and strategies to tackle higher education students' dropouts and enhance their retention rates.

One of the key findings was that activities within the LiFE program at Tecnológico de Monterrey, particularly those related to leadership, culture, and sports, help prevent student dropouts. This insight is being considered to support students to be engaged with their studies from the outset.

Results

Thanks to these two calls, the Data Hub provided data to:

145
Researchers

40
Universities

16
Countries

10
Papers were produced for high-impact journals and conferences.

Click here to view the publications from the calls

Learning Analytics and AI

In 2023, the **Data Hub** expanded its services to include consulting for both universities and industry.

In academia it utilizes machine learning techniques to create profiles of students at risk of dropping out at a Chilean university.

Concurrently, in the corporate sphere, it employs generative artificial intelligence to pinpoint skills gaps between academia and the automotive industry in Mexico.

Results

With the support of **Santander**, an artificial intelligence engine is being developed, utilizing natural language processing and generative AI to identify skills and competencies in job vacancies, resumes, and study programs. In the initial phase, the most in-demand occupations and competencies in the automotive sector will be identified, along with how these needs are being addressed by **10 universities in Mexico**. This engine will be part of the **Shaping Skills** project, finding the next generation skills. More info at: shapingskills.mx.

Data Descriptor

The **Data Descriptor** is a recent type of publication aimed at providing a detailed description of a dataset. This publication enables other researchers to access these datasets by understanding the collection, preprocessing, and documentation processes of its variables in greater detail. By obtaining a Digital Object Identifier (DOI) and being publicly accessible other researchers can request access to these datasets.

Results

Thanks to the **Data Descriptor**, the **Data Hub** dataset has been requested by **26 teams**, involving a total of **59 researchers**.

Click here to view
the Data Descriptor

" The academic information provided by **Tecnológico de Monterrey** through the **Data Hub** has allowed me to complement my activities related to data science and machine learning. Its format, readability, and cleanliness make exploration and analysis an intuitive and enriching experience. The articles published by this institution confirm the relevance of learning analytics applied to education, with the aim of achieving a better Mexico.**"**

Cinthia Rodríguez Maya
Universidad Nacional Autónoma de México

" Participating in the **Data Hub** has been transformative for my research. The educational data provided through joint projects has enriched my work, and the relevant articles published have guided my exploration in invaluable ways. Recently, I have been involved in two projects that were truly helpful for my research growth. Thanks to this initiative, I wholeheartedly endorse the initiative and its impact on the research community.**"**

Vinayak Hegde
Amrita Vishwa Vidyapeetham

" When I was an undergraduate student, I wanted to conduct some innovative research about tertiary education, and I needed a great quantity of data for it. The database I got from **Data Hub** was with no doubt the best one, in quality and quantity, I got an access too. As a young researcher with no reputation or funding, I couldn't have done such a profound and insightful research without it.**"**

Itamar Levin
Hebrew University
Jerusalem, Israel

NOVUS

The **Novus** initiative aims to reinforce an evidence-based educational innovation. Additionally, it strengthens and promotes this culture among faculty of **Tecnológico de Monterrey**; aiming for disseminating, transferring, and scaling successful projects, as well as their internationalization through peer-reviewed publications, conferences, and international competitions.

Novus purpose is to encourage experimentation and research in educational innovation as a means for the professional development of the faculty, the continuous improvement of its teaching practice, and the construction of the future of education.

To participate in a **Novus** project, it is necessary to submit proposals during the call for applications launched at the beginning of each year. The selected projects undergo a bottom-up experimentation process, during which the **Novus** team provides support over 18 months. This support includes mentoring, workshops, funding, impact measurement, and dissemination, culminating in the creation of the innovation manuscript and evaluation of its scalability.

Results

55
Novus projects
Kickoff

91%
Terminal efficiency achieved by the
64 Novus projects enrolled in 2021

23
Novus-IEAD Projects Kickoff:
Experimental designs developed in collaboration with the Vice-Rectory for Academic Regulations and Educational Innovation.
These projects are completed within six months and based on existing innovations.

80
Novus Faculty Members Attended the 'Creative Data Analysis' Workshop During the IFE Conference 2024

48
Manuscripts Published from Completed Novus Projects

Highlights: Projects under the Scalability Process

There are three projects that have significant potential to become game-changers in education thanks to their positive impact on student and faculty learning. They are explained as follows:

Banco Creciendo Juntos

In this online virtual experience students apply statistical knowledge and skills in practice. It provides real-time grading, allowing teachers to monitor each student's acquisition and development of course competencies.

Project Leader:
Gabriela Monforte García
Tecnológico de Monterrey, Monterrey Campus (Novus 2021)

Participation of **251 students** and **7 professors**

Highlights:
- High scale implementation in business school.
- Recognition for best education innovation in the National Teachers' Meeting of Tec de Monterrey
- Intellectual Property registration in process

Smart Feedback

This is a novel approach to provide educational feedback. It relies on faculty training about emotions and their use to call into action. It is topped with an AI development using Natural Language Processing (NLP) for the analysis and guidance of teachers' feedback.

Project Leader:
Lilia Carolina Rodríguez Galvan
Tecnológico de Monterrey, Querétaro Campus (Novus 2021)

Participation of **908 students** and **8 professors**

Highlights:
- Selected for **IFE Explora**
- Transfer to **IFE EdTech** for commercialization
- Intellectual Property registration in process

Laboratory of Natural Language Processing (NLP)

This is a methodology that ensures the strengthening and effective evaluation of transversal digital competencies, alongside an AI algorithm that assesses cognitive functions and understanding of concepts.

Project Leader:
Patricia Caratozzolo
Tecnológico de Monterrey, Sante Fe Campus (Novus 2021)

Participation of **185 students** and **3 professors**

Highlights:
- Project selected by **IFE Research Lab**
- High potential for implementation in new contexts
- High scalability potential with other universities

> **Novus** left us with endless advantages and learnings by providing us with a very clear path to follow. With the support of **Novus** our project exceeded expectations and allowed us to develop a project that helps teachers and students improve their emotional understanding."

Lilia Carolina Rodríguez Galván
Smart Feedback, Querétaro Campus
Tecnológico de Monterrey

Source: Productivity in Education. (2023, December 3). IFE Conference: Smart Feedback [Video]. YouTube. https://www.youtube.com/watch?v=V_7gwc8RM2Q

Additionally, a collaboration with the State Department of Education in Nuevo León, yielded a fourth project for internal scaling consideration:

Lëttëra	This is a web platform aimed at developing reading skills in high school students. This gamified experience also complies with international standards for the assessment of reading competences, such as PISA.

Project Leader: **Emilia Fernanda Leal Uhlig** Campus Eugenio Garza Lagüera (Novus 2020)	Participation of **508 students** and **5 professors**	**Highlights:** • High scale pilot to assess national deployment • State collaboration with CECyTE to transfer technology • Intellectual property registration

> The support from **IFE** and the **Novus** team has been pivotal, providing practical and comprehensive assistance in every step of the way. They not only helped fulfill a dream but also guided us in evolving into proficient researchers. This experience has reshaped our perception of teaching; now, everything revolves around validation and scrutinizing results. Their approach is both straightforward and professional, making the journey immensely rewarding. Their support extended to tasks such as publishing and navigating data and statistics, proving to be invaluable."

Emilia Fernanda Leal Uhlig
PrepaTec, Campus Eugenio Garza Lagüera

Source: Tecnológico de Monterrey. (2024). IFE Conference Talks [Video]. IFE Conference. https://live.tec.mx/ifeconference/season:10/videos/ifeconferencetalks-s2024ep4

Novus Collaborations

Recently, **Novus** teamed up with the Educational Innovation and Digital Learning team to try out a new pedagogical model for Evaluation and Feedback based on IA technology (licenses), as well as for institutional consideration into academic software portfolio.

The experience aimed to involve our faculty in the decision-making process through classroom pilots with two educational technology providers: GradeScope and Walter (Noodle Factory).

20 participants were selected at national level, trained in the setup and guided through and evaluation process. Such evaluation considers students' and faculty's learning, experience, and perceptions. **All this to gather information that will determine the inclusion of these technologies in Tec's classrooms.**

In addition, notable Novus project collaborations were achieved with other universities and institutions:

HUMETAV-CC	A project focused on training young scientists through the design of Citizen Science projects (CC), conducted in partnership with the University of Guadalajara (UdeG).	• Project Leader: Jorge Carlos Sanabria Zepeda • Novus Generation: 2022 • Campus: Guadalajara • School: Architecture and Design
SEL4C Methodology	A methodology, aimed at fostering social entrepreneurship skills and critical thinking. It was created in created in collaboration with the Universidad de Concepción in Chile.	• Project Leader: José Carlos Vázquez Parra • Novus Generation: 2022 • Campus: Guadalajara • School: Humanities and Education
Orfebres de la Música: Treasures from the 19th and 20th	A project that brought together interdisciplinary expertise and cutting-edge technologies to recover cultural heritage from northern Mexico. This collaboration involved Cátedra Alfonso Reyes (CAR), Archivo Histórico de la Arquidiócesis de Monterrey, Museo de Arte Sacro y Basílica del Roble, and Instituto de Hermanas Catequistas Guadalupanas in Saltillo.	• Project Leader: Gerardo Salvador González Lara • Novus Generation: 2021 • Campus: Monterrey • School: Humanities and Education
Ensambladora de autos Tec 21 Realidad Aumentada y Virtual,	A project exploring the potential of augmented and virtual reality in automotive assembly processes, in collaboration with Malardalen University in Sweden.	• Project Leader: Carlos Alberto González Almaguer • Novus Generation: 2022 • Campus: Queretaro • School: Engineering and Science

These collaborative endeavors embody **Novus**' vision of building bridges across borders and disciplines, fostering a vibrant ecosystem of learning and discovery that transcends traditional boundaries and propels academic excellence forward.

IMPACT MEASUREMENT

This initiative entails designing, implementing, and analyzing research strategies and impact measurement to assess the value and effectiveness of educational projects and innovations.

These impact evaluations utilize various scientific methodological approaches and are conducted externally with objectivity to yield valid and reliable results. In addition, the studies are tailored to the needs and implementation timelines of the stakeholders.

By measuring and assessing impact, the university community can make evidence-based decisions that drive transformative learning outcomes and positively influence students, alumni, and society.

Results

7
Reports were generated from

12
studies in 6 strategic areas for Tecnológico de Monterrey

2
Improvement recommendations have been implemented for each study

Strategic areas in which the studies were conducted:

- Challenge-based Learning
- Memorable Experience
- Artificial Intelligence (AI)
- Flexible Learning
- Inspiring Teachers
- Student's Well-being

Faculties and Vice-Rectories of Tecnológico de Monterrey that collaborated in the studies:

- School of Social Sciences and Government
- School of Architecture, Art, and Design
- School of Engineering and Science
- LiFE PrepaTec
- Novus
- Rector's Office
- President's Office
- Vice-Rectory of Academic Affairs, Faculty, and Internationalization
- Vice Presidency of Strategy
- Academic Vice-Rectory
- Vice-Rectory of Educational Innovation and Regulations
- Vice-Rectory of High Schools

Reports

*Reports available only in Spanish

Academic Environment and Well-Being

Download Report

Abstract

This report compares well-being, burnout, stress, depression, and anxiety variables among **Tecnológico de Monterrey** teachers in 2021 and 2022 and assesses changes in intensity and hours dedicated to teaching activities during the same period.

Highlights

Teachers reported high levels of Psychological Well-being. They also reported low levels of burnout, stress, depression, and anxiety, with average values below the corresponding theoretical mean. Besides, they described the teaching environment as healthy and conducive to their teaching practice.

Tec21 Exit Survey Design

Download Report

Abstract

This report introduces an instrument that was developed to measure several key factors related to the memorable experience in students graduating from 2019 programs.

Highlights

The survey results have provided insights into strengths and areas for improvement across various academic units and have facilitated the initiation of specific actions to further consolidate the institution's educational model and align it with the 2030 vision.

Evaluation of Educational Training Partners

Download Report

Abstract

This report explores how different Training Partners impact student performance, motivation, engagement, and the achievement of sub competencies in 2021 and 2022. It also investigates the learning experience from various perspectives, including challenge coordinators, students, training partners, and regional directors.

Highlights

One of the findings revealed that the Training Partners Program favors the professional training of our students through the development of appropriate competencies in real contexts environments. Thanks to the findings, the report concluded with several recommendations for enhancing the Training Partners Program.

Retention in Educational Pathways at Tecnológico de Monterrey, Mexico City and Central South Region: Towards an Academic Success Perspective

Download Report

Abstract

This report examines factors linked to student retention and analyzes them to create proposals for reducing dropout rates.

Highlights

Among the findings, this study revealed that the students with the higher risk of dropout are those who feel socially isolated, with financial concerns and with several doubts regarding their professional choice. The decision of professional students to remain enrolled in the **Tecnológico de Monterrey** is related to personal, social, and institutional factors.

Development and validation of the BI PrepaTec instrument

Download Report ⬇

Abstract
This report introduces "7D Radar", an instrument that was developed to measure well-being in students and give mentors a practical tool to identify key factors for orientation and intervention.

Highlights
An instrument was designed and a pilot study was conducted with **400 students** from several high schools nationwide. Currently, the instrument is in the adjustment stage.

Gamit! Platform for Gamification

Download Report ⬇

Abstract
This report introduces Gamit!, a gamification platform designed to enhance the learning experience of students and evaluates the impact of a gamification methodology based on a rewards system managed by this platform.

Highlights
Based on the results, it was found that Gamification based on a reward mechanism favored anxiety management.
As a general result it was revealed that the use of the Gamit! proved useful for teachers, although students would like to see improvements made.

Study on Adaptive Learning Strategy

Download Report ⬇

Abstract
The objective of this report was to assess the impact of the Adaptive Learning Strategy, along with its platform support, on students and teachers learning levels, achievement of sub-competencies, and overall educational experiences.

Highlights
Among the general findings, it was demonstrated that the Adaptive Learning Strategy enhances the level and gain of learning, with a learning curve that positively benefits the student. It does not interfere with the achievement of sub-competencies. Additionally, it is concluded that the factors determining the success of an Adaptive Learning Strategy include content design, interaction with the platform, pre-reading, positive platform evaluation, teacher commitment, and learning experience.

Highlight: The Value of Knowing: Students Acting for Their Well-Being

The Tec21 educational model emphasizes student well-being across seven dimensions: physical, emotional, social, intellectual, spiritual, occupational, and financial. To support this holistic approach, Tec21 has established a mentorship program for undergraduate and high school students, where mentors help them achieve balance in each of these areas.

The Impact Measurement team in collaboration with PrepaTec and LiFE of Tecnológico de Monterrey developed a tool called Radar 7D. This mentorship program, which rapidly assesses and summarizes well-being levels and evaluations of each aspect within every dimension. This tool empowers students to gain self-awareness and enables mentors to offer tailored support.
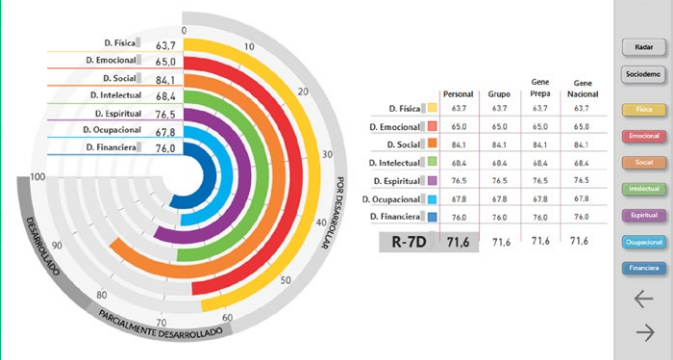
In 2024, a nationwide pilot study involving **4,578 students** from different **PrepaTec** campuses was conducted. Students and mentors participating in the pilot had the opportunity to review and utilize the information the **Radar 7D** report provided for making decisions regarding their well-being.

The results from this project showed how a tool with clear and precise information helps students understand themselves better and provides mentors with a valuable tool to offer more precise assistance.

Some aspects appreciated by mentors about Radar 7D include:

- Visualization of areas for improvement and areas to maintain.
- Emphasis on understanding the student's well-being and encouraging personal growth.
- Results that greatly assisted in improving their health.
- Recommendations aimed at enhancing performance across dimensions.
- It helped them guide mentorship sessions more effectively, allowing them to offer personalized and relevant advice to students.

Students also shared some recommendations given by mentors:

- Suggested not to bottle up emotions and to talk to someone trustworthy.
- Encouraged seeking professional help if needed.
- Advised practicing breathing exercises and relaxation techniques.
- Emphasized the importance of maintaining healthy sleep habits and avoiding phone use before bed.
- Promoted healthier and balanced eating habits.
- Encouraged organizing tasks and goals through a planner.
- The students valued the accuracy and clarity of the report.

WRITING LAB

The **Writing Lab** focuses on developing a research culture in educational innovations and enhancing academic production within the **Tecnológico de Monterrey's** community. It collaborates with experienced researchers to train, mentor and support newcomers in conducting research and presenting their academic findings at reputable international events and publications.

Results

231
Accepted and Published Conference Proceedings

108
Accepted and Published Journal Articles

136
Mentors

408
Mentees

63
First conference publication

27
First journal publication

Writing Lab's impact since its establishment (2018):

- Contribution to the publication of **1554 papers** on educational innovation from the **Tecnológico de Monterrey** in Q1/Q2 journals and indexed conferences.

- Empowerment of over **1300 individuals** through extensive training programs.

- Development of a mentorship network involving **144 mentors** and **440 mentees**.

- Establishment of a trusted repository for accessing tools and opportunities as it offers guidance on publication.

Visit the Writing Lab

Tecnológico de Monterrey is ranked #1 in Scopus for its production in educational innovation.

Through its extensive network of national and international collaborators, the **Writing Lab** consistently strives to produce scholarly publications with an international scope, while also organizing and participating in international events. Below are outlined some of the initiatives undertaken:

6th International Conference ICETCE 2023

This event featured contributions from **IBM Skillsbuild**, **Infosys Campus Connect**, and **Natural Group**. It resulted in **46 papers** slated for publication in **Springer**.

The **Writing Lab** participated as a member of the technical program committee.

The 6th International Conference on Future Education 2023

The conference was held in Kuala Lumpur, Malaysia. The papers chosen for presentation have generated proceedings slated for publication by **Springer**. Samira Hosseini, Director of the **Writing Lab**, held the position of Publication Chair.

Data in Action: Digital Ecosystem and Emerging Tools for Education

The **Writing Lab** organized the Workshop Series on the Future of Educational Innovation which was held in Mexico, with a total of **70 participants**, comprising **27 presenters** representing Mexico, Germany, and India. Additionally, the workshop received **29 submitted articles**.

Impact and implications of AI methods and tools for the future of education. The **Writing Lab** served as a guest editor for this collaborative special issue.

Enhancing student engagement using artificial intelligence and chatbots like Chat GTP. Samira Hosseini, Director of the **Writing Lab**, held the position of guest editor for this collaborative special issue.
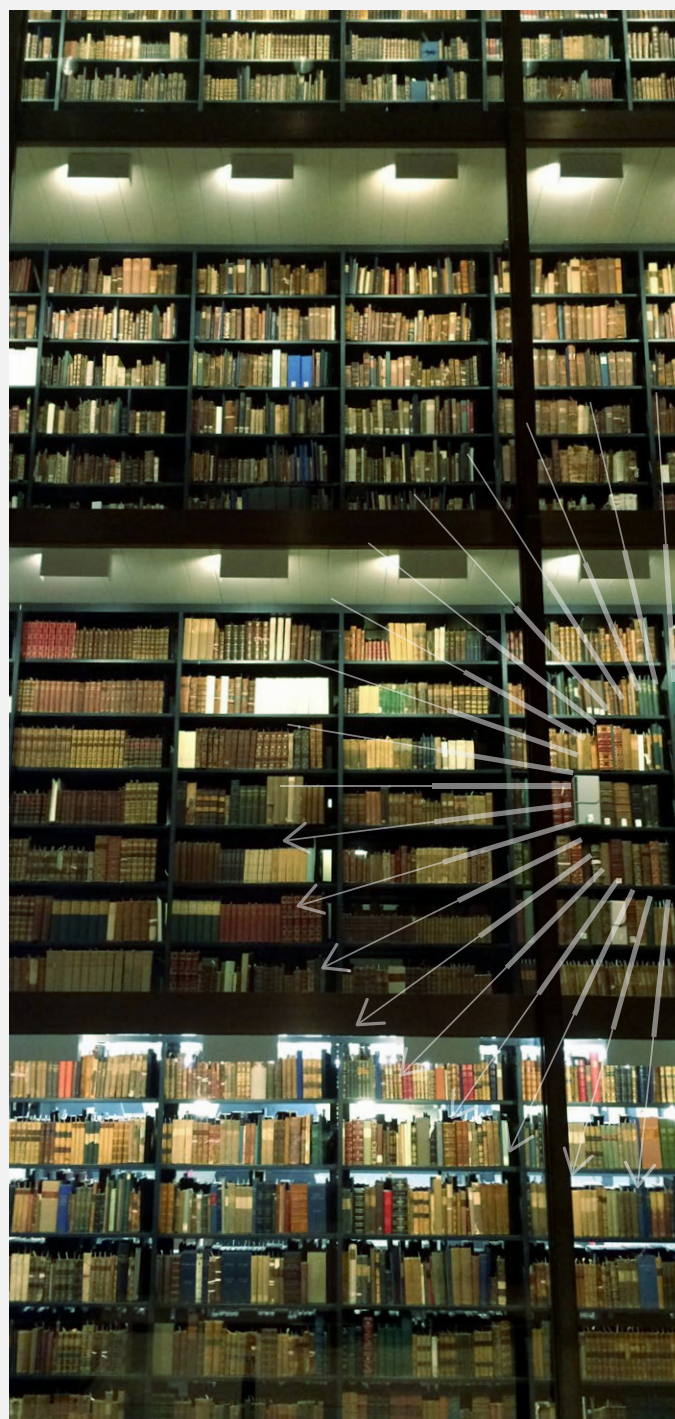
Highlights

Elvira G. Rincón, Nohemí Rivera, and Carlos F. Rodríguez won the *Best Paper Award* at **Technological Ecosystems for Enhancing Multiculturality 2023** for their paper titled "Mentoring Program and Students' Well-being".

Gabriela Guadalupe Reyes Zárate received the *Outstanding Paper Award* at the **IEEM2023** for her paper titled "Digital Transformation in Higher Education: A Comparative Exploration of Industry 4.0 in Switzerland and Mexico".

Rubén Vázquez, José de la O, Mariano García, Alejandro Acuña, Carlos Cobrero, Carlos González, Verónica Saavedra, and Luis Gutiérrez, professors at **Tecnológico de Monterrey**, recently participated in the **25th International Conference on Engineering and Product Design Education Conference, E&PDE 2023**, held in the city of Barcelona. They stood at the forefront, showcasing the latest innovations in engineering education.

IFE EUROPE

To foster international collaboration between Latin America and Europe, the **Tecnológico de Monterrey** founded the **IFE Europe**.

The **IFE Europe** is a private foundation linked to the **Institute for the Future of Education (IFE)** of the **Tecnológico de Monterrey**, which serves as a research center for educational innovation and a liaison for international collaboration between researchers in Latin America and Europe.

Educational Impact

- Generate applied knowledge for the future of education in Europe.

- Serve as a meeting point for education professionals in Europe; academics, students, companies, institutions, and public organizations.

Results

During 2023 IFE Europe organized the following events:

Gender Equality in Higher Education Seminar	BootCamp Building Together the Future of Education	Virtual Presentation: IFE Insights Report – Digital Education in Universities	IACEE World Conference
27 attendees	**100** attendees Co-organized with University of Leeds, UNESCO Chair in Open Educational Movement, and IFE Research Lab	**40** attendees Co-organized with Mondragon Unibertsitatea	**70** attendees Co-organizado with the International Association for Continuing Engineering Education (IACEE) and IFE Research Lab

Participation from these countries:

- Argentina
- Bolivia
- Chile
- Colombia
- Costa Rica

- Cuba
- Dominican Republic
- Ecuador
- El Salvador
- Guatemala

- Honduras
- Mexico
- Nicaragua
- Panama
- Paraguay

- Peru
- Spain
- Uruguay
- Venezuela

Highlights:
The Boot Camp: Building Together the Future of Education

In collaboration with the **University of Leeds**, the **UNESCO Chair in Open Educational Movement** and the **IFE Research Lab**, **IFE Europe** orchestrated the event titled 'The Boot Camp: Building Together the Future of Education.' This distinguished gathering unfolded in Spain alongside an array of complementary events.

The Boot Camp attracted attendees from **10 countries**, including representatives from **3 prominent universities** in northern Spain:

- **Universidad de Cantabria**
- **Universidad de Oviedo**
- **Universidad de Mondragón**

" Participating in the **Boot Camp** has given me a wonderful opportunity to cultivate collaborative networks, advance my doctoral research, and glean insights from experts in my field of study."

Alba Alves
Universidad Militar Nueva Granada in Colombia

" Collaborating with **IFE Europe** has been an essential opportunity to continue to push the importance of innovation in education, focusing on how technology and pedagogy intertwine to improve educational processes and create meaningful learning experiences. My participation in events such as the **Boot Camp,** the EdTechs initiative and in the edition of the book on online teacher professional development, has reinforced my conviction that **IFE Europe** is a pillar in shaping the future of education in Europe and Latin America, by promoting research and development of new methodologies that respond to current and future challenges, with effective and evidence-based solutions."

Federico Malpica Basurto
Founder and Director of Escalae Institute
Sinapsiaw Group Finland Oy

ENTREPRENEURSHIP AND TECHNOLOGY TRANSFER

The initiatives included in this section seek to strengthen the EdTech ecosystem through programs, awards, and networking events, promoting collaboration and knowledge sharing. They also drive the generation of intellectual property and technology transfer, all to transform education through technological entrepreneurship.

INITIATIVES

- **IFE Explora**
- **IFE Launch**
- **IFE EdTech Transfer**
- **TecPrize**

Results

During 2023 the startups supported by IFE EdTech had the following results:

68
Startups

49
IFE Explora

9
IFE Launch

10
Tec Prize

2,336,406
Learners impacted

1.055 MILLION USD
Raised money

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13 Countries

- Mexico
- Argentina
- Spain
- Peru

- United States
- Chile
- Ecuador
- Colombia

- Guatemala
- Bolivia
- Nicaragua
- Australia

- Canada

---

11 Awards

- **HackÜ** - 100 EdTech Companies in Latam by Holon IQ
- **Nimbi** - 100 EdTech Companies in Latam by Holon IQ
- **Saeko** - 100 EdTech Companies in Latam by Holon IQ
- **Skills.Tech** - Lorenzo H. Zambrano Treviño Medal for Entrepreneurial and Business Merit
- **Excuela** - 3rd place in the Ibero-America Challenge Abu Dhabi 2024
- **Musa** - Finalist Expo City Dubai / Expo Live Innovation Programme April 2024

- **Syry** - Winner StartUp Peru 10G April 2024
- **Musa** - Skills Success Case at the World Economic Forum
- **Simón** - Platzi Startups 2023
- **Excuela** - Westerwelle Foundation – Young Founders Program
- **Edison** - GSV Cup 50

Organization of the second edition of IFE Edtech Summit with:

+300
Attendees

30
Startups in EdTech Park

370
Value Connections

+20
Countries

IFE EXPLORA

IFE Explora is the first EdTech ideas incubator in Latin America. Its goal is to support and guide individuals and teams passionate about transforming the education sector into innovative solutions with high potential to reinvent how education and learning are conducted through exponential technology.

Program Activities

IFE Explora offers a six-month online program. In the first three months, there are ten workshops to develop your business idea and two sessions for expert feedback. Then, in the last months, each entrepreneur has a mentor to develop a prototyping and validation process. At the end of the program, the entrepreneur transformed his idea into a prototype.

IFE Explora started in 2020 with a first batch of **30 entrepreneurs.**

5 generations have been supported with **140 ideas** incubated since that date.

Each edition opens a call where **300 ideas** for innovation in education from **Latin America and Spain** have participated.

For the last generation, **25 startups** have been selected and will conclude their process in May 2024.

Program Benefits

- 20 hours workshop with experts from the **Tecnológico de Monterrey.**

- 6 hours of personalized mentorship.

- Platform to access all the content for the program.

- Community of EdTech entrepreneurs.

- LinkedIn badge at the end of the program.

Turn your idea into realiy and transform education.

Visit IFE Explora

Highlights

These are three examples of graduates from the **IFE Explora** program who successfully turned their ideas into prototypes and are now established EdTechs committed to positively impacting users through educational innovation.

Edu.digital
educaciondigital.com.ar

A platform offering a variety of services to address the challenges of virtual learning management. EduDigital assists schools and professionals in the digitalization process.

Entrepreneur: Victoria Ezcurra
Country: Argentina

Vex Experience
vexexperience.com

A platform offering educational solutions for individuals in rural areas via WhatsApp, accessible to all, facilitating easy and self-paced learning.

Entrepreneur: Andrés Rubiano
Country: Colombia

UniverMind
www.univermind.com

An NGO platform aiming to democratize education, serving as the "Khan Academy" for Spanish-language content.

Entrepreneur: Tomás Pabón
Country: Spain

" In general, the program was very good, with excellent and committed teachers. They taught me things I did not know, such as how difficult it is to transition from an idea to a project."

Entrepreneur: Pedro Casanella
EdTech: Sarmientech
Country: Argentina

" It helped me a lot to understand how I wanted my organization to be established. Now I understand, with all due respect to the world of EdTech, that what I really aspire to do is to make public policy in education."

Entrepreneur: Gabriel Evangelista
EdTech: Inspira
Country: Mexico

" As part of the second phase of the IFE Explora incubator, we continue to refine ourselves to be able to generate the best technological solutions for the educational community."

Entrepreneur: Victoria Ezcurra
EdTech: Edu.digital
Country: Argentina

IFE LAUNCH

The international acceleration program for early-stage EdTechs, known as **IFE Launch**, aims to address educational challenges in higher education and lifelong learning. During this program, participants can validate technology using **Tecnológico de Monterrey's** infrastructure and connect with the Silicon Valley ecosystem and investors.

Nine out of 70 startups were selected in the September 2023 call for applications, which closed in May of the same year. Among the countries that applied, Mexico, Argentina, Peru, Chile, Spain, and the United States stood out.

Program Benefits

- Connection with the Silicon Valley ecosystem. Trip to Silicon Valley to meet investors and visit technology companies.

- Connection with the Monterrey ecosystem. Trip to Monterrey to participate in the IFE Conference, one of the most important events for educational innovation in LATAM.

- Technology validation. Experimentation process with resources, professors, and students from the **Tecnológico de Monterrey.**

- Booth at the **IFE EdTech Summit**. Meeting point and connection between startups, investors, and experts in educational innovation.

- Impact Measurement Bootcamp. In-person training on topics of theory of change, measurement tools, and impact communication by experts from the **Institute for the Future of Education.**

Visit IFE Launch

Highlights

Five EdTech startups from the last two editions have successfully raised capital, totaling **$1.055 million USD**. Furthermore, they have achieved a positive impact on approximately **890,000 learners**.

SkillsAI
skills.tech

The platform SkillsAI utilizes advanced AI technology to create hyper-personalized educational experiences tailored to each user. It introduces a new era where learning seamlessly aligns with individuals' unique goals and aspirations.

Entrepreneur: Ricardo Cevada
Country: Mexico

Ozaru
ozaru.io

Ozaru is more than just a company, it's a movement committed to transforming the future of work for frontline workers globally. Individuals passionate about innovation and empowerment are encouraged to join in shaping a future where every frontline worker excels in a digital environment.

Entrepreneur: Guillermo Garza
Country: Mexico

Unigow
unigow.com

Unigow serves as a peer-to-peer guidance tool, democratizing access to realistic information. It aids educational institutions and companies in talent acquisition and community building through guidance from ambassadors who share their authentic organizational experiences.

Entrepreneur: Alejandro Sánchez
Country: España

Hola Simon
holasimon.ai

Hola Simon is a TikTok-style training platform. Strengthen the skills of your staff and allies in an entertaining way with Simón, the personalized training platform.

Entrepreneur: Matthieu Dahirel
Country: Mexico

Wisdolia
www.wisdolia.com

Wisdolia is a new tool that automatically generates flashcards from any YouTube video, webpage, or PDF. These flashcards can be used to study any topic and are an excellent way to remember information.

Entrepreneur: Julian Álvarez
Country: United States

❝ **IFE Launch** is a world-class program hosted by **Tec de Monterrey** and it provides very valuable resources, and an amazing community. Thanks to this program we were able to network with other world-class entrepreneurs.**❞**

<div align="center">

Entrepreneur: **Juan Pablo Courbis**
EdTech: **NIMBI**
Country: **Chile**

</div>

❝ From the beginning of the call for applications, the process was very streamlined, very clear. Once we were selected, the classes were very valuable. One thing you do not want from an accelerator is for it to waste your time, and in this case, all the sessions were very good. I think it's a great accelerator because it really focuses on EdTech, has the ability to provide funding, but also to connect you with partners, help you test the solution, give you venture capital classes, and they even introduced me to experts in storytelling.**❞**

<div align="center">

Entrepreneur: **Guillermo Garza**
EdTech: **Ozaru**
Country: **Mexico**

</div>

IFE EDTECH TRANSFER

IFE EdTech Transfer provides professors, researchers, and interested collaborators from the **Tecnológico de Monterrey** with the necessary resources to transform their innovations in educational technology from the discovery stage to the creation of products that could potentially be available in the market.

Some of the main activities carried out to reach the aforementioned result are the following: scouting internal projects to assess their impact and market potential, designing and managing intellectual property strategies (including copyright records), facilitating collaboration or transfer processes with external entities, negotiating licenses with external parties (royalties & compensations). Additionally, through workshops and talks, the internal public is trained on the importance of intellectual property and transfer.

⬇ Check out the EdTech technology transfer portfolio!

*Available only in Spanish

Results

Technology Scouting
9 **promising new technologies** were discovered through technology scouting activities.

Copyright Registrations
7 **copyright registrations** have been obtained, including literary works and computer programs.

Licensing Agreements
3 **licensing agreements** have been made with esteemed universities across Latin America, resulting in a revenue of **$1,045,066 MXN.**

EdTech Portfolio Growth:
17 **technology transfer projects** have successfully been added to the EdTech Portfolio.

Highlights

IFE EdTech Transfer successfully entered into a transfer agreement with **DUOC University** in Chile, granting a license to utilize the technology known as the "Professor with Hologram Effect".

Avenge: Hologram Professor

Innovative educational experience based in telepresence that recreates the natural dynamics of face-to-face environments (real time) through the use of technology that simulates a hologram effect. This innovative system offers a transformative experience. By seamlessly integrating holographic teachers into the classroom, it revolutionizes remote learning, providing interactive and engaging educational experiences with a more humanized touch.

Research Team
Eduardo González-Mendívil [†]
Eduardo Luévano
Innovación Educativa at **Tecnológico de Monterrey**

> " With **Avenge: Hologram Professor,** we are reshaping the future of education, fostering greater engagement, interactivity, and accessibility."

Visit IFE EdTech Transfer

TECPRIZE

TecPrize is an open innovation initiative that uses collective intelligence to provide and promote high-impact solutions to educational challenges in Latin America and the Caribbean, fostering innovation and improvement in the education sector.

> The TecPrize challenge established for the year 2023 was "How can adults acquire skills and develop their personal and career plans to access improved opportunities and actively engage in the transformation of their communities?"

To address this challenge, a call for proposals was issued, **resulting in 130** applications from **17 countries**.

A jury composed of distinguished specialists was convened to select the top proposals, leading to the selection of the following semi-finalists:

- **NeuralWorks** | Néstor Aldrete Ochoa (Mexico)

- **hackÜ** | Guillermo Jaime (Colombia)

- **HolaSimon** | Matthieu Dahirel (Mexico)

- **School16 Inc.** | Sergei Revzin (Mexico)

- **Califica** | Arturo Barrera (Peru)

- **Studially** | Jesica Leticia Gonzalez Robles (Mexico)

- **Excuela** | Gonzalo Yrigoyen (Peru)

- **NETZUN** | Miguel Romero (Peru)

- **Elevate Digital** | Kevin Dubon (Honduras)

- **EKI** | Andrés Rubiano (Colombia)

The final winners were determined at the **IFE Conference 2024**, with the following prize distribution:

- First place. **$30,000** for Excuela

- Second place. **$20,000** for Netzun

- Third place. **$10,000** for Simon

Additionally, all winners were granted access to a **Personalized Growth Program**.

In the past four years, **TecPrize** winners have achieved remarkable milestones:

- They have positively impacted over **500,000 learners**.

- They have raised over **$1.5 million**.

- They have won awards both nationally and internationally.

- Some winners have piloted their solutions with **Tecnológico de Monterrey** or related institutions.

- They have expanded their solutions to other countries.

- In 2024, one **TecPrize**-winning solution was acquired by **QS**.

Highlights

1Mentor, preparing today's learners for the jobs of tomorrow

Esteban Veintimilla, CEO & CoFounder
www.1mentor.io

1Mentor's interactive tool aims to eliminate employability barriers and empower students with the skills and tools needed to thrive in the future of work. Their platform utilizes real-time data and personalized career planning to bridge the gap between industry demands and higher education, monitoring student progress and providing relevant upskilling opportunities. As a result of **TecPrize**, 1Mentor expanded into four countries in Latin America: Mexico, Colombia, Costa Rica, and Ecuador. In January 2024, 1Mentor was acquired by QS.

Excuela, mobile education for limited connectivity

Gonzalo Yrigoyen, Co-Founder & COO
www.excuela.com

It is a solution focused on merging technology and pedagogy, aimed at front-line staff in organizations, with limited connectivity and a basic smartphone. Excuela is a mobile education system, which consists of a lightweight application that can be used without internet access. It also has a pedagogical dynamic in which users interact with questions and microlearning capsules.

Netzun, an innovative blend of education and entertainment

Juan Carlos Solidoro, Co-Founder & CEO
netzun.com

It features an online learning platform that employs gamification in its pedagogical approach, offering an engaging educational experience through short, TikTok-style videos lasting less than one minute. With over 20,000 free educational resources available, Netzun also offers membership access to 650 courses and more than 50 specialized programs certified by various universities.

Simon, specialized training for microenterprises

Matthieu Dahirel, CEO
holasimon.ai

This microlearning platform enables small businesses to enhance their competitiveness by providing targeted training in key business areas such as sales, operations, and production. Utilizing an e-learning model, Simon leverages TikTok-style videos to deliver engaging content and develop skills among microentrepreneurs, mirroring the strategies used in larger corporate value chains.

> **"** The **TecPrize** award is just a renewal of vows of our commitment to never stop working until we impact as many lives as possible."

Gonzalo Yrigoyen
First place winner
TecPrize 2023

> **"** We went to the **IFE Conference** and we were able to scale up our Edtech to Mexico, Costa Rica, and Colombia"

Esteban Veintimilla
First place winner
TecPrize 2022

TecPrize

Visit TecPrize

Highlights
Excuela - TecPrize Winner 2023 excuela.com

Excuela is an EdTech company with a social impact that has developed a mobile learning system for people with low connectivity or technological skills and few learning habits, as well as for vulnerable populations.

Excuela has been conceived based on a deep understanding of how people who have not developed or have lost study and learning habits learn most effectively. It is designed to be used with the tool they already have at hand: a low or mid-range mobile phone. Learning for someone without study habits must focus on a specific learning purpose, continuous interaction, contextualized content (scenario-based), and a social dynamic (cohort-based) that makes them feel part of a development group.

Key Metrics

- **Capital Raised Pre-Seed**: USD 700K, led by BID Lab (USD 400K).

- **Users**: 25,500+ users impacted.

- **Client Companies**: 45 companies in Peru, Brazil, Chile, USA, Mexico.

- **Completion Rate**: 85% of users who start a course complete it.

- **Satisfaction**: 94% satisfaction with courses and platform.

- **Example of Impact Metric in Companies**: Reduction in turnover for a company with over 3000 employees (Call center), decreased from a monthly turnover rate of 19% to 13%.

Excuela developed an important project for the **Universidad Tecnológica del Perú,** university with the largest number of students in the South American country that seeks to bring a quality educational offer to people who traditionally have not had the resources to access higher education (80% of its students are the first in their families to attend college).

Anthony Neale, a resident of the Peruvian city of Moyobamba in Peru, is one of Excuela's students. Anthony works in sales and claims that, thanks to what he learned at **Excuela**, he managed his time much more efficiently. This improvement in time management allowed him to achieve better results both at work and in his studies, resulting in a significant job promotion.

> **❝** I want to share my experience with **Excuela**, as it significantly helped me with time management and productivity. I used to procrastinate, but now I am more productive. As a result, I got a promotion, which was very significant for me. Now I am a Senior Sales Advisor. Thanks, completely recommendable. Thank you for pushing us to be better,"
>
> **Anthony Neale**

Highlights
Swarmob - TecPrize 2022 Winner - IFE
Launch 2nd generation (2023) swarmob.com

Swarmob has developed a digital system that helps schools and universities manage the use of project-based active methodologies focusing on network collaboration and impact on sustainable development, forming student leaders for world transformation.

Key Metrics

- **Users:** 11,422 students, 547 teachers, and 72 directors from 31 institutions in 5 countries, Chile, Mexico, United States, Ecuador, and Peru.

- **Annual Sales:** USD $83,000

- **Capital Raised:** USD $200,700 with 0% dilution

In the Antofagasta region in northern Chile, a desert geography bathed in intense sunlight, Darío Salas School took on the challenge of transforming its teaching paradigm through Project-Based Learning methodology. For this, an enthusiastic team of kindergarten, 2nd, 5th, and 7th grade teachers began a process of planning and implementing active learning challenges with **Swarmob**.

Teachers Paulina Baeza and Clara Alfaro from the Mathematics and Natural Sciences subjects challenged their 7th-grade students with the question "How can we help our community make optimal use of solar cookers to reduce energy expenses in households and reduce the negative impact on the environment caused by the use of gas stoves?"

As a result of this process, students created functional prototypes of solar cookers and conducted a mathematical study on cooking times and the impact on gas savings when using this alternative; they created a manual for the use of solar cookers and held an explanatory session to encourage families to create and use this green technology in their homes.

> **“** This project is one of the most innovative proposals I have worked on as a teacher. I saw progress in the students who applied this tool in the school curriculum, allowing our students to go a little further than even they themselves thought possible. It is a dynamic proposal with growth opportunities for both students and teachers. Congratulations, keep going!"
>
> **Paulina Baeza**
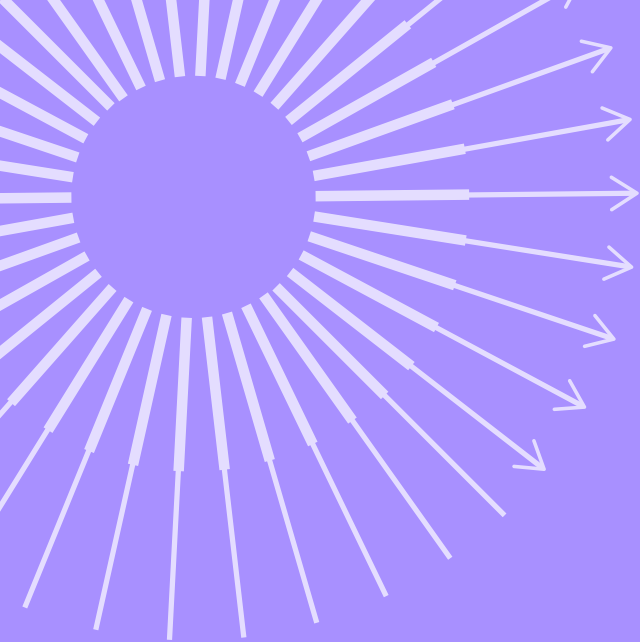
IMPACT PROJECTS AND CONSULTANCY

The following initiatives aim to promote workforce mobility by equipping individuals with a suitable set of skills to access better opportunities and improve their quality of life. Additionally, they offer consultancy services focused primarily on designing and implementing new educational models.

INITIATIVES

- **Alternative Credentials - MOOCs**
- **Alternative Credentials - Boot Camps**
- **Impact Projects and Consultancy**

ALTERNATIVE CREDENTIALS MOOCs

Tecnológico de Monterrey's MOOCs (Massive Open Online Courses) strategy was created to experiment with, implement, and promote new teaching and learning models as part of the **Institute for the Future of Education's** lifelong learning strategy.

These courses have been developed and hosted on two **MOOC** platforms: **Coursera** and **edX**.

Currently, the **MOOC** offerings include over **160 courses** accessible worldwide, incorporating various program types. To broaden international outreach, **MOOC** courses have been developed in **English and Portuguese**. These offerings include:

- 20 Specialized programs on Coursera
- 13 Professional certifications in edX
- 4 MicroMasters on edX

Results

Coursera	edX	Impact on Tecnológico de Monterrey learner community:	Top 10 countries of origin of our learners:
1,597,142 Total enrollments	**720,664** Total enrollments	**+70,000** Total users	1. Mexico 6. Argentina
151,153 2023 enrollments	**41,239** 2023 enrollments	**+10,000** 2023 users	2. Colombia 7. Chile
			3. United States 8. Ecuador
			4. Peru 9. Brazil
			5. Spain 10. Guatemala

Visit the Alternative Credentials: MOOCs

" It has been an enriching experience through which we have managed to spread knowledge, in recent years, impacting more than **100,000 students**, aged approximately **15 to 50 years old**, distributed in more than **40 countries**. I am very satisfied with having developed my three **MOOC** Courses on Coursera. Paraphrasing the old saying "he who has a good book, has a good friend" I would conclude by saying "he who has a good **MOOC** is not alone, but very well accompanied."

José Rodrigo Salmón Folgueras
Professor from the School of Engineering and Sciences of
Tecnológico de Monterrey, and author of the courses:
Physics - Dimension and Movement, Physics - Work, Force.

" As a television producer and presenter, along with my senior role at the Government Information Service Grenada, the course provided valuable insights into effective communication strategies, particularly in collaborative settings and decision-making processes. The acquired knowledge has significantly enhanced my professional capabilities, and I am grateful for the opportunity to expand my skills in this area."

Shere-Ann Diane Noel from Grenada
who was a learner in the course titled "Effective
Communication for Today's Leaders".

ALTERNATIVE CREDENTIALS BOOT CAMPS

The **IFE Boot Camps** aim to further the university's mission of providing and ensuring equal opportunities for everyone to acquire new skills to improve their lives. Currently, there are three programs available: **Web Development Coding**, **Data Analytics**, and **Cybersecurity**.

- **Web Development Coding**

The curriculum of this program encompasses a comprehensive range of front-end and back-end technologies, with the objective of equipping individuals to function as proficient full-stack web developers.

- **Data Analytics**

Our program focuses on teaching students the practical and technical skills needed to analyze and solve complex data problems.
This part-time program covers a broad array of technologies, including Intermediate Excel, Python, SQL, Tableau, and Machine Learning.

- **Cybersecurity**

This relatively new program focuses on becoming a digital defender by training in networking, systems, risk management, ethical hacking, and penetration testing.

Results

Web Development Coding

2022	Graduated students	**42**
2023	Graduated students	**110**
Total	Graduated students	**450**

Data Analytics

2022	Graduated students	**129**
2023	Graduated students	**104**
Total	Graduated students	**685**

Cybersecurity

2023	Graduated students	**129**

Visit the Alternative Credentials Boot Camps

Highlights
From Human Resources to Data Engineer:
The Story of Rodrigo Lozano

Rodrigo studied Industrial and Systems Engineering at TEC. During his early years, he began his professional career in the HR department of large corporations such as Cemex and Nemax.

Over time, being a very curious person passionate about technology, he began to realize the importance of automating selection processes through data analysis and having data programming skills.

He decided to investigate further and discovered the world of data analysis and data science. Thus, he enrolled in Tecnológico de Monterrey's Data Analysis Boot Camp, which turned out to be an intense challenge and a difficult decision as it required investing time and money. For six months, Rodrigo immersed himself in a sea of new knowledge: Python, SQL, Statistics, and Machine Learning, among others.

He later decided to quit his job to fully dedicate himself to his new passion and continue learning. At the end of the Bootcamp, Schneider Electric participated in a demonstration event, enabling Rodrigo to secure a job immediately. He began working on data analysis projects within the financial area. The knowledge and skills he acquired during the Bootcamp provided him with a strong foundation to excel in his role as a Data Engineer.

Today, Rodrigo is a successful Data Engineer. His work has had a significant impact on his company's efficiency and effectiveness. But beyond professional achievements, what he values most is having found his true passion and having the courage to follow it. He is very grateful to Tec de Monterrey and feels very proud of himself because it was a great effort for him.

Highlights
From Construction-Sales to Product and Data Leader:
The Story of José Alberto Alvarez Huerta

José studied Mechanical Engineering at the University of La Salle and later completed an MBA at EGADE. During his early years, he began his professional career in various areas of construction, sales, and projects in large corporations such as Mitsubishi and Meru, among others. However, he was always curious about the world of data and how it could be applied to improve business processes and the projects he was involved in, so after finishing his master's degree, he decided to enroll in a Data Analysis Boot Camp.

Upon finishing the Boot Camp, José began to apply his new skills in his daily work. He used data analysis to identify market trends, optimize inventory management, and improve marketing and sales strategies. Among its achievements is the development of a government bidding site, which is still in operation.

However, when the pandemic hit, he lost his job. Thanks to a teacher from the Boot Camp, he applied for a position at a startup and began his journey as a Junior Data Scientist, creating the Business Intelligence area with the knowledge he obtained from the Boot Camp and the MBA. Unfortunately, the company did not fare well and closed.

He then began to seek more opportunities based on what he learned in the Boot Camp. His efforts did not go unnoticed by the CFO who had worked at the startup and moved to Dentalia. Impressed by José's ability to use data to make informed decisions and improve business performance, he promoted José to a new position as Business Intelligence Leader.

In his new role, José leads a team dedicated to collecting, analyzing, and presenting data to help the company make strategic decisions. His leadership and expertise in data analysis were crucial to the company's growth and continued success.

Today, José is recognized as a leader in his field, demonstrating that dedication and continuous learning can open new opportunities and lead to a successful and rewarding career.

IMPACT PROJECTS AND CONSULTANCY

Since 2020, the **Institute for the Future of Education** has been at the forefront of providing **IFE Consultancy**, a linkage model designed to facilitate the development of customized, value-added solutions for organizations and institutions of higher education. The primary goal of this model is to promote educational innovation.

Results

56 Projects

38 Exploratory assessment sessions with universities

18 Countries

- Costa Rica
- El Salvador
- Guatemala
- Honduras
- Panama

- Argentina
- Bolivia
- Brazil
- Chile
- Colombia

- Peru
- Ecuador
- Paraguay
- Dominican Republic

- Madagascar
- Spain
- Mexico
- Portuga
- Ireland

Flagship Programs

The flagship programs are tailored to empower educational leaders, enhance digital learning frameworks, and foster holistic development across various facets of higher education. Each program is meticulously crafted to provide practical insights, cutting-edge methodologies, and collaborative opportunities, ensuring institutions are well-prepared for the future of education.

Leadership Development

This five-day in-person experiential program explores the components of the educational innovation ecosystem to transform higher education. During these days, keynote lectures, networking spaces, workshops, and dialogue sessions with critical actors (rectors, vice-rectors, and directors) who have implemented the educational model and innovation at Tecnológico de Monterrey are featured. The goal is for participants to design their pathway towards the future of education.

Digital Learning (Microcredentials)

The consultancy aims to develop and establish a micro-credential system for universities. This system will enable educational institutions to offer their students more agile and specific recognitions for skills and competencies acquired through short courses, workshops, and projects.

Transforming Educational Models

The consultancy for transforming the educational model of a higher education institution (HEI) is a comprehensive process. It aims to accompany HEIs in their journey of analysis, design, adaptation, and implementation of initiatives that foster significant and effective change in their teaching-learning process, as well as the support processes associated with it. The consultancy provides step-by-step guidance, ensuring that the transformation is smooth and successful, and the institution is well-equipped for the future of education.

Competency-Based Curriculum Design

The consultancy for curriculum design aims to build a specific training program to develop the competencies required for various job positions or roles within the organization, including their level of maturity and experience.

Educational Ecosystem

This consulting process involves the creation of elements within the educational ecosystem. These elements can be all-inclusive or developed independently. Implementation is not included; it involves co-creation with the client to build their educational ecosystem. The components include Academic Model, Study Plans, Academic Profile, Admissions and Scholarships, Economic Model, Laboratories, Educational Technologies, Academic Management, Attraction, and Learning Engagement.

Highlights
Educational Model for the Universidad Evangélica de El Salvador, UEES

As a higher education institution, the **Universidad Evangélica de El Salvador, UEES,** recognizes the importance of continual improvement to address present and future challenges in the field. With this in mind, in 2022, UEES initiated the process of updating its Educational Model as a strategic project, facilitated with the support of Tecnológico de Monterrey.

The project was carried out in two primary phases:

The initial phase involved conducting an analysis and diagnosis of the existing educational model to identify its current state and determine the necessary elements for transitioning to a competency-based educational model. Additionally, this phase included the formulation of an implementation plan.

The subsequent phase focused on outlining the implementation roadmap for the transformed model, encompassing activities such as defining the learning strategy, creating a competency map, designing competency assessments, providing teacher training, and establishing a program monitoring mechanism.

Furthermore, a coaching process was conducted with the stakeholders responsible for executing the implementation plan.

> 66 As a result of this collaborative work, the new UEES Educational Model is a declaration of educational guidelines through a structure of components and enablers that define our academic quality. With an education based on Christian values, our objective is to develop a lifelong learning experience that meets the needs of the labor market in our region, promoting integral human development and efficient and effective educational management.
> Academic quality education, Christian values, and a sense of service to others are constants at the Universidad Evangélica de El Salvador (UEES). The transformation of our Educational Model is an effort that has been made possible thanks to the support of the Institute for the Future of Education at Tecnológico de Monterrey."

Marielos Mercado
Vice-Rector of Innovation and Educational Technology
Universidad Evangélica de El Salvador

Highlights
Developing Digital Skills Needed for Madagascar's IT Sector

The **Malagasy Ministry of Digital Development**, **Digital Transformation**, **Post and Telecommunications**, in collaboration with the **International Finance Corporation of the World Bank**, has initiated a program aimed at fostering digital transformation in Madagascar and facilitating the creation of high-quality employment opportunities. Through this partnership, Madagascar's government aims to enhance access to and the quality of advanced and specialized IT skills training across the country.

The project, implemented through a public-private collaboration model, will be overseen by the **Institute for the Future of Education** and **Mercer**, global leaders in skills development and training. It aims to provide training for individuals in the information technology field, including participants from both the public and private sectors, as well as young people, with the goal of advancing the digitization of public management and strengthening the IT infrastructure in Madagascar.

The main educational impacts of this project included identifying current and future in-demand IT positions, mapping the essential IT skills required, designing a training curriculum, developing an educational model for trainees, estimating the necessary infrastructure, scenarios, and private-public partnership model to support the training initiative.

Since the project's inception, the following results have been achieved: **15 trainee profiles** were created, with **87 courses** designed encompassing all **15 job roles (including 66 courses focusing on technical skills and 21 on soft skills)**.

Additionally, interviews were conducted with over **60 experts** from **15 firms**, and **Higher Education Institutions**. This collaborative project, lasting 8 months, had an impact on approximately **6,000 IT professionals**.

According to an analysis conducted by the **IFC**, Madagascar has the potential to generate approximately **140,000 new jobs** associated with digital skills across nine sectors by 2027. Additionally, the analysis indicates that Madagascar's rapidly expanding IT and business processing outsourcing sector will require approximately **7,500 IT professionals** annually over the next five years.

> ❝ The digital skills project is a game changer in Madagascar as it presents an opportunity to equip the young Malagasy population with the most advanced digital skills, such as cyber security coding, that will respond to the fast-growing and changing demands of the job market, and support economic activity.❞

Marcelle Ayo
IFC Country Manager for Madagascar

> ❝ The project aligns with government's commitment to better prepare for the digital economy by developing the needed digital skills and modernizing its administration to improve service delivery, boost economic growth and create much need jobs.❞

Tahina Razafindramalo
Minister of Digital Development, Digital Transformation, Post and Telecommunications of Madagascar

> ❝ A recent IFC Report, Digital Opportunities in African Businesses, notes that digitalization of businesses can materially boost productivity, jobs, and growth but these firms need to make fuller use of digitalization. Training programs can improve firm capabilities to facilitate firm-level uptake of technology. Recognizing the importance of digital skills to support economic growth, IFC worked with Tec de Monterrey and others to develop a skills-to-jobs framework, a digital jobs demand forecast, and curriculum strategy that focused on the critical digital jobs and skills to unlock firm capability. This is now being piloted in Madagascar. The curriculum strategy developed by the Institute for the Future of Education reflects the latest approaches in hybrid pedagogy for in-person and online learning to support full-time and part-time skilling, upskilling and reskilling in the Malagasy market. We were very pleased to work with Tec de Monterrey to develop this pilot in Madagascar to support digital skills fundamentals that may unlock firm-level digital opportunities to foster inclusive growth.❞

Ami Dalal
Global Lead, Upstream, Disruptive Technologies and Funds, International Finance Corporation.
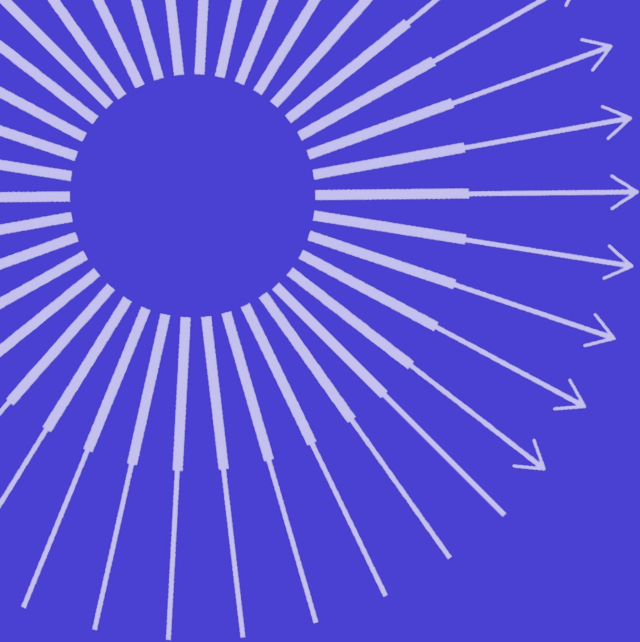
OUTREACH AND COMMUNITY BUILDING

The following initiatives aim to drive the culture of educational innovation, impacting the educational ecosystem through open resources and content. They also seek to create and strengthen educational communities to foster collaboration and idea exchange, ultimately generating a positive impact on society.

INITIATIVES

- **Observatory**
- **Insights Reports**
- **EduTrends Podcast**
- **HolonIQ Alliance**
- **IFE Conference Talks**
- **IFE Conference**

OBSERVATORY

The **Institute for the Future of Education (IFE)** is committed to analyzing and disseminating the most recent trends in education, innovation, and technology. Within **IFE**, the **Observatory** stands as one of its key units, specializing in this endeavor.

The **Observatory** is dedicated to positively impacting millions of teachers, students, learners, academic administrators, and all involved in educational innovation globally. In 2023, it commemorated nine years of offering free educational resources available in both English and Spanish.

The IFE Observatory has been awarded the **"Best Open Curation Repository Prize"** by Open Educational Global twice, once in 2017 and again in 2021.

Results

	English	Spanish	Total
Website Views	436K	4.77M	5.1M
Website Users	292K	3.14M	3.4M
Average Time on Website	3:48 mins	5:01 mins	NA
Newsletter Suscriptors	25K	225K	250K
Social Media Followers	84K	454K	538K

Top 8 Countries by Users on the English Website

- India
- United States
- Philippines
- Mexico
- United Kingdom
- Canada
- Bangladesh
- Pakistan

Top 8 Countries by Users on the Spanish Website

- Mexico
- Colombia
- Peru
- Ecuador
- Bolivia
- United States
- Spain
- Argentina

Collaborations

- Pontificia Universidad Católica del Perú
- The Universitat Oberta de Catalunya
- Ed Surge
- School of Education and Social Sciences
- The Instituto de Emprendimiento Eugenio Garza Lagüera of the Tecnológico de Monterrey.

In 2023, the Observatory's Newsletter was named
"The main Latin American newsletter on education"
by the Spanish educational website Espacios de Educación Superior.

eduTrends Reports
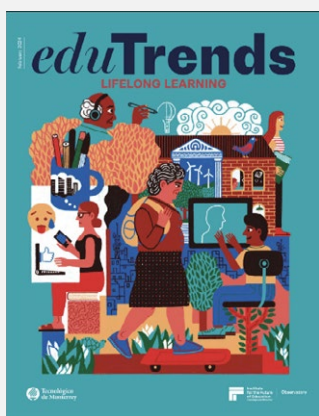
These reports consist of an in-depth analysis of educational trends with the highest potential impact on education. During 2023, the **EduTrends Report** entitled **"Lifelong Learning"** was published. This report embarks on a captivating journey through the history of learning, exploring its origins and transformations.

Therefore, its primary objective is to illustrate that lifelong learning transcends mere trendiness. With over **7,000 downloads**, this report stands as one of the most compelling documents ever produced by the **Observatory.**

Download English Report ⬇   Download Spanish Report ⬇

Edu Bits

Sharing pedagogical experiences, good practices, and pieces of advice is the focus of **Edu Bits.** Teachers from every place on our planet can connect with one another, thus creating a supportive community.

Edu Bits has enabled the production of **38 reports** available in both **Spanish** and **English.**

View all English Edu Bits
View all Spanish Edu Bits

Webinars and Dialoges

The **Observatory** transmitted **10 webinars** during the last two semesters, all accessible in Spanish. Topics addressed include STEM education, artificial intelligence, lifelong learning, and new technologies in the classroom, among others.
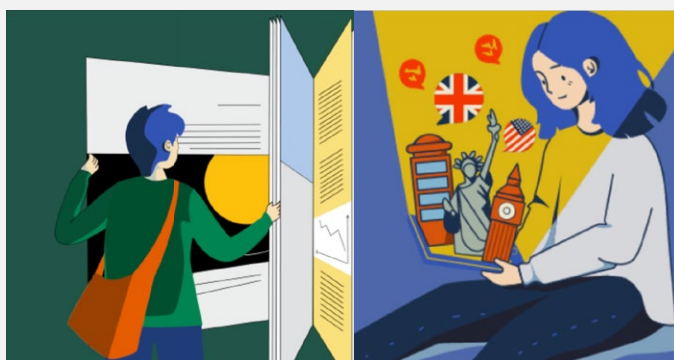
In collaboration with the **Pontificia Universidad Católica del Perú** and **Universtat Oberta de Catalunya** in Spain, **4 dialogues** have been successfully produced and broadcasted in Spanish.

Visit the Observatory

TITLE	DATE
Testimonials that Inspire: Women Leaders in STEM	February 28, 2023
The Potential of ChatGPT to Positively Transform Education	March 28, 2023
The Future of Learning: How Do We Avoid Sinking the Titanic and Save Jack?	April 25, 2023
Relevance of Complex Thinking in the Education of the Future	May 30, 2023
The Art of Storytelling with Artificial Intelligence	July 4, 2023
Lifelong Learning	September 26, 2023
How to Use New Technologies in the Classroom Without Dying in the Attempt?	November 7, 2023
Conversational Competencies for Better Teaching and Learning	December 5, 2023
Cognitive Load Theory: How to Enhance Student Learning	January 30, 2024
Women's Networks to Transform the World Challenges	February 27, 2024

* These Webinars and Dialogues are available only in Spanish

TITLE	DATE
Ethical Challenges of Technology in Education	November 23, 2023
Lifelong Learning	October 10, 2023
Educators in the Digital Era: Training and Adaptation to Change	June 28, 2023
ChatGPT and Generative AI in Higher Education	April 19, 2023

* These Webinars and Dialogues are available only in Spanish

> " The Observatory is a good platform to highlight the value of the work we do at UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC). "

Victoria Galán-Muro
Director of Research and Analysis at the UNESCO International Institute for Higher Education.
hepo.iesalc.unesco.org

INSIGHTS REPORTS

These reports, created by the **Observatory**, offer insightful analyses of pertinent educational issues, catering to those steering educational institutions, shaping public policy, and fostering a keen interest in educational reform.

The **Insights Reports** aspire to provide readers with profound comprehension and expert perspectives, serving as a priceless reservoir of knowledge and a pivotal resource for the education domain.

Short-Cycle Programs: Effective Responses to Enterprises' Needs Through Educational Innovation

Download
English
and Spanish

The first report under this aim was titled: **"Short-Cycle Programs: Effective Responses to Enterprises' Needs Through Educational Innovation"** and was released in September 2023.

Short-Cycle Programs (SCP) represent an innovative approach to addressing evolving workforce needs through expedited educational initiatives. These programs aim to bridge the gap between job requirements and available skill sets. Typically spanning two to three years, **SCPs** offer a condensed pathway to acquiring specialized knowledge and expertise, contrasting with the traditional five-year higher education route.

The aim of this report is to showcase the efforts of organizations spearheading these initiatives, unveiling their strategies, findings, and future aspirations.

Digital Education in Universities: A Comprehensive Implementation Guide

Download
English
and Spanish

The second **Insights Report** was released in January 2024 with the title of **"Digital Education in Universities: A Comprehensive Implementation Guide"**. This report delves into the myriad aspects, obstacles, and opportunities inherent in the digital education model. It embarks on a transformative journey, illustrating how the integration of education and technology can pave the way for a more promising and inclusive future.

Presenting nine key dimensions for consideration in 21st-century digital education, this report serves as a comprehensive guide. It traverses through history, definitions, expert insights, and successful case studies in higher education. With a pragmatic approach, it aims to provide invaluable guidance to universities venturing into this educational paradigm or those with prior experience, fostering a seamless transition and unlocking the full potential of digital education for all.

Results

+500
downloads

Collaborations

- Laboratoria (Peru)
- Generation Mexico
- Youth Build México & Global Opportunity
- Youth Network (USA)
- International Youth Foundation (MEX)

+2,700
downloads

Collaborations

- Pontificia Universidad Católica del Perú
- Universitat Oberta de Catalunya
- Universidad de los Andes (Colombia)
- Southern New Hampshire University (USA)
- Western Governors University (USA)

EDUTRENDS PODCAST

Collaborating closely with **Tecnologico de Monterrey's Tec Sounds Radio** initiative, the **Observatory** has played a pivotal role in producing a variety of podcasts on topics such as educational innovation, micro-credentials, artificial intelligence, access to education, workplace equity, and post-pandemic education around the world, among others.

Results

During 2023, **17 podcasts** featuring personalities such as **Richard Culatta, Melissa Loble, Doug Lynch, Bledi Task, Thomas Weko, Rob Vanderlan, Vincent Del Casino, Michelle Weise, Victoria Galán, Gonzalo Baroni, Kristina Reiss, Rhonda Lenton, Stephen Harmon, Steven Miller, Uohna Thiessen, Mercedes Mateo** and **Gary Bolles**.

Click here to listen to all episodes

HOLONIQ ALLIANCE

The Future of Higher Education & Workforce Summit, co-organized with **HolonIQ**, took place on September 20th and 21st at the **Tecnológico de Monterrey**, **Monterrey Campus**. This exclusive summit brought together authorities in higher education and lifelong learning, representatives from international organizations, government officials, and EdTech companies for strategic discussions and practical insights.

The summit's main objective was to facilitate strategic collaborations and provide practical insights for key stakeholders in higher education and workforce development. Through a series of workshops, panels, conferences, and networking opportunities, participants aimed to explore critical issues such as:

- The future of higher education
- Workforce trends
- Skills development
- Nearshoring
- Teaching and learning innovations
- Curriculum transformation
- Advanced technology adoption

In addition, enriching networking activities offered participants opportunities to forge valuable connections.

Results

Attendees

+160
Participants

- Presidents
- Provosts
- Vice Provosts
- Directors
- Government

Entities

62
Universities, Companies and Agencies from:

- Mexico
- USA
- UK
- Colombia
- Chile
- Peru
- Dominican Republic
- Spain

Events

+20
Different Activities

- Panels
- Presentations
- Fireside discussions
- Workshops
- Networking

Topics

- Future of Higher Ed.
- Work, Jobs & Skills
- Nearshoring
- T&L and Curriculum Transformation
- Advanced Technology

The summit witnessed active engagement from prominent figures across various sectors, including university leaders, academics, government officials, and innovators. Notable participants included **Alfonso Pompa**, the **Secretary of Innovation, Science, and Technology of Jalisco**; **Iván Rivas**, the **Secretary of Economy from Nuevo León**; and **Mercedes de la Masa**, **CEO of Generation**. Additionally, **Jenny Zapf**, **Director of Education Entrepreneurship at the Graduate School of Education, University of Pennsylvania**; and **Alejandro Caballero**, **Principal Education Specialist at IFC, The World Bank Group**, contributed their insights. The event also featured key authorities from **Tecnológico de Monterrey** and other Mexican universities, further enhancing the depth and breadth of discussions.

Partnering with **HolonIQ** and hosting high-level events has yielded a significant impact, fostering valuable connections and opportunities for collaboration with university leaders and organizations in the higher education and workforce development sectors.

Special thanks for your collaboration

- **VP of Strategy**
- **Executive Vice Presidency for Academic Affairs**
- **Faculty and Internationalization**
- **Educational Technologies Directorate**
- **Curriculum Design and Evaluation Directorate**
- **Educational Innovation and Curriculum Learning Directorate**

- **Alternative Assessment and Credentialing Center**
- **Sustainable Development and Engagement Directorate**
- **Platforms Initiative**
- **Open Education and Content Production Vice Presidency of Tecmilenio**

IFE CONFERENCE TALKS

The **IFE Conference Talks**, formerly known as CIIE-Talks, are a series of educational innovation talks divided into two seasons per year. They are presented for free every week through the **IFE Conference** Facebook account **@IFEconference.**

Results

<table>
<tr><td colspan="2">18 sessions</td><td colspan="2">63 speakers</td><td colspan="4">16 countries:</td></tr>
<tr><td colspan="2" rowspan="3">1,522,430 Total views up to February 2024</td><td colspan="2"></td><td>• Mexico</td><td>• Colombia</td><td>• Bolivia</td><td>• El Salvador</td></tr>
</table>

18 sessions   **63** speakers

1,522,430 Total views up to February 2024

16 countries:

• Mexico	• Colombia	• Bolivia	• El Salvador
• Argentina	• Honduras	• Venezuela	• Ecuador
• Peru	• Costa Rica	• USA	• Denmark
• Dominican Republic	• Chile	• Spain	• Guatemala

Season 1

This season showcased **9 notable educational innovation projects** selected from the CIIE 2023 Call for Papers, along with an additional session featuring **Thomas Weko**, Senior Scholar at the **George Washington University Institute of Public Policy**, as a special guest.

TITLE	DATE
01 Socially Oriented Education: Solving Challenges through Educational Strategies	May 24, 2023
02 Informative Session: IFE Conference 2024 Call for Papers	May 31, 2023
03 Two Projects: 1) Social Network Analysis to Prevent Dropout and Bullying and 2) Apps for Well-being at Universidad Tecmilenio	June 7, 2023
04 EmotionID: A Support Tool in Detecting Emotions in Students Using Artificial Intelligence	June 14, 2023
05 Predictors of Perceived Burnout Among Teachers at a Private University in Northern Mexico	June 21, 2023
06 Researching Communities of Practice When Transitioning In-service Educator Training to Blended Learning	June 29, 2023
07 Post-knowledge Level After Using a Mobile Application in Patients With Type 2 Diabetes	July 5, 2023
08 ENGLISH - Evaluating COIL as a Pedagogical Approach to Facilitate the Development of Intercultural Competence	July 12, 2023
09 ENGLISH - Skills: The Unfinished Revolution in Education, Training, and Employment	August 8, 2023

*Most of these talks are available only in Spanish

Season 2

This season featured relevant topics from the **IFE Conference** Special Events, fostering important dialogues among our diverse innovative education communities. Topics included **Alternative Credentials, Global Learning, Cyber-Physical Learning, Sustainable Development, EdTech, Education Policy,** and **Lifelong Learning.**

	TITLE	DATE
▶	01 Credentials at Tec: An Institutional Strategy for Recognizing Learning Achievements	September 13, 2023
▶	02 GSL Classroom: an Ally in the Development of Intercultural Communication Competence	September 20, 2023
▶	03 How Far Are We from Cyber-Physical Learning?	September 27, 2023
▶	04 Educating in Times of Climate Change	October 4, 2023
▶	05 Transforming Education through Entrepreneurship	October 11, 2023
▶	06 New Trends in Education and Technology Use: From AI to Virtual Worlds	October 18, 2023
▶	07 ENGLISH - Shaping the Future of Education: Higher Education and Lifelong Learning Policies in Action	October 25, 2023
▶	08 Impactful Alternative Credentials	November 1, 2023
▶	09 IFE Conference 2024 Informative Session	November 8, 2023

*Most of these talks are available only in Spanish
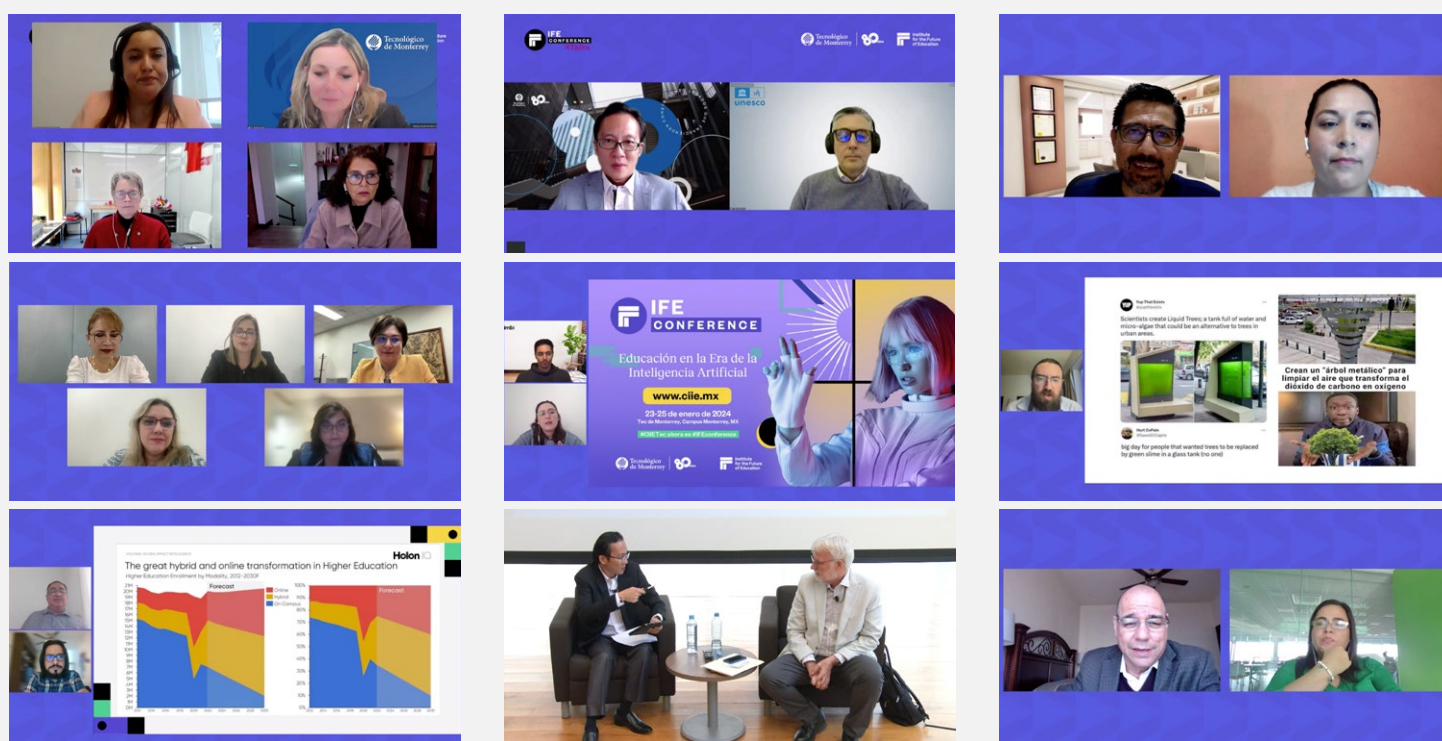
> **"** These types of conferences, like the IFE Conference Talks at the Tecnológico de Monterrey, are essential for fostering innovation and collaboration in the field of education, providing participants with a window into the future of teaching and learning in an international context."

Cristo León
Research Director, College of Science and Liberal Arts
Office of Research & Development
New Jersey Institute of Technology

Source: León, C. (2022, November 12). Researching communities of practice when transitioning in-service educator training to blended learning. Retrieved from https://www.cristoleon.com/2022/11/12/article-researching-communities-of-practice-when-transitioning-in-service-educator-training-to-blended-learning/

> **"** The experience was phenomenal because we were able to interact with interested parties through social media, we had contact with educators from various parts of the world, and the discussion was enriched. In trying to implement a didactic strategy with the aim of using education as a tool for social transformation through the concept of Socially-Oriented Interdisciplinary STEM Education, it is excellent to have a space for interaction where we can exchange ideas and explain in greater depth the concepts we are developing at IFE. The benefit was a considerable increase in interactions on professional social networks (LinkedIn) and research platforms (ResearchGate), as well as citations of our research articles and invitations to give specific talks at universities, especially in Latin America. On behalf of my research team at IFE, I appreciate the opportunity and look forward to a new adventure in IFE Conference Talks."

Dr. Jorge Membrillo-Hernández
Assistant Professor
Institute for the Future of Education
School of Engineering and Sciences
Tecnologico de Monterrey
Mexico City Campus
SOI-STEM | Tecnológico de Monterrey

> **"** It was a very pleasant experience. Knowing that what we presented at the event could have an impact in an IFE Conference Talk version was gratifying. Knowing that the methodology we work on can be applied in different educational contexts fills us with satisfaction. The treatment from you and the entire team was excellent. We hope to continue participating in the future."

Humberto Charles-Leija
Invetigador
Instituto de Ciencias del Bienestar Integral
Tecmilenio

IFE CONFERENCE

A forum to communicate the state-of-the-art and connect with the most relevant actors in educational innovation is essential to advance the global research and innovation agenda, and the **IFE Conference** helps fulfill this purpose.

Previously recognized as **CIIE (International Conference on Educational Innovation)** for **9 years**, the **IFE Conference** has established itself as the most prominent international event on educational innovation in Latin America. With a robust program encompassing over **250 activities** dedicated to learning, collaboration, and innovation, the conference serves as a hub for opinion leaders, educators, researchers, policymakers, companies, and entrepreneurs to come together and exchange ideas at the forefront of educational innovation.

Over the years, it has attracted a diverse audience, boasting over **29,000 in-person attendees** from **40 countries** and accumulating more than **2.5 million online views**

The main objectives of the IFE Conference are:

- Identify the trends, challenges, and opportunities presented by the current educational world.

- Propose new teaching-learning methods and tools demanded by the new generations.

- Promote the creation and strengthening of a multidisciplinary network of specialists exchanging experiences, best practices, and value propositions.

Some of the speakers at the **IFE Conference** have included Nobel Prize Winner **Carl Wieman**; **Peter Mathieson** from **The University of Edinburgh**; **Ana Marie Cauce** from **University of Washington**; **Ángel Cabrera** from **Georgia Institute of Technology**; **David Turpin** from **University of Alberta**; **Michael Crow** from **Arizona State University**; **Martin Paul** from **Maastricht University**; **Paul LeBlanc** from **Southern New Hampshire University**; **Chong Tow Chong** from **Singapore University of Technology and Design**, among others.

Results

With the central theme "Education in the Era of Artificial Intelligence", the IFE Conference 2024 took place in person from January 23rd to 25th at the Tecnológico de Monterrey, Monterrey Campus.

4,646
Attendees

750
Institutions

40
Countries

- Afghanistan
- Albania
- Argentina
- Australia
- Bolivia
- Brazil
- Canada
- Chile
- China
- Colombia

- Costa Rica
- Denmark
- Ecuador
- El Salvador
- Finland
- France
- Guatemala
- Honduras
- India
- Ireland

- Japan
- Mexico
- Morocco
- Netherlands
- Nicaragua
- Panama
- Paraguay
- Peru
- Poland
- Portugal

- Puerto Rico
- Dominican Republic
- Romania
- Singapore
- South Africa
- Spain
- United Kingdom
- United States
- Uruguay
- Venezuela

Conference Attraction

2.8 million
views of its keynote conferences

27 million
People reached by social media

459
News articles

367 million
People reached by news articles

+250 Activities

- Keynote events
- Innovation and research presentations
- Educational innovation exhibitions

- Panels
- Conferences
- Book presentations
- Awards
- Workshops

- Posters presentations
- Networking tables

The conference features presentations by rectors and presidents of universities, renowned specialists, professors, researchers, managers, consultants, entrepreneurs, as well as members of civil society organizations and governments from various countries.

The 2024 IFE Conference featured a variety of activities, including:

Keynote lectures and panels ●

46
world-renowned experts presented current and relevant topics in education
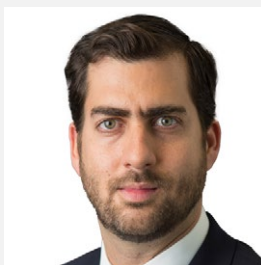
Keynote speakers at the 2024 edition of the IFE Conference include:

Michelle Marks
Chancellor
University of Colorado
Denver

Jo Angouri
Academic Director
Education and
Internationalization
University of Warwick

Juan Pablo Murra
Rector for Higher
Education
Tecnológico de Monterrey

Ryan S Baker
Professor in the Graduate
School of Education
University of Pennsylvania

Vicente Atxa
Rector
Mondragon Unibertsitatea

Michael J. L. Fung
Executive Director
Institute for the Future of
Education
Tecnológico de Monterrey

Simon Bates
Vice-Provost and
Associate Vice-President
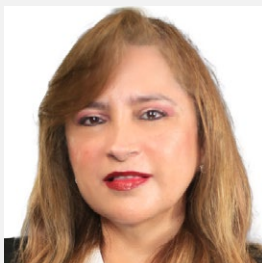for Teaching and Learning
The University of British
Columbia

Dragan Gasevic
Professor of Learning
Analytics in the Faculty of
Information
Monash University

José Escamilla
Associate Director of the
Institute for the Future of
Education
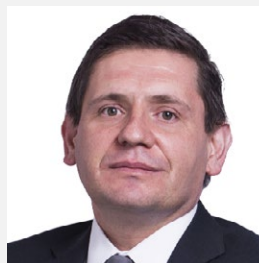Tecnológico de Monterrey

Maria Spies
Co-CEO
HolonIQ

Beatriz Palacios
Educational Innovation
and Digital Learning
Director
Tecnológico de Monterrey

**María José González
Solaz**
Director of
Microcredentials
Universidad CEU
Cardenal Herrera

Matxalen Llosa
Chairwoman of the
Board of Directors
Universidad Europea
EUNICE, Vice-Rector
for Internationalization
and Global Engagement
Universidad de Cantabria

**Miguel Angel Montoya
Bayardo**
Director IFE Europe,
Institute for the Future of
Education
Tecnológico de Monterrey

Ignacio De La Vega
Associate Provost for
Academic Affairs, Faculty
and Internationalization
Tecnológico de Monterrey
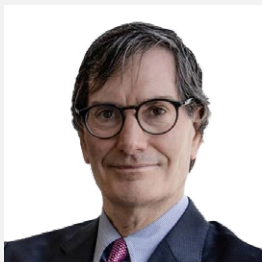
Bernardo González-Aréchiga
General Secretary
Federación de Instituciones Mexicanas Particulares de Educación Superior (FIMPES)
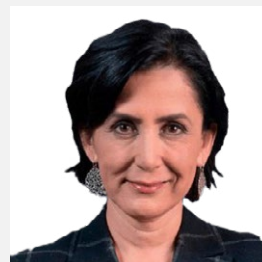
Bertha Saldívar
Director of Educational Technologies
Tecnológico de Monterrey

Arturo Ayala
Leader of Innovation with Educational Technology Projects
Tecnológico de Monterrey

Adam Freed
Managing Partner
GSC Ventures

Edna Jaime Treviño
Dean of the School of Social Science and Government
Tecnológico de Monterrey

María Teresa Nicolás Gavilán
Director of the Institutional Center for Educational Innovation
Universidad Panamericana and IPADE Business School

Scott Pulsipher
President
Western Governor University

Andrea Valencia Montes De Oca
Senior Policy Manager (Education and Research)
Australian Embassy in Mexico City

Bharat N. Anand
Vice Provost for Advances in Learning
Harvard University

Alejandro Caballero
Principal Education Specialist, International Finance Corporation (IFC)
World Bank Group

Rafaela Diegoli
Academic Vice-Rector
Tecnológico de Monterrey

Rose Luckin
Professor of Learner Centred Design
UCL Knowledge Lab University College London

Sadie Guerrero
Director of Educational Technology Solutions
Tecnologico de Monterrey

Chong Tow Chong
President
Singapore University of Technology and Design

Sean McMinn
Director of Center for Education Innovation
Hong Kong University of Science and Technology

Luis Armando González Placencia
General Executive Secretary
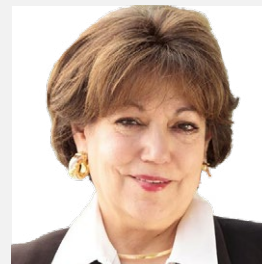Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES)

Irving Hidrogo
Director of Educational Artificial Intelligence
Tecnológico de Monterrey

George Siemens
Chief Scientist
Southern New Hampshire University

José Manuel Páez Borrallo
Vice-Rector for Internationalization
Tecnológico de Monterrey

Sofialeticia Morales
Secretary of Education
Government of Nuevo León

Raúl Valdés-Cotera
Chief Programme
Coordinator
UNESCO Institute for
Lifelong Learning

Tomi Kauppinen
Head of Aalto Online
Learning
Aalto University

Carlos Effio
Founder & CEO
@uDocz

Paul LeBlanc
President
Southern New Hampshire
University

Lissy M. Giacomán Colyer
CEO & Co-Founder
@Vinco

Ignacio Villaverde
Rector
Universidad de Oviedo

Luis Alonso Herrera
Dean of the School of
Medicine and Health
Sciences
Tecnológico de Monterrey

Diego Quiroga Ferri
Rector
Universidad de San
Francisco de Quito

Thomas Schneider
Chief Executive
Association of Pacific Rim
Universities

Arturo Cherbowski
Executive Director
Santander Universidades
General Director
Universia México

Marco Fernández
Research Professor and
Director of the Education
with Quality and Equity
Initiative
Tecnológico de Monterrey

To watch the videos of the keynote lectures, visit the Facebook page of the conference in the video section.

Featured Events

Selected content from conferences and panels was made available in a hybrid format, allowing participants unable to attend in person to join remotely.

We had the participation of speakers such as **Djian Sadadou**, Communication & Networks Manager at Office for Climate Education, **Sorbonne Université**, Paris, France; **Lily Kong**, President and Lee Kong Chian Chair Professor at **Singapore Management University**; **Kenneth Lo**, Office of Digital Learning and campusX Programme Director, **Singapore University of Technology and Design (SUTD)**; and **Jacob Chen**, Office of Digital Learning Research Senior Specialist, **Singapore University of Technology and Design**.


Special Events

IFE Conference 2024 hosted various events and summits simultaneously with the keynote presentations, enriching the discourse on various education-related topics and providing meeting spaces where various key actors converge. It included the next special events:

- **Artificial Intelligence in Education Summit:** organized in collaboration with Southern New Hampshire University, aims to facilitate interdisciplinary conversations about the role of Artificial Intelligence in shaping the future of education and lifelong learning. It seeks to identify strategies and experiences for effectively integrating AI into educational practices.

- **IFE Edtech Summit:** now in its second consecutive year, is an event that brings together creative minds, educational visionaries, and agents of change shaping the future of education, including entrepreneurs, investors, and more.
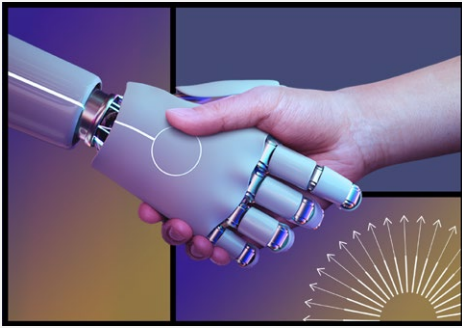
- **Cyber-Physical Learning Alliance Summit (CPLAS 2024):** is an event that brings together researchers, professors, industry professionals, and decision-makers from around the world for the first time. It aims to explore the various approaches used by universities in implementing Cyber-Physical Learning scenarios.

- **Transforming Higher Education: Curricular and Alternative Credentials:** this event aims to bring together decision-makers to address challenges in higher education and promote solutions for individual and institutional development globally. It emphasizes collaboration between educational leaders and experts to shape the future of higher education, with a particular focus on integrating concepts of alternative credentials.

- **Global Learning:** this event aims to share new options for internationalization through technology and educational innovation strategies. Additionally, it seeks to drive global learning and promote online internationalization opportunities in higher education institutions worldwide.

- **Education Policy:** experts in education policy sharing their experiences and recommendations for implementing policies on topics such as artificial intelligence, future skills for the digital and sustainable economy, and the creation of adaptable educational systems and learning spaces.

- **Lifelong Learning:** explores how recent events have revealed the importance of adaptability and rapid innovation in response to an unstable future. By harnessing the transformative power of information technologies, it aims to usher in a new era of education.

- **NGO meeting:** is an event driven by its participants and utilizes the "unconference" methodology to foster an open space for discussions, networking, and sharing experiences. It focuses on topics relevant to civil society organizations and their impact on the formation of Social Service students.

- **Education for Sustainable Development:** this event promotes the exchange of ideas and enables stakeholders to gain a deep understanding of the importance of establishing education for sustainable development, discuss opportunities related to its implementation in higher education, and establish collaborative networks at the national and international levels.

Call for Papers Presentations

During the conference days, around **100 research papers and educational innovation projects** were presented, carefully selected from over **458** that participated in the Call for Papers made months in advance. In this edition, **169 institutions from 30 countries** participated. The thematic lines of the presentations were:

- Educational Trends
- Educational Technologies
- Academic Health Innovation
- Management of Educational Innovation
- Lifelong Learning

Conference Proceedings and Book of Contributions of IFE Conference 2024

*Available only in Spanish

Proceedings

Contribution Book

Innovation Fair

A space where sponsors and strategic allies presented services, technologies, and relevant information related to educational innovation. This space also included a section dedicated to selected research posters from the **Call for Papers presentations**. The **IFE Conference** 2024 Innovation Fair featured the following companies:


Edtech Park

(Within the special event IFE Edtech Summit)

Exhibition of **30 EdTech startups** from **11 countries** with more than **370 value connections** registered.

AI and other technologies at Tecnológico de Monterrey

Showrooms and guided tours that showcased technologies that are transforming learning experiences within **Tecnológico de Monterrey (CEDES, Mostla, and VR Zone)**.
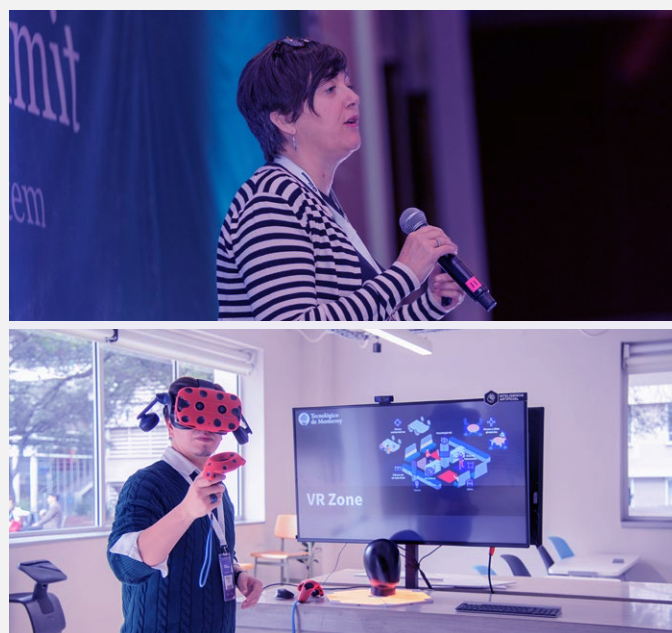
Awards

This edition featured the **TecPrize** and **RIE 360** finals.

Networking Spaces

Throughout the three days, participants had numerous opportunities to establish contacts, including **networking tables, workshops, coffee breaks, and a Networking Cocktail** organized on the second day in the Luis Elizondo Auditorium.

Experience the IFE Conference 2024 video

www.ciie.mx

❝ Allow me to first extend my congratulations to you and Tec de Monterrey for hosting and organizing the conference on the timely topic of the Future of Education. The visit, including our bilateral meeting and the fireside chat with José Escamilla, Associate Director of the Institute for the Future of Education, provided a wonderful opportunity for me to share York University's experiences in promoting online internationalization. I also had the pleasure of meeting Tec leadership, faculty colleagues, and exceptional students and staff who are all dedicated to fostering innovation, sustainable development, research impact, and community engagement. I am confident that our shared values will inspire our institutions to expand collaborative initiatives aimed at advancing internationalization goals and aspirations."

Rhonda L. Lenton
President and Vice-Chancellor
York University

❝ "On January 23, 24, and 25, I attended the 'IFE Conference 2024: Education in the Era of Artificial Intelligence' in the city of Monterrey, both as an attendee and as a speaker. As an attendee, I was fully available to learn and stay informed about the trends in Education that will be pivotal in 2024 and likely in the coming years. My critical listening was dedicated to considering how to articulate the ideas and experiences that were mainly presented about Higher Education to strategically innovate in 'our real schools."

Lic. Verónica Caputi
Especialista en Educación y Tecnología (FLACSO).
Directora de Innovación del Instituto Victoria Ocampo

Source: Caputi, V. (2024, January 26). Conectando las ideas del IFE Conference 2024 con la realidad de nuestras escuelas. Revista Colegio. https://revistacolegio.com/conectando-las-ideas-del-ife-conference-2024-con-la-realidad-de-nuestras-escuelas/

> " The IFE Conference, formerly known as CIIE, continues to play a crucial role in the evolution of higher education, providing a space to discuss and embrace innovations."

Ellucian LAC

> " As an academic community, we celebrate the holding of these types of events in pursuit of ongoing educational innovation, to continue shaping the professionals of the future and continuously improving by taking advantage of the opportunities provided by technological advances."

**Universidad Austral
Communication Department**

Source: Universidad Austral. (2024, May 21). La Austral presente en IFE Conference del Tec de Monterrey. Universidad Austral. https://www.austral.edu.ar/la-austral-presente-en-ife-conference-del-tec-de-monterrey/

> " The event brought together world-class educational leaders, entrepreneurs, and top international experts to discuss the growing use of artificial intelligence in higher education."

Association of Pacific Rim Universities News

Source: APRU. (2024, February 1). At the IFE Conference, APRU calls for more online internationalization. APRU. https://www.apru.org/news/17175/

> **"** The IFE Conference, formerly known as the International Congress on Educational Innovation (CIIE), is an annual event that serves as a benchmark in the global educational revolution. This space, organized by the Institute for the Future of Education at Tecnológico de Monterrey, remains committed to promoting cutting-edge trends and practices in education.**"**

Ricardo Parada
Infobae Américas

Source: Parada, R. 'Las 10 herramientas de inteligencia artificial que serán tendecia en el 2024'. Infobae Américas. Retrieved from https://www.efinf.com/clipviewer/d93e8fdd8678d2433c223d254ccd418e?file

> **"** Thank you to all attendees and to Tec de Monterrey for hosting this important event. We continue to promote the use of technology in education to enhance our students' learning!**"**

Canvas

Institute for the Future of Education

Transforming education, improving lives

The IFE Impact Report 2023-2024 showcases the institute's dedication to transforming education and improving lives through research-driven innovation and collaboration. Significant progress has been made in interdisciplinary research, supporting EdTech entrepreneurship, engaging in impactful projects, dissemination, and community-building.

As we embark on our fourth year since establishment, we take this moment to reflect on the challenges and opportunities that lie ahead, and to extend our heartfelt gratitude to all our partners who have joined us in our pursuit to transform higher education and lifelong learning globally, enriching the lives of millions.

ife.tec.mx

Tecnológico de Monterrey