# Code4GoodPBC: Bridging the Gap between Innovation and Philanthropy

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A hackathon in Palm Beach County, Florida, helped solve organizational and health-access challenges by bringing together the local tech and nonprofit sectors.

he promise of technology looms large in the private sector yet solutions to benefit individuals seeking the services of a nonprofit agency aren't usually at the forefront of development. Nonetheless, according to the National Center for Charitable Statistics, more than 1.5 million US nonprofits work daily to improve the lives of the people they serve (nccs.urban.org/data-statistics/quick-facts-about-non profits). Quantum Foundation (www.quantumfnd.org), a private foundation in Palm Beach County, Florida, funds initiatives that improve the health of local communities. At Quantum, we posed the question of how to create change in the county's vast health system, especially when many of our small nonprofit partners are barely keeping their heads above water. Our answer was to host a hackathon: Code4GoodPBC (code4goodpbc.org).

The goal of Code4GoodPBC was to allow local social entrepreneurs, engineers, software designers, high school and college students, and businesses to engage directly with Palm Beach County nonprofits to develop applications that solve pressing organizational and health-access challenges unique to the county. Along with Florida Atlantic University (FAU) Tech Runway (www.fau.edu/research/tech-runway), a public-private business accelerator, and medical technology company Modernizing Medicine (www.modmed.com), both based in Boca Raton, Florida, we structured a two-day hackathon at FAU Tech Runway in March 2015 to create techbased solutions. The partnership of our three organizations, which operate in different business, academic, and philanthropic spheres, was vital; each brought its own network of agencies and individuals to the table to solve such challenges as homelessness, mental health, hunger, and lack of health insurance.

#### **THE NONPROFITS**

Each of the five participating nonprofits presented well-defined challenges that served as the catalyst for

### CHALLENGE-BASED LEARNING



**FIGURE 1.** Hackathon teams work on their challenges. (Photo by Nicholas Mohnacky, Mohnacky Marketing.)



FIGURE 2. Ideation and creation of solutions. (Photo by Nicholas Mohnacky, Mohnacky Marketing.)

effective solutions. These issues could relate to the organizations' internal operations or more broadly to their work in the community. We measured the success of a proposed application by the degree to which it furthered the mission of both the Quantum Foundation and the respective nonprofit.

Challenges included the following:

All of our healthcare providers are volunteers. Without the volunteers, there wouldn't be a free medical and eye clinic in West Palm Beach for the uninsured. We've recently lost volunteer physicians, optometrists, nurses, and administrators because we couldn't track or manage their schedules properly. We'd like to find a solution to better manage, track, engage, and recruit volunteers.

> We receive 119 referrals per week for mental health services through the intake department. These referrals are often incomplete, lacking the necessary information needed to begin client services. The result is a delay in treatment for the client. How can we move clients through the referral process faster so that they can receive services in a timely manner?

> Forty percent of the nation's entire food supply goes to waste every year. Consumers spend twice as much on food they waste (in the neighborhood of \$140 billion) as the government spends on the entire Supplemental Nutrition Assistance Program (which provides food stamps.) Palm Beach County suffers from a 15-percent food insecurity rate—a condition related to the supply of food and to individuals' access to it. How can we connect food donors with excess food to food-recipient agencies so that food can be distributed to an agency that feeds hungry families?

At the event's opening on 28 March, the nonprofits presented their challenge and answered questions from the teams. All attended the following day for the teams' presentation of solutions.

#### **THE TEAMS**

Thirteen teams comprised of 55 participants total, 40 of whom were software developers or programmers, presented solutions to a panel of five judges—local tech and nonprofit company leaders—on 29 March. Most participants were in their late teens to early 20s, and their youthful fervor permeated the event. Empowered and motivated by the social challenges at hand, the participants were especially driven to see their skills used to

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develop solutions for concrete problems in their community—in contrast to similar events that typically exhibit "pie in the sky" ideas that might never be brought to fruition.

Code4GoodPBC had the added advantage of directly connecting the local technology and nonprofit sectors, exposing younger, tech-oriented minds to the challenges that nonprofits face daily and to the impact a techbased solution can have on the lives of the people they serve. Although Palm Beach County is regarded as a wealthy area, many marginalized and at-risk individuals live here as well. Channeling millennials' enthusiasm and social consciousness through technology innovators like FAU Tech Runway and Modernizing Medicine doesn't often happen in south Florida. Figures 1 and 2 show the teams hard at work creating solutions to their respective challenges.

Coaxing tech-savvy folks away from their own projects to participate in the event required significant effort and incentives. The "flake-out rate" was rather high, so we advise organizers of similar events to aim for twice as many participants as they want to actually attend. Another word of advice: the word *hackathon* might have negative connotations for some, so it's important to communicate what exactly will be "hacked."

#### THE SOLUTIONS

The solutions proposed were practical and directly impacted the participating nonprofits' ability to further their missions. The top three winning teams were awarded \$5,000, \$3,000, and \$2,000, respectively seed money to turn their idea into a functioning application or website for use by local nonprofits.



**FIGURE 3.** The winning team, Tech Garage, developed the F.R.E.S.H (Food Recovery Exchange to Stop Hunger) app that connects food donors with organizations that feed the hungry. (Photo by Nicholas Mohnacky, Mohnacky Marketing.)

The first-place winner, Tech Garage (see Figure 3), came up with the idea of an app that connects food donors with organizations that distribute that food to the hungry. The F.R.E.S.H (Food Recovery Exchange to Stop Hunger) app is being tested with both food donors and recipient nonprofits.

Palm Beach County nonprofits retain user rights to any solutions developed and built as part of the hackathon. But we quickly realized the fallacy of assuming "if you build it, they will come." The majority of the nonprofits had nowhere near the resources, expertise, or commitment required to integrate new technology into their daily operations, even if the potential for immediate impact was clear. This realization was humbling for Quantum Foundation. Even with the time, money, and energy initially invested, it proved a strain to implement any of the proposed solutions. Fortunately, because of a few new partnerships

formed through the effort, Quantum Foundation is working with others on several new solutions.

tilizing the hackathon as a challenge-based platform for innovation can serve the philanthropic community well. One major outcome of this process that continues to pay dividends was the development of a network of individuals and organizations who are now long-term partners in the mission to improve community health.

