Open Ocean

North Star Design Principles

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The ocean is for everyone. Yet traditionally, ocean exploration is done by those with formal degrees and access to costly equipment. In order to fully explore and understand our vast oceans, we need to work outside of traditional academic structures. One strategy for thinking beyond our current model is to build new bridges with communities who have not yet been invited into oceanographic exploration — including underrepresented and non-dominant communities within the United States and developing countries around the world. Instead of only an elite cadre of academics participating in ocean exploration, we need to nurture new communities, build greater capacity for exploration, and look for ideas and expertise in overlooked places.

The following principles and design activities are meant to help us think about ways we may design in collaboration with people who are not yet part of the MIT community, according to a set of inclusive values. These principles are aligned with an approach called co-design, or the design of technologies in partnership with the people who will ultimately use them. Participatory approaches to design can help us move towards understanding our vast oceans by mobilizing a large and passionate community of explorers and advocates across the diversity of humanity.

Open Ocean's Design Principles

1. Intentionally Structure Equity

The world is configured in such a way that access to opportunities and resources is not distributed equitably. Consider investigating issues of inequity in your own research topic, and then looking for opportunities to educate yourself further on matters of structural oppression. Frank, open, and honest conversations can help us confront the ways racism, sexism, and other systems of oppression manifest themselves in the world and inside research and design projects.

Focusing on equity is a process, not a destination. As such, it is important to leave significant time to build relationships with stakeholders, community members, and participants you may be working with, and between team members themselves. In your process, dedicate time to examining your own identities, biases, power, and privilege and how to leverage some of these elements for the greater good of the project and communities being served. This can help you try to avoid perpetuating structural oppression in your work, when you in fact mean to do the opposite.

If you are organizing an event or workshop, we recommend intentionally structuring equity by setting very specific goals around attendance and consider priming innovation activities with a discussion about equity. Additionally, when developing recruiting and marketing materials, consider how image choice and language signals who might be welcome (or unwelcome) in the space. When possible, consider and account for financial barriers that may make it difficult for some people to participate in your projects.

2. Leverage Privilege and Institutional Power

MIT and the MIT Media Lab are powerful brands, associated with “inventing the future” and cutting-edge ideas. Especially when working with external partners, it is important to be aware of the power MIT wields, as sometimes our partners’ work may not get the credit it deserves.

However, we can leverage our own power to lift up the work of others — we can actively use our affiliation to help redistribute the attention and resources associated with MIT to other projects in our topic space. For example, if you talk to a reporter, you can highlight the work of other people — this can have a huge impact and shine a light on projects that may not otherwise be visible to the public. For fundraising, it can also be useful for your partners to mention their affiliation with you and with MIT. Talk with your partners and stakeholders about what might be useful to them!

3. Push for Narrative Change

If you are working to make change in the world, chances are there is a new story you’re trying to tell — perhaps one that is at odds with an existing narrative. (For example, you might be trying to get people to imagine an optimistic future for the Ocean, versus the doom-and-gloom narrative that currently prevails!)

Media attention can be a powerful tool to change narratives. The risks of leveraging media attention are that 1) the media propagate a solutionist narrative about the issue at play (for example, stating that technology alone will solve a pressing issue), and 2) attention flows back to the people and institutions who already have the most power and privilege. But the benefit of leveraging media attention is that it can be used to strategically re-frame an important issue for a broad public.

Be clear about the underlying narrative(s) of your project so that you can communicate effectively with media and the public about the values behind your project, and what paradigms you are trying to shift.

4. Cultivate Joy and Play

Joy and play are vital when designing opportunities for individuals to come together with a generative spirit; physical and emotional comfort for all people is key to both community-building and creative problem-solving. As a strategy of resistance for difficult issues, joy and play can offer a respite and an opportunity to connect across lines of difference.

Don’t neglect small pleasures! Seemingly-frivolous details can help you create environments, tools, and technologies that encourage people to think creatively and come together in joy to co-create a better future.

5. Think Systems, Not Stuff

Rather than solving the world’s problems with design and technology alone, it is essential to explore how those domains may play a supporting role in augmenting existing innovations and innovators who are working to

challenge and dismantle unjust structures of power.

Our definition of "innovation" must expand when we work to shift complex systems. Adopting a systems perspective about a socio-technical problem space necessitates expanding the definition of what constitutes viable solutions to a problem that has social, cultural, political, historical, and technical facets.

Sometimes, low-tech solutions can be the most innovative solutions because they are most appropriate for their contexts. Embracing low- and no-tech innovations also means de-centering narratives of techno-heroism (the belief that technology alone will save the world).

Activities to consider to help you structure your project

1. **Identify your own personal assumptions and biases.** People are the experts in their own lived experiences. You will likely need to build relationships across lines of difference and interview others who are different from yourself to understand your biases and begin to work towards better, more informed models of other people's diverse needs, skills, motivations, and desires. Our methods and work are always based on our beliefs and assumptions; understanding and interrogating your beliefs can help you work towards methods that will lead to a more diverse and inclusive community. Be transparent and honest about your assumptions with the people you are working with — this will lead towards the most productive outcomes. Above all, learn to take ownership of and work to change misguided beliefs you may hold about others.
2. **Write out a list of 5-7 core values that you would like to bring to your work.** This is helpful as a group exercise for team projects, to help bring everyone together around shared goals and approaches. It is also a useful tool to share with stakeholders involved in your project. When you need to make difficult decisions or structure a new part of your project, refer back to this list to ground yourself in your approach.
3. **Create an Ecosystem Map.** Develop an Ecosystem Map of people and organizations you might interview or work with for your project. As part of your map, answer the following questions: 1) Who is directly and indirectly impacted by your broader topic and project?, 2) Who else is already working on different aspects of the topic? 3) What actors or elements might be barriers to change? and 4) What are the relationships and dynamics between people in this topic space? (e.g. is there tension between anyone in the space? Do certain groups or individuals work together?). Create a visual representation of this map.
4. **Conduct informational interviews with people on your Ecosystem Map.** This is a great chance to both build relationships with people across your topic space, as well as begin to understand prior work and challenges in greater depth. As you interview people, begin to cluster some of your learnings into themes and insights. These insights will be great jumping off points in your design process.
5. **Write a "How might we..." (HMW) statement.** Draw from key interview insights to draft a "How might we..." (HMW) statement for your issue. Even if you already have a project idea in mind, take a step back and come up with 10 divergent ideas for addressing your HMW statement. This may help uncover additional avenues for you to explore as you iterate on your ideas.

More resources

- [Routledge International Handbook of Participatory Design](#) — Jesper Simonsen & Toni Robertson
- The Reductive Seduction of Other People's Problems – Courtney Martin
- Value Sensitive Design — Batya Friedman and David Hendry
- [Racism and inequity are products of design. They can be redesigned](#) — Equity Design Collaborative (Caroline Hill, Michelle Molitor, & Christine Ortiz)
- [Action Research](#) — Davydd J. Greenwood

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