



Education for a Smarter Planet



IBM's Global University Programs & Regional Economic Development

www.ibm.com/university

Big Data and Analytics Education Conference

October 25-26, 2014

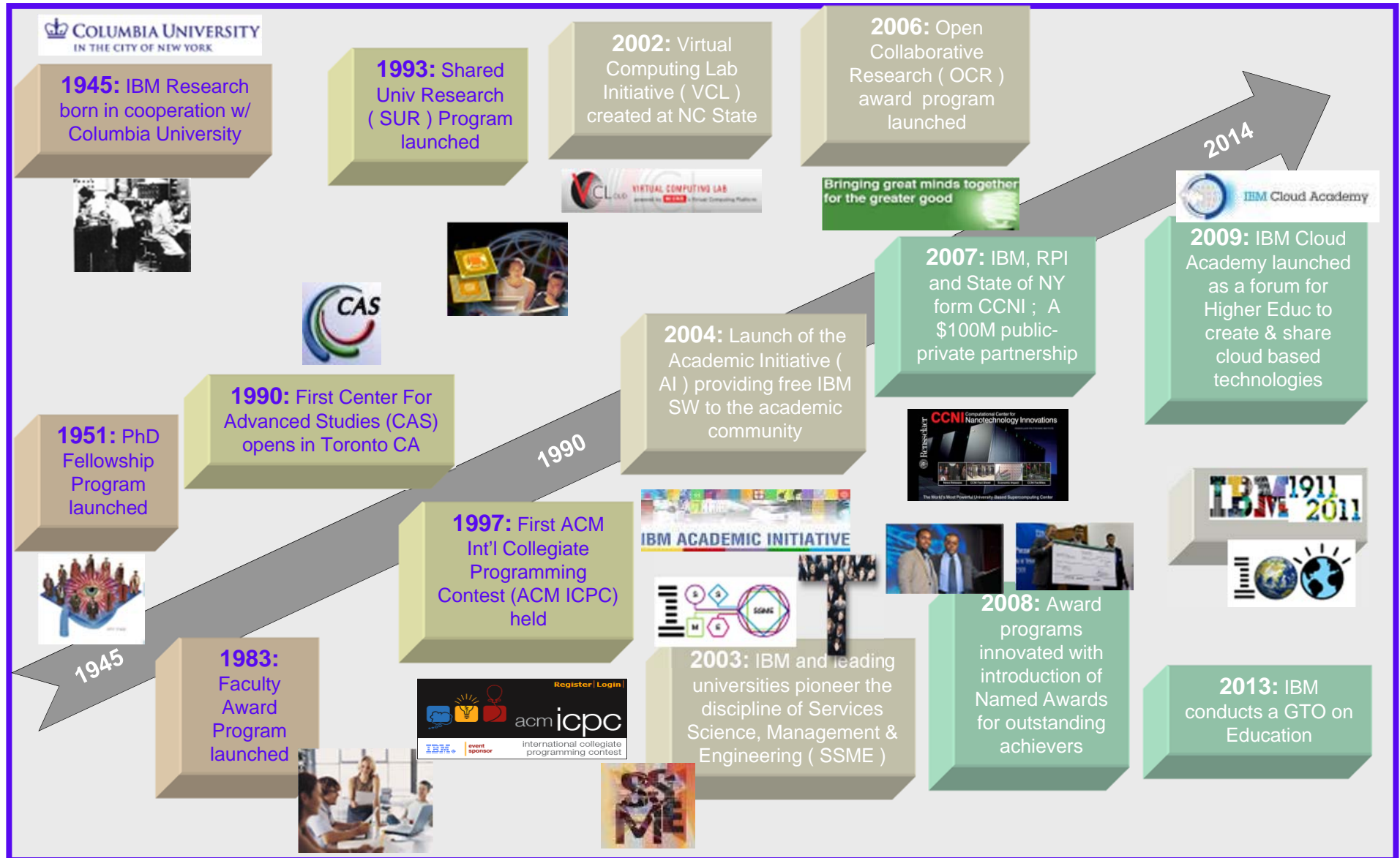
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IBM History: Over 60 Years of Collaboration with Higher Ed

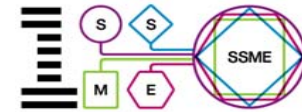


IBM and Universities Worldwide – The 6 R's or Key Imperatives

- **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**



News room > News releases >

IBM Narrows Big Data Skills Gap By Partnering With More Than 1,000 Global Universities

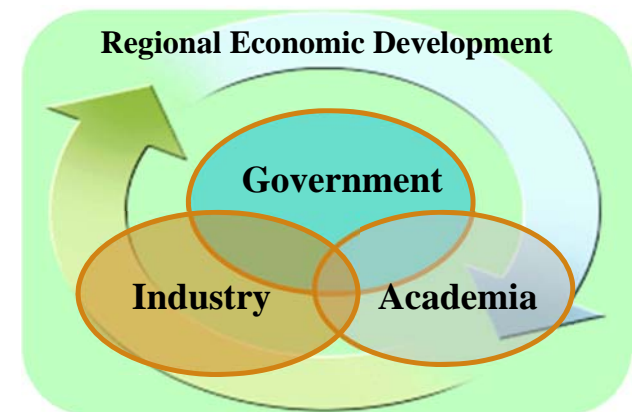
News room > News releases >

IBM Helps Bridge the Cyber Security Skills Gap by Partnering with More Than 200 Global Universities

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 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



University of Mauritius

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 **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



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 trainers". IBM is the first company to offer such a creative approach to helping establish the latest in technology skills in Costa Rica



Clients need *solutions, innovation and skills* to address challenges

