11/10/2021

Minnesota State Colleges and Universities

Data Democratization to Advance Equity 2030

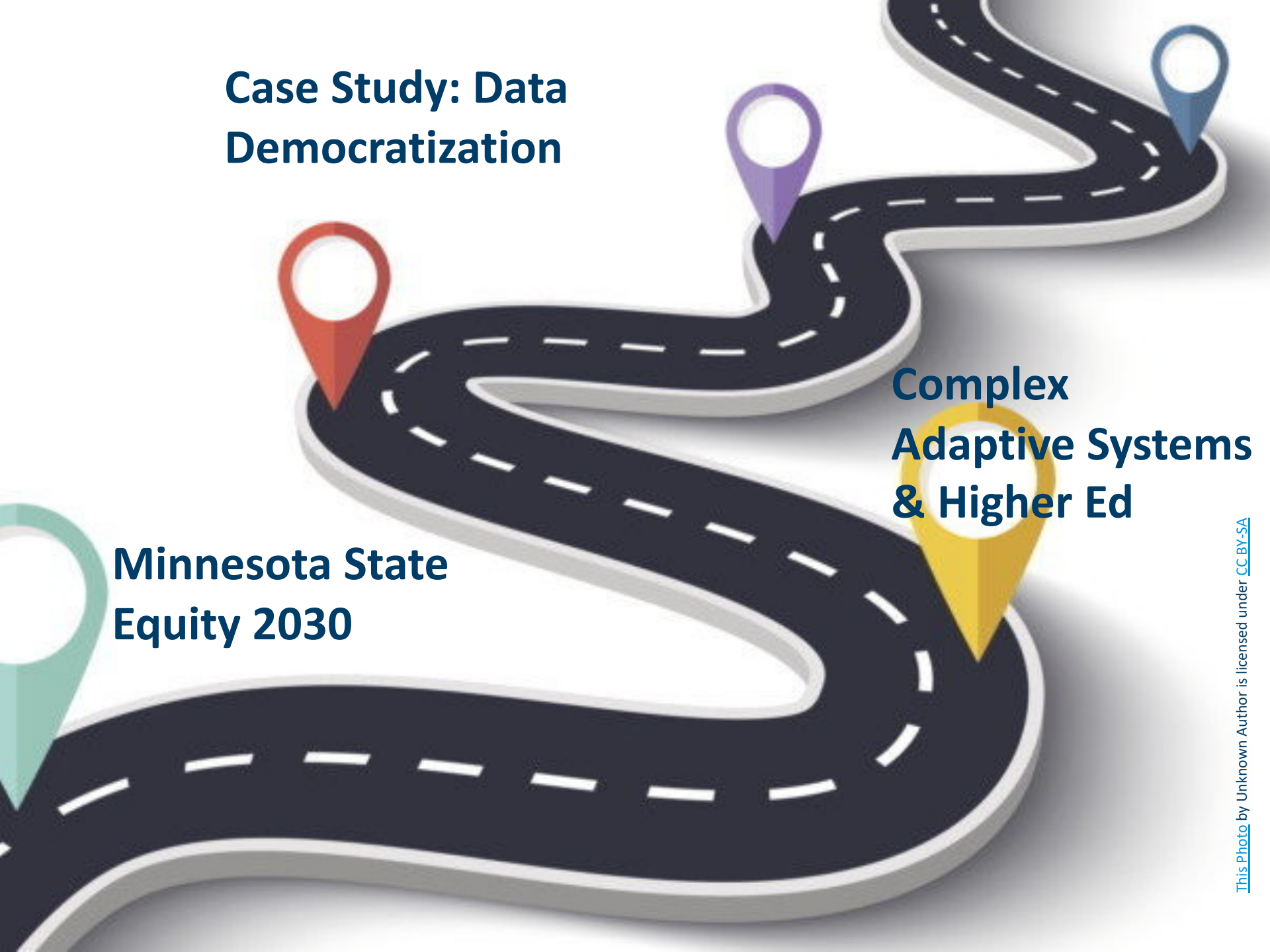
Equity at the Edge of Chaos

MINNESOTA STATE

Land Acknowledgement

Minnesota State acknowledges the land and the tribal nations upon whose land this work is being accomplished. We acknowledge that we work on Anishinaabe (Ojibwe) and Dakota land and are presenting today on Piscataway land.

Case Study: Data Democratization



Complex Adaptive Systems & Higher Ed

Minnesota State Equity 2030

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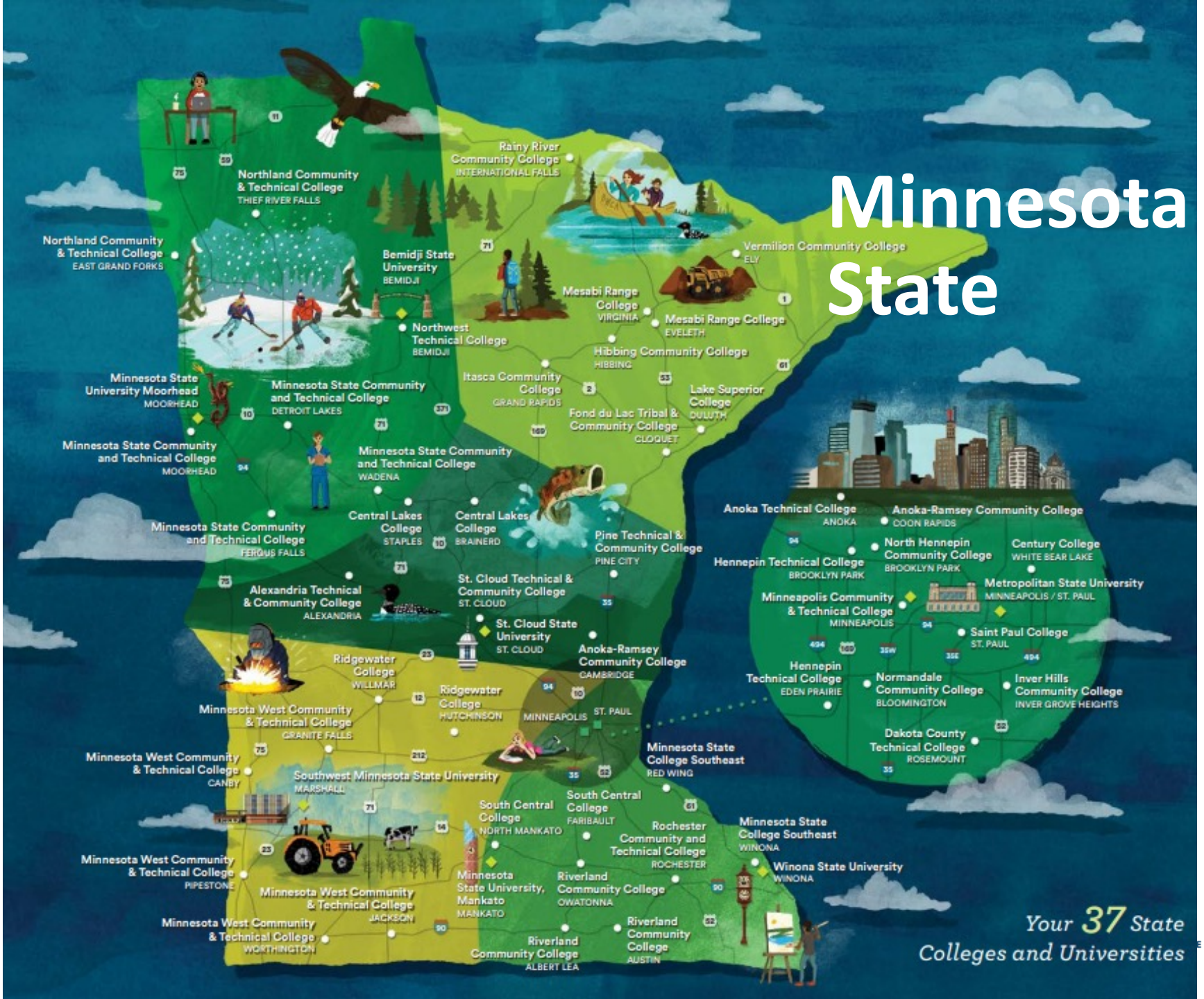
Minnesota State
Northland Community & Technical College
THIEF RIVER FALLS
Rainy River Community College
INTERNATIONAL FALLS
Northland Community & Technical College
EAST GRAND FORKS
Bemidji State University
BEMIDJI
Vermilion Community College
ELY
Mesabi Range College
VIRGINIA
Mesabi Range College
EVELETH
Northwest Technical College
BEMIDJI
Hibbing Community College
HIBBING
Minnesota State University Moorhead
MOORHEAD
Minnesota State Community and Technical College
DETROIT LAKES
Itasca Community College
GRAND RAPIDS
Lake Superior College
DULUTH
Fond du Lac Tribal & Community College
CLOQUET
Minnesota State Community and Technical College
MOORHEAD
Minnesota State Community and Technical College
WADENA
Anoka Technical College
ANOKA
Anoka-Ramsey Community College
COON RAPIDS
Minnesota State Community and Technical College
FERGUS FALLS
Central Lakes College
STAPLES
Central Lakes College
BRAINERD
Pine Technical & Community College
PINE CITY
Hennepin Technical College
BROOKLYN PARK
North Hennepin Community College
BROOKLYN PARK
Century College
WHITE BEAR LAKE
Alexandria Technical & Community College
ALEXANDRIA
St. Cloud Technical & Community College
ST. CLOUD
Metropolitan State University
MINNEAPOLIS / ST. PAUL
Minneapolis Community & Technical College
MINNEAPOLIS
St. Cloud State University
ST. CLOUD
Saint Paul College
ST. PAUL
Anoka-Ramsey Community College
CAMBRIDGE
Ridgewater College
WILLMAR
Hennepin Technical College
EDEN PRAIRIE
Normandale Community College
BLOOMINGTON
Inver Hills Community College
INVER GROVE HEIGHTS
Ridgewater College
HUTCHINSON
Minnesota West Community & Technical College
GRANITE FALLS
MINNEAPOLIS
ST. PAUL
Dakota County Technical College
ROSEMOUNT
Minnesota State College Southeast
RED WING
Minnesota West Community & Technical College
CANBY
Southwest Minnesota State University
MARSHALL
South Central College
FARIBAULT
South Central College
NORTH MANKATO
Rochester Community and Technical College
ROCHESTER
Minnesota State College Southeast
WINONA
Minnesota West Community & Technical College
PIPESTONE
Minnesota State University, Mankato
MANKATO
Riverland Community College
OWATONNA
Winona State University
WINONA
Minnesota West Community & Technical College
JACKSON
Minnesota West Community & Technical College
WORTHINGTON
Riverland Community College
ALBERT LEA
Riverland Community College
AUSTIN
Your 37 State Colleges and Universities

The Equity 2030 Goal

Eliminate the educational equity gaps for first-generation students, low-income students, indigenous students and students of color at every Minnesota State college and university.

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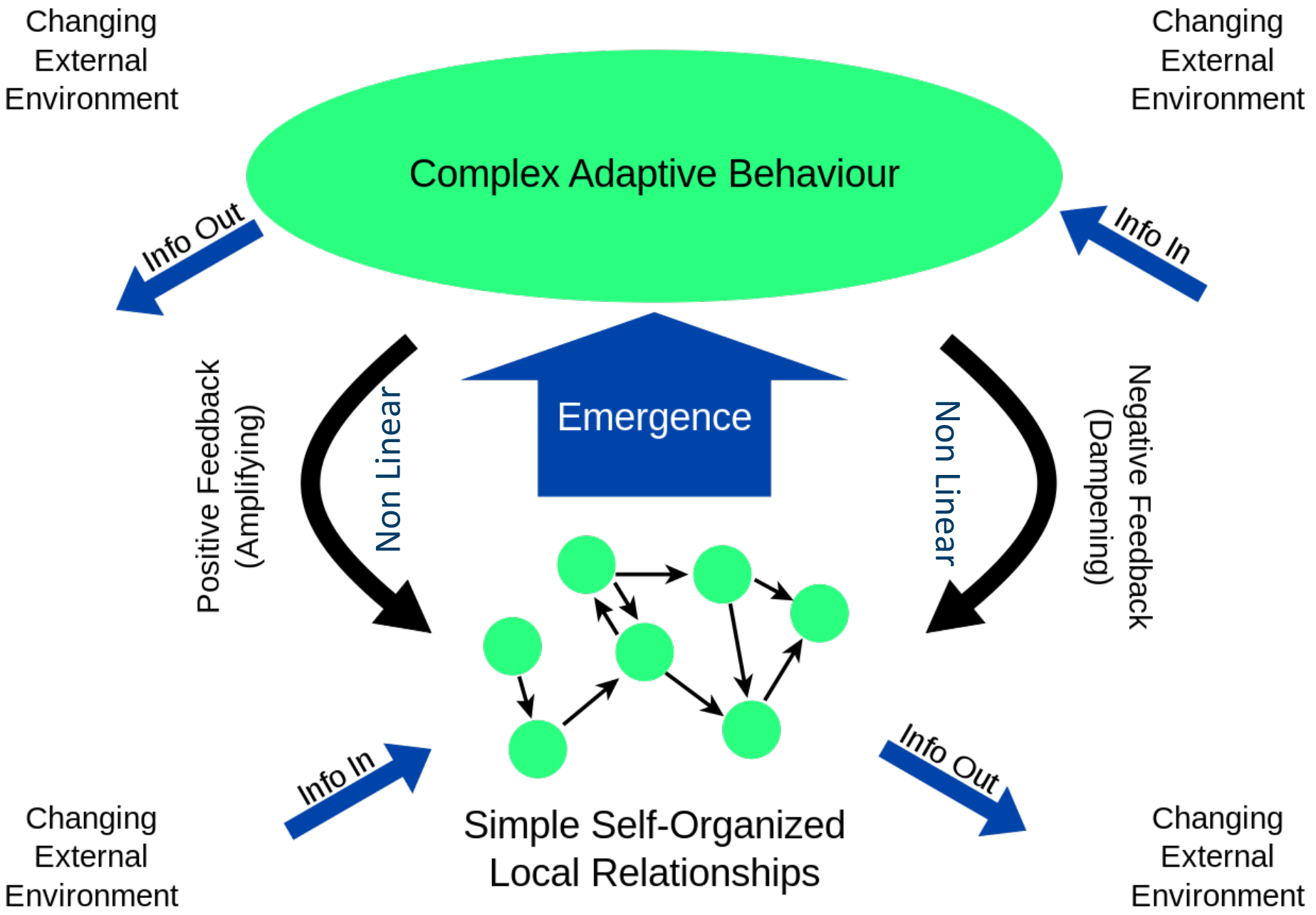

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The Edge of Chaos: spaces of change and innovation

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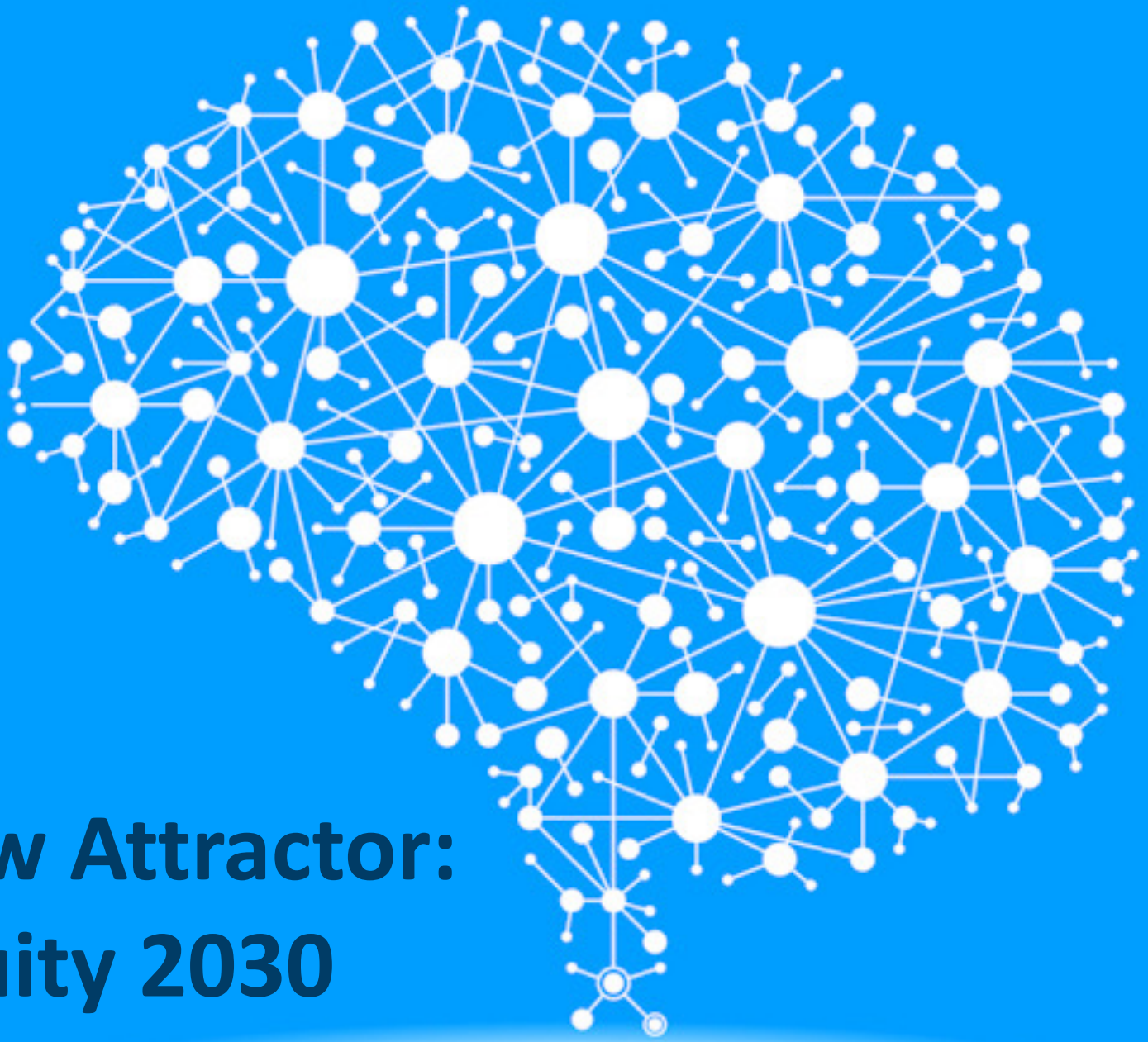
CAS Characteristics in Higher Ed

CAS characteristic	General definition	Higher Ed example
Networks	Internal & external interactions	Faculty in internal departments, external professional associations
Nonlinearity	Nonlinear cause and effect	Inability to scale boutique programs
Self-organization	More complex orgs create their own infrastructure	Shared governance models
Feedback loops	Positive or negative; maintains stasis	Changes in environment (COVID-19) or field (co-requisite dev ed)

CAS Characteristics in Higher Ed

CAS characteristic	General definition	Higher Ed example
Path dependency	Historical processes	"We've always done it this way."
Co-evolution	Changes in one system that cause changes in another	Student food insecurity leading to campus food pantries
Emergence	Niche experiments that prompt system change	ED experimental sites
Attractor	A state to which CAS are drawn due to internal & external rules	Status quo Equity 2030



New Attractor: Equity 2030

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Negative Feedback Loops: Legal & Regulatory Environment

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Niche Environment: Chancellor's Fellow

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Emergence: Power BI Report

Power BI Tool: A different approach

Cohort Start Year	2011		2012		2013		2014		2015		2016	
RACE/ETHNICITY	n	Δ%	n	Δ%	n	Δ%	n	Δ%	n	Δ%	n	Δ%
American Indian or Alaska Native	-83	-20%	-58	-15%	-65	-18%	-54	-17%	-55	-19%	-42	-16%
Asian	-147	-9%	-175	-10%	-161	-10%	-164	-10%	-138	-8%	-97	-6%
Black or African American	-201	-7%	-200	-7%	-248	-9%	-205	-8%	-152	-6%	-193	-7%
Hispanic of any race	-125	-8%	-133	-8%	-163	-9%	-142	-8%	-158	-8%	-194	-9%
Native Hawaiian or Other Pacific Islander	0	-0%	0	-1%	-1	-4%	-3	-8%	0	1%	2	6%
Nonresident Alien	-65	-13%	-70	-12%	-107	-17%	-119	-18%	-100	-14%	-90	-8%
Two or more races	-138	-10%	-137	-10%	-93	-6%	-159	-12%	-100	-8%	-129	-10%
Unknown race and ethnicity	-29	-9%	-35	-13%	-33	-14%	-31	-10%	-36	-12%	-19	-10%
White	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total	**-788**	**-2%**	**-808**	**-2%**	**-871**	**-3%**	**-878**	**-3%**	**-738**	**-2%**	**-764**	**-3%**

Networks & Co-evolution

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Early Results & Adoption

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Challenges

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Opportunities

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