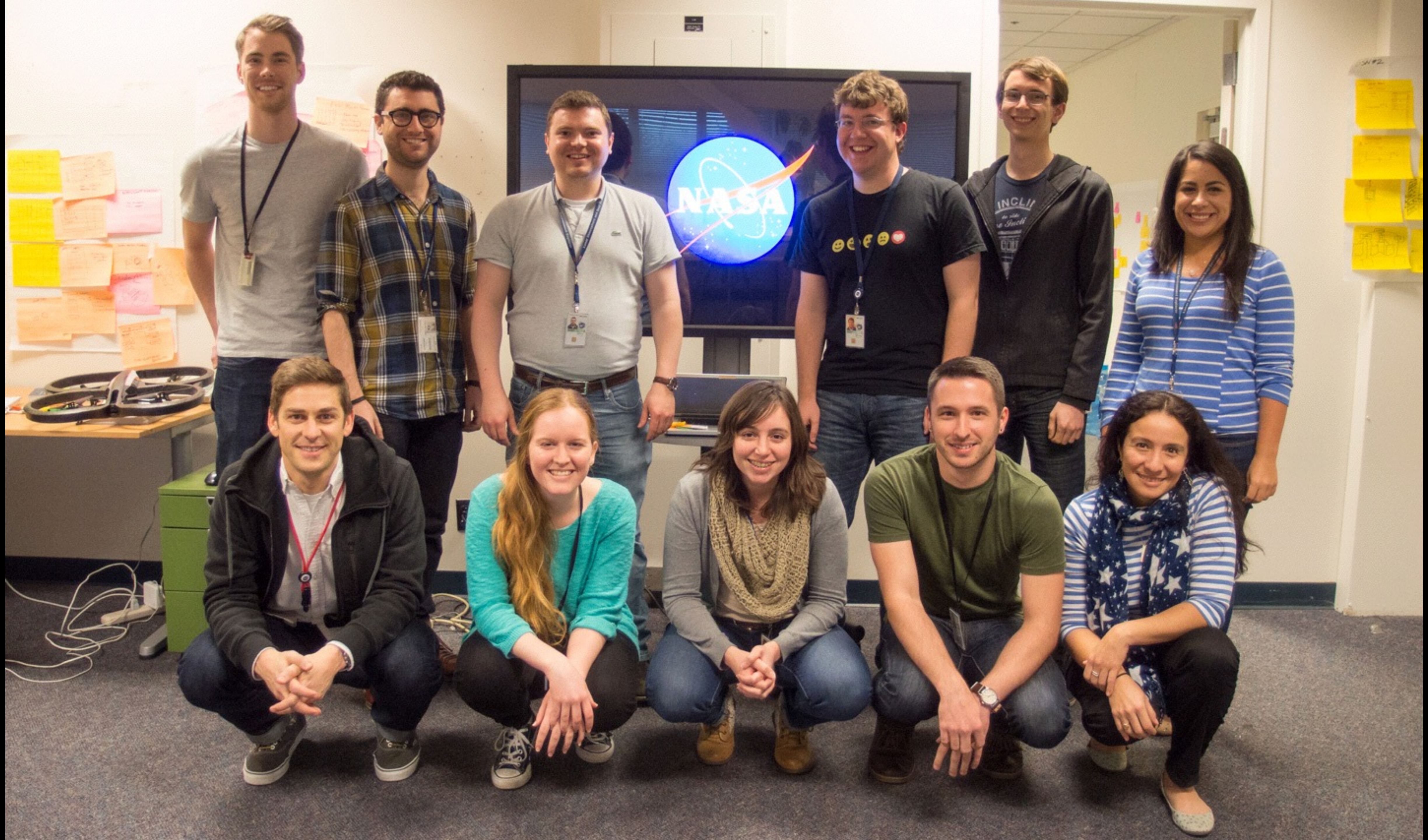


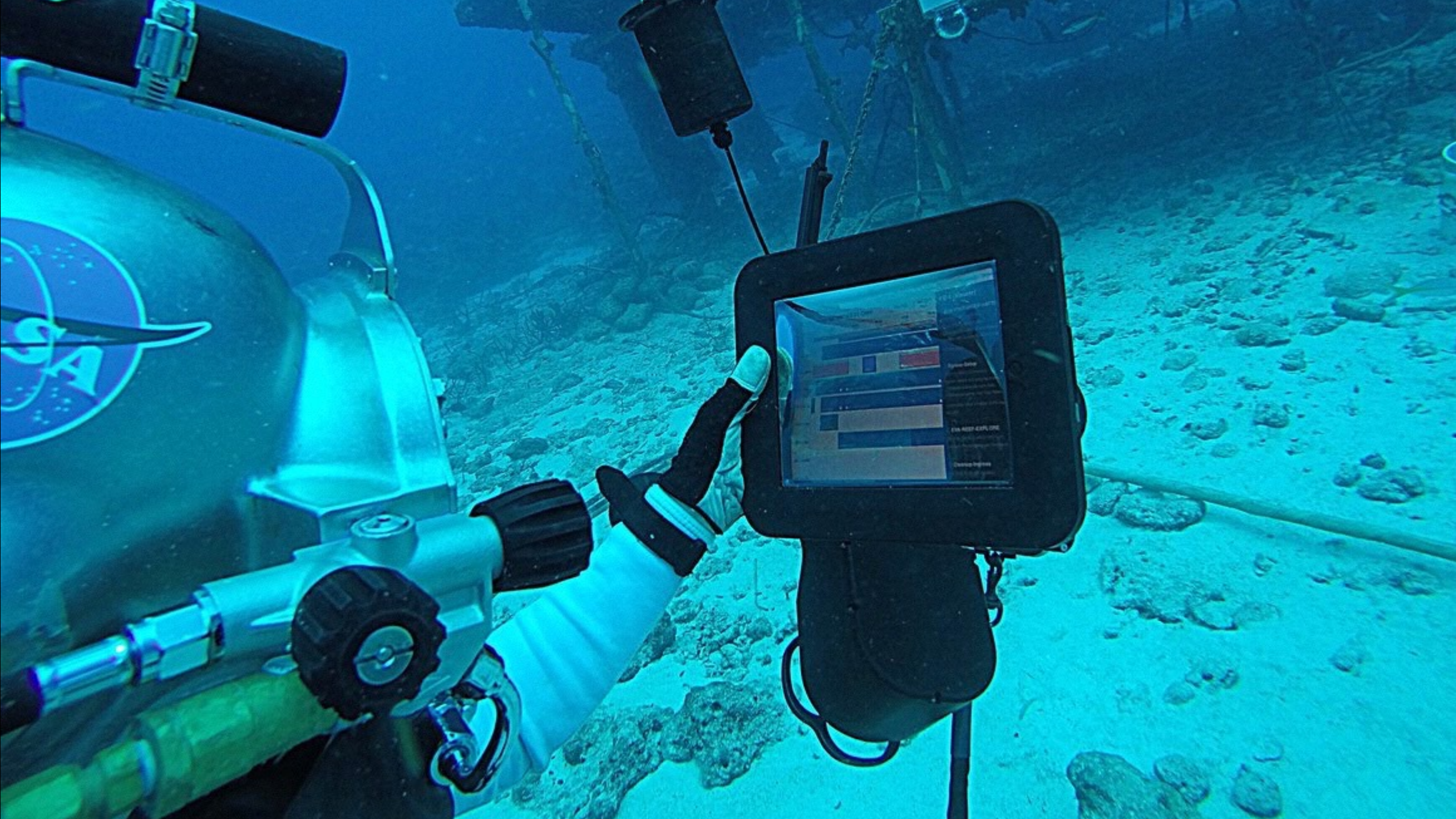
Practicing UX at NASA:

My experiences practicing UX in an engineering driven org and thoughts on how to communicate the value of user research, usability, and design to skeptics.

Steve Hillenius, NASA Ames Research Center
@hillenius







UX at NASA: We exist! But
we're not well known.

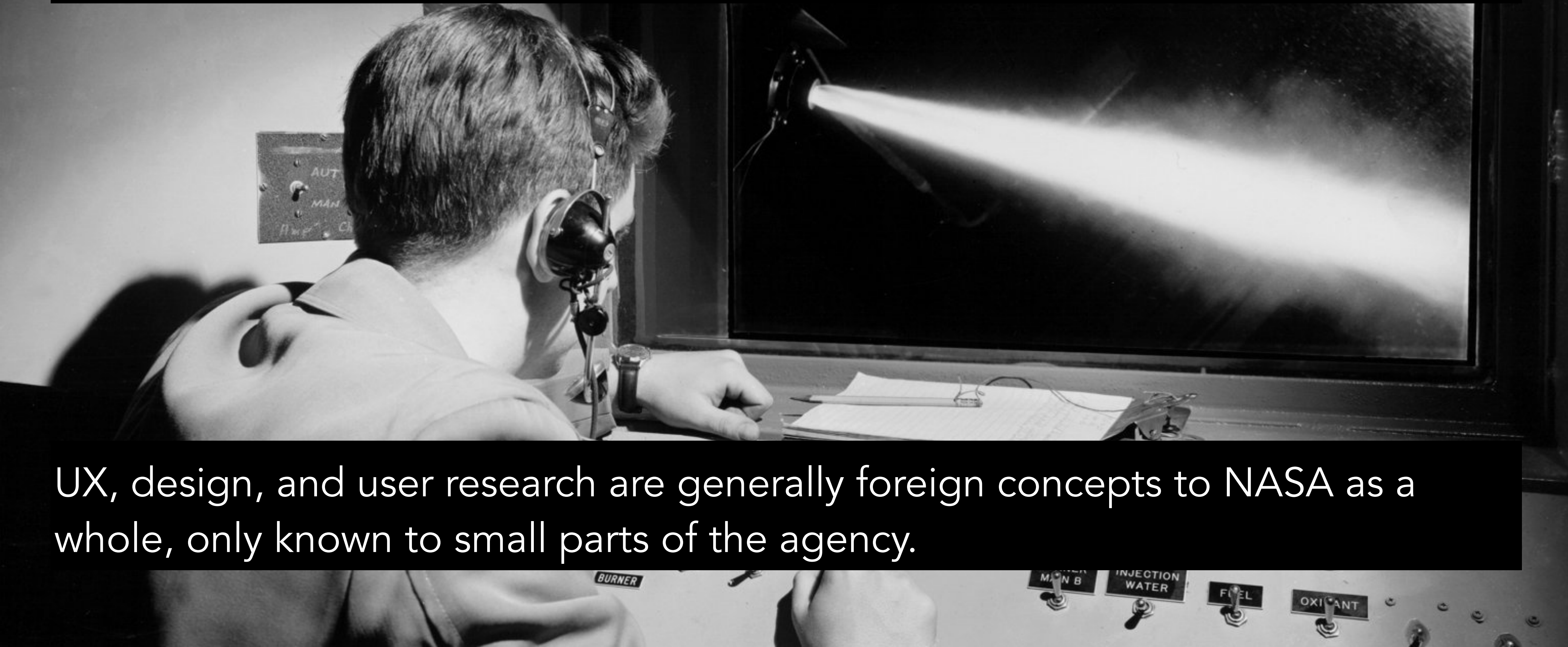
NASA: Engineering and Science Driven.

Operational Mindset. Research also a big focus.



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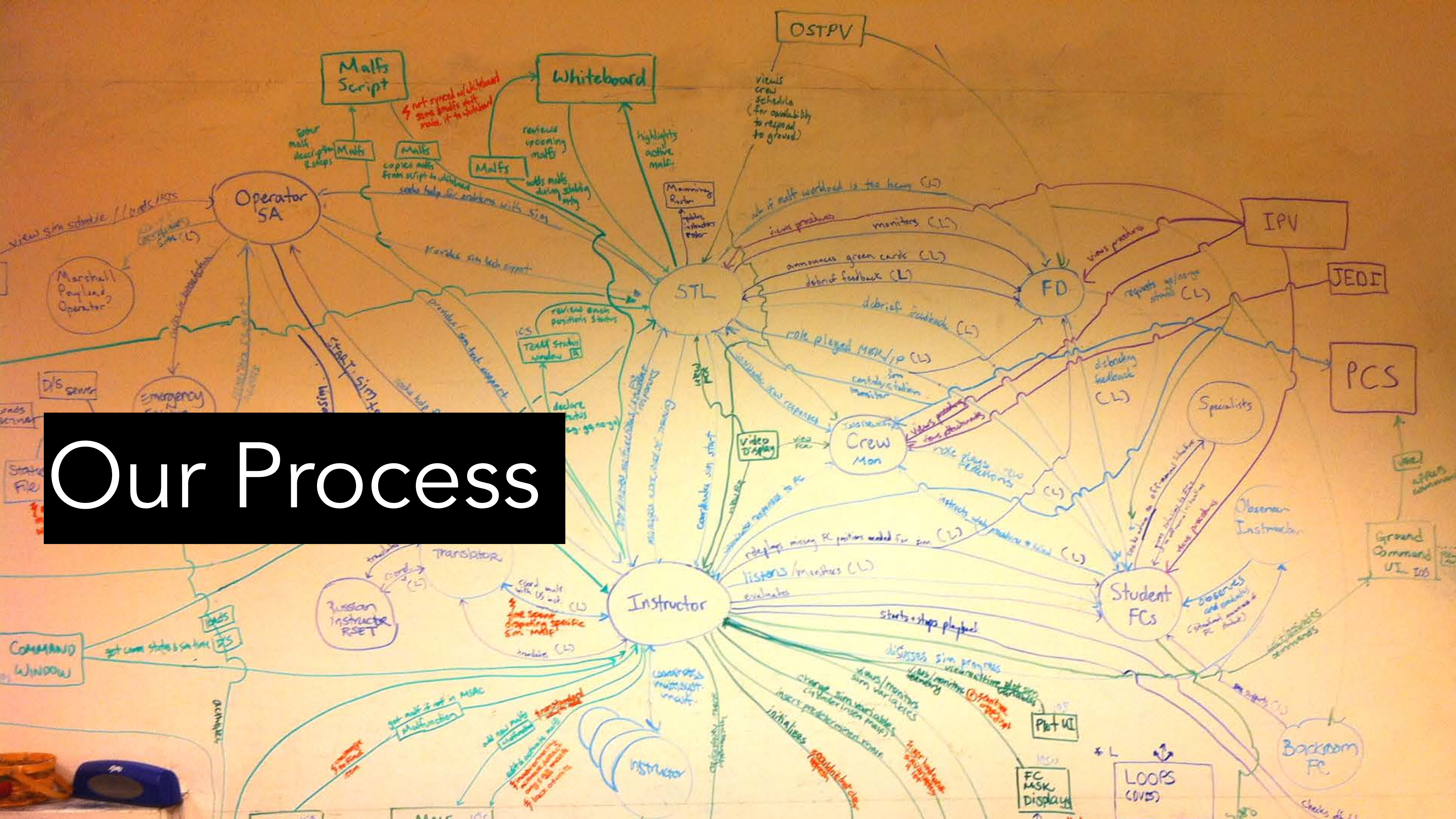
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UX, design, and user research are generally foreign concepts to NASA as a whole, only known to small parts of the agency.

We tend to straddle the line between applied research and building operational products.

Our Process



Our Process

Product Focused

Small team, wear many hats

Designers expected to go from User Research to Interaction Design to User Testing, eventually PM responsibilities

Takes around 6 months to ramp up a new designer

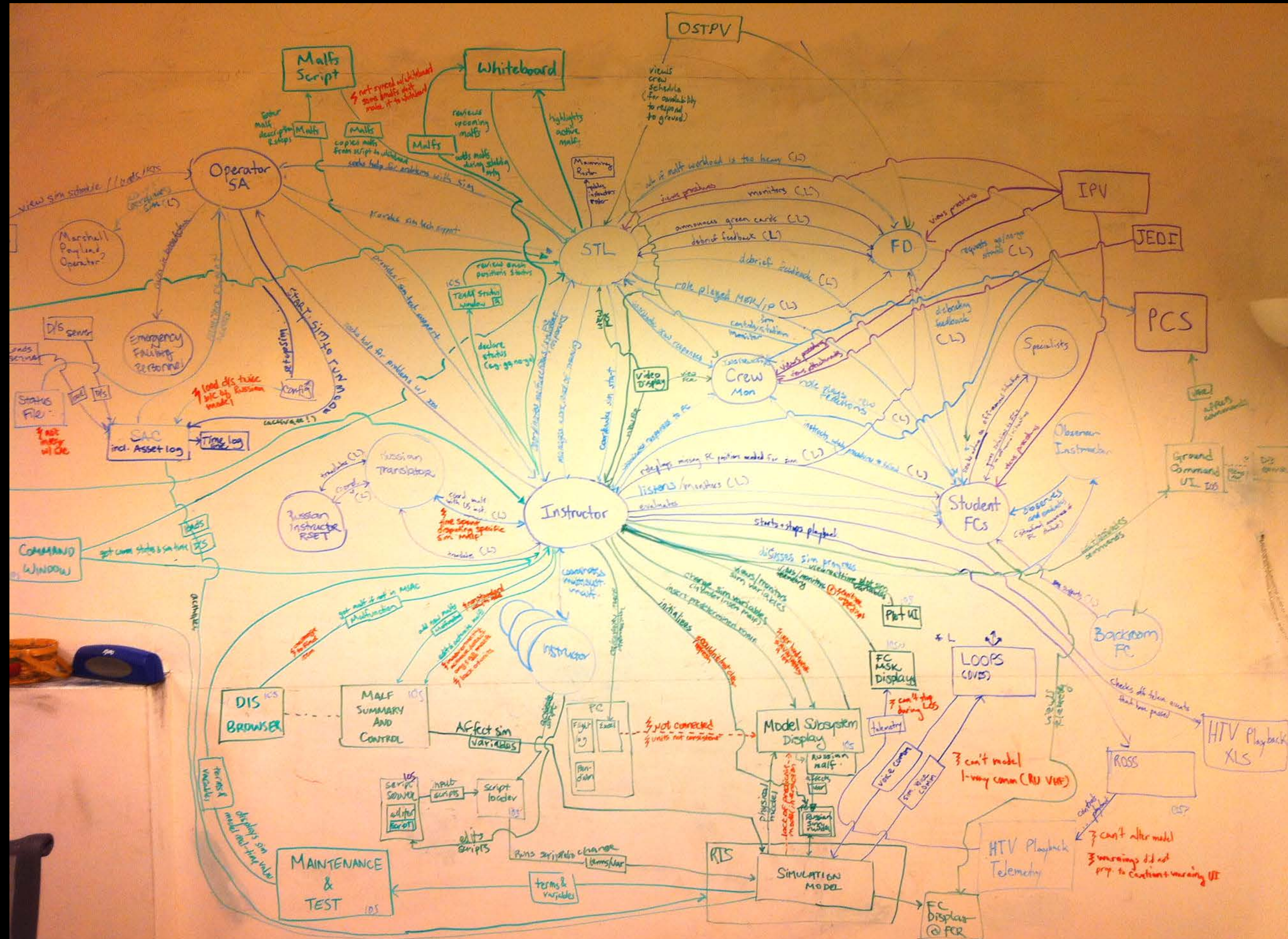
Our research strategy tends to go in cycles

Observational Research - Contextual Inquiry / Contextual Design

Affinity Diagrams

High level design ideas, iterative design process, paper prototypes, and then wireframes

Iterative, with increasing levels of fidelity



User Testing



Why is it so hard to talk about UX and design to scientists and engineers?





Common UX Communication Challenges I've Faced

Product is too simple to be
powerful.

We have a tool that does that
already.

We're seen as software
developers inside the agency.

Customers don't exactly know why we're successful, but they know we do really good work.

Why do we need something to be walk up and use? We have to train these users anyway.

Resistance to change workflow
processes.

During user research, sometimes
seen as auditors or inspectors.

UX/Design seen purely as the
aesthetics.

UX Designers being confused
for Front-end developers.

UX seen as art vs. a practice

What are effective ways to
solving this?

1. Learn and speak the user's vocabulary when discussing findings.

2. Align UX goals to efficiency gains

3. Show data and domain rationale for design decisions (Does not need to be quantitative!)

4. Build up user advocacy from
the ground up

5. Build up a brand identity for
your team

6. If you can't change the process,
have your product automate or
mitigate the pain points.

7. Sometimes building a better usable product does not get you in the door, it has to do more as well. Use these features to distinguish yourself.

8. If the user research points to a clear area but you are not getting traction, just build a prototype

Finally

You're not going to be able to reach or have the time to educate everyone on UX, and that's OK.

Sometimes your products just
need to speak for themselves.

They will eventually ask how your team does such awesome work. And you will have your chance.

To turn that UX skeptic into a
UX believer.



Thank you! Questions?

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