

UNIVERSITY AFFAIRS COMMITTEE

January 26, 2022, 2:20 pm Magnolia Room, The Rizzo Conference Center

OPEN SESSION

FOR INFORMATION ONLY

(No formal action is requested at this time)

- 1. Chair Remarks *Rob Bryan, Committee Chair*
- 2. Employee Forum Update *Katie Musgrove, Chair*
- 3. Graduate and Professional Student Federation Update *Neel Swamy, President*
- 3. SAAO Tier II Approvals Process

 Becci Menghini, Vice Chancellor, Human Resources & Equal

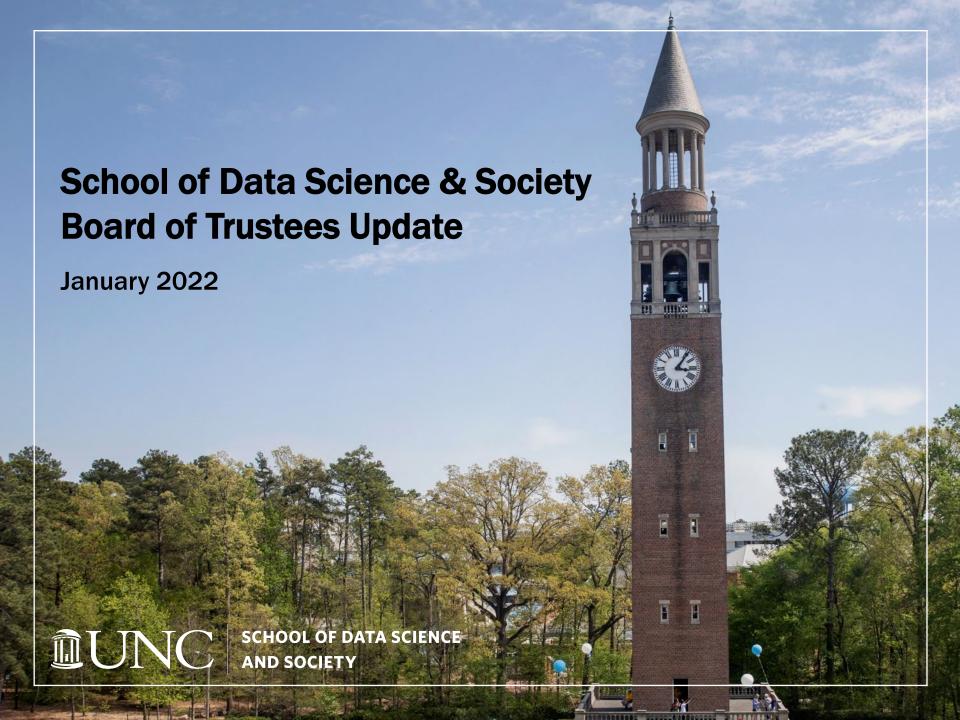
 Opportunity and Compliance
- 4. Update on Data Science Initiative
 Chancellor Kevin M. Guskiewicz
 Chris Clemens, Executive Vice Chancellor and Provost Elect
 Jay Aikat, Chief Operating Officer, RENCI and Research Professor of Computer Science,
 UNC-Chapel Hill

Some of the business to be conducted is authorized by the N.C. Open Meetings Law to be conducted in closed session.

COMMITTEE MEMBERS

Rob Bryan, Chair Teresa Artis Neal, Vice Chair Dave Boliek, ex-officio

Gene Davis John Preyer
Perrin Jones Lamar Richards
Allie Ray McCullen Malcolm Turner





Our Mission

- Deliver knowledge and skills for North Carolina to thrive in a data-driven world
- Educate a diverse community of undergraduate, graduate, and professional students from across our State to become the next generation of data science leaders
- Serve the state, the nation, and the world through premier innovative research directed to advancing the public good with human-centric and ethical applications in e.g. genomics, healthcare, biomanufacturing, robotics, automation, artificial intelligence, and machine learning.





Benefit to Our State

- Support the economic health and well-being of rural and urban communities across the state of North Carolina
- ➤ Develop a **critical mass of workforce talent** to support the existing data economy of North Carolina and to *draw new industries* to our State
- Form **strong partnerships** for research and workforce development with community colleges, UNC system schools and industry.





Corporate Landscape



Apple plans to invest over \$1 billion in North Carolina...The investment will create at least 3,000 new jobs in machine learning, artificial intelligence, software engineering, and other cutting-edge fields.

- Apple Newsroom



- Robust demand for UNC graduates in NC, including Apple, Google, Amazon, SAS, the banking industry, Epic Games, Cisco, and IBM
- NC has the 9th most job openings for data scientists in the country
- > Data Science jobs are projected to grow at 19% over the next 10 years
- The median annual salary for Data Scientists is \$114,368; The salary average of Apple's new positions will be \$187,001





UNC's Vision Distinct from Our Peers'









What other programs emphasize:

- UC Berkeley: Research ("across scientific and technological frontiers")
- MIT: Artificial Intelligence and Machine Learning (website lists complex/interconnected systems)
- UVA: Ethics and Principles in Data Science
- Georgia Tech: Large-scale Data and Modeling

The UNC Value:

- "And Society": human-centric approach; leverage service to NC in economic development, healthcare, biomanufacturing, and other sectors
- Existing strength in Data Science research and faculty
- UNC-CH uniquely positioned to become a global leader in using data and information to solve humanity's greatest challenges



The Pursuit of Data Science at Carolina, 2012 to 2022

Feb 2012:

Research Data Stewardship at UNC



Apr 2014:

Faculty Working Group on Data Studies Curriculum



May 2014:

Genomic Data Stewardship Taskforce



Aug 2015:

Data@Carolina Initiative



Feb 2020:

Draft Feasibility Plan for Implementation of School of Data Information and Society (SDIS)



Mar 2019:

Data Science School



Apr 2018:

Data Science Institute



Nov 2017:

Data Science Initiative



Mar 2020:

UNC-CH BoT endorses plan to launch a new School for Data Science



Dec 2020:

SDIS Phase II Pre-Implementation



Mar 2021:

Draft Plan for Launch and Implementation of a School of Data Science & Society (SDSS)



2021 & 2022:

SDSS design and implementation started





BoT Endorses Plan – March 2020

<u>May 2019 – Feb 2020</u>: a diverse committee of over 100 faculty, staff, and students across the university, including data science experts and university leaders, proposed a school for data science that will lead the world in using data and information to solve humanity's greatest challenges, by leveraging and building upon Carolina's existing strengths.

In March 2020, the UNC-CH Board of Trustees endorsed this draft feasibility plan for the launch and implementation of a School of Data, Information and Society.





BoT Endorses Plan – March 2020

- This feasibility plan proposed to:
 - Build on Carolina's research strengths
 - Develop degree programs that prepare students for data-driven careers
 - Collaborate to build career development pathways from community college to postgraduate level combining residential and online programs for maximum accessibility
 - Address the robust demand for graduates by employers in NC and the region
 - Provide students with **job outcomes** that have projected growth and salaries well above the national average
 - Grow strategic partnerships with NC communities, businesses, and government



Preparatory Work 2021 - 2022

- Launched a Data Science minor in Fall 2021
 - 367 students have registered for the minor with almost no advertising
 - > Keen interest from students for a major in data science
- ➤ Launched *Carolina Data Science Now,* a monthly seminar series in January 2022
- ➤ Developing an online Master of Applied Data Science (MADS) degree program for launch in Fall 2023
- Developing Bachelor's degree curricula in data science
- Working with industry leaders to develop strategic partnerships
- Exploring funding options for the new School
- Appointing implementation team with Academic Lead



Next Steps

Launch the School of Data Science and Society (SDSS) in Fall 2022, with internal university funds and a possible match from the state of NC

> YR1

- Appoint an Inaugural Dean, other academic leaders, governing boards; hire staff;
- Start hiring faculty joint with various other units on campus;
- Continue pursuing both donors and recurring state funding;
- Launch highly interdisciplinary, campus-wide, data science research clusters.

> YR2

- Launch the online Masters program;
- Continue planning and development of various degree programs in data science;
- Continue hiring faculty to develop and teach these courses and build out the ecosystem of data science at Carolina.

> YR3

- Launch the undergraduate majors in data science;
- Launch PhD degrees that are interdisciplinary with various domains.



Questions?

