



UNC Board of Governors

Fran O'Sullivan



IBM RTP

Largest site in NA

EVERY BU of IBM is present

Agile Central / IBM Design Studio /
The Cloud / Watson

25% < 5 years 33% > 25 years

COMMUNITY LEADERSHIP

35+ Non-Profit Boards



2015: Donated ~\$2M through
Employee Charitable Contributions

600,000+ hours volunteered since
2009



INNOVATION

11% of IBM's Patents

12 IBM Fellows (5 active), 45 DEs

60 Master Inventors

STEM Focus – K-12 Outreach

ENVIRONMENT



LEED Gold Certified Data Center

Wildlife Habitat Council:
Conservation Certification

IBM RTP recycles 82% solid waste



IBM & UNC System: Long history of partnering

COLLABORATION

- IBM University Day
- NCSU Education Collaboration Center
- Cloud Services
- Serious Gaming
- Adjunct professors / Guest lecturers



RESEARCH & TECHNOLOGY

- In-Kind Grants
- \$30M+ cash grants
- Faculty Awards
- SUR Awards
- PhD Fellowships
- Cognitive Analytics

RECRUITING

- 2,000+ IBMers
- NCSU consistently in IBM's **Top 3**
- UNCCH consistently in IBM's **Top 20**
- Diversity recruiting day

IBM Future Student Needs

T – Shaped Skills

End to End

D
E
E
P

High – Tech

- IBM Academic Initiative (AI)
- IBM Watson Analytics Academic Program (WAP)
- Watson Academic Engagement Program
- Serious Gaming
- Cloud Services
- IOT Education Roundtable
- IBM Cloud Academy
- IBM System z

Diverse STEM Graduates

- Ability to work in new ways
- Highly Collaborative
- “On Demand”
- Agile
- Entrepreneurs

Prepared to Continually Learn

- 1/2 students entering the workforce accept jobs that didn't exist when they started college
- Using technologies that haven't been invented
- “Uberization” of the industry



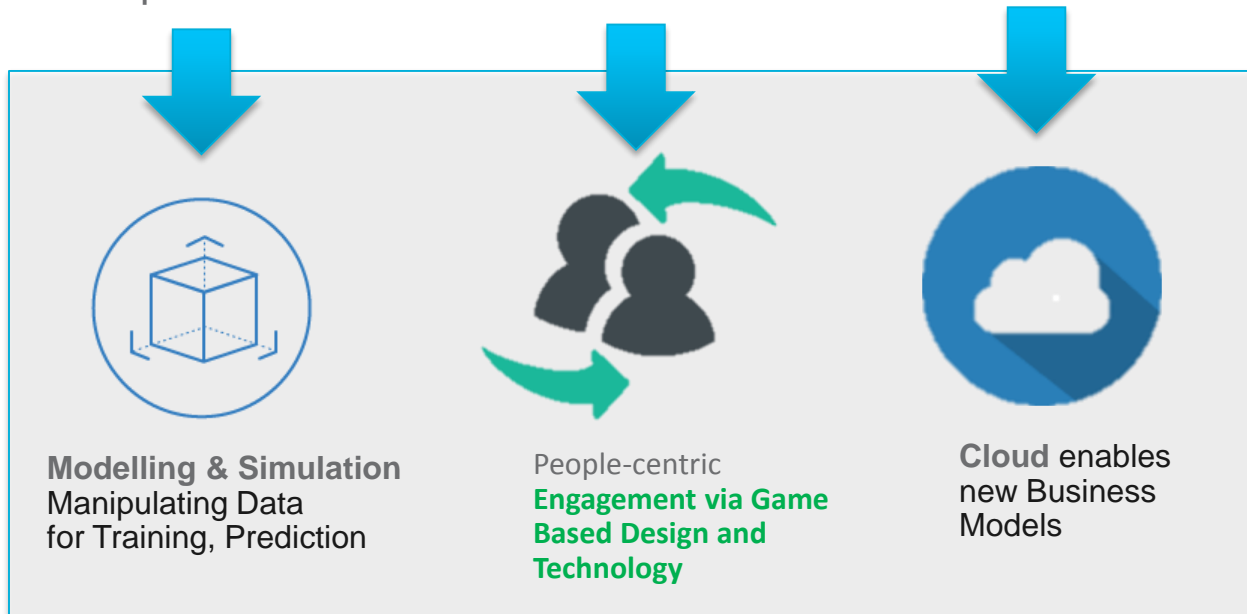
Joint Research



- Need to be creative to overcome IP challenges:
 - IBM **Open Collaboration Research (OCR)**
 - NCSU's **Secure Open Systems Initiative (SOSI)** = IBM OCR Award for 4 years
 - Apache **Virtual Computing Lab (VCL)**
 - Extreme Red / Extreme Carolina Blue / Extreme Green
- Internet2 NET+ validation testing of IBM Bluemix/SoftLayer cloud services
- John Kelly's 2009 study **Innovate, Collaborate, Accelerate: The UNC Vision for Innovation and Technology Development**
- **Offices of Technology Transfer (OTT)**
 - Relinquishment of university claims to IP generated by undergrads in some senior design and entrepreneurial classes
 - IP-free zones on campus

NC: a leader in Game Development and Cognitive People-Centric Design

- Wake County is the United States Eastern Hub for Game Development with over 35 game studios and schools that teach game design
- IBM's Global Lead for Serious Games is UNC Chapel Hill's Social Entrepreneur in Residence for 2016-17
- International Serious Play Summit @ Kenan Flagler July 25-28
- Free Motivational Design workshop at UNC September 7
(IBM, UNC School of Public Health, and UNC School of Education)
- Wake County Government Cognitive Game Design Workshop
September 16 @ IBM EBC



Alone, each of these⁶
has immense potential
**Integrated, they
change everything**

NC is IBM's WorldWide HUB for Cognitive People-Centric Design

CITIZEN ENGAGEMENT



Transforming STEM education

Participatory Budgeting

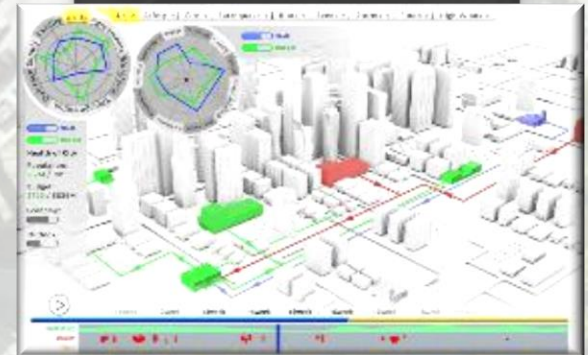
Raleigh Digital Connectors

The CUBE@ UNC

WORKFORCE TRAINING



BUILDING DYNAMIC BEST PRACTICE PLAYBOOKS



Crowd-sourced Problem Solving

Strategic Resiliency

Scenario Based Planning Tools

Ask Me Anything



Backup



IBM Academic Initiative for Cloud

Learn skills and gain experience on IBM Bluemix:

Free Trial



Build unlimited apps and access services like Watson, IoT, Big Data, and more!

No Credit Card Required



You will never get charged for unexpected overage charges.

Industry-Standards Based



Use tools built on open source standards like Docker and Cloud Foundry

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Student

More

6+ mo. free trial
Renewable account

More

Faculty

12+ mo. free trial to teach
selected courses
Renewable account

New

Student projects featured on
new Student DevCenter

New

Virtual and local Cloud
training

Researchers:

24 mo. free trial to teach
selected courses
Renewable account
26 grants & 2 researchers in
13 IICs supporting industry
research



#ibmskills

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Watson Analytics Academic Program (WAP)

- To ensure that educational institutions have access to these leading-edge technologies and can prepare their students for these opportunities, we now offer the Watson Analytics Academic Program (WAP). **This program provides no-cost use of IBM® Watson Analytics software for classroom teaching and research.***
- Put the power of analytics in the hands of students beyond the traditional Analytics degree programs. Requires no deep analytics skills or training and intended for users that want to go far beyond Excel, but don't have/need extensive data mining or programming training.
- While it's not intended to replace deep traditional analytical tools taught in school like SPSS or SAS, it's a good way to introduce predictive analytics to MBA students and non-analyst type students.



NC State Cloud Computing is powered by its Virtual Computing Laboratory technology

- VCL project development started in 2003
- NCSU production use started in 2004
- Support for both HPC & non-HPC workloads
- Awards incl. Computerworld Honors Prog. Laureate
- Currently NCSU VCL
 - is open to 30,000+ NCSU student and faculty, and 250,000 plus in NC
 - has 2,000 plus Blades in production
 - delivers over 460,000 CPU hours to general reservations (desktops, sub-clouds, classroom, etc.) annually, and over 7,000,000 HPC CPU hours.
- Number of user sites in and outside NC, e.g., NC Community College System, UNC System Universities, Virginia VCL consortium (GMU just won a significant award for its VCL), GSU, UMBC, GSU, TTP, UofSC, Southern, Cal State System, etc.

Dr. Mladen Vouk, “the father of VCL”

Professor and Head of Computer Science Department,
and Associate Vice-Provost for Information Technology

North Carolina State University, Raleigh, NC

A partnership with IBM and others, to develop a new generation of IT resources



Students

“The applications you need when you need them”



Faculty

“Go from days to hours a month of management”



University IT

“Increase efficiency by reducing redundancy”

