DIGITAL EMPOWERS:

ACCELERATING INNOVATION FOR BUSINESS AND SOCIAL GOOD

EVENT SUMMARY & INSIGHTS

U.S. CHAMBER OF COMMERCE FOUNDATION

TATA CONSULTANCY SERVICES

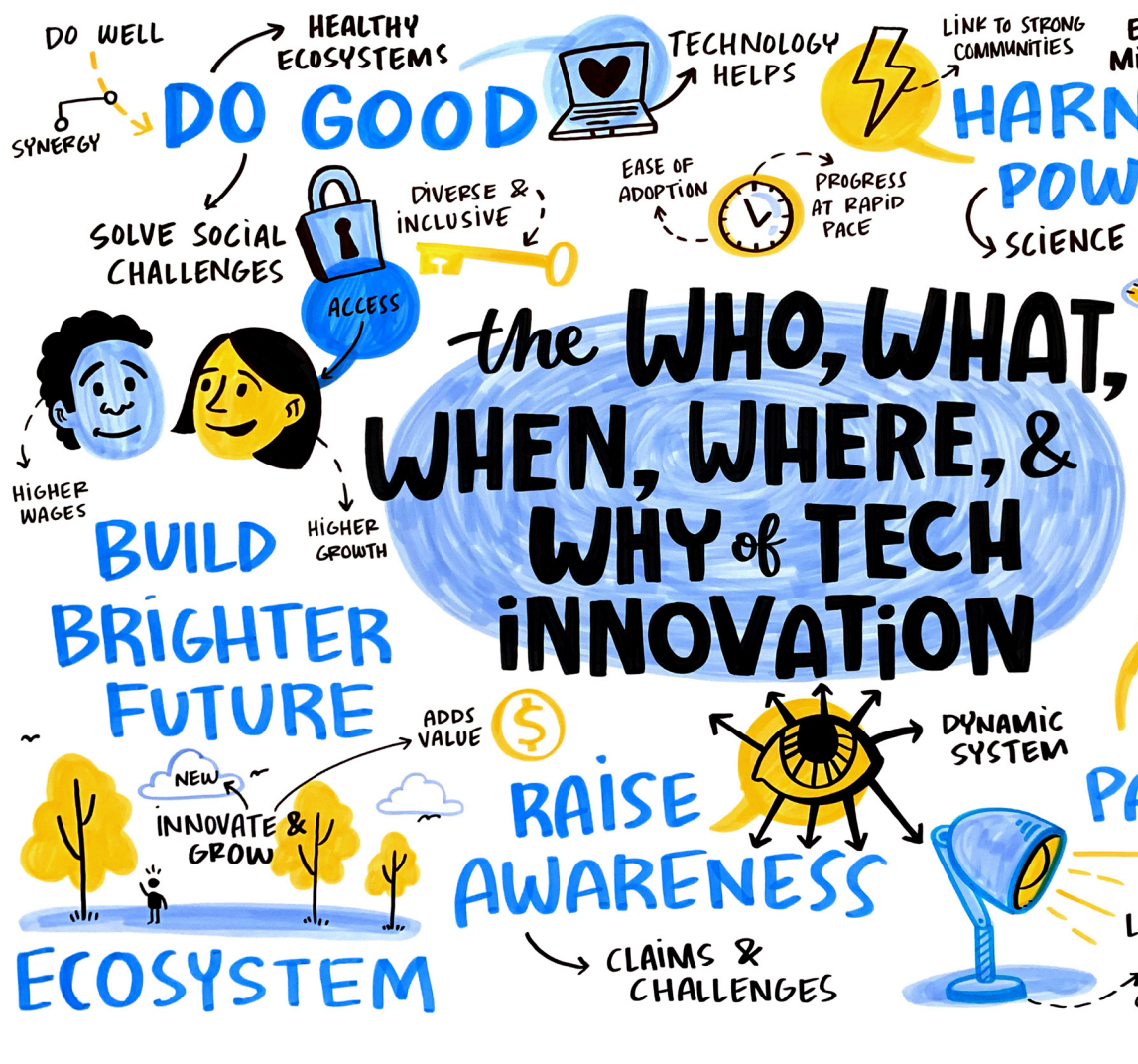CHARLOTTE, NC

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DIGITAL EMPOWERS:

Explores how cross-sector partnerships leverage technology to bring greater access and equity to individuals and communities.

On March 13, 2019, the Digital Empowers campaign held its second regional forum in Charlotte, North Carolina. The event convened government stakeholders, business and community leaders, and innovators across the Carolinas to discuss key issues concerning industry and technology. Evolving as a smart region, human-centered design ingenuity, and digital inclusion emerged as the priority areas for social impact.

Why Charlotte

Innovation happens best in a vibrant, healthy ecosystem, as in Charlotte, North Carolina's largest city. The metropolitan area ranks among the highest in the U.S. in employment grown in the tech industry. In 2018, IT employment has grown 50%, adding nearly 14,000 technology jobs. Yet the region still struggles with economic mobility—with Charlotte ranking last among the nation's 50 major cities. In response to this, organizations like the Charlotte Regional Business Alliance and the North Carolina Technology Association, Queen City Fintech, and UNC Charlotte Research and Economic Development focus their efforts on creating and supporting an ecosystem that encourages and expands opportunity, innovation, and partnerships so that everyone benefits from the solutions technology brings.

Digital Empowers Charlotte: Key Trends

BUILDING SMART REGIONS THROUGH SMART SOLUTIONS

A solution to drive access to economic opportunities in Charlotte lies in greater investments in smart telecommunications and the utilities infrastructure. Speakers discussed the importance of building a region based on technological advances that collect and utilize data to optimize resources, time, and results. One upcoming development that promises to further Charlotte's smart city evolution is an innovation and retail center created through Envision Charlotte. This public-private partnership between the city of Charlotte, Duke Energy, and other stakeholders uses technology and data to divert waste, conserve energy, and create jobs through new investments. Others, like the Charlotte Area Transit System (CATS), are leveraging data gathered from commuter patterns and usage to adjust transit options and serve unmet needs, like the CATS partnership with Lyft on a First/Last Mile program.

Companies that conduct business throughout the greater Charlotte area are also developing smart solutions to support some of the region's predominant industries: agriculture, soil, and land management. For example, mesur.io provides real-time information on soil and weather conditions so that farmers can determine opportune times for planting and harvesting crops. Still, to bring these solutions to rural communities and users, there must be access to connectivity. Google Fiber has made significant investments in the Carolina region, providing the infrastructure backbone, to enable farmers to increase yields, to monitor water usage for groundskeepers, and increase the quality of life for rural residents.

INSPIRING INTERACTION: HUMAN-CENTERED DESIGN

The way technology is designed can have a significant effect on social impact. Forum speakers discussed the industry's focus on developing holistic, human-centered technology, which puts people first—embracing human behavior and tendencies. Specifically, these innovators leverage augmented and virtual reality, mixed reality, and games to support education and workforce development, health and wellness, psychology and behavior, and institutional change.

Innovators, for instance, at RTI International use a virtual simulation that enables users to connect in real time, deliberate, and solve problems.

This reinforces the collaborative strategies critical to drive organizational missions and encourages collaboration and greater connectedness between teams. Similarly, Dixon Hughes Goodman LLP has developed a simulation exercise, incorporating soft skills and professional development lessons to build stronger teams. Design features, like avatars, are used in bias training, testing the users' preconceived notions about communication styles, appearance, and organizational hierarchy that may occur within their workplace environment and limit innovation and growth. Smart Games Systems also uses avatar-based simulations to support doctors, nurses, and midwives, who depend on collaborative decision making for positive patient outcomes.

There is great potential for these projects and programs to scale—educating employees and students, as well as saving organization's time and, often, costly resources. Finsophy has created a platform that enables companies to explore and innovate further, through empowering banking customers in the Charlotte region and beyond to invest in social and environmental projects, thereby catalyzing the impact through financial support.

PROMOTING ECONOMIC MOBILITY THROUGH DIGITAL INCLUSION

For the Carolinas, fostering greater economic prosperity is directly tied to greater digital inclusion. A two-pronged approach to digital inclusion was highlighted—create greater access to technology for those in the Charlotte region and provide them with digital literacy and skills to improve their access to jobs in the next-generation workplace and a better standard of living.

Access to education is a key tenet of digital inclusion. Goodwill Industries of the Southern Piedmont offers computer and technology education and essential skills training to people without access, bringing awareness and providing access to diverse and higher paying jobs. In 2018, more than 11,000 people were enrolled in these programs. For students in this area, Tata Consultancy Services' (TCS') GoIT program shows students how human-centered design and empathy can be harnessed to solve real-world problems. And through the company's signature program, "IgniteMyFuture in School" created in partnership with Discovery Education, computational thinking principles are taught in a way that empowers students and enables them to better understand computer science.

Mentorship is a critical complement to education in under-resourced communities to bridge this digital divide, both for its residents and the organizations that serve them. Informative Technologies works with students, school systems, and families to not only provide them with access to affordable computers through the company's E-Waste collection service but also the hands-on STEM training and skills training needed to repurpose and utilize their new devices. The region's nonprofits also find themselves lacking the capacity to serve most people in need. Organizations like Apparo work to create a vibrant, technology-enabled community through connecting nonprofits to corporate volunteers. The nonprofit receives access to IT education and training, and affordable IT solutions that they need to effectively achieve their missions. ●

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Digital Empowers Charlotte: Key Takeaways

- Innovating and establishing cross-sector partnerships in regional smart telecommunications and utility infrastructure has implications for significant development as greater access to accurate information relates to economic growth, environmental awareness, and sustainability, as well as access to continued innovation and inclusion for all.

- Cross-sector partners need to incorporate the human perspective, tendency, and need into technological design that can bring greater impact and foster stronger communities.

- The prosperity generated by technological advances will be limited if it is not paired with education and inclusion.

the WHO, WHAT, WHEN, WHERE, & WHY of TECH iNNOVATION

DO WELL → HEALTHY ECOSYSTEMS
SYNERGY
DO GOOD
TECHNOLOGY HELPS
EASE OF ADOPTION
PROGRESS AT RAPID PACE
LINK TO STRONG COMMUNITIES
ENCOURAGE MINORITIES IN TECH
HARNESS POWER
SCIENCE
GREAT PARTNERSHIP
SOLVE SOCIAL CHALLENGES
DIVERSE & INCLUSIVE
ACCESS
HIGHER WAGES
BUILD BRIGHTER FUTURE
HIGHER GROWTH
RESOURCES
CONVERSATIONS
EXPLORE ART OF THE POSSIBLE
WORK TOGETHER
ADDS VALUE
NEW
INNOVATE & GROW
RAISE AWARENESS
DYNAMIC SYSTEM
FOSTER PARTNERSHIPS
ECOSYSTEM
CLAIMS & CHALLENGES
SHINE THE LIGHT ON THEM
ASK: WHAT CAN WE DO?

BEYOND SMART CHARLOTTE:
the CONTEMPORARY CAROLINAS IMPERATIVE

GREAT PARTNERSHIPS
EMPOWER
CHALLENGE THE STATUS QUO
ASK HARD QUESTIONS
NUDGE
AUGMENT
WHAT WILL YOU UNLEARN?
REINVENT
CREATE IMPACT
RIGHT LEVEL
EFFICIENT
UNBIASED
SUSTAINABLE
CORE VALUE
OPPORTUNITY & VISIBILITY
SOLVE
REALLY CARE
SAFE SPACE
GROW WITH MEANINGFUL PARTNERSHIPS
VALUE
ANALYZE FOR OPPORTUNITIES
INNOVATION
COMES FROM A NEED
INTERACT FOR FEEDBACK
OPEN TO CHANGES
ADDRESS GAPS
CONTEXT
ACCESS
TOOLS & iNSIGHTS
PLUG IN
GET IT CORRECT
OUTSIDE HEALTH SYSTEMS
DIVERSE NEEDS
AUTONOMOUS VEHICLES
U PLAN FOR FUTURE
TECHNOLOGY IS FOUNDATIONAL
MACHINE LEARNING
DESIGN THINKING
DATA MATTERS HERE
SEAMLESS
MOBILITY OPTIONS
BUSINESS TRANSFORMATION
iNNOVATiNG WELLNESS
NOT MAGIC!
RUN ASSETS SMARTER
BLOCKCHAIN
CENSORS
POWER OF DATA
REDEFINING HOW WE WORK
MORE EFFECTIVE
PROVIDE BETTER SERVICE

WHAT'S ON THE HORIZON?
GAMIFICATION & SOCIAL IMPACT

GO VIRTUALLY
ENGAGING
QUEST FOR HUMAN-CENTRIC DESIGN
PULL AWAY FROM SYSTEM
BANKS
COMPLETELY TRANSFORM
DNA HASN'T CHANGED
MORE ETHOS
GAME-BASED ONBOARDING
METAPHORS FOR CHANGE
BEYOND USABILITY
CUSTOMERS RADICALLY CHANGING
NEW ECOSYSTEMS
SPACE
INFLUENCE TECHNOLOGY DESIGN
CYBERPHYSICAL DESIGN
FIX SKILLS GAP
LEARNING BENEFITS
EMBODIED INTERACTION
CURIOSITY
EPIC WIN
THINK DIFFERENTLY
MOTIVATING CONTENT
MEET NEEDS
GAMING INFLUENCE
THINK BETTER WITH HANDS
INSPIRING INTERACTION
DIGITAL FOCUS
COGNITIVE RELEVANCE
RELATED TO STUDENT ACHIEVEMENT STEM
STUDENT-CENTRIC
NOTHING COMES CLOSE
DRAW INSIGHTS
BLENDING WITH REAL WORLD
SAFE PLACE TO TAKE RISKS
REINVENT
EDUCATION
FASTER & MORE ACCURATE SOLUTIONS
LEVERAGES RESOURCES
FOCUSED & CHALLENGING
GONNA HAPPEN QUICKLY
STORY
PLAYER AGENCY
CONNECT DOTS
NEW CONNECTIONS
CONNECT
the RISK-TAKERS: PUSHING INDUSTRY LIMITS
COMMUNICATE & CONSUME HOW YOU WANT
SOCIAL
PREPARE

PROMOTING SOCIOECONOMIC MOBILITY THROUGH DIGITAL INCLUSION

DIGITAL SKILLS
AMPLIFY
START THE CONVERSATION
STRATEGICALLY ADDRESS ISSUES
FUNDS
MAXIMIZE SKILLS
ESSENTIAL
SEEDING ENVIRONMENT
INCREASE COMPETITION
THOUGHT LEADERSHIP
NAVIGATE TECHNOLOGY DIVIDE
INTENTIONS
ONLY DONE WITH PARTNERS
TESTED PROCESS
OUT-OF-BOX THINKING
VALUE
FUEL THAT DRIVE OUR MISSION
TECHNOLOGY TRAINING
ANYTHING IS POSSIBLE MOVING FORWARD
the iNCLUSIVE iNNOVATION OPPORTUNITY
DIGITAL EMPOWERS US, CALL TO ACTION
OPPORTUNITY FOR UPWARD MOBILITY
FUNDAMENTAL SKILLS
GIVE BACK
CONNECT NEEDS
VISIBILITY & EXPOSURE
MOST IMPORTANT PIECE
BUSINESS PLAN
STUPID SIMPLE
ENGAGEMENTS
INCLUSION LENS
MENTORING
EXPERTS
CRITICAL
KNOW IF WE'RE WINNING
KNOW IF OFF TRACK
MOST POWERFUL
ABLE TO DELIVER
ACCESS GOES WAY BEYOND
SOFTWARE
WANT TO BUY
USE EVERY DAY
SELL THE IDEA
INCENTIVIZE
INNOVATION ABILITIES
REACH OUT
PICKING COMMUNITY PARTNERS
WORK TOGETHER
WORK LOCALLY

ink factory
you talk. we draw. it's awesome.

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