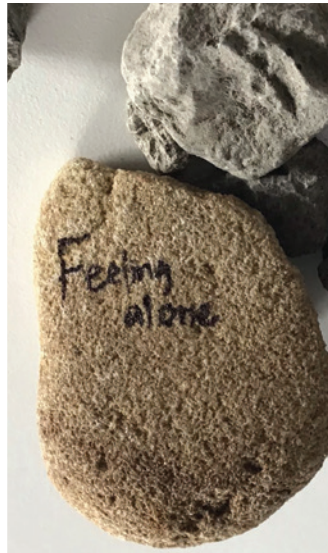



NEW WAYS TO THINK:

Materializing Mental Health



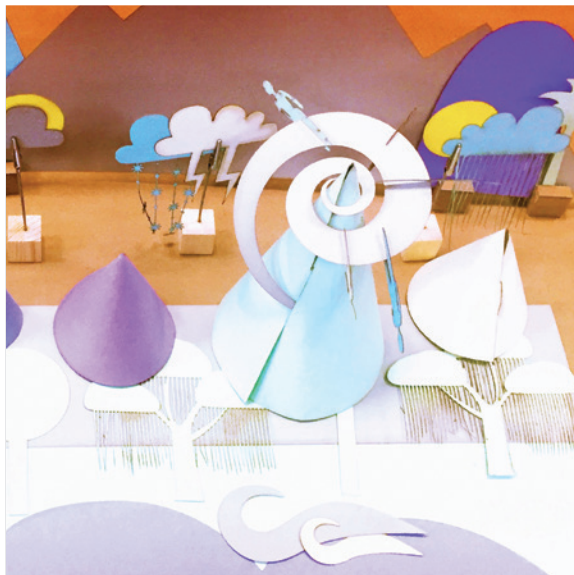
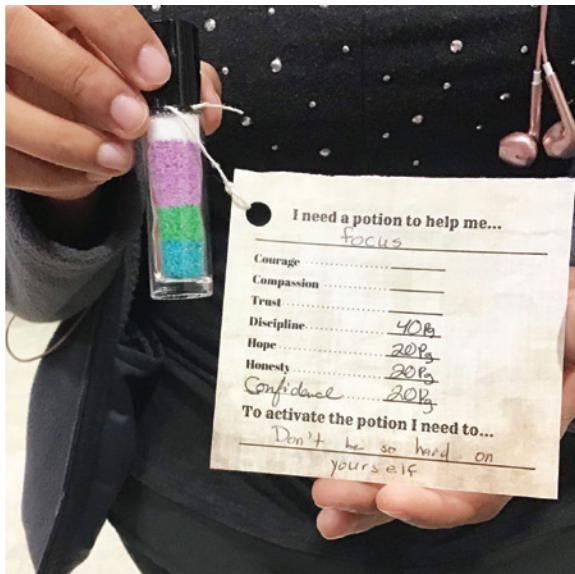
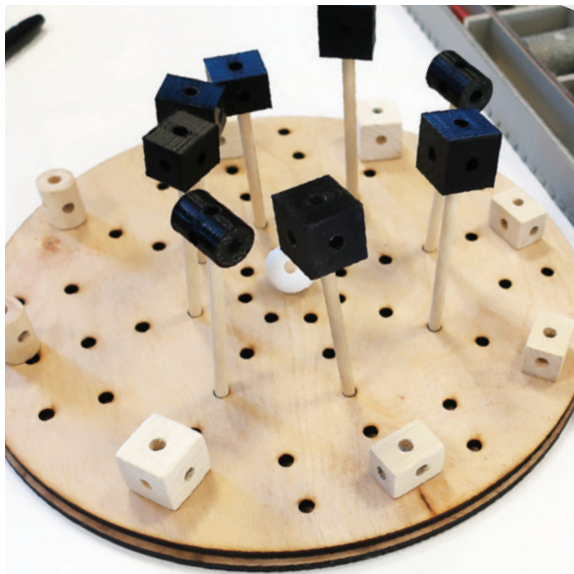
A photograph of two women sitting at a table, engaged in a hands-on activity. They are surrounded by various design materials, including a large perforated board, a tray of colorful geometric shapes (cubes, spheres, cylinders), and a coffee cup. The image is overlaid with a semi-transparent teal filter. The text is centered in the upper half of the image.

Can design methods help people think about, express, and discuss their own mental health, and explore neurodiversity within groups and teams?


Here in the MozFest 2019 Neurodiversity space, we present four exploratory projects from the Imaginaries Lab at Carnegie Mellon University, exploring creative ways for us to describe, talk about, and share our own often invisible experiences.

Design team:

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Introduction



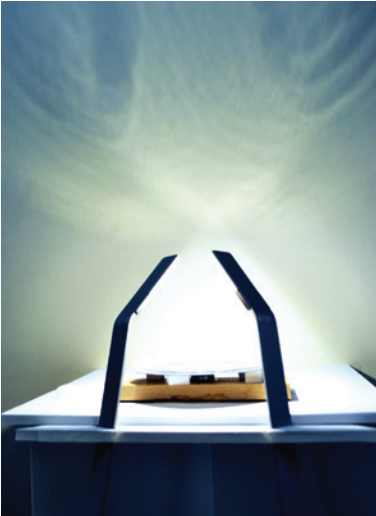
We're living in fraught times. According to research compiled by the Wellcome Trust (UK), "one in four people will experience a mental health problem in any given year," and "75% of people with a mental health problem develop it before the age of 24."

Carnegie Mellon students, in common with many people in high-pressure environments, can experience a broad range of mental health issues. Yet as a society, we don't always have good ways of talking about mental health.

In *New Ways To Think*, we've been exploring how we can adapt participatory design and facilitation methods, often used in user experience, service design, and working with communities, to a mental health context. We believe they have the potential to help people capture qualitative dimensions of their experiences, to make them palpable, to enable discussion, reflection, and peer support. Our initial focus is working within the Carnegie Mellon community, including receiving very valuable input from the university's Counseling and Psychological Services, but we hope that the methods developed can be of use more widely through further development. This is a starting-point.

The four projects shown here—three of which were developed over an eight-week 'mini' course—work with different aspects of mental health, from anxiety and stress to loneliness, to enabling feelings that perhaps don't have a name yet to be expressed and shared. Students developing the projects include undergraduates, Master's students, and PhDs from Carnegie Mellon's School of Design, School of Art, Human-Computer Interaction Institute, Tepper School of Business, and Integrated Innovation Institute, and university staff. As part of the exhibition, some of the projects invite you to participate; this is entirely voluntary, and we are very conscious that the experience of sharing can itself be painful.

How we imagine affects how we understand the world, how we live, and what we see as possible in our collective futures, with consequences for sustainability, society, our relationships with technology, and our everyday lives.



About the Imaginaries Lab

At the Imaginaries Lab, a new (2017–) research studio at Carnegie Mellon, based in the School of Design, we believe that humanity needs tools to enable new ways of understanding and imagining, and new ways to live, that provide more equitable socially and environmentally sustainable futures. We create those tools through developing creative research methods, adapted from those used in design practice, and explore their use in a variety of cross-disciplinary contexts.

A team of Master's, PhD and undergraduate student researchers are working with Assistant Professor Dan Lockton to build on an international research track record around interaction design for behavior change. We are using creative approaches to envision alternative ways of thinking and living, now and in the future, to inform interdisciplinary academic research and practical applications for social and environmental benefit.

The group's goal is to become a world-leading center for this kind of research, collaborating internationally and across disciplines to support transformative innovation. We carry out research projects, teach studio classes, publish, and run workshops internationally, including at interaction design industry conferences.

We're actively looking for collaborators inside and outside of academia, and would welcome a discussion if you're interested—please get in touch: Dan Lockton danlockton@cmu.edu

Our three main research areas are:

Understanding ourselves better through design (wellbeing and mental health):

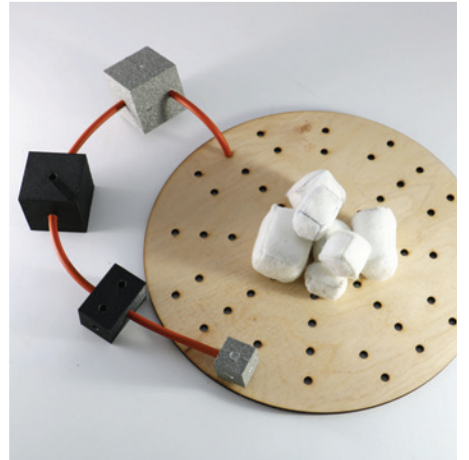
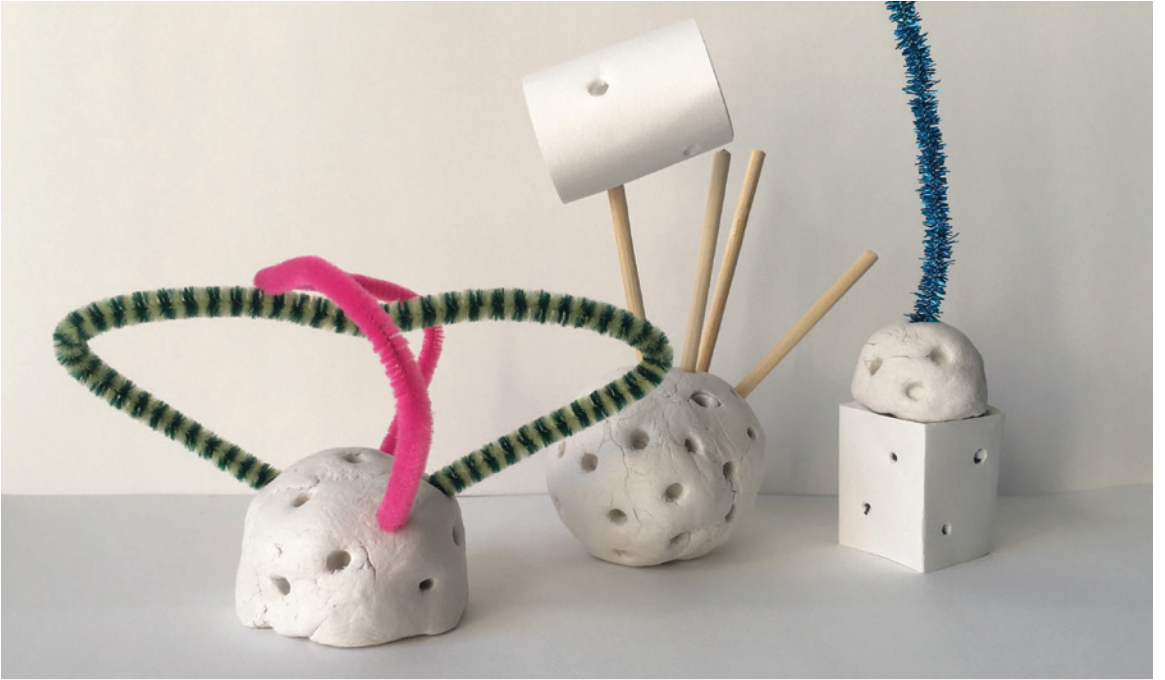
Design methods have the potential to allow people to explore, express, track, and understand aspects of everyday life, emotions, wellbeing, and health in new ways. We're working on a range of Research through Design projects investigating the possibilities of these 'innovative social research' methods for addressing challenges including mental health, sleep habits (in collaboration with Philips), and personal career and life planning.

Understanding the systems we're part of (climate change, artificial intelligence, energy, and government):

The technological and societal systems and infrastructures around us are often largely invisible, even though their effects are felt everyday. The Imaginaries Lab is using studio projects, prototypes, workshops, and speculative design to probe and explore ways of making these systems engageable-with in new ways, from climate futures (in collaboration with the Plurality University Network) to energy use.

Tools for re-imagining the world creatively (new metaphors and new interfaces):

A major part of the Imaginaries Lab's work is about developing tools for thinking differently—tools to re-imagine and understand the world in new ways, now and in the future. This includes both creative ideation methods and new kinds of interaction design and interface. We have a successful track record with the Design with Intent toolkit which has been widely adopted by educators, researchers, designers and businesses worldwide, and are currently launching New Metaphors, a new toolkit for creativity.



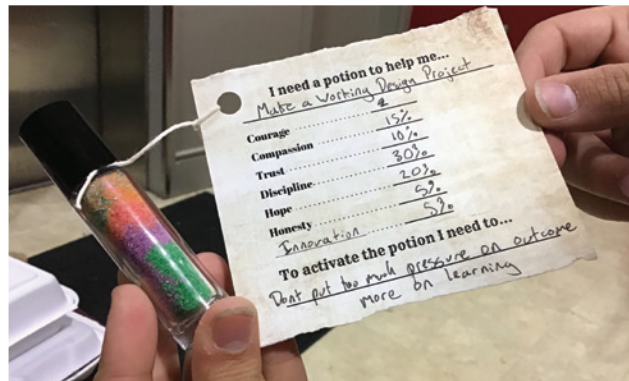
Emotional Modeling

The Emotional Modeling kit helps create a physical expression of an emotion. Using shapes to create a sculpture, we aim to make emotions more accessible.

As each of us knows from personal experience, communicating our emotions can sometimes be difficult and intimidating—particularly during times of stress. To that end, we've developed a kit that we hope can provide users with an outlet for visualizing their mental or emotional state, both as a means of self-reflection and as a way of sharing their feelings with others (if desired.)

The kit includes a variety of 3-dimensional shapes in a range of colors and materials (including wood, felt, and concrete) that can be connected to form abstract sculptures. We chose to focus on providing a relatively streamlined palette in order to avoid overwhelming users with options and encourage intentionality in their shape and material choices. Our intent is to provide participants with the space to create these sculptures in a private setting, giving them the option to anonymously share a photo of their final product as part of a collection.

Our hope is that in creating these sculptures, participants might experience a sense of catharsis and have an opportunity for meaningful reflection. We believe this non-verbal process of 'externalization' could allow some participants to express their emotions in new ways, as the sculpture they create might act as a totem of an otherwise deeply personal feeling. Further, we hope that some participants will feel comfortable sharing an image of their sculpture as part of a larger collection, which will in turn allow people to connect with one another through their creations, feel a sense of community, and encourage a broader dialogue about emotional and mental health.



Personalized Potions

Our Personalized Potions allow visitors to create their own elixir of emotions and take it home with them.

During times of stress, it becomes challenging to take actionable steps to move out of a stressful state. To address this, we've developed a light-hearted, facilitated interactive experience that allows participants to identify and process their stress through the creation of "personalized potions":

1. Participants receive a clear glass vial. They are prompted to think about what a potion could help them accomplish in the near future. The participants write down their concern on the potion's label.
2. They fill the vial with "ingredients" (in the form of colored sugar) that will help them towards their stated goal. The ingredients boast names like "Compassion", "Trust", "Discipline", among others, with one wild card ingredient they can name as they see fit. As they fill their vials, the facilitator writes the contents on the label.
3. Once the vial is filled, the final step is an "activation": like any good potion, it doesn't work without a phrase or an action. Participants are free to write whatever they believe to be an actionable first step, or they can draw an inspirational phrase from a bag: "Don't try so hard." "Breathe." "Get some rest."
4. The facilitator finishes the label and gives the potion to the participant as a keepsake for continued reflection.

The project is free-form and individualized in subject; participants can use the activity to address whatever aspect of their own mental health that they choose, however big or small. The goal is to give them an opportunity to express self-compassion, and to pause and reflect on what they need for their own well-being.

The experience was tested in preliminary form in an office setting, and then in its final form at a kiosk in an area of student housing on a university campus, where interactions can be relaxed and fun. The mid-October timing helped in two ways: tensions can be high during the middle of the semester, but it's also a prime time to leverage Halloween as an aesthetic to support the experience.

In our preliminary tests, participants interacted with the ingredients in various ways: some spent careful time choosing them, while others immediately knew exactly what they wanted. Some worked through their reasoning aloud while others pondered internally. All were glad to be able to take their potion home, with one participant saying, "This is a nice motivational thing to keep around here."



Empathy Rocks

The Empathy Rocks project sets out to address a common feeling of being alone in your worries and anxiety.


By encouraging people to express what is currently weighing them down, the project allows people to relate to others and express empathy. The project results in a collective representation of negative emotion and empathy through cairns and rock stacks. The installation has been placed in a library, where people are naturally quiet and can silently interact and reflect on their feelings.

Passersby are guided to take a rock and write something that is weighing them down, or take a small rock, and place it near another one that is already on the surface as a symbol of empathy. We use a round surface for the rocks to encourage people to walk around it and to think about other people's anxieties while they reflect on their own.

Over time, these expressions of emotion and empathy stack up and create empathy rock cairns.



Mental Landscapes



Mental Landscapes is a modeling toolkit and workshop format using landscape metaphors to enable people to externalize and share thinking about often abstract ideas such as our own thoughts about the future, our career paths, and group dynamics.

We have developed the kit through workshops with students and at conferences, addressing a wide range of issues to evolve a collection of laser-cut card parts representing stylized landscapes and features within landscapes, such as hills, roads, fields, trees, bridges, fences, and weather.

Why landscapes? They are a common type of metaphor in speech, particularly for talking about relations between parts of a whole, or mapping the structure of one concept onto another. In organizations, we might talk about moving into new territory, or the stakeholder landscape, having a vantage point, mainstream and backwater, channeling our efforts, the lay of the land, descending into chaos, oceans of possibilities—even blue sky thinking. On a more fundamental level, we might even realize the spatial metaphors inherent in perspective, field, area, stance, position, looking ahead, and, indeed, ‘fundamental level’.

In using the kit, participants—individually or in groups—construct model landscapes representing something about how they think about an issue, but the process itself (and

reflection on it) is as important as the form of the resulting landscape. There are no wrong answers here. Using design methods in this kind of way can make a contribution to what might traditionally have been text- or interview-based forms of inquiry. In group settings, for example exploring neurodiversity or preferences for working styles within a team, as we are doing here at MozFest, surfacing which landscape elements are shared, or comfortable for, multiple group members—and which are not—and the discussion around these issues once surfaced, can give useful insights for researchers seeking to understand understanding, and for team members themselves. For example, different metaphors used by participants could inspire a new form of interface design for life planning or project-management tools. Imagine collaborative project-planning software enabling team members to shape and annotate elements in a landscape, where not just the other events in people’s calendars, but also the meaning of them to people, along with each other’s perspectives on communication, different visions for the project, and so on, were visible and engageable-with.

Our experiences of mental health are our own, invisible and phenomenological, and describing and sharing them can mean using language that may seem imperfect for the task. Everything becomes a metaphor when the thing itself cannot be seen. Sharing itself can be seen as inappropriate or taboo, depending on cultural norms.

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In these projects, we have drawn on a variety of creative research methods which seek to help with materializing the way people think and feel. Work on participatory design and facilitation processes, often used either in user experience design (commercially) or working with communities (in social design applications) may seem a long way from a medical context, but methods such as data physicalization, new metaphors, building models, drawing, and learning from positive psychology, narrative therapy, art therapy, projective techniques, systemic design and synaesthesia research, all has something to offer as a way of trying to help people capture the qualitative dimensions of their experiences, to make them palpable, to enable discussion and peer support. These methods can also enable people to share ‘what works’ for them.

We have compiled a set of resources at **imaginari.es/new-ways-to-think-resources** which we’ll aim to keep updating over time, including some similar projects that inspired us here, and indeed inspired the project brief in the first place. In this vein we would like particularly to note work by Matt Haig (whose ‘psychogram’ unit is echoed partly in Personalized Potions), Candy Chang (A Monument for the Anxious and Hopeful), States of Mind by Brendan Dawes, Ben Koslowski et al, a whole body of work by Giorgia Lupi and Stefanie Posavec, Jill Simpson’s visualization of obsessive compulsive disorder, and work by Laurie Frick including Stress Inventory.

More details of each project, including write-ups by the designers reflecting on what insights we gained through ‘testing’ our methods with student groups at Carnegie Mellon, are available at:

imaginari.es/newways along with, in due course, further work as we continue developing and evolving some of these methods, and trialing them in other contexts. Please follow our progress, and take part if you’re interested. We would like to thank everyone who has helped with the projects, including Dr Viviana Ferrer-Medina from Carnegie Mellon’s Counseling and Psychological Services (CaPS), Jill Chisnell from Carnegie Mellon Library, Jill Simpson from the University of York, and Chris Stygar and Josiah Stadelmeier from Carnegie Mellon School of Design’s 3D Lab.

If you’d like to learn more about the projects, or be involved in future developments, please contact Dan Lockton **danlockton@cmu.edu**.