

# Talk to your users!

They have the knowledge  
For you to make products they love

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# We all want to create great product experiences

## Experience

- What happens to people as they live and work

## User Experience

- What happens to people as they live and work—while using your product

## User Experience is not designed

- Your product is
- The user's experience is integrating your product into their lives
  - Do you understand it?

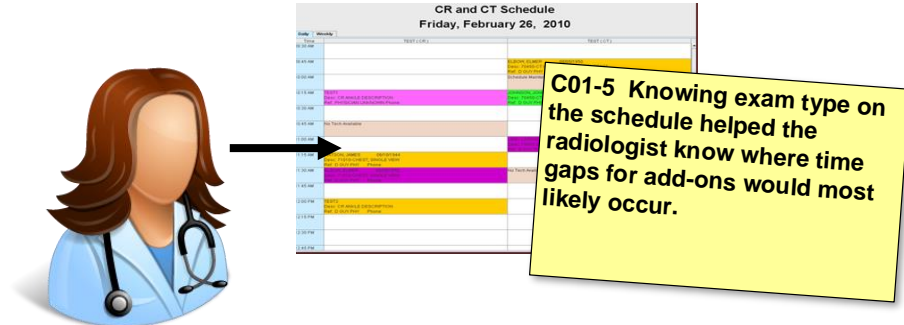
## What we need is User Experience *Knowledge*

- Some call it empathy
- But we need a way to capture and share it to be useful for design
- We need design data

# Design data

## ***User-validated interpretation of observed events***

- Not opinion or abstractions
- The user's interpretation is the only one that matters



It won't tell you what to do, but what the situation is

- The *why* behind peoples' actions & constraints they face
- Provides needed insight for solving real problems

It captures core issues across your user population

- People have similar intents and strategies when doing an activity
- Typically need only 12-24 interviews to understand core issues

# Affinity diagram: scope of user activity and issues



# Affinity data examples: medical scheduling

**S01-26** Because the patient is from far away, S1 tried to schedule all exams on one day for the patient.

**OH01-29** First looked up last mammo exam to make sure this follow-up is not scheduled too soon for insurance to cover.

**OA01-14** OA was less worried about schedule conflicts for an in-patient. Inpatients be are not going anywhere.

**C01-5** Knowing exam type on the schedule helped the radiologist know where time gaps for add-ons would most likely occur.

**OA01-1** The CT procedure required a creatinine test two days in advance, however the patient lives out of town and is only in town for a couple of days.

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Medical scheduling is a juggling act

I have to know the schedule of each involved person and resource

Timing and sequence of appointments may be medically necessary

Scheduling is easier when the patient is present

If the patient's not present, it might get scheduled incorrectly

The patient has their own schedule that I need to accommodate

Patient lives far away, so only one trip is reasonable

We double-book appointments to anticipate no-shows or extra time

G01-50 When scheduling a colonoscopy, OA has to put the schedule in: Dr's calendar book, Dr's online schedule, and call the procedure room to schedule the time

S01-28 NM exams must be carefully timed due to isotope decay constraints

S01-36 S1 got an immediate response to a purposed schedule because the patient was with the referring OA and could check their calendar

UR01-97 Patient was not available to check their calendar, so she had to guess. But ended up scheduling on a day that they couldn't make it.

OA01-7 Patient gave a general time frame that they were available. This gave the OA a starting point to find compatible appointment times.

OA01-21 The patient is here just one day, so the OA tried to push to get exams scheduled that day with other schedulers.

BC01-13 Appointment slots for a physician are often "double-booked" based on the presumption that there will be no-shows, visits will be shorter than expected, etc.

UR01-30 Q: Does the nurse need to check his clinic calendar and his surgery calendar before scheduling exams?

S01-27 GI studies have to be in the right order: CT first, then barium x-ray.

OA01-12 DI: When making a referral, bring the patient in on the conversation of setting up the referral

SU01-35 Patient wasn't there so the she didn't know their availability for scheduling the follow-up exam

IM01-43 DI: Provide patient's exam calendar online for later reference or addition to patient's own calendar

OA01-1 The CT procedure required a creatinine test two days in advance, however the patient lives out of town and is only in town for a couple of days. Makes scheduling more difficult.

BC01-14 DI: Support patient appointment-making like an airline reservations system—they double-book to make sure the "plane" (physician's calendar) is completely filled

G01-84 Unseen last minute additions to the call calendar caused the OA to double-book patients.

I schedule two patients together for the same day

OA02-4 Patient left the hospital before a follow-up exam was set, had to track them down to make the appointment

UR01-96 Nurse told the couple that scheduling the appointments would take a while, so she will mail them the appointment information after she sets it up. The couple, therefore, needed their personal schedules to be flexible.

OA01-14 OA was less worried about schedule conflicts for an in-patient. Inpatients are not going anywhere.

SU01-27 Scheduling problem: when a patient is only in town from far away for a day or two it can be very difficult or impossible to schedule needed exams.

BC01-16 Q: What algorithm(s) do receptionists use to determine when to double-book patient appointments?

I simultaneously negotiate appointments with multiple schedulers/ calendars

UR01-94 Doctor asked nurse to set up future appointments on the same day for both a husband and wife because they are traveling together.

S02-26 Ordering physician's OA fills out MR request form but doesn't schedule the patient; instead has the patient go over to radiology to make the appointment directly without having to be an intermediary

SU01-34 She had to schedule a radiology exam but the patient is away getting treatment. So had to hope it wouldn't conflict with their schedule.

I coordinate and sequence multiple appointments for my patients

S01-23 S1 scheduled a sequence of exams for a patient and told that schedule over phone to the OA because she wanted the OA to understand the reasoning for the sequence.

S01-26 Because the patient is from far away, S1 tried to schedule all exams on one day for the patient.

S01-51 DI: Exam should be scheduled with recognition of where the patient is coming from.

IM01-10 To make an appointment, IM1 had to simultaneously match 2 online dept. calendars, an over the phone OA's schedule, and the patient's schedule.

OA02-3 OA2 would prefer that for inpatients the nurse calls her for follow-up exam scheduling before the patient leaves. Much easier than having to later track the patient down.

S01-48 OA called to synchronize exam in radiology with a prearranged exam with another physician. Wanted to make sure the x-ray would be ready for the physician

OH01-33 DI: Have distant patient have creatinine test done at a local lab and call in result before scheduling CT

IM04-22 Had to simultaneously talk with two people on two phones because both manually screen all scheduling requests due to complex exam requirements

S01-49 DI: Synchronize clinic schedule with radiology schedule.

G01-64 DI: Provide medical service coordination for patients who have multiple Dr's managing their care – "virtual primary care"



**Service appointments  
require preparation and  
screening**

**The nature of the  
schedule**

**The scheduling job**

**Requesting services from  
other groups**

**Some services require  
experts to review  
requests**

**Physicians have rules for  
their schedules**

**Scheduling is a role, or  
fulltime job**

**After making a request,  
we still have to track it  
and take follow-up  
actions**

**I give the patient  
instruction so they'll be  
correctly prepared and  
arrive on time**

**Schedules are actively  
used as a work tool**

**I need proper justification  
and instructions to  
schedule an appointment  
Exam**

**It's unpredictable when  
the patient will show  
up for the requested  
service**

**I pre-screen patients  
before allowing them  
in**

**Schedules are constantly  
changing**

**Scheduling can get  
hectic**

**Requests have different  
urgencies**

**I review patient  
information before each  
exam**

**Our schedules take many  
different forms**

**Medical scheduling is a  
juggling act**

**Requests require  
symptom codes (ICD)  
that take extra effort to  
create**

**We maintain separate  
and duplicated  
schedules**

**I have to deal with  
requests having unclear  
or missing information**





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# Talking to your users: four key principles

**Context:** Put yourself where peoples' work or life activity unfolds

- Capture detailed concrete data, not abstractions
- NO: "do you..."
- YES: "When was the last time you...?" "Can you show me...?"

**Partnership:** Work with them to make explicit the details of their activity

- Apprentice attitude: listen & learn without judgment, nothing they do is "wrong"
- Have them show you what they do
- Withdraw and help them see & articulate otherwise tacit knowledge

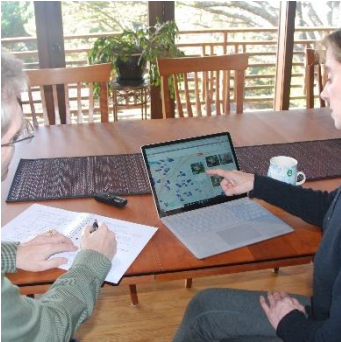
**Focus:** Listen with a purpose in mind

- Start with your existing goals and assumptions
- Translate them into user activities you want to pay attention to
- Explore surprises & contradictions, what you assume is true—do you have it right?

**Interpretation:** Gain a shared understanding of implications of their actions

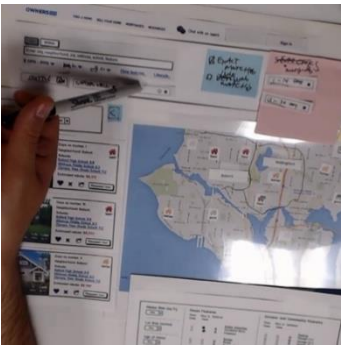
- Without a shared understanding, you'll make it up
- Test design ideas while they are focused on their task for unvarnished feedback
- Be honest about their response to avoid bias. Start by assuming they mean "No"
  - NO = Blank expression, "Maybe," "sort of," "other people might like it," "Yes, but..."

# When to talk to users



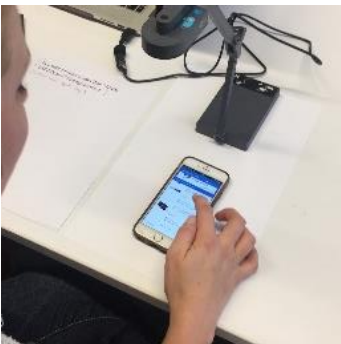
## When investigating new opportunities

- Understand their scope of activity and issues
- New domains: look at analogous activity
- Be ready to pivot as you learn what really matters



## To test and iterate product ideas

- With mockups before writing code
- Learn if the idea addresses an important problem
- What works well, and why
- Co-design with ideas to fix problems



## In production to challenge system design

- How well the product supports user goals and motivations
- What have you removed that was actually useful?
- What have you kept that is no longer relevant?

# Design data quality checklist

- ✓ Does it come from real target users, doing real activity?
  - Not manager, SME, generic “consumer”
- ✓ Does it represent observations of actual life events?
  - Not abstractions, summaries, or hypotheticals
- ✓ Are reasons or explanations for events the user’s, not yours?
  - This is the gold you’re mining!
- ✓ Is the data organized into actionable form?
  - Inspires generative thinking
  - Useful to evaluate ideas

# Some take-aways

Treat User Experience as something you learn, not design

Use Design Data as a validated source of user insight

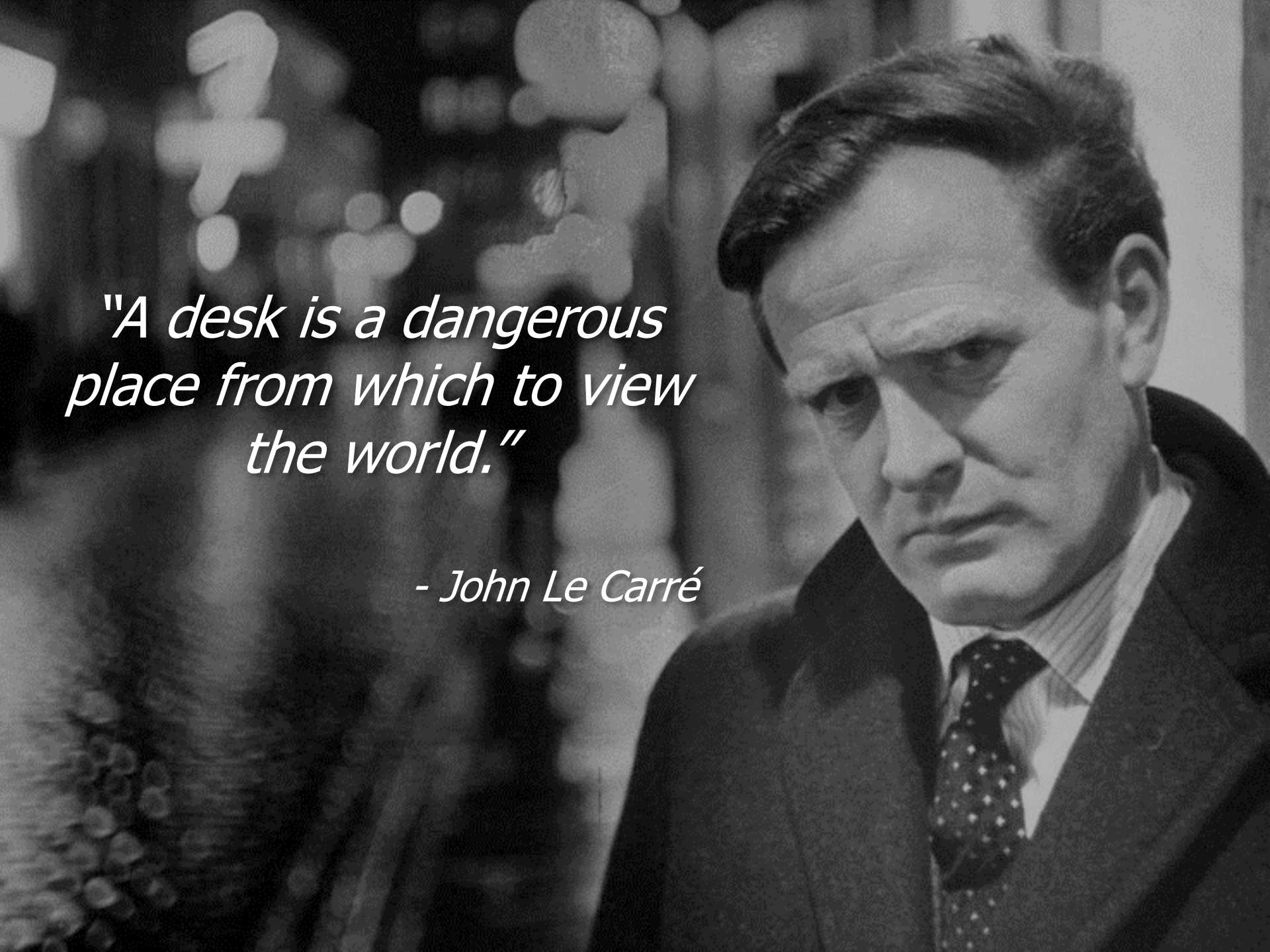
Model design data to support design thinking

Talk to users early and often to discover and test ideas

Follow the principles for talking to users:

- Context, Partnership, Focus, Interpretation





*"A desk is a dangerous  
place from which to view  
the world."*

*- John Le Carré*

Thank you.

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