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The (Re)Search for Inclusive Healthcare: Designing Pedagogy and a Reflexive Practice

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Abstract: Clinical trials are some of the most inequitable spaces. In April 2022, The Food and Drug Administration (FDA) requested clinical trial sponsors to address recruitment gaps. **Could design practitioners and new perspectives evolve a historically marginalized space to increase racial and ethnic representation in cancer clinical trials?** For instance, In 2020, 4,922 patients participated in clinical trials of the 18 approved drugs, where 73% of the trial participants were White, 5% Black/African American, 14% Asian, and 6% Hispanic. So, while the FDA approved these medicines, they were not for everyone. Since clinical trials are exclusionary by design, Cedars-Sinai partnered with Designmatters at ArtCenter College of Design to invite students to reimagine how they recruit for their trials. Increasing diversity in these trials is challenging; it reveals the need for more trust between historically marginalized communities and health institutions. Using a roundtable format, the authors unpack creative bias and co-creating with individuals with lived experience with designers and research participants. In this conversational paper, the authors explore research-centric graphic design pedagogy as a means to encourage design students to create more inclusive and representative work. Ultimately, this paper aims to explore design education rather than critique design as a discipline.

Keywords: *graphic design pedagogy; clinical trial recruitment; creative bias; co-creation; research-driven design*

Introduction

Graphic Design is a unique discipline; many claim to be a designer without a degree (Wong et al., 2018; Debbie, 2011). Due to the insurgence of artificial intelligence, visual design has become easier for individuals with less to no traditional training to explore as a medium. Most employers expect to employ trained designers and individuals ready to act on the field on day one (Benson, 2020), and design students are required to demonstrate extraordinary competencies to secure a job (Adu, 2015). While graphic design education is becoming increasingly challenging, the discipline is imprecise and needs to define and assert itself (Meron, 2022). Meron (2022) argues that graphic design lacks authoritative academic literature to draw upon, which drives the focus on the most visible function of the discipline, i.e., aesthetic outputs. While graphic design may have its own rigorous research practice, it lacks frameworks and methods to contribute to the changing reality of the world—socially, politically, culturally, and economically (Walker, 2017). As a result, this paper approaches these challenges through a conversational lens of



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educators, students, and co-design participants. It attempts to codify a learning method where engaged community partners and project sponsors can provide field experience for students while benefiting from critical perspectives and a research-driven visual design process.

The paper focuses on the experience gained during and after the Fall 2022 “The (Re)Search for Inclusive Healthcare” transdisciplinary Designmatters course at ArtCenter College of Design. Designmatters at ArtCenter College of Design is an educational department within the College (non-degree granting); it collaborates with mission-driven nonprofit organizations, industry, and national and international development agencies, resulting in immersive, impactful research and projects. The client of this course was Cedars-Sinai, a premier medical institute with a competitive research program. Both institutions, Designmatters and Cedars-Sinai, are identified as non-profit. It is essential to acknowledge that the relationship between Cedars-Sinai and ArtCenter students has been fostered over the course of several years and prior courses and fellowships by the Designmatters team and other ArtCenter educators. Additionally, we recognize the benefits and privilege of this collaboration with an established medical and research institution that has resources to support the classroom experience. Individually, for educators, it may be difficult to create similar learning circumstances for students. However, this paper emphasizes the value of deeper investigation and engagement with subject matter in visual design classrooms, as articulated by students and partners in the conversation.

Authored by the co-teachers of the course, this paper is an exercise in creating a reflexive design practice to insightfully improve design pedagogy. While the paper uses the terms reflection and reflexive, the reflective analysis is used as a systematic search for patterns, logic, and order, whereas the reflexive approach opens our practice, assumptions, and ethical action as we engage in a reciprocal nature of perception (Cunliffe, 2004; Buchert, 2021). The authors define reflexive pedagogy as the central theme of investigation to indicate that educators and students need to self-assess the circumstances as they are happening in the class to learn the nuances of applied design learning.

Through its literature review and roundtable conversation format, this paper investigates the relationship between class and care, the impact of societal and environmental barriers on healthcare, and the value of designing with individuals with lived experience while also creating an expansive space for reflection on the course methodology, challenges, and approach. Finally, this conversational paper aims to represent an honest dialogue on design pedagogy between non-traditional designers¹ and traditionally trained designers.

The Gap Between Medical Institutions and Communities

Context is key. To design better and holistic products, we need to learn the history of the identified issues we are exploring. Hence, the authors recognize that knowing the relationship between medical institutions and communities is essential to define the frame of reference for this conversational paper. The authors chose to keep this section brief because the conversation dives into several nuanced and needed conversations that cannot be summarized here effectively.

Public health challenges have historically led to class discrimination, with diseases often viewed as a condition of people experiencing poverty. At the same time, the wealthy could retreat to country estates (Institute of Medicine et al., 1988). As a result, sanitation responsibilities were often shouldered on individuals experiencing poverty who did not have the time or privilege to clean their surroundings, leading to clear evidence of class, privilege, and discrimination in public health. Furthermore, the US has engaged in several immoral and illegal acts of testing individuals in and outside the country, including the 1946 Guatemalan study that infected at least 5,128 individuals without their consent (Rodriguez & Garcia, 2013). The Tuskegee syphilis experiment is another example of non-consensual human experiments conducted by the US government, which left victims without treatment or support (Rodriguez & Garcia, 2013).

US healthcare access is intrinsically tied to economic status, and socio-political factors can significantly marginalize historically underrepresented communities. Ultimately, the National Research Act of 1974 led to the creation of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, which identified basic principles of research conduct and suggested ways to ensure those principles were followed. Unfortunately, regulated testing often results in the underrepresentation of historically marginalized communities and many communities’ attraction to clinical trials as an option due to malpractice evidence and mistrust. Dr. Nancy Krieger, a

¹ *Non-traditional designers* in this context stands for individuals who participate in co-design sessions but do not hold a traditional design degree, diploma, or certification.

social epidemiologist, has been trying to change traditional medical research and focusing on developing community-based participatory research (CBPR) involving equitable partnerships between community members and researchers. CBPR is a research approach that seeks to build partnerships based on trust, mutual respect, and shared decision-making. The (Re)Search of Inclusive Healthcare invited individuals with lived experience as research participants, co-creators, and experts.

Understanding Design's Role in Disrupting Exclusionary Praxis

Traditional design practice favors power. George Aye, in his critique of Design Education's Big Gap, talks about the fact that while more students and designers are choosing to dedicate their time and skills to complex problems, they are not trained to better understand the nature of power and how to work with it (Aye, 2017). If we are designing for humans, we are designing for a complex web of power, and acknowledging the inequities and imbalances needs to be part of design curricula. While the first generation of constructive design researchers was trained in ergonomics, usability, and psychology (Koskinen, 2010), few colleges are able to operationalize design research education that disrupts exclusionary and inequitable spaces by questioning power distribution or inviting community members to co-creation. For example, when the University of Art and Design Helsinki started to build a more robust research-driven design education agenda, they learned that not many senior faculty members had the experience of leading design research initiatives; their curriculum and expertise were focused more on visualizing strategic objectives than the agenda the School of Design created (Keinonen & Koskinen, n.d.). More importantly, since the standard definition of design is shifting, design education needs to contribute to defining continually changing methods and strategies that students need to become adept at addressing (Chmela-Jones, 2017). It is imperative to acknowledge that design pedagogy has been perpetuating hierarchical structures by teaching students and future designers to create in isolation, focus on practical skills, and learn design mechanics without addressing the politics of design. As educators, we need to shift our focus towards a design pedagogy that emphasizes testing and fosters participatory or co-design with communities/clients. Community engagement holds the design practitioners, educators, and students accountable and ensures the work retains its purpose (Tarallo, 2013). The authors are motivated by the value of research and an evidence-driven visual design approach that trains the students to work better with communities/clients, create holistic deliverables, and attempt to comprehend or disseminate power through their work.

Methodology

This paper reflects on the need for teaching evidence and research-centric visual design practice through an interdisciplinary roundtable of designers, community (organizers), and teachers. The authors of this paper co-taught a Transdisciplinary Design Studio in the Fall of 2022 at ArtCenter College of Design, which focused on increasing awareness of and enrollment in Cancer clinical trials within diverse communities, most specifically Korean and Latinx communities. The class mainly focused on (1) careful consideration of the design process and its relationship to bias, listening, empathy, respect for the audience, and journey mapping; (2) in-depth guidance and prompts for quantitative and qualitative research aimed at understanding the communities we aimed to serve; and (3) structuring insights, opportunities, and theories of change while developing project messaging and touchpoints.

While the course culminated in three different multi-media campaigns designed by students, this paper focuses on how a collaborative approach impacts design pedagogy and creates a reflexive practice. Since this course was critically unique, the authors recognized the need to formalize the learning and reflect on the opportunity to better understand the need, value, and outcome of co-design and participatory research methods in the visual design classroom. Furthermore, to understand the criticality of this work and capture the nuanced conversation, the authors divided the roundtable conversation² into three parts for this paper, which are as follows:

1. People and Bodies: Understanding the Context
2. Evidence-Based Visual Design: How We Utilized Design and Community-Centered Approach to Reimagine Cancer Clinical Trial Engagement
3. Applied Design and Pedagogy: Strategies Used in the Classroom

² Some of the questions from the roundtable were:

- What persistent challenges do you face while engaging your research participants or designing with them?
- How were [students] challenged to develop skills outside your area of emphasis?
- What did you hope to see in the solutions for the communities that each of you focuses on in your work?

The roundtable discussion was two hours long and was followed by intentional editing of the content to maintain the authenticity and spirit of the discussion. The key participants of the roundtable conversation (Table 1) were students, co-designers, peer faculty, and community advocates of varying races, ethnic, and genders to represent the breadth and depth of this conversation.

Table 1. Roundtable participants

PARTICIPANT	TITLE	RELATIONSHIP TO THE COURSE
Xiyu Chen (she/her)	Interaction Design Student	Student
Noah Cousineau (he/him)	Candidate, Master of Graphic Design	Student
Dr. Ghecemy Lopez, DSW, MAEd (she/her)	Program Administrator of Navigation, Survivorship and Advocacy, Community Outreach and Engagement, Cedars-Sinai Cancer Research Center for Health Equity	Co-designer, Community Advocate, and Cancer Survivor
Anthony Ayala (they/them)	Former LGBTQ+ Community Outreach Coordinator, Cedars-Sinai Cancer Research Center	Community Advocate
Joshua Halstead, MA (he/him)	Assistant Professor of Social Innovation, Designmatters, ArtCenter College of Design; Co-Author of <i>Extra Bold: A Feminist, Inclusive, Anti-Racist, Non-Binary Field Guide for Graphic Designers</i>	Peer Faculty

People and Bodies: Understanding the Context

In this section, the roundtable participants and facilitators explore the foundation of inequities and research gaps through lived experience. To understand the interdisciplinary context of this class, we start with the need for more equitable campaigns and missing representation, the politics of design, and how these intersect with the curriculum and class structures at ArtCenter College of Design. Finally, this section highlights the value of participatory research and partnerships in design research and education.

Nidhi: When it comes to class, hierarchy, and societal needs, care has been different for everyone, and we cannot have today’s conversation without recognizing the impact of the marginalization of communities and people. Let us start with a quote that may help us set the intention of this space:

Public responsibility for the health of the population became more acceptable and fiscally possible. In earlier centuries, disease was more readily identified as only the plight of the impoverished and immoral. The plague had been regarded as a disease of the poor; the wealthy could retreat to country estates and, in essence, quarantine themselves. In the urbanized nineteenth century, it became obvious that the wealthy could not escape contact with the poor. (Academies Press (US), 1988)

So, to start our discussion today, let us start with politics of people, design, and research. Dr. Lopez, would you like to share your experience on the importance of evidence-driven and co-designing work as a two-time cancer survivor in the cancer clinical trial space?

Dr. Lopez: Yes, thank you. From the perspective of a patient, clinical trials are, unfortunately, not introduced until after the diagnosis. And that is the main challenge. Usually, patients talk about clinical trials as a last resort while they are in an advanced stage. And that can foster the misunderstanding that clinical trials are only for people with terminal diseases. This is not necessarily the case. Clinical trials are available for all stages of cancer, as well as people with a high risk of cancer who have never been diagnosed. Especially if healthy people participate, we can help identify ways to prevent or predict when cancer is beginning to form within our system. And if we can determine how that immune system works in healthy people, we can seize research opportunities. And yes, you were right; I was diagnosed with breast cancer 12 years ago and thyroid cancer ten years ago. So [this topic] hits close home. But at the same time, I was never informed about clinical trials as a patient, even as a possibility. I think that was because I was in the early stages of both. But one of the things that happened is that with cancer treatments, specifically with surgeries, chemotherapy, and radiation, we have to face a lot of collateral damage³. And we don’t realize that there are opportunities in clinical trials even for the collateral damage of the treatments. We could potentially prevent the bad quality of life that many patients face once diagnosed for the rest of their lives. So, when I talk to patients, as a

³ Collateral damage here refers to the unintended damage done to the immune system or body of a human who has been diagnosed with cancer and manages to survive it.

cancer survivor, I ask them to weigh the risks and benefits in addition to encouraging them to also think of the larger picture⁴. We are also [participating in clinical trials] as part of social justice. Because the type of people who participate in clinical trials don't usually look like me—a Mestiza. And I want to make sure that there is equitable representation in this space.

Nidhi: Everything you shared is precious because during the class, we didn't get to explore the world of collateral damage and what happens after the trials. We were more focused on creating a way for people to discover cancer clinical trials earlier than they do. We focused on deep discussions on the harm done historically and how we need more inclusive methods and practices to disrupt the traditional approach. Dr. Lopez, thank you for sharing, and Anthony, I would like you to take us forward and dive into how historical marginalization impacts today's practice.

Anthony: I think it's important to recognize that we had a long history of eugenics, we had a long history of institutions weaponizing science denying indigenous people of care, we had many different, I think there were two different generations of people that were ousted entirely from our medical institutions, as we see today. And even on the concept of clinical trials, when there were opportunities for testing, whether it was vaccines or the things that first people to be tested on, were not historically speaking by affluent people, it was usually folks of color who just kind of like gathered together. There were less strict and modified protocols within testing. So obviously, hospitals were not treating folks like that; they were institutionalizing [queer individuals] and throwing them into asylums. So, it wasn't until, I would say, probably the 70s that folks started to go to medical institutions. HIV specifically, we had medical institutions saying it was a gay disease, institutions saying that it's [a queer] problem, we're not going to intervene. I see it now that a lot of it hasn't improved because institutions haven't taken any public accountability for the harm that's been done. And they've always taken the moral high ground of like, okay, we can acknowledge that harm has happened, let's move forward, but they're not doing anything to rectify the damage done from the past. So it's tough for communities to trust when there's no effort among medical institutions to acknowledge what the harm has been done, and then to kind of like rectify and say, *Hey, like we recognize you, we see you, we're going to make sure this doesn't happen to you again*, there really is no dialogue between the community and medical institutions. So, yeah, I'd say that's a very loose history of public health interactions in the US, how I see it. And obviously, that's not even getting into the intersection of race, where there's, I mean, Tuskegee, so many different aspects of discrimination, not just based on gender identity, expression, or sexual orientation.

Nidhi: Yeah, and it's not limited to research; it is deeply rooted in our ill-designed systems. We rarely get to talk about this critical intersectionality of inequity and discrimination. Through this roundtable, Monica and I hope to identify the value of bringing a fresh perspective to traditional institutions and understand how promising it is to codify. There's so much to learn about the dynamic between medicine and people, but I'd like us to pivot into the reality of design research at this point. Josh, could you share your thoughts on the politics of design in the context of cancer research and our class?

Josh: So, one important thing, from the perspective of disability, is that often what happens in medicalized spaces is that the disabled bodies are positioned as problems. Disabilities and conditions are positioned as problems and things that need to be fixed. And, you know, as you introduced this, the notion of having the class intersection as part of this conversation is also a meaningful context to know that disability wasn't defined as such until it co-evolved with industrialization where bodies that had certain conditions, that moved slower, that had different ways of processing information, and kind of a non-mechanistic, in a non-industrialized system got positioned as disabled. Why do I think that's important? I think it's the idea that design is a co-evolving discussion in bioethics that we typically think about when we think about bodies; they're not just in a vacuum. But bodies are always, in our minds, typically operating within a spatial context, within a design context. Right. So, it's not just a disabled body⁵. And that's why the point of the co-evolution of disability and industrialization is essential. Cancer is something happening in your body and also out in the world. Kind of how your experience of cancer is mediated, you know, within your body, but also through social, political, and material contexts. It's so important to conceptualize specifically in a medical context how our bodies exist within space and how our fluid movement through the life process that often includes disability is impacted not just by what's happening in our body but, you know, the social discursive, the material environments, that I think of a lot. How that produces different meanings of what disabilities are, and also reorients, the direction of clinical trials, it's that we'd be hard-pressed to find a clinical trial that says, in addition to looking at what's happening

⁴ The larger picture here is the fact that clinical trials are inequitable spaces, where we don't see representation from different races and ethnicities.

⁵ Disabled in our conversation emphasizes the perspective that *disability* is primarily a result of societal and environmental barriers rather than an inherent flaw in individuals with disabilities.

in the body, we ought to also consider the political and the material factors in which this person experiences [the world]. So anyways, I'll stop there.

Monica: A big challenge we identified as a class and from the beginning when we received the brief from Cedars-Sinai, was understanding the context outside of just the medical perspective. This included understanding the communities we were hoping to reach with the campaigns. The outcome of the class wasn't defined at first, but we knew that we were looking at some specific communities.

Now I'd like the students to chime into the discussion and share how they approached this class. Noah, would you like to start?

Noah: Yeah. I thought this class was a tremendous challenge for me, like not only was the course itself really beneficial, but I thought it was exciting because I never designed it like this before. I'm used to creating these corporate identities in classes and things like that or creating something for a business. And I never had the perspective of designing for other humans, just for human sake, but [overall] I thought it was a fascinating challenge about bias. There's the obvious fact that I'm a white man, right? So, I'm usually the benefactor of the systems we're talking about, so I tried as hard as possible to understand perspectives outside of myself, which was somewhat tricky. A big thing that fascinated [our group] was language overall. I never even thought about doctors speaking different languages or translators in medical contexts. Ultimately, the whole concept of our program was the concept of community. With the [omnipresent] mistrust of medical institutions, we relied on the community as a guiding factor for our project. We were fascinated by how strongly the concept of community works. We took advantage of [the mistrust] through our application and concept. It was fascinating how we had to get really deep into this and how much of this health problem doesn't involve health aspects, right? We're talking about, you know, communities around Los Angeles, we're talking about income, transportation was a big one, how to get to the hospital. This course made us consider the many different aspects of just one problem.

Monica: Thank you, Noah; you covered so much there. And, yes, really thinking through all of these different aspects, I believe, was such a massive part of the course. Because the problem initially seemed deceptively simple: making a campaign to promote clinical trials. And then, once we started to get deeper into it, we realized how much we needed to learn and understand, and I'm so glad that you touched on the bias as well because that was a huge part of this. We all had to recognize how our perspective and experience could limit us. At this point, I'd like to invite Xiyu into the conversation.

Xiyu: Before I joined this class, I worked on similar issues—social innovation with user experience design—where I designed a color blind diagnosis system and worked on a restaurant for visually impaired individuals. So, I somewhat know how to start with basic research. And this is how I help my team build the basic understanding [for this class]. And after that, I think the continuing meeting with Cedars-Sinai provided many great insights. We talked about how hard it is for them to promote the idea of clinical trials to the different communities, how it's tough to reach most of them, and how convenient it is. And from there, we could start. What we wanted to do the most is to make people aware of this issue and identify the best place for us to promote and reach a broader range of audience. We came up with the idea with posters, the path, and advertising, and also, we have this ad and brochures for the retirement home where most of our target audience may live. But it's not as convenient as talking with the clinical trial team because they know the best about their target users. We found some helpful insight online, like why some users are kind of against [the idea of clinical trials] and how I try to use cute illustrations to make people feel more at ease in adopting this idea.

Monica: A big part of what your team did was make this information more inviting. The idea of joining a clinical trial, it's unknown. It's scary and, and it's complicated, so I think it was an exciting path that you all took in terms of looking at the emotion, the assurance, and the ease with which the information can be provided to people from different cultures and in other languages so that it was very able to be received in a more comfortable way that took away some of the fear. That was a big success for you all. So now, to Dr. Lopez and Anthony. I want to ask, when you hear the students speak about some of these discoveries and thoughts about the foundation of the project, did this align with what [the Cedars-Sinai team] was already considering or expecting this class to come up with? Or is this process, the partnership between Cedars-Sinai and ArtCenter students, allowing something more unexpected to happen from a different perspective here?

Dr. Lopez: I do appreciate what Noah mentioned about, you know, putting yourself in other people's shoes in order to serve the purpose of what we're trying to do. And that was probably, at least I can speak from personal experience,

that I try to also put myself in the shoes of an artist of what you will need from us. So, we could make this collaboration a little better. And I am grateful to hear that you were doing the same. And it didn't seem forced. So that's great. And one other thing that came to mind during this conversation right now was, you know, Josh mentioned the issue of disability; for us, as patients, I didn't even realize cancer was a disability until after the fact. So just thinking about your perspective or work also helps us brainstorm and think outside the typical healthcare vision. That's what has been very helpful. So, thank you for that.

Anthony: I'd like to go on and just build upon Dr. Lopez's statements; I think, in my opinion, it always takes a village to create something extraordinary that will reach a lot of people. I don't have a lot of faith, just within a single partnership, because I think the medical institution at large does a great job of setting up the hierarchy. We're the experts, and you're here to listen; we're inviting you to our space to educate and teach you and provide and bestow information upon you. [Campaigns are] completely bi-directional. People inform each other's perspectives, as Noah touched on. So, we know that has to be the approach all the way around, and you're doing a splendid job of doing that. I believe in order for something to work, I think, it needs to be explored outside of a direct partnership, outside of where there might be stakeholder interests, specifically, like really disrupting the flow of the work, which means, in my opinion, like, really the authenticity and the root of why we're doing what we're doing, not just to produce a project, but actually to commit ourselves to justice. We enlist the help of the community to take a stand and say, like, the institution itself is not going to disrupt itself, right? We need to have people that are going to, we're going to be antagonistic, we're going to demand things, we're going to say, *hey, like, we understand that you were at capacity as providers, but we're going to meet you halfway, meet us halfway*. It takes a minute and only a few seconds to talk with a community member, and that's where you start to see the lack of care or the intention of care based on who you're speaking to. And I think in order for us to pay for something that's going to be taken up by the community, it has to be by the community and for the community. I think the community sees well through that, you can have as many resources, fancy treatments, and spaces as you want, but if the community is not aligned with it or feeling it, it's just not going to happen. Like, you won't get the people you want to show up. Right. And I think that's the most important thing. Regarding this campaign and the development of art, I always think of art as the output of human passion. And so, we're passionate people engaged in this project; it will show one way or another.

Monica: Thank you. I think that's a perfect note; what I thought about when you were both talking was, I don't think it was even accurate to call it a partnership just between Cedars-Sinai and ArtCenter, because it was indeed a partnership between our institutions, and then also community members. [It was expressed in the class that] the students all got a lot from going out into the community and visiting the church and clinic⁶. Throughout the class, they were pushing us as instructors to get more involvement and connection with people—as much as possible. The complete partnership is definitely more significant and always needs to be bigger for this kind of challenge.

Evidence-Based Visual Design: How We Utilized Design and Community-Centered Approach to Reimagine Cancer Clinical Trial Engagement

While most classrooms give some research opportunities to students, a project that engages individuals closest to the issue helps student design for clients while being intentional about the impact of their work. Anchoring the conversation in student experience, this part focuses on the value of a community-centered approach of designing for an exclusionary space. The aim of this section is to highlight the value of applied design and how it distinctly improves the quality of work developed in the classroom.

Nidhi: To discuss the value of this class and curriculum, we'd like to dive more into the nuances of this course and its approach. One thing we'd like to learn as part of this roundtable is how similar or different the class was while recognizing that having a live project is very different. But as a student, what seemed to attract you to this course?

Noah: Honestly, it was the first course I took like this in general because up until this point, I was taking typographic courses and branding courses, which usually asked us to make an identity for a company of some sort. Before, I never had the concept of designing for an individual or a person just for the sake of doing it; usually, it's always for a larger organization. While I was taking this class, I was also rebranding the California State Parks in another class. Everything done in that class is for the brand; it's for how people are going to perceive it. It didn't get as deep as talking to individuals who have experienced cancer and interacting at a profound human level. We were not worried about the greater brand appeal. Instead, we're doing it just because humans need to know more clinical trial experience and

⁶ The Cedars-Sinai and ArtCenter teams coordinated visits to LA Onnuri Church and Koryo Health Foundation, giving the students the opportunity to talk with community leaders about their campaign ideas and test their design prototypes in real environments.

because we all can benefit from it. I think in that aspect; it was a great push because it was an art class in the sense that, you know, like, that we had to create all these identities. We had to actually create these posters and everything. It felt like something more because, you know, this is the first time that it's art plus something, you know, it's not just for the sake of it, it's for driving a more wholesome experience overall.

Nidhi: Thank you, Noah. That is such a valuable insight, *creating for humans for humans' sake*. Xiyu, since you were talking about working on similar projects, what was your experience in this class? How was this different or similar to your other work as an interaction design student?

Xiyu: This is the first time I faced clients from the medical field. So, [the difference] would be people. In other classes, first, the teacher will give you a prompt; then, you will design it. And then, the teacher will provide you with the feedback and the critiques. But I know that it's not a real-world solution at this time. In this course, we have this authentic experience of how we deal with the client and how the clients will choose which plan best fits their target users. And that's a valuable experience I can never experience in another place. And I also had an interest in medical products, but I never had the chance to meet people from this field.

Noah: To add to that, quickly, yeah, this is the first time I experienced something in ArtCenter that wasn't in a vacuum. This was an experience where, like, actual people were going to or like real people, were going to feel the impact of what we created, you know, people going to see it and experience it.

Dr. Lopez: I'd like to add that as a patient, I never feel seen in the hospital [where I was getting my cancer treatment]. Because none of the artwork on the walls, the brochures, or the posters reflected me, or I didn't see anything I could relate to. And I'm not just talking about the technical part or the language part, which was also important, but just in general, I didn't feel like I belonged there. And that's precisely why your work is so important to us because you're helping our future patients feel involved from the very first moment they walk into the hospital or the clinic. And as a patient, we suffer this additional trauma. And, you guys are helping us, you know, fill in the gaps for the system that is not adapted to the needs of people who have suffered trauma.

Monica: Yeah, definitely, there's that inherent kind of exclusion of not seeing yourself reflected in the environment or the messaging at all. And I think that's something that a lot of people are not aware of if they aren't feeling that personally. So that ties in well to the next question about our methods. During the class, we had some great sessions. And Dr. Lopez, you were really helpful in one of those sessions working with the students. One thing that we established that Nidhi and I talked about a lot was that we weren't designing *for* people; we wanted to design *with* people in this space. And when you came in and looked at the work, gave feedback, and talked to the students about what was in development, that was really useful for them.

To the students, how did you feel about that experience of being able to co-create and get some feedback in real-time while the projects were formed from Dr. Lopez and other community members like Linda Pura, whom we spoke to? How was that for you?

Noah: I think it was fantastic. It was not just beneficial, I think it was critical to making an effective product; I think, like we were discussing before, this whole concept of being in a vacuum in school, you know, and, like, running this by someone and saying like, *hey, is this effective? Is this working?* And it was lovely to work with people in that sense. This was critical to making an effective product. Because if it wasn't for that, we just are like, okay, this is working, we assume. So, yeah, the interaction was critical. Xiyu, would you like to comment?

Xiyu: I liked that the clients/partners participated throughout the process. So, if we have any questions, we ask the professors; sometimes, it's really convenient. And we need to find out what's the real feedback from them. But in this class, we could always see the clients, as I said, kind of every week; we can continually update our questions and send the files and then get the response very fast; that's a very convenient way for us to change our direction, or revise our work based on the feedback because if we fail early, then we can turn our focus where we fast if we only meet client once in the midterm and the ones in the final, you will end up the work is not satisfying for both.

Nidhi: That's such an important reminder, Xiyu, because one of the things I remember from class is how the field visit helped your team understand the significance of color, illustration style, and messaging that when we saw you in class; you decided to pivot to a different illustration treatment. You saw how messaging in the church and cancer center was more friendly, used lighter colors, and was more approachable... you decided to retain that value in your work. Going there and seeing what works with the community made such a difference. As an instructor, it was also

exciting to hear students check their biases, reflect on their actions, and pivot toward something beneficial for their campaign. I think it was crucial learning of what it might feel like to work with the community and your stakeholders.

Monica: I think the constant communication and connection were so valuable. We were all really grateful to everyone who participated in making that happen.

Applied Design and Pedagogy: Strategies Used in the Classroom

Concluding the conversation, this section of the roundtable conversation delves into the challenges of such projects, the outcomes of the class, and the conditions required to develop similar engagement. To define design pedagogy centering on social innovation and critical thinking, this section proposes a framework teachers and students can use to create equitable products and concepts.

Monica: Now, let's talk about the class structure and student teams. In many classes at ArtCenter, everything is very individualistic in that you're trying to figure out your own projects. Although in TDS⁷ classes, particularly Designmatters classes, one of the crucial and interesting experiences is being assigned to a team and figuring out that dynamic. So firstly, Xiyu and Noah, we'd like to ask your thoughts on teamwork. How did you bring your perspective and your expertise into the project? How was that complemented or challenged by students from other majors? And just in general, how was the team dynamic?

Xiyu: In this class, our team had students from Advertising and Illustration. That's very well complemented because we all did the things, we were good at. I did the platform, the advertising student did the campaign promotion and brochure, and the illustration student developed the illustrations. Our skills sit well together, and we were able to help each other out. It was a bit of [bad] luck that they were fairly busy. If we had more time, we could definitely do better. But those things happen. I'm already satisfied with our skills and the campaign we proposed; everyone's skill was used very well.

Noah: For me, the two other students in the group were from Interaction Design. Going back to our earlier conversation, this was the first time I was in a group project with other students from other disciplines and the first time in a group project at ArtCenter. So, yeah, and it was a fantastic opportunity because a common thing I always hear is that we should talk to other disciplines. Having a class with other disciplines is really fantastic. A lot of times, we had a certain lingo that others didn't understand. So, it was a good exercise to simplify our terminology and constantly take a step back from your work. Alternatively, I did struggle a bit with my group because there was not a lot of cooperation and listening going on. We moved away from the core of our concept because of our differences. So, it was a challenge at the time, but in hindsight, it was a challenge I was happy to receive because in real life, I'll have to navigate these situations.

So, it was a good challenge, and we found ways to resolve our differences. I learned how to nip issues in the bud because if it wasn't for that, we would've spiraled further. It was definitely challenging working in groups, but, at the same time, it was a fantastic opportunity because it was the first time, I was able to work with what I'm studying, and work with people who have different mindsets. So, fantastic overall.

Monica: Thank you for your honesty and for mentioning that there was a challenge. That's an aspect of the way that these courses are designed and how they're set up as educational opportunities for you all. There are those moments like what you talked about when everybody's not on the same page, and the team needs to realign and really ask what the goal is. And I sometimes think that debate, even though it's uncomfortable when it's happening and feels like "Oh no, we're getting further away from our goal and the conclusion of this project," can be really valuable. Because you're in the moment, you're really evaluating what is the right way to go, that will be the most effective and help the most people, and why. And so, Nidhi and I are both very happy that we were able to help everybody through some of those situations. And that was a big part of what we learned in the course as instructors.

Josh: I really appreciate this conversation, especially like teamwork, and maybe some context that I think might be useful to this discussion is that Noah, I'm not surprised that it was hard to work with the team in the context of ArtCenter or, frankly, like any competitive art and design institution in the United States, for example. Mostly because these institutions are highly competitive, and competition is the default. So, throughout your education, you're

⁷ Transdisciplinary Studio: How we refer to courses that bring students from multiple majors together, most often to work on a project developed in partnership with an external sponsor.

conditioned to compete with your peers for a good critique, recognition from the professor, etc. It's not a consensual environment. And then all of a sudden, you take a Designmatters course, and we ask the students to work together. Everyone developing different ideas is essentially a result of us fostering a competitive environment, which has been visible, ingested, and integrated into the design market and logic for a long time. I bring it up because there's some connective tissue to the medical spaces we're talking about. Whether you're a graphic designer, product designer, or spatial designer, you have your object of study. It's the space, but it's not the people around it. It's not the social environment, not the political environment. Medical practitioners often have their object of study, it's the bodies, and you can look at the bodies, but again, it's not the social environment, it's not the political environment, it's not the material environment. The thing about teamwork in this conundrum is that design and medical practices are, as they are, part of the system we all live in daily; the way out is care. And that's that nexus of what happened in this class. It's like, you have to turn toward and inhabit someone else's reality in some way, shape, or form. All of a sudden, your object of study, whether the body or the interface, has to open up to someone else's reality. And in that, you move from private to public, from individual to political. So, again, I'm not surprised that it was hard to move from competition to commonality in the context of teamwork, specifically as an alum of ArtCenter and as a faculty member. Ultimately, the lesson was painful, opening the aperture that you were going against the system in which you were doing it, which is worth noting. So, thanks for sharing your experience.

Monica: Thank you, Josh; in a way, you just answered the next question we were going to ask you about the overall work of Designmatters and how the program aims to impact and redefine design pedagogy. Is there anything else you'd like to add about this?

Josh: Designmatters has some beliefs rooted in social justice that retool the design process. If we look at the similarity between medical and design experts, the people coming to us are experts in their bodies and life. So, if we want to build on any projects or thoughts in a participatory manner, it's a big challenge. Designmatters tries to design spaces methodologically from conception, implementation, and evaluation. There are relational politics that we explore with our partners, which continually reshape and redefine our tools. And that's all based on the claim that people have expertise in their own lives not, not us, that are supposed "experts." So again, I could go on and on and on. But if we sit with that for a second, the implications are, I think, broad enough.

Monica: That's a good note to start concluding this discussion. Let's talk about what everyone sees as most promising in the class's outcome. So, for Anthony and Dr. Lopez, what do you hope to see in these solutions and campaigns as they're rolled out? How do you hope to have these impact the communities that each of you focuses on in your work?

Anthony: I think part of it is just extending a hand. I think, specifically LGBTQ populations, we're used to having to create and carve out our own spaces; it's nothing new to us. I think [the queer community is] always looking for alternatives outside of places we're trying to avoid, which is, for a lot of folks, medical institutions directly because quite simply, they're not accommodating. They're not accepting, and they're not affirming. There are just a lot of reasons, obviously, and I think the usefulness of a campaign like this is that it exists outside of the institution directly. It may have conversations and cooperate with the institution to get the results that we need. But the allegiance is not to the institutions, instead to the community. And I think that's what's going to resonate with our communities. But I think the larger question that my community has is, where was this 10 years ago? Where was it 6 years ago? Where was it 20 years ago? Right. So, it's like, I think any progress is great progress. But I think there's a deep lack of acknowledgment of the kinds of generational divides we have in our communities. I think that goes back to distrust. I think Dr. Lopez can touch on this when she gives her response like a huge issue within clinical trials is participation from the Latinx community because we're not really showing up in clinical trials. Treatments and medicine and care are not being produced for our community because we're unrepresented. But that's not a coincidence; we have a reason for not showing up.

Lastly, I just want to express a lot of gratitude for people who do this kind of work, knowing that there's less payoff, less recognition, and less acknowledgment, but what you're doing is significant. It is right because you're taking on a task that is potentially going to support people in mitigating anxiety, frustration, and anger at the system; you're going to help people get connected to the system in ways that are affirming to them; you're going to help people understand the system to be something that they can at least access in some way that's not entirely closed off to them and their lived experiences. There's a lot to be said about the campaign, and I'm excited about it!

Dr. Lopez: I cannot agree with you more. Our objective is openness. The campaign is allowing us to have exposure, a bridge with all the systems, and that bi-directional engagement that Anthony mentioned at the beginning of this conversation. I think it is so important because, from a patient's perspective, it's been hard to find that connection

and to feel that there is an opportunity to speak about why [we] distrust and how [the medical institutions] can mend relationships. I think this is a perfect tool for us to establish that conversation. And to maybe even, like Anthony was mentioning, acknowledge pre-existing problems. And as healthcare, we're also trying to make things better. With clinical trials, as Anthony mentioned, acknowledging the missing link is so important because when you have the information, options are available. I really appreciate Josh's perspective because we need to have that inclusivity also for different abilities to communicate different learning and physical abilities. And, that's something that in healthcare, I've been trying to explain to my colleagues; that collateral damage is not a win because you're alive, but a loss after all because the quality of life is different from before. Many patients cannot attend cancer trials because they can't afford a babysitter or a caregiver. I'm hoping that the campaign is just the beginning of a long journey to that change.

Nidhi: Yeah, this conversation was just so much more than I could have imagined. Hearing everyone talk about the complexity and intersectionality of our work is incredibly valuable and also makes me energized to continue doing this work together. To quickly summarize what we all discussed today. We started by exploring how we are in our own bubbles and world, and societally we like staying like that. But to create an impact and create something that is for the humans in all of us, we have to step out of our comfort zones. We learned that institutions coming together, people coming together, and trying out something new with a lot of anxiety with a lot of hope, is just a space to, as you've all talked about, start a conversation that starts to change design pedagogy. It's just been incredibly wonderful hearing from everyone. Monica, any closing thoughts?

Monica: I think that the class was truly successful as a result of the way that everyone came together and all the support that the students gave each other within the class, as well as the collaboration with [Cedars] and the community. So, I would just say, in closing, that I feel like I learn a lot in every course I teach. And that's an awesome side benefit of the work that I get to do now. It's interesting to hear comments about how this is very different from the typical branding class, and now that's something that I'm considering as I build out the other courses, I teach at ArtCenter outside of Designmatters. We can't isolate this process and this type of experience.

Dr. Lopez: I'd like to add that in my undergraduate years, I studied in Mexico and started teaching foreign languages. It was more focused on English as a second language. One thing that I remember from the faculty, they started designing classes that they called "English for specific purposes." This sounds like "design for specific purposes." Something like applied design.

Monica: That's a wonderful note to close out. This has been such an amazing conversation. And I think we all got so much out of it. This class has helped us understand the value of reflection, and now we'll start writing about it. Thank you very much, everyone. Until next time.

Key Takeaways from the Conversation: Building Co-Design Curriculum for Evidence-Based Visual Design

Through this conversation and the course, the authors have recognized the value of developing a design pedagogy that centers lived experience and is reflexive and collaborative. Using the example of visual design and transdisciplinary projects, the authors believe that building participatory courses in a design or art institute needs alignment of many conditions to ensure students and partaking individuals have a fruitful experience. Using Dr. Lopez's valuable closeout about design for specific purposes and defining the nature of applied design, the paper outlines below what it might take to build an environment where applied design can be fostered and practiced. Some of those conditions are:

- **Stay committed to the partnership:** Institutions and curriculum authors involved must maintain a collaborative approach and participate in regular dialogue. The key to teaching evidence and research-centric visual design is to ensure you have individuals with lived experience to participate in co-design and participatory exercises. Since design created in a vacuum is inherently untested, students benefit from the feedback of real-world stakeholders while developing their methods and preparing for professional practice.
- **Build an agile and honest classroom environment:** Faculty and professors must be ready to facilitate connection and interaction between the audience of the work and the students, while preparing the students to respectfully approach underrepresented individuals and communities. So, as instructors, it may be hard to juggle project management and educating a room full of students; keeping an honest classroom helps us recognize challenges, pivot accordingly, and stay focused on the larger vision.

- **Encourage tough discussions about design’s role and impact:** While design, as a discipline, may empower individuals, its past can be attributed to privileged institutions and individuals. Thus, to create something to increase equity and representation, we must recognize the value design brings in our lives while critiquing the damage it is capable of. Furthermore, recognizing the impact of design on our lives evolves our field and helps us build a more reflexive practice through conversations and production.

Many young designers have expressed the desire for, or created, tools and methods for building sustainable and inclusive practices (Lupton et al., 2021). Jennifer May, Executive Director of Designmatters also notes, “we want students to leave our courses understanding how to seek out those contexts and perspectives on any future projects they might work on, as students and professionals.”

Empowering our students to vocalize their needs and insights as creators—along with those of their collaborators—helped us create a space that shaped them to be more autonomous, confident, and committed as a practitioner. Furthermore, discussing the use of reflexivity in our classroom provided an example of what we, as educators, can learn from the outlined way of teaching.

Conclusion

Design educators face the dual task of shaping the present and defining the future of their discipline at the same time. In this pivotal time, while templates and tools are readily available, they have an opportunity to define how research and evidence can bring more value to graphic design. Research and evidence-centric visual design pedagogy paired with reflexive practice is a means to an intentional and critical creative process, which can help graphic design students firmly situate themselves in the field.

As illustrated in this conversational paper, co-designing with those closest to the issues help us better understand the nature of power, the impact of our work, and the reality of (multi-lingual) implementation. The key takeaways highlight the need for an honest, agile, and collaborative classroom that respects and co-designs with individuals who shape the impact of our work and have lived experience of the problems we are addressing. There are various purposes that design can serve, and this paper proposes how design pedagogy can evolve to better align with the intended goals of the deliverable, its environment, and the historical context of the identified problem.

Appendix A: Roundtable Participants

Xiyu Chen (she/her)

Interaction Design Student, ArtCenter College of Design

Xiyu and her teammates developed a campaign named “Be Part of the Cure for Your Community” during the course. In the team’s words, “Be Part of the Cure for Your Community is an integrated Advertising campaign to bring hope and awareness to different communities about Clinical Trials. The campaign will focus on targeting out of home advertising spaces, like public transportation, churches, and retirement centers. It can also be accessed via the internet and digital devices to be accessible to all.” Learn more about Xiyu on [her LinkedIn profile page](#).

Noah Cousineau (he/him)

Master of Fine Arts Graphic Design Candidate, ArtCenter College of Design

Noah and his teammates developed a campaign and digital platform named “Our Trial” during the course. In the team’s words, “Our Trial is a community social program aimed at educating and supporting potential and existing clinical trial patients. The main focus is to have patients of similar communities meet to discuss their cancer status and emotions. A doctor will not be present at meetings to reduce anxiety about the medical system.” Learn more about Noah on [his LinkedIn profile page](#).

Dr. Ghecemy Lopez, DSW, MAEd (she/her)

Program Administrator of Navigation, Survivorship and Advocacy, Community Outreach and Engagement, Cedars-Sinai Cancer Research Center for Health Equity

Dr. Lopez was a guest lecturer, design reviewer, and co-creator during the course. She shared her extensive knowledge of connecting the Latinx and other communities with clinical trial and cancer treatment information, advocating for patients, and her personal journey as a Cancer survivor with the students. Learn more about Dr. Lopez on [her LinkedIn profile page](#).

Anthony Ayala (they/them)

Former LGBTQ+ Community Outreach Coordinator, Cedars-Sinai Cancer Research Center

Anthony Ayala (they/them) is a Latinx Queer and Transfeminine scholar and community organizer from Southeast Los Angeles. Their academic and professional work has examined how the intersections of policy and law have impacted community health outcomes for diverse LGBTQ+ communities. Anthony’s former work in the COE team at Cedars-Sinai Cancer as the LGBTQ+ Community Outreach Coordinator largely revolved around aims to improve health equity and facilitate research justice for LGBTQ+ communities of color. Anthony was not directly involved in this course but has played an instrumental role in related Designmatters courses and fellowships.

Joshua Halstead, MA (he/him)

Assistant Professor of Social Innovation, Designmatters, ArtCenter College of Design; Co-Author of *Extra Bold: A Feminist, Inclusive, Anti-Racist, Non-Binary Field Guide for Graphic Designers*

Joshua also was not directly involved in this course but joined our roundtable to represent the Designmatters team and bring his perspective to the conversation. He is an epistemic activist working at the intersection of critical disability studies, design pedagogy, and community organizing. Learn more about Joshua on [his LinkedIn profile page](#).

ROUNDTABLE FACILITATOR: Nidhi Singh Rathore (paper co-author and course co-teacher) (she/her)

Studio Advisor, Designmatters, ArtCenter College of Design

Learn more about Nidhi on [her LinkedIn profile page](#).

ROUNDTABLE FACILITATOR: Monica Schlaug (paper co-author and course co-teacher) (she/her)

Professor, Undergraduate and Graduate Graphic Design, ArtCenter College of Design

Learn more about Monica on [her LinkedIn profile page](#).

The remaining students, Cindy Chu (Graphic Design), Taiga Haruyama (Interaction Design), Vanessa Huang (Interaction Design), Jesslyn Lee (Fine Art), Lillian Yian Lin (Product Design), Megan Pantiskas (Advertising), and Haoran Xu (Interaction Design), and class Teaching Assistant Vaishnavi Prabhakaran (Graduate Industrial Design), were not present; however, their contributions and experiences influenced the questions the authors crafted.

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About the Authors

Nidhi Singh Rathore

Nidhi Singh Rathore is a South Asian designer, researcher, and educator. Currently, applying design methodologies to reimagine civic engagement in Maryland. Her intersectional and value-centered practice focuses on deconstructing nebulous concepts, bringing people together, and breaking down complex problems—for better and equitable services.

Monica Schlaug

Monica is an experienced brand design creator and team leader who teaches full-time at ArtCenter. The (Re)Search for Inclusive Healthcare was her third Designmatters co-teaching experience. She aims to continually evolve her educational practice to foster empathy and connection between students and those they are designing with and for, be it theoretical, practical, or speculative projects.