

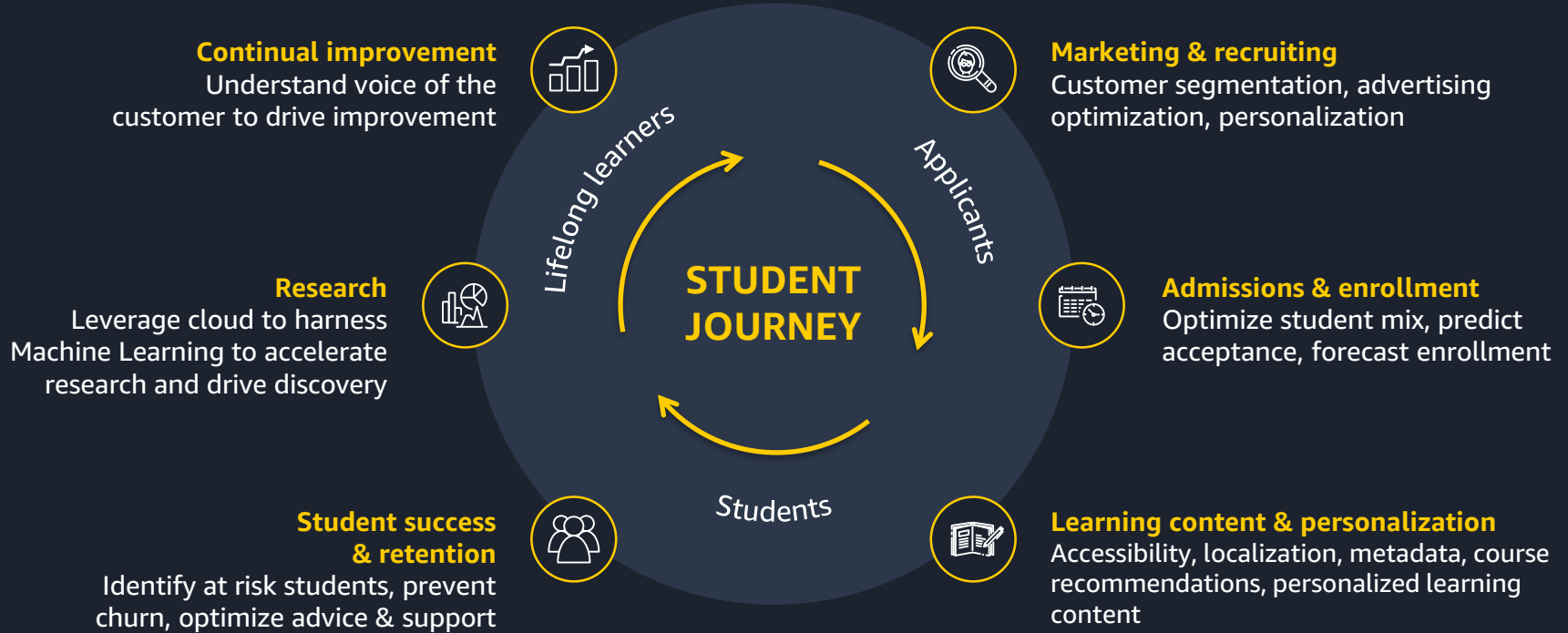
Machine Learning w pracy uczelni

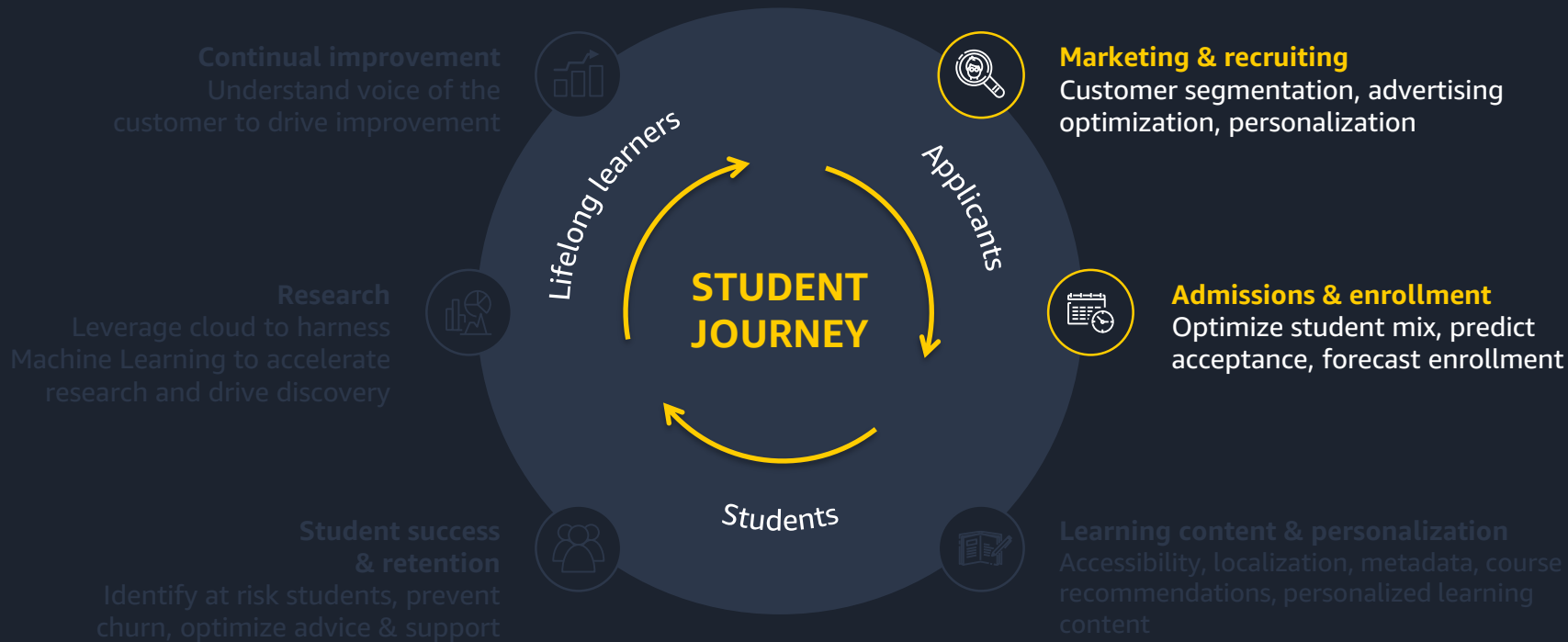
Improving student outcomes and enabling innovation

Cecylia Szymańska

Education Lead Central Eastern Europe
Amazon Web Services

AI & machine learning use cases in education

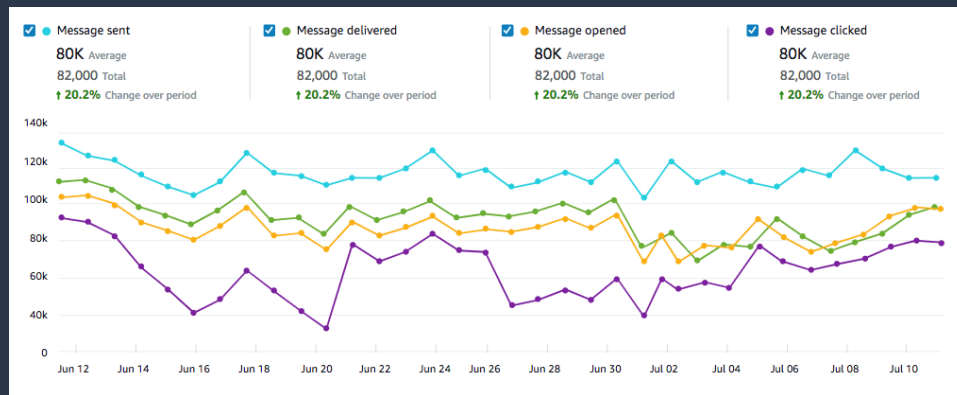




Optimizing marketing and recruiting

Target the right prospective students and reach them more effectively

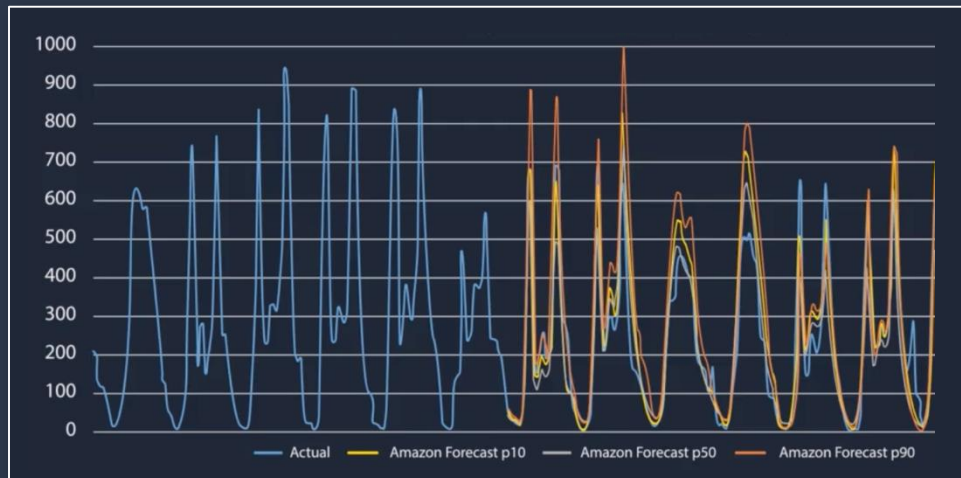
- Customer segmentation
- Advertising optimization
- Personalization

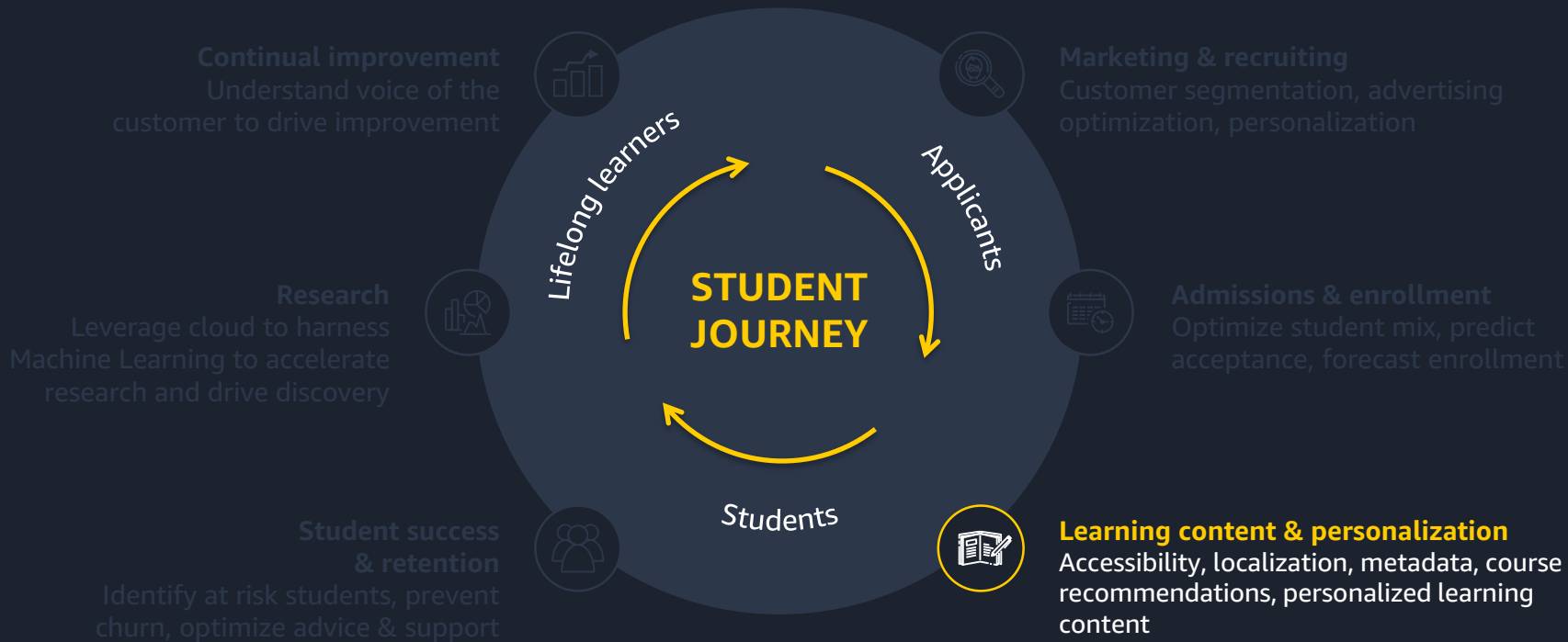


Forecasting admissions and enrollment

Machine Learning powered forecast capabilities for:

- Predicting enrollment
- Capacity planning
- Financial planning





Learning content metadata extraction, content classification

Extract metadata from learning content and digital collections

- Content classification
- Enhanced search
- Enables personalization

AWS Content Analysis

Upload Collection Help Sign Out

The screenshot displays the AWS Content Analysis interface for ML Vision. It shows a video player with a red bounding box around the rear wheel of a blue car. Below the video player, there is a graph titled "Wheel (instances / sec)" showing the quantity of wheel instances over time. The graph has a y-axis labeled "Label Quantity" ranging from 0 to 4 and an x-axis labeled "Time (mm:ss)" ranging from 00:00.000 to 02:20.000. A red vertical line is drawn at approximately 01:40.000. Below the graph, there is a table of metadata:

Asset ID: 985211c4-5572-4a73-8b62-2c3762c3a036	Asset bit rate: 384 kb/s
Filename: EP1_BMWGT-EP1-BMW_HD-1.mp4	Audio sampling rate: 48.0 kHz
Video duration: 02:20	Video format: MPEG-4
Video file size: 228.70 MB	Encoded date: UTC 2019-07-25

The interface also shows a list of identified objects under the "Objects" tab, including: Transportation, Vehicle, Car*, Automobile, Tire, Wheel*, Machine, Car Wheel, Spoke, Alloy Wheel, Human, Person*, Driving, Sports Car, Asphalt, Tarmac, Coupe, License Plate*, Cushion, Nature, Road, Race Car, Smoke, Outdoors, Landscape, Field, Weather, Electronics, Cell Phone, Mobile Phone*, Gauge, Wristwatch*, Phone, Fog, Intersection, Symbol, Logo, Runway, Trademark. A "Download Data" button is visible at the bottom.

Learning content— improving accessibility

Make learning content easy
to find, access and use for all
students

Class 3: Atmospheric Forces (after) Fri May 12

ATMS-101 - Extreme Weather

Download Search Transcript

In the atmosphere,
And understand that, we have enumerated the fact that there are three forces that actually cause wind directions and wind speed and
we're gonna be able to determine what the wind speed is anywhere and what the wind direction is anywhere by knowing those three forces.

The three forces we are interested in first of all, our first force is pressure gradient force.

The pressure gradient force is a force that always acts towards low pressure. Always acts towards lower pressure no matter where you are on Earth. There's high pressure in one spot and low pressure in another spot.

The pressure gradient force is always gonna be working towards low pressure.

Now when we say that, we're always talking about in the horizontal. Pressure changes quite rapidly, vertically. But in terms of determining wind speed,

MAP VIEW

1016
1020
1024

PGF PGF PGF PGF PGF PGF PGF PGF

0 200 400 600
Scale (km)

Pressure Gradient = Change in Pressure Distance

Arrows

L H

13:22 / 26:42 Slide 5

Sources CC

Personalization—course and content recommendations

Recommend content to users to enhance discovery and tailor learning experiences

People interested in this course also viewed

coursera



deeplearning.ai

Deep Learning
deeplearning.ai

5 COURSES

This card features a black and white graphic of three concentric circles. The deeplearning.ai logo is in the top left corner.



UNIVERSITY OF MICHIGAN

Applied Data Science with Python
University of Michigan

5 COURSES

This card features a background of vertical colored bars (orange, red, purple, green, blue) and a network of nodes. The University of Michigan logo is in the top left corner.

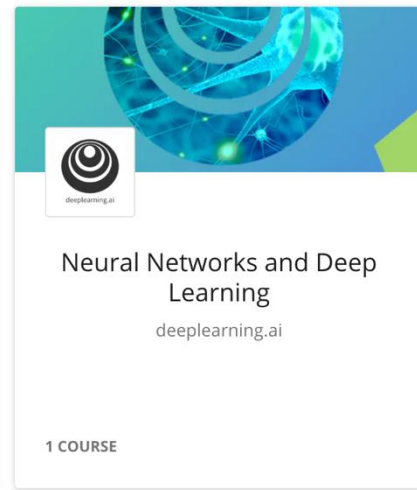


W

Machine Learning
University of Washington

4 COURSES

This card features a background image of a person looking at a computer monitor. The University of Washington logo is in the top left corner.



deeplearning.ai

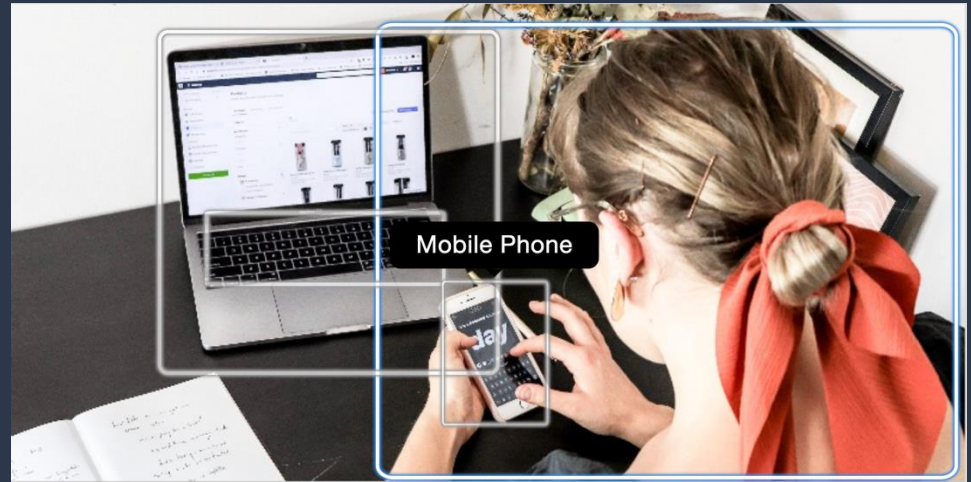
Neural Networks and Deep Learning
deeplearning.ai

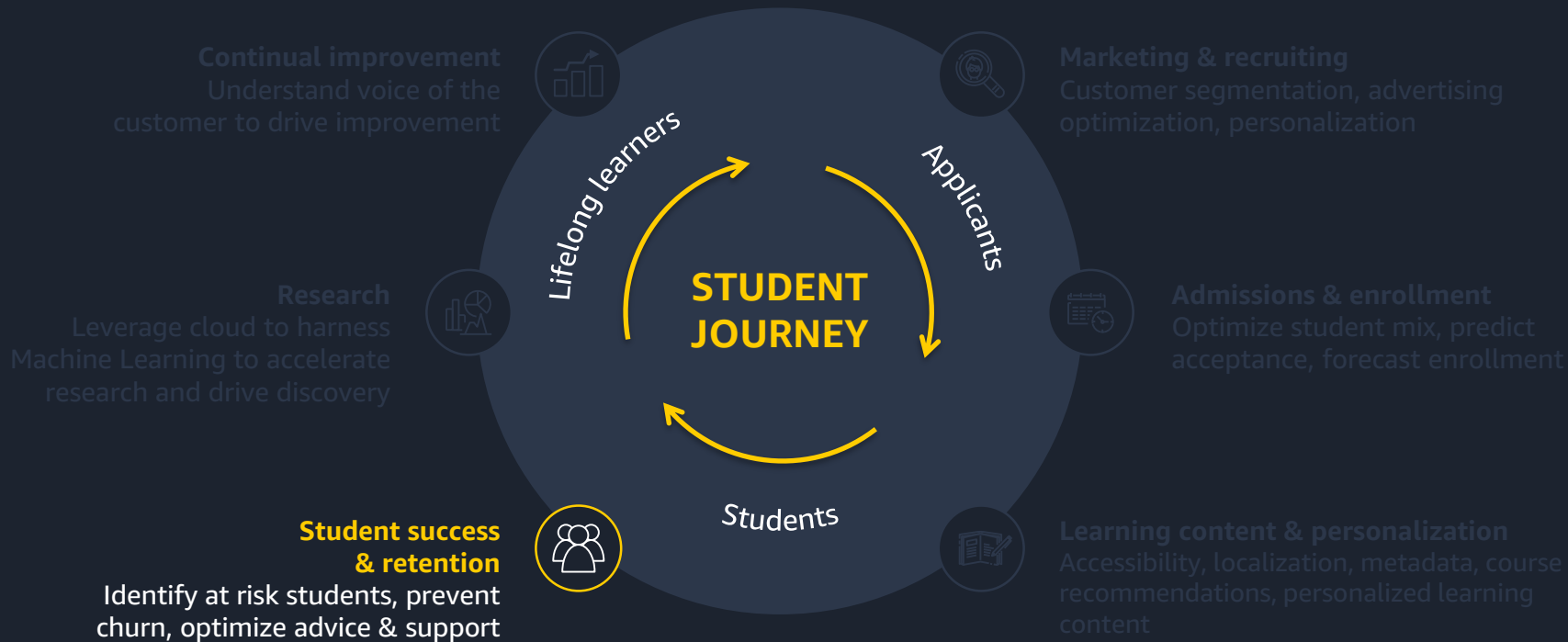
1 COURSE

This card features a background image of a blue globe with neural network connections. The deeplearning.ai logo is in the top left corner.

Student success— virtual proctoring

Use computer vision and
audio analysis to detect and
prevent academic fraud





Student retention

Identify at-risk students faster and improve retention

- Actively monitoring student performance for 170,000 students
- Focusing on beginning of each semester in order to rapidly identify and counsel those at risk of failing
- Able to predict student outcomes within 2 weeks of a semester with 81% accuracy
- Also were able to find patterns and detect financial aid fraud that in the past might have taken days to discern



Student success— self service, tutoring, and support

Conversational AI, self service and
smart campus initiatives



Student success

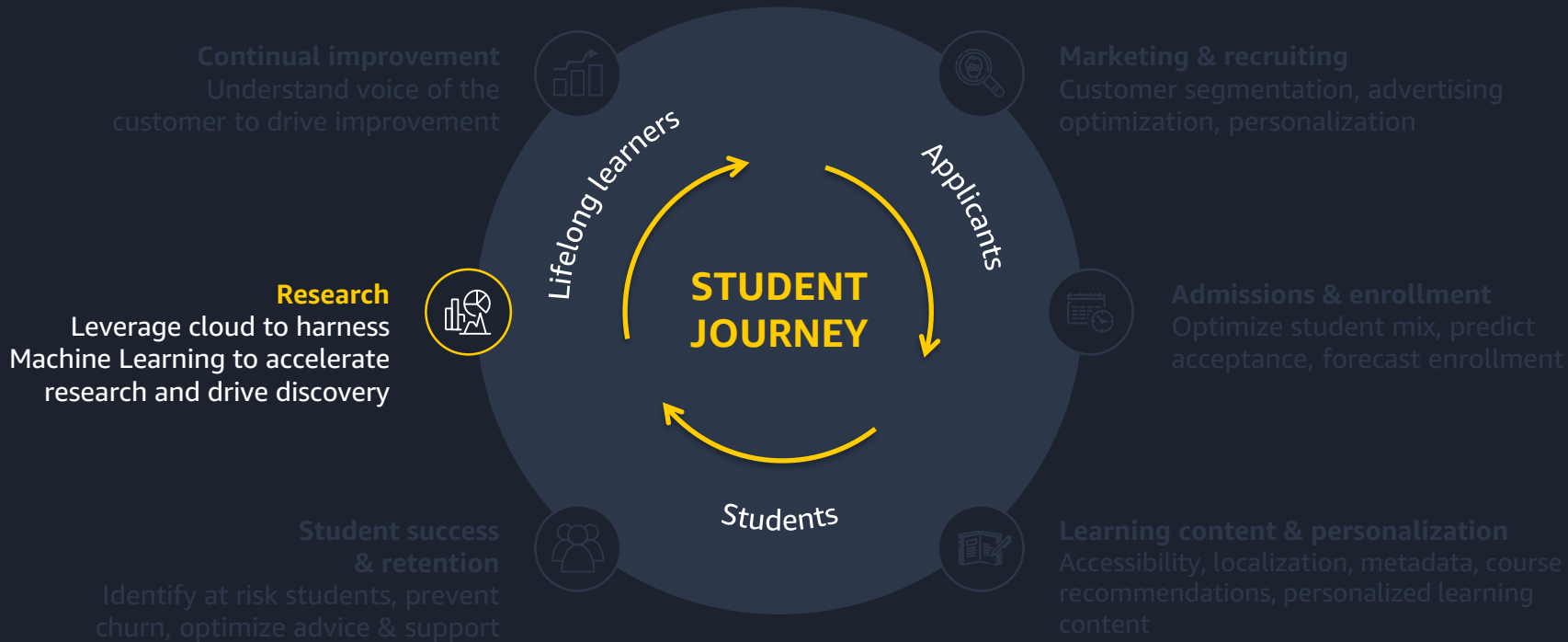
Help students reach their educational goals faster

“PSU’s commitment to putting students first demands that we employ the best information to ensure that we are using our resources most effectively in supporting students to achieve their educational goals. We’re really excited to test how ML can be an active component of that information landscape.”

Susan Jeffords

Provost and Vice President for Academic Affairs,
Portland State University





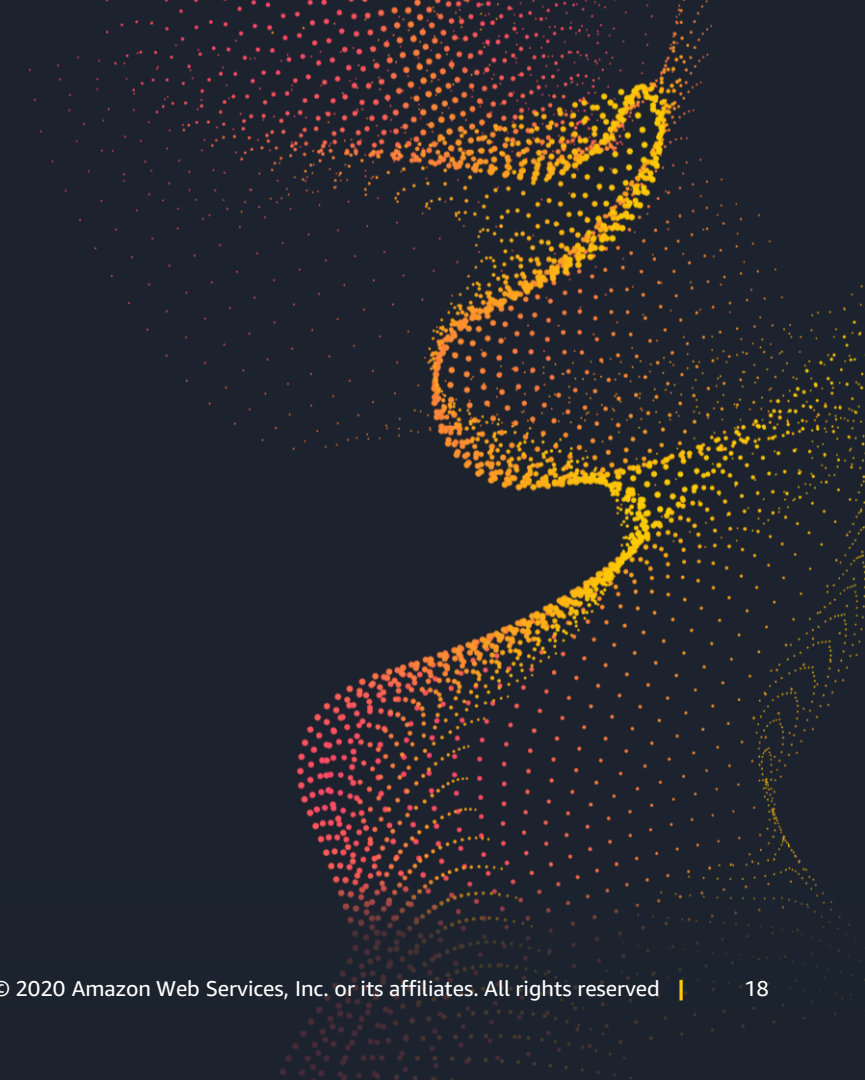
Accelerate research

Enable researchers to harness Machine Learning for research

“For cancer patients and the researchers dedicated to curing them, time is the limiting resource. The process of developing clinical trials and connecting them with the right patients requires research teams to sift through and label mountains of unstructured medical record data. Amazon Comprehend Medical will reduce this time burden from hours per record to seconds. This is a vital step toward getting researchers rapid access to the information they need when they need it so they can find actionable insights to advance lifesaving therapies for patients.”

Matthew Trunnell,
Chief Information Officer
Fred Hutchinson Cancer Research Center





Thank you!
cecylias@amazon.com