IBM Design

Creating Empathy for Lived Experiences
TorCHI - November 2021

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The IBM Canada Lab

IBM Canada Lab is the second largest software development organization in IBM and the largest in Canada, delivering leading software technology to the global marketplace



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OVET 50

IBM Canada Lab has been driving innovation and transformation with our clients with key worldwide missions

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- Cloud Pak for Watson AIOps
- WebSphere Hybrid Edition
- Cloud Pak for Security
- QRadar
- IBM Compilers
- DevOps for Z
- Cloud Pak for Business Automation
- Sterling Order Management
- Watson Health

Our teams are located in **Fredericton, Ottawa, and Markham** and deliver leading-edge technology to the global market.

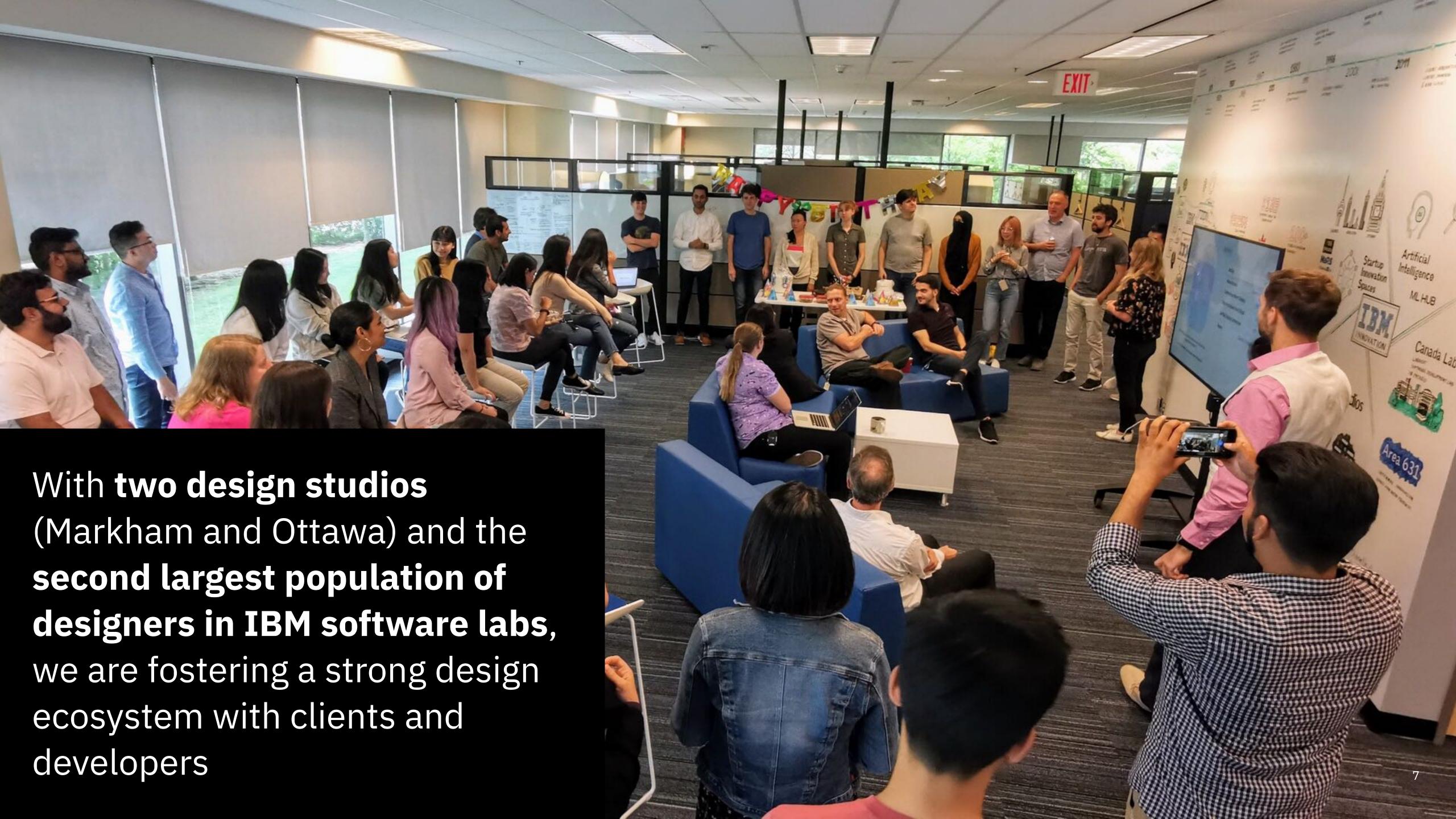


Markham



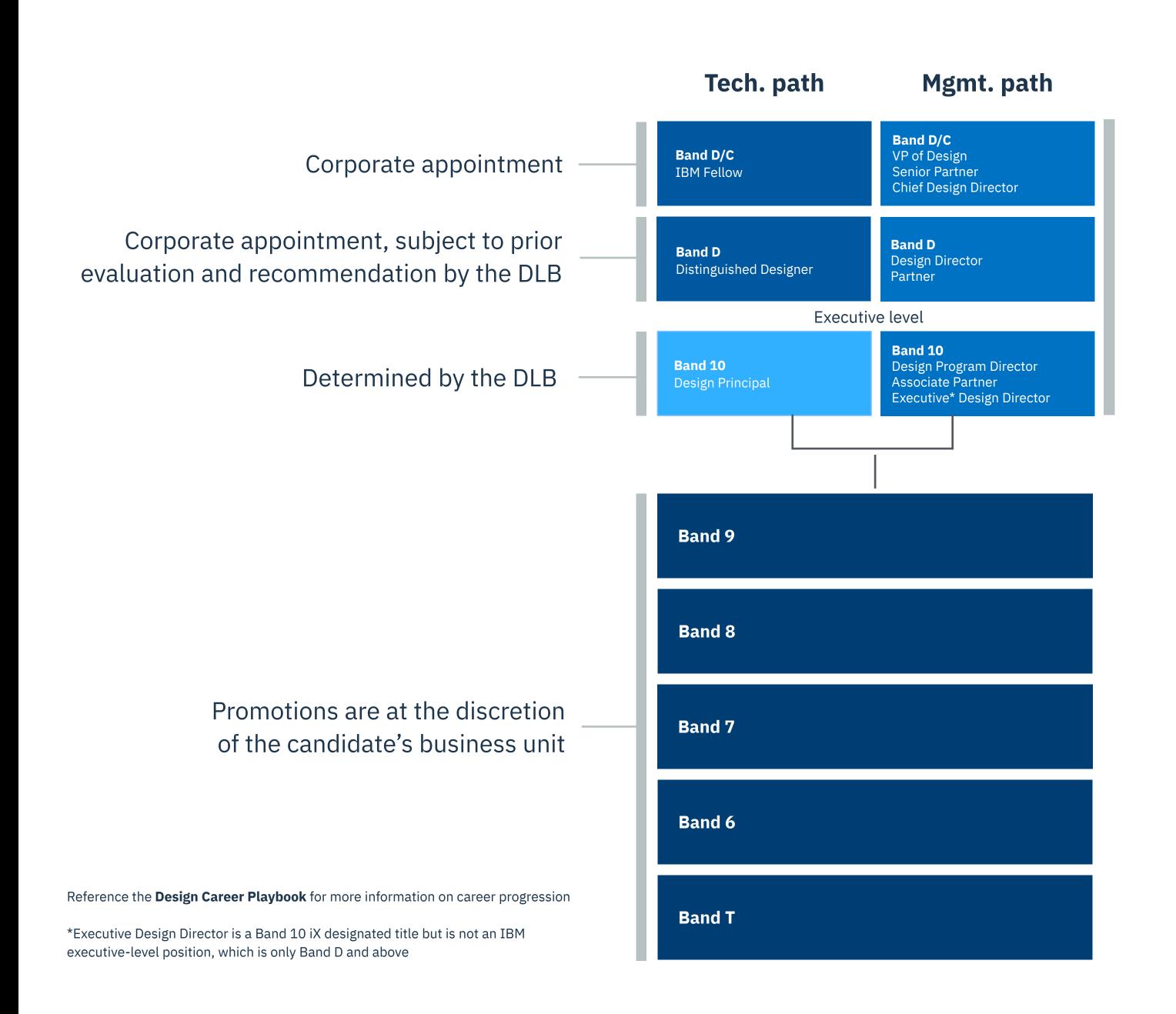
Fredericton Ottawa





IBM Design career framework

The Design career framework



Technical design leadership at IBM



IBM Fellow

IBM Distinguished Designers

Design Principals

What do Design Principals do?



Mentor: They serve as an active coach and mentor of designers and other disciplines



Advocate: They reach across organizational boundaries to advocate for design, and expand their network inside and outside IBM



Influence: They continue to have significant eminence and influence inside and outside IBM



Engage: They connect and engage with the community of design and technical leadership at IBM



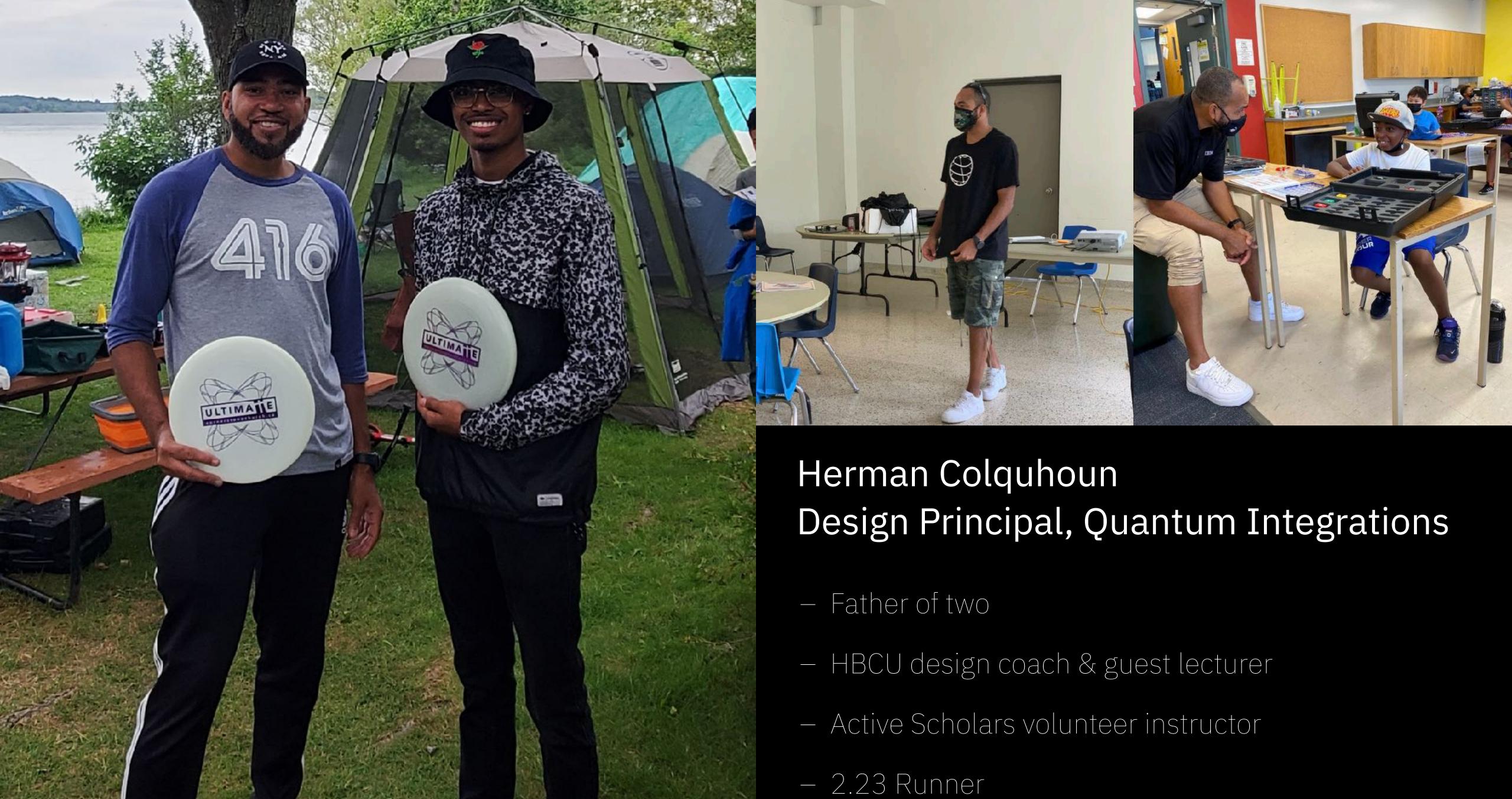
Update: They update the progress they've made toward their role at least once a year to the Design Executive Team (DET)





Joan Haggarty Design Principal, IBM Software

- Mom of two
- Youth organization volunteer
- Accessibility advocate
- Experimental gardener & Hallowe'en nut



Lived Experience Overview

Case 1: Diversity in design

Case 2: Accessibility in design

Community Activity Outcomes: How might we as designers create empathy for lived experiences?

Case 1: Visualizing tangible differences for REiD



"Create a global, sustainable culture of design and design thinking at IBM."

Ginni Rometty, IBM CEO 2013



Experience is a central

concept



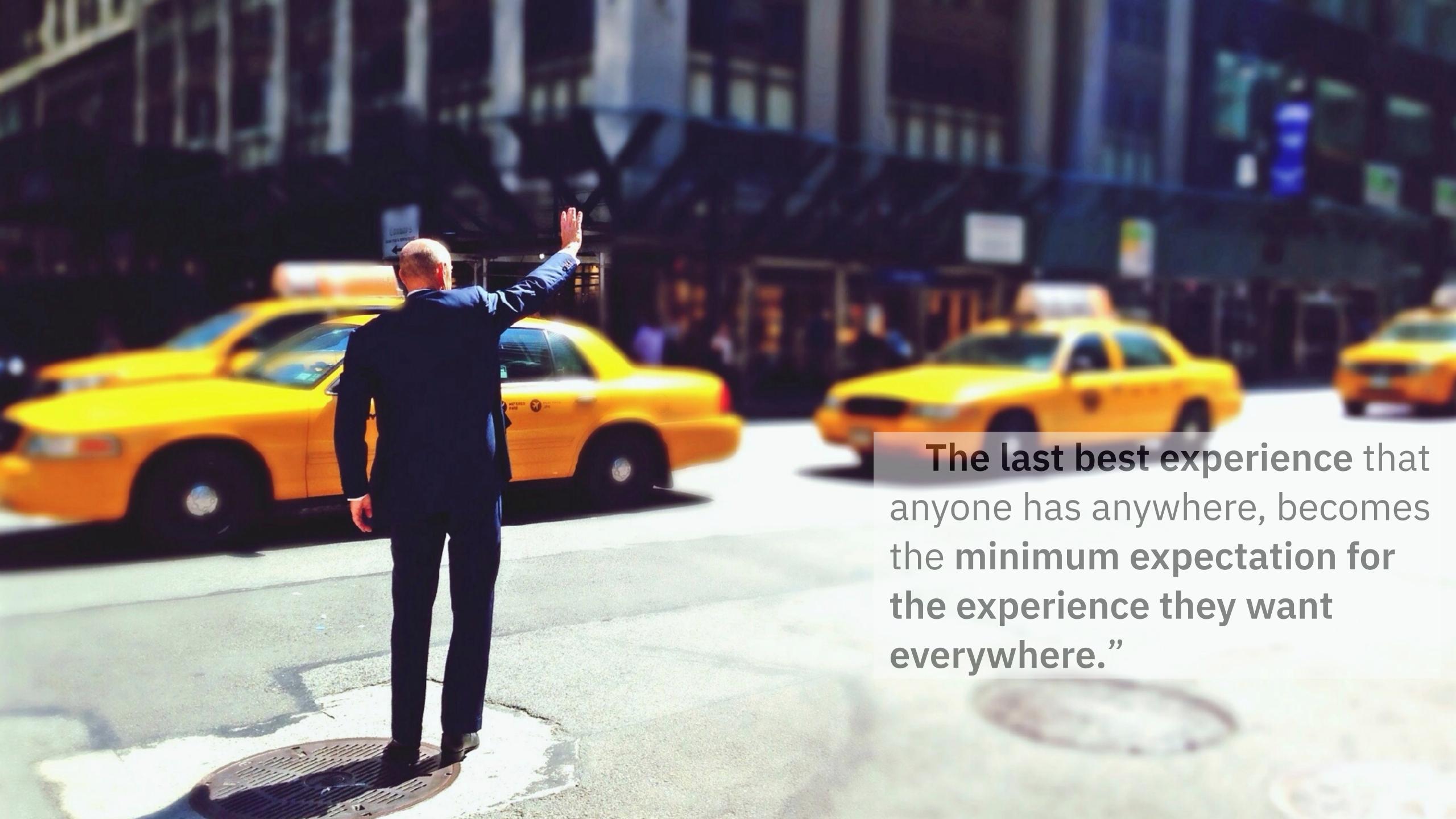
nest

There's no longer any real distinction between business strategy and the design of user experiences.

The last best experience that anyone has anywhere, becomes the minimum expectation for the experience they want everywhere."

-BRIDGET VAN KRALINGEN, IBM SR. VP, INDUSTRY PLATFORMS





Diversity in design for lived experiences

2020 happened.

The entire world was hit by the biggest immediate global challenge of our lifetimes.

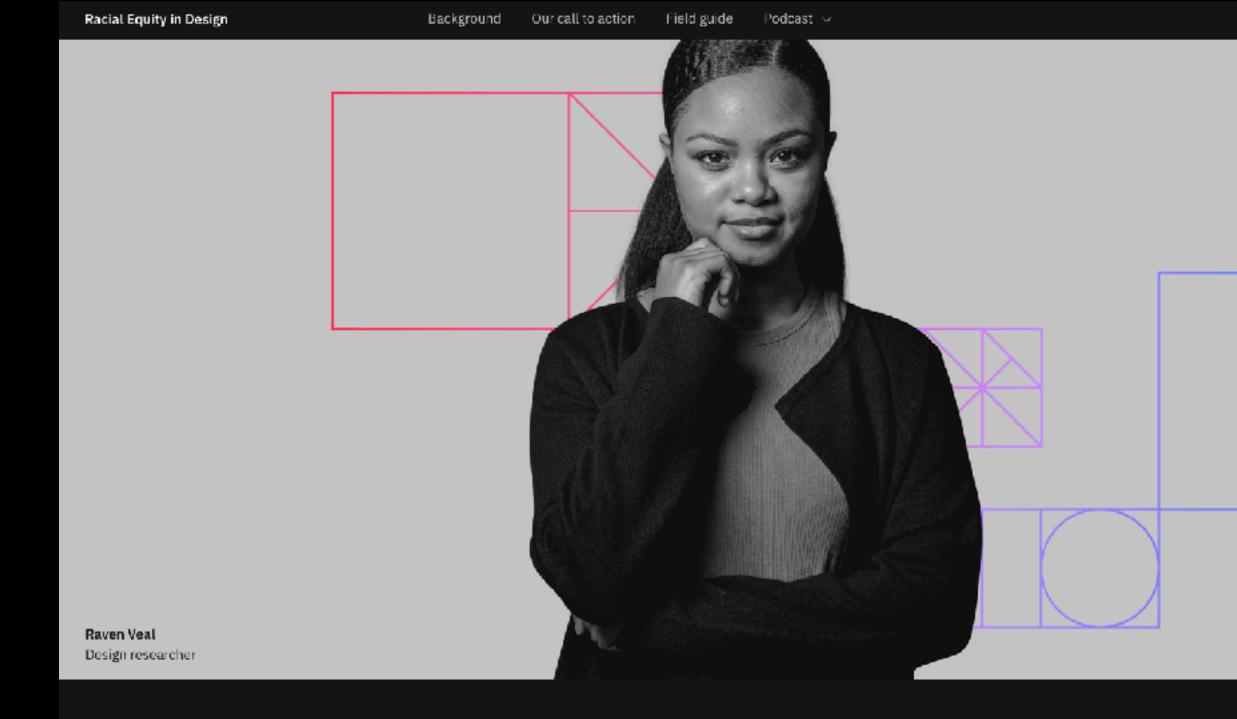
The entire world also slowed down just enough to take notice of some challenges that have been around for a very long time.

Social Justice



How might Design at IBM impact social justice?

Ensuring racial equity is instilled in the design culture inside and outside IBM.

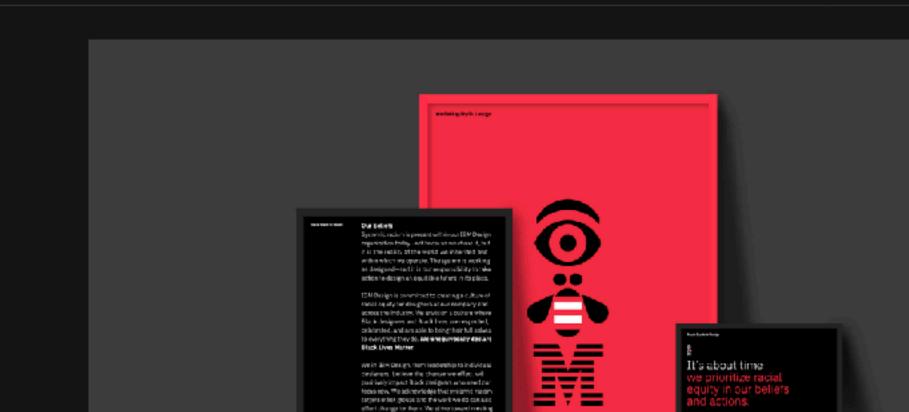


The Racial Equity in Design initiative is committed to ensuring racial equity is instilled in the design culture inside and outside of IBM by driving change through our interactions, investments, and actions that impact behaviors, policies, and deep-seated assumptions.

Featured

Our call to action is a

community-crafted statement which defines the IBM Design point of view on racial equity as the foundation for how we work. Guided by our human-centered beliefs, it contains practical steps that designers will take towards creating a culture of equity at IBM and the design industry.



What is the essential human problem at the center of the issue?



Area of Focus

We will tangibly and sustainably impact the experience of black designers at IBM, and beyond.

Racial inequity is steeped in the fundamental assumptions, behaviors, policies, and actions of the IBM corporate body. Therefore, affecting racial inequity is about changing the fundamentals.

We can't claim to have a sustainable culture of design and design thinking if we don't sustain a culture of racial equity.

We introspected parts of the culture within IBM Design...

Career Success

Establishing a culture that supports the recruitment, retention, and advancement of Black designers is synonymous with establishing a culture of design success.

The broader mission of Career Success is to cultivate a systemic and sustainable culture that embraces racial equality and diverse perspectives. This work stream focuses on targeted activities to yield positive and equitable outcomes for Black designers (and others) at IBM.

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Provocation & Goals

The following problem statement was given to all participants:

How might we improve the IBM Designer experience at IBM (Black/White/POC) given both current career trajectory and challenges as well as the narrative of social and racial injustices such as George Floyd's death?

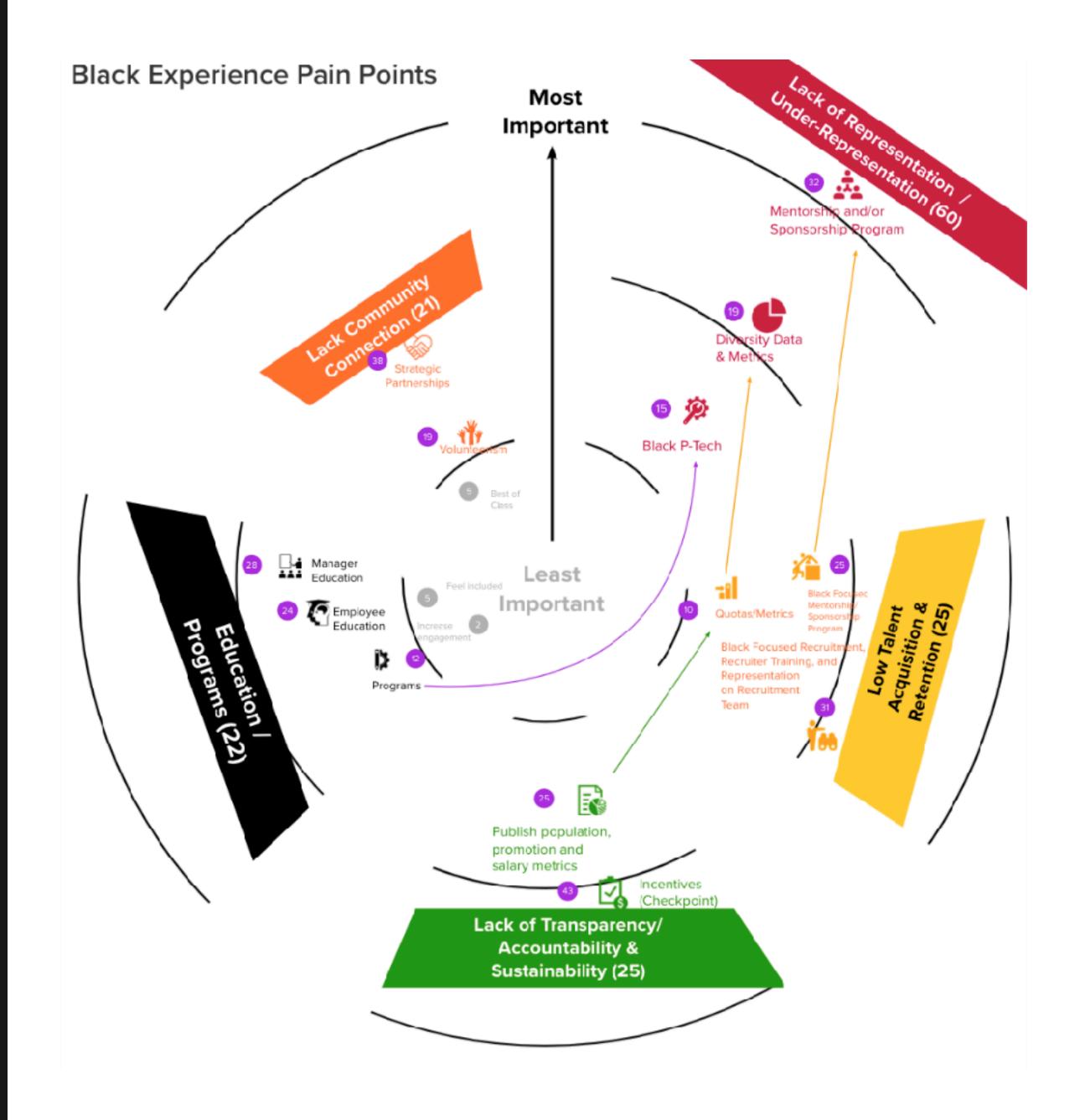
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Provocation & Goals

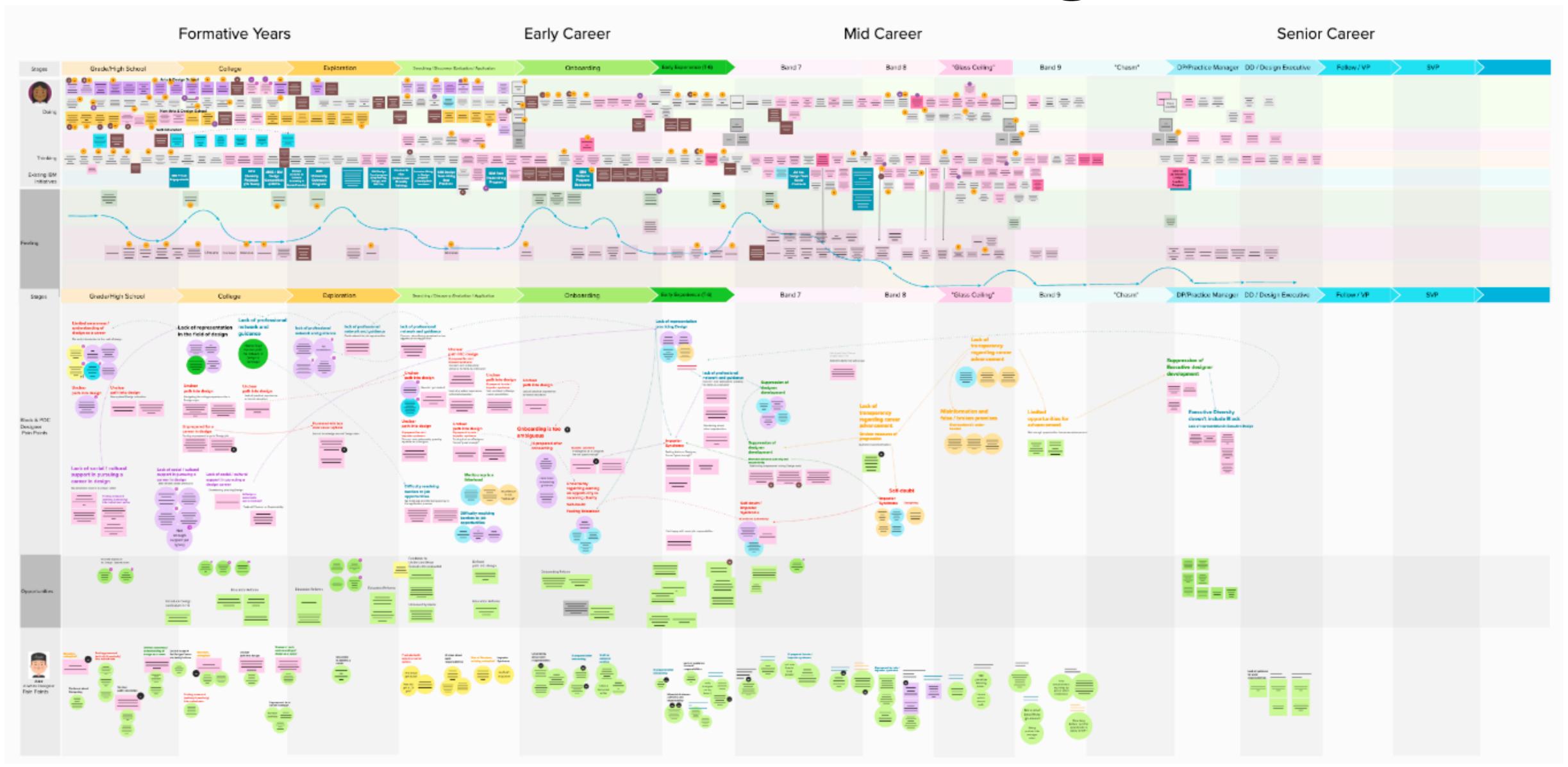
The following are our goals / objectives:

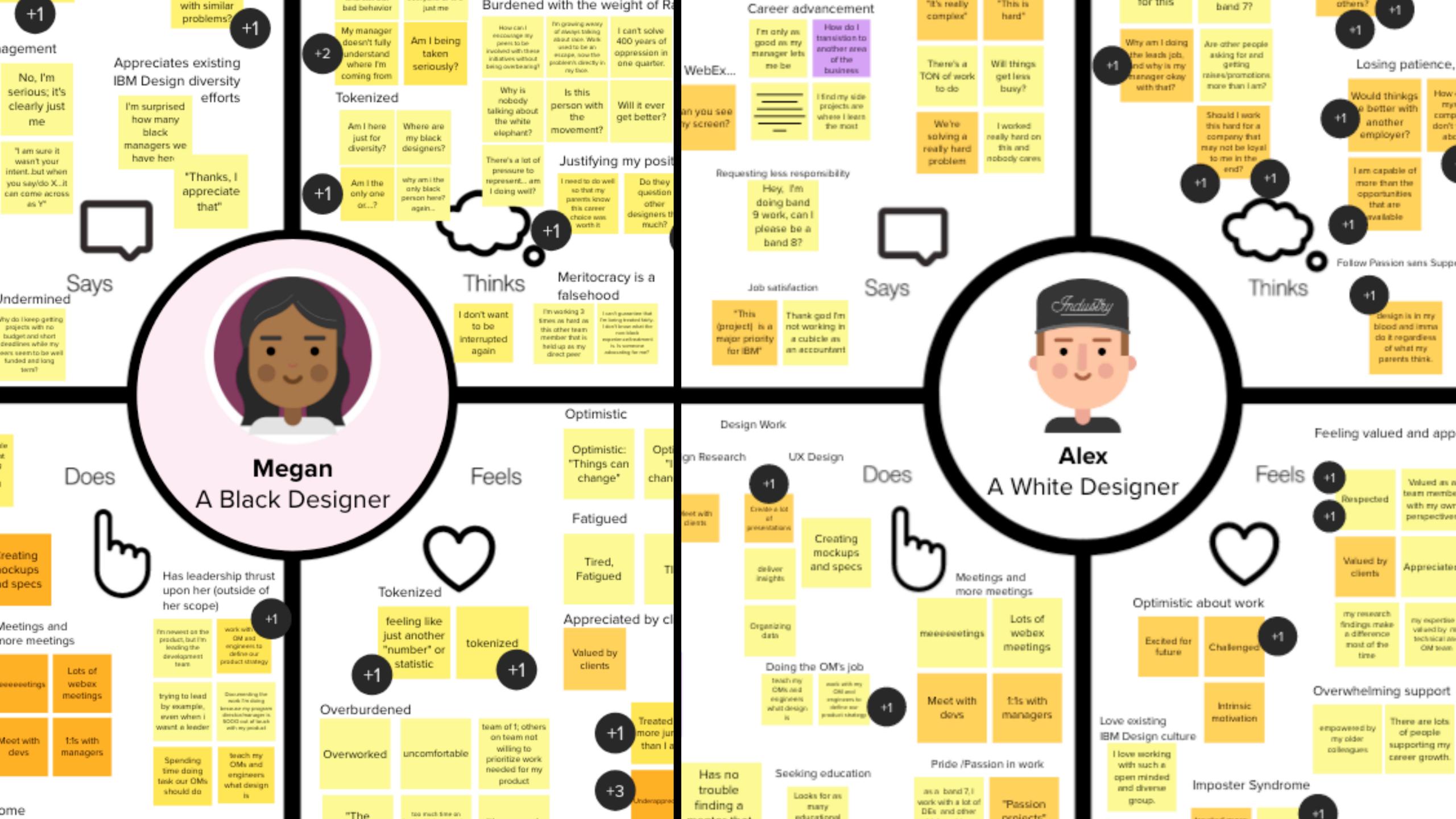
- Highlight pain points that create cultural and vocational tensions.
- Empathize with the struggles of the Black designer at IBM.

Community Introspection

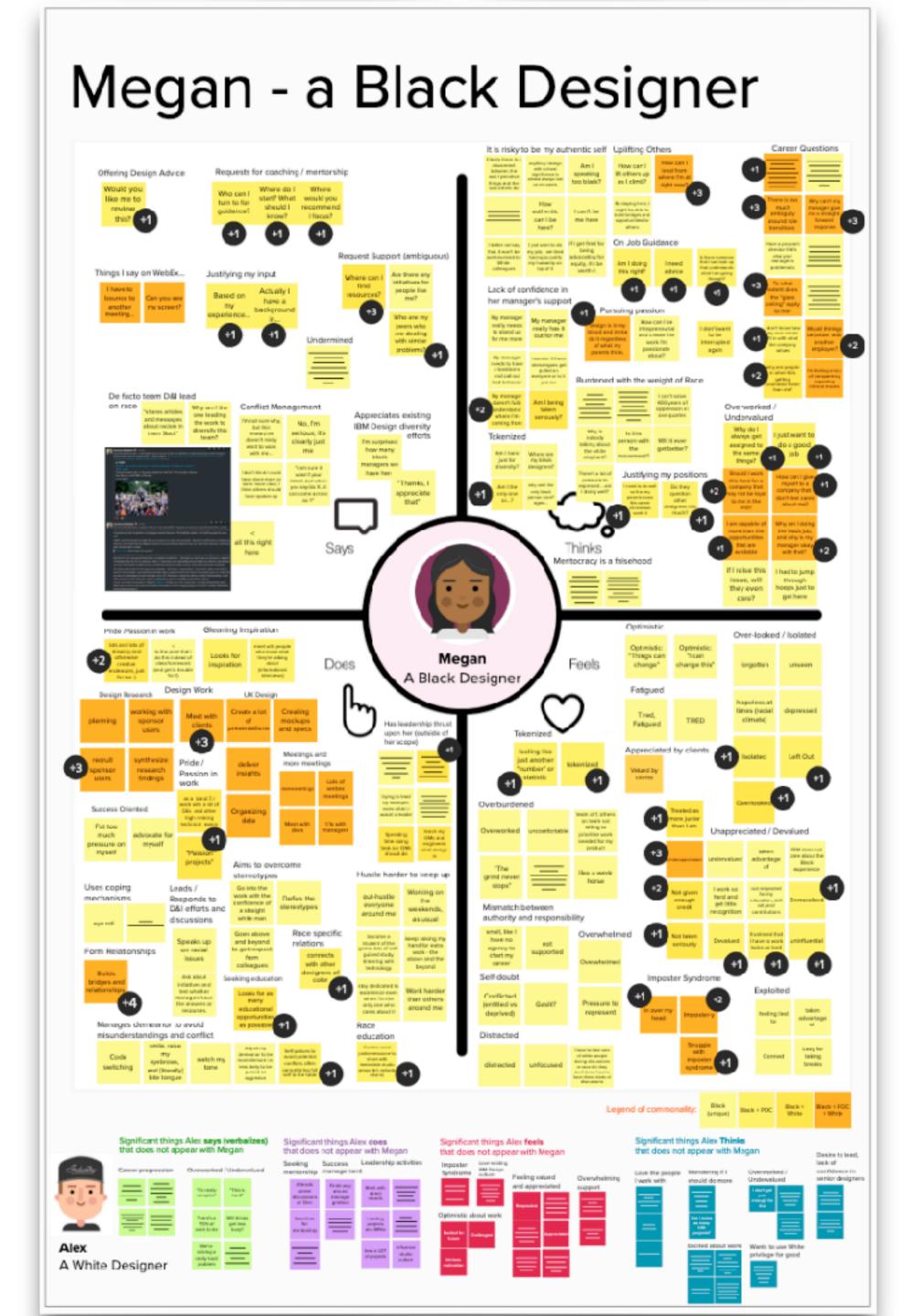


The As-Is Career Arc across Designers of Colour.





Empathy Heat Map



Meet Megan

To better understand the Black designer experience at IBM, we need to see the world through Megan's eyes.

Megan, a Black designer at IBM, is burdened by the weight of systemic racism.

Megan longs for real change in Design culture to support racial equity — not just lip service.

Megan wants to see more Black talent in Design, and more examples of Black designers advancing in their careers.

Megan - a Black Designer



Position: Designer Black

Ambitious	Adaptable
Persistent	Initiator
Identifies as Black Female	
"I need ideas. I need partners. I need action."	
"I can't be me here"	
"Why am I the only Black person here again."	

Goals

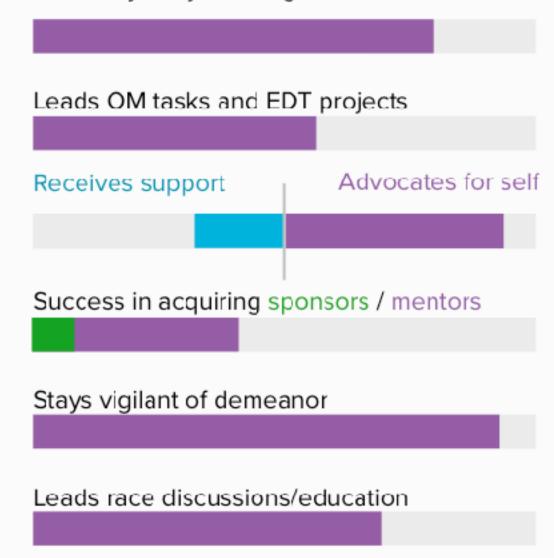
- Pursues passion to attain both job satisfaction and success in design

Frustrations & Pain Points

- Family/society does not respect her choice to be a designer
- Overworked and under-appreciated
- Difficulty navigating career progression
- Appreciates IBM Design's efforts to be diverse
- Suspects advancement is blocked as she is Black (& female)
- Feels the burden of leading D&I team building and conversations
- Anxious about being her authentic self at work
- Feels she must work 3x as hard for the same recognition as her peers
- Code-switches, but still has challenges with collaborations
- Imposter Syndrome, Works hard to overcome stereotypes
- Sees a number of peers who don not look like her advance quickly

Does

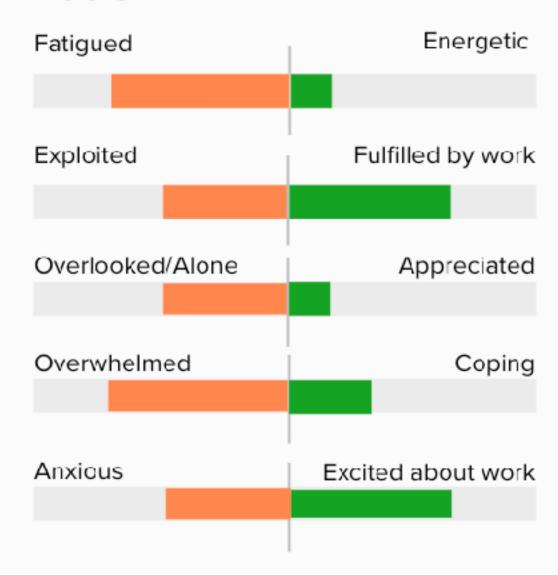
Goes beyond just design work



Wants & Needs

- Comes from a "traditional" design background (with very few Black design peers)
- Seeks to follow a passion for design and work on meaningful and challenging projects
- Would like to be taken more seriously
- Comforted when she is not the only Black person in the room and has senior peers that can relate.
- More transparency of internal moves and understand the best path for advancement
- Needs to use part of her earnings to help her aging parents make ends meet.
- Wonders where the black designers are and how many there are?
- Wants to break stereotypes and seen for her value.

Feels



Meet Alex

To better understand the Black designer experience at IBM, we also need to understand & contrast with the world through Alex's excited eyes.

Both Megan & Alex, a White designer at IBM, face some of the same desires and challenges at work with some key differences.

Alex receives a great deal of support from senior designers, and feels fulfilled by / appreciated for the work they do. Alex wants to use white privilege for good.

Alex - a White Designer



Position: Identifies as: Designer White

Ambitious Proud

Persistent Initiator

Identifies as a White Person

"I like my coworkers - helps us make better software."

"Thank God I'm not working in a cubicle as an accountant"

"Hey, I'm doing band 9 work, can I please be a band 8?"

Goals

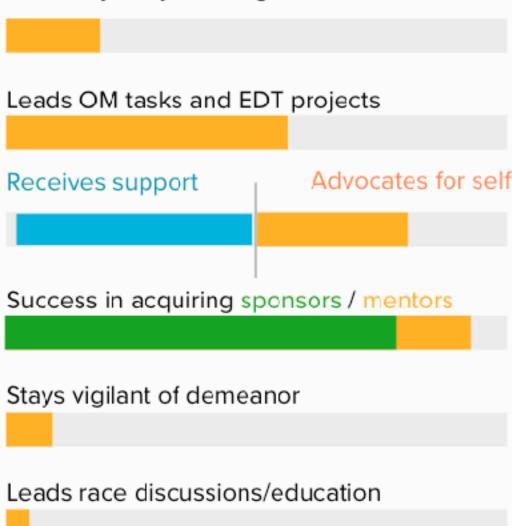
- Pursues passion to attain both job satisfaction and success in design

Frustrations & Pain Points

- Family/society does not respect their choice to be a designer
- Overworked, a lot of complex work to be done
- I own too many projects, but I'm not ready to advance.
- Do now, ask for forgiveness later approach
- Only as good as manager permits for career progression
- Appreciates IBM Design's existing culture
- Unsure if they should be working longer hours or doing more side projects
- Struggles with Imposter Syndrome
- Was frustrated seeing mostly white male peers from their cohort promoted much faster than them; saw "diversity" changes a few years ago as more & more were women (white women).

Does

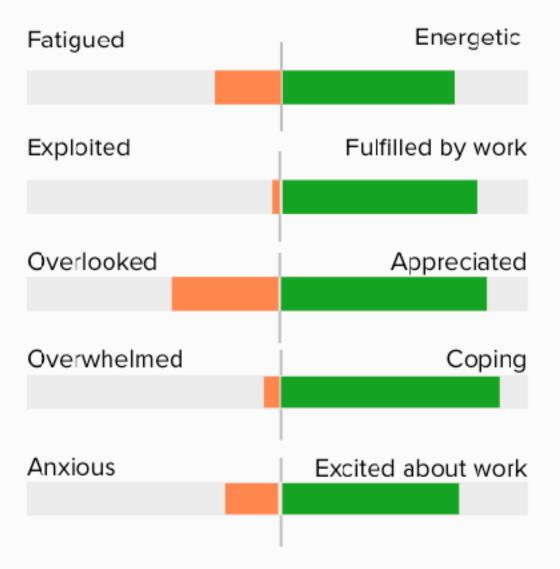
Goes beyond just design work



Wants & Needs

- Pivots to design from a related background and learns about UX design on the job
- Seeks to follow a passion for design and work on meaningful and challenging projects
- Would like to be taken more seriously
- Needs guidance from managers to help fill gaps in qualifications
- More transparency of internal moves and understand the best path for advancement
- Wants to use their privilege to support the voices of others
- Wants to hire external candidates to fuel diversifying the workforce but is blocked by IBM policy.

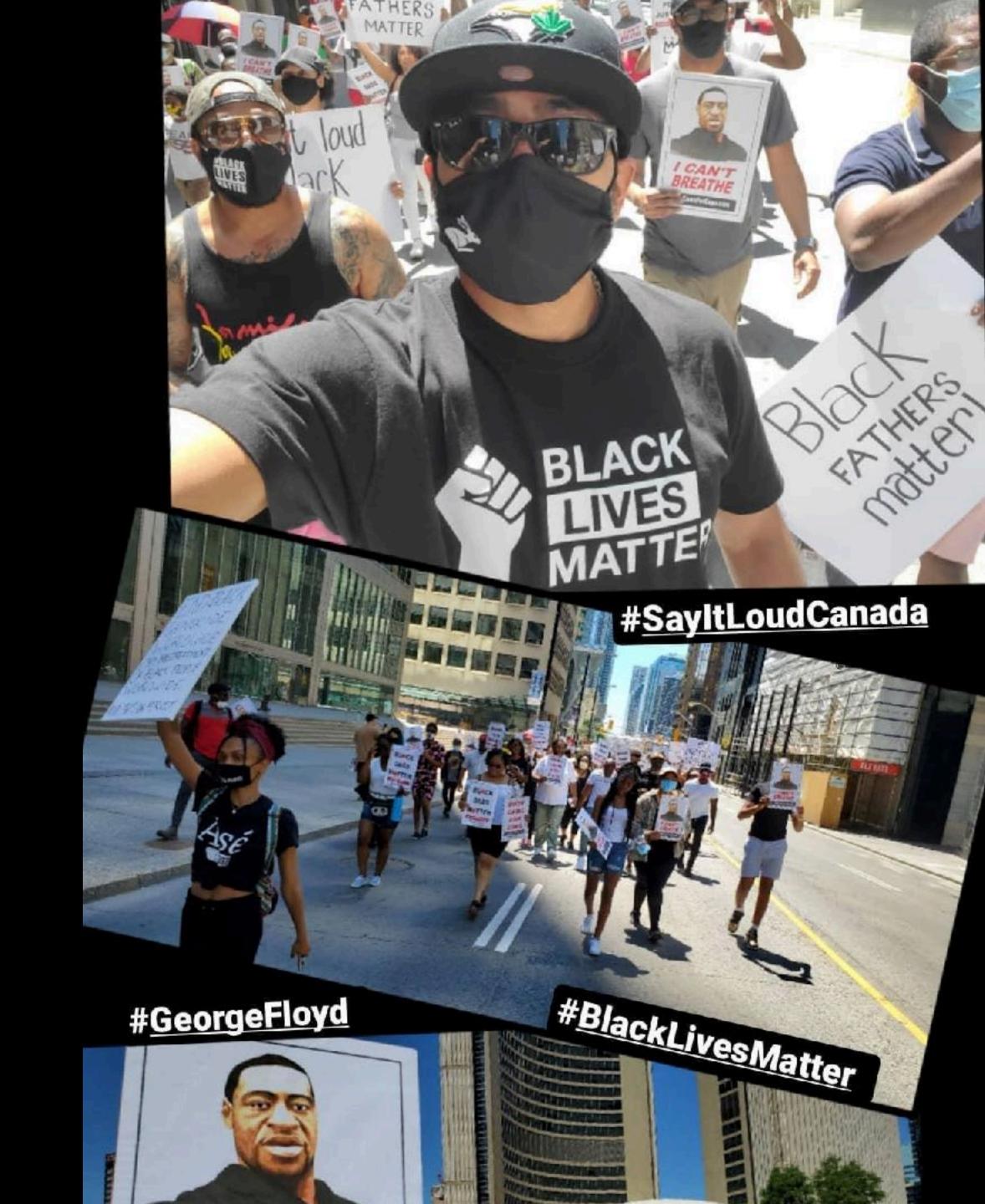
Feels



THE Broader Problem

How might we

create a space to feel comfortable in the face of continued social justice issues?



How might we create empathy for the lived experience in a scalable and repeatable way?

Accessibility in design for lived experiences

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What I'll share today

- IBM Equal Access Toolkit
- Accessiblity lenses
- Challenges that persist

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What's next?

Accessibility is important

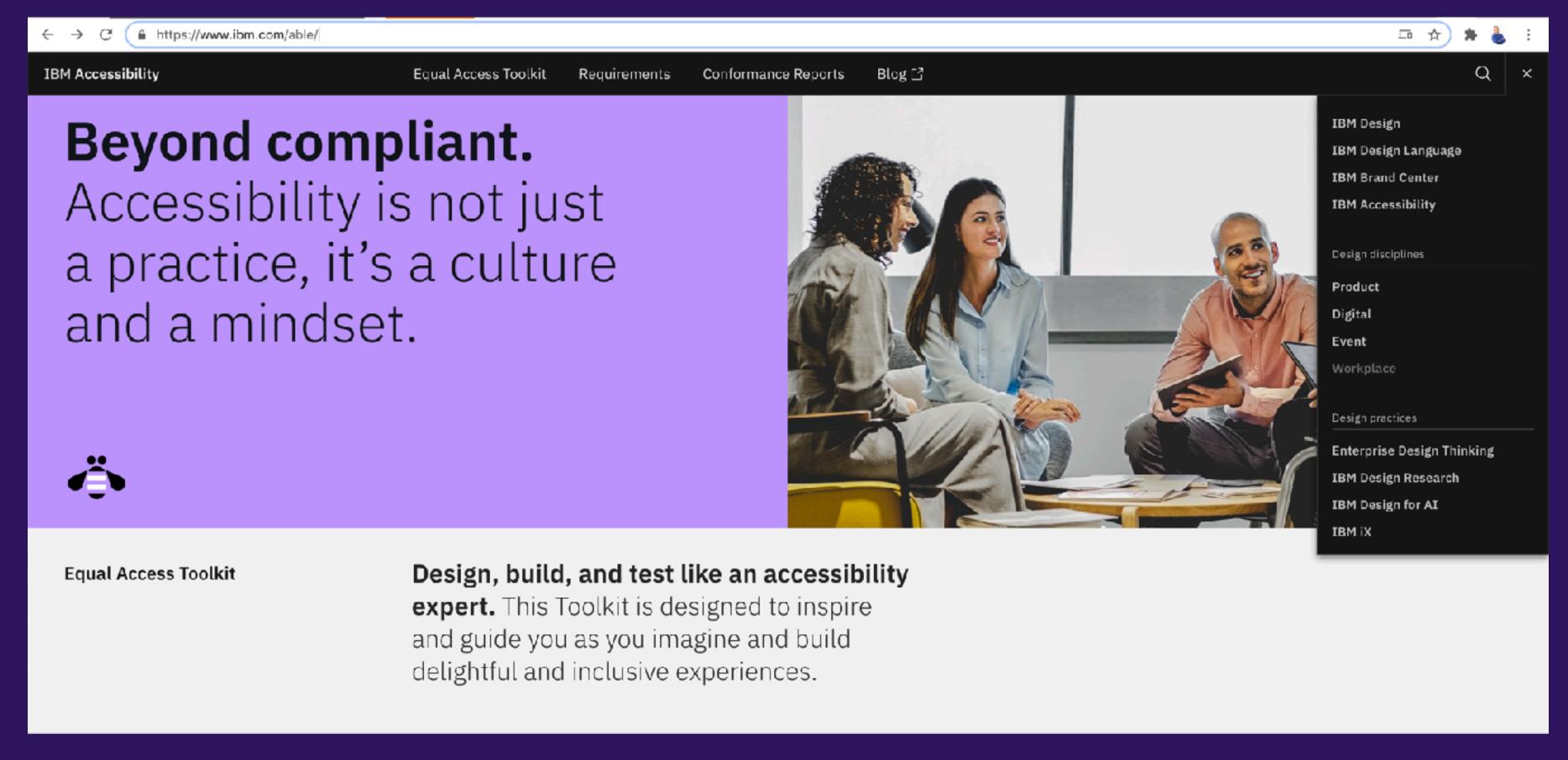
15% of the world population has a disability

World Health Organization survey 2011



IBM Accessibility homepage

ibm.com/able

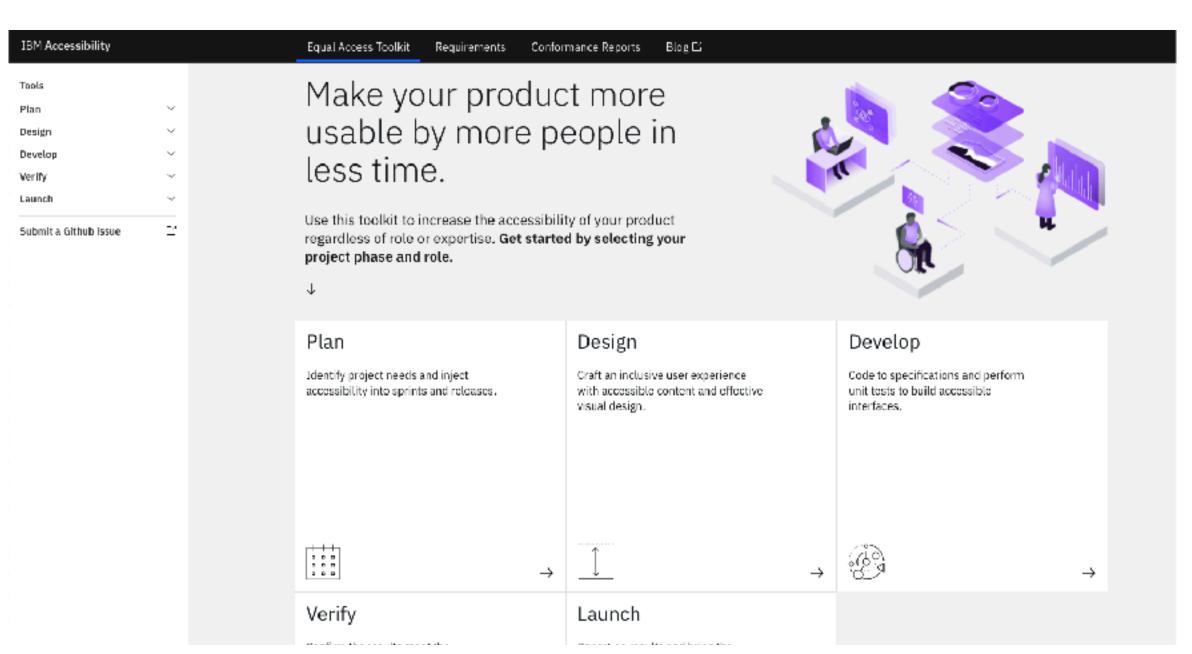




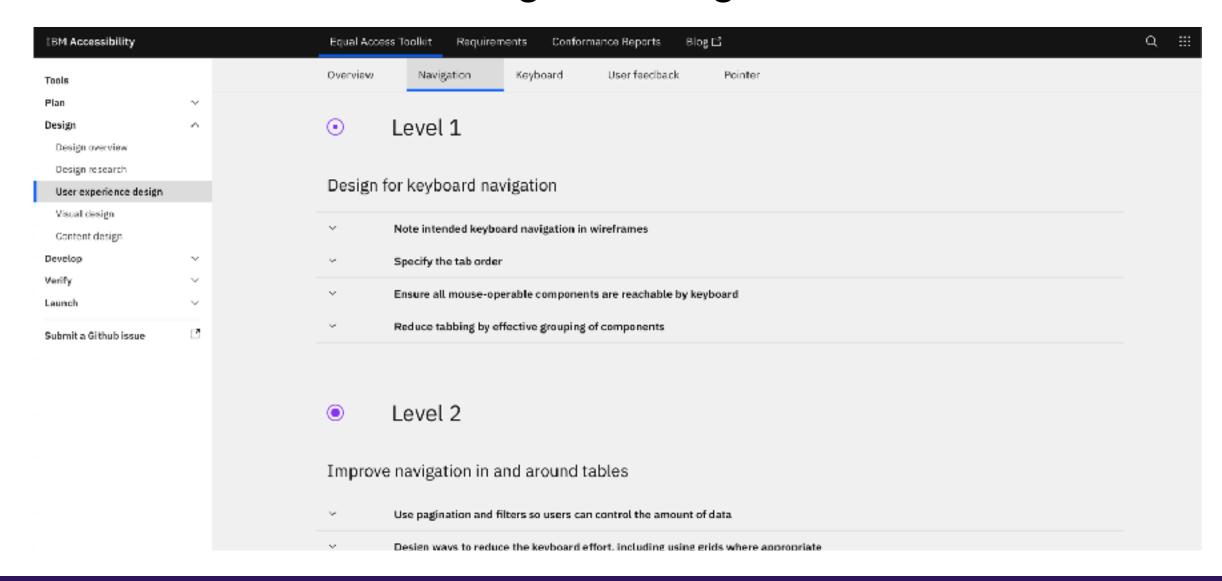
Equal Access Toolkit

- Organized from plan to launch
- Project managers, designers, developers, testers find role focused guidance
- Helps teams focus on most essential tasks first as they progress through levels toward full accessibility

ibm.com/able/toolkit



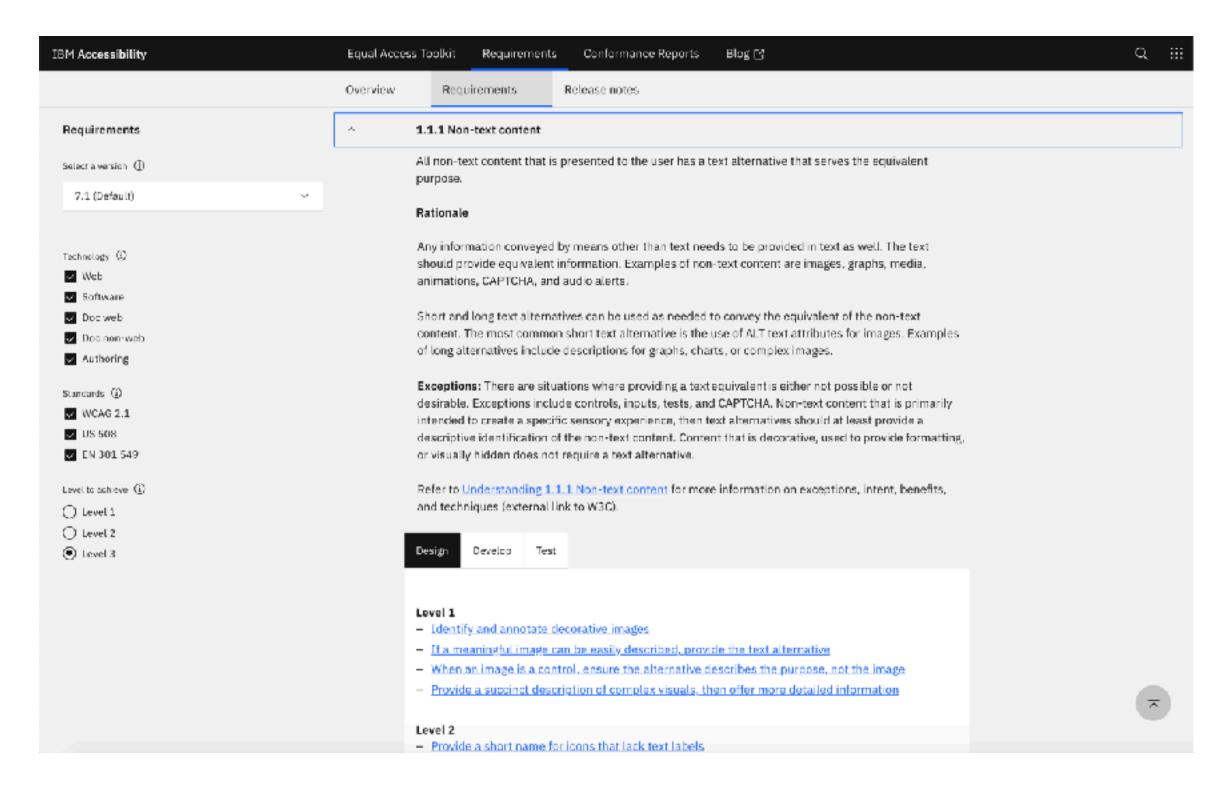
ibm.com/able/toolkit/design/ux/navigation



IBM Accessibility Requirements

- Harmonization of major standards: WCAG, US 508, EN 301 549
- Select technology and level for relevant requirements
- Tasks organized for Design, Development and Test

ibm.com/able/requirements/requirements



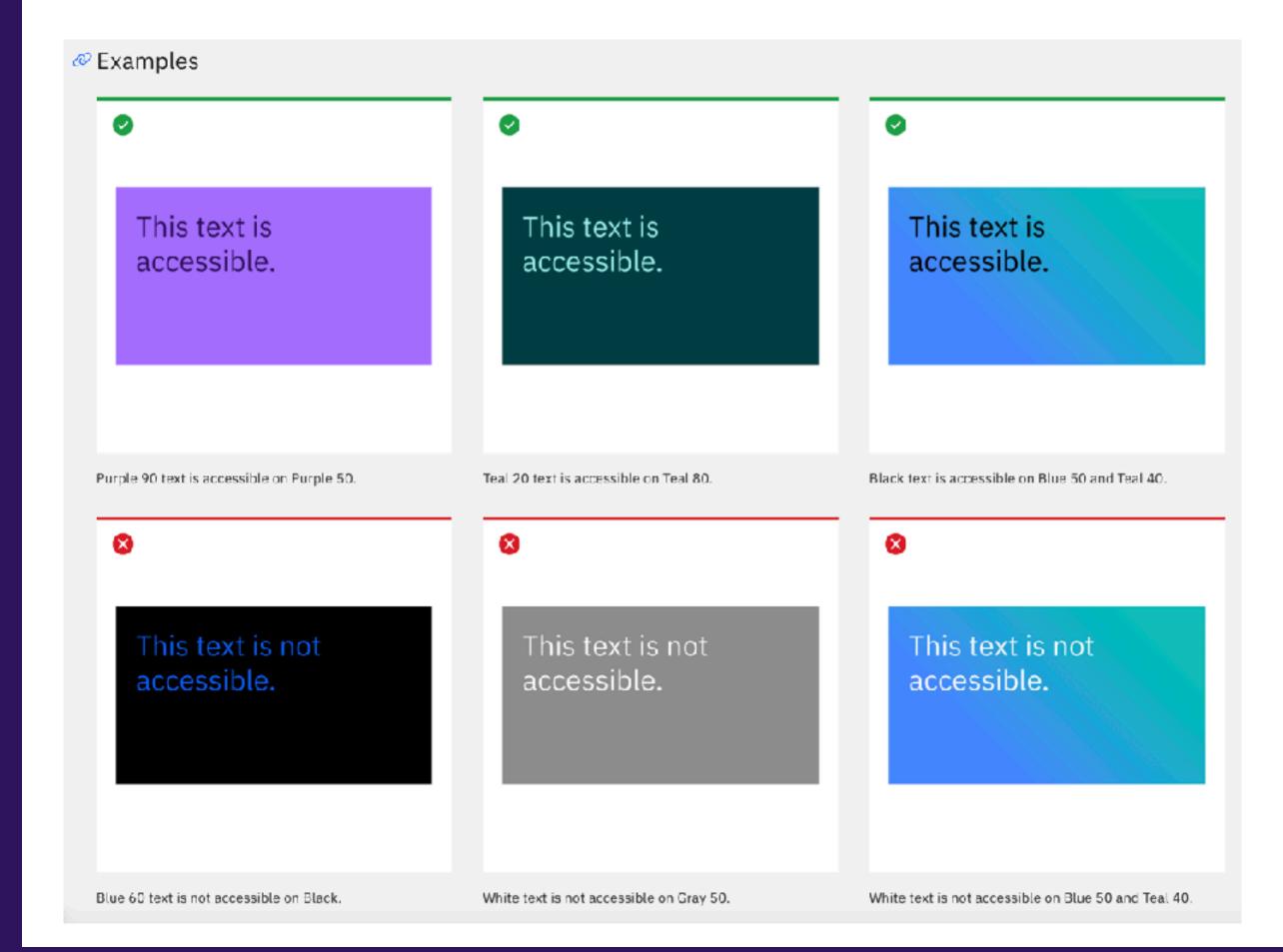


IBM Design Language

- Accessible design specifications
- Color palette designed so accessibility
 is intuitive. Colors are in increments of
 10, combinations across colors are
 accessible for difference of 40

ibm.com/design/language/color

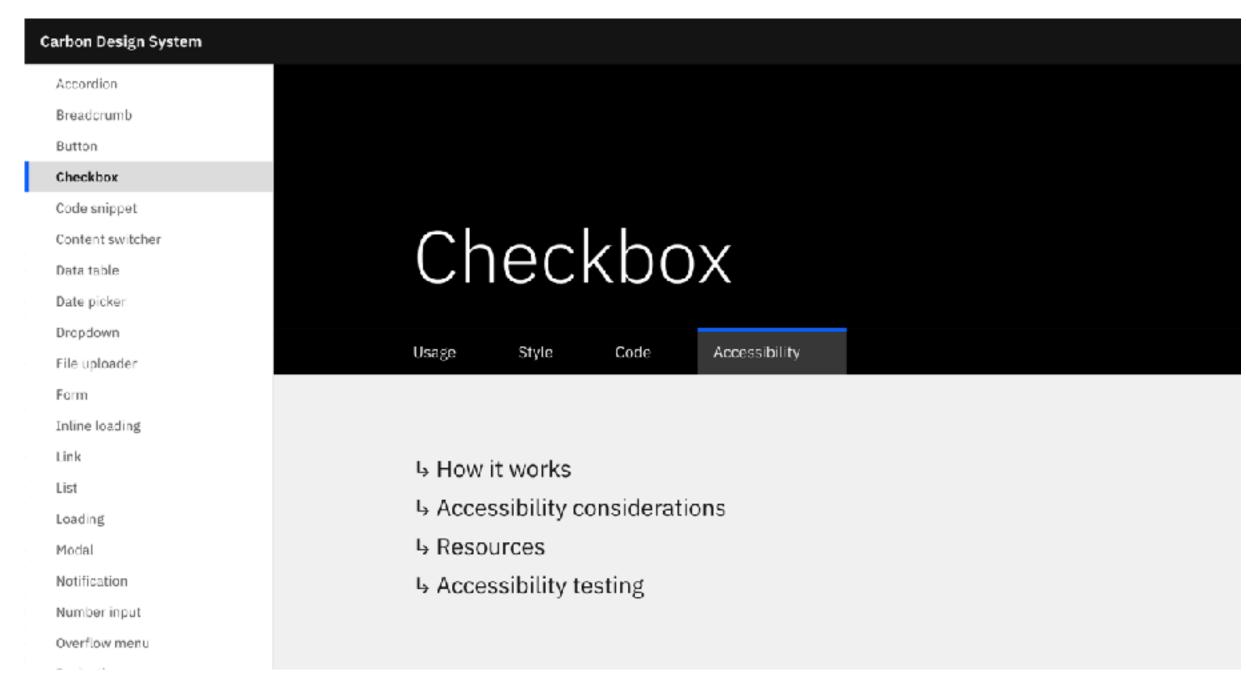
Blue 100	001141	Cyan 100	961727	Teal 100	081a1c
Blue 90	9 91 d6c	Cyan 90	912749	Teal 90	022b30
Bluc 80	0 02 d9c	Cyan 80	993a6d	Teal 80	094144
Blue 70	0043ce	Cyan 70	00539a	Teal 70	005d5d
Blue 60	0f62fe	Cyan 60	9972c3	Teal 60	997d79
Blue 50	4 58 9 f f	Cyan 50	1192e8	Teal 50	0 99 d9a
Blue 40	78a9ff	Cyan 40	33b1ff	Teal 40	08bdba
Blue 30	a6c8ff	Cyan 30	82cfff	Teal 30	3ddbd9



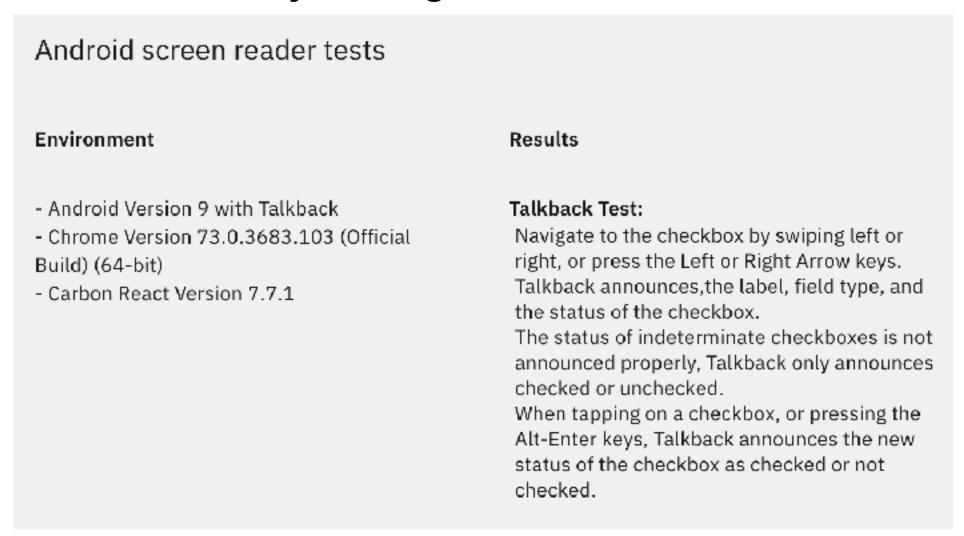
Carbon Design System

- IBM's open source design system for products and digital experiences
- Consists of working code, design tools and resources, human interface guidelines
- Components built with accessibility in mind, and considerations documented

carbondesignsystem.com/components/checkbox/accessibility



... Accessibility testing section





Still room to grow!

Building in diversity

"Accessibility is like a blueberry muffin—you can't push the berries in there afterward."

Cordelia McGee-Tubb



Case 2: Accessibility, lensing & toolkits

How might we help our designers incorporate accessibility earlier in the design process and improve the inclusivity of our designs?



Joan Haggarty Design Principal



Delica Li UX & Visual Designer



Josh Fan Designer & Researcher



Linda Shu UX Designer



Robin RockContent Designer

What did we do?

Provided a new integrated, viewpoint for accessibility.

Accessibility lenses are used to gain empathy and add more guidance when designning for people with diverse abilities.

Accessibility

As designers, our goal is to design inclusive content that works for the largest possible. number of people, regardless of ability, situation, or circumstance. By considering users with specific access needs, and the problems they might have when they use our products, we can provide solutions that work for all users, including people with disabilities, diverse abilities, temporary challenges, and the aging population. At the longinating of a project, consider the assessibility needs and shallengins of people with verying disabilities and how your design can address them. By experiencely leaking at your design with an assessibility mindoes, you can design to entigote personnel. constraints from the outset, rather than being them later. To reduce the effect and and to change the design later in the process, it is especially important to consider access bility during the project infrintes and design concept phases. These as jet previde resources and tools to be used by designers early in the design. Accessibility process. General references are listed at the end of this page in addition to a set of lenses "accessibility less ed." Each accessibility lens corresponds to one of the four main disability types: cognitive, hasting, visual, and motor, The access lably leaves provide a viewpoint for access tably. These leaves are intended to be used by designers in combination with their offering personal to gain empathy for people with various disabilities as you design, apply relevant guidelines, and evaluate your designs Each accessability less is included in an accessability bearint in evaluation to differ in based on India African's bearint in the contribution of the distance of the African African Section 1997. By using this tool to employ a hoursties review of your design, you are simultaneously schooling a standard houristies review as

well as an accordingly review, being you to encore that your deciging according and including for all potential cores, as well as for Libert with validate books benefit.

What is an accessibility lens?

Accessibility

Overview

Cognitive

Hearing

Motor

Many people are affected by a motor impairment at some point in their lives that might be permanent, temporary (for example, an arm or hand injury that causes short-term restriction the use of the limb), or situational (for example, holding a baby while typing).

Visual

Many users with motor disabilities access user interfaces by using some type of assistive technology. It is important to design interactions so that users do not need to rely on one particular input type or technology.

75 million people

(1% of the world population) use a wheelchair every day

13.7% of people

with a disability are affected by a motor disability that causes major difficulties with everyday movement

800,000 of all people

in the United States alone have a form of cerebral palsy

Examples of motor disabilities

Some examples include impacted fine or gross motor movement due to a repetitive stress injury, temporary injury, aging, arthritis, spinal cord injury (quadriplegia), loss of limbs, cerebral palsy, multiple sclerosis, muscular dystrophy, Parkinson's disease, essential tremors, and nerve disorders.

Accommodations might include eye trackers, switches and other controllers, keyboard navigation, track balls, track pads, onehanded keyboards, key guards, head wands, mouth sticks (sip and puff), and voice recognition software.



Design tools

The potential challenges of a user who has a motor disability include limited to no control over body movements, paralysis, decreased muscle control, muscle tightness or spasms, involuntary movements, or impaired speech. Also, users must use assistive technology to navigate an interface and might not be able to use a keyboard, mouse, or physically interact with devices. User might become easily fatigued because physical movement takes more effort and energy.

Research based education

- Incidence rates
- Accommodations
- Technical barriers

Motor references

These additional links are specific educational resources to help make designs accessible for people with motor disabilities. External resources are not affiliated with or maintained by IBM.

Providing Accessible Time Limits →

Guidance by the University of Washington on how to incorporate and provide accessible time limits.

18F Accessibility Guide →

Timeout guidance by the US Government's digital agency 18F

Keyboard Accessibility →

Keyboard accessibility guidance from WebAIM, including potential problems and testing tips.

Keyboard-Only Navigation for Improved Accessibility →

Guidance from the Nielsen Norman Group on how to improve keyboard-only navigation.

Keyboard Access →

Guidance on testing keyboard accessibility from 18F, the US government's technology and design consultancy.

Motor Disabilities →

WebAIM's reference information on motor disabilities. This information includes details about common assistive technologies that people use and specific ways to design to accommodate people with motor disabilities.

What is an accessibility lens?

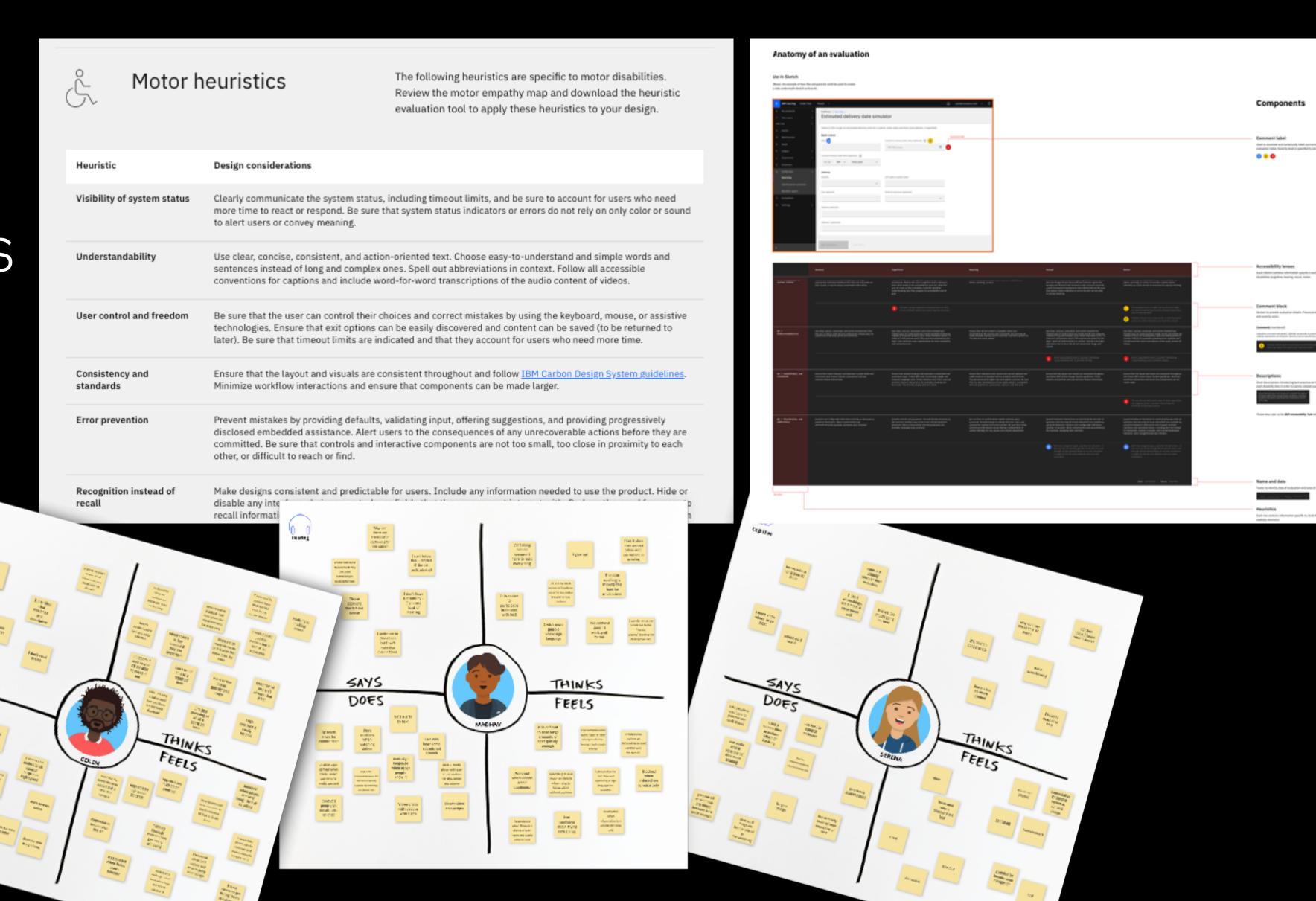
Integrated tools

- Empathy maps
- Design guidelines
 & heuristics

THINKS

Next reduced his many street to energy street is consist.

FEELS



What we achieved

- Refreshed focus on accessiblity within our team
- Readily available education
- Tools to use earlier in the existing process
- Intention behind the checklists

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Challenges

- Scalability
- Old processes die hard
- Broad spectrum
- Workplace pressures
- Time involved

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We can only get "so close"

Other lived experiences

- Being a parent
- Transitioning into workforce
- Being a soldier
- Experiencing a atural disaster

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My lived experience

Best intentions don't directly correlate to best experiences.

Everyone's needs are different.

Challenges represent opportunities.



What can we do?

- Continue what we <u>ARE</u> doing
 - Educate & build awareness
 - Be empathetic
 - Use and build more integrated tools, guidelines and frameworks

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And..

- Interrupt our habits
- Seek out excluded perspectives
- Collect and socialize narratives
- Add more diversity to teams
- Shift cycle to inclusion, one choice at a time.

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Building in diversity

"The most straightforward action anyone can take is to ask whose voices and expertise are missing. If you persistently ask this question, then it compels you to consider how you can create a diversity of ways for people to engage with the solutions you design."

-Kat Holmes

-Shifting to "Inclusive lenses" -

How might lenses apply to other diverse groups?

What might that look like?

How can we better convey lived experiences?

What barriers exist & how might we overcome them?

Broadening the scope

The Diversity Wheel used at John Hopkins University

Innate Traits

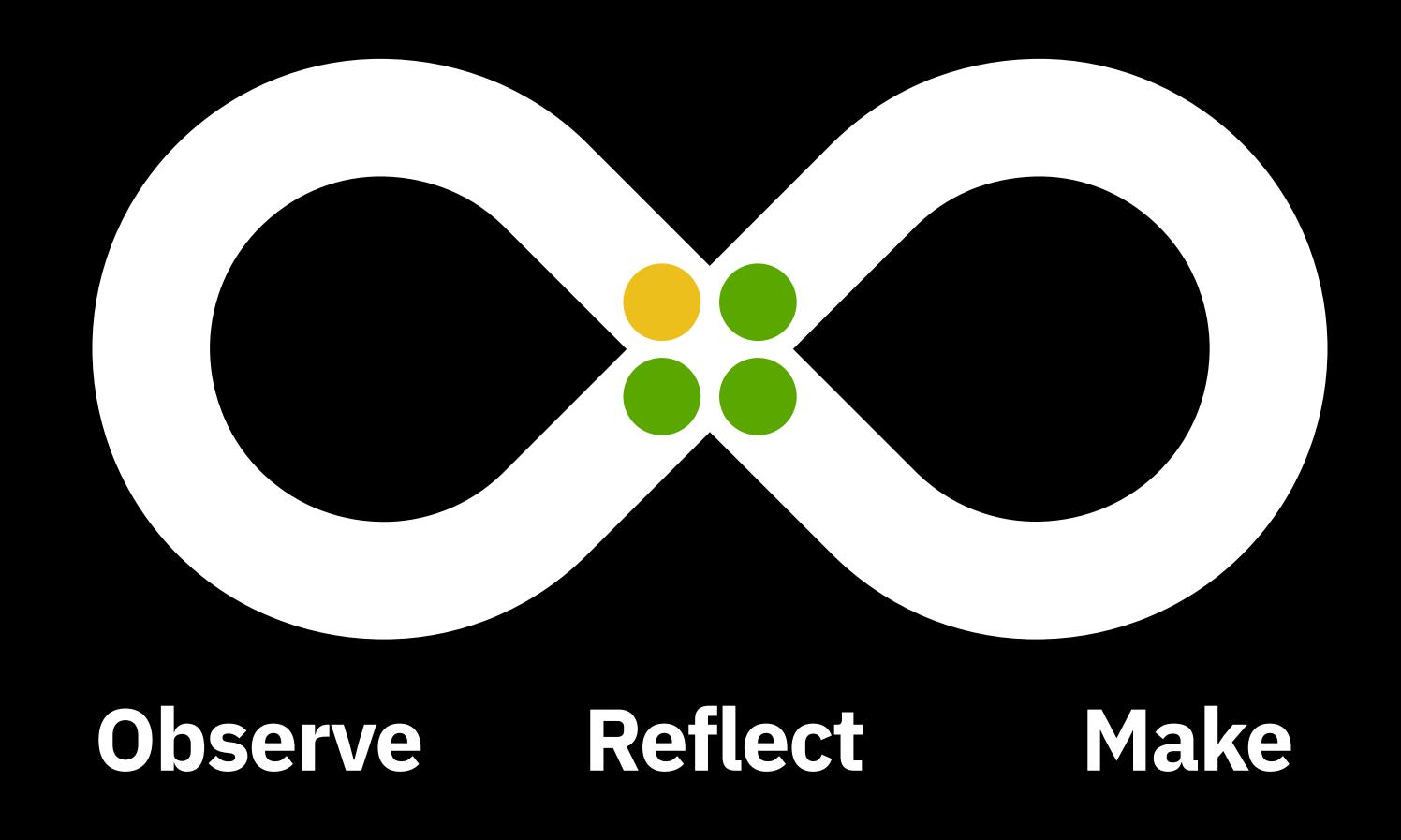
Education Work **Political** Experience Belief Age Race/Ethnicity **Family** Gender Identity Appearance or Expression Mental/Physical Ability Gender Sexual Orientation Organizational Religion National Role Origin Language and Communication Income Skills

Lived Experiences

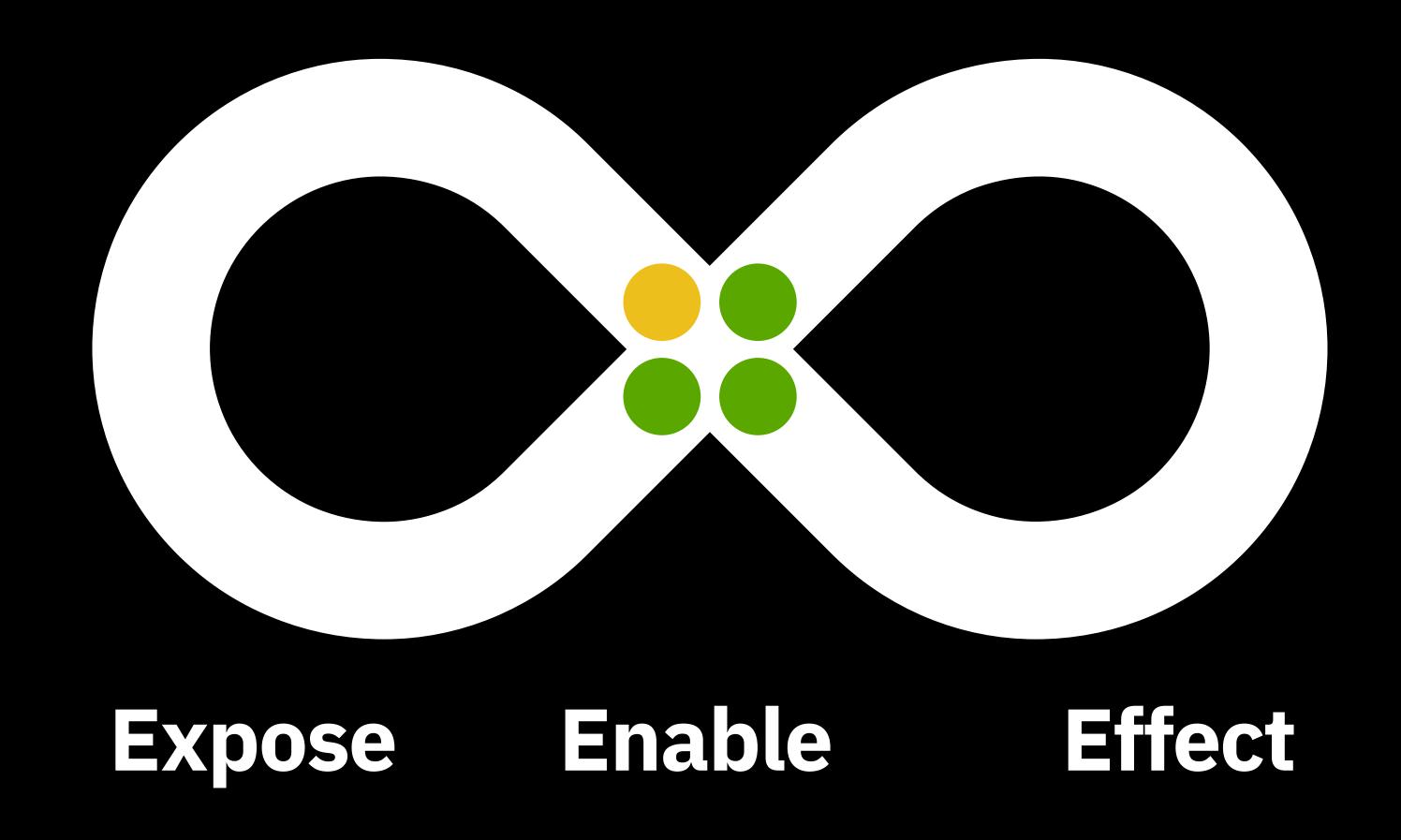
Environmental Factors

Generational Amplification

The Enterprise Design Thinking loop used at IBM



Creating empathy for the Lived Experience



Challenge Statements

42 members of our REiD community responded.

- How might we create empathy for the lived experience?
- How might we infuse inclusivity into the practice of design?
- What are our ethical responsibilities and scope of control as designers?
- How might we create better ways to promote inclusivity through the tools of our craft?

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Inclusive Design Guild

Expose the stories. Drive team exposure to Lived Experiences.

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Inclusive Design Guild

Expose the stories. Drive team exposure to Lived Experiences.

Enable inclusive design. Re-invent, diversify, and activate our design toolkits, processes and methods to enhance empathy.

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Expose the stories. Drive team exposure to Lived Experiences.

Enable inclusive design. Re-invent, diversify, and activate our design toolkits, processes and methods to enhance empathy.

Effect a culture of inclusivity. Intentional and systemic organizational growth in both inclusivity and recognition.

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DISCUSSION