IBM’s Global University Programs & Regional Economic Development
www.ibm.com/university

Big Data and Analytics Education Conference
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IBM History: Over 60 Years of Collaboration with Higher Ed

1945: IBM Research born in cooperation w/ Columbia University

1951: PhD Fellowship Program launched

1983: Faculty Award Program launched

1990: First Center For Advanced Studies (CAS) opens in Toronto CA

2002: Virtual Computing Lab Initiative (VCL) created at NC State

2004: Launch of the Academic Initiative (AI) providing free IBM SW to the academic community

2006: Open Collaborative Research (OCR) award program launched

2007: IBM, RPI and State of NY form CCNI; A $100M public-private partnership

2008: Award programs innovated with introduction of Named Awards for outstanding achievers

2009: IBM Cloud Academy launched as a forum for Higher Educ to create & share cloud based technologies

2013: IBM conducts a GTO on Education

2014
IBM and Universities Worldwide – The 6 R’s or Key Imperatives

- **RESEARCH**: promoting collaborative research on grand challenges and IBM big bets
  - Via awards programs & access to IBM research

- **READINESS**: enabling skill development for the 21st century & beyond (Big Data&Analytics, Cybersecurity, etc.)
  - Via access to IBM tools, methods and course materials on the IBM Academic Initiative

- **RECRUITING**: contributing to IBM’s talent pipeline with the best and brightest skilled in areas important to IBM and our clients
  - Via PhD Fellowships, Research Intern Programs (Great Minds), Student Competitions (ACM, MTM) and partnering on existing IBM HR sponsored programs (Brand/Career Exploration Virtual Events)

- **REVENUE**: seeding and supporting sales opportunities that evolve naturally as a by-product of research engagements, regional economic development initiatives or a need for Blue Gene class computer power

- **RESPONSIBILITY**: supporting community service by providing access to IBMers’ expertise, knowledge, and talents
  - Via IBM employees sharing time & expertise w/ universities through guest lectures, judging student competitions, adjunct faculty positions, students for a smarter plant coalition, STEM outreach, mentorships, etc.

- **REGIONS**: encouraging & fostering region specific innovation ecosystem development
  - Via university based incubators (CAS), Collaborative Innovation Centers (CICs), IBM Global Entrepreneur Program & Smart Camps, Smarter Cities Challenge, regional competitions
University Programs Experience Creating Skills Programs

- Service Science – 2005
- Smarter Planet, Smarter Cities – 2009
- Business Analytics - 2010
- Data Management, Data Science – 2011
- Cyber Security – 2012
- Cloud Computing -2012
- Digital Marketing – 2013
- Cognitive Computing - 2014
Regional Economic Development: Competing for Collaborators

- Universities & Regional Economic Development Boards
  - Talent and infrastructure investments
    - More high skill, high pay jobs to boost quality-of-life
  - Regional progress & continuous improvement upward spiral
    - Smarter systems = Instrumented + Interconnected + Intelligent
  - Science of Service Systems: Nations, states, cities, universities
    - Nested, networked holistic service systems co-create value (SSME+DAPP)

- IBM Global Innovation Network
  - Foresight: IBM Innovation Centers (IICs) & Customer Briefing Centers
    - Global Technology Outlook (GTO) Report
    - Institute for Business Value (IBV) Studies
    - IBM Centers for Advanced Study (CAS)
  - IBM Global R&D and Service Delivery Centers
    - Hardware, Software, Solutions & Service R&D
    - IT Data, Call, Analytics Service Delivery Centers
6 R’s Examples

IBM and Ohio State University collaborate to boost analytics skills in State of Ohio

- Projected to create 500 new jobs and become an education and training hub for advanced data research, big data and cognitive computing
- IBM worked with Ohio’s economic development organizations - aims to benefit more than 30 regional companies in health care, financial services, government and retail.
- State of Ohio providing incentives for the center.

IBM Smarter Cities & NYU CUSP Center for Urban Science and Progress

- Big Cities + Big Data Faculty Awards
- MS in Applied Urban Science & Informatics
- Academic, Government, Industry
- NYU and NYU-Poly, Carnegie Mellon University, The City University of New York, The Indian Institute of Technology (Mumbai), The University of Toronto, The University of Warwick

IBM and Karlsruhe Institute of Technology collaborate on Service Science in Germany

- The Karlsruhe Service Research Institute at KIT (Karlsruhe Institute of Technology) aims to be the leading European research institute in the field of Service Science.
- Develop concepts, methods, and technologies relevant for innovators and decision-makers to create and capture value in an increasingly services-led economy.
- Holistic interdisciplinary approach to solve business problems along the dimensions of people, organization, information, and technology

IBM partners with State of Louisiana & City of Baton Rouge, & Louisiana State University

- Creation Of 800-Job Technology Center In Downtown Baton Rouge
- Gov. Jindal, Baton Rouge Mayor/President Kip Holden, Baton Rouge Area Foundation President and CEO John Davies, and Louisiana State University (LSU) College of Engineering Dean Richard Koubek.
- The State will provide $14 million in funding over 10 years for expanded higher-education programs designed primarily to increase the number of annual computer science graduates.
6 R’s Examples

IBM University Programs supports IBM’s Delivery Center at Brno in the Czech Republic
- IBM’s Delivery Center at Brno employs about 3,000 IT professionals and supports over 600 clients from around the world
- Best practices have been established by local University Relations personnel for internship programs that support IBM’s resourcing needs
- This local expertise is now planned to be extended and applied to the resourcing requirements of the Brno Delivery Center

IBM and University of Mauritius collaborate to boost computer skills in the Indian Ocean Islands Region off the coast of Africa
- IBM and University of Mauritius struck a academic partnership to provide technology and training resources for computer science professionals at the University
- IBM also launched an IBM Africa Technical Institute in Mauritius offering education about IBM technologies and how these solutions solve some of the challenges facing businesses and the public sector in Africa.
- IBM technical staff will provide guest lectures to students and IBM will also offer research collaboration for UM researchers

IBM UP / SWG supports IBM’s new Delivery Center in Costa Rica with faculty training
- IBM’s Delivery Center in Costa Rica opened in May with 1,200 employees & intends to hire up to 1,000 new IT professionals by 2014
- Part of IBM’s agreement includes working with 6 local universities to help build the future workforce and training them on IBM’s Cloud, Cyber Security & various other technologies
- IBM UR & SWG team members along with NC State University faculty are conducting curriculum workshops for local faculty in country to “train the trainors”. IBM is the first company to offer such a creative approach to helping establish the latest in technology skills in Costa Rica

IBM and Stellenbosch University collaborate for computer skills development in South Africa
- IBM and Stellenbosch University (SU) have partnered to open a Software Center of Excellence to assist students in building strong SW development skills
- The COE is a first-of-its-kind in South Africa including a post-graduate computer laboratory with advanced software (including Rational) to provide a full-fledged software production environment for students to hone their skills.
- The Center seeks to integrate the latest technologies into SU’s curriculum to prepare students for high-value job opportunities
Clients need solutions, innovation and skills to address challenges.