

what we're going to talk about in this lecture is observing people to discover their needs goals and values one effective starting point for designing new technology is to clearly identify an existing problem or need and that's because finding a big problem and need often yield important untapped opportunities for design observing people can also help you build empathy and think from their point of view stand in someone else's shoes or maybe to wear someone else's gloves Mike Cooney offski is a colleague of mine at a design consultant and author when we were talking about the role of fieldwork in design he gave me the example of an electronics firm that makes devices for truckers apparently the systems were underused and sometimes when responses were provided they were pretty minimal these mobile devices had small physical keyboards when the designers went into the field and spent time with the truckers that used them they found that many truckers had big hands and wore bulky gloves making it near impossible to use the tiny keys the resulting redesign featured a large touchscreen this interface provided common responses with one click as opposed to lots of typing and the dynamic display made it possible to have big buttons and the stylus was introduced for precision input when that was necessary from this example you can see the wisdom of something attributed to Yogi Berra that you can observe a lot just by watching what we're going to talk about today is participant observation techniques for standing in someone else's shoes of course observing people isn't the only way to begin designing an effective user interface great designs for merged through all sorts of approaches that said it's often a good strategy to begin your design process by attuning yourself to your users the techniques in this lecture are inspired by the fieldwork strategies that anthropologists use to learn about in document culture in 1914 bronislaw malinowski travelled to Papua New Guinea where he conducted fieldwork at my loom in the Trobriand Islands while he's there World War one breaks out he has two options either hang out in the Trobriand islands or face internment I think you can guess which option he picked during this period he developed the practices of participant observation which remain a hallmark of ethnographic research to this day in this photograph Malinowski is being taught to play a string instrument the picture of Malinowski is a wonderful illustration of what Genevieve Bell calls deep hanging out by spending time with people doing their work and living their lives you can get beyond the surface things that people say to learn about what they actually do if you've ever lived in another country I bet you found that all sorts of things that are normal to the people that live there and completely unfamiliar to you but you don't need to go that far or even go anywhere to begin to recognize the beautiful complexity of culture it's all around us for example being a student requires an enormous amount of practical knowledge and carts the toots a large number of practices that you enact every day and are rarely conscious of precisely because it's such an everyday behavior but if someone was suddenly dropped into being a student with no knowledge of what student life was like they'd have all sorts of trouble furthermore much like the intuitions that we build up when we learn to play a musical instrument there's all sorts of stuff that we do is part of our everyday behavior that's really tough to articulate so what we're gonna hopefully learn by participant observation in this class is five key things first what do people do now what's the baseline that we're starting from second what values and goals do people have most often we want to build technologies that align with what people care about and what they hope to accomplish and by that I don't mean literally building what

people ask for because people often don't know especially for disruptive technologies rather what I'm talking about is designing technologies that will weave themselves into the fabric of people's everyday lives even if they introduce new concepts and functionality third we're going to look at how these particular activities are embedded in a larger ecology of behaviors for example we might be tasked with designing a better technology for a bus or subway of course for any individual bus or subway user the bus or subway segment is just one piece of a larger activity like getting to a friend's house or commuting to work or going to the grocery store and by understanding the constraints and goals of that larger activity you may come up with ideas that you wouldn't have if you were just thinking about the bus ride more narrowly like what leads somebody to select or not select the bus even if your original design brief was about improving the literal bus what you might end up with as a designer is something more broad like creating a mobile application that helps people figure out when the bus is coming or nearby or the best way to get from one destination to another taking this broader view can help you be more effective it as a designer by helping design for the larger activity that people are engaged in and designing for that activity can often take you away from the narrower brief that you originally began with fourth what are similarities and differences that you can find across people in our bus example a low mobility user might care enormously about the accessibility of the bus somebody else may be primarily concerned with cost and somebody else still might be primarily concerned with efficiency in getting there one of my favorite examples of participant observation comes from Jack Whelan and colleagues at Xerox PARC they were studying a call center for photocopier repair so these are people who field questions from Teddington technicians and over the telephone