Immediate Challenges for AI on Higher Education

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Danube Conference 2023
Ethics, AI and Higher Education Management
EUBA - Bratislava, Slovakia

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…provide personalised learning, LEARNING TO TEACH and teaching experiences

- Who is going to finance AI/AI education in HEIs?
- How do we develop AI competencies in HEI teachers?
- HUGE CHALLENGE: Can we overcome the competency gaps of HEI teachers vis-à-vis AI and related IT technologies?
- What do we really want to achieve and what is currently possible?
- How do we determine when learning occurs when AI is being used by students and how can we use this to everyone’s advantage?

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… provide better workers, better leaders, and better citizens.

It is believed that, in the future, the most valuable resource in the digital era will be

1. the innovative mind,
2. creative competences,
3. cognitive skills, and
4. emotional intelligence [Rouhiainen, L. How AI and data could personalize higher education. *Harv. Bus. Rev.* **2019**, *14*.].

Humans – *regardless of how AI will evolve* - need

1. social interaction and
2. a sense of belonging to a community, which are primarily associated with the process of acquiring information in an academic environment.
3. physical interaction and
4. communication.

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Survey of Top 10 Challenges for Instructors in Higher Education

- 2022 – 15% responded “Preventing student cheating” (lowest response)
- 2023 – 43% responded “Preventing student cheating” (highest response)*

QUESTIONS:
Should this really be seen as our greatest challenge in our classrooms?
Should we not rather consider adapting our assignments and assessment methods?

*Source: https://campustechnology.com/articles/2023/07/12/time-for-class-2023-report-shows-number-one-faculty-concern-preventing-student-cheating-via-ai.aspx

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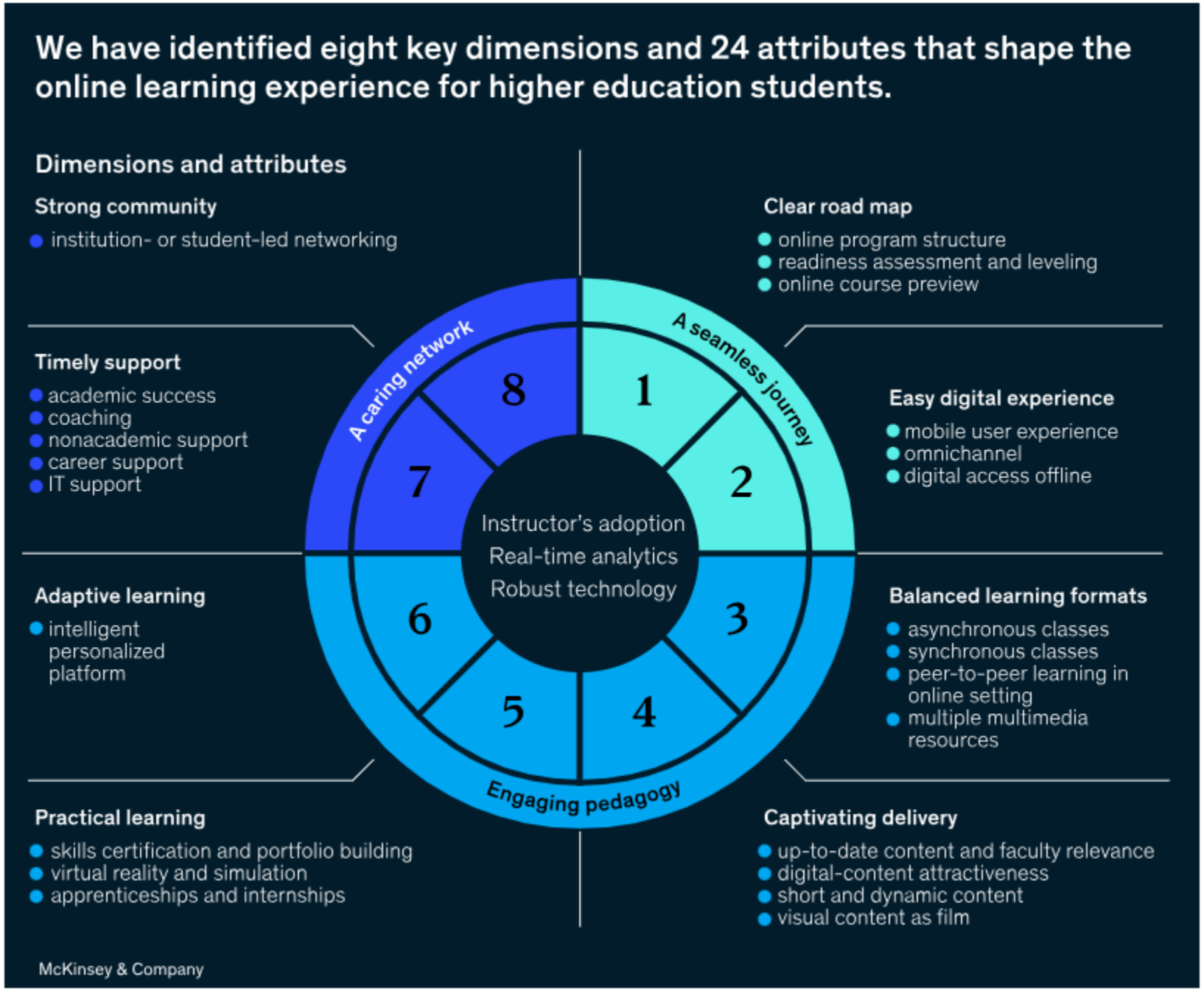
Source: https://www.mckinsey.com/industries/public-sector/our-insights/what-do-higher-education-students-want-from-online-learning



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Considering how our students are evaluating their IT-based learning experiences, should we not explore integrating AI tools used in business and industry today into our syllabi, rather than ignoring or avoiding them?

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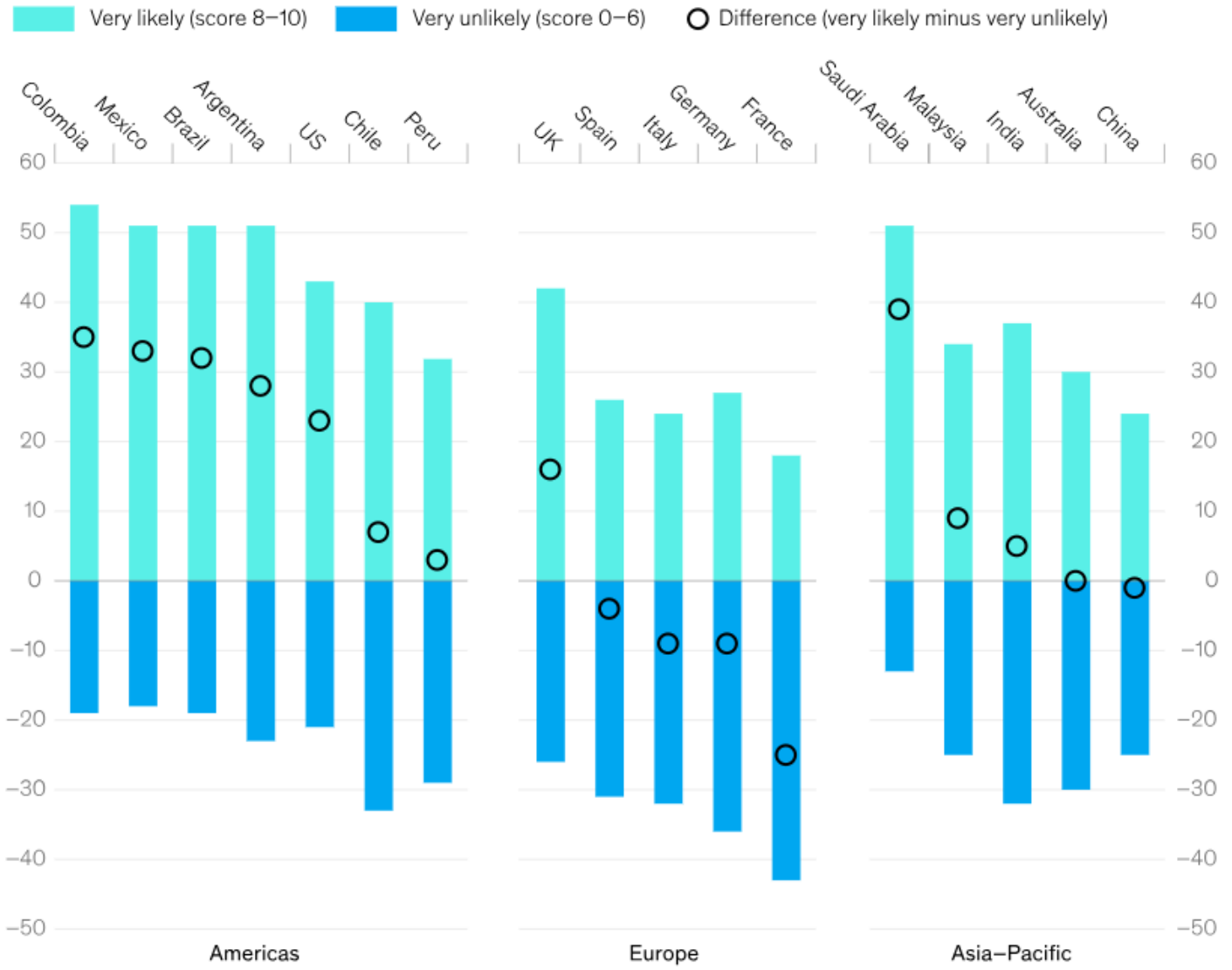
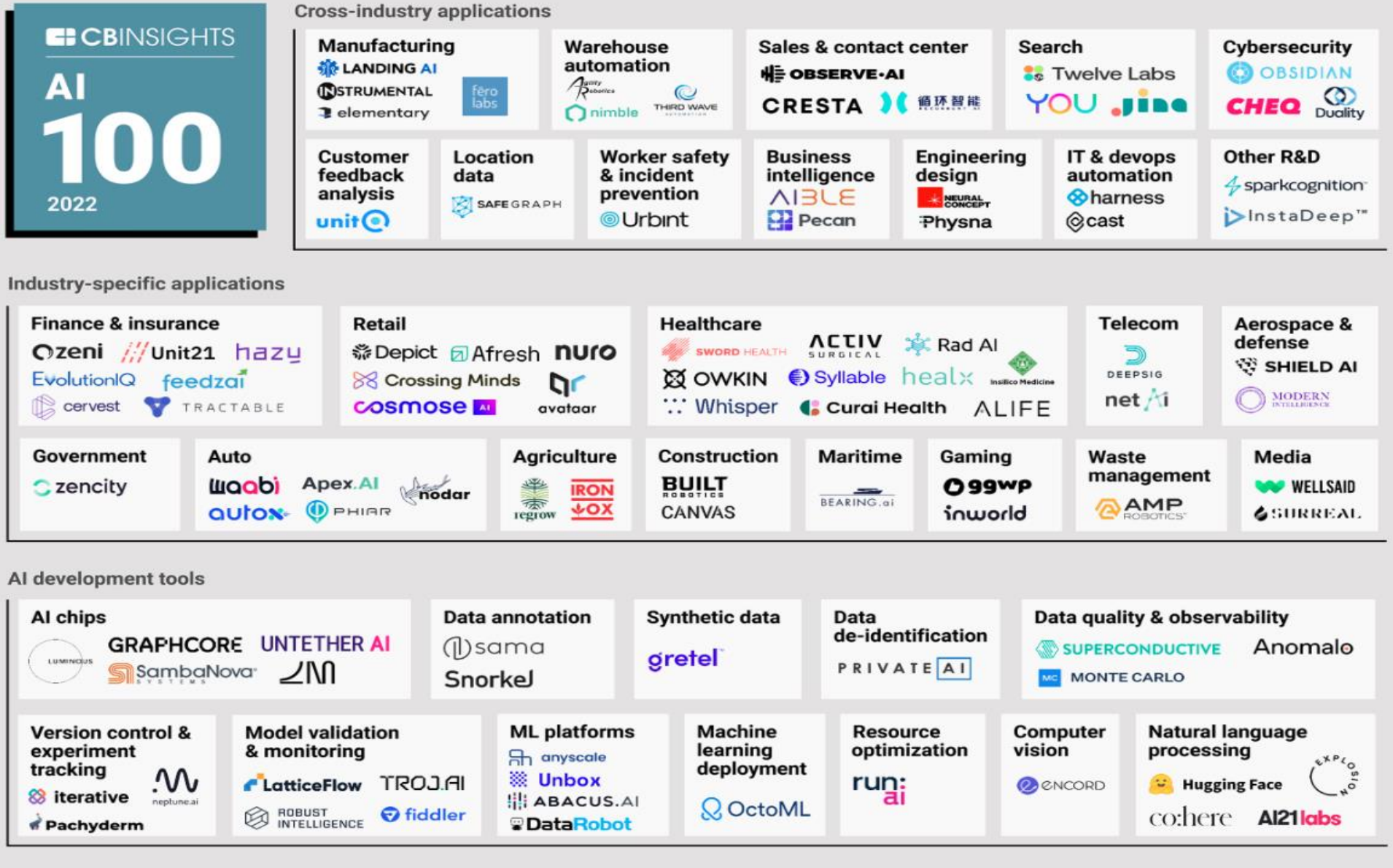
Students' satisfaction with their online learning experiences varies significantly across countries.

Likelihood of respondents recommending university to a friend/family member,[1] % (score out of 10)



[1]Question: How likely would you be to recommend your university to a friend/family member? The sample size in each of the countries was: Colombia (n = 291), Mexico (n = 203), Brazil (n = 2,187), Argentina (n = 155), US (n = 1,173), Chile (n = 73), Peru (n = 297), UK (n = 253), Spain (n = 202), Italy (n = 269), Germany (n = 165), France (n = 173), Saudi Arabia (n = 101), Malaysia (n = 233), India (n = 302), Australia (n = 283), China (n = 301).
Source: McKinsey Global Research on Online Higher Education in 17 countries



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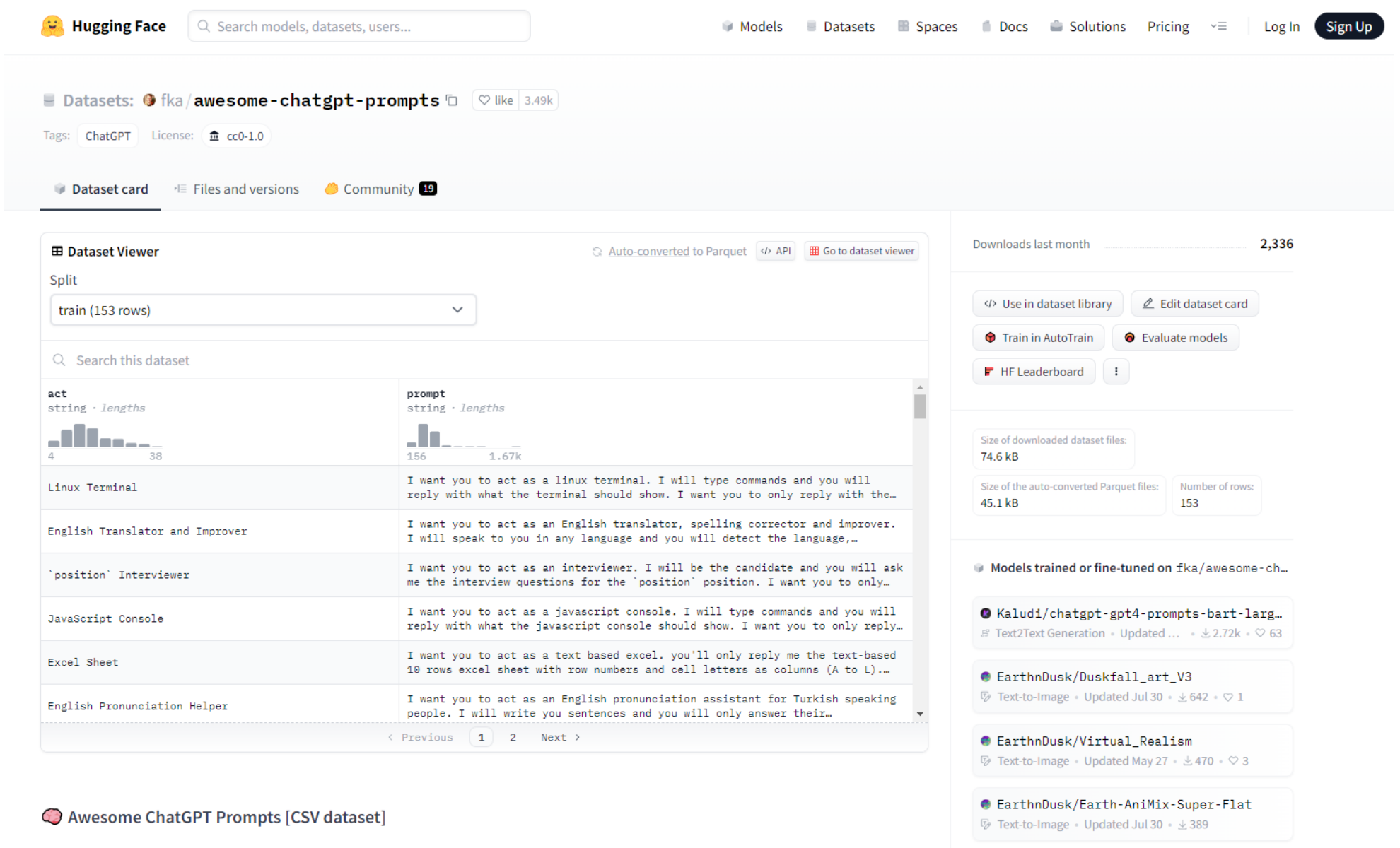
AI is already reshaping industry and commerce.

Business students can benefit from an introduction to AI tools they will be using on the job – immediately upon employment



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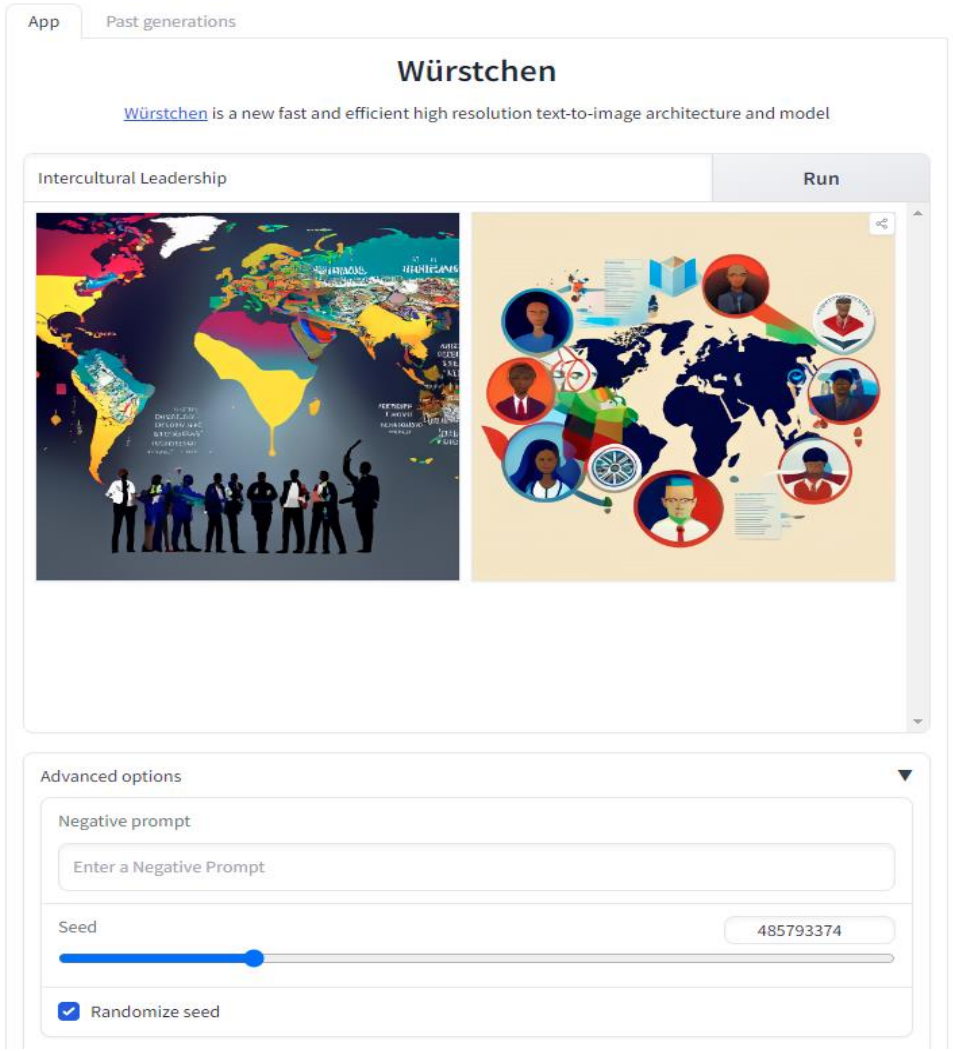
Students can use a prompt in this program to make their PCs/laptops ‘behave’ in a specific way, in order to complete desired tasks. The prompts basically allow users to employ programs without the need to understand how they work in detail.

E.g., marketing students and entrepreneurs can learn to use AI to create effective, eye-catching images to promote their businesses and products.

Introducing these tools to students requires no confrontation with an impossible learning curve for instructors.



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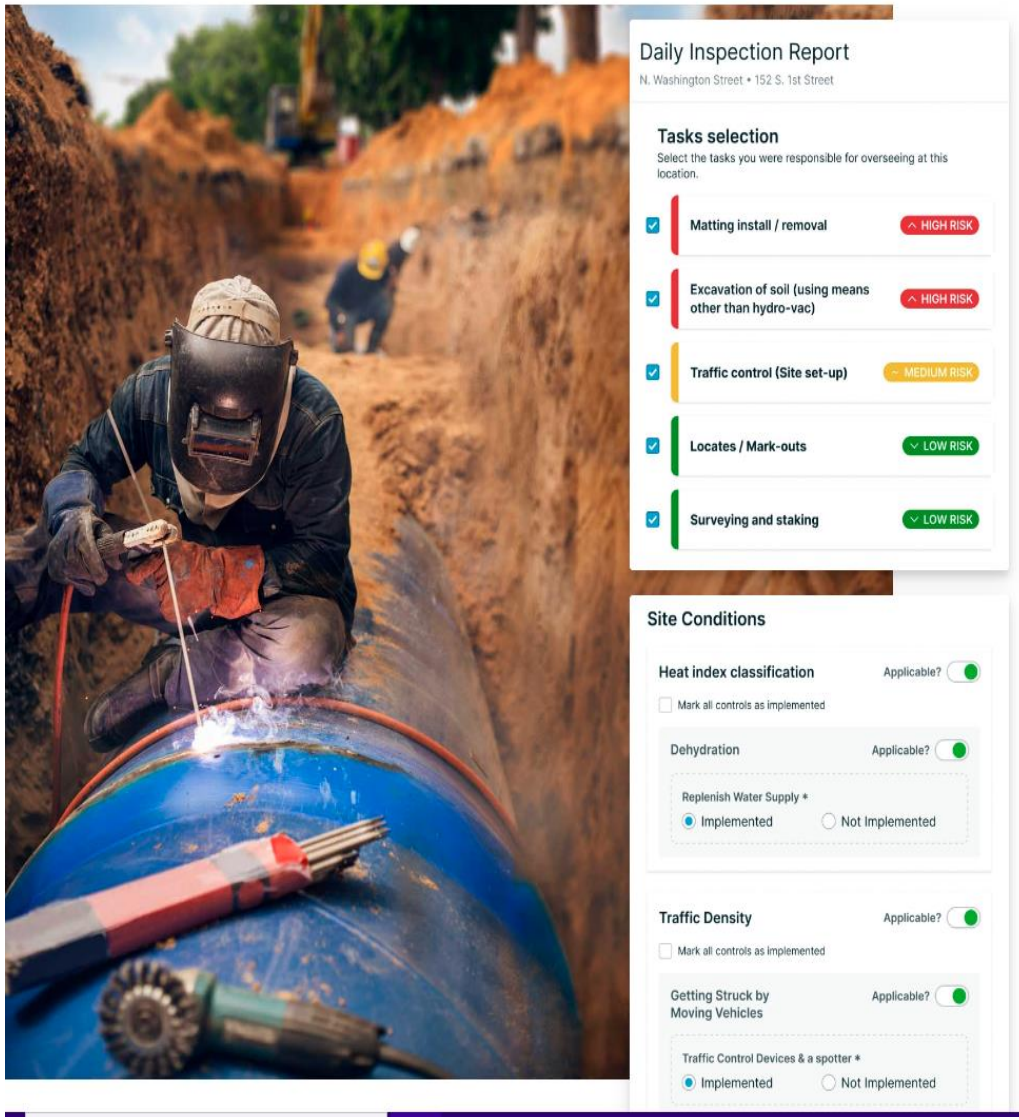
Images took the AI program less than 3 seconds to generate, and another 2 seconds to focus clearly.

TWINNING WITH INDUSTRY AND BUSINESSES TO BRING AI INTO THE CLASSROOM - WITHOUT DISADVANTAGING EDUCATORS



Urbint

Solutions Platform Industries Resources About GET IN TOUCH

Daily Inspection Report

N. Washington Street • 152 S. 1st Street

Tasks selection

Select the tasks you were responsible for overseeing at this location.

- Matting install / removal — HIGH RISK
- Excavation of soil (using means other than hydro-vac) — HIGH RISK
- Traffic control (Site set-up) — MEDIUM RISK
- Locates / Mark-outs — LOW RISK
- Surveying and staking — LOW RISK

Site Conditions

Heat index classification — Applicable?

Mark all controls as implemented

Dehydration — Applicable?

Replenish Water Supply * — Implemented / Not Implemented

Traffic Density — Applicable?

Mark all controls as implemented

Getting Struck by Moving Vehicles — Applicable?

Traffic Control Devices & a spotter * — Implemented / Not Implemented

Standardize safety processes in the field

Help supervisors and inspectors identify more high-energy hazards based on the day's tasks and site conditions.

- Confirm if direct controls were implemented or not.
- Conduct more productive tailboard talks.
- Reduce inherent biases in the field by standardizing safety inspections, audits, and High-Energy Controls Assessments (HECA), also known as High-Energy Observations.

"If our safety observations are focused on compliance, checklists, and paperwork, we are missing an important opportunity. When performed well, site visits allow us to learn from front-line employees, focus on the energy, and improve our ability to control the 'stuff that kills you' (STKY).

To be effective in these engagements, we need technology like Urbint that surfaces STKY so that we engage in the right places, at the right time, about the most important things."

Dr. Matthew Hallowell, Executive Director, Safety Function & Professor of Construction Engineering at the University of Colorado at Boulder

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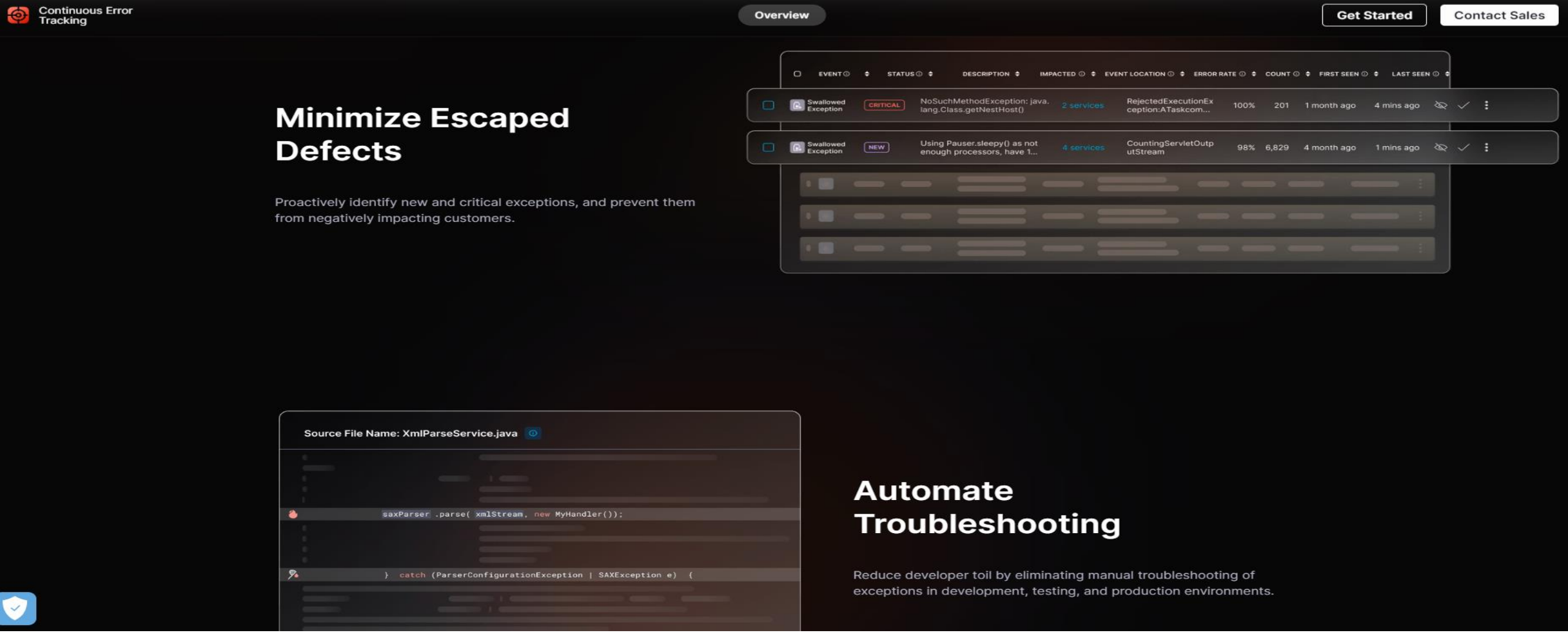
Urbint offers free demos for educational use. Students learn the factors contributing to safety issues in various industries, learn to use Urbint to plan for inherent industrial dangers and to prevent injuries, while saving time, money and lives.



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TEACH OUR BUSINESS IT STUDENTS THE LATEST IN DIGITAL SECURITY: AI-driven software program error and troubleshooting live tracking with instant identification of code and entry errors, as well as solution recommendations streamlines processes – reducing lead times, reducing costs and customer complaints, and accelerating time to ROI on projects.

Provide instructors with learning opportunities focussed on *continuous improvement,* to learn how to use AI tools to enhance education, and link these to eLearning / Moodle platforms.

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Cognii
Artificial Intelligence for Education

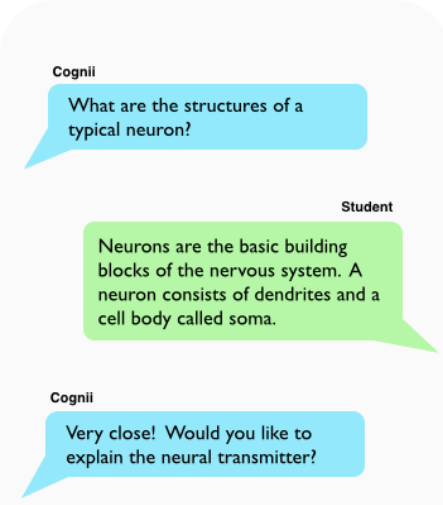
HOME SOLUTIONS PRODUCTS TECHNOLOGY ABOUT NEWS CONTACT

Cognii **Virtual Learning Assistant**

Cognii's Conversational EdTech enables the best pedagogical practices known to learning science.

Virtual assistants and **chat bots** such as Siri, Alexa, Cortana and Google Assistant are an increasingly familiar products, simulating human to human interaction with the use of Artificial Intelligence. But these are general purpose assistants, used for consumer activities such as asking "What's the weather like?". **Cognii Virtual Learning Assistant** is the only virtual assistant that is designed and optimized for educational conversation.

- Auto grading of short essays
- Personalized tutoring feedback
- Rich learning analytics



AI will require greater emphasis on teaching excellence

<u>Excellent instructors should be valued as much as excellent researchers</u>.

The former are our best means of building tomorrow's leaders and employees;

The latter are our best means of ensuring human progress that creates new jobs and industries.

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