

NEXT NOW



October 2021



Human-Centered Design

Where compassion meets technology



In This Issue

Welcome, Welcome!

Throughout my career, healthcare has been a lovely thread weaving through my journey. I've worked with pharmaceutical robots and EHRs, and designed trauma-informed spaces for domestic violence victims and survivors. I've created and cultivated services for providers in intellectual disability and mental/behavioral health. I've designed experiences for wellness, mindfulness and even healthy food services for urban environments.

Now, as Chief Experience Officer (CXO) at Allscripts, I get to apply my personal mission "to lead design for a compassionate world" to an industry that needs it most. While the rest of the technology fields have zoomed into the future with Human Experience, to no fault of its own, the healthcare industry has been caught in a series of loops. It is one of the most complicated industries on the planet; regulation, policy, privacy, technical constraints, clinical content constraints and, not to mention, human lives are at risk. Through the past year, we've taken baby steps to bring the basics to light. That's what this piece is all about: bringing the methodologies and practices of Human-Centered Design (HCD) to healthcare. We are solving the big, wicked problems.

I hope this piece inspires more companies in the healthcare industry to focus not just on the tasks at hand, but the precious patient care at the heart of the work. This work gets me up in the morning and guides me through my days. I'm so thrilled to bring this content to you!

In this edition of NextNow, the Allscripts eMagazine, we're going to thoroughly explore the concept of HCD, define the reasoning and methodologies, talk through why we do it, compare HCD to "Design Thinking," and explain the benefits to the healthcare industry. So, let's get to it!

With gratitude,

jennadate.

Jenna Date
Chief Experience Officer (CXO) for
Healthcare Solutions at Allscripts

NEXT NOW

Tomorrow's ideas, today.

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Why Human-Centered Design?

Here's a fact we all know, but sometimes need reminding: Experiences in the world are currently not always awesome. Especially in the healthcare industry through the pandemic. We see physicians, clinicians and frontline workers doing heroic work without much acknowledgement of how they actually use technology to deliver this critical care. I truly believe we need more people to listen and empathize with the humans we serve to create exceptional experiences. We need to understand human needs at an intrinsic level and use data to support everyone through the experience. We need to educate our organizations to innovate and produce quality products and services more rapidly, while loving what we do. We need to take care to support one another. Finally, we need more people to convince colleagues and bosses that these problems are worth solving.

We suffer from expert blindness. The moment a human becomes an “expert” we lose the ability to remember what it was like to be a beginner. We create biases toward a subject matter, which in turn keeps us from seeing and connecting with what truly is. In healthcare IT, we are the experts of our domain. The good news is we have an antidote to expert blindness. We can use Human-Centered Design to see beyond the blind spots, understand the providers’ core and inherent needs, and create new products that work seamlessly across hospitals, clinics and provider practices.

What is Design?

Everything created by a human has been designed. An Indian antique door from the Middle Ages, an outdoor experience created with landscaping, a bicycle, a building, a sports team, a piece of technology. All of these “things”—these experiences—are designed.

Design is subtle. If you can’t see it, can’t put your finger on it, but you just love it, that’s “good design.” It helps improve the world and inspire compassion.

Design is a series of methodologies and practices that can solve a problem or need. No matter how big or small. We use divergent thinking to look for those hidden or intrinsic needs, rather than the “asked for” answer.

Design is iterative. Through all the phases of research, analysis, innovation, implementation and evaluation, it’s always happening in a nonlinear manner. When we say design has five steps (setting scope, doing research, synthesizing findings, innovating a new future and prototyping and testing), really where you start in those steps depends on the project, the challenge and the desired outcome.

Design elicits emotion. Good or bad, design has a way of sparking emotion in those that use a product, service or experience. People will have an opinion of how they feel when they experience

something. That emotion will drive purchase, and if it’s really good, it’ll drive a product’s success. But it’s important to remember that just as good design lifts us to aspire and feel good, bad design elicits a poor opinion or emotion and can be the demise of a product line or company.

The benefits of Human-Centered Design

Fail early, fail often. Save Money. Fail as quickly and as many times as we can, because through that failure we learn something. That helps us make products better more quickly. This has huge benefits for our company. If we make these changes before we write requirements, it’s the cost of a bagel we ate for breakfast. If we wait until the product is developed to make those changes, then it’s the steak dinner. So not only does it help save costs, it also saves time.

The success of Human-Centered Design is not new. The methodologies date back to the 1980s. Even then, usability and Human-Centered Design had demonstrated cost reductions in the product development cycle of 33–50% (Bosert), and 80% of maintenance is due to unmet or unforeseen user requirements (Martin and McClure; Pressman). Recently, McKinsey and Forrester reported Business Design-centric companies outperform the S&P 500 by 200% and have a return on investment of more than 300%.

Build the “right thing.” Our focus is to increase innovation quickly and reveal opportunities for features beyond typical functionality. We want to build experiences and reduce risk. It also helps us increase the likelihood that we are building the “right thing” for the market and for the humans we serve.

Early into my role at Allscripts, I was interviewing with folks within the company at all levels of the hierarchy. I asked them, *Why Allscripts?* and every one of them spoke of the people they

serve. One employee said, “I am part of the care team. That’s why I’m here. Because I want to build the best system for the people that are out there saving lives.”

As we move through the rest of this eMagazine, we’re going to dive deeper into the steps we take to Design a new EHR, and how each step contributes to helping the humans we serve.

SOURCES

1. Bosert, J.L. (1991). *Quality Functional Deployment: A Practitioner’s Approach*. ASQC Quality Press, New York
2. Martin, J., and McClure, C. (1983) *Software Maintenance: The Problem and Its Solution*. Upper Saddle River, NJ; Prentice Hall



2

The craft of Scoping

How do you tell a story of what you will do? How do you give enough information to gain stakeholder/buyer buy-in so they can make the decision to support the work? How do you help the buyer feel good about you, trust your skill set and “just know” you will get the work completed? The goal is to build a trusting relationship between you, your team and the client.

In the truest sense: Scoping is an art.

Setting scope at the beginning of any project enables a team to make a plan that will foster a calm, thoughtful and stable project going forward—all while completing the work in a timely and efficient manner.

From my work as a consultant, here are my top five steps to scoping a project. This works for internal and external projects.

Note: There are designers who may not believe that HCD is “a process.” Some designers believe HCD is a series of methodologies or experiences. Like nuggets of work that get placed together in different ways. I believe this may be true in some instances. I also believe there are a few sequential steps to the process that will make for good relationships and brilliant outcomes in the end. Scope is the first step.

Scope. *What is it?*

Scope is the first step in the project planning process. It ensures that all stakeholders understand the problem and how the team will solve for that problem. Scope takes final form in a written brief that includes a bit of project background, a mission statement, a defined process, methodology, schedule, team, budget and outcomes.

1. The initial “co-create” conversation

This is the conversation between the “asker” and the “doer.” Many times, as designers, we would get what I call a “back-of-the-napkin” ask. The designer comes in on a Thursday morning, and sees that a napkin (literally) sketch of a new interface is sitting on her desk. The napkin states, “Due Monday?” Setting scope helps us avoid unnecessary back-of-the-napkin requests. This ensures the team will deliver quality in a lower stress environment.

In this first conversation, the asker and doer map the territory together to understand a general project direction, get to know one another and generally start building a working relationship.

Pulling out a large pad of paper, the asker and doer can “map the territory” by drawing out the stakeholders and what they know of the domain, environment, culture, interactions and relationships. This gives the doer a list of assumptions they can prove or disprove through research. It helps the asker understand what’s involved and helps both parties home in on a piece of the complex system they are attempting to build within.

2. Understanding the domain

The initial conversation provides enough information to further the investigation. The doer can understand the users and the competitors, while reading voraciously to understand what others have written about the subject. (I go into this portion of the work with a

child’s eyes, interested and full of bright curiosity about what *could* be. This helps broaden my understanding of humanity and enable me to explore new spaces.)

3. Creating a project mission statement

A mission statement is one short statement that gives the team a “North Star” to follow and a way to talk about the project. Once created, just by saying the phrase out loud, the team can bring the outcome one step further into being. When the project team swings one direction or another, they can always look to the North Star to guide them. Please know, a mission statement can often require some massaging and wordsmithing in the end.

Quick start for mission statement creation. Brainstorm with your team: Three verbs, to do what, for whom (*Hint*: “whom” is the user.)

Mission statements highlight what is in scope and also define what is out of scope. So, when a client comes to the team and says, “I need these three things” (in the middle of the project), the team can think back to the mission statement, and if those three things aren’t included, it’s time to renegotiate time, resources or budget.

4. Create a process and schedule together

Once the mission is created, the territory mapped, and the team understands the domain, the asker and doer define a process and schedule. This is a time to share working styles, communication styles, weekly team meeting times, deliverable times and methodology, and set it all to a time frame. This will help reduce miscommunication and missed expectations. Once the project starts, it will move fast, and there’s a lot of opportunity to miss each other. Creating process and schedule together will help keep a “no surprises” tone for the project, and offer a beautiful moment to learn together, collaborate and, ultimately, build trust.

Rule of thumb for setting schedules: think about how long it takes you, and then add 10%. (Twenty percent if it’s a new team.)

5. Desired outcomes

List out exactly what you will provide. This might be “hard deliverables,” e.g., a research report, a prototype or a workshop. Or it may include “soft deliverables”, e.g., collaborating internally or practicing cross-functional team-building skills.

In the end, the doer has created a hard deliverable to share for final sign-off. A one pager or project brief that includes background, a mission statement, a map of the territory, a well-defined process and schedule, and a list of deliverables that will drive great value.

The doer has also set the groundwork for clear communication across the team, a trusting relationship with the asker and a pattern of cross-functional collaboration that will guide them.

Scoping is a key step in ensuring projects have all that’s needed to inspire meaningful collaboration across the entire team and the stakeholders. When this piece of the process is methodically mapped out, and expectations are clearly aligned, the project’s foundation is established, and the next steps can be carried out with purpose and delight.



3

Diving in deep: Research

Research. My first love.

When I was a young designer creating visually collaborative software, I loved learning about new ways of displaying information on a screen. At the time, everything was brand new in the Design industry, we were all learning about visual patterns—what worked and what didn't.

What I loved most was listening to people's stories, experiencing their lives with them, finding out more about their core values and needs in their work and home lives. Sitting in their living rooms, watching their behavior patterns as they went through their days. I would sit for hours and watch, take copious notes, and, later, look for emerging patterns across the many humans I observed. This is where Human-Centered Design truly comes to life for me. Our success as Designers starts in the Research.

HCD Research: What is It?

Human-Centered Design (HCD) Research is the practice of understanding a system, a group or a single human behavior at a deep intrinsic level.

There are many different methodologies and practices to get to that deep understanding, and choosing the right ones really depends on the outcomes the business wants to achieve. Below, I'll walk through a few HCD Research methods we use at Allscripts to achieve our business goals. I'll also examine a couple methods that aren't as helpful as they may appear.

LITERATURE REVIEW

Good for: Understanding a domain enough to ask the right questions later.

A literature review involves a deep gathering of data and write-ups to capture all of the goodness about a certain subject and communicate the information internally in a digestible way. This helps the team gather inspiration from various domains, social comparisons and analytical research to shape the field work and design directions. It also helps communicate to executives that the team has done its homework and each member is a credible thinker. The team brainstorms which direction it wants to pursue based on its Mission Statement and then divides the work. Each member returns with many data resources to share with the team, including a short summary of key findings and patterns seen across all of the referenced literature. Don't forget to communicate the "references" to the group. It's surprising how many people will look for those papers later.

HCD COMPETITIVE ANALYSIS

Good for: Understanding competitors (from an HCD perspective) to build a "best practice" framework for the team, identify key innovations and what not to do or repeat.

This competitive analysis is not typical market research. Rather, HCD looks at screen design, usage, reasoning and the goals a person may have when using a product. It answers, "what's easy?", "what's hard?", "where is the 'disrupting' gap in the products?", and "what patterns are competitors following that this design team may want to avoid?" It's also important in the competitive analysis to look to other industries for inspiration. It's possible there is a best practice that the team can apply to this industry to make the product better. A short summary of the key findings/patterns from the competitive analysis helps executives and clients further their design mindset.

CONTEXTUAL INQUIRY

Good for: Understanding humans, their true needs, core values, environment, relationships and specific behaviors to understand *why* people do something to make a *what* for them later.

Mentioned first in the early 1990s by Hugh Beyer and Karen Holtzblatt as a method for human behavior data collection and analysis, Contextual Inquiry is the deepest and most detailed of all the HCD Research methods. It involves planning, collecting and synthesizing human behavior data through watching people perform a task in the context of their days. The method has an ethnographic style taken from anthropology, and helps the team understand intrinsic and extrinsic needs of the people

who participate. Once the data is collected, the team makes the data visible and synthesizes it through a series of models looking for patterns in culture, environment, relationships and sequential actions. The outcome is a data-rich set of key findings that drive innovation.

Using this method catapults HCD Researchers into an empathizing state, where they not only *understand* the problems and needs, but they actually *feel* what the research participants feel.



HEURISTIC EVALUATION

Good for: Finding problems and sticking points with an interface or product.

A bit of a sleeper method, it is very useful if the team wants to change an existing interface or design something new and better.

Heuristic Evaluation is the analysis of an interface to determine its level of compliance with recognized usability principles. It's performed by expert HCD Designers to give direction to Design and Development teams for next steps and interface fixes. The method uses Jakob Nielsen's "10 General Principles for Interaction Design" and enables the design team to do three things: examine the screens through a HCD lens, evaluate areas for improvement and recommend a path to fix or improve. An example: A team of five skilled designers reviews a product making note of the "violations" to the heuristics; they compare notes and create a piece of communication showing the collective patterns and group recommendations. This

method can help guide the product, design and development teams to create a better product based on human needs, desires and modern-day comfort with technology. Really, it's fool-proof and can help executives see the problems with their products firsthand.

HELPFUL, AND REALLY NOT SO HELPFUL METHODS

SME Interviews. The act of sitting in a conference room and listening to a subject matter expert (SME) talk about what they want to see on a screen. This is not to discredit SMEs, but rather to take their expertise and integrate the perspective as a guide rather than a deciding factor.

The problem? I love SMEs. Please don't get me wrong. What people say they want and what they actually need are two completely different things. SMEs (or what I call "Internal Validators") are wonderful contributors to the Design knowledge base. Their perspectives can guide the team to understand a domain. SMEs help the design team formulate a best guess to guide the research. The issue comes in when the SME perspective is the only perspective that drives the design. One person's word is not enough to make design decisions. Watching many participants in the field is a better method for data gathering.

Focus Groups. Gathering five or so stakeholders or SMEs in a room to give feedback together. Usually, the facilitator has the product in hand, and calls out questions to engage the group.

The problem? In this setting it is a guarantee that a bystander will only hear from the loudest one or two people in the room, while other personalities may sit quiet. If this happens, Designers don't get what they need, and in some cases may be pointed in a direction that is incompatible with a quieter participant's needs. I would take Contextual Inquiry over a focus group any day.

Caveat: A skilled facilitator can find ways to quiet the loud and encourage the quiet.

Surveys. The act of putting together questions in written form, sending them out to a self-selected group for solicited feedback. (See SME interviews above.)

The problem? Survey questions are extremely difficult to write well. There's a lot of psychology behind them, and every word in a survey question counts. If questions aren't written with skill, following a specific set of guidelines, the findings may show false positives or negatives. Humans also get survey fatigue quickly, especially in our "sound bite" culture. Any more than three questions, and you may not get the answer you need to guide your process. To gather participant needs it's much more informative to watch someone do their work.

Caveat: Well-written surveys are good for many things, though, like mass data capture of high-level opinions.

This is all to say, pick your methods carefully and with intention. Have a clear outcome in mind. With HCD, process is everything. How you travel is the journey.

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2. Nielsen, J. (1994a). Enhancing the explanatory power of usability heuristics. Proc. ACM CHI'94 Conf. (Boston, MA, April 24-28), 152-158.





4

Synthesis, the “Secret Sauce:” Moving research data into actionable insights

Recommended tools: Notebook, recordings (if you have them), Post-it Notes, pens, a blank wall, team members

Here’s a scenario: You and a teammate (try to not do this alone, but if you are, trust the process) just went on a job-shadowing trip to three locations. Your mission was to understand what physicians do. You’ve spent close to 90 hours watching clinicians in their environment, having conversations with them, absorbing the work, the behavior, the mindset and the culture. You’ve filled an entire college-ruled notebook with what you

saw and heard. Maybe you did a few sketches of room layouts, quotes from conversations and models of work, play and life. The healthcare industry rarely permits recordings due to HIPAA regulations, so a fast sketch hand really helps here.

Now what? You know there’s great information in that notebook. You heard and experienced so many things, some new, some validated from other work you’ve done. How do you distill all of that goodness into a few key

messages? How do you educate your design and development teams about what physicians need? How are you ever going to distill 90 hours into three bullets for the executives? How do you drive change in the products and services your company creates to meet the needs of the people on the floor?

Now begins the process of analyzing and synthesizing the data found in the field. This portion of Human-Centered Design has been “the secret sauce” of the industry for decades. Jon Kolko did a beautiful job laying out the basics in his 2009 book, “Interaction Design Synthesis: Translating Research into

Insights.” The good news: this isn’t rocket science. With a quiet mind and organized way of working, you can make beauty come to life from all of the information you gathered.

Keep in mind that this will not happen in one day. Patience and planning will guide you. It’s like painting a room—taping, scraping and prepping are the most important steps.

First, analyze. This means getting all the information you’ve naturally stored in your mind and body out, and into some kind of visual format. And then:

Write. Write everything from the notebook onto Post-it Notes. One quote/paraphrase per Post-it. (There will be piles, and that’s a good thing!) Print out photos collected during the trip. Put the names of people you met on Post-its. *Who are they? What makes them tick?* Think about relationships they have, interactions between people, tools they use.

Draw. Many people come to me and say, “I’m not an artist, I can’t draw.” If you can hold a pencil, you can draw. It doesn’t have to be fancy or perfect. Put down your inner critic and move a pencil across a piece of paper. Drawing, no matter the quality, is a wonderful way to explain to others. I also believe

there’s something that happens when you move an idea or thought from head to hand by drawing. Your thought process changes, the way you see the data changes. Draw out everything you saw. Focusing on the person for whom you’re designing, looking specifically at interactions with self, interactions with others, environment, culture, sequences of actions or events. For example, draw a picture of the room(s) they work in. Draw a picture of their day from beginning to end. Where do they go, what experiences stress them, what brings them joy? Draw a picture of the culture, and what stressors are acting upon them.

Transcribe. If you have recordings, I suggest typing them out yourself. It can be tedious, but when you’re collecting data there’s so much you don’t see. Doing your own transcription will remind and surprise you. You’ll see things from a new perspective and see things you swear didn’t happen on the floor.

Now you have everything in front of you. Your space (whether virtual or physical) is starting to look like a war room—with data everywhere!

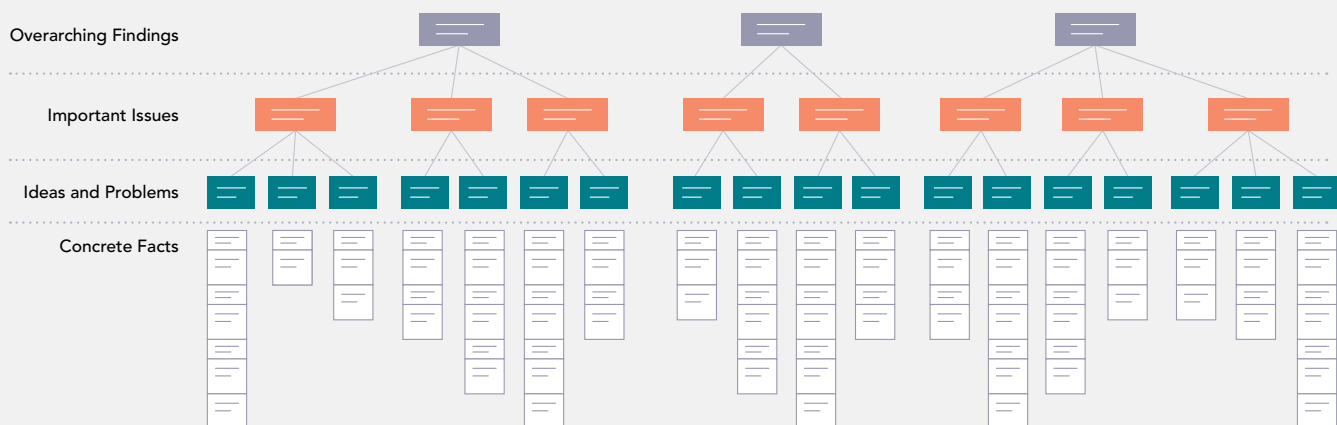
Second, synthesize. The rest of the world thinks designers go into a room, and two weeks later (or two hours later, depending on the project) emerge with conclusions and recommendations.

Although it may seem like “black magic,” it’s really not that complex. Anyone can learn this, and it’s exciting to get other members from other teams in on the fun. Invite developers, product folks and even executives to hear and witness. It will make communication that much easier in the end.

Affinity Mapping. For all of the paraphrasing and quotes, we use a method called Affinity Mapping. Affinity Mapping is the process of moving bits of data (in this case in the form of quotes) into like-subject groupings. This process enables patterns to emerge from the bottom up, resulting in a few key findings to guide design and development.

Start small. Start reading Post-its from one corner of the wall out loud to each other. Talk through each one and start grouping like with like. By the end, you’ll have many small groupings of Post-its. Give each group a name/header on a contrasting Post-it color.

Step back. Get more coffee. Take all of the grouping headers and move the smaller groups to make larger groups, looking for “like themes.” From here you’ll notice a few key findings emerge. In the end, you’ll have something like the illustration below.



Through this process, you'll discover new strategies, opportunities and fixes. All of these can be recommendations, considerations and conclusions for your team, your partner teams and even the strategic direction for the company.

Lastly. Congratulations! You've got the key findings, all of your models of behavior, tools, culture and environment, and you understand what happened and what needs to change to make your company's product strong and effective for the people that use it. Beautiful! I'm excited to say, the job isn't over, and actually, it has just begun. Now begins the long and rewarding process of reporting what you saw.

Let's pause and let this first part of synthesizing set in.

OK. Now we're moving on for more.

Taking what we just learned, it's time to figure out and truly understand what you've found. Now, it's time for reporting.

Reporting is an art form. The trick is to create a clear, concise, informative and engaging message. A message steeped in data but still light enough to be heard by the masses. Many designers (and clients) want to bypass this step. Those who do might say, "We can create the presentation, don't worry about it." What they don't know is: "simple is hard." Simplifying and distilling information into manageable chunks is difficult. For designers, it's not that the audience doesn't have good intention to make the product better, it's just the data gets lost in the translation. Instead of asking yourself why your audience isn't listening, ask yourself, "How can I present the research in a way that it can be heard?"

Who is your audience? The first step to clear communication is understanding your audience. In most cases there will be three audiences for HCD research communication, each with their own listening style.

1. **The designers and developers** who do the work. Your message needs

to be specific to each portion of the product and state what exactly needs to shift and why.

2. **The middle tier of managers** that direct the work and communicate up the hierarchy chain. For this group, focus on communicating what direction their people could go next and give them a voice in the changes.

3. **Executives** need to hear the findings to define strategy and direction. This audience tends to prefer a series of sound bites that concisely state the problem and provide two-to-three recommended solutions they can choose from. You may want to include value KPIs that map directly to the research findings as an added bonus.

For your research to be properly implemented, you will need to accommodate each audience, their needs and their listening styles.

Start with the long story and edit to the sound bite. Based on the three audiences above, it's best to start with the longer story. Write out everything you would want to tell a designer or developer and then edit it down to the sound bite presentation for executives. That way, you won't be digging through notes when a tough question comes up.

Focus on the positive. It's easy to tell someone they are wrong. It's more difficult to spin a negative into a positive message for change. If you help the audience feel excited about the behaviors you saw and help them feel confident they can help the situation, then it's more likely they will listen to the recommendations. For example, try not to use the word "should," use the words "consider" or "may." (Only mothers are given the pass to use "should.") This gives the audience a choice, rather than a mandate to make a change.

Entertain and inspire while sharing the depth of the research. Just as with any good piece of marketing, humans respond to storytelling and a presentation that speak to their

aspirations. It's important to remember the audience is attending the research readout because they are interested, they want to understand, they want to succeed and make things better. Seek out ways to message your research and recommendations in an organized and beautiful way. For example, have every presentation slide act as a little "nugget" of information about one topic. Each slide can contain a positive title, a quote and a photo that tells a short story to support the recommendation/finding.

Help them see themselves in the findings and envision a new bright future together. Throughout the presentation, help the audience connect to the larger whole of the work. Answer the question, what are you attempting to do? Help the humans who use your products have a voice? Heal the industry? If they can connect to the higher good, then they connect with themselves and others. It's easier to envision a new future together if the audience is linked by a common thread. That connection will guide the project, product, team and the company.

Think of it as creating an experience for the audience. One that will uplift and help them feel good about the findings, the insights, recommendations and the design team. In the end, change will happen, the team will succeed and the audience will feel successful.

By resisting the urge to skip reporting, you honor the research and the humans you met along the way.

RECOMMENDED READING:

<https://www.presentationzen.com/>

<https://www.amazon.com/Naked-Presenter-Delivering-Powerful-Presentations-ebook/dp/B004A8ZYZE>

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5

Human-Centered Design: Ideating for a brilliant future

Here comes, in my opinion, the fun part! Ideation—taking all those findings, everything the team has collected, and formulating a few directions to experiment with in the prototyping phase.

One way to do this is to cultivate a “How might we” statement to solve for, build a narrative for a solution and then make storyboards to visually share those narratives with others. Let’s start with the “How might we” statements.

Once the team has decided on the key challenge areas, it can write targeted “How might we” statements to start ideation. The “How might we” statement was [coined in the 1970s by Procter & Gamble](#) and is now used by Design professionals worldwide. It’s a framework that looks toward the common problem found in the research. For example, when performing research with healthcare providers, we found that physicians are burdened by a complex system and their personal time suffers. A “How might we” statement to spur ideation may look something like this: “How might we lessen the cognitive

burden and give physicians their evening hours back?” This statement keeps the team focused, keeps team members’ “pet projects” at bay and drives the narrative toward solutions that will solve the key challenge.

Once the “How might we” statements have been created from research, the ideation can continue by brainstorming as many ideas as you can, and then creating a narrative for the top contenders. There have been several books on the topic, and one I find extremely useful is Ellen Lupton’s [“Design is Storytelling.”](#)

Defining a narrative, or story, around the challenge is a great way to communicate new ideas. By sketching out these new ideas, ideating can take new turns, look at new perspectives and realize a new future. The more we tell the story, the more of a reality it will be. As humans, we can literally talk our way into a new way of being.

Narrative communicates action. It defines intentions, takes context and human behavior into account, shows relationships between humans and their environments and can result in a future that is desired by all.

Narratives have several critical elements. Think of your favorite play or movie. There’s a setting, a mood or atmosphere, a plot, conflict, characters and a theme. We can take this approach and generate ideas by acting out the user’s action in context of use and investigate questions. In the traditional narrative style, there are issues the actors attempt to resolve as they navigate the stories. They react to their environment, and the audience sees the world from their perspective. When transferring this traditional view to the design view, we ask ourselves: who, where, what do they want, what is keeping them from getting what they want and how can we help them get what they want?

When creating narratives about the new ideas, consider starting in the middle. Think of “Hamlet,” “Star Wars” or your favorite sitcom. The first lines of each of these start in the middle of the story. The designer/writer then tells the story forward and backward to fill in the context. The audience stays riveted as the story unfolds.

Once the team has a direction in a “How might we” statement, a culled group of ideas and a narrative to communicate



STORYBOARD



- MAKES NOTE OF SUPPLIES NEEDED ON CLIPBOARD
- PHYSICAL INVENTORY

PERSONA:

CORPORATE BUMER,
JAMES



- SELECTS ITEMS FROM FAVORITES LIST
- USES DESKTOP + SUPPLY LIST AS TOOL

SCENARIO:

REPLENISH OFFICE SUPPLIES



- RECEIVES SHIPMENT WINDOW W/ORDER SUBMISSION
- SETS PLAN FOR RESTOCK

NNGroup.com

the selected few, a great way to help convey the story is by creating storyboards. Think comic strips to show Design intent. In the film industry, a storyboard is a planning tool to help define the visual whole, to map scenes and to define shots within scenes that can be captured out of sequence. In the software community, storyboards often mean a sequence of screens that visualize the user actions. In Interaction Design, storyboards are design proposals. They show a user in context engaging with a proposed system.

There are four key steps to creating an idea storyboard:

- State the context
- State the problem
- State the solution
- State the resolution

In a comic strip style, this can be done in four panels.

The illustration above is a great (and simple) example from NNGroup.com.

They also have a wonderful [storyboard template](#) to help a new team get started.

Please note, you don't have to know how to draw to make awesome storyboards. Anyone can communicate ideas with a few stick people and a visual representation of an action and environment.

Once a storyboard is created, the team can communicate the ideas to stakeholders and together they can choose which direction to prototype and usability test. These storyboards can also be shown to people that use the products, or customers, to get a quick "gut check" about what works or what doesn't work for their specific needs. Storyboards can be tweaked based on the feedback, or other ideas may emerge from those discussions. It is a great way to "fail early and often"

and focus on the ideas that generate the most value for the business and the users. Remember: The Design team can always cull ideas that no longer serve and potentially save them for a different project.

Ideation may seem daunting, but really, it's fun, easy, and a great way to collaborate and team-build with others. The trick is to *just start* and see where the process takes the team. There are no wrong answers at this point. Keeping the stakeholders close and involved in the process is key, so every voice is heard.

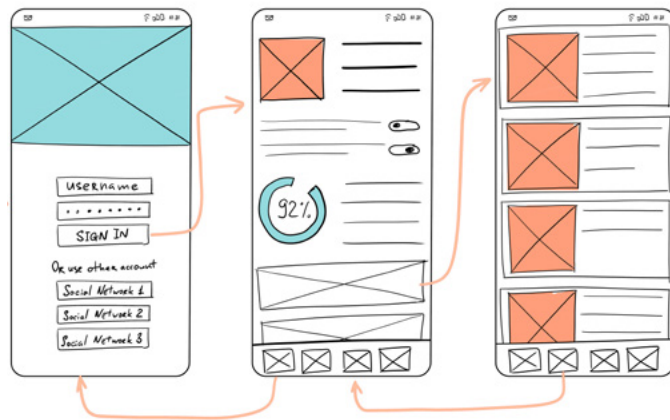
The goal here is to define a new solution that is good for business, technically feasible, desired by the people that use it, and healthy for the team that designs and builds it. With all the stakeholders in the room creating *with* the Design team, the outcome will be exquisite.



6

“Testing” a Prototype— Co-creating systems that work

Across the Design industry, some call prototyping and usability testing for software the “final step” in the Human-Centered Design process. While it’s not the actual final step (there isn’t really a *final* step), it is a prominent part of the work we do. This is the phase during which we create a working and visual “something” that looks and acts like the end result. Once a baseline is created, the Design team can gain feedback from the real humans who might use the product or service. This is the part of the process during which the Design team can make sure what is being created is “the right thing.”



When designing screens for software, there are many different prototype fidelities. The Design team usually starts with just a sketch, or series of sketches, to test concepts. Once proven valuable and on-target, the team takes its findings and moves to a “mid-fidelity click-through” to show movement and interaction. Once it tests positive for those who use it, Designers move to a “high-fidelity” prototype. This may include bits of code to test gesture, behavior or specific outcomes.

What’s important to note here is that at each step of process the designers will “test” with several different people, all of whom share similar roles. People always ask me, *how many?* They are usually surprised to find out that the number is six. This is a proven approach showing that it only takes six humans to understand 85% of the interaction problems with a prototype or interface. After six, the number of findings levels off. Fascinating, right? This is why usability testing is so cost-effective and easy to do. Designers only need to speak with six people to figure out 85% of what’s wrong and what they need to change.

At Allscripts, we’ve taken this one step further. We follow a methodology I created called “co-creates.” A co-create is a one-hour, one-on-one feedback session. The designer may meet with

the client partner once a week, or once a month, based on scheduling. In this session, an HCD Designer/Researcher works with a client partner that currently uses our products. The two work together to identify problems, and they look at new possibilities for the experience. It’s a time to seek out what’s wrong and also innovate together for a brilliant new outcome. We focus on making sure we have a breadth of people across the demographic role to work with: those who are less tech savvy and those that grok tech. We also try to have a diverse group in terms of gender, race, hospital demographic and global location.

The value realized here is that co-creates provide the Design team a constant source from which to ask questions and gain valuable feedback about their work. It also enables client partners to take a break from their work on the floor and have their voices heard. They realize quickly that they can have an impact on the future of healthcare technology, and honestly have a bit of innovative fun! (What a concept...work can be fun?!) So much fun that some client partners have been with us for more than 18 months now, co-creating our new mobile experience.

So yes: Prototype and test, prototype and test. It’s an iterative process. Designers always end on a test. That

way we know what needs to be fixed for the next version of whatever we’re designing, and we have a backlog in place to start immediately for the next round of changes. So that’s it! Easy peasy, right?

Human-Centered Design is a process and set of methodologies that can solve for any problem no matter how small or large. It isn’t just about designing great technology that works for the people that use it. Really, it’s about designing anything, anywhere for any being on the planet. Every being deserves a beautiful, useful, safe and loving experience. One that helps them feel successful, helps them thrive in their day-to-day.

SOURCE:

<https://www.nngroup.com/articles/how-many-test-users/>

Continuing on, with the human at the center

The best part about Human-Centered Design? We get to do this work as a team. Together, we make experiences not just possible, but exquisite. That's the goal.

Jenna Date, Chief Experience Officer (CXO)
for Healthcare Solutions at Allscripts





The Sunrise Platform of Health.

Cloud-based, interoperable digital healthcare technology

The Sunrise™ Platform of Health delivers technology that focuses on the clinicians using it and the patients they serve. Through Human-Centered Design principles the Sunrise Platform of Health enables organizations to drive better, more comprehensive patient health, as well as achieve more positive outcomes. All on one platform.

Having a human-focused, “All-In” healthcare IT strategy helps ensure organizations are connected and equipped to streamline information between providers and for your patients.

As your trusted health IT partner, Allscripts delivers technology that moves to the background, ultimately becoming the underlying power behind more meaningful patient interactions across the care continuum.

Better care simplified. For everyone.

