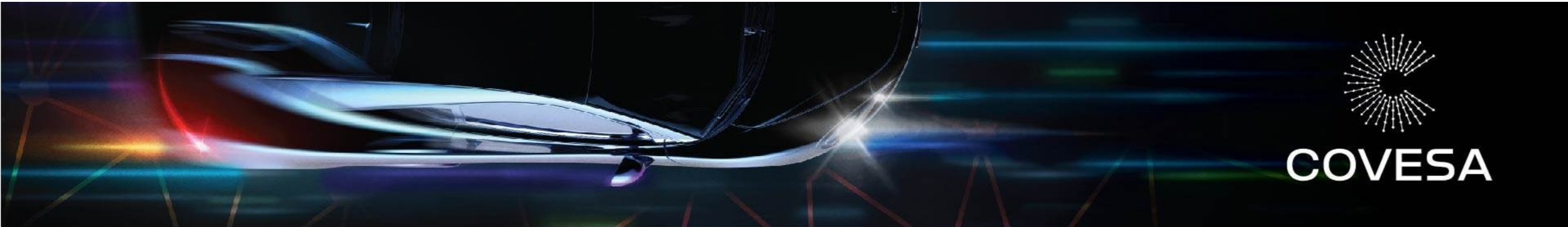




# Evolving UX Insights to Keep Pace with Technology



**WHERE BUSINESS & TECHNOLOGY FOR CONNECTED VEHICLES MEET**

**ALL MEMBER MEETING • OCTOBER 18-20, 2022 • DEARBORN, MICHIGAN**

# Until Robots Rule...



- People and Tech will have to work together
- How well that happens is measured by what is called Human Machine Interface (HMI) or Human Factors Insights

Think of **any** technology interface that you've used recently that was frustrating, annoying, or even dangerous

# More Change, Faster Change

- **People**

- Expectations are changing
- Cross-platform experience is changing
- Knowledge is changing

- **Technology**

- Capabilities are changing
- Roll-out is faster
- Execution is changing
- **Limited benchmarks**



**RESEARCH COMPRESSION**

# Massive Gaps

- Massive gaps between design intent, design execution and customer need
- Execution: menus, screens, graphics, animation, latency, understanding, touch sensitivity, voice accuracy, cross-device connectivity, etc.



# Who is frustrated?



- Human drivers
- Human researchers
- Human engineers

**Nobody wants  
a bad interface**

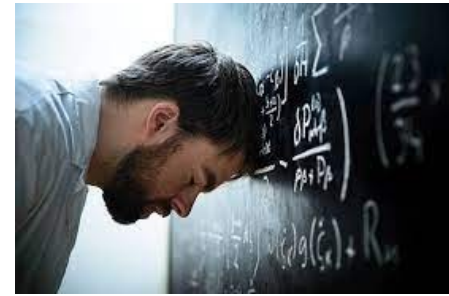
**Nobody wants  
a bad user  
experience**

# Hardest Job in the World

*“Bank guard in Alaska.  
You got 30 people in  
the place, they’re all  
wearing ski masks...”*  
--Dennis Miller, 1988



# Today's Hardest Job in the World



October 17, 2022

Dear Cabin or UX Expert,

We just got this survey result. I don't know what's going on but **please fix asap**.

Thank you,

Authority Figure

Please Rate Your Infotainment System (5 is best)

1    2    3    4    5

Anything You'd Like to Add?

*It was hard to use, even speed control*

# Hardest Job Made Harder

- Adding video can add context...unless done using the barbaric “binge” model
- Imagine 20 vehicles capturing all driving (say, 4 hours a day) for a week
- **QUANTITY not Quality**

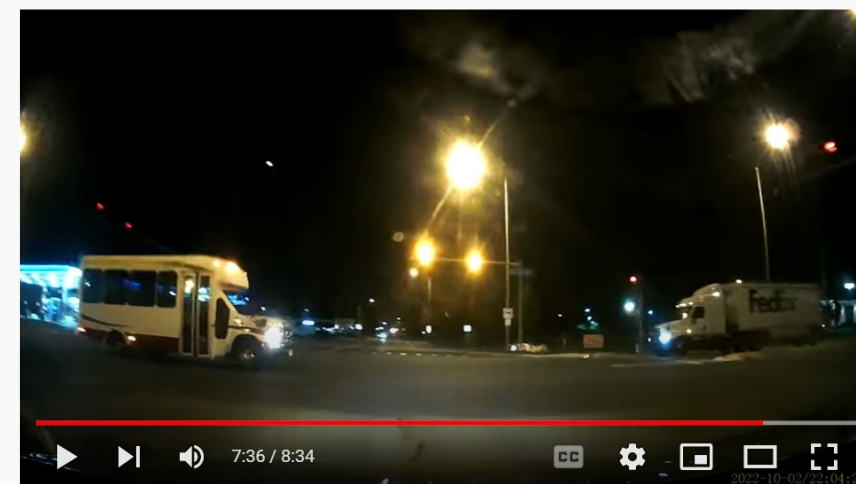


560 Hours



YouTube

Search



IDIOTS IN CARS COMPILATION #10



# Today's Hardest Job in the World Made Easier: Task-Centric



- Pick 10 key areas to investigate (tasks)
- Have your 20 drivers only capture things related to the 10 areas
- Design for 1–2 minutes per task
- **QUALITY not Quality**



6 Hours



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[sales@pulselabs.ai](mailto:sales@pulselabs.ai)

# Today's Hardest Job in the World Made Easier: Task-Centric



October 21, 2022

Dear Cabin or UX Engineer,

We just got this multi-model insight. It looks like the system is confusing speed voice commands and HVAC voice commands. How can we address?

Thank you,

Authority Figure



# UX Insights Keeping Pace with Technology

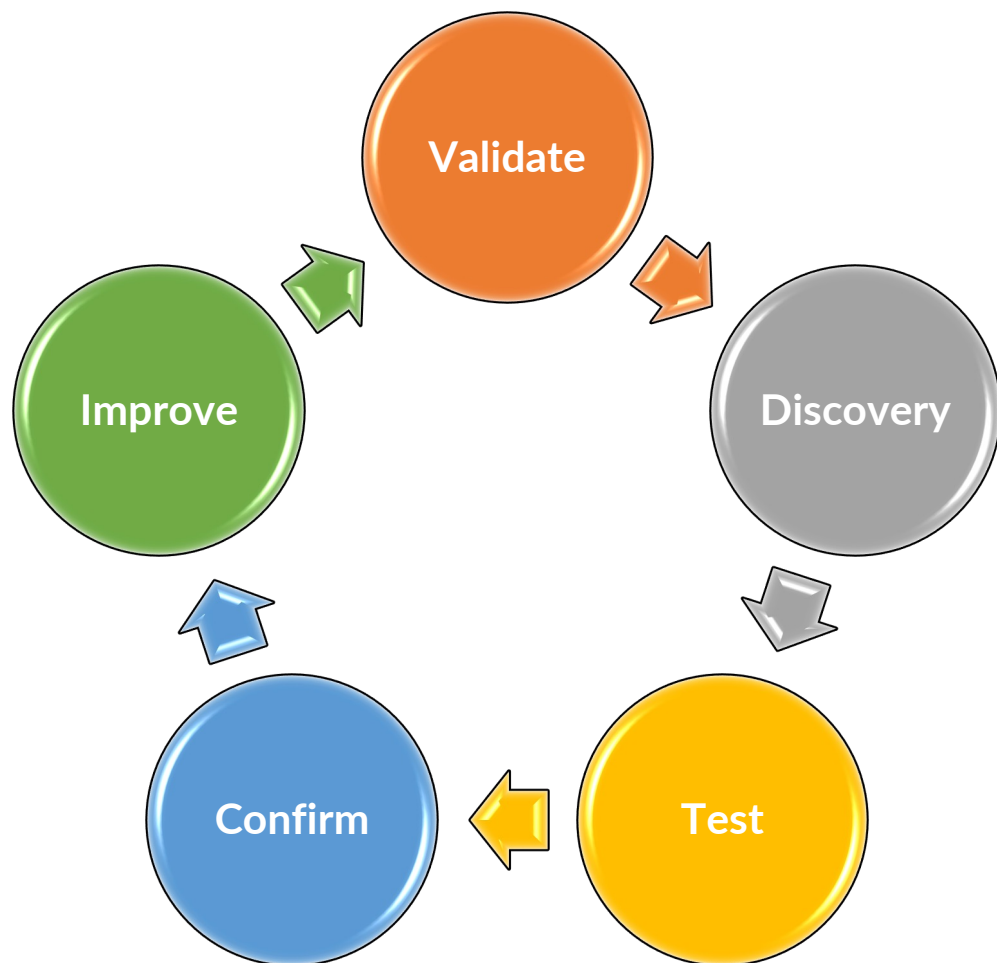
- Antidote for **RESEARCH COMPRESSION**

- Gathered faster
- Delivered faster
- More granular
- More focused
- Shareable
- Benchmarked
- Naturalistic (i.e., real world)
- Complements other research

**Nobody wants  
a bad interface**

**Nobody wants  
a bad user  
experience**

# No One Size Fits All or Magic Bullet



Social Media

People posting problems

Survey

Survey validates breadth, narrows focus

In-Car Camera™

In-Car Camera™ adds granularity & benchmarking

Bench Testing

Engineers develop and test solutions

# Questions & Comments

- Antidote for **RESEARCH COMPRESSION**
  - Gathered faster
  - Delivered faster
  - More granular
  - More focused
  - Shareable
  - Benchmarked
  - Naturalistic (i.e., real world)
  - Complements other research

# Thank You!



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