

2022-2023

ANNUAL REPORT



Fox School of Business

a message from

THE EXECUTIVE DIRECTOR



The Institute for Business and Information Technology (IBIT) engages with its industry partners and advisory board led by Bruce Fadem, to generate knowledge and human capital for the digital era.

IBIT's endowed Digital Innovation Foundry had a productive year investigating the entrepreneurial potential of immersive applications, digitally transforming the tracking of pharmaceutical products, and digital transforming the peer-to-peer car buying and selling market.

DIF also hosted an international workshop on spatial strategy for the next generation internet featuring board members Raghu Sankaran (CIO, Scholastic) and Vince Ford (SVP, Curtis Institute) as well as a carefully selected mix of accomplished academics and practitioners.

We are thrilled this year to honor Dr. Barbara "Bobbi" Kurshan, Greg Meyers, and Karthik K. Sridharan at the 21st Annual IT Awards.

IBIT's Information Systems Job Index report, established in 2013, continued to produce important insights on the entry IT labor market in 2022-2023. Consistent with IBIT's focus on IT workforce, the forthcoming case about how Meta digitally transformed its workforce features board member Atish Banerjea (CIO, Meta).

Read about Jignesh Patel (SVP, AmerisourceBergen) and Vince Ford (SVP, Curtis Institute), both dynamic new board members who are blazing new paths in their respective organizations and in engaging with academia.

We are grateful for your continued support and look forward to continuing the path to impacting business and society this coming year.

A handwritten signature in black ink that reads "Munir Mandviwalla". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Munir Mandviwalla

Executive Director

Institute for Business and Information Technology

ibit

ADVISORY BOARD



The Advisory Board and industry partners engage with IBIT to generate knowledge and human capital for the digital era. The board is chaired by **Bruce Fadem**, retired VP and CIO, Wyeth. The board has the following goals and responsibilities:

**Education + Research + Fund Raising + Professional Development
+ Careers + Promotion of the School**



**Andrea
Anania Stewart**
Retired EVP & CIO
CIGNA



**Atish
Banerjea**
CIO
Meta



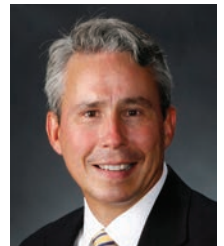
**Sondra
Barbour**
Member, Board of
Directors
AGCO & Perspecta



**Satbir
Bedi**
Advisor



**Himesh
Bhise**
Advisor



**Michael
Bradshaw**
CIO
Kyndryl



**Jonathan A.
Brassington**
Advisor



**Chris
Cera**
CEO
Arcweb Technologies



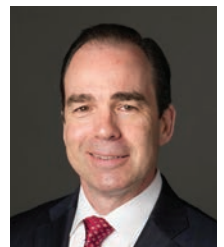
**Dinesh
Desai**
Chairman & CEO
**DARR Global
Holdings, Inc.**



**Larry
Dignan**
Editor-in-Chief
**Constellation
Insights**



**Vince
Ford**
SVP
**Curtis Institute
of Music**



**Jeff
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Pfizer Digital



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**Charles River
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**Jignesh
Patel**
SVP
AmerisourceBergen



**Niraj
Patel**
CIO
Greystone



**Raghu
Sankaran**
CIO & CISO
Scholastic, Inc.



2022-2023

AT A GLANCE

BY THE NUMBERS

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THE DIGITAL INNOVATION
FOUNDRY WORKED ON
4 PROJECTS
LAST YEAR

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THE IBIT MENTORSHIP
PROGRAM MATCHED
16 INDUSTRY EXECUTIVES
TO
36 STUDENTS
FROM ACROSS THE UNIVERSITY

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\$29,500 IN **IBIT SCHOLARSHIPS**
AWARDED TO STUDENTS

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HOSTED
**THE NEXT
GENERATION
INTERNET:**
THE ROLE OF METAVERSEs, AR,
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HOSTED THE
**21ST ANNUAL
IT AWARDS**
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AWARDED THE
DIGITAL INNOVATION AWARD

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IBIT PARTNERS

IBIT offers its industry partners the opportunity to leverage our knowledge, human capital, relationships, and established network. The benefits include:

- + Commission projects involving world class faculty and students as part of the Digital Innovation Foundry.
- + Featured in published case studies.
- + Customized corporate education and professional training programs.
- + Featured roles at workshops such as The next generation internet: The role of metaverses, AR, VR, MR, and digital twins
- + Featured in national projects such as the Information Systems Job Index.
- + Professional development opportunities include speaking in class and engaging in curriculum design.
- + Assistance with recruiting, including the option to hold special recruiting events
- + Featured in national or local competitions such as the Analytics Challenge
- + Mentor students as part of the IBIT Mentoring program.
- + Present named scholarships to students.
- + Visibility on campus and in the profession – partners are showcased on all materials.
- + Selected executives are invited to serve as Executives-in-Residence.
- + Selected qualified individuals may be invited to serve on the IBIT advisory board.
- + Featured at the IT awards, an annual celebration and evening of recognition.

IBIT offers partnership opportunities for large and medium-sized firms, as well as a special program for small firms. Learn more at ibit.temple.edu/partners/

meet our PARTNERS

IBIT partners impact student development through mentoring, experiential projects, scholarships, and curriculum feedback. Partners engage with IBIT affiliated faculty to generate new knowledge in forums and projects.



board member SPOTLIGHT

AmerisourceBergen SVP Jignesh Patel, *IBIT Advisory Board Member*



JIGNESH PATEL

SVP, AmerisourceBergen

Jignesh Patel has a wide-ranging, dual IT role at global healthcare company AmerisourceBergen. As Senior Vice President, he is responsible for the technology for all back-office functions, and he oversees enterprise data and analytics.

Ask Patel what motivates him each day, and he has a quick reply:

"Problem-solving for the business. That is what's most important. A saying I have with my teams is 'Fall in love with the problem, not the solution.' Because the solution can change all the time."

This approach is informed by Patel's two decades in IT across multiple industries, including the financial sector with Vanguard and Goldman Sachs. Throughout his career, he has focused on skills building and professional agility.

"I didn't stick to one thing. I've worked across IT operations, IT strategy, IT delivery, and data analytics."

In the last year, he led a full back-end integration of a large European healthcare products company that AmerisourceBergen acquired, while continuing to drive digital transformation. For example, his teams create the tools, technologies, and platforms all business areas use for data analytics.

"Data is the lifeblood of our company, data drives decisions and insights."

Joining the IT Advisory Board in 2022 was a natural fit, given Patel's lifelong commitment to learning. He has an engineering degree and an MBA, and he still enrolls in an executive program every few years. He appreciates how IBIT connects the corporate world and academia and welcomes the opportunity to build relationships with Temple students.

"Getting fresh ideas and thoughts from people who are unencumbered with years of experience is beneficial. Part of the DNA of being a senior leader is that you're expected to develop junior talent. I am excited to work with the next generation of talent and help them think through what they need to do to be successful."

board member SPOTLIGHT

Curtis Institute of Music SVP Vince Ford, *IBIT Advisory Board Member*



VINCE FORD

SVP, Curtis Institute of Music

Vince Ford is a trained musician, but these days he focuses less on his French horn and more on using innovation and technology to engage and excite audiences.

At the Curtis Institute of Music, a private conservatory for gifted young musicians in Philadelphia, Ford produces digital content, capturing hundreds of student recitals and orchestra concerts each year. He also oversees the classroom and administration technology. Previously, he worked at the New York Philharmonic and the Atlanta Symphony Orchestra.

Ford brought an MBA and decades of experience in software, dotcom startups, digital marketing, and data analytics into arts administration with a specific goal in mind:

"I understand what it means for people to have access to great music and to experience live performance, and the role that institutions like Curtis play in their communities. I want to use the technology and media available to us today to expand our reach and make us more successful and sustainable."

According to Ford, the pandemic accelerated the performing arts sector's integration of digital media. In Spring 2022, Curtis's Performance Innovation Lab (Ford serves as Executive Director) premiered an ambitious multimedia production called "Immersive Scheherazade," in which projections of a recorded orchestra were paired with live musicians.

Ford first heard about IBIT while pursuing his Doctorate in Business at Temple University. Since joining the IT Advisory Board in 2021, Ford says:

"discussions with fellow Board members have expanded my thinking and my range of reference for technology."

His eclectic career path serves him well when mentoring Temple students.

"I didn't start with the idea of a specific technology. My career has been about finding a field I want to work in, and then bringing technology into that space. Having those types of conversations with them and watching some light up has been amazing," he says. The students are ambitious, and they're committed to doing the work and preparing themselves."

IBIT IMPACT

IBIT *engages* with industry and the Advisory Board to develop *knowledge* and *talent* for the digital era. IBIT integrates industry perspectives with academic expertise to create best practice forums engaging faculty and students from all of Temple University.

Practitioners and affiliated faculty and students benefit from the latest industry insights, standard-setting forums, and valuable connections that IBIT facilitates.

IBIT develops talent for the digital era by supporting promising students with awards and scholarships, and faculty and practitioners in symposiums that generate and disseminate insights.

The Digital Innovation Foundry (DIF) leverages the academic research prowess of Temple University to assess, integrate, and prototype digital technologies. DIF generates digital innovation, entrepreneurship, and best practices.

Partnering with leading universities and industry, IBIT generates IT workforce knowledge and solutions to develop the next generation of digital professionals.

IBIT engages the entire Temple University community and renowned industry executives at the most innovative corporations in the world.

Learn more about how IBIT meaningfully impacts students, faculty, and industry at ibit.temple.edu.

digitally transforming peer-to-peer car BUYING AND SELLING

Yousif Memon's (CST '17) passion for cars has transformed into an app that is transforming peer-to-peer purchasing of automobiles.



Kuaay began in 2020 when Memon returned to Temple University for Techstars' "Startup Weekend." He, along with Keenan Hawekotte, won the competition for their pitch which evolved into Kuaay – a peer-to-peer car buying platform.

Since then, according to Memon, "We've added payment transfer, DMV docs for all 50 states, VIN check, vehicle valuation tools, and shipping to the app. That means the next time I go out to buy a car, my phone is all I need. No more paper and pens, no waiting for the bank to open, and no begging friends and family for rides. I can get the car home and register right on my phone."

IBIT's Digital Innovation Foundry (DIF) connected with Kuaay through their entry into Temple's Idea Competition. DIF's initial goal was to assist Kuaay on implementation and platform architecture. DIF brought in **Stephen Hullender**, now a recent Temple Computer Science graduate (CST'22), to lead the implementation of a key enabler for Kuaay – notary capabilities.



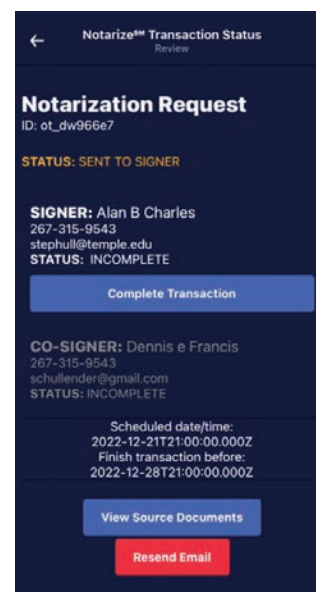
From top: Yousif Memon,
Stephen Hullender

Now, Hullender has expanded his role into design and navigation and developing algorithms to ease transactions between two parties, especially across state lines. He says, "Learning how a mobile app works and contributing to the app's development improved my confidence. I was able to obtain a wide breadth of knowledge in software development and architecting a solution."

Memon notes, "We came out of the gate solving niche problems for real people and are on the way to solve bigger problems for even more people by digitizing the entire purchase, shipping, and registration cycle associated with peer-to-peer car buying." Memon added that "DIF support and platform architecture guidance has been invaluable in helping us move forward."

Manoj Chacko, Associate Director, IBIT, who manages the DIF – Kuaay relationship including providing advice on platform architecture, notes, "Kuaay has the potential to completely digitize and simplify the way someone sells or purchases a used car across state lines."

Going forward, DIF is expanding its relationship with Kuaay into business mentoring and researching the used car buying market.



Screenshot showing the Kuaay app

case studies

2023

Cases published by IBIT affiliated faculty generate practical knowledge on important topics such as digital transformation, innovation, IT workforce, analytics, and artificial intelligence.

Intended to fill critical gaps in existing knowledge, the cases provide relevant insights to highlight the rapid evolution of digitalization, and how firms adapt and evolve. Cases also provide the content to train the next generation workforce and influence scholarly research.

META: DIGITALLY TRANSFORMING WORKFORCE MANAGEMENT AT SCALE AND WITH AGILITY

Munir Mandviwalla, Laurel Miller, and Larry Dignan. Harvard Business Publishing and Ivey Publishing, forthcoming 2023.

In March 2020, the pandemic put a full stop to in-person onboarding at Meta Platforms Inc. (Meta), formerly Facebook. During a leadership meeting, Atish Banerjee, who was hired as chief information officer in 2016 from NBCUniversal, was tasked with restarting the process of onboarding new employees into the firm and simultaneously supporting the pivot to remote work. It was clear to Banerjee that the future growth and prosperity of Meta was dependent on talent and digitally enabling current workers. Following the leadership meeting, Banerjee assembled a team to rewire Meta's onboarding and employee experience processes. Until that point, all of Meta's focus—and Banerjee's mandate—had been on enhancing in-person work. Banerjee and his team had to quickly lead Meta's pivot to remote onboarding and remote work around the world at scale.

Given the above, Banerjee wondered how his unit, Enterprise Engineering, would respond to the new challenges. Could the team really change the firm's behavior in a very short time? More importantly, how would all this work fit within the unit's agile culture?

Published or In-Progress Cases

ALEXION: DIGITAL CO-INNOVATION ACCELERATES THE APPLICATION OF ANALYTICS

Larry Dignan, Laurel Miller, and Munir Mandviwalla. Harvard Business Publishing W28560-PDF-ENG, Ivey Publishing, Case W28560, February 2023.

Learn how George Llado co-innovated with startups to rapidly set up a big data analytics platform to increase sales.

EMTEC: CULTURE AND CO-INNOVATION AS THE UPSTREAM FUTURE FOR MIDMARKET FIRMS

Munir Mandviwalla, Larry Dignan, Laurel Miller, and Bertrand Guillotin.

Learn how Dinesh Desai and Sunil Misra grew Emtec, Inc., a mid-market digital services and reseller firm, by co-innovating digital solutions with customers.

THE DIGITAL TRANSFORMATION OF SCHOLASTIC, INC

Larry Dignan, Munir Mandviwalla, and Laurel Miller.

Learn how Raghu Sankaran and Satbir Bedi led the digital transformation of the world's largest publisher of children's books.

executives IN RESIDENCE

The **IBIT Executive in Residence** program facilitates mutually beneficial engagement and collaboration between select industry leaders and Temple University.



Jeff Hamilton
Senior Vice President
Pfizer Digital
Appointed 2017



Michael Bradshaw
CIO
Kyndryl
Appointed 2017



Dale Danilewitz
Retired EVP & CIO
AmerisourceBergen
Appointed 2016



Atish Banerjea
CIO
Meta
Appointed 2015



Ben Hasan
SVP & Chief Culture, Diversity,
Equity & Inclusion Officer
Walmart
Appointed 2014



Sondra Barbour
Member, Board of Directors
AGCO Corporation & Perspecta
Appointed 2010

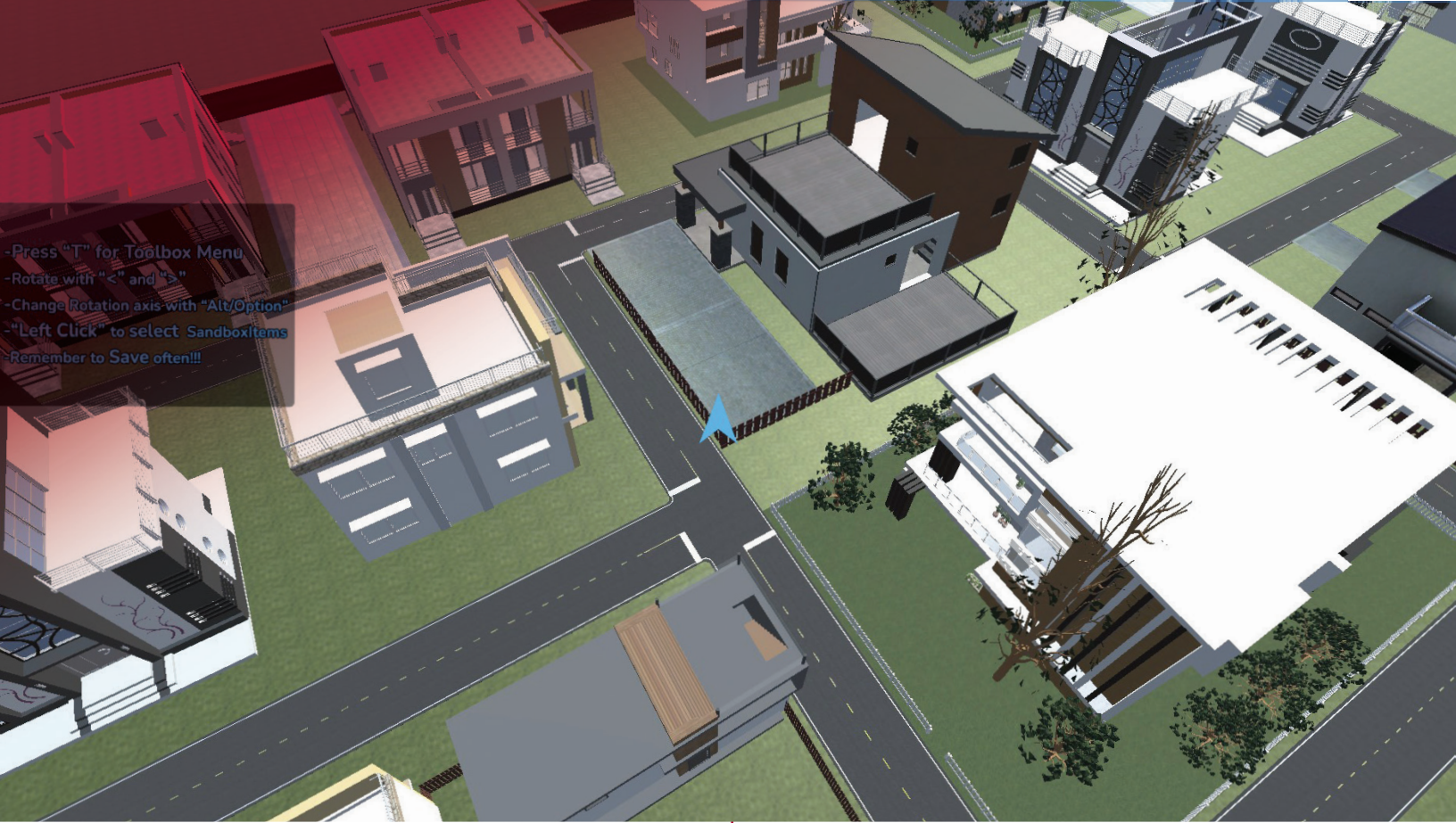


Niraj Patel
CIO
Greystone
Appointed 2011

2022-2023 board meeting topics

**THE IT ADVISORY BOARD ADDRESSED A WIDE RANGE OF SUBJECTS
DURING THE YEAR INCLUDING:**

- + What should an IS major look like in the future?
- + Digital Innovation Foundry projects
- + IS Job index
- + IT Awards



investigating the entrepreneurial potential of IMMERSIVE APPLICATIONS

Ethan Berg wants to help people build new worlds — professional-quality immersive, 3D spaces and experiences — without any coding skills. Berg (FOX '20) is the CEO and co-founder of the startup Agora World Inc which offers a drag and drop no-code design space to create spaces for the metaverse.

Berg and Agora won Temple's Idea Competition in 2021 as well as the Digital Innovation Award from the Digital Innovation Foundry (DIF), which included access to talent and resources. Today, Agora's no-code platform accommodates users of all experience levels, from professional designers to those with minimal design background, making it an accessible solution for creating professional-quality 3D content and immersive social experiences," Berg says. "What used to take a team, investment, and months to create now can be created quickly with no code." Berg quickly saw the value of DIF talent and resources, to "study this space and get a better understanding of where we're headed and where we can go."



Top left: Ethan Berg, Top right: Druvakumar Valugubelly,
Bottom left: Mitchel Zilbershteyn, Bottom right: Solon Moreira

Over six months in 2022, the DIF team of **Druvakumar Valugubelly** (FOX MIS '22) and **Mitchel Zilbershteyn** (FOX MIS '24) supervised by **Solon Moreira**, Assistant Professor of Strategy and Entrepreneurship applied Agora's platform to explore commercial metaverse applications.

Moreira's DIF team applied design science research to prototype solutions for three different business problems. The goal was to investigate applications with entrepreneurial potential that are technically and practically feasible for companies. And identify the requirements and resources that companies will need to enact an entrepreneurial metaverse strategy.

The team built three prototype spaces a mall, a neighborhood, and an outdoor concert venue. Visitors to these spaces might shop, go house hunting, or attend a music festival. Moreira explains that a real estate agent could use the neighborhood space to showcase homes in a planned development. Before the foundation of a new house is even poured, a potential buyer could look at the view from "their" balcony. "It was exciting for the Temple team to be part of something that will dramatically change and shape the world of business," Moreira says.

The team presented Berg with valuable feedback, and he was impressed by the "amazing" spaces they built. Valugubelly says he enjoyed the chance to work with LiDAR 3D scanning for the Agora project. "This project helped me better understand how software iteration and testing work," he adds. Zilbershteyn, says that DIF provides "a valuable connection to industry experts, and the opportunity to engage with professors on research." "As we continue to evolve, collaborating with the DIF team has provided valuable insights, helping us refine our platform and better serve the diverse needs of our users," Berg says.

The DIF project also generated new research. Moreira worked with Executive Director and Professor **Munir Mandviwalla** on a manuscript – "Exploring Entrepreneurship in the Metaverse: Design Requirements and Resources" – which has been accepted at the 18th International Conference on Design Science Research in Information Systems and Technology (DESRIST 2023). Going forward, DIF is collaborating with Agora on additional research and is hosting an integrated industry-research workshop on the business application of metaverses, AR, VR, MR, and digital twins.



digitally transforming the tracking of PHARMACEUTICAL PRODUCTS AT AMERISOURCEBERGEN

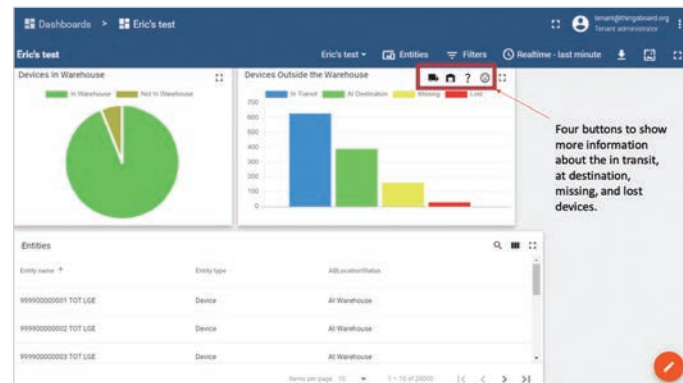
Every day, healthcare solutions leader **AmerisourceBergen** (a Fortune 10 company) ships pharmaceutical products and treatments to customers such as pharmacies and hospitals.

Each shipment leaves from one of the company's state-of-the-art distribution centers in totes. The totes are durable and designed to be reused – but there was currently no process in place to track what happened to the empty totes after initial use.

AmerisourceBergen leaders asked Temple University's Institute for Business and Information Technology (IBIT) to investigate the problem. A project team of Temple professors and students took up the challenge at IBIT's endowed Digital Innovation Foundry (DIF). DIF is a hub for assessing, integrating, and prototyping digital technologies. For six months in 2022, the Temple team reviewed the literature, researched the problem, and prototyped alternate solutions considering both traditional and out-of-box ideas.

Among the millions of shipments daily, the team at Temple thought there could be an opportunity to consider an enhanced tracking methodology. The AB team, led by **Pablo Mora** and **Dharmesh Patel**, were open to ideas for improving tracking – but they asked the DIF team to keep in mind cost considerations, reliability, usability, integration with existing systems. In addition, the solution should take into account any change management and the impact it may have on processes for team members.

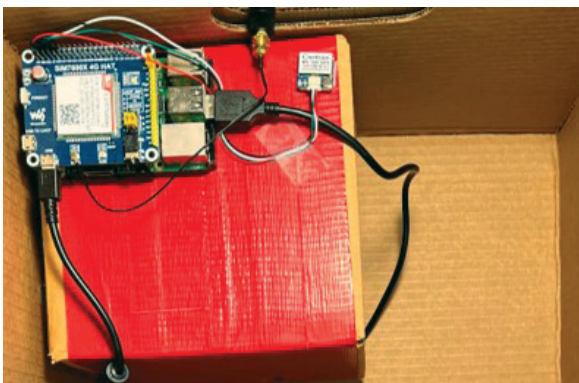
At DIF, students **Russell Abernethy**, a computer science major in the Department of Computer and Information Sciences, and **Eric Wolfe**, a junior in the Mechanical Engineering Department, assessed software, wireless technology, and networking. They were guided by two faculty members, **Jeremy Shafer**, Assistant Professor in Management Information Systems, and **Yan Wang**, Assistant Professor in Computer and Information Sciences.



Abernethy and Wang researched location sensitive IOT (Internet of Things) devices. Shafer and Wolfe researched platforms to interface with the IOT devices, integrate the IOT generated data, and provide a tracking dashboard. Their proposed digital solution prototype is an innovative mix of Bluetooth IOT tags, and single board tiny low-cost computers integrated into an open-source platform. The team assessed the feasibility of their prototype by turning their world into a simulated supply chain. Abernethy rode his bike around campus with the sensors. Shafer used the family van to drive them around in a cardboard box.

Their final presentation and solution earned praise for its visual and analytics capabilities from AmerisourceBergen during an October presentation at their headquarters in Conshohocken, Pennsylvania, which also included AmerisourceBergen team members **Dharmesh Patel**, **Pablo Mora**, **Venkat Nadimuthu**, and **Tanmay Bandyopadhyay**. Patel, Mora, and Nadimuthu had regularly met with the Temple team to provide a sounding board and feedback since the start of the project.

"Their research and the solution were great," said Bandyopadhyay. "They thought through the design end to end." He says his colleagues are keen to explore how to take the idea further. The Temple students are just as optimistic. Wolfe says AmerisourceBergen's "positive response was very encouraging." And Abernethy notes that collaboration was key. "Both sides were very willing to share ideas and critiques," he says.



Through the **Digital Innovation Foundry**, students and faculty connect to industry to engage in real-world problem-solving, research, and experimentation. IBIT industry partners get access to Temple's research and expertise.

Bandyopadhyay sees the benefits. "The work was relevant and useful. We are often heads down into our day-to-day operations, and so greatly benefited from a new perspective that our partnership with the Digital Innovation Foundry brought" he says, noting that the DIF team brought fresh perspective to the tote tracking question. "The professors are in touch with the latest and the greatest. The students are smart, and they can produce wonders in short time."

Learn more about DIF at:
<https://ibit.temple.edu/DIF>





spatial strategy in the NEXT GENERATION INTERNET

IBIT's Digital Innovation Foundry organized a research workshop on **"Next Generation Internet: Metaverses, AR, VR, MR, and Digital Twins"** on April 28, 2023, in Philadelphia to investigate use cases, design, and enterprise goals.

The workshop, which included a carefully selected mix of accomplished academics and practitioners, generated a nuanced view of immersive spaces that goes beyond headsets to consider spatial strategy.

The participants discussed and debated the following key questions in the context of spatial strategy:

- + How can organizations **envision** appropriate opportunities?
- + How will organizations **source** capabilities?
- + How will organizations measure the **impact** of engagement and experience?
- + What are the **implications** for current and new business models?

As a result, the workshop generated new ideas and insights on topics such as:

TALENT

How will we train entrepreneurs, designers, and programmers to think in more than 2 dimensions and imagine new realities where appropriate?

TOOLS

What tools are needed to create content for multidimensional worlds? How will we embed programming inside objects?

ECOSYSTEMS & MODELS

Will we need new markets and associated platforms to source objects? What kinds of standards are needed?

MANAGEMENT

What are the appropriate governance mechanisms? What are the sharing and licensing mechanisms?

The workshop followed a highly participative model including short presentations followed by collaborative feedback sessions involving all the participants.

Academic participants included: Simon Cho (Temple), Philip Dames (Temple), Yogesh Dwivedi (Swansea University), Blake Ives (College of Charleston), Sirkka Jarvenpaa (University of Texas, Austin), Munir Mandviwalla (co-chair, Temple), Solon Moreira (Temple), Pavankumar Mulgund (University of Memphis), Ilias Pappas (co-chair, University of Agder), Sofia Papavaslopoulou (Norwegian University of Science & Technology), Matti Rossi (Aalto University), David Schuff (Temple), Ozgur Turetken (Ryerson University), and Yajiong (Lucky) Xue (East Carolina University).

Industry participants included: Himesh Bhise (LLR Partners), Vince Ford (Curtis Institute of Music), Pablo Mora (AmerisourceBergen), Yehonatan Tamir (Meta), Brian Tebin (Corning, Inc.), Raghushri Sankaran (Scholastic, Inc.), and David Woodson (KPMG).



many thanks to our
workshop sponsors





21st annual IT AWARDS

Temple University's Institute for Business and Information Technology (IBIT) honored three exceptional technology leaders, **Dr. Barbara “Bobbi” Kurshan, Gregory S. Meyers,** and **Karthik K. Sridharan,** at its 21st Annual Information Technology Awards.

This premier exclusive event, held Thursday, May 4, 2023, in Philadelphia, brought together an elite group of technology leaders, innovators and disruptors for an engaging evening of discussion about the rapidly changing digital landscape and how we prepare for the road ahead.

The evening spotlighted IBIT's three honorees for 2023 who shared their expertise and vision with the attendees through keynote presentations.

Dr. Barbara "Bobbi" Kurshan, Board Member of American Public Education, Inc., received the **2023 Information Technology Innovator Award**. Dr. Kurshan, co-author of "InnovateHERs - Why Purpose-Driven Entrepreneurial Women Rise to the Top," has honed her vision of "what can be" using technology while supporting education companies and developing innovative products. She currently serves as a Senior Innovation Advisor at the Graduate School of Education at the University of Pennsylvania where she builds and advises education innovation ecosystems and co-directs the global certificate in Innovation and Entrepreneurship.

Bobbi's keynote focused on "Innovation and Entrepreneurship, Synergistic But Not Synonymous."

Gregory S. Meyers, Chief Technology and Digital Officer at Bristol Myers Squibb, received the **2023 Information Technology Leader Award**. As a key leader at one of the world's largest pharmaceutical companies, Meyers is responsible for the company's digital transformation, the IT function and cybersecurity. He leads the company's digital health initiative which performs cutting edge R&D using Artificial Intelligence to transform the way patients who suffer from serious diseases are diagnosed, treated and monitored.

Greg's keynote focused on "You Ain't Seen Nothing Yet, Tech in the Next 20 Years."

Karthik K. Sridharan, Executive Vice President and Chief Information Officer, OceanFirst Bank N.A. received the **2023 Information Technology Award for Distinguished Alumni**. Prior to his role at OceanFirst Bank, Karthik was the Chief Technology Officer at Citigroup and held leadership roles in global technology management with JP Morgan Chase and Bank of America Merrill Lynch. He was also Industry Manager at Microsoft before entering the financial services industry. Karthik is a graduate of Temple University's Fox School of Business.

Karthik's keynote focused on "Let's Apply Digital Disruption to Impact Our Communities."



"This year's group of honorees are truly exceptional in their contributions to the IT community, and we are proud to recognize them as digital transformation leaders," says Dr. Munir Mandviwalla, IBIT's Executive Director and Professor of MIS at Temple University's Fox School of Business.

Contact ibit at ibit@temple.edu

Learn more about the IT awards:

<https://ibit.temple.edu/itawards/>



information systems JOB INDEX 2022

The recently published *Information Systems Job Index*, sponsored by Meta, reports that salaries and placement of information systems job market entrants continue to rise and outpace average business school graduate salaries.

Led by Temple University's Institute for Business and Information Technology, the IS Job Index is now in its fifth biennial iteration, analyzing more than 8,000 IT labor market entrants since 2013.

The 2022 edition of the IS job index reports on salaries, knowledge and preparedness, demographics, job satisfaction and search strategies of graduates from 36 universities across the United States.



JOB PLACEMENT RATE

	At Graduation	6-Months after Graduation
BACHELOR'S:	81%	91%
MASTER'S:	65%	92%



CONFIDENCE IN JOB MARKET

BACHELOR'S:	64%
MASTER'S:	60%



AVERAGE SALARY

BACHELOR'S:	\$75,517
MASTER'S:	\$94,839



SATISFACTION & ENTHUSIASM ABOUT JOB OFFER

BACHELOR'S:	81%
MASTER'S:	73%



OFFER FROM APPEALING ORGANIZATION

BACHELOR'S:	86%
MASTER'S:	82%





JOB IS A GOOD FIT

BACHELOR'S:	72%
MASTER'S:	72%

key takeaways from the report

- + The entry level IS job market continues to be very strong, this is in sharp contrast to popular media reporting of 'tech jobs' which tends to ignore workers inside non-tech organizations.
- + Entry level IS job market entrants are also optimistic about their careers, which suggests that organizations have improved how they recruit and support job market entrants.
- + The above results are consistent with the finding that IS graduates rate themselves high on communication, critical thinking, leadership, and other attributes that employers have long demanded.
- + Yet, there should be concern in the low self-ratings for cyber-security and software development.
- + Finally, it seems that the organizational recruiting process, i.e., how they comport themselves in the hiring process matters more to IS job market entrants than compensation, reputation, and recruiters.

		BACHELOR'S				
		2013	2015	2017	2019	2022
TOP 3	1	Communication				
	2	Analytical and Critical Thinking	Leadership and Collaboration			
	3	Leadership and Collaboration	Analytical and Critical Thinking			
BOTTOM 3	1	Securing Data and Infrastructure				
	2	Designing and Managing Enterprise Architecture	Software Development	Designing and Managing Enterprise Architecture	Software Development	
	3	Identifying and Evaluating Solution and Sourcing Alternatives	Designing and Managing Enterprise Architecture	Software Development	Designing and Managing Enterprise Architecture	

 WHY DO BACHELOR'S ACCEPT/REJECT OFFERS? 	
ACCEPT	REJECT
HIGHEST RATED OFFER ATTRIBUTES FOR ACCEPTED JOBS Process Fairness Organization Reputation Job Fit	HIGHEST RATED OFFER ATTRIBUTES FOR REJECTED JOBS Process Fairness Organization Reputation Recruiter
LOWEST RATED OFFER ATTRIBUTES FOR ACCEPTED JOBS Job Attributes Compensation Recruiter	LOWEST RATED OFFER ATTRIBUTES FOR REJECTED JOBS Job Attributes Compensation Values Fit

The IS Job Index is produced by Temple's Institute for Business and Information Technology in partnership with the Association for Information Systems. Since 2013, it has been the only systematic and comprehensive national assessment of the IS job market.

The 2022 IS Job Index is co-authored by Dr. Munir Mandviwalla, Dr. Michael Dinger, Baylor University, and Brianna Anderson (Fox BBA MIS'23).

Download the full report at : <https://isjobindex.com>





SCHOLARSHIPS

Every year, IBIT—along with several corporate partners—offers support and encouragement to promising students with a series of scholarships. Winners are celebrated at the **Annual IT Awards Reception**.

IBIT CORPORATE SCHOLARSHIPS

The IBIT Corporate Scholarships recognize exceptional students with **\$2,500 - \$5,000 tuition scholarships**. Students must excel academically and impress the committee with their potential for achievement and accomplishment.

DIGITAL INNOVATION FOUNDRY (DIF) SCHOLARSHIPS

The Digital Innovation Foundry (DIF) generates digital innovation by assessing, integrating, and prototyping digital technologies. Students who work on a project in DIF receive one of two scholarships.

Bruce and Betsy Fadem Endowed Scholarship

Digital Innovation Foundry Scholarship

Niraj and Cara Patel Endowed Scholarship

Persson-Barbour Endowed Scholarship

Stewart Family Endowed Scholarship

SCHOLARSHIP RECIPIENTS

The Institute for Business and Information Technology announce this year's scholarship recipients. Students were awarded a total of **\$29,500 in scholarships.**



David Levit
IBIT Pfizer Scholarship



Rachel Koffel
IBIT Scholastic Scholarship



Abdalaziz Sawwan
IBIT Kyndryl Scholarship



Zhengkun Ye
IBIT Kyndryl Scholarship



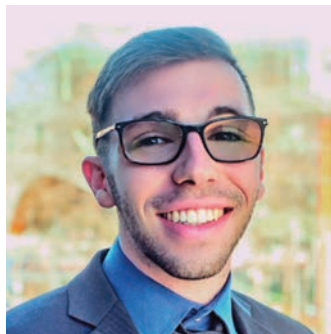
Ethan Chheda
IBIT Meta Scholarship



Aashmun Doshi
IBIT AmerisourceBergen
Scholarship



Russell Abernethy
Digital Innovation
Foundry Scholarship



Mitchel Zilbershteyn
Stewart Family
Endowed Scholarship

2022-2023

YEAR IN REVIEW

HOUSECALL VR WINS 2023 DIGITAL INNOVATION AWARD

The Digital Innovation Foundry is pleased to announce that **HouseCall VR** is recipient of the **Digital Innovation Award** in partnership with Temple University's Innovation and Entrepreneurship Institute (IEI).

The recipient will receive a cash prize, mentorship to develop their idea, access to the DIF lab, and additional resources to develop their idea. The Digital Innovation Award is open to all Temple University students, alumni, faculty and staff.

staff updates

Laurel Miller received the Musser Award for Excellence in Faculty Service.

Munir Mandviwalla received the 2022 Association for Information Systems (AIS) Sandra Slaughter Service Award and was recognized by Technical.ly as a leader in the Philadelphia tech ecosystem in 2023. He was the 2022 keynote speaker for the National Norwegian ICT Conference.

MENTORING PROGRAM ENCOURAGES NEVER-ENDING LEARNING

IBIT's mentoring program pairs industry professionals with Temple students, presenting the mentor and the student with an opportunity to learn from one another. **The program which started in Spring 2020, has served 155 mentees to-date.**

Deepya Paramata, a freshman MIS student (MIS '25), values the mentorship since it allows her to lead conversations with someone in the corporate world. Since her initial meeting with mentor Niel Mundell, VP at AmerisourceBergen, an IBIT partner firm, she feels encouraged, accepts the ambiguity of technology, and embraces the *never-ending learning process*.

Chris Cera, CEO, Arcweb Technologies, IBIT advisory board member, enjoys his mentor role, *appreciating the ability to help young people solve personal challenges*.

According to **Kelly Liu** (MIS '25) the mentoring program presents her with the opportunity to improve her professional development with the guidance of an industry professional. Now, Liu finds herself seizing more opportunities that allow her to discover her interests and as a means to learn more about herself and her passion. For Liu, *passion translates into motivation which is the key to moving forward*.

Rich Rivara, CEO of Wave6, is enthusiastic about his continued involvement in the program. His passion for giving back to students and learning about their own passions *excites his imagination*. He believes the mentorship program *bridges education and experience*. Rivara seeks to ensure that mentees share his excitement by bringing the students into meetings to provide a realistic view of a day-in-the-life of working in the corporate world.

Connections between the mentors and mentees do not end with the program. Mentors often keep in touch with past mentees and continue to provide advice and nourish their passions.

Sondra Barbour, IBIT advisory board member and chair of the mentoring program notes, *"I think it is important to note that not only are the students gaining knowledge from their mentor, but the mentor is gaining knowledge from the mentee. Engaging with the students has provided an avenue for me to keep in touch with the quality of the students as well as what the students are thinking and feeling about the department and curriculum. It's been a valuable program."*

The select program involved 14 participants in Spring 2023 including Jacob Andrien, Yann Awede, Tyler Bolling, Vincent Bracey Jr., Jaidyn Brown, Jackson Carpenter, Reya Islam, Ayesha Khalid, Gabriel Lins, Deepya Paramata, Neel Patel, Shivam Patel, Jamie Rubin, and Blake Bray.



Top left: Deepya Paramata, Top right: Chris Cera,
Bottom left: Kelly Liu, Bottom right: Rich Rivara

mentors

Andrew Anania
Retired EVP and CIO, Cigna

Sondra Barbour
Board of Directors,
AGCO & Perspecta

Chris Cera
CEO, Arcweb Technologies

Craig Conway
Global Head of Modern Banking
Technology and Delivery, FIS

Kevin Dang
Capabilities and Insights Analyst,
McKinsey & Company

Dinesh Desai
Chairman, DARR Global Holdings, Inc.

Larry Dignan
Editor in Chief,
Constellation Research

Bruce Fadem
Retired VP and CIO, Wyeth

Vince Ford
SVP, Curtis Institute of Music

Jeff Hamilton
SVP, Pfizer Digital

Chris Kearns
VP, Kyndryl

Michael Luckenbill
Technology Manager,
Capgemini

Neil Mundell
VP, AmerisourceBergen

Sukumar Narayanan
President, DecisivEdge

Rich Rivara
CEO, Wave6

Dave Woodson
Director, KPMG

To learn more, visit: <https://ibit.temple.edu/ibit-mentoring-program/>



2023-2024

LOOKING AHEAD

NEW
**DIGITAL
INNOVATION
FOUNDRY**
PROJECTS AND
PARTNERSHIPS

EXPAND IBIT MENTORING PROGRAM

GENERATE DIGITAL
TRANSFORMATION CASE
STUDIES FEATURING
PARTNERS

**DIGITAL
INNOVATION
FOUNDRY
SHOWCASE**

GROW IBIT WITH SMALL-COMPANY
AND LARGE-COMPANY PARTNERS

PUBLISH 2024
**IS
JOB INDEX**

AWARD
IBIT CORPORATE
SCHOLARSHIPS

CREATE
DIGITAL INNOVATION FOUNDRY CHALLENGE

GROW EXECUTIVE-IN-RESIDENCE
PROGRAM AND OFFERINGS

CONFERENCE
ON DIGITIZATION AND
THE NEW NORMAL

IBIT STAFF



LAUREL MILLER

Director

Laurel is Director of IBIT managing external relations and programs.

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MUNIR MANDVIWALLA

Executive Director

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MANOJ CHACKO

Associate Director

Manoj is Associate Director leading the R&D activities of the Digital Innovation Foundry and Community Platform.

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about IBIT

The Institute for Business and Information Technology (IBIT) engages with industry and the Advisory Board to develop knowledge and talent for the digital era. IBIT integrates industry perspectives with academic expertise to create best practice forums engaging faculty and students from all of Temple University.

IBIT partnership offers participating corporations the opportunity to leverage our knowledge, human capital, relationships, and established network.

IBIT INSTITUTE FOR BUSINESS AND INFORMATION TECHNOLOGY

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