

UC2B Community Informatics Day of Discovery

8:30-2:45 Saturday April 27, 2019 in IS 126, 501 E. Daniel, Champaign, Illinois
The University of Illinois at Urbana Champaign School of Information Sciences
Livestream, chat, and more at <http://go.illinois.edu/discovery>

From 2008 to 2013, Champaign-Urbana built high speed internet across the area, and it continues to roll out. The federal-local project was named UC2B. Listening to local activists, UC2B also established a Community Benefit Fund to overcome digital disparities and discuss progress annually with the public. The fund is now completing one year of grantmaking. (For more on this grantmaking see page 12.) April 27 is the report-out.

This event takes place in a context. We need a small amount of money to make a big impact. And we need to know how community-wide digital literacy work intersects with the current policy drive for “smart communities” driven by “big data.” (For instance see the Boston Smart City Playbook on pages 10-11.)

Speakers today include leaders in digital literacy work—funded by UC2B and others, from C-U and from Seattle—and leaders in smart communities and big data. Each speaker will address two questions, helped by a responsive audience of policy-makers and activists, scholars and students, and interested others:

- 1. What exciting digital equity or smart city work is going on?**
- 2. Where would you like all this to go?**

Please help us host a frank, lively, and productive day of discovery. Thank you for coming.

Kate Williams, Associate Professor, University of Illinois
Mike Smeltzer, UC2B chair



Day of Discovery online

Visit <http://go.illinois.edu/discovery> for the livestream and online chat during our sessions. Video will be archived at the same location. If you do not want to be on camera, let the cameraperson know at the start of the session.

Our warmest thank yous



This event benefits from discussions with planning committee members Abdul Alkalimat, Brian Bell, Jason Berg, Connie Dillard, Paul Hixson, Landi Najarro, Tracy Smith, and Kate Williams. Hosting support comes from the iSchool, especially Brynnen Owen, Tad Schroeder, and Dianne Tellschow. Videography, streaming, and

archiving are carried out by the event media team at the University of Illinois Center for Innovation in Teaching and Learning. Julian Chieh-Li Chin helps with event logistics. And we warmly thank UC2B and US Ignite for covering expenses.

How Seattle and Illinois define the digital divide: Access + Literacy + Content + Support

Access: Can you get to the network, the tools, the software, the code?

Literacy: Do you have the knowledge and skills to use them?

Content: Can you do things that matter to you with what's online, what's digital?

Support: Do you know people who will help you, since we all need help sometimes?

This definition emerged from the work of the **City of Seattle** and the Community Informatics Research Lab at the **University of Illinois**. Use it widely!

Saturday, April 27, 8:30-2:45

8:30 — Continental breakfast

9-10:30

Opening session: Why are we here? The example of Seattle

Mike Smeltzer, chair of UC2B

Paul Hixson, outgoing chair of the UC2B Community Benefit Awards Program

Keynote: **David Keyes**, Digital Equity Manager, City of Seattle

Q and A

Break—Coffee, tea, fruit, granola bars

10:45-11:45

Janice Mitchell, Urbana Neighborhood Connections Center

Donna Pittman, Director, Champaign Public Library

Mark Toalson, Information Technologies Director, City of Champaign

Ajaita Saini and Mackenzie Kirkham of the winning student team from the recent civic challenge HackIllinois

Chair: **Kate Williams**, iSchool, University of Illinois

Lunch—Sandwiches and chips

12:30-1:20

Marlon Mitchell, Founder, First Followers Prisoner ReEntry, with **Khayriyah Mitchell**

Jacob Johnston, Age-Friendly Program Coordinator, Urbana Park District & Clark Lindsey Village

Alice Delage, Program Manager and Community Liaison, Midwest Big Data Hub, National Center for Supercomputing Applications, University of Illinois

Chair: **Kandace Turner**, Assistant Director for Economic Development and Innovation, University of Illinois

Break—Coffee, tea, fruit, granola bars

1:35-2:25

Zoë Foote, Immigrant Services Coordinator, University YMCA

Amanda Standerfer, Director of Development and Promotion, Urbana Free Library

Sanford Hess, IT Director, City of Urbana

Chair: **Abdul Alkalimat**, African American Studies / iSchool (emeritus), University of Illinois

2:25-2:45

Closing session: Reflections on the day / Key takeaways with **David Keyes** and **Mike Smeltzer**

Keynote, panelists, chairs, and organizers

Abdul Alkalimat began to help guide UC2B as it became a below ground-above ground double grant proposal to the Department of Commerce in 2009. "Above ground" evolved into the Community Benefit Fund thanks to his and others' community organizing. He is now a professor emeritus working on his bucket list, with his last manuscript being *The History of Black Studies* and the current one *The Future of Black Studies*, both from Northwestern University Press.



Jason Berg, the incoming chair of UC2B's Community Benefit Awards Committee, is president of Pixo, an Urbana web design/software development consultancy. As his bio there puts it, "When not advocating for clients and the Pixo team, Jason is either in the kitchen cooking with his amazing wife, mixing up obscure cocktails, helping lead a smallish church, catering for friends (occasionally), or trying to keep up with his three incredible college age daughters."

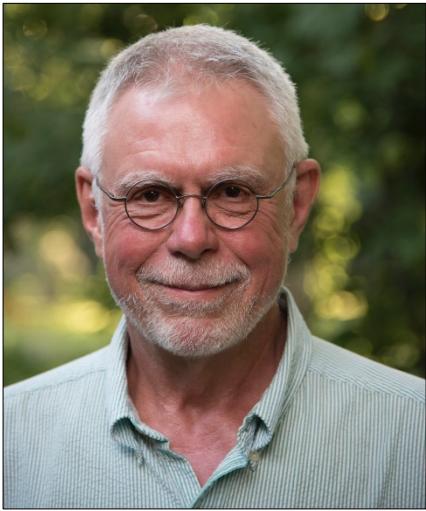
Chieh-Li "Julian" Chin is a Research Manager at the School of Information Sciences (iSchool) at the University of Illinois. She is also a Data Analyst at the Social Research and Technology Innovation Lab at Technology Services @ UIUC. Julian has served as the Tech Leader for the Urbana-Champaign Smart Gigabit Community project, which is a subaward from the National Science Foundation through US Ignite. She has a B.S. in Business Administration, an M.S. in Library and Information Science, and a Master's in Computer Science. Her research is in the area of using information technology in complicated settings to support communication. She is interested in conducting human factors study to improve communication in healthcare, investigating relationships between intent and adoption for broadband and smart



technologies, building sustainable smart community ecosystem to enhance digital literacy, digital inclusion, and digital equity in community, developing user-friendly application for social network data analysis, and creating educational resources for researchers to comply with data ethics and regulations in research practices.



Alice Delage is Program Management & Community Liaison at the Midwest Big Data Hub, where she helps coordinate and manage activities and events to build the regional community, in particular under the Hub's Smart, Connected and Resilient Communities priority area. The rest of her time is spent as a Project Manager at the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign, where the MBDH is based.



Paul Hixson is on the UC2B Board of Directors and served as the Chair of the UC2B Community Benefit Awards Program in 2018. Hixson is officially retired from the University of Illinois having served 41 years in the College of ACES and then 3 years as campus CIO – although he is currently working on a 3-year research project with the USAID-funded Soybean Innovation Lab to improve internet connectivity for agricultural research institutions in Sub-Saharan Africa.

Urbana is a forward-thinking City that does all that it can with the limited funding available. As

the IT Director, **Sanford Hess** is responsible both for the strategic use of technology and also for the day-to-day operations that support critical operations.



The Age-Friendly Program Coordinator is a collaborative position between the Urbana Park District and Clark-Lindsey designed to empower older adults through the use of technology, community programming, and social support. **Jacob Johnston's** professional interests include adult education, technology advocacy, fun and social programming, and smart home solutions.

David Keyes works at the intersection of information and communications technologies, civic engagement, equity, and community capacity building. He directed the City of Seattle's community technology programs for 19 years and was the first community technology planner in the country. He is currently the City's Digital Equity Program Manager. In 2016, David

received the inaugural Charles Benton Digital Equity Champion Award from the National Digital Inclusion Alliance and the Benton Foundation. At the City of Seattle, he started their Technology Matching Fund grant program, the Technology Access & Adoption community indicators, public Wi-Fi projects, and Digital Equity Initiative strategy. David has served on state broadband planning task forces, and a national IMLS and NDIA working groups to develop the national digital inclusion framework and definitions. He has presented at a wide range of conferences and served on numerous broadband and digital inclusion advisory boards. Prior to the City of Seattle, David worked in community media, educational tv, and online course development. David taught video art in Tasmania and still juggles occasionally. He is originally from Milwaukee, WI, and is a graduate of Antioch College and the University of Washington's Evans School of Public Affairs.



Mackenzie Kirkham is a sophomore studying computer science at the University of Illinois at Urbana Champaign and is a research student at the Social Research & Technology Innovation Lab. She's passionate about civic technology, data science, product design, and helping the community. She is working on finding disparities in flooding and sewage related issues based on pockets of segregation in Urbana-Champaign. Her team's goal is to develop sustainable solutions that will not only detect flooding but also increase equity.



Born in Natchitoches, Louisiana, **Janice Mitchell** earned a B.S. in social work from Southern University and an M.A. in social work from the University of Chicago. She served in the U.S. Army Reserves as Commander of the Urbana-based 378th Chemical Company. She has long been very involved as a community organizer, including as Urbana School District Parent and Community Outreach Liaison, with special interests in improving the academic social-emotional and behavioral performance of African American children. In 2010 Janice's prayers and vision of establishing a neighborhood center came into fruition when Urbana Neighborhood Connections Center, Inc. opened its doors to provide year-round services and supports to children and families. In partnership with the Housing Authority of Champaign County, along with additional support from the City of Urbana, Urbana School District, the United Way of Champaign County; and countless others, an unused portion of a warehouse is now a viable human service facility at 1401 East Main Street in Urbana. "For unto whomsoever much is given, of him shall be much required." (St. Luke 12:48b)

Khayriyah Mitchell is a junior at Champaign Centennial High School. In the summer of 2018, she co-facilitated an eight-week coding camp at Urbana's Neighborhood Connection Center.

Marlon Mitchell is a 5th year PhD student at the University of Illinois at Urbana-Champaign with undergrad degrees in Computer Science and Engineering. He founded FirstFollowers which is a non-profit organization that provides services for individual who have been formerly incarcerated or involved with the criminal justice system. In the summer of 2018 he co-facilitated series of a Lego Robotic workshops at DREAM Academy's summer camp.





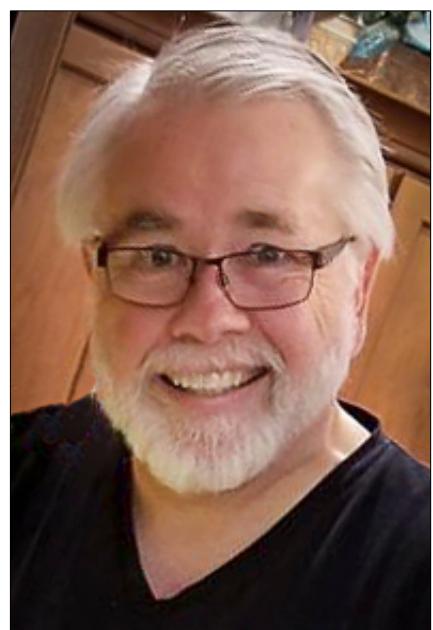
Donna Pittman has been the Director of the Champaign Public Library since 2016. She has spent most of her 35-year career in librarianship at Champaign Public Library where she also served as Head of Outreach Services, Development Director and Interim Director.

Ajaita Saini is a sophomore studying computer science and statistics and a research student at the Social Research & Technology Innovation Lab and at the Data Driven Design group. Her project focuses on finding disparities in flooding and sewage related issues caused by the demographics of Champaign-Urbana neighborhoods, and she hopes to collaborate with community members, public officials, and policy makers to create infrastructure solutions that build empathy and equity in our town.

She is also the 2019-2020 Vice President of Outreach for Design for America at Illinois and has recently worked on projects that tackle food insecurity on college campuses and assist senior citizens with chronic conditions using the principles of augmented reality to make healthcare more accessible. She values technology that recognizes the importance of the principles of design thinking and strives to create responsibly designed innovations for social issues on a large scale.



Amanda E. Standerfer is the Director of Development & Promotion for The Urbana Free Library. She's spent about half of her career working in philanthropy (as Program Officer for The Lumpkin Family Foundation based in Mattoon, IL and as Program Director with the Southeastern Illinois Community Foundation, serving Effingham and Mattoon, IL) and the other half in libraries, as Head of the Adult Division at the Decatur Public Library and as Director of the Helen Matthes Library in Effingham. Amanda has twice been elected to the Board of the Illinois Library Association, most recently completing a three-year term in 2016. Amanda holds a B.A. and an M.A. in history from Eastern Illinois University and an M.S. in library and information science from the University of Illinois at Urbana-Champaign.

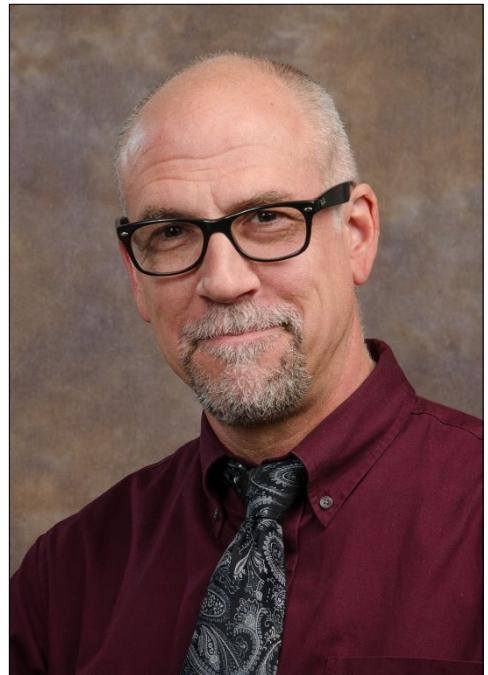


Mike Smeltzer is the retired Director of Networking at the University of Illinois and the current chair of the UC2B NFP Board of Directors. He was the principal investigator (and instigator) for the federal and state grants that built the UC2B fiber-optic network.

Mark Toalson has been the IT Director at the City of Champaign since 2012. Besides overseeing the City's computer network and telecom systems, Mark has been investigating smart city technologies that may benefit the City.



Kandace Turner works in the Office of the Vice President for Economic Development and Innovation for the University of Illinois System. In her role she assists with the overall operation of the office and also supports the creation of the Illinois Innovation Network (IIN). She is currently pursuing a master's degree in information management from the iSchool at the University of Illinois at Urbana-Champaign.



Kate Williams is an associate professor at the University of Illinois iSchool who cofounded the Community Informatics Research Lab with Abdul Alkalimat. She has been studying and working with local community groups on the digital divide for 25 years, currently through a 22-partner project to study digital literacy and provide tech help among a variety of populations in nine countries.



Seattle's Road Map to Connecting Everyone

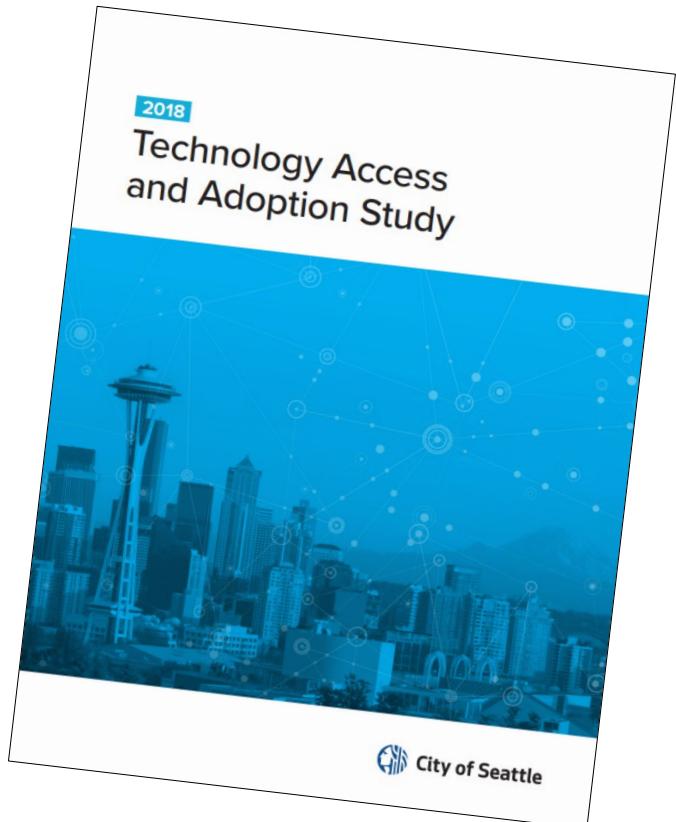
Excerpts from a December 2018 article "Road Map to Connecting the Under-connected" by David Keyes, Digital Equity Program Manager, City of Seattle and Amina Fazlullah, Mozilla Fellow 2018. Full article at <https://tinyurl.com/dkarticle>. Image is the latest of two decades of studies and reports from Seattle, available at <https://tinyurl.com/dkstudy>.

Here are some observations and suggestions for framing, enacting, and collectively furthering digital inclusion policy. [...]

Government has a role as a convener & participant, but not a singular responsibility. As investors and shepherds of public interest, governments have the capacity to convene experts and stakeholders to identify needs and muster resources to solve digital inclusion problems. Other institutions, companies, or organizations often partner or lead the establishment of digital inclusion collaborations at the local, regional, state or national levels. [...]

Digital inclusion planning and policy should be intentional, and also nurtured. Seattle had the foresight in 1996 to create the first digital inclusion planner position in the country. Portland, D.C., Austin and other cities have followed suit. The planner can help the city focus their educational digital inclusion initiatives, planning and implementation. Find out who is the person or team responsible for digital inclusion planning in your city. Educate and encourage these champions. [...] In addition to broadband, a digital equity lens should be applied to smart cities initiatives and other public technology arenas of open data, smart cities, Internet of Things (IoT), public engagement and privacy and security where there are public interfaces, engagement, and data.

Build community capacity and work with trusted ambassadors. Those from and in the communities with digitally disadvantaged residents are the experts on their needs and bring the best strategies for delivering services. Seattle's Technology Matching Fund (TMF) and Austin's similar Community Technology Opportunity Program (CTOP) funding model enable partnerships with those culturally competent trusted ambassadors closest to the communities we're trying to serve. In trying to scale, some investors and programs have not done due diligence in involving and funding the smaller organizations and representatives who could help ensure program success. There is a risk, but also an opportunity to collaborate and support these organizations in a way that develops their capacity to deliver services and helps cities, universities and other collaborators learn from and share expertise. [...]



Boston Smart City Playbook

From <https://tinyurl.com/bostonsmartcity>. A living draft from the Mayor's Office of New Urban Mechanics.

The age of the “Smart City” is upon us! It’s just that we don’t really know what that means. Or, at least, not yet.

So far, many “Smart City” pilot projects that we’ve undertaken here in Boston have ended with a glossy presentation, and a collective shrug. Nobody’s really known what to do next, or how the technology and data might lead to new or improved services.

We want to change that. We address this playbook to the technology companies, scientists, researchers, journalists, and activists that make up the “Smart City” community. In return for heeding this advice, we commit that we, the City of Boston, will not sit in City Hall and complain about the lack of solutions to our problems. We promise to get out into the City, find ways to help you pilot new ideas, and be honest with our feedback.

Our goal is to create a City-wide strategy for the use of sensor technologies that is people-centered, problem-driven, and responsible. We need your help to get there.

Play 1: Stop sending sales people. We’ve got nothing against sales people. Many of us have sold things. But we’re getting calls every day from “IoT” vendors and we’re really tired of talking to your sales teams. We don’t even know why or how we’d use your product. You might think that your technology is ready for prime-time, but we’re not ready to buy it and put it up all over Boston. At some point, we’ll know what we need and we’ll need someone to talk to about dollars and cents, feature roadmaps, etc. Right now, in 2016, there are much bigger questions unanswered.

Play 2: Solve real problems for real people. This sounds like such a cliché. But we can’t help feeling like this keeps getting lost. We’re happy if you have a technology for us to use internally, something that’ll make a City department’s work easier. But we’d be even happier if you were solving problems for residents. Talk to people on the street, talk to local businesses, talk to artists, talk to architects and planners, talk to advocacy groups—and talk to them before you call us. Show us that you’ve met them, thought about their interaction with the City, and designed around their needs and experiences.

When we day-dream about Boston’s use of sensors, we imagine a city in which residents could check sensors out of the Boston Public Library and use them to answer their own questions. That way, they’d only be used by real people to answer real questions or solve real problems. That sounds far-fetched, but it’s the kind of thing that we’re aspiring to.

Play 3: Don't worship efficiency. We live in a world—and in a city—of finite resources and infinite need. Spending taxpayers’ money as efficiently as possible is critical to making government work. At the same time, focusing on “efficiency” assumes that we’ve already figured out what services to deliver to residents, and now just have to make it all cheaper. That’s unfortunately not the case.

As a city, we’re continually examining what services we could deliver to residents and how we might fit into

their lives. It's why we built the Boston 311 application; why we undertook a year-long research and design

process for the new Boston.gov website; and why we launched the "Where's My Bus" application for parents of Boston public school students. We could go on. We're really, really proud to be at the cutting edge of civic technology and civic innovation here in Boston. But we're at that cutting edge because we're continually re-thinking what government means to people, not just trying to make it cheaper.

So help us out. Be creative. Tell us about how we can make government more beautiful, more delightful, more emotionally resonant, more thoughtful, and more pleasurable to interact with—not just cheaper.

Play 4: Better decisions, not (just) better data.

When a new smart city technology is pitched, the costs that the City has to bear are immediate. The benefits, though, are way out in the future. They're framed in terms like, "the money you'll save when you can optimize the routes of Public Works employees" or "the money you'll save from delivering a City service only to those who need it."

The problem is that those benefits are nebulous and really hard to achieve. They require behavior change—and, sometimes, policy changes—on the part of some other person or department. And behavior change that is dynamic, based on the output and analysis of some data that they didn't necessarily collect. We're really far away from knowing how to affect that sort of behavior change within City government. And that's why, so far, most smart city pilot projects have ended with Powerpoint presentations of data.

Play 5: Platforms make us go ^_(ツ)_/^-.

Over at theclevercity.net, Ross Atkin writes: "The Smart City is a top-down all or nothing proposition. We can start building the Clever City bottom-up with one lamppost, bus stop or parking space (and of course one problem). Maybe one day we will join up all the individual Clever City services and will have a Smart City. Maybe we never will, but the Clever City can make a real difference to people's lives right now."

It's too early for platforms. We don't know what kinds of sensors we'll use in Boston over the next 10 years, who will build them, what technical standards they'll adhere to, and where they'll go. We also don't know how they'll be networked, where they'll store data, and who they'll serve it to. As a City, we're not in the business of making bets on what technology standards will prevail. (It's why we're working with the National Institute for Standards & Technology as part of our work.) Until those standards are clear and until we have a better idea of the technical landscape, we don't need or want a "smart city platform."

Play 6: Towards a "public" privacy policy.

Sensors aren't new—the Boston Police Department monitors video cameras around the City and the MBTA uses GPS-trackers to sense the location of its trains and buses. But as and when the City starts to use them more frequently and for less obvious use-cases, there will be a sharp focus on our data collection and data management practices. Especially as those use-cases start to generate personally identifiable information (PII) that's collected passively and in the public domain.

Our internal guidance is to collect as little data as possible to solve a particular problem. The truth is, we don't know exactly what that'll mean in the case of sensors and smart cities. We're working with the ACLU, our legal counsel, and our Department of Innovation & Technology to craft a privacy policy for the use of urban sensors. So this is another area where we could use the help. Tell us what data you're collecting; how you're scrubbing it of PII before transmitting it; where and how you're storing the rest of it; and what you're doing to protect people's privacy.

Urbana-Champaign Big Broadband (UC2B) announces first Community Benefit Fund Allocations (Jan 2018)

Urbana-Champaign -- UC2B, the local not-for-profit organization representing both cities and the University of Illinois that helped bring fiber optic internet connectivity to Champaign-Urbana has announced their first round of awards from the Community Benefit Fund. A total of \$112,668 to 11 local applicants has been granted for programs that are aimed at addressing problems of digital access and digital equity for low-and-moderate (LMI) income residents in CU.

Speaking on behalf of UC2B, Board Chair Charlie Smyth stated, "Getting the Community Benefit Fund up and running has always been a major goal of the Board. We received excellent help and support from the local community in evaluating and launching this 2018 Awards Program and those folks deserve many thanks. We had fantastic responses and great programming ideas from the local organizations that applied." Paul Hixson, UC2B Board member and chair of the CBF committee noted, "Unsurprisingly, the needs in our community far outweigh the resources of our Community Benefit Fund".

Within the group of 11 award winners, there was considerable variety in the types of programs supported by these new grants. Three awards will be going to support community computer labs sponsored by neighborhood churches in LMI areas. Two awards are for programs aimed at preparing LMI youth for a future in IT, one award was won by a prisoner re-entry education program, two awards will help programs for immigrants and refugees in our community, one award will help a housing complex for LMI residents provide shared wireless access to residents, and two projects will help provide needed IT services to medical programs that serve LMI clients.

The winners for 2018 are: St. Luke CME Church (\$6,300), New Hope Academy (\$11,770), Champaign Church of the Brethren (\$16,497), Urbana Neighborhood Connections Center (\$24,410), Ghetto Genius (\$12,343), First Followers (\$16,490), University YMCA New American Welcome Center (\$14,058), ECIRMAC – The Refugee Center (\$2,000), Homestead Apartments (\$1,200), Promise HealthCare (\$3,600), and Avicenna Community Health Center (\$4,000).

The idea for the UC2B Community Benefit Program originated from suggestions that first surfaced in the local Black community in 2009 in a series of grassroots meetings aimed at exploring how new IT capabilities might empower those within lower income communities to improve their own situation. That original concept was carried forward by the founders of the UC2B non-profit organization and funded by contributions from UC2B's private buildout partner (originally iTV3, and now, i3Broadband). Mr. Smyth concluded by stating that "now that this has finally gotten off the ground, we are pleased to announce that this will be just the first year out of many for the annual awards program".

About UC2B

UC2B is a not-for-profit organization created by the Cities of Urbana and Champaign and the University of Illinois to oversee the UC2B fiber optic network throughout the community. UC2B started as an intergovernmental consortium in 2010 to build and operate the UC2B fiber-optic network using federal and state grants with local matching funds. For more information about UC2B, visit www.uc2b.net or contact Paul Hixson at hixson@uc2b.net or Charlie Smyth at smyth@uc2b.net

About i3 Broadband

i3 Broadband is UC2B's private partner that provides TV, Voice and Internet services through UC2B's 100% fiber optic network and is in charge of building out additional connections to individual homes throughout the Champaign-Urbana community. For more information, visit i3broadband.com or call 877-976-0711.