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CREATING COOLNESS.

Contextual Design in the search for better— delighted—users.

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It's a chicken and egg thing. What came first, content or design? For sure, we can have a grand old discussion of it. I'm on the content-first side of that debate. After all, what good is a website if the content isn't usable and viable or difficult to maintain? We are all users at every point in every transcatuon—even the team building the projects are users, and they don't get far if they're in a vacuum.

There is no agreed-upon definition of contextual design. I think it is an approach to creating content, taxonomies, and ontologies that meet—anticipate—user need, presenting it in the best— most coherent—way possible.

Contextual Design is user-centered design, built on in-depth field research to drive innovative design. First invented in 1988, Contextual Design has since been used in a wide variety of industries and is a complete front-end design process rooted in Contextual Inquiry, the widespread, industry-standard field data gathering technique. Contextual Design includes techniques to analyze and present user data, drive ideation from data, design specific product solutions, and iterate those solutions with users.

CONTENT DESIGN IS NOT LIMITED TO WORDS

Sure, the words are important. But when we design content, we are really fulfilling a user need in the best way for the user to consume it. That might be a video, or an infographic, or a calculator. Start with doing some research to find your audience's context. Ask "What do users want from this?" not "What does my organization want to say about this topic?" It's a good start to look at these aspects to create a content plan:

Language – What words do users use when thinking about the thing we are creating?

Mental models – How do people get to the point of doing what are doing? This gets to their behavior—their triggers.

User needs – Identify things users *need*, not what they *want*. We cannot retrofit a business need to a user need.

Priorities – Account for the order of elements—that taxonomy thing. Answer first things first and develop logical order based on importance to a user.

But, that's all too easy. It's a good start, however, we need to get down to more granularity. One way of doing that, of creating a user experience that is aligned with user needs in an agile way is to attempt to capture and box elements of coolness. Not the kind of coolness that is transitory and beholden to whims and tastes, but the kind that elicits the "cool" response, because it promises to get the job done—making the user look good. Accomplished.

Design for life: the Cool Project

Contextual Design is driven by the realization that a product is always part of a larger practice, used in the context of other tools and manual processes to deliver value to the user's overall life and work. Product design is really about the redesign of the user's life and work, given technological possibilities—designing a new and better way for users to live their lives, achieve their goals, touch the people that matter to them, and perform their activities by introducing better products.

But to design for life, we must understand the whole of life as the context of use, which is very different from the context of use of the traditional products Contextual Design was designed to create. The wall of separation between home and work has broken down—torn down by people trying to make their whole life work. Work is done on the road, in the air, at tables in restaurants, and at Little League games. And personal life has filtered into work—tickets to the theater may be found at work between completing sections of writing or reading or filling out a form. They may be

agreed on with text messages during a meeting, and bought later online while on hold during a phone call. A work task may be started over breakfast at home on a tablet, continued at traffic lights during the commute on a touch phone, and wrapped up in the office on a desktop machine. Today, the context of use for what used to be a single, coherent task includes all these places—flowing across place, time, and devices.Successful design now means going far beyond understanding the "cognitive load" or "steps of a task"—buzzwords from a previous generation of user-centered design. Transformative products help us get our life done, celebrate our accomplishments, connect to the people who matter to us, express the core elements of our identities, and create moments of surprise and sensory delight—all in a product that just works, like magic, with no hassle or learning required. That is a tall order, and means that designers must understand a much wider life context than they ever had to before.

When the iPhone and then Android phones came out, ordinary—nontechnical—people felt that the and expresed their delight at the radically changes from older technologies. The language people used was, "This is so *cool!*" Something fundamental has shifted in ow people relate to technology, and we need to understand it. It is vital to get a deeper grasp on "coolness" in the user experience.

So—what makes things cool? Successful products deliver *joy in life*. Joy—not mere satisfaction— not just a "good user experience." ***Joy***. Because cool products enhance core human motivations in specific ways. A cool concepts identifies what is needed to design for life, and exacly what is central to designing a product that users will experience as transformative or "cool." It makes sense to shape the Contextual Design of a project in light of the cool concepts and help teams to design for joy, collecting the right data about the human experience needed to actually manufacture joy. The easiest way to get to the joy setting in humans, is through a set of four access points. The four cool points show how products enhance the *joy of life*, how they make our lives richer and more fulfilling.

1. **Accomplishment**

Empower users to achieve all the intents of their life, work, and personal, wherever they are in whatever amount of time they have, across place, time, and platform. Support the *unstoppable momentum of life* by helping users fill every moment of dead time with useful or amusing activities. Design with the expectation that users will be distracted, splitting their attention across multiple activities. Accomplishment in life is a main driver of a cool experience in the quest for joy in life.

2. **Connection**

Increase the intimacy and collaboration of users' real relationships. Help them make frequent contact, have something of mutual interest to talk about and share, and find things to do together as everyone pursues their separate lives. Foster real connection in business relationships as well as personal relationships. Communities of interest—online or in person—will produce real relationships and a sense of connection if they support frequent contact, provide conversational content, and promote shared activities. Connection is generally less important than accomplishment, unless the product's primary purpose is to connect people.

3. **Identity**

Support users' sense of core self and enable them to express that sense of self in what they do and how they show up to others. Identify the core identity elements associated with the activity being supported by a product and deliver products that increase the users' sense of being their best selves. If people are taking on a new identity, help them create that identity through examples of what others like them do and by checking with friends or trusted colleagues to determine if their behaviors, choices, and values are appropriate. Features that support success in activities core to the person's identity increase the overall coolness of the product.

4. **Sensation**

Provide the user with pleasurable moments of sensual delight through color, sound, movement, and animation. Modern aesthetic design is expected by users today—use appropriate

stimulation, graphics, and animation to enhance interaction and create products that evoke a smile. But don't add gratuitous or distracting graphics or animation—that just annoys users and actually reduces cool. Sensation augments the coolness of any product but is not the main driver of coolness unless the product's value is delivering sensual delight, like games, entertainment products, and music.

Direct into Action

Provide immediate, simple fulfillment of core intents: "I think of what I want and I get it—with no thought, no figuring, no deciding. It just happens like magic. Think for me—give me what I want without my having to ask for it, just as the Pandora service did for music when it first came out. Produce the desired result with little or no direction from me."

Direct into Action has the most impact on the user's joy in the use of the product. Direct into Action calls for much more than good usability and fewer clicks; it calls for true instant into action so that achieving an intent in moments is possible.

The Hassle Factor

Remove inconveniences, setup, plugging in, logging in, boxes, customization and technology hassles from the product. Create joy by removing all the glitches and inconveniences that interrupt the flow of life. A "good enough" user experience is no longer good enough. Users no longer tolerate technical hassles and no longer value new function if it is not instant into action.

The Hassle Factor combines with Direct into Action in the cool metric to create one powerful design focus for creating joy in product use.

The Learning Delta

Reduce the time it takes to learn the tool as close as possible to zero by building on known interaction paradigms and natural interactions like touch and voice. Nudge the user into use with tiny hints. Reduce complexity; reduce the number of things the user has to know and places the user has to go to use the product. Avoid designing actions and options that increase complexity. Make product use so direct that there's nothing to learn.

Good UX and user interface design are no longer just "nice to have"—they determine whether a product is cool or not, valued or not, purchased or not. Even a product that is cool in concept may become uncool if its use is not Direct into Action.

Cool concepts are as true of business products or IT solutions as they are for commercial products for consumers. The term "the consumerization of business products" describes how users' expectations, driven by consumer products, are now creating demands on business products to measure up. Business products also must be designed for life: fit into the places and times life is lived, support connection to people that matter, enable users' professional identity, and provide appropriate sensory fun—and be direct into action without hassles. This is true even for highly technical products—everyone, no matter how technical, values and expects a cool user experience.

The insights gained from examining the user interaction and gauging their recognition of the coolness factor demands changes to Contextual Design itself. A design team needs to recognize and collect new types of user data on core human motives and behaviors, on wider dimensions of life, and on how the whole of the user's integrated life fits together. Contextual Design has to aim to collect wider data about the whole of life experience, and new models must represent this wider view.

To truly design for customers, a team must be steeped in the life context of the users they are supporting. In this way, the teams' intuition can be tuned to reflect the real life of their users.

This combats "design from the I" and makes the team "get real." Good Contextual Design includes a well-defined set of immersion activities. This immersion recurs throughout a process. Contextual Design techniques immerse the team in the world of the user, give them an opportunity to reflect and respond—and then re-immerse them, and so keep the team grounded. The first of these immersion experiences is the contextual inquiry field interview, when the designer sits in the user's environment and finds out firsthand what the user's world is like. Later, other immersion experiences expose the team over and over to the relevant data, systematically tuning the intuition of the team and stakeholders. In the face of real data about a market, it is much harder to hang onto misconceptions about the customer or favorite features that match no actual user needs.

Explicit, articulated user data gathered through a well-defined public process ensures the data is trustworthy, avoiding arguments about what is best for the users. It's not a question of what I like versus what you like—two team members who disagree can go back to the user data and make arguments based on what they actually discovered.

Design in teams

Contextual Design is team-based. It is designed to take advantage of a cross-functional team including such specialties as product management, marketing, product architects, UX designers (user research and user interface), visual designers, developers, service designers, and more, each providing their unique skills and insights to help invent the right solution for users. Contextual Design builds in ways of involving stakeholders and other team members to assure buy-in from the business and ensure the solution is one the company can successfully deliver.

The reality of product creation is that it takes many people to make and ship a product. Commercial products, IT systems, cars, medical devices, games, even apps—all require the work of many coordinating people. And all these people contribute to defining requirements and translating those requirements into design, specifications, and implementation.

All these people need to have a shared understanding of both the user needs and the agreed product solution. Achieving a shared understanding isn't "nice to have"—achieving a shared understanding is at the center of shipping successful products in a reasonable timeframe. Products generally don't fail to ship because the technology doesn't work or because the people can't think up features. Products don't ship because people can't come to agreement.

The challenge of a shared understanding doesn't go away with a small team or the "One Great Guru" theory of product development—the idea that you can hire one smart person and let him or her do it all. No "One Great Guru" can ever do it all. And as soon as multiple people are expected to coordinate to deliver, they must operate from a shared understanding to be effective. Product development is always about people acting together and in parallel based on a common understanding of the problem and the solution.

Unfortunately, people come with a host of idiosyncrasies, cognitive styles, cultures, interpersonal tendencies, and personality quirks. No organizational role definition, careful separation of the code into independent modules, management rules, organizational structures, or fun outings to build team spirit can eliminate the need to deal with the issues of getting people to work together well.

Principles of Contextual Inquiry

The core premise of Contextual Inquiry is very simple: go to the user, watch them do the activities you care about, and talk with them about what they're doing right then. Do that, and you can't help but gain a better understanding of the user. That is the basic idea, but people are generally happy to have a little more guidance. What should you do at the user's site? What should you pay attention to? How do you run the interview? Unless you're trained as a social scientist or anthropologist, running a field interview can be daunting. Contextual Design is structured so that

product managers, engineers, user researchers, business analysts, and UX designers[1]—anyone on the product team—can be part of collecting user data.

In a Contextual Design project, a cross-functional team carries out the work. Individuals conduct one-on-one field interviews lasting 1½–2 hours with users wherever they live and work, focusing on the aspects of the practice that matter for the project scope. Four principles guide the Contextual Interview: *context*, *partnership*, *interpretation*, and *focus*. Each principle defines an aspect of the interaction. Together, they allow the basic apprenticeship model to be molded to the particular needs of a design problem. We will describe each principle and how to use it in turn.

Context

The principle of *context* says to go wherever the user is and see what they do as they do it. This is the first and most basic requirement of contextual inquiry. All the richness of real life is there with the user, available to jog the user's memory and for study and inquiry.

The user makes a phone call in the middle of doing a task:

Was she calling on an informal network of experts to get help in a task?

Was she making a break from a heads-down stretch of work?

Someone stops by to get a signature on a form.

What is the user's role in this approval process?

We get as close to the activity as possible. The ideal situation is to be physically present while the activity unfolds. Then interviewers can see how the target activities fit into the context of daily life. They will see how an activity fits into time and place, what platforms, products, or devices are used, how people collaborate or coordinate to get things done, and how policy or organizational structure affects what people are doing. And interviewers see the core motives driving the experience—the meaning of the activity within the person's life.

When you want to find the cool elements of a product, what truly matters to the user is strongly connected to the user's sense of self—so it is apparent in deeply felt emotions. Interviewers have to be present in the moment the user is having these strong feelings to uncover them. Then we can probe to understand what is driving the feeling or to find a core motive. But if interviewers only collect reports, another kind of summary, we will miss what really matters.The principle of context is the key to getting good data: Go where the target activity is happening, observe it, sense the user's feelings, and talk about it, all while it happens. Keep the user grounded in concrete actions both by doing activities and by walking specific recent incidents in the past—step by step. Probe emotional energy and find its origin and motivations. Don't allow the user to summarize, abstract, or report on their world; it removes too much of the real, important data. In this way, interviewers will have access to the data they need to design for life.

Partnership

The principle of *partnership* creates a collaboration between user and interviewer to understand the user's life. The only person who really knows everything about his or her life is the one living it, so Contextual Inquiry creates a context in which the user and the interviewer can explore the user's activities together, both influencing the direction of the exploration. Being nosy is part of a good interview. A good field interview feels like the kind of intimacy people strike up on airplanes, where seatmates may tell each other very personal things. The user has already agreed to help by doing a field interview, so let them help.

Move closer; look at what they are looking at; ask questions; be nosy.

This way you create a real partnership in inquiry. Soon you'll have the user saying, "Come over here—you want to see this."

Partnership transforms the apprenticeship relationship into a mutual relationship of shared inquiry and discovery. It retains the close working relationship from apprenticeship while equalizing

the power imbalance between a master and apprentice. It invites the user into co-inquiry. This results in an intimate relationship which allows for inquisitiveness, honesty, and good data.

Interpretation

It is not enough only to observe and bring back observations. Interpretation is the assignment of meaning to the observation—what it implies about the behavior and experience of the user or how it reveals the structure of the activity. The typical language used to describe gathering data for design —data *gathering* or requirements *elicitation*—suggest that a researcher can go out in the field and pick up the nuggets of what to build next in the same way that one collects shells on the beach, as if they were just there for the taking. When we go out into the field, we are not just collecting the facts of what the people are doing—we must come back with an accurate interpretation of those facts. We must collect meaning.

Interpretation is the chain of reasoning that turns a fact into an action relevant to the designer's purpose. From the *fact*, the observable event, the designer makes a *hypothesis*, an initial interpretation about what the fact means or the intent behind the fact. This hypothesis has an *implication* for the design, which can be realized as a particular *design idea*. This entire chain of reasoning happens implicitly any time anyone suggests a design idea. Usually it happens so fast, only the final idea is made explicit. But the whole chain must be valid for the design idea to be put in the product.Design is built upon interpretation of facts—which may be observed behavior or observed emotion. For any fact, the interpretation must be right. Validation of the interpretation happens when you share it with the user.

Focus

The project focus tells designers what to pay attention to—of all the overwhelming detail available, what matters for the design problem at hand. Before starting a project, the team defines the problem to be solved, the users who are affected, the users' activities and tasks that matter, and the situations and locations that are relevant. This project focus extends and refines the core focus on work and life practice given by Contextual Design and the Cool Concepts. It guides how the user interviews are set up and what the designers pay attention to during the interview.

If focus reveals detail within the area it covers, it tends to conceal other aspects of the user's world. Someone who notices physical room layout cannot help but notice when the home entertainment system has dictated the layout; someone who never thought about interior design cannot help but overlook it until his attention is drawn to it. Meanwhile, the first interviewer is ignoring how the family room is not the whole entertainment story—which may be equally important to the design problem.

In Contextual Design, we seek to deliberately expand focus and break our entering assumptions. To expand focus during the interview, Contextual Design defines *intrapersonal triggers*, cues that help the interviewer recognize where their entering focus does not fit the reality of the user's life so they can probe to broaden their understanding. This encourages interviewers to deliberately create a paradigm shift rather than simply confirming their existing expectations. Intrapersonal triggers are flags alerting the interviewer when an opportunity for breaking a paradigm and expanding the entering focus exists. They work because your own feelings tell you what is happening in the interview and how to act to fix it.