

Connecting minds Shaping futures

Insights from the SAP Academic
Community Conference 2024

A pink geometric shape, resembling a parallelogram with a diagonal cut, serves as a background for the main title.

Connecting minds Shaping futures

**Insights from the SAP Academic
Community Conference 2024**

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Connecting minds Shaping futures

**Insights from the SAP Academic
Community Conference 2024**

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Dear reader,

Welcome!

If your eyes are landing on these words, I want you to feel what I feel – *Wow, we did it!* I'm so excited to be publishing this e-Book, the very first official academic publication from SAP in the Latin America and Caribbean Region. This is the result of a huge effort by our SAP University Alliances team, our SAP leadership, and – most importantly – our incredible academic partners.

So, what can you expect from this? This E-Book is a snapshot of what went down during our 2024 SAP Academic Community Conference for LAC. Inside, you'll find a collection of statements, articles, and images that capture the spirit of the event and dive deep into our core themes: Artificial Intelligence, Sustainability, Cloud, and Diversity & Inclusion – topics that are not only trending globally, but also deeply important to you, our academic community, and to us at SAP. You'll see content in English, Spanish, and Portuguese, reflecting the richness and diversity of this work – a collaboration that brought together brilliant minds from all over the region.

Now, how should you explore this book? Go tail-to-nose, nose-to-tail, jump around by author or topic... whatever works for you! The key thing is: there's real value here, and I hope you'll take the most from it. May these pages spark insights, ideas, and inspiration.

Finally, I want to highlight why this conference was so special for us: it was historic. For the first time, we embraced the challenge of hosting a multi-country simultaneous experience, that brought together SAP professionals and Academics from six countries across the region – Argentina, Brazil, Colombia, Chile, Mexico, and Peru –, plus international remote speakers from Germany and the USA. We were in total 362 incredible people,

each contributing their unique energy and knowledge. And I am so proud of what we have achieved.

It took a lot of effort to organize the conference – and even more to bring this E-Book to life. I want to thank our leadership for the buy-in for this crazy idea. I want to thank my team for working so hard with me on this. And, most of all, I want to thank our faculty, who always believed in us and walked hand-in-hand to keep learning, researching, and innovating together.

This is from us, to you – and to the world. Enjoy!

*Gloria Sandi,
Regional Program Manager, SAP University Alliances - Latin America & the Caribbean*

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Introduction

Welcome to the official publication of the 2024 SAP Academic Community Conference – Ibero-America. This e-book offers an overview and a curated selection of research and key discussions from the event, held on November 4 and 8, 2024, and organized by SAP University Alliances (SAP UA) Latin America & the Caribbean (LAC) in collaboration with the Academic Board Ibero-America (ABI).

About SAP

SAP (Systems, Applications, and Products in Data Processing) is the world's leading provider of enterprise resource planning (ERP) software. Founded in 1972 and based in Walldorf, Germany, the company supports businesses of all sizes and industries with integrated solutions that help manage operations, finance, supply chains, customer relationships, and more. Today, 98 of the world's 100 largest companies use SAP technologies to run their businesses more efficiently.

About SAP University Alliances

The SAP University Alliances program is an initiative led by SAP which seeks to connect universities, students, and educators with SAP's innovative software and resources. The program provides institutions with access to a variety of SAP's leading enterprise solutions, fostering hands-on learning in areas like ERP, data analytics, and cloud computing. SAP enables educational institutions to include these technologies within the classroom,

giving the students practical experience aligned with industry needs. The SAP University Alliances team offer direct assistance to universities within the UA program and looking to join it, and also engaged a group of dedicated SAP Campus Ambassadors, a team of volunteers from within SAP that have a passion in helping the next generation of SAP skilled talents. Additionally, educational institutions can collaborate with SAP customers and partners, opening opportunities for internships, research projects, and career placements.

Students in the program benefit from SAP-hosted hackathons, innovation challenges, and training workshops, helping them develop in-demand skills and earn SAP certifications. By bridging academia and the corporate world, SAP University Alliances enhances career prospects for students while providing businesses with a pipeline of skilled graduates proficient in enterprise software solutions. Within the SAP University Alliances program in Latin America and the Caribbean (LAC), we count with 188 educational institutions as members, having impacted 16,939 students and 982 professors in the year of 2024.

About the SAP Academic Community Conference

The SAP Academic Community Conference (SAP ACC) is a global academic event that fosters collaboration between educators, researchers, and industry experts to discuss the integration of SAP technologies in education. Organized annually by SAP University Alliances in partnership with the regional Academic Boards, the conference serves as a platform for exchanging knowledge, sharing best practices, and exploring innovative approaches to teaching enterprise technologies. By bringing together members of SAP-affiliated educational institutions and other academics, SAP ACC strengthens the connection between academia and industry, contributing to the development of future professionals.

The 2024 SAP ACC Ibero-America edition demonstrated the conference's broad reach and impact. The event commenced on November 4th with a webinar that engaged over 190 participants in a full day of learning, covering topics such as Cloud, Artificial Intelligence (AI), Sustainability, and Inclusion, presented by SAP Executives, field experts, and invited academics. The conference was concluded on November 8th with a series of regional events that facilitated discussions, collaboration, and knowledge exchange across Latin America. Sessions were hosted in Buenos Aires (Argentina), São Leopoldo (Brazil), Santiago (Chile), Bogotá (Colombia), Monterrey (Mexico), and Lima (Peru), bringing together 172 participants, including academics and experts in dynamic, in-person exchanges across our offices.

These in-person events provided a dedicated space for academics to present their research, alongside selected presentations from SAP experts. By fostering meaningful academic and professional exchanges, SAP ACC continues to strengthen the global academic community, providing valuable insights into the evolving landscape of enterprise technologies. The 2024 Ibero-America edition aimed to further this mission by deepening discussions on digital transformation, sustainability, and the role of intelligent enterprises in shaping the future of education.

2024 Thematic Areas

The 2024 conference centered around four main themes that reflect some of the current challenges and opportunities in education and enterprise innovation:

- ▶ Cloud

Exploring the role of cloud in transforming how organizations manage data, infrastructure, and business processes. Research in this area examined both the technical implementation of SAP cloud solutions and their pedagogical use in academic environments.

- ▶ Artificial Intelligence (AI)

Addressing how AI is reshaping industries, education, and decision-making. Presentations covered topics such as machine learning integration in SAP systems, AI ethics, and the use of AI tools in teaching and research.

- ▶ Sustainability

Highlighting the strategic importance of sustainability for intelligent enterprises. Presentations under this theme investigated how SAP tools, technologies in general, and data analytics can support climate action, responsible resource management, and sustainability reporting in academic and business contexts.

- ▶ Inclusion

Emphasizing the importance of inclusive environments in both academia and industry. Research contributions discussed topics such as equitable access to technology and the role of technologies in promoting diversity.

How to read this book

This e-book offers a curated overview of the 2024 SAP Academic Community Conference – Ibero-America, bringing together key highlights and selected academic contributions shared throughout the event.

Divided into nine chapters, it begins with the present introduction, which outlines an overview about SAP, the SAP University Alliances program, and the structure of the SAP ACC conference. The second chapter covers the Virtual Conference, held on November 4, 2024, which featured presentations by SAP experts and guest academics on topics such as Cloud, Artificial Intelligence, Sustainability, and Diversity & Inclusion. Chapters three to eight are dedicated to the in-person sessions that took place across six countries on November 8. These chapters present summaries of the local events held in Buenos Aires (Argentina), São Leopoldo (Brazil), Santiago (Chile), Bogotá (Colombia), Monterrey (Mexico), and Lima (Peru). The final chapter compiles a number of extended abstracts drawn from the regional events, offering deeper insight into some of the academic work featured during the conference.

It is important to note that, although the projects were presented at the SAP Academic Community Conference, they are independent research initiatives and do not constitute SAP projects. The views, opinions, and potential errors within the research are solely the responsibility of the respective authors and do not reflect SAP's official stance.

More information

For additional information about the SAP University Alliances program, please visit the official webpage: [SAP University Alliances | SAP Next Gen Community](#)

Virtual Conference

The inaugural event of the 2024 Academic Community Conference Ibero-America was held virtually on November 4, 2024, broadcasted across Ibero-America. This event focused on fostering knowledge exchange among our colleagues across the region, aligning with the four central themes selected for the 2024 edition of the conference, again, Cloud, Artificial Intelligence (AI), Sustainability, and Inclusion

Over the course of the eight-hour session, we had 10 different panelists and speakers and 190 attendants from across Latin America participating, contributing to a dynamic exchange of ideas and expertise. This virtual event served as a strong foundation for the in-person sessions that followed in the subsequent days.

Topics Explored

The event commenced with an introduction to the SAP University Alliances World followed by presenting our Academic Board and our SAP UA Offerings Portfolio, notably with UCC Chico. The program then featured discussions on SAP and its global advancements, covering our key topics for the conference such as inclusion in the corporate world, the importance of sustainability, and the transformative impact of cloud and AI on the industry.

Below, the image illustrates the detailed agenda of the virtual event:

YOUR HOSTS



Maria Cecilia Calzada de Neumann
SAP Director for University Alliances
& Next-Gen Ibero-America



Gloria Sandi, MBA
SAP Senior Program Manager for University
Alliances & Next-Gen LAC

AGENDA

WELCOME NOTES



12pm BRT / 11am MEX / 10am COT
Welcome to the SAP Next-Gen World



Karina Edmonds, PhD
SAP Senior Vice President
at University Alliances



1pm BRT / 12pm MEX / 11am COT
SAP Academic Board Ibero-America

Jesus Aguilar, PhD
President of SAP Academic
Board Ibero-America

2pm BRT / 1pm MEX / 12pm COT
SAP Full Membership Powered by UCC Chico



Norma Muzzall
UCC Chico Representative

3pm BRT / 2pm MEX / 1pm COT
Cloud@SAP with Special Guest



Alexandre Pereira
VP and Chief Revenue
Officer for Cloud ERP and
SAP S/4HANA LAC

4pm BRT / 3pm MEX / 2pm COT
Sustainability@SAP



Renata Amorim, MsC
SAP Sustainability Principal
LAC

5pm BRT / 4pm MEX / 3pm COT
AI@SAP



Matheus Souza, MBA
SAP Chief Innovation
Officer LAC

6pm BRT / 5pm MEX / 4pm COT
D&I@SAP



Ezequiel Massa
SAP Head of Diversity and
Inclusion LAC

CLOSING AND TAKE AWAYS



Voices from the Conference



A message from SAP's Senior Vice President for Academic and Research Partnerships...

"First a warm welcome to our amazing LATAM Academic Community, that has worked so hard to develop and deliver the most engaging curriculum to students in the region. It is both an honor and absolute joy to be part of such an innovative community. I want to convey my heartfelt gratitude to the team that, even in a virtual environment, works tirelessly behind the scenes to ensure the success of this event.

When discussing artificial intelligence and machine learning, I emphasize that it is not magic but rather science including the evolution of computation resources and hardware. AI/ML are tools that predict a future condition based on a wealth of previously collected data. To that end SAP is uniquely qualified to leverage business data for customers to make processes more efficient, increase productivity and profitability.

I have spent the better part of three decades at the intersection of science and business, most recently prior to joining SAP, I established the University Relations function at Google Cloud. In that role I worked to connect AI researchers from Google Cloud with research faculty globally. During that time, I was involved in projects related to language models, BigQuery, and image processing – technologies widely applied across Google's product line. My enthusiasm for working with academia has been a constant throughout my career. I am driven by ensuring that relevant scientific discoveries see the light of day and ultimately improve people's life which is well aligned with SAP's mission.

I am proud of SAP's guiding principles as it pertains to AI, namely that it be relevant, reliable, and responsible in our development. SAP has a long-standing AI Ethics Board to oversee our AI development to ensure our core principles and minimize biases that are inherent to much of the data used in AI. When biased data feeds an algorithm, there is a risk of further amplifying these biases. SAP has been focused on developing our own proprietary language models and embedding them into various solutions, from Cloud ERP to Business Technology Platform (BTP) and SuccessFactors.

One of SAP's first use cases of AI is within our SuccessFactors product where we can mitigate and at times eliminate biases in job descriptions, contributing to a more objective hiring process. For instance, we can remove gender identifiers to address unconscious biases in hiring. Additionally, automating tasks such as generating job descriptions for similar job roles saves time and enhances efficiency. Lastly we are able to apply AI to improve employee performance management, enabling the creation of measurable and trackable goals.

Lastly, I would like to highlight SAP's partnerships with major tech players, including Nvidia, Google Cloud, IBM, Microsoft, Anthropic, DataBricks and AWS just to name a few. The company not only develops solutions internally but also collaborates with leading innovators to offer the best products and services. In conclusion, it's an exciting time to be at SAP at this transformative time. I acknowledge the significant impact of artificial intelligence on the company's solutions and celebrate the vibrant community of professionals in Latin America, whose contributions are essential to driving innovation and technological advancement."

Karina Montilla Edmonds, Ph.D. (she/her), SAP SVP, Academic and Research Partnerships

A message from the Global Director of Partner Success at SAP University Alliances...

"The SAP University Alliances Academic Community Conferences (ACCs) are THE signature event to bring the unique academic community together, that is the heart and soul of the SAP University Alliances Program – to learn about new teaching and learning assets, share best practices, grow the network – and have a lot of fun! I am glad that I can join the ACC LAC 2025 virtually!"

Dr. Michael Nuernberg, SAP University Alliances, Global Director Partner Success



A message from the Director of SAP University Alliances for Latin America & the Caribbean, Spain & Portugal ...

"My special gratitude to all colleagues, professors, speakers and all who have contributed to our regional academic community & conference!

Thank you! To every professor who dedicated time, energy, and passion to join our annual gatherings — gracias, obrigado, thank you. Your presence and feedback continue to turn our annual regional SAP Academic Community Conference Latin America and the Caribbean into a living laboratory where fresh ideas circulate. By coming together, you reaffirm what academia does best: tracking the newest trends, translating them into learning, and enlarging the futures of students.

That is also our shared commitment at SAP and the wider ecosystem of enterprise innovation. Thanks for equipping graduates with skills that open real-world market doors the moment they leave campus.

This annual event has been offering more than talks and slides, it is the base for fresh networks, inspired research collaborations and spotlighted teaching practices that make complex technologies approachable. We hope the pages that follow capture that spirit which you can take back to your classrooms. By sharing the summary of your lecture, you are sharing your work done over years of being actively part of SAP University Alliances, your best practices and in some cases the invitation to make synergies with other academics – has shown a huge win-win for everyone, that is you, your students, your educational institution, our ecosystem of customers and partners and us, SAP!

Thanks to your expertise, dedication and trust, the classroom keeps pace with the marketplace — and our region's LAC talent flourishes!"

María Cecilia, Calzada de Neumann

Director, SAP University Alliances Latin America & Caribbean, Portugal and Spain



A message from the SAP Head of Inclusion for Latin America & the Caribbean...

"La inclusión y la pertenencia son principios fundamentales para construir entornos donde todas las personas podamos sentirnos valoradas y respetadas, y donde se escuchen y apoyen todas las voces. Nos recuerdan que tenemos orígenes y experiencias diferentes y que debemos reconocer y abordar las desigualdades. Para las organizaciones, esto significa com-

promover recursos y fomentar el diálogo abierto para crear comunidades más justas y equitativas. Por ello, traer esta discusión a la mesa en foros como la SAP Academic Community Conference Ibero-America 2024 es necesario para sensibilizarnos e impulsar el cambio tanto individual como colectivo”

Ezequiel Massa, Head of Inclusion for Latin America & the Caribbean at SAP



A message from the SAP Sustainability Principal for Latin America & the Caribbean...

“I am truly grateful for the opportunity to participate in the SAP Academic Community Conference. The event was incredibly well-organized, providing a seamless experience that allowed for valuable professional connections and insightful exchanges.

My main objective was to emphasize the critical role of technology in addressing global challenges, particularly in the realm of sustainability. Sustainability is the main challenge of our time, and preserving our natural resources worldwide is both valuable and urgent. It is crucial for students, professors, executives, and professionals to recognize that technology can be harnessed to tackle these pressing issues, including climate change. I truly hope that my participation provided valuable insights to everyone involved.

It was a pleasure to contribute to such an impactful event, and I remain deeply committed to supporting this community. I am always available to share knowledge and collaborate on initiatives that drive positive change in the world of sustainability. Thank you for the opportunity to be part of this important conversation.”

Renata Amorim, Sustainability Principal for Latin America & the Caribbean at SAP

A message from the President of Academic Board Iberoamerica ...

“En tiempos donde la globalización y la tecnología han acortado las distancias entre países, el poder contar con una iniciativa como el Academic Board Iberoamerica de SAP University Alliances permite reducir más esta brecha; así mismo logra que se geste una gran comunidad en donde todos perseguimos el mismo fin, tener un mundo mejor gracias a la educación. ¡Agradezco a SAP y a University Alliance permitirme el poder alcanzar esta meta!”

Jesús Aguilar González, Academic Board Iberoamerica President & Academy Leader at Tec Ventures



A message from the SAP Chief Innovation Officer for Latin America & the Caribbean...

“Being a speaker at the SAP Academic Community Conference Ibero-America was an exceptional experience that I will cherish deeply. The opportunity to share SAP's advancements in AI and engage with a vast network of academics was truly inspiring. The organizers' commendation that my session fostered meaningful discussions and sparked innovative ideas is a testament to the collective passion and intellectual curiosity of the participants. With over 190 academics tuned in, the event demonstrated the



power of collaboration in shaping the future of education. I am honored to have played a part in strengthening the bonds within our academic network and look forward to continued collaboration with the SAP Next Gen Ibero-America Team. Together, we can empower future generations with the knowledge and tools they need to thrive in a digital world.”

Matheus Souza, Chief Innovation Officer for Latin America & the Caribbean at SAP



A message from the SAP Cloud ERP CRO for Latin America & the Caribbean...

“Participar da SAP Academic Community Conference 2024 foi uma experiência enriquecedora e inspiradora. A oportunidade de compartilhar conhecimento e debater sobre Cloud, IA e inovação no ecossistema acadêmico reforça a importância da colaboração entre empresas e universidades para preparar a próxima geração de profissionais de tecnologia.

A conferência proporcionou um ambiente dinâmico de troca de ideias, reunindo pesquisadores, educadores e especialistas do mercado para discutir as tendências que moldam o futuro do ensino e da inovação digital. Um dos grandes destaques foi a possibilidade de trazer casos reais de empresas, como a Natura, para ilustrar como as tecnologias de Cloud ERP, IA e Dados estão transformando os negócios e criando novas oportunidades para o mercado. Conectar a teoria acadêmica com exemplos práticos do mundo corporativo permite que os estudantes compreendam melhor os desafios e as soluções aplicadas nas empresas.

A inclusão do tema ‘inovação tecnológica’ nos debates acadêmicos é essencial para aproximar os estudantes das demandas do mundo real, garantindo que estejam prepara-

dos para os desafios da transformação digital. Agradecemos a oportunidade de contribuir para este evento e reforçamos nosso compromisso em fortalecer a ponte entre a academia e o mercado, impulsionando o aprendizado e a inovação.”

Alexandre Pereira, CRO Cloud ERP Latin America & the Caribbean at SAP

SAP Academic Community Conference – Buenos Aires, Argentina

Hosted at SAP's Laminar office, the company's first site in Buenos Aires, established in 1994, this local edition of the SAP Academic Community Conference 2024 brought the academic community together in one of Latin America's most vibrant capitals. As of April 2025, the office is home to over 1,300 SAP employees, reflecting the company's long-standing presence in the region. This chapter offers an overview of the event's key highlights, including general participation data, central discussion topics, testimonials, and the selection of expanded abstracts presented during the conference.

About the conference

The event brought together 13 participants, including professors and academics from more than four different educational institutions, fostering an environment of learning, collaboration, and knowledge exchange. Participants came together to learn more about SAP and SAP University Alliances solutions and opportunities and expanded their professional networks under the event's central theme: Connecting Minds, Transform the Future.

The conference featured 12 speakers and delivered over four hours of content, in seven sessions, where SAP experts and academics shared insights into the latest advancements in technology and education. Research presentations and discussions were centered around key topics such as Cloud Computing, Artificial Intelligence (AI), Sustainability, and Inclusion, reinforcing the event's commitment to driving innovation in both academia and industry.

Testimonials

“Estamos muy entusiasmados con los resultados de la primera SAP Academic Conference realizada en Argentina, ya que marca el inicio de una nueva etapa en la que SAP y las universidades, públicas y privadas, avanzarán en conjunto hacia una enseñanza más completa de herramientas tecnológicas aplicadas a los negocios.

Nuestra visión es que más estudiantes tengan acceso a conocimientos que se adapten a las competencias laborales del futuro y así puedan enfrentar los desafíos de la economía digital.

Creemos firmemente en la importancia del ecosistema académico para SAP, ya que es a través de estas sinergias donde la innovación y el conocimiento se encuentran para crear soluciones que no solo atiendan las necesidades actuales del mercado, sino que también preparen a las futuras generaciones de profesionales.

La colaboración entre SAP y las universidades es vital para el continuo desarrollo de contenidos académicos que sean relevantes e innovadores. Queremos que los estudiantes universitarios experimenten de primera mano cómo la inteligencia artificial se aplica a procesos de negocio y cómo su uso es crucial para tomar decisiones informadas y eficientes. Esta experiencia les dará una ventaja competitiva cuando ingresen al mercado laboral.



La conferencia fue una excelente plataforma para dialogar sobre cómo podemos seguir avanzando en esta dirección. Estamos agradecidas por la oportunidad de haber sido parte de este evento.”

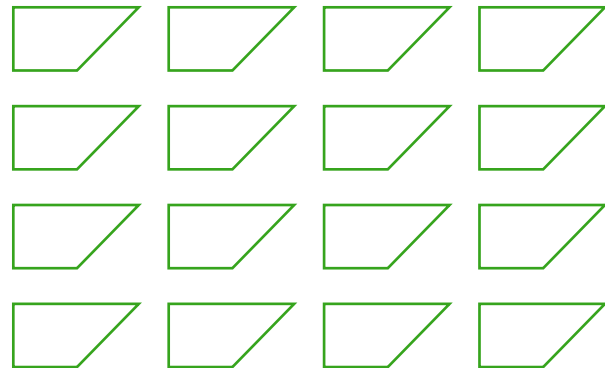
Claudia Boeri, MD, SAP LAC South, & Fernanda Pérez, Country Manager, SAP Argentina

Academic Contributions and Research

Several academic contributions were presented during the SAP Academic Community Conference Argentina, held in Buenos Aires. In the table below, we highlight the contributions that were selected for inclusion in this e-Book. Their expanded abstracts can be found in the corresponding section at the end of the publication.

Research	Author(s) and Presenter(s)
Innovaciones en la Enseñanza de SAP en UADE: Desafíos y Resultados en la Formación Universitaria	Lic. Ariel Vazquez Director Departamento de Negocios y Tecnología Universidad Argentina de la Empresa arvazquez@uade.edu.ar Lic. Rosina Fernandez Docente de grado y diplomatura en Sistemas Integrados de Gestión Empresarial Universidad Argentina de la Empresa (UADE) rosifernandez@uade.edu.ar

El "salto digital" de la Alianza: De primera generación de estudiantes universitarios, al conocimiento de tecnología de clase mundial	Mg. Juan Pablo Ivanier Magíster en Psicología Empresarial y Organizacional (Universidad de Belgrano)/Especialista en Docencia Universitaria (UNTREF) Docente Grado y Posgrado/Director de Tecnología Universidad Nacional de Tres de Febrero (UNTREF) Argentina jivanier@untref.edu.ar Lic. Maité Aylén Millán Licenciada en Administración de Empresas (UNTREF) Docente de Grado Universidad Nacional de Tres de Febrero (UNTREF), Argentina mmillan@untref.edu.ar
Teaching business process management with SAP Signavio – Design of a Smart Organizational System	Dr. Rafael Batres Profesor Titular Escuela de Ingeniería y Ciencias Tecnológico de Monterrey rafael.batres@tec.mx



SAP Academic Community Conference – São Leopoldo, Brazil



This local edition of the SAP Academic Community Conference 2024 was held at SAP Labs Latin America – São Leopoldo. Established in 2006 with just 22 employees, the site has since grown to employ approximately 2,300 professionals from more than 20 nationalities as of July 2024. This chapter presents the key elements of the conference, including data on participants, the main themes discussed, testimonials, and a selection of expanded abstracts submitted by the academic community.



About the conference

The event brought together 66 participants, including professors and academics from more than 13 different institutions, fostering an environment of learning, collaboration, and knowledge exchange. Participants came together to learn more about SAP and SAP University Alliances solutions and opportunities and expanded their professional networks under the event's central theme: Connecting Minds, Transform the Future.

The conference featured 13 speakers and delivered over five hours of content, in 10 sessions, where SAP experts and academics shared insights into the latest advancements in technology and education. Research presentations and discussions were centered around key topics such as Cloud Computing, Artificial Intelligence (AI), Sustainability, and Inclusion, reinforcing the event's commitment to driving innovation in both academia and industry.



Testimonials



“Attending the Academic Community Conference 2024 in São Leopoldo was an eye-opening experience that highlighted the power of collaboration between academia and the broader ecosystem. The panel discussions, particularly on integrating universities with local communities and businesses, offered actionable strategies and inspiring success stories that demonstrated the mutual benefits of such part-

nerships. I am grateful to everyone involved for creating such a collaborative and inspiring environment.”

Barbara Bertolini, Head of Ecosystem Innovation, SAP Labs LATAM

“Participar da SAP Academic Community Conference 2024 foi uma experiência enriquecedora para a equipe de Talent Discovery. A oportunidade de trocar conhecimentos com professores de outras regiões ampliou nossa percepção sobre a formação acadêmica e as tendências do mercado em transformação. Essas interações são fundamentais para entendermos como as universidades estão preparando os futuros profissionais e como podemos contribuir para essa evolução. Além disso, o evento nos permitiu compartilhar nossa visão sobre o que buscamos em novos talentos e como estamos conduzindo nossos processos. Foi um espaço valioso para alinhar expectativas, discutir desafios e fortalecer a conexão entre academia e indústria. Acreditamos que essa troca contínua é essencial para construir um ecossistema mais inovador e preparado para o futuro.”

Nathalia Rauzer & Kelen Grando, Talent Discovery

“Participar da organização do SAP Academic Community Conference 2024, especialmente da edição realizada no nosso escritório em São Leopoldo, foi uma experiência inesquecível. Sendo a nossa primeira vez à frente desse evento, aprendemos muito em cada etapa: do planejamento inicial aos detalhes do grande dia. Foi um processo cheio de descobertas, ajustes e crescimento em equipe. Por mais gratificante que tenha sido ver tudo organizado no início do dia, nada superou a experiência de receber a comunidade acadêmica, acompanhar o evento acontecendo e sentir, de fato, o impacto positivo que conseguimos gerar. Estar presente, ver tudo funcionando, assistir às apresentações e tro-

car ideias com os professores foi muito recompensador. Ficamos muito felizes por termos tido a oportunidade de viver essas experiências ainda como estagiárias – uma vivência que vamos levar, com carinho e orgulho, para toda a nossa trajetória profissional.”

Julia Marin & Isadora Royer, SAP University Alliances – SAP Academic Community Conference Co-Leads, São Leopoldo, Brazil

Academic Contributions and Research

Several academic contributions were presented during the SAP Academic Community Conference Brazil, held in São Leopoldo. In the table below, we highlight the contributions that were selected for inclusion in this e-Book. Their expanded abstracts can be found in the corresponding section at the end of the publication.

Research	Author(s) and Presenter(s)
Uso de Tecnologia Digital para Elevar Aprendizagem Educacional: A Importância da Gestão da Aprendizagem e as Suas Relações com a SAP na Universidade Presbiteriana Mackenzie	Prof. Dr. Alberto de Medeiros Júnior Programa de Pós-Graduação em Administração do Desenvolvimento de Negócios. Universidade Presbiteriana Mackenzie alberto.medeiros@mackenzie.br
	Prof. Dr. Ricardo Alves de Souza Coordenador de Cursos Oficinas e Eventos Pró-Reitoria de Extensão e Cultura Universidade Presbiteriana Mackenzie ricardo.souza@mackenzie.br
	Prof. Dr. José Geraldo de Araújo Guimarães Professor Assistente Doutor Universidade Presbiteriana Mackenzie jose.guimaraes@mackenzie.br

The Role of AI in Medicine and Healthcare	Marcelo Benedeti Palermo Doutorando no Programa de Pós-Graduação em Computação Aplicada da Universidade do Vale do Rio dos Sinos mbpalermo@edu.unisinos.br
Diversidade e Inclusão	Profa. Dra. Maria Beatriz Rodrigues Programa de Pós-Graduação em Administração da Escola de Administração, Universidade Federal do Rio Grande do Sul beatriz.rodrigues@ufrgs.br
SAP Horizons: a model for leveraging sustainable collaboration for Next-Gen University Alliance and E-Learning adoption	Prof. Dr. Mateus Panizzo Programa de Pós-Graduação em Administração (PPGA) e Programa de Pós-Graduação em Engenharia de Produção (PPGEP) da Universidade de Caxias do Sul (UCS) mpanizzo@ucs.br Prof. Ms. Michele Otobeli Bertelli Coordenadora do Bacharelado em Engenharia de Produção da Universidade de Caxias do Sul (UCS) mbertelli@ucs.br Diego Junqueira CIO – Chief Information Officer at Randoncorp diego.junqueira@randoncorp.com Renato Coluci Global Account Director – SAP renato.coluci@sap.com Prof. Dr. Rafael de Lucena Perini Programa de Pós-Graduação em Planejamento e Gestão de Cidades Sustentáveis (PPG-CIDADES) e Coordenador do Bacharelado em Administração da Universidade de Caxias do Sul (UCS) rlperin@ucs.br Prof. Dr. Daniel Luis Notari Programa de Pós-Graduação em Administração (PPGA) e Programa de Pós-Graduação em Computação Aplicada da UCS (PPGCA) da Universidade de Caxias do Sul (UCS) dnotari@ucs.br

SAP Academic Community Conference – Santiago, Chile

Hosted at SAP's main office in Santiago, active since 1997 and employing more than 190 professionals as of April 2025, this local edition of the SAP Academic Community Conference 2024 reflected SAP's continued commitment to innovation and collaboration in Chile. This chapter highlights the main aspects of the Santiago conference, including general participation data, the themes explored during the sessions, testimonials, and a compilation of selected expanded abstracts.



About the conference

The event brought together 20 participants, including professors and academics from more than nine different institutions, fostering an environment of learning, collaboration, and knowledge exchange. Participants came together to learn more about SAP and SAP University Alliances solutions and opportunities and expanded their professional networks under the event's central theme: Connecting Minds, Transform the Future.

The conference featured five speakers and delivered over four hours of content, in five sessions, where SAP experts and academics shared insights into the latest advancements in technology and education. Research presentations and discussions were centered around key topics such as Cloud Computing, Artificial Intelligence (AI), Sustainability, and

Inclusion, reinforcing the event's commitment to driving innovation in both academia and industry.

Testimonials

“He tenido la suerte de liderar los dos últimos eventos de SAP Academic Community Conference en Chile, y han sido instancias de mucho provecho en función de aprender, colaborar y ampliar redes de contactos. Nos hemos encontrado con una tremenda disposición de los profesores universitarios, para compartir el cómo ellos complementan distintas mallas curriculares con las soluciones que SAP disponibiliza a través de University Alliances.

Nos encontramos con profesores que hoy en día tienen un foco en cómo utilizar nuestras soluciones de ERP, involucrando tanto a SAP S/4HANA, como también SAP Business One. Lo que genera que los alumnos puedan conocer los diferentes módulos y enfrentar con más confianza el mundo laboral profesional, sabiendo que hay una alta probabilidad de transaccionar a través de SAP en un trabajo futuro.

Finalmente de todas las industrias que SAP abarca, bajo mi punto de vista el segmento de las Universidades es por lejos la industria más colaborativa entre sus pares. Por lo que estas instancias apoyan a los profesores en complementar sus asignaturas, gracias a las experiencias de otros y sacando más provecho de las soluciones que SAP tiene en el mercado.”

*Sebastián Figueroa, Account Executive – SAP Academic Community Conference
Volunteer Lead, Santiago – Chile*

“El evento fue muy enriquecedor. Compartí mi experiencia con los asistentes de las universidades sobre cómo desarrollé un plan de trabajo en Duoc UC como docente part-time, basado en SAP University Alliances. Al comunicar eficazmente los beneficios de la plataforma SAP tanto a estudiantes como a instituciones, ellos entienden el valor y están dispuestos a dedicar tiempo y esfuerzo al desarrollo de habilidades en consultoría en sus estudiantes para el mercado laboral. Veo una gran oportunidad para instituciones, estudiantes, empresas de consultoría y clientes de SAP que necesitan personal capacitado en las nuevas tecnologías y tendencias de la industria para impulsar la transformación que vivimos actualmente con la Inteligencia Artificial.”

Patricio Palma, SAP Enterprise Architect

“Primero quisiera expresar mi más profundo agradecimiento a todas las universidades chilenas participantes en el SAP Academic Community Conference Ibero-America 2024, a los ponentes, organizadores y, por supuesto, a todos los asistentes que han hecho posible este evento. La dedicación y el entusiasmo han sido fundamentales para el éxito de este encuentro. Durante la conferencia tuvimos la oportunidad de sumergirnos en discusiones sobre cómo la tecnología, y particularmente las soluciones de SAP, están impactando la Educación Superior en nuestro país y en el mundo, explorar nuevas





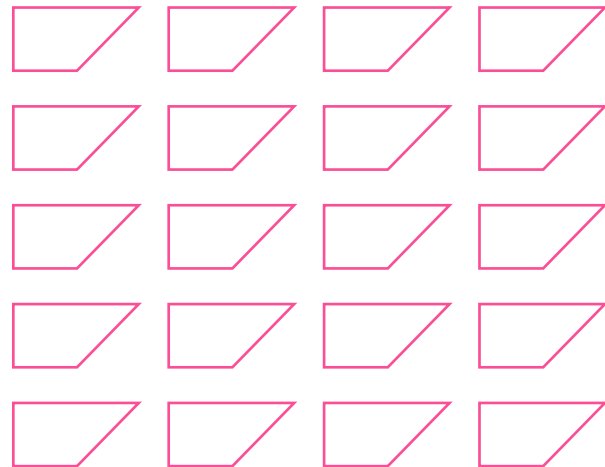
ideas y compartir experiencias y conocimientos valiosos. Tuvimos presentadores y presentaciones inspiradoras que nos han enriquecido tanto profesional como personalmente. La colaboración entre las universidades participantes fue un verdadero testimonio del poder de la comunidad académica iberoamericana. Continuaremos trabajando juntos, compartiendo conocimientos y buscando soluciones innovadoras. ¡La verdadera esencia de esta conferencia reside en seguir trabajando en conjunto!”

Martin Volante, SAP Architect Advisor Expert

Academic Contributions and Research

Several academic contributions were presented during the SAP Academic Community Conference Chile, held in Santiago. In the table below, we highlight the contributions that were selected for inclusion in this e-Book. Their expanded abstracts can be found in the corresponding section at the end of the publication.

Research	Author(s) and Presenter(s)
Digital Transformation in Higher Education with SAP	Alejandro Alvarez Toro-Moreno Magíster en Dirección de Empresas Magíster en Consultoría Funcional SAP Académico de la Escuela de Ingeniería de la Universidad de las Américas – Chile aalvarezt@udla.cl
Recurso Tecnopedagógico para el Aprendizaje de Procesos Contables	Erik Escalona Aguilar Profesor Asociado Escuela de Administración & Negocios Facultad de Ingeniería, ciencia y Tecnología Universidad Bernardo O'higgins, Santiago Chile erik.escalona@ubo.cl



SAP Academic Community Conference – Bogotá, Colombia

Held at SAP's Bogotá office, one of two SAP locations in the country and active since 1994, this edition of the SAP Academic Community Conference 2024 brought together academic professionals in the Colombian capital. This chapter outlines the main highlights of the event, including data on participation, core topics addressed, testimonials, and the list of expanded abstracts selected for inclusion.



About the conference

The event brought together 25 participants, including professors and academics from more than thirteen different institutions, fostering an environment of learning, collaboration, and knowledge exchange. Participants came together to learn more about SAP and SAP University Alliances solutions and opportunities and expanded their professional networks under the event's central theme: Connecting Minds, Transform the Future.

The conference featured eight speakers and delivered over five hours of content, in seven sessions, where SAP experts and academics shared insights into the latest advancements in technology and education. Research presentations and discussions were centered around key topics such as Cloud Computing, Artificial Intelligence (AI),

Sustainability, and Inclusion, reinforcing the event's commitment to driving innovation in both academia and industry.

Testimonials

"For a long time, SAP has been committed to building solutions and delivering services that contribute to the process of change and growth of organizations across different business verticals. To achieve this goal, it has dedicated effort and investment to the growth and interconnection of various initiatives that contribute to the vision of life transformation. undoubtedly, educational institutions, as part of the SAP ecosystem, are also agents of change in this vision.

The SAP 2024 Academic Community Conference enabled a significant connection between higher education and intermediate professional development institutions, partners, and SAP to jointly continue strengthening talent through SAP content, media, experiences, and technological solutions with high impact in the workplace. With this knowledge and tools, educational teams, teachers, and students will have an additional source of competitiveness to face market challenges. We believe that every interaction in this space creates opportunities for improvement. SAP University Alliances will be able to optimize your projects using our SAP solutions so that students and faculty enjoy a more satisfying classroom experience.

Our experience has been very enriching. Being able to share our organization's approach, business and professional challenges, and SAP programs to strengthen our ecosystem, along with our track record, positions, and experience, motivates us to continue working to recruit highly competitive talent with potential in the SAP world.

Finally, the educational environment plays a key role in the dynamics of organizational transformation. Students who will become future decision-makers and change-makers must possess cutting-edge skills in processes, good business practices, consulting, data analysis, artificial intelligence, and innovation. This is where we know that, through SAP University Alliances programs and our professional support, we contribute to the guidance and development of these skills. We are proud to work side by side with the talent that will be the future of our transformation.”

Santiago Duque, Integration Leader, Latin America and the Caribbean, & Soraida Ledesma, Head LAC North Customer Officer

“SAP plays a pivotal role in enhancing global operations and improving lives by fostering connections between academia and universities. By valuing the participation of higher education institutions and the broader ecosystem, SAP delivers significant value through collaboration and talent development.

SAP values the participation of higher education institutions and the ecosystem in delivering value through their talents. This collaboration is crucial for the development and growth of our existing customers and those aspiring to join our journey of transformation and innovation.

The SAP Academic Community Conference 2024 achieved its stated purpose by creating a significant platform for knowledge sharing, academic experiences, SAP initiatives, and alignment with the SAP Next-Gen strategy outlined for 2025. This ensures that new talents and educational teams grow in tandem with the dynamics of technological evolution and participate in strategic roles in Artificial Intelligence, Innovation, and business processes as agents of change.

We are pleased to have strengthened ties with our fellow ambassadors, educational staff, teachers, and partners. We have also experienced a unique environment for sharing experiences, growth opportunities, and educational needs, integrating as a unified ecosystem.

SAP 2025 presents a new challenge that we embrace with total conviction. We invite you to join us as ambassadors to share our SAP world — our energy and skills — with the new generations. We aim for more sources of cutting-edge knowledge, more experiences, SAP in more classrooms of ideas, achievements in the SAP Next-Gen strategy as part of the ecosystem, greater synergy from the University Alliances with SAP collaborative teams, and more qualified and recognized SAP talent in the workforce.

As SAP Next Gen Ambassadors, we are committed to sharing our expertise and energy with future generations, expanding SAP's presence in educational settings, and cultivating a workforce rich in qualified SAP talent. Join us in this transformative journey to create a more connected and innovative world.

We are proud to be SAP Next Gen Ambassadors.”

Cayo Betancourt, Senior Project Consultant, & Soraida Ledesma, Head LAC North Customer Officer – SAP Academic Community Conference Volunteer Co-Leads, Bogotá – Colombia

SAP Academic Community Conference – Monterrey, Mexico

This edition of the SAP Academic Community Conference 2024 took place at SAP's newly designated Labs Latin America site in Monterrey, officially established in 2023. The office had already been building strong engineering and customer success teams and, by 2024, employed almost 400 professionals. This chapter presents an overview of the conference, covering participation data, key themes discussed, testimonials, and the expanded abstracts selected for this edition.



About the conference

The event brought together 24 participants, including professors and academics from more than nine different institutions, fostering an environment of learning, collaboration, and knowledge exchange. Participants came together to learn more about SAP and SAP University Alliances solutions and opportunities and expanded their professional networks under the event's central theme: Connecting Minds, Transform the Future.

The conference featured seven speakers and delivered over four hours of content, in seven sessions, where SAP experts and academics shared insights into the latest advancements in technology and education. Research presentations and discussions were centered around key topics such as Cloud Computing, Artificial Intelligence (AI), Sustainability, and Inclusion, reinforcing the event's commitment to driving innovation in both academia and industry.



Testimonials

“It was a great experience being part of the SAP Academic Community Conference since I got to know new industry trends as well as listen to professors testimonials about SAP solutions in the classroom. It was also great to meet people from different universities and chat about their suggestions on how to implement these solutions better in the future.”

Aaron Inzunza, SAP University Alliances, Intern – SAP Academic Community Conference Lead, Monterrey – Mexico

“To be part of this event was absolutely amazing... I planned my agenda to be at opening and closure but couldn't leave my chair at all during the whole event! It gave me goosebumps to see all the commitment the professors have with their students and with the SAP community. I can't wait to be part of the next one!”

Adriana Rocha, Process Optimization & SAP Labs LA Site Lead for Monterrey

“Fue un honor y un privilegio ser panelista en el SAP Academic Community Conference Ibero-America 2024 en el que pude compartir mi experiencia y proyectos de innovación con profesores de diferentes Universidades. Durante mi presentación, tuve la oportunidad de mostrarles proyectos innovadores en los que he estado trabajando, incluyendo el uso de Synthesia para crear videos con Inteligencia Artificial y cómo estoy incorporando las soluciones de SAP en mi proyecto con el Apple Vision Pro. La experiencia fue muy enriquecedora, ya que tuvimos la oportunidad de inspirar a los profesores sobre la importancia de incluir en sus currículas conocimientos sobre las soluciones de SAP. Estas herramientas no solo son fundamentales para el desarrollo profesional de los estudiantes, sino también para impulsar la innovación en sus propios proyectos. Mi inspiración siempre ha sido el propósito de SAP de “mejorar la vida de las personas y hacer que el mundo funcione mejor”. Ver el entusiasmo y el interés de los profesores me recordó por qué mi trabajo como profesora, conferencista y mentora es tan gratificante. Espero que esta charla haya sido un catalizador para que más Universidades adopten iniciativas innovadoras y continúen inspirando a sus estudiantes a explorar más sobre SAP.”

Karla Treviño, Program Manager, Strategic Engagement & Adoption

“I had the privilege of participating in a session with a group of distinguished university professors, where I shared insights on processes and transformation. It was truly enriching to learn firsthand about the initiatives they are driving within their institutions and how they are preparing students for future challenges. I was particularly impressed by the approach they are fostering—blending theory and practice to enhance critical thinking and innovation.

Moreover, it was inspiring to see how they are leveraging our solutions, including SAP BTM, in the education sector, showcasing how technology can enhance both learning and academic management. This exchange reinforced the importance of collaboration between universities and SAP to continue advancing knowledge and driving digital transformation.”

Adriana Tamez, Senior SAP Signavio Sales Specialist

Academic Contributions and Research

Several academic contributions were presented during the SAP Academic Community Conference Mexico, held in Monterrey. In the table below, we highlight the contributions that were selected for inclusion in this e-Book. Their expanded abstracts can be found in the corresponding section at the end of the publication.

Research	Author(s) and Presenter(s)
Explorando las implicaciones de la Logística Sustentable con SAP y ERPsim	Alfredo Santana Reynoso, Ph.D., PMP, CSSBB Profesor Titular Departamento de Ingeniería Industrial Escuela de Ingeniería y Ciencias Tecnológico de Monterrey alfredo.santana@tec.mx
Enriqueciendo la experiencia formativa a través de SAP Signavio y SAP LeanIX	Maestra Claudia Aja Leyva Maestría en Administración de Tecnologías de Información Profesora del Programa de Ingeniería en Transformación Digital de Negocios Tecnológico de Monterrey claudia.aja@tec.mx

SAP Academic Community Conference – Lima, Peru

Held at SAP's Lima office, active since 1997 and employing over 165 professionals as of April 2025, this edition of the SAP Academic Community Conference 2024 reinforced the company's commitment to academic engagement in Peru. This chapter offers a summary of the event's key elements, including data on participants, the main themes explored, testimonials, and a collection of expanded abstracts submitted and selected by local academic institutions.



About the conference

The event brought together 24 participants, including professors and academics from more than 10 different institutions, fostering an environment of learning, collaboration, and knowledge exchange. Participants came together to learn more about SAP and SAP University Alliances solutions and opportunities and expanded their professional networks under the event's central theme: Connecting Minds, Transform the Future.

The conference featured four speakers and delivered over four hours of content, in four sessions, where SAP experts and academics shared insights into the latest advancements

in technology and education. Research presentations and discussions were centered around key topics such as Cloud Computing, Artificial Intelligence (AI), Sustainability, and Inclusion, reinforcing the event's commitment to driving innovation in both academia and industry.

Testimonials

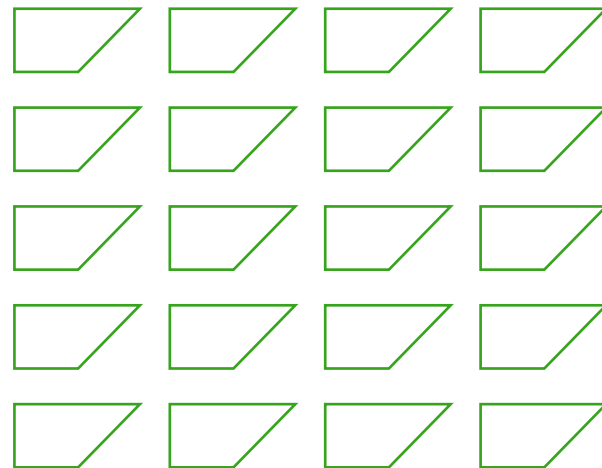
“Una oportunidad única para compartir conversación y conocimiento con los líderes en educación de las principales entidades educativas del país sobre tecnología y SAP. Gratamente sorprendido del conocimiento que adquieren los alumnos universitarios sobre tecnologías emergentes, como Inteligencia Artificial y/o Realidad Virtual, y como lo reflejan en casos prácticos con tecnología de SAP. Un gran espacio para compartir ideas y un enfoque de desarrollo a favor del futuro académico con SAP para universitarios”

Cesar Berrios, Senior Human Resources Solution Advisor – SAP Academic Community Conference Volunteer Lead, Lima – Peru

Academic Contributions and Research

Several academic contributions were presented during the SAP Academic Community Conference Peru, held in Lima. In the table below, we highlight the contribution that was selected for inclusion in this e-Book. The expanded abstract can be found in the corresponding section at the end of the publication.

Research	Author(s) and Presenter(s)
IoT y IA en el Laboratorio SAP Next-Gen de la Universidad de Lima (UL)	Prof. Pablo Alberto Rojas Jaen Carrera de Ingeniería de Sistemas – Facultad de Ingeniería Universidad de Lima projasj@ulima.edu.pe



Expanded Abstracts

This section features the extended abstracts of research projects presented during the 2024 SAP Academic Community Ibero-America. These contributions reflect the thematic focus of the conference, which centered on Cloud, Artificial Intelligence (AI), Sustainability, and Inclusion, and illustrate the academic community's engagement with the challenges and opportunities brought by digital transformation.

The extended abstracts included in this e-Book were selected from the research presented during these regional events. They showcase the diversity of approaches and the depth of inquiry found within the SAP academic ecosystem, while also highlighting the potential of enterprise technologies to drive meaningful research and educational innovation.

All extended abstracts are organized in alphabetical order by title to facilitate navigation and reference. We hope this collection contributes to strengthening collaboration within the SAP University Alliances network and inspires further academic and professional exploration.

Title	Author(s) and Presenter(s)	SAP ACC
Digital Transformation in Higher Education with SAP	Alejandro Alvarez Toro-Moreno Magíster en Dirección de Empresas Magíster en Consultoría Funcional SAP Académico de la Escuela de Ingeniería de la Universidad de las Américas – Chile aalvarezt@udla.cl	Chile
Diversidade e Inclusão	Profa. Dra. Maria Beatriz Rodrigues Programa de Pós-Graduação em Administração da Escola de Administração, Universidade Federal do Rio Grande do Sul beatriz.rodrigues@ufrgs.br	Brazil
El "salto digital" de la Alianza: De primera generación de estudiantes universitarios, al conocimiento de tecnología de clase mundial	Mg. Juan Pablo Ivanier Magíster en Psicología Empresarial y Organizacional (Universidad de Belgrano)/ Especialista en Docencia Universitaria (UNTREF) Docente Grado y Posgrado/Director de Tecnología Universidad Nacional de Tres de Febrero (UNTREF) Argentina jivanier@untref.edu.ar Lic. Maité Aylén Millán Licenciada en Administración de Empresas (UNTREF) Docente de Grado Universidad Nacional de Tres de Febrero (UNTREF), Argentina mmillan@untref.edu.ar	Argentina
Enriqueciendo la experiencia formativa a través de SAP Signavio y SAP LeanIX	Maestra Claudia Aja Leyva Maestría en Administración de Tecnologías de Información Profesora del Programa de Ingeniería en Transformación Digital de Negocios Tecnológico de Monterrey claudia.aja@tec.mx	Mexico

Explorando las implicaciones de la Logística Sustentable con SAP y ERPsim	Alfredo Santana Reynoso, Ph.D., PMP, CSSBB Profesor Titular Departamento de Ingeniería Industrial Escuela de Ingeniería y Ciencias Tecnológico de Monterrey alfredo.santana@tec.mx	Mexico
Innovaciones en la Enseñanza de SAP en UADE: Desafíos y Resultados en la Formación Universitaria	Lic. Ariel Vazquez Director Departamento de Negocios y Tecnología Universidad Argentina de la Empresa arvazquez@uade.edu.ar Lic. Rosina Fernandez Docente de grado y diplomatura en Sistemas Integrados de Gestión Empresarial Universidad Argentina de la Empresa (UADE) rosifernandez@uade.edu.ar	Argentina
IoT y IA en el Laboratorio SAP Next-Gen de la Universidad de Lima (UL)	Prof. Pablo Alberto Rojas Jaen Carrera de Ingeniería de Sistemas – Facultad de Ingeniería Universidad de Lima projasj@ulima.edu.pe	Peru
Recurso Tecnopedagógico para el Aprendizaje de Procesos Contables	Erik Escalona Aguilar Profesor Asociado Escuela de Administración & Negocios Facultad de Ingeniería, ciencia y Tecnología Universidad Bernardo O'higgins, Santiago Chile erik.escalona@ubo.cl	Chile

SAP Horizons: a model for leveraging sustainable collaboration for Next-Gen University Alliance and E-Learning adoption	Prof. Dr. Mateus Panizzon Programa de Pós-Graduação em Administração (PPGA) e Programa de Pós-Graduação em Engenharia de Produção (PPGEP) da Universidade de Caxias do Sul (UCS) mpanizzo@ucs.br Prof. Ms. Michele Otobeli Bertelli Coordenadora do Bacharelado em Engenharia de Produção da Universidade de Caxias do Sul (UCS) mbertelli@ucs.br Diego Junqueira CIO – Chief Information Officer at Randoncorp diego.junqueira@randoncorp.com Renato Colluci Global Account Director – SAP renato.coluci@sap.com Prof. Dr. Rafael de Lucena Perini Programa de Pós-Graduação em Planejamento e Gestão de Cidades Sustentáveis (PPG-CIDADES) e Coordenador do Bacharelado em Administração da Universidade de Caxias do Sul (UCS) rlperin@ucs.br Prof. Dr. Daniel Luis Notari Programa de Pós-Graduação em Administração (PPGA) e Programa de Pós-Graduação em Computação Aplicada da UCS (PPGCA) da Universidade de Caxias do Sul (UCS) dnotari@ucs.br	Brazil
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Teaching business process management with SAP Signavio – Design of a Smart Organizational System	Rafael Batres, Ph.D. Professor School of Engineering and Sciences Tecnologico de Monterrey rafael.batres@tec.mx	Argentina
The Role of AI in Medicine and Healthcare	Marcelo Benedeti Palermo Doutorando no Programa de Pós-Graduação em Computação Aplicada da Universidade do Vale do Rio dos Sinos mbpalermo@edu.unisinos.br	Brazil
Uso de Tecnologia Digital para Elevar Aprendizagem Educacional: A Importância da Gestão da Aprendizagem e as Suas Relações com a SAP na Universidade Presbiteriana Mackenzie	Prof. Dr. Alberto de Medeiros Júnior Programa de Pós-graduação em Administração do Desenvolvimento de Negócios. Universidade Presbiteriana Mackenzie alberto.medeiros@mackenzie.br Prof.Dr. Ricardo Alves de Souza Coordenador de Cursos Oficinas e Eventos Pró-Reitoria de Extensão e Cultura Universidade Presbiteriana Mackenzie ricardo.souza@mackenzie.br Prof.Dr. José Geraldo de Araújo Guimarães Professor Assistente Doutor Universidade Presbiteriana Mackenzie jose.guimaraes@mackenzie.br	Brazil

Digital Transformation in Higher Education with SAP

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Digital transformation has become a key element for the development and competitiveness of organizations on a global scale, as it can significantly impact aspects such as efficiency, value chains and modernization (Leão & da Silva, 2021). In this context, universities face the challenge of training professionals with digital competencies that enable them to integrate effectively into the business environment and develop competitive skills, according to Haro & Ayala (2024). SAP, as a leader in enterprise software solutions, provides an ideal platform for this purpose. By incorporating SAP S/4HANA into the academic curriculum, students can be prepared to tackle the challenges of Industry 4.0.

Integrating SAP into Engineering and Business Administration academic programs provides students with practical and relevant learning experience. SAP S/4HANA enables students to gain a direct and applicable understanding of business process management and data analysis, which, according to Chang *et al.* (2023), is essential for organizations operating in a competitive digital economy. Training in these tools is highly sought after in today's job market, enhancing graduates' employability.

The integration of SAP S/4HANA into the university curriculum requires an adaptive and collaborative approach. This is because students may encounter difficulties understanding how the components of ERP systems interrelate and function in an integrated

manner. According to Zadeh *et al.* (2020), these systems can enhance the effectiveness and efficiency of business processes. This entails:

- ▶ **Adaptation of study programs:** academic content must be adjusted to include SAP modules that allow students to interact with the platform, understand its functionality and apply their knowledge in simulated scenarios.
- ▶ **Benefits of practical learning:** SAP S/4HANA provides students with access to case studies and simulations that reflect real business situations, strengthening their analytical and decision-making skills.
- ▶ **Preparation for the workforce:** students who engage with SAP during their education develop essential skills that position them as competitive candidates in the job market.

Collaboration between universities and SAP is essential for implementing SAP S/4HANA as part of educational experience. In fact, the demand for training and the knowledge acquired in SAP is continuously growing and becoming increasingly relevant (Soellner, 2021). This collaboration involves:

- ▶ **Challenges:** implementing SAP in an academic environment requires overcoming barriers such as resistance to change and the need to train faculty in the use of the tool. This aligns with the findings of Ali *et al.* (2023), who highlight the various cultural implications involved in the different stages of ERP implementation.



- ▶ **Outcomes:** students demonstrate a stronger command of business process management, enabling them to apply their knowledge in professional internships and capstone projects.
- ▶ **Lessons learned:** collaboration with SAP underscores the importance of continuous technological updates and the adaptation of teaching methods to meet market demands.

The integration of SAP not only benefits students but also educational institutions themselves – Among the long-term benefits, the following stand out:

- ▶ **Enhancement of teaching and learning:** SAP tools facilitate a better understanding of business processes and their relationship with strategic decision-making. This includes optimizing logistics operations, such as warehouse management and order fulfillment (Abdul-Azeez *et al.*, 2024).
- ▶ **Optimization of internal management:** universities can leverage SAP to improve data management and administrative processes, aligning with an approach focused on efficiency and transparency.

Strengthening industry relations: educational institutions that integrate SAP into their programs strengthen their ties with the business sector, promoting innovation and collaboration in applied research projects. Digital transformation with SAP in higher education provides a platform to train future leaders. The integration of SAP S/4HANA into the academic curriculum allows universities not only to enhance student education but also to optimize their own processes and strengthen their role as agents of change in society. As noted by Dang (2024), the high demands of the industry require constant improvement within academic programs. The synergy between SAP and educational institutions is cru-

cial, promoting a comprehensive approach that benefits both students and the educational sector.

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Diversidade e inclusão

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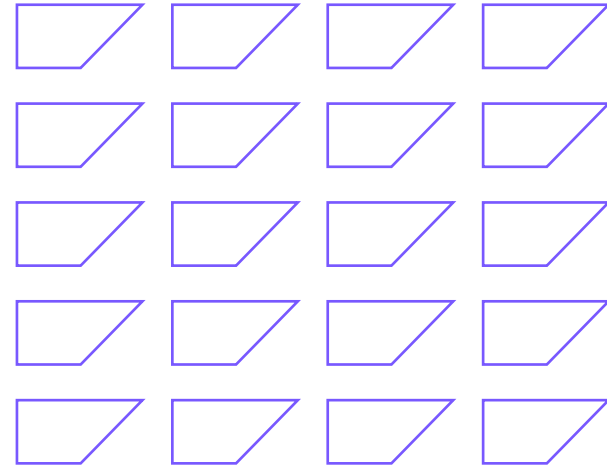
Resumo: A discussão sobre diversidade tem conquistado muitos espaços, na mídia, na academia e na sociedade em geral. O tema tem sido amplamente debatido e, com isso, gerado movimentos globais de contestação, de conscientização, entre outros. Somos chamados a pensar nos balizadores sociais indiscriminadamente construídos e reproduzidos, que pressupõem homogeneidade de corpos e mentes, além de um ideal inatingível de perfeição, que condicionam nossas vidas. Discutir novas e possíveis formas de exercício e percepção dos corpos e das mentes significa abrir-se à inclusão social e rever as relações sociais que se estabelecem no trabalho, na educação, na vida em geral. As diferenças são inerentes à condição humana; e os direitos, às condições sociais. Associa-se a isso a premissa de que viver em sociedade significa estabelecer continuamente contratos sociais de convivência. Em sociedades desiguais e marcadas pela multiplicidade cultural, como o Brasil, há grandes diferenças de expressão pessoal e de linguagens entre gênero, raça/cor, classe, oportunidades e acessos, entre outras. É desafiador pensar em convivência e inclusão social, pela complexidade e assimetria nas relações. Os marcadores sociais de diferença nos ajudam a entender melhor esse cenário e compreender a diversidade, para além das distinções individuais, e a inclusão como profundamente dependente do tecido social. Os marcadores de diferença se apresentam associados, aprofundando as desigualdades e preconceitos, e esse conceito de interseccionalidades faz parte do entendimento do papel e do espaço ocupado por grupos na sociedade. A diversidade é essencialmente interseccional e associa várias condições de vulnerabilidade. As condições sociais em que as pessoas nascem e vivem – família, gênero, raça/cor, nacionalidade etc. – não são definitivas, mas condicionantes de futuros possíveis. O respeito precisa ser levado para além das habilidades técnicas e profissionais, muito importantes no mundo do trabalho, mas, se levadas ao extremo, podem favorecer a falsa ideia de que o desenvolvimento pessoal e o progresso social dependem unicamente de vontade e mérito. Essa é não é uma afirmação incorreta, mas é incompleta. As organizações públicas e privadas, juntamente com o resto da sociedade, têm um papel de relevância na inclusão social, seja por meio do cumprimento de legislação, seja por iniciativas e programas de inclusão da diversidade.

Palavras-chave: Diversidade, inclusão, marcadores sociais de diferença, interseccionalidade(s).

Abstract: The discussion about diversity has gained much space in the media, in academia, and in society in general. This topic has been widely debated and, as a result, has generated global movements of protest, awareness, among others. We are called to think about the social guidelines that are indiscriminately constructed and reproduced, which

presuppose homogeneity of bodies and minds, in addition to an unattainable ideal of perfection, which conditions our lives. Discussing new and possible ways of exercising and perceiving bodies and minds means opening up to social inclusion and reviewing the social relationships that are established in work, education, and life in general. Differences are inherent to the human condition; and rights are inherent to social conditions. Associated with this is the premise that living in society means continually establishing social contracts of coexistence. In unequal societies marked by cultural multiplicity, such as Brazil, there are great differences between gender, race/colour, classes, opportunities and access, personal expression and languages, among others. It is challenging to think about coexistence and social inclusion, due to the complexity and asymmetries in relationships. Markers to define social differences help us to improve the understanding of this scenario as well as understanding diversity, beyond individual differences; and inclusion as deeply dependent on the social fabrics. Markers of social difference are associated with each other, deepening inequalities and prejudices, and this concept of intersectionality is part of the understanding of the role and space occupied by groups in society. Diversity is essentially intersectional, and associates several conditions of vulnerability. The social conditions in which people are born and live – family, gender, race/colour, nationality, etc. – are not definitive, but rather condition their possible futures. There is a need to bring respect beyond the technical and professional skills, which are very important in the world of labour, but, if taken to the extreme, can favour the false idea that personal development and social progress depend solely on will and merit. This is not an incorrect statement, but it is incomplete. Public and private organizations, together with the rest of society, play a relevant role in social inclusion, whether through compliance with legislation or through diversity inclusion initiatives and programs.

Keywords: Diversity, inclusion, social markers of difference, intersectionality(ies).



El “salto digital” de la Alianza: De primera generación de estudiantes universitarios, al conocimiento de tecnología de clase mundial

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Resumen: Este trabajo analiza el “salto digital” impulsado por la SAP University Alliances en estudiantes de grado de UNTREF, universidad pública del conurbano bonaerense de Argentina. El análisis de desafíos ante una primera generación de estudiantes universitarios en sintonía con el desarrollo profesional tecnológico.

El rol de la educación pública en Argentina: contexto de la Alianza

La educación pública en la Argentina ha sido históricamente un orgullo del “modelo país”. En este sentido, la educación superior representa una oportunidad de ascenso social y de crecimiento laboral. En particular, en la Universidad Nacional de Tres de Febrero (UNTREF) aproximadamente el 80% de sus estudiantes es primera generación universitaria.

Puntualizando en el concepto de Universidad Pública, los autores Ozollo y Paparini (2016, pág. 52) reconocen una *“diversidad de sujetos con diferentes trayectorias frente al Derecho a la Educación Superior y, por ende, de la problemática en el acceso, permanencia y egreso”*. El acceso a la Universidad supone el pasaje a un nuevo “estatus social”, la entrada a una cultura diferente. Así como ese pasaje exige una iniciación para que el ingresante se convierta en estudiante (Casco, 2009, pág. 2); la salida de la universidad como graduado también representa el tránsito hacia otro estatus. Además, al tratarse en muchos casos, de la primera generación universitaria, sobresale el cómo juega ello al convertirse en el primer familiar profesional. *“Nancy Foster (2008) sostiene que la exclusión de la vida social de personas y grupos se establece por dos tipos de injusticias: la socioeconómica y la cultural o simbólica”*. En este sentido, el pasaje a Licenciado permite a los estudiantes romper con los *“patrones sociales de representación, interpretación y comunicación evidenciada a través de procesos de dominación cultural y no reconocimiento”* (Paparini & Ozollo, 2016, pág. 25).

Con 30 años de trayectoria educativa, UNTREF cuenta con 35 ofertas presenciales de grado y más de 120 de posgrado (Maestrías, Especializaciones y Diplomaturas, entre otros). La propuesta académica, la inserción internacional y el desarrollo de museos, así como las iniciativas culturales, musicales y audiovisuales, han dado a la UNTREF su carácter distintivo entre las universidades públicas de Argentina. Dispone en la actualidad de una matrícula de más de 22.000 estudiantes, de los cuales un porcentaje del 80% son primera generación de universitarios.

Desarrollo del proyecto – La Génesis

A través de la SAP University Alliances, los estudiantes de UNTREF, y en particular de la Lic. en Administración de Empresa, acceden desde 2018 a tecnologías de clase

mundial, lo que favorece la integración entre “dos mundos” complementarios: el corporativo global y la educación pública en el Conurbano Bonaerense. El Triángulo de Sábato plantea que para que exista realmente una estructura científico-tecnología productiva, en primer lugar, es necesaria la presencia de tres agentes: Estado, Universidades y Sector Productivo y el éxito de este modelo radica en la interrelación continua, estrecha y cooperativa (Sábato y Botana, 1968).

La formación en sistemas ofrecidos por SAP, compañía líder mundial de soluciones informáticas de gestión empresarial, les permite desarrollar competencias clave, aumentar la empleabilidad y abrir una puerta a los desafíos digitales en la era del conocimiento. La visión que se mantiene es el cambio y el alcance significativo que implica estas oportunidades en estudiantes de primera generación universitaria.

A finales de 2024, más de 500 estudiantes, graduados y docentes de las carreras de Lic. en Administración de Empresas y Lic. en Logística participaron en, al menos, una iniciativa SAP. Entre las mencionadas propuestas se destacan entrenamientos para Docentes, torneos Hackathón, ediciones de SAP Future Talent, y Seminarios y Academias. Además, en UNTREF se han incorporado nociones SAP en la currícula de la carrera de Lic. en Administración de Empresas (en el Plan de Créditos – Trayectos Formativos Alternativos) y la presentación de Conversatorios con consultores invitados. Además, a partir del trabajo realizado, uno de los docentes de UNTREF fue seleccionado miembro del Jurado de Premios ASUG en sus ediciones 2021, 2022, 2023 y 2024.

Conclusiones

Si bien quedan numerosos desafíos por afrontar bajo esta SAP University Alliances, se tiene la convicción – y así lo avalan los resultados y las historias de agradecimiento de numerosos estudiantes – que este es un camino sumamente valioso de aprendizaje para

la comunidad universitaria de UNTREF. Esto no es sólo por la oportunidad de adquirir conocimientos técnicos y tecnológicos, sino también por la participación en desafíos internacionales que enriquecen la formación de estudiantes que, en su mayoría, han superado la “exclusión social simbólica” de convertirse en universitarios y futuros Licenciados.

“La educación no es llenar un cubo, sino encender un fuego” (atrib. a William Butler Yeats).

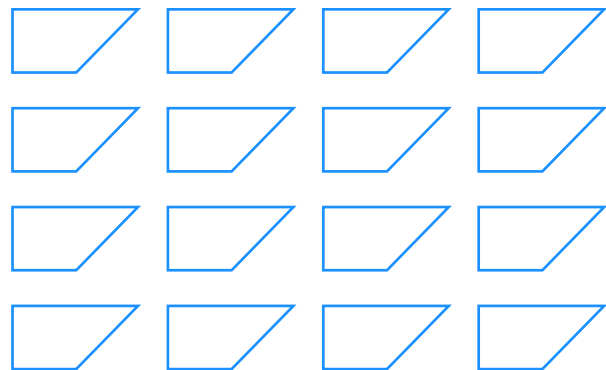
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Enriqueciendo la experiencia formativa a través de SAP Signavio y SAP LeanIX

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En el quehacer académico de la carrera de Ingeniería en Transformación Digital de negocios, del Tecnológico de Monterrey, hemos identificado sinergias clave para que los estudiantes adquieran habilidades técnicas y de soluciones de alto nivel, para incrementar sus posibilidades de desarrollo en el mercado profesional. Con varios años de contacto estratégico con SAP Academic Alliances, ampliamos la posibilidad de tener contenidos de cursos o certificaciones en línea para estudiantes y más allá, contamos con el apoyo de expertos en soluciones SAP para vincular a nuestros estudiantes como SAP build, SAP Success Factors, SAP Fiori, etc.

En este contexto y con la intención de brindar marco de soluciones integrales para que el estudiante adquiera experiencia valiosa, incluimos en una unidad formativa de su currícula, tres elementos muy importantes.

En la unidad formativa de Evaluación de Arquitecturas Empresariales, analizamos los estándares de la industria como TOGAF, dentro de ello modelación de procesos y otras prácticas relacionadas con Diseño de Arquitecturas empresariales y sus dominios: negocio, datos, aplicaciones e infraestructura.

Previo al descubrimiento de SAP Signavio y SAP LeanIX que conocimos a través de un proyecto académico de alumnos con una empresa, nos dedicamos a investigar y generar espacio para conocer estas herramientas que se incorporaban al portafolio SAP.

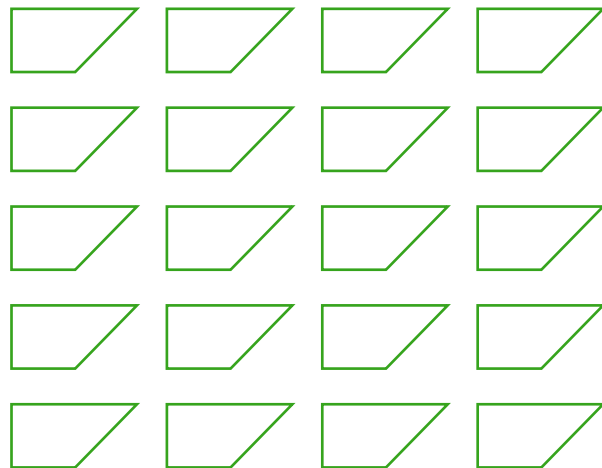
Como parte de metodología de aprendizaje activo, priorizamos que el estudiante analice y descubra las posibilidades y herramientas, que investigue y aplique lo aprendido. La fase inicial fue como un “juego de mesa” donde los estudiantes contaban con tarjetas impresas con procesos, imágenes de base de datos, servidores, terminales, interfaces, etc., y con su lógica básica (dado que son materias iniciales) fueron comprendiendo los flujos y componentes de una arquitectura empresarial y sus procesos.

Con el entendimiento inicial de lo que había que ser registrado en alguna plataforma, se capacitaron de forma básica y en autogestión, en la herramienta SAP Signavio para la elaboración de artefactos como Diagramas BPMN, artefactos UML y de datos, etc. Posteriormente, incluyeron las configuraciones de plataforma de Tecnología de Información (IT) en la plataforma SAP LeanIX.

Para los estudiantes fue un proceso muy transparente debido a que primeramente tuvieron los conocimientos de artefactos de arquitectura empresarial y reconocieron que realizarlos no era el objetivo último, sino tener una plataforma de toma de decisiones de proyectos y su impacto en la Arquitectura Empresarial. Avanzaron en la profundización de la herramienta y ha sido valioso para ellos reconocer que contar con los conocimientos para el ecosistema SAP brinda posibilidades laborales importantes.

Adicional a la exploración de LeanIX, complementamos con recursos de nivel profesional como la inclusión de recursos de aprendizaje como Enterprise Architecture Success Kit y otros recursos en línea como los cursos de learning.sap.com.

En las unidades formativas (materias) incluimos como parte del aprendizaje del estudiante, el conocimiento de las plataformas SAP Signavio en modo colaborativo, SAP LeanIX, documentación proporcionada por SAP a sus clientes y aprendizaje en línea para que obtengan insignias y futuras certificaciones.



Explorando las implicaciones de la Logística Sustentable con SAP y ERPsim

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Resumen: La logística sustentable ha emergido como una necesidad imperante ante el crecimiento constante de la globalización e industrialización, debido al incremento de los efectos negativos generados por las operaciones logísticas, como la emisión de contaminantes, congestión de tráfico y consumo de recursos (Ren *et al.*, 2020). La integración de soluciones tecnológicas avanzadas, como los sistemas de planificación de recursos empresariales (ERP, por sus siglas en inglés) y las tecnologías de la Industria 4.0, ha sido identificada como una estrategia clave para optimizar la eficiencia operativa y minimizar el impacto ambiental (Sun *et al.*, 2021). Este trabajo explora cómo las soluciones de SAP S/4HANA y la simulación empresarial ERPsim pueden apoyar la implementación de prácticas de logística sustentable, utilizando el marco teórico desarrollado a partir de los estudios recientes y la experiencia práctica en entornos académicos y empresariales.

El desarrollo de cursos relacionados con sistemas ERP y simulaciones logísticas se ha vuelto fundamental en la educación de ingeniería en compras y logística. Estos cursos permiten cerrar la brecha de conocimiento entre las habilidades actuales de los estudiantes y las necesidades del mercado, y están diseñados para proporcionar un entendimiento profundo de las tecnologías ERP, la gestión de datos y la integración de procesos empresariales (Dang, 2024). Según Dang (2024), los cursos que integran la simulación de negocios ERP permiten a los estudiantes experimentar escenarios reales, promoviendo el pensamiento crítico y la toma de decisiones.

El concepto de logística sustentable se ha ampliado para incluir la reducción de la huella de carbono y la optimización de los recursos a lo largo de toda la cadena de suministro. La adopción de prácticas verdes y sustentables ha desencadenado un conjunto de iniciativas en todo el mundo para aliviar las externalidades negativas y mejorar la eficiencia en la gestión de las cadenas de suministro (Ren *et al.*, 2020). Además, estas prácticas se centran no solo en la reducción de emisiones, sino también en la incorporación de enfoques de economía circular y la mejora de la calidad de vida (Ren *et al.*, 2020).

La implementación de tecnologías emergentes de la Industria 4.0 ha proporcionado nuevas oportunidades para la sostenibilidad logística, mejorando la conectividad, inteligencia e integración de las operaciones logísticas. Sin embargo, la adopción de estas tecnologías presenta desafíos importantes, como la falta de madurez tecnológica, los conflictos entre diferentes indicadores de sostenibilidad y la resistencia estructural a nivel intra e inter-empresarial (Sun *et al.*, 2021). Para superar estos retos, se propone el uso de tecnologías avanzadas como Blockchain, IoT, Big Data Analytics y Simulaciones Empresariales, que pueden mejorar la transparencia, la trazabilidad y la toma de decisiones en tiempo real en la gestión logística (Sun *et al.*, 2021).

Las soluciones tecnológicas de SAP S/4HANA permiten centralizar la gestión de datos de actividades empresariales clave, optimizando la cadena de suministro y facilitando la adopción de prácticas sustentables. Los escenarios de simulación ERPsim ofrecen un entorno práctico donde los participantes deben equilibrar operaciones rentables con la reducción de la huella de carbono generada por las actividades de transporte y almacenamiento (Beranič & Heričko, 2022). Estas simulaciones ayudan a los estudiantes a comprender mejor los desafíos y oportunidades en la implementación de la logística sustentable, permitiendo una participación activa y el desarrollo de habilidades analíticas y de toma de decisiones (Beranič & Heričko, 2022).

El análisis de los estudios revisados y los resultados obtenidos en las simulaciones realizadas con ERPsim muestran una mejora significativa en la comprensión de los procesos empresariales, las transacciones de ERP y la motivación de los estudiantes para participar activamente en los cursos futuros (Beranič & Heričko, 2022). Además, se observa que la adopción de tecnologías como SAP S/4HANA puede reducir significativamente las emisiones de carbono y optimizar los recursos de las empresas logísticas, alineando las operaciones con los objetivos de sostenibilidad y mejorando la competitividad a largo plazo (Dang, 2024; Sun *et al.*, 2021).

Este trabajo destaca la importancia de integrar soluciones tecnológicas avanzadas en la educación de logística y la gestión empresarial para promover la logística sustentable. La combinación de SAP S/4HANA y simulaciones como ERPsim ofrece un enfoque holístico para abordar los desafíos operativos y ambientales, proporcionando a los estudiantes y profesionales las herramientas necesarias para enfrentar las demandas actuales del mercado. La adopción de estas tecnologías puede facilitar la transformación digital de la cadena de suministro y apoyar la creación de valor sostenible en las organizaciones (Dang, 2024; Ren *et al.*, 2020; Shahzad *et al.*, 2022; Sun *et al.*, 2021).

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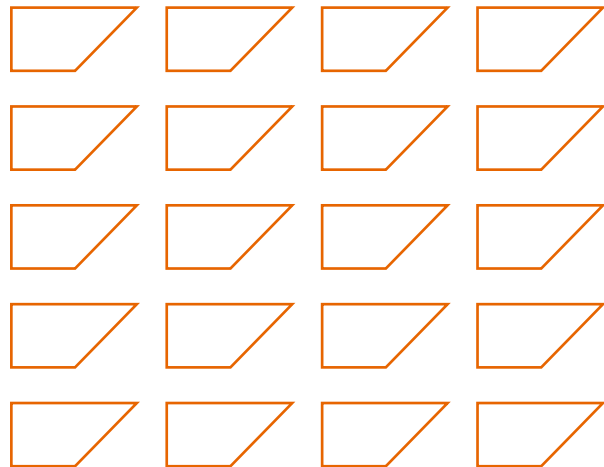
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Innovaciones en la Enseñanza de SAP en UADE: Desafíos y Resultados en la Formación Universitaria

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El crecimiento y la competitividad en el mundo empresarial han impulsado la necesidad de incorporar herramientas tecnológicas avanzadas en la formación académica. SAP es una de las soluciones de gestión empresarial más utilizadas a nivel mundial, y su incorporación en instituciones educativas representa un desafío significativo. En UADE, asumimos este desafío y, en el año 2021, se diseñó e implementó un modelo de enseñanza de SAP para 17.000 alumnos, asegurando también la disponibilidad del cuerpo docente para llevarlo a cabo.

Comenzamos incorporando los módulos SD (Sales and Distribution) y MM (Materials Management) en las siguientes carreras de grado: Administración de Empresas, Contador Público y Recursos Humanos. Estos módulos fueron incluidos en las materias: Diseño de Auditoría de Sistemas de Operación y Gerencia de Operaciones. La modalidad de enseñanza consistió en módulos virtuales autoadministrados con actividades de validación.

A estas materias, se suma una asignatura optativa para todos los alumnos de Ciencias Económicas, Sistemas Integrados de Gestión Empresarial y el lanzamiento de la Diplomatura en sistemas de gestión empresarial SAP, que tiene como objetivo enseñar todos los conocimientos teóricos y prácticos necesarios para que los alumnos puedan rendir la Certificación IEE2E – Certified Associate – Implementation Consultant – End-to-End Business Processes for the Intelligent Enterprise.

¿Pero, cómo abordamos en UADE la enseñanza de SAP?

En UADE, creemos firmemente en la importancia de un enfoque integral para la educación de SAP, nuestro método combina:

- ▶ **Base teórica sólida:** Los estudiantes adquieren un conocimiento profundo de los conceptos fundamentales, lo que les permite contextualizar y entender las funcionalidades de los módulos SAP.
- ▶ **Práctica en un entorno realista:** Gracias a la alianza académica entre la universidad y SAP, los estudiantes trabajan directamente en el sistema con datos y procesos empresariales reales, replicando un entorno corporativo.
- ▶ **Aplicación en escenarios empresariales:** Como parte de su formación, los alumnos asumen el rol de consultores y analizan procesos organizacionales en la realización de un trabajo práctico integral. Su tarea es identificar cómo la implementación de SAP puede beneficiar a la empresa, mejorando la eficiencia y optimizando los procesos actuales. Este ejercicio les permite desarrollar pensamiento crítico y aplicar conocimientos en situaciones reales.

Impacto en 2024

Los resultados obtenidos hasta la fecha reflejan un impacto significativo en la formación académica:

- ▶ 1620 alumnos cursaron los módulos SD/MM en el primer cuatrimestre de 2024.
- ▶ 1150 alumnos cursaron los módulos SD/MM en el segundo cuatrimestre de 2024.
- ▶ 80 alumnos cursaron la materia optativa Sistemas Integrados de Gestión Empresarial en 2024.
- ▶ 23 alumnos completaron la Diplomatura en Sistemas Integrados de Gestión Empresarial en 2024.

Retroalimentación de nuestros alumnos

La retroalimentación de los alumnos destacó aspectos clave de la metodología de enseñanza utilizada:

- ▶ Aprendizaje práctico mediante navegación en SAP y acceso a sus herramientas.
- ▶ Integración entre teoría y práctica.

Interacción en tiempo real con el sistema y participación de expertos en la enseñanza de los módulos.

- ▶ Desarrollo de habilidades en gestión de procesos empresariales, fortaleciendo la empleabilidad de los estudiantes.

Conclusión

En UADE, estamos comprometidos con la formación de profesionales altamente capacitados en el uso de SAP. Nuestro enfoque teórico-práctico garantiza que los estudiantes no solo comprendan los conceptos clave, sino que también sean capaces de aplicarlos en entornos laborales reales. Esta formación les proporciona una ventaja competitiva en el mercado y contribuye a la transformación digital de las organizaciones.

La integración de SAP en el currículo universitario fortalece la relación entre el ámbito académico y el sector empresarial, permitiendo que los estudiantes adquieran una experiencia práctica relevante antes de su inserción en el mercado laboral. La enseñanza de SAP en UADE no solo mejora la empleabilidad de los graduados, sino que también contribuye al crecimiento y modernización de las empresas que requieren profesionales capacitados en el uso de herramientas de gestión avanzada.

Mirando hacia el futuro, continuaremos evolucionando nuestro modelo educativo, explorando nuevas formas de integrar tecnología y conocimiento aplicado para preparar a las próximas generaciones de líderes en gestión empresarial.

IoT y IA en el Laboratorio SAP Next-Gen de la Universidad de Lima (UL)

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Universidad de Lima

Dentro de las actividades del Laboratorio SAP Next-Gen de la Universidad de Lima se trabajaron 3 proyectos que fueron aportando conocimiento con el objetivo final de construir un prototipo de robot de tamaño real con inteligencia artificial que pudiera ser utilizado en actividades de presentación y proyectos de ayuda social.

Este proyecto se centra en el diseño y construcción de un prototipo físico y de software similar a un robot, a realizarse en el laboratorio SAP Next-Gen de la Universidad de Lima. El prototipo se desarrollará en dos escenarios principales:

Escenario 1: Interacción con Alumnos de Secundaria

El objetivo es despertar el interés en tecnología entre los estudiantes de secundaria a través de interacción visual y reconocimiento de voz, permitiendo que el prototipo reaccione a órdenes con movimientos de brazos, desplazamientos y respuestas vocales.

Escenario 2: Apoyo a Niños con Trastorno del Espectro Autista (TEA)

Este escenario busca ayudar a niños diagnosticados con TEA en su proceso de socialización e interacción utilizando sensores, microcontroladores Arduino y servicios de IoT. Se llevarán a cabo reuniones periódicas con profesores de la Facultad de Psicología y personal de la Oficina de Innovación y Calidad Educativa para validar las funcionalidades del prototipo.

Definición del Producto

El prototipo utilizará un módulo de reconocimiento de voz Elechouse Voice Recognition V3, permitiendo la interacción del usuario con el robot “Amigo”. Las respuestas se emitirán a través de un buzzer y seis micro servomotores SG90 para movimientos, junto con un panel LED que mostrará símbolos relevantes. Los movimientos del robot también podrán ser controlados vía Bluetooth mediante un módulo HC06, alimentado por una batería de litio y controlado por un Arduino Nano ATmega328, ampliado con un Nano I/O shield.

Finalidad del Proyecto

El proyecto busca, a través de sus dos escenarios, fomentar el interés tecnológico en alumnos de secundaria y contribuir al desarrollo de niños con TEA. Además, se alinea con tres Objetivos de Desarrollo Sostenible (ODS):

1. ODS 3: Salud y Bienestar—mejorando el bienestar de los niños con TEA mediante una educación que facilite su tratamiento.
2. ODS 4: Educación de Calidad—incrementando el conocimiento tecnológico a través de lecciones de IoT.
3. ODS 10: Reducción de Desigualdades—promoviendo la inclusión social de niños con TEA para garantizar igualdad de oportunidades.

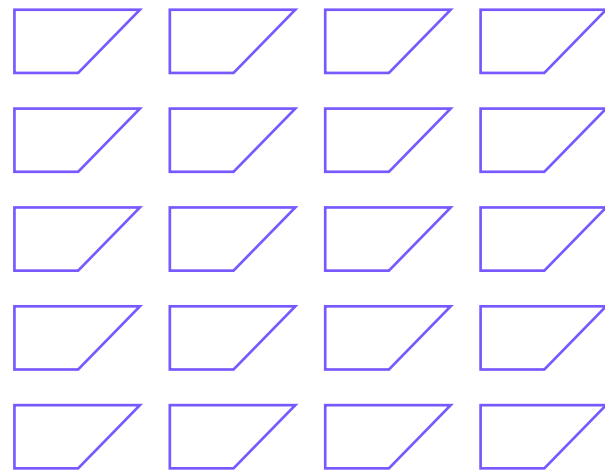
Proyecto Cabeza inteligente

El proyecto presentado consiste en el desarrollo de una cabeza mecánica de bajo costo, diseñada como prueba de concepto, utilizando impresoras 3D para la fabricación de sus componentes y electrónica que permitirá el movimiento de ojos, mandíbula y cuello, imitando el movimiento de una cabeza humana. Integrando inteligencia artificial a través de una API de GPT-4, la cabeza podrá responder preguntas, resolver problemas y mantener conversaciones. Además, con la incorporación de cámaras, será capaz de reconocer y analizar personas y su entorno.

Este proyecto representa la primera implementación en Perú del InMoov, un proyecto de código abierto para la creación de prototipos robóticos a tamaño real, destacando la innovación en robótica, inteligencia artificial e IoT. Los conocimientos adquiridos por alumnos practicantes en cursos como Fundamentos de Electricidad y Electrónica, Arquitectura de Computadoras y Programación Móvil serán aplicados en su desarrollo.

La finalidad del proyecto es exhibir la “Cabeza Mecánica Inteligente” en ferias educativas en la Universidad de Lima y compartir los aprendizajes generados en las clases de Tecnología e Ingeniería de Software. Además, se alinea con el Objetivo de Desarrollo

Sostenible 4 (Educación de Calidad), buscando impactar positivamente en el acceso a la información y la resolución de problemas a través de interacciones conversacionales.



Recurso Tecnopedagógico para el Aprendizaje de Procesos Contables

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Abstract: La innovación en la metodología educativa contable de SAP Business One hace hincapié en la integración del aprendizaje experiencial, las herramientas tecnológicas avanzadas y los escenarios empresariales en tiempo real para mejorar la participación y la competencia de los estudiantes. Las investigaciones indican que los enfoques teóricos tradicionales a menudo no logran cautivar a los estudiantes, especialmente a los de la generación Z, que prefieren los entornos de aprendizaje impulsados por la tecnología (Söylemez, 2022). La incorporación de la formación basada en la simulación del ERP permite a los estudiantes aplicar de forma práctica los procesos contables, mejorando así su comprensión del ciclo contable y de la presentación de informes financieros (Daurrohman, 2023). Además, se ha demostrado que las pedagogías innovadoras, como la gamificación, el aprendizaje activo y las evaluaciones formativas, fomentan el pensamiento crítico y la colaboración entre los estudiantes y, en última instancia, los preparan para las exigencias de la fuerza laboral moderna (Tchiang, 2024) (Deng & Liu, 2024). Los mecanismos de retroalimentación dinámica y los modelos de enseñanza innovadores propuestos tienen como objetivo actualizar continuamente los planes de estudio, garantizando que la educación contable siga siendo relevante y efectiva en un panorama empresarial en rápida evolución (Liu, 2024) (Deng & Liu, 2024).

El Centro de Innovación Tecnológica para el Aprendizaje (CINDTAP) de la Universidad Bernardo O'Higgins se enfoca en innovar las metodologías educativas mediante la integración de tecnología. Un proyecto clave ha sido la colaboración de Erik Escalona como Jefe de Carrera, integrando el software SAP Business One en la carrera de Contador Auditor, con el fin de mejorar las habilidades de los estudiantes y su adaptación al software. Para este objetivo se crearon cápsulas multimedia para enseñar sobre SAP Business

One y se realizó un laboratorio piloto para recoger feedback de los estudiantes y datos de su interacción con el software.

El impacto del proyecto fue notable, beneficiando a 22 estudiantes de Contador Auditor. La encuesta de percepción de los aprendizajes mostró una respuesta positiva, destacando la eficacia y la relevancia de la metodología implementada. Se observaron mejoras en la comprensión y aplicación práctica del software por parte de los estudiantes.

El proyecto del CINDTAP ha sido un éxito, estableciendo un precedente para la integración de tecnologías avanzadas en la educación. La colaboración con la SAP University Alliance ha sido crucial, proporcionando recursos y conocimientos actualizados. Se planea expandir el uso del software SAP Business One a otras áreas y considerar la implementación de nuevas metodologías y herramientas tecnológicas. Este proyecto representa un avance significativo en la educación tecnológica y prepara a los estudiantes para los desafíos del mundo laboral moderno, ofreciendo una educación práctica y relevante.

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SAP Horizons: a model for leveraging sustainable collaboration for Next-Gen University Alliance and E-Learning adoption

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SAP Next Gen is a Program designed to foster collaboration between Universities, Academia and SAP (Welz C Rosenberg, 2018). However, Universities can face challenges considering Teacher Engagement, Student Awareness, and interaction among the University with companies, which can create barriers for this program. Despite efforts and willingness for collaboration, there is a gap of methodologies for organizing sustainable collaborative efforts between these several actors towards Next-Gen. In this case, we describe the implementation of SAP Horizons, as a model for leveraging sustainable collaboration for Next-Gen University Alliance. This model involved collaboration between Randoncorp, UCS (University of Caxias do Sul) and SAP.

The experience of SAP Horizons started from a Business Process Open Lecture (BPOL) in 2023, where UCS organized a LMS to support a class of students in the Global Program. Staff from Randoncorp were invited to mentor the students, and in an ideation meeting, the proposition of an integrated event was launched.

The model of the event, first of its kind in the region of Serra Gaúcha, Brazil, was designed in collaboration between Randoncorp, more specially the IT CSC area, branding and reputation, and HR. On the side of the university, it involved the Coordination of Next-Gen at the University, and representatives of courses of Business, Operations Engineering and IT. On the side of SAP, it involved both Next Gen and Ecosystem teams. This structure is similar to the classical triple or quadruple helixes model, enabling actors to share resources, merge ideas, combine competences, and create innovations (Carayannis C Campbell, 2009).

The main point about the event model was the common sense of purpose and shared values. Why this was important? In order to students to explore the benefits of SAP Next Gen, in special, the SAP Student Zone, as an e-learning platform, a sense of awareness needed to be created. That was the main role of this event, SAP Horizons, that promot-

ed a journey for the participants, exploring the overall perspective of SAP globally and technological roadmap, the needs and gaps of Randoncorp considering SAP Skills, and then, situating the students and professionals on how to better explore the SAP Student Zone, opening to HR explore positions that required SAP Skills. The location of the event was also considered as the Connexo Hub at Randoncorp, in order to students have the opportunity to be closer to the Company.

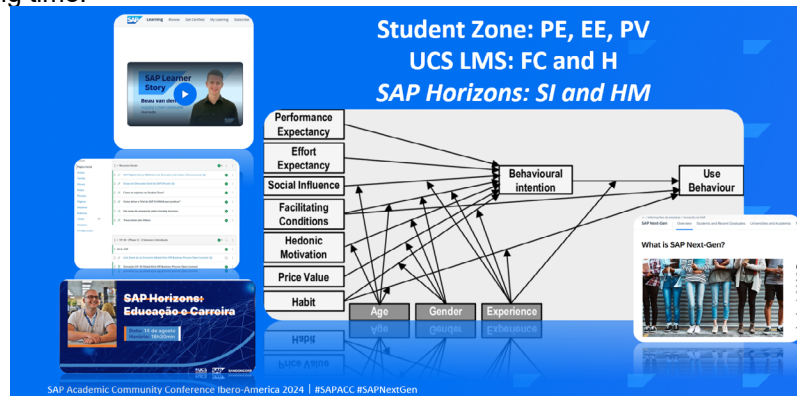
The details of the event, with the overall structure, can be accessed in a technical article on (LinkedIn). This systematization of the event through this article made the team reflect about the experience, and understanding that more than an event, SAP Horizons is a model for leveraging sustainable collaboration towards Next Gen University Alliance, increasing E-Learning Adoption, in special, SAP Student Zone.

Why? In a theoretical perspective, we can understand that SAP Student Zone is an E-Learning Platform, and therefore, can be understood in a technological adoption lens. Why can students adopt more or less SAP Student Zone? For understanding this perspective, we refer to UTAUT, as the Unified Theory of Acceptance and Use of Technology (Venkatesh et al, 2003). UTAUT, specially UTAUT 2 model (Venkatesh *et al.*, 2012) and even UTAUT for E-Learning (Abad, 2021) consider that some technologies are more accepted than others because of:

- a. Performance Expectancy: that means how Student Zone can help students to achieve their learning goals on SAP Skills, and their perception about this progress.
- b. Effort Expectancy: that means how Student Zone has the proper learning curve for students keep up the tracks of learning, and their perception of easiness of use.
- c. Facilitating Conditions: this is the easiness to access SAP Student Zone. In the case of the University, many modules are being connected to the LMS. One example was

during International Week, where students of Digital Business were invited to explore the Generative AI course and share their perceptions. Or during the Quality 4.0 course in Professional Master of Operations Engineering that QM Module became part of the curriculum. That creates a sense of integration for the students to access Student Zone, as part of the University.

- d. Social Influence and Hedonic Motivation: for UTAUT theory, these two factors are also predictors of technological acceptance, and that's why SAP Horizons plays a major role, creating a social environment and delivering a different event experience, more welcoming, more informal, similar to creativity and innovation events. This is also a trigger on students' motivations, as reported by those who participated in the event.
- e. Price: since SAP Student Zone is also offered as a benefit for students enrolled in the University, the fact that there are no extra costs do also benefit the adoption.
- f. Habit: the continuity of using the SAP Student Zone is important, and that's why mechanisms of academic credits recognition do also add value for platform adoption during time.



These layers, Student Zone, University LMS and SAP Horizons contribute to each one of the UTAUT predictors, increasing E-Learning adoption, fostering Next-Gen.

Therefore, our experience shows that a systemic and integrative approach can be developed for increasing the cloud E-learning of Student Zone, and an innovative event as SAP Horizons can leverage the sustainable collaboration between Industry, providing the needs and opportunities, the Academia, building the environment for students development, and SAP, providing both technologies for Industry application and e-learning for students, accelerating adoption for all the actors involved. Both SAP Horizons and University LMS can act as layers for Next-Gen implementation through Student Zone, as one of the pillars of this Program.

This case, therefore, contributes to both cloud and sustainability track of SAP ACC, in order to share best practices on how to increase cloud adoption, and the relationship with sustainability, in this sense, considering the governance and shared purpose of different actors. The roadmap of BPOL > SAP Horizons > Student Zone can create an important learning curve for Universities that are starting its pathway in Next Gen University Alliance, or increase capillarity in Universities, creating more connections between faculties, since Student Zone offers possibilities for students in Business, Engineering and IT.

Each University has its own context, structure and model of relationship with companies of the region. We describe the case of UCS, a non-profit and regional service University (www.ucs.br), in collaboration with Randoncorp, a Brazilian multinational group, which operates in several sectors and exports for more than 100 countries (www.randoncorp.com). SAP Horizons was a name created in collaboration by the event commission, and this model was important for the given context, and could be source of new insights for other Universities, to design models that are specific to their own context.

Acknowledgements

We are grateful for all the people involved for SAP Horizons. The full nomination can be found in the technical article on (LinkedIn).

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Teaching business process management with SAP Signavio – Design of a Smart Organizational System

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Figure 1. The main page of the 'Design of a Smart Organizational System' course.



This abstract describes a teaching experience on business process management with SAP Signavio during the course titled *Design of a Smart Organizational System*. The course aimed at senior undergraduate industrial-engineering students and seeks to develop essential competencies in designing and managing organizations by applying

business process management (BPM), project management, and innovation methods and tools. Anchored in the Tec 21 model of Tecnológico de Monterrey, this course employs challenge-based learning (CBL), where students collaborate with companies, non-profit organizations, or government entities to identify and solve real-world problems.

The course structure encompasses several key areas: reference models for innovation and technology development, methods for transforming an organization into a smart enterprise, project management for innovation projects, and methods for evaluating the impact of these innovations. Within the transformation methods, the course emphasizes business strategy, enterprise support systems, and their relationship to BPM, utilizing reference models such as Process Classification Framework (PCF) and Supply Chain Operations Reference (SCOR). A significant component involves the design and simulation of business processes using SAP Signavio, which provides students with practical, hands-on experience.

The section on designing and simulating business processes begins with an introduction to competitive advantage, business strategy, blue ocean strategy, and Porter's competitive forces. The concept of the intelligent enterprise, AI applications, and information modeling, were discussed. Basics of BPM are covered, and students take their first steps with BPMN and Signavio, progressing through advanced BPM modeling.

Value-added analysis, reference models, process simulation, and process redesign through simulation are pivotal points in the syllabus. Students learn to design, simulate the AS-IS process, analyze, and improve processes, ensuring alignment with business strategy and delivering customer value while identifying opportunities for enhancement. The student learning experience is divided into collaborative and individual tasks, with Signavio facilitating both. Each student group has a dedicated folder, and within this, individual folders for personal projects are maintained.

The course stresses that well-designed business processes should do the right things correctly, align with organizational strategy, deliver customer value, identify opportunities for improvement, and ensure the alignment of IT and business objectives. This strategic thinking is cultivated through assignments where students define products or services, like in the Yamaha case study, where they realized that beyond selling instruments, Yamaha sells 'status' through its music stores and concert halls.

The challenge-based learning approach is embodied in the collaboration with HorizonTec, where students modeled and improved processes related to the Halcón II sports aircraft manufacturing and assembly. Tasks included process identification, business process discovery using SAP Signavio, and alignment with the organization's strategy. Students utilized the Aerospace and Defense PCF reference model, capturing, modeling, and documenting existing processes and evaluating them for strategic alignment.

Throughout the course, students employed SAP Signavio, a comprehensive BPM platform, to identify key process elements, model processes using BPMN notation, and simulate processes to identify and address issues using lean manufacturing tools such as root cause analysis and the 7 Mudras. Proposed process changes were analyzed and compared for performance, integrating product design techniques during the redesign phase.

The learning curve for Signavio proved to be minimal, enabling students to quickly start modeling and simulating processes. Sharing models for instructor review was straightforward, although identifying errors during simulations posed challenges. Ultimately, SAP Signavio was instrumental in the course's success, providing a robust platform for students to apply and hone their BPM skills in a real-world context.

The Role of AI in Medicine and Healthcare

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Integrating Artificial Intelligence (AI) into medicine and healthcare creates new opportunities for improving diagnostics, personalized treatments, and patient care. AI plays a transformative role across different areas of healthcare, mainly focusing on clinical applications like radiology and colonoscopy and its potential in mobile health monitoring through wearable devices like the Apple Watch. In radiology, AI systems are being used to enhance diagnostic accuracy by automating the analysis of medical images. These advanced algorithms can detect abnormalities, such as tumors, fractures, and neurological disorders, with precision that can support radiologists in making earlier and more accurate diagnoses. This has implications for early detection of cancers and other critical conditions, improving treatment outcomes (Bhandari, 2024). AI is also significantly impacting gastroenterology, precisely colonoscopy procedures. By using real-time AI-driven detection systems during colonoscopies, healthcare professionals can more reliably identify and characterize polyps, precursors to colorectal cancer. This technology reduces the chance of missed lesions, thus lowering the risk of colorectal cancer and improving patient outcomes (Antonelli, 2023). Another cutting-edge application of AI in healthcare is in proteomics, where it is helping accelerate the discovery of potential biomarkers. By analyzing large, complex datasets of proteins, AI can identify novel biomarkers for diseases such as cancer, cardiovascular disease, and neurodegenerative conditions. This opens

new doors for early diagnosis, personalized medicine, and targeted therapies (Al-Tashi *et al.*, 2023). Mobile health monitoring, mainly through wearable technology like the Apple Watch, represents a growing frontier for AI in healthcare. These devices allow users to continuously monitor key health metrics such as heart rate and blood oxygen levels and even detect irregular heart rhythms like atrial fibrillation (Shajari *et al.*, 2023). The combination of AI-driven analytics with wearable sensor data enables real-time health insights, empowering users to take control of their health and prompting early medical intervention when necessary. Integrating AI into everyday life promotes proactive healthcare, encourages preventive measures, and reduces the burden on healthcare systems (Secara & Hordiiuk, 2024).

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Uso de tecnologia digital para elevar aprendizagem educacional: a importância da gestão da aprendizagem e as suas relações com a SAP na Universidade Presbiteriana Mackenzie

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Em ambientes de negócios complexos e competitivos, as organizações privadas e mesmo as públicas submetem-se a pressões que as obrigam a responder rapidamente às mudanças. Esse processo exige que elas operem de forma ágil e inovadora e que tomem decisões estratégicas, táticas e operacionais frequentes, as quais demandam quantidades consideráveis de dados, informações e conhecimentos relevantes que precisam ser processados, até mesmo em tempo real, utilizando apoio informatizado. As universidades precisam aproximar-se do mercado para atender às necessidades das

empresas. São os profissionais formados em cursos dedicados a esses temas que as organizações estão procurando. Isso é abordado com frequência pela publicação de resultados de pesquisas junto a *head hunters* e grandes grupos empresariais. Por isso, a Escola de Negócios da Universidade Presbiteriana Mackenzie (UPM) passou a oferecer um novo componente curricular optativo com dois focos principais: 1) Sistemas Integrados de Gestão (mais conhecido no mercado como ERP (*Enterprise Resource Planning*), voltado à gestão operacional das empresas, e 2) Sistemas de Apoio à Tomada de Decisão, voltado às decisões executivas das empresas. Esse componente curricular foi denominado “Inteligência de Negócios – SAP (INSAP)”. Aqui, apenas o primeiro foco, referente aos Sistemas Integrados de Gestão, será abordado.

Sistemas Integrados de Gestão

Independentemente de seu porte, as empresas vêm implementando ERP desde a década de 1990. Se, no início, essa implementação ocorria apenas nas organizações de grande porte, atualmente, a abrangência é superior a 90% em todos os portes, sendo que 100% das grandes e médias os utilizam.

Segundo Meireles (2024, p. 2.88), o desenvolvimento de soluções internas nas empresas, “[...] tende a zero, uma vez que praticamente todas as empresas [...] já estão utilizando um sistema integrado ou alguns dos seus módulos”. Com isso, as organizações utilizam sistemas desenvolvidos por empresas especializadas, que embutem em seus produtos as chamadas “melhores práticas”, ou seja, soluções que contêm, em seus algoritmos, os recursos mais adequados às necessidades e aos problemas empresariais.

Os principais *players* no Brasil são, segundo Meirelles (2024), a empresa alemã SAP, com 34% do mercado brasileiro, a brasileira Totvs, também com 34% e a americana

Oracle, com 12%, o que soma 80% das implementações brasileiras de ERP. Os demais 20% são divididos entre cerca de duas dezenas de menores desenvolvedores.

Isso justificou a criação de um componente curricular para os cursos de Administração e Ciências Contábeis no Mackenzie, em que um dos focos fosse o dos Sistemas Integrados de Gestão, uma vez que o objetivo sempre foi elevar a empregabilidade dos estudantes de sua Escola de Negócios. A escolha recaiu sobre o SAP como recurso de Tecnologia da Informação (TI), em consequência de diversos fatores, conforme elencados a seguir.

Na distribuição dos produtores de ERP por porte de empresa, o SAP destaca-se, sendo utilizado, no Brasil, em 50% das grandes empresas, em 33% das médias para grandes e em 14% das médias para pequenas. A sua participação no mercado brasileiro, no entanto, vem crescendo principalmente em organizações de médio e pequeno porte como consequência do foco, por parte da companhia alemã, em produtos voltados ao mercado denominado *Business One*.

Segundo o seu site, a SAP SE (sociedade europeia) tem cerca de 100 mil funcionários globais, e o sistema tem cerca 350 mil instalações no mundo, em 190 países, representando cerca de 80% das transações globais. Nos quase 30 anos de Brasil, a empresa tem atualmente mais de 2 mil funcionários e mais de 400 parceiros, com 11 mil instalações e cerca de 1,5 milhão de usuários. Destacam-se, como seus clientes, grandes empregadores brasileiros e globais, tais como as empresas 3M, Amazon, Ambev, AstraZeneca, Apple, Banco do Brasil, Bayer, Boeing, Bradesco, Braskem, BRF, BurgerKing, Cielo, Coca-Cola, Cosan, DHL, Dell Computadores, Eletrobras, Embraer, Enel, ExxonMobil, General Electric, Gerdau, Grupo Votorantim, Hyundai, IBM, Itaú Unibanco, JBS, Johnson & Johnson, JPMorgan Chase, Klabin, Marfrig, McDonald's, Natura, Nestlé, Odebrecht, PepsiCo, Perdigão, Petrobras, Pfizer, Procter & Gamble, Raízen, Sadia, Samsung, Shell, Siemens, Suzano, Ultrapar, Unilever, Vale, Vivo, Volkswagen Group, Weg, dentre outras.

Isso demonstra a empregabilidade que os estudantes passam a ter ao aprender a manusear aplicativos do SAP já nos bancos escolares.

Os fatores de grande participação do SAP no mercado mundial e seu grande potencial para a empregabilidade dos estudantes da UPM, por si só, já o tornariam um recurso preferencial de TI para o uso no novo componente curricular, porém, há outros fatores que fazem com que isso se concretize de maneira mais assertiva.

A UPM utiliza, desde 2012, riquíssimos recursos instrucionais disponibilizados pela SAP University Alliances, na qual, a UPM é uma *full member*. Esses recursos não representam custos à UPM, porém, para que os alunos possam utilizá-los, há a necessidade de se acessar uma base de dados disponibilizada pela California State University (CSU), na cidade de Chico, no Estados Unidos e, para isso, a UPM paga por licença de uso anual.

A citada base de dados trata-se de uma completa fábrica de bicicletas denominada Global Bike Inc. (GBI), que, apesar de fictícia, possibilita todos os tipos de transação como se fosse real. Dessa maneira, cada aluno recebe a sua própria empresa produtora de bicicletas para administrar.

Por ser acessada pela nuvem, utilizando navegadores como o Google Chrome ou Microsoft Edge, a UPM não precisa manter uma infraestrutura custosa, nem pessoal especializado para manutenção. Bastam os computadores dos laboratórios de informática, sem quaisquer instalações adicionais quando em aulas presenciais, o que também viabiliza o ensino híbrido ou a distância, possibilitando o fácil acesso do estudante, a partir do seu próprio computador ou de seu trabalho.

Para o novo componente curricular oferecido aos estudantes, a versão utiliza o mais moderno sistema de gerenciamento de banco de dados HANA (versão S/4) com a, tam-

bém mais recente, interface gráfica Fiori. Isso fez com que todos os recursos instrucionais disponibilizados pela SAP, em inglês e em alemão, tivessem de ser versionados para o português, o que vem sendo feito em etapas.

Força-tarefa para o desenvolvimento da disciplina

Na preparação para desenvolver o novo componente curricular, o então coordenador do curso de Administração da UPM, unidade de Higienópolis, liderou o processo, constituindo, entre outubro e dezembro de 2020, um grupo inicial composto por professores doutores que ministravam a disciplina Sistemas de Informação Aplicados à Gestão (SIAG) e Contabilidade e Controladoria. Em reuniões semanais, durante seis meses, esse grupo definiu as bases da disciplina que se pretendia criar, a sequência das versões a serem preparadas em português, além das possíveis dificuldades a serem enfrentadas.

Nessa força-tarefa, foram preparadas as versões em português dos módulos de Vendas e Distribuição (SD), Contabilidade Financeira (FI), Controladoria (CO), Gestão de Projetos (PS) e Planejamento e Execução da Produção (PP).

Metas estratégicas da Escola de Negócios

A Escola de Negócios tem algumas metas estratégicas trienais e, dentre estas, há a de transformação digital no ensino, que absorveu imediatamente o projeto do novo componente curricular. Tanto as versões em português dos recursos instrucionais quanto os novos recursos complementares, desenvolvidos para incrementar o ensino, e as próprias aulas passaram a ser monitorados e validados pelo comitê composto para a governança, na meta de transformação digital no ensino.

Relacionamento com a SAP

Como comentado, desde 2012, a UPM é *full member* da SAP University Alliances, programa de relacionamento entre a empresa e as universidades, tendo como principal objetivo aprimorar o modo como as universidades preparam a próxima geração com conhecimentos e habilidades para o futuro digital. Visa, assim, ao ensino prático da tecnologia SAP nas universidades, promovendo atividades de pesquisa estratégica que colaboram para a educação dos líderes do futuro, além de estimular estreitas parcerias com a comunidade acadêmica, por meio de conselhos e instituições educacionais da região e do mundo.

Em março de 2023, um representante da Escola de Negócios da UPM participou presencialmente da SAP Global Academic Community Conference, na sede da empresa em Waldorf, Alemanha. Isso possibilitou à UPM acesso a muitos eventos, principalmente *train-the-trainers*, e a recursos instrucionais ainda no estado da arte, além de outros programas de formação promovidos pela organização alemã.

Jogo de empresas *ERPsim*

Como um evento patrocinado pela SAP University Alliances, em novembro de 2022, os estudantes de toda UPM tiveram oportunidade de participar de um jogo de empresas, voltado à manufatura, denominado ERPsim Game, desenvolvido pela HEC Montreal com a interface Fiori do SAP S4HANA, no qual cerca de 50 alunos do Centro de Ciências Sociais e Aplicadas (Administração/Ciências Econômicas/Ciências Contábeis), Faculdade de Computação e Informática, Escola de Engenharia, Educação Empreendedora e EaD Mackenzie dividiram-se em grupos de cinco componentes cada e jogaram entre si para identificar qual dos grupos obteve melhor resultado financeiro (*valuation*) em uma fábrica

de produtos alimentícios matinais (granola). A atividade foi realizada de forma on-line, com três rodadas de análise e tomada de decisão, utilizando o simulador Manufacturing Introduction (Sales and Distribution) tanto para as transações de negócios quanto para marketing, vendas, compras, inventários, planejamento e execução da produção e distribuição.

O ERPsim Game é uma competição virtual em que docentes e discentes podem desenvolver múltiplas competências por meio de uma simulação de empresa, ao vivo, no ERP mais utilizado no mundo. Isso propicia o desenvolvimento do raciocínio crítico/reflexivo entre professor e aluno, na busca do conhecimento, em um ambiente virtual, o que está intimamente ligado aos objetivos estratégicos da aprendizagem transformadora pela prática da PRGA/UPM (Pró-Reitoria de Graduação da UPM), na aplicação de tecnologia na educação da Escola de Negócios, vinculado às competências de liderança e empreendedorismo/reflexão crítica e comunicação.

Configura-se como uma excelente oportunidade para se desenvolver o conhecimento, a colaboração, a aprendizagem pela prática, o pensamento crítico, a liderança e o empreendedorismo junto aos alunos e professores (iniciativa de aprendizagem transformadora), conforme visão do Programa MackSTLR (Mackenzie Student Transformative Learning Record) da PRGA/UPM, bem como a consolidação de um dos pilares do Programa MackEmpresas da Escola de Negócios da UPM: a busca contínua da interação empresa e universidade.

O desafio da educação contemporânea concentra-se na proposta de um ensino problematizador, no qual o aluno é encorajado a formular problemas e não apenas a respondê-los (Brunstein; Walvoord; Cunliff, 2021), provocando a pausa necessária para a reflexão de pressupostos, o desenvolvimento de competências, além das técnico-profissionais, e promove uma aprendizagem de caráter transformador. A partir disso, criou-se,

também, uma iniciativa alinhada à teoria da aprendizagem transformadora, conforme preconiza Mezirow (2012), que busca promover a autorreflexão crítica nos estudantes, em relação ao seu próprio desenvolvimento em competências-chave (desafio, eventos, problemas, dilemas, projetos, oportunidades etc.), atrelada ao jogo do ERPsim, que oportunizou, aos alunos da Universidade Presbiteriana Mackenzie, o desenvolvimento de *soft skills* (competências relacionais).

Ensejou-se, então, atividades reflexivas que objetivaram o aperfeiçoamento dos métodos de aprendizado fora da sala de aula na era digital (atividade cocurricular). A tarefa propôs ao aluno responder, por uma sala especial no Moodle, em frases completas de até 15 linhas, às perguntas:

- ▶ Descreva qual era a sua perspectiva sobre competências empreendedoras e de comunicação antes de realizar esta atividade e qual a sua perspectiva agora, após a atividade.
- ▶ Com base na resposta anterior, descreva o que o impactou e por quê.
- ▶ Você percebe ações de aprendizado, por meio da gamificação, como um instrumento para reposicionar decisões entre os membros de uma equipe? Por quê?

Como resultado, os alunos, em geral, entenderam a atividade como “incrível”, pois, além de terem aplicada, na prática, a teoria aprendida na universidade – algo que é requerido nos componentes curriculares dos planos pedagógicos da UPM –, perceberam que a competência empreendedora é um conjunto de características que vai muito além da formação técnica. Torna-se fundamental para ser diferenciado e ter sucesso no mercado de trabalho o “viés comportamental”, segundo eles.

Nas três rodadas do software do ERPsim, os alunos destacaram que foi necessário resiliência para continuar jogando sob a pressão do tempo de produção, diante de um cenário em que o *valuation* da empresa oscilava a todo momento.

Trabalho em equipe e comunicação, saber escutar todos os membros do time antes da tomada de decisão. Particularmente, essa parte foi a mais desafiadora, pois era necessário entender a visão do outro para seguir daquela maneira ou, em contrapartida, se posicionar, defender sua ideia como o melhor caminho para o desenvolvimento do negócio. Uma experiência formidável, conforme as suas afirmações. Porém, foram identificados pontos que podem melhorar para o desenvolvimento de uma aprendizagem mais completa e transformadora por meio da gamificação, dentre os quais se destacam os esclarecimentos iniciais sobre o uso da ferramenta tecnológica para equalizar o conhecimento de todos, considerando que havia participantes com graus distintos de conhecimento técnico (*hard skill*) sobre o processo de manufatura em uma empresa, o que é uma lacuna a ser preenchida em futuras competições.

Em 2024, o ERPsim foi aplicado em mais dois torneios internos à UPM, nos meses de maio e novembro. Em 2025, durante o mês de fevereiro, a Escola de Negócios participou do evento ERPsim Sustainability Challenge 2025, competindo com outras 21 universidades de todo o mundo.

Programa SAP Learning for Employment

Finalmente, como consequência do relacionamento e da participação da SAP, a UPM teve a oportunidade de participar do Programa SAP Learning for Employment, liderado por Carolina Penteado Bastos, vice-presidente de inovação e transformação digital da SAP Brasil. Por esse programa, 47 alunos da Escola de Negócios receberam aulas no

curso Scope and Business Planning (SAP), preparatório para a prestação de exame na cobiçada certificação TS410, de alcance global.

No segundo semestre de 2023, 120 estudantes da UPM puderam se preparar nos cursos Scope and Business Processes (SAP S/4HANA), Analytics Cloud & Planning (SAP) e Integration Suite (SAP BTP). As aulas foram propiciadas aos alunos de Administração, Comércio Exterior, Ciências Contábeis, Economia, Engenharia de Produção, Ciência da Computação, Sistemas de Informação, Tecnologia em Análise e Desenvolvimento de Sistemas e de Tecnologia em Ciência de Dados.

Considerações finais

No geral, a presente reflexão sugere que a tecnologia digital realmente tem um forte potencial para apoiar processos de gestão da aprendizagem e resultados dos alunos no ensino superior, especialmente porque eles aprendem a manusear aplicativos do SAP já nos bancos escolares. No entanto, os resultados indicam que esse potencial é apenas um direcionamento para seu ganho de escala em cursos de ensino superior, fomentando, assim, tanto uma abordagem mais centrada no aluno, como no desenvolvimento do uso da tecnologia por professores na preparação/ministração de suas aulas.

Portanto, estudos futuros devem desenvolver métodos para medir as atividades de aprendizagem nos cursos superiores, bem como o desempenho dos alunos, de uma forma mais objetiva, usando dados de vídeo, avaliações referenciadas no tempo (longitudinais) e testes objetivos de conhecimento e de sua gestão na UPM, por exemplo.

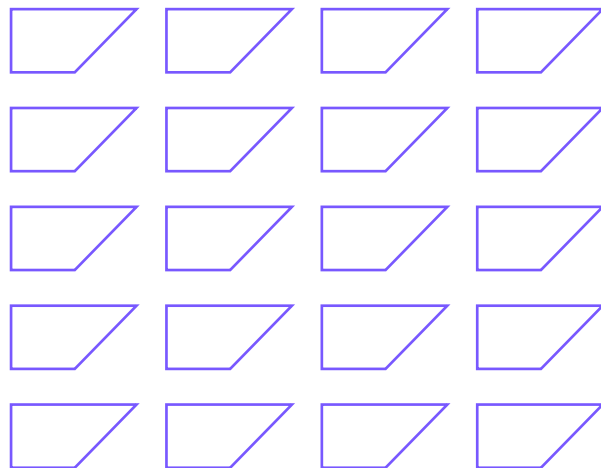
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