ORDER THREE:

THE COMPASS PROJECT: CREATING EQUITABLE ACCESS THROUGH KIOSKS AND CO-DESIGN

Dylan Randall-Newberg

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RANDALL-NEWBERG

Dylan Randall-Newberg is a UX design student at the Savannah College of Art and Design (SCAD), where she focuses on human-centered systems, inclusive design, and emerging technologies. Her work blends research, interaction design, and social impact. Dylan is a Red Dot Design Award recipient and passionate about designing equitable tools for collective agency.

ABSTRACT

In Georgia's Chatham County, individuals experiencing homelessness face barriers to accessing essential services due to limited accurate real-time information. The Compass Project, a collaboration between students at the Savannah College of Art and Design (SCAD) and the Chatham Savannah Authority for the Homeless (CSAH), sought to address these inequities through a network of public-facing digital kiosks. Grounded in the Design Justice Network Principles[1] and Buchanan's Four Orders of Design[2], the project defined expertise as lived experience through participatory design. SCAD students facilitated this through three co-design workshops when a group of community members currently experiencing homelessness utilized SCAD student designers as tools to create a solution for their community. This paper outlines the design process and outcomes for inclusion across symbolic, material, interactional, and systemic dimensions. By choosing equity as a foundation for the structure of the kiosk and the community system that sustains it, The Compass Project offers a model for justice-oriented public infrastructure where technology is not just accessible but created by and accountable to the people it serves.

Keywords: *Design Justice, Co-Design, Equity, Public Infrastructure, Homelessness*

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In Savannah, Georgia, and the broader Chatham County, nearly 600 people experience homelessness on any given night, many being left without clear paths to shelter, support, or stability. Access to these basic needs is not just about resources; it is about navigating a fragmented system that was not designed for everyone. The Compass Project emerged in response to these challenges through a collaboration between students at the Savannah College of Art and Design (SCAD) and the Chatham Savannah Authority for the Homeless (CSAH). Our goal was to co-design a network of digital kiosks that deliver real-time, location-specific information on where people experiencing homelessness could have their basic human needs met.

Rather than applying a purely technical or user-centered lens, our team grounded our work in the Design Justice Network Principles[1] and co-design. Design Justice is a framework that facilitates a power shift away from designers and institutions and toward those most impacted by design outcomes. We prioritized lived experience as expertise, honoring the knowledge of people navigating homelessness daily through three workshops. These workshops were with people currently living the experience of homelessness. We facilitated activities ranging from journals to live-prototyping in order to center the voices of those we aimed to serve, encouraging community accountability and long-term impact.

Figure 1: SCAD students and community co-designers discuss current experience in workshop 1

This paper will explore our design process as we dismantle dominant narratives surrounding homelessness and instead highlight marginalized individuals' agency, dignity, and needs. Drawing from local needs assessments and lived experience focus groups, we argue that participatory, justice-centered design is most ethical and effective in building systems. We position this work within a broader call to reimagine public infrastructure as relational, inclusive, and shaped by the communities it exists to serve.

Understanding Barriers to Services

People experiencing homelessness in Chatham County face difficulty accessing essential services, including unclear pathways and limited real-time information on resources. According to the 2024 Comprehensive Needs Assessment[3], 74% of unhoused respondents reported making less than $5,000 annually, with many citing that even subsidized housing remains financially far out of reach. Focus groups with shelter residents and unsheltered individuals revealed widespread confusion around the coordinated entry process, lack of access to updated resource information, and frustration with being "left out" of systems meant to support them[4]. These gaps in communication, accessibility, and trust formed our project's foundation. Our goal was to co-design a kiosk that meets people where they are and accurately provides the information they need.

Visual Language as a Tool for Dignity

When approaching the design of public technology, the symbolic order plays a decisive role in whether information is inclusive or exclusionary. For the Compass Project, we knew the signs and symbols in our design would be foundational to access and could not be an afterthought. If a user could not comprehend the visual language of our interface, they would not be able to access the services they need. We treated clear symbolic communication not as a box to check but as an act of justice, an opportunity to reduce cognitive burden, and affirm trust through clarity.

In our co-design workshops, participants consistently voiced that many public-facing interfaces feel crowded, overwhelming, or inaccessible. We knew this would be magnified given that users would often approach our kiosks in times of crisis or fatigue. We introduced rounded buttons, simple layouts, and generous spacing to invite a calm interaction and reduce visual noise.

Cultural and linguistic inclusion was another key area of our attention. Sitting around our table of just ten co-designers there was an incredibly broad range in age, visual ability, educational background, native language, and more. Recognizing the diversity of Savannah's unhoused residents, we chose software to support multilingual abilities and user-tested our icons to ensure universal recognition. For instance, icons representing food, restrooms, or shelters were not chosen by designers alone but validated in interactive sessions with community members. This participatory vetting ensures visual communication without confusion or stigma; in alignment with Design Justice Principle 2[1], we centered the lived experiences of those most impacted as a source of authority, not simply a point of feedback.

Another approach to reducing cognitive load was to refer to our users' mental models. Many workshop participants mentioned a Google-style search structure, expressing that it was intuitive and empowering. As a result, the kiosk's interface contains a large search bar on every page.

It is important to note that symbolic design was not a static set of decisions and requirements in our process. It was a dynamic exercise in developing shared meaning. Participants co-created page structure and iconography and defined the hierarchy. This approach reframed our role as designers; as articulated in Principle #5, we shifted from being experts to tools. Our purpose was not to impose clarity but to create a collaborative space for it to emerge from. We were not just making things more "readable"; instead, we asked who needed to read it and what readability meant to them. Our signs and symbols became not just tools of communication but a moment of equity-building that was relational, respectful, and community-created

Physical Access and Environmental Reality

For the Compass Project, our object was pre-defined as an outdoor kiosk. We knew that the structure and materials of this artifact were equally important to its function and design. For our kiosks to be agents of public service, we felt a commitment to equitable presence, permanence, and respect. These manifested in conscious, research-backed decisions about height, interface technology, durability, and multisensory access.

Stemming from conversations around independence, mobility, and dignity, we examined ways in which access was currently limited. Starting at a fundamental level, we chose an ADA-compliant kiosk model with height and reach accessible to standing or seated users. Due to the public setting of our service, environmental resilience was our next challenge. Kiosks were intended to be placed in high-traffic, high-exposure public environments like libraries, transit stops, and emergency shelters. For reliability, it needed to be weather resistant and secure enough to withstand Savannah climates often hit with hurricanes and many tropical storms. Our chosen unit includes an outdoor-grade touchscreen and securable, durable encasement. These features reduce dependency on nearby infrastructure and ensure reliable function. If the kiosk fails in rainstorms, a time of peak need so does our mission of aiding in these pivotal moments.

Meeting all of these criteria on paper was not enough, we knew we needed to see users interact with the model for complete confidence in our choice. We created an exact replica that was exactly to scale in order for participants to test what the real size, shape and height of the kiosk would be.

Figure 2: Community member interacts with early prototype

We also integrated accessibility through multisensory interaction. The kiosk includes integrated audio output via a headphone jack. By enabling auditory navigation, we aim to extend access beyond the visual channel for users with low vision or print disabilities. We designed beyond compliance, with care for various human needs. We accounted for the variability of human bodies, the physical realities of public spaces, and the need for systems that affirm the presence of all.

Co-Creating Interaction Experience

As we approached forming our interactions and user experience, we included community members in building every layer of interaction. We did not wait for usability testing but co-authored the experience from the ground up. Our interface began with conversations. In our first co-design workshop, participants completed journals that helped us map their daily journeys when accessing resources and identify friction points. These insights defined our priorities to be simplicity, speed, and clarity.

Figure 3: CSAH employee reviews needs identification journal that workshop participants filled out.

With these in mind, we co-developed wireframes that reflected our participants' navigation instincts. They worked one-on-one with a designer, using a premade UI component kit to create a functional flow of interaction and screens. These contained clear search functions, large buttons, and minimal nested menus.

Figure 4: Sitting side by side, SCAD student live prototypes community member's early design.

At every phase, we iterated based on direct feedback from our users. Their feedback, such as "I'd like to see the weather on the homepage" or preferring blue for calmness, was directly translated into design updates and integrated before final usability testing and validation. We were collaborators, working in service of bringing this community's vision to life rather than authoring it ourselves.

Embedding Sustainability Through Local Stewardship

Once design and development were over, our project was not. We recognized that no matter how inclusive our kiosk was, this equity only went as far as the system we embedded it in. A system of development, implementation, and long-term stewardship. Our partnership with the Chatham Savannah Authority for the Homeless (CSAH) was pivotal. We kept their staff clued into every step and design decision so they would know the basis for their product and the intention behind each feature.

Figure 5: CSAH staff member interacts with final prototype.

One of our most important outcomes was a roadmap for the project's ongoing community governance. Rather than a tool that would degrade over time, we proposed a community-led maintenance and content strategy by creating a shareable how-to guide. We placed the updates, moderation, and evolution required of this maintenance in the hands of trusted local organizations and support networks. We answered questions like: Who continues the work after the design team leaves? Who has the authority to change, adapt, or dismantle the system? We knew the structure of our system needed to be inclusive and enduring to facilitate impact.

A Unified Framework for Justice-Oriented Design

In the compass project, each of Buchanan's Four Orders of Design[2] informed and reinforced each other. What emerged was an entangled process of clarity in symbolism, material accessibility, simple interaction, and systemic justice, all co-created and rooted in community care.

Our signs and symbols were created from participant insights rather than designer intuition. We brought this symbolic layer to life through accessible material hardware choices: weatherproof enclosure, ADA-compliance, durable screens and audio outputs. Interactionally, the experience was informed by community members' lived experiences and realities like time constraints, trauma, fatigue, and literacy variabilities. The systemic order ensured the kiosk was not a pilot but a long-term asset to the community through local agency commitment.

When aligned, these four orders make inclusion operational, not just an outcome. Design Justice Principles[1] helped us integrate ethical, practical, sustainable, and scalable practices. These four orders and ten principles transformed us from designers into tools working to bring this marginalized community closer to being seen and served.

Conclusion

The Compass Project demonstrates that equitable access is not simply a matter of providing information but of how, where, and with whom that information delivery is designed. By aligning Buchanan's Four Orders of Design[2] with the Design Justice [1], we co-created a kiosk system that reflects the dignity and expertise of people experiencing homelessness in Savannah. This project reframed the designers role from experts delivering solutions to facilitators integrating collective knowledge into inclusive systems. Our collaboration with community members embedded inclusion from the start, resulting in a more functional, trusted, and enduring impact. As we form the future of public infrastructure, this project invites designers, institutions, and policymakers to work beyond compliance and toward co-creation in order to build equitable communities. Equitable solutions must not be designed for marginalized communities but with them.

References

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CRAFTING INTERFACES FOR COMMUNITY RESOURCE DATABASES THROUGH CO-DESIGN

Fozzie Kretschmer and Rachel Prado