



@advancingresrch #AR2022
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Speaking to you live
from JAKARTA, Indonesia
it's 2AM but I'm still awake!
I'm excited to be talking with you.

Actions and Reflections: Bridging the Skills Gap Among Researchers

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IF WE ARE TO BE A TRULY INCLUSIVE PRACTICE,
WE NEED TO DO A BETTER JOB OF CREATING OPPORTUNITIES
FOR THOSE WITHOUT ADVANCED DEGREES AND YEARS OF EXPERIENCE

In 2018, after working for ADIDAS in GERMANY
UBER in CALIFORNIA
I returned home to Indonesia and have led
the design organizations for TWO tech unicorns.
I didn't have access to researchers with same pedigrees
but they were no less talented.

THE CHALLENGE

50+ researchers @ BOTH TECH COMPANIES
1.6 years experience (avg.)
3.74 years - longest tenure
STEM (major edu. background)
~10% (Masters degree)
63% (No prior experience)
13% (EX-intern)

VS

@ UBER

PhD
IDEO, frog design, FAANG, Airbnb
Microsoft

NOTHING WRONG HERE, BUT
WE NEEDED TO BRIDGE THE
SKILLS GAP...

CONTINUOUS LEARNING

- ATTENDED RESEARCH CONFERENCES
- PARTOOK IN RESEARCH WORKSHOPS AND CLASSES
- INVITED RENOWNED RESEARCH EXPERTS IN HOUSE TO TRAIN US
- BUILT OUR OWN RESEARCH CONFERENCE
- SETUP MENTOR-MENTEE and RESEARCH BUDDY PROGRAMS
- CONDUCTED LOTS OF RESEARCH FEEDBACK SESSIONS

Design teams were learning more
and faster than research teams
but they started in the same place!

WHY the DISCREPANCY?



THE 3 PHILOSOPHIES

Erik Stolterman → Donald Schön → John Dewey
(Professor, Indiana U) (Professor, MIT) American Philosopher & Psychologist
DESIGN THEORY & PHILOSOPHY... cited... cited...

1 SCIENCE vs DESIGN COMPLEXITY (STOLTERMAN) 2008

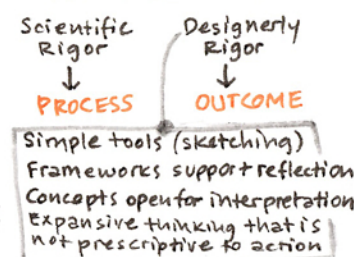


2 DESIGNERLY RIGOR (STOLTERMAN) 2008

3 ALL PRACTITIONERS ARE DESIGNERS (SCHÖN) 1987

"All professional practitioners are also makers of artefacts, if these are understood generally, as products, but also arguments, agreements, plans, policies... and systems; but more importantly of problems and situations. As makers of artefacts, all practitioners are design professionals."

4 SCIENTIFIC RIGOR vs. KNOWING-IN-ACTION (SCHÖN)



5 KNOWING-IN-ACTION REFLECTION-IN-ACTION (SCHÖN) IN DESIGN RESEARCH PRACTICE

KNOWING-IN-ACTION INTUITION ON BEING NON-JUDGEMENTAL

SURPRISE CONTRADICTORY INFORMATION

REFLECTION SHOULD I EMPLOY DIFFERENT INTERVIEW TECHNIQUES?

DIFFERENT ACTION BEING OPINIONATED

REFLECT-IN-ACTION BEING NEUTRAL

6 LEARNING BY DOING (DEWEY)

"Recognition of 1938 the natural course of development... always sets out with situations which involve learning by doing..."

LEARNING FRAMEWORK

3 Rs



OBJECTIVE: To dissect a researcher's intuition so that other researchers can reflect on and learn from it

DI: DEMONSTRATING and IMITATING
adapted from SCHÖN's Educating the Reflective Practitioner (1987)

"Imitative reconstruction of an observed action is a kind of problem solving. The imitator has access to observation of the process and of the product and may regulate his selective construction by reference to either or both of these."

MY RESEARCH TEAM EMPLOYED THIS IN TWO PRACTICES...



IMPLICATION

STOPPING: Imposter Syndrome & Gatekeeping in Design Research