Design Research

METHODS AND PERSPECTIVES

Play as Design

The Iterative Design Process

Brenda Laurel, editor

Play as Research

The Iterative Design Process

Eric Zimmerman

Needs and Pleasures

Design is a way to ask questions. Design *Research*, when it occurs through the practice of design itself, is a way to ask larger questions beyond the limited scope of a particular design problem. When Design Research is integrated into the design process, new and unexpected questions emerge directly from the act of design. This chapter outlines one such research design methodology—the iterative design process—using three recent game projects with which I have been involved.

The creation of games is particularly well suited to provide a model of research through design. In this book's conclusion, Brenda Laurel alludes to the difference between designing to meet needs and designing "for delight" . While all forms of design partake of both of these categories in some measure, game design is particularly skewed toward the creation of delightful experience, rather then the fulfillment of utilitarian needs. Although it is true that we can create and play games for a particular function (for exercise, to meet people, to learn about a topic), by and large, games are played for the intrinsic pleasures they provide.

As a form of designed "delight," the process of interacting with a game is not a means to an end, but an end in and of itself. It is this curious quality of games that makes them wonderful case studies for Design Research through the process of design. As a game evolves (through the *iterative process* outlined below), it defines and redefines its own form, the experiences it can provide for players, and the very questions about design that it can ask. Through this play of design itself, new questions come into being, present themselves to the designers, and sometimes are even answered.

Iteration Iteration

Iterative design is a design methodology based on a cyclic process of prototyping, testing, analyzing and refining a work in progress. In iterative design, interaction with the designed system is used as a form of research for informing and evolving a project as successive versions or *iterations* of a design are implemented.

Test; analyze; refine. And repeat. Because the experience of a viewer/user/player cannot ever be completely predicted, in an iterative process design decisions are based on the experience of the prototype in progress. The prototype is tested, revisions are made, and the project is tested once more. In this way, the project develops through an ongoing dialogue between the designers, the design, and the testing audience.

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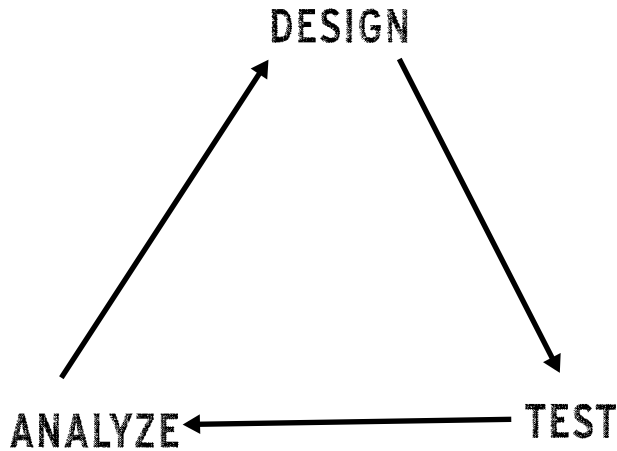
The iterative design process

In the case of games, iterative design means playtesting. Throughout the entire process of design and development, your game is played. You play it. The rest of the development team plays it. Other people in the office play it. People *visiting* your office play it. You organize groups of testers that match your target audience. You have as many people as possible play the game. In each case, you observe them, ask them questions, then adjust your design and playtest again.

This iterative process of design is radically different than typical retail game development. More often than not, at the start of the design process for a computer or console title, a game designer will think up a finished concept and then write an exhaustive design document that outlines every possible aspect of the game in minute detail. Invariably, the final game never resembles the carefully conceived original. A more iterative design process, on the other hand, will not only conserve development resources, but will also result in a more robust and successful final product.

Case Study 1: SiSSYFiGHT 2000

Summary: SiSSYFiGHT 2000 is a multiplayer online game in which players create a schoolgirl avatar and then take part in games where 3 to 6 players vie for dominance of the playground. Each turn a player selects one of six actions to take, ranging from teasing and tattling to cowering and licking a lolly. The outcome of an action is dependent on other players' decisions, making for highly social gameplay.
SiSSYFiGHT 2000 is also a robust online community. You can play the game at www.sissyfight.com

In the summer of 1999, I was hired by Word.com to help them create their first game. We initially worked to identify the project's *play values*: the abstract principles that the game design would embody. The list of play values we created included designing for a broad audience of non-gamers; a low technology barrier; a game that was easy to learn and play but deep and complex; gameplay that was intrinsically social; and finally, something that was in concert with the smart and ironic Word.com sensibility.

These play values were the parameters for a series of brainstorming sessions, interspersed with group play of computer-based and non-computer games. Eventually, a game concept emerged: little girls in social conflict on a playground. While every game embodies some kind of conflict, we were drawn towards modeling a conflict that we hadn't seen depicted previously in a game. Technology and production limitations meant that the game would be turn-based, although it could involve real-time chat.

Once these basic formal and conceptual questions had begun to be mapped out, the shape of the initial prototype became clear. The very first version of SiSSYFiGHT was played with post-it-notes around a conference table. I designed a handful of basic actions each player could take, and acting as the program, I "processed" the actions each turn and reported the results back to the players, keeping score on a piece of paper.

Designing a first prototype requires strategic thinking about how to most quickly implement a playable version that can begin to address the project's chief uncertainties in a meaningful way. Can you create a paper version of your digital game? Can you design a short version of a game that will last much longer in its final form? Can you test the interaction pattern of a massively multiplayer game with just a handful of players?

In the iterative design process, the most detailed thinking you need at any moment is that which will get you to your next prototype. It is, of course, important to understand the big picture as well—the larger conceptual, technical and design questions that drive the project as a whole. Just be sure not to let your design get ahead of your iterative research. Keep your eye on the prize, but leave room for play in your design, for the potential to change as you learn from your playtesting, accepting the fact that some of your assumptions will undoubtedly be wrong.

The project team continued to develop the paper prototype, seeking the balance between cooperation and competition that would become the heart of the final gameplay. We refined the base ruleset—the actions a player can take each turn and the outcomes that result. These rules were turned into a spec for the first digital prototype: a text-only version on IRC, which we played hotseat-style, taking turns sitting at the same computer. Constructing that early, text-only prototype allowed us to focus on the complexities of the game logic without worrying about implementing interactivity, visual and audio aesthetics, and other aspects of the game.

While we tested gameplay via the text-only iteration, programming for the final version began in Director, and the core game logic we had developed for the IRC prototype was recycled into the Director code with little alteration. Parallel to the game design, the project's visual designers had begun to develop
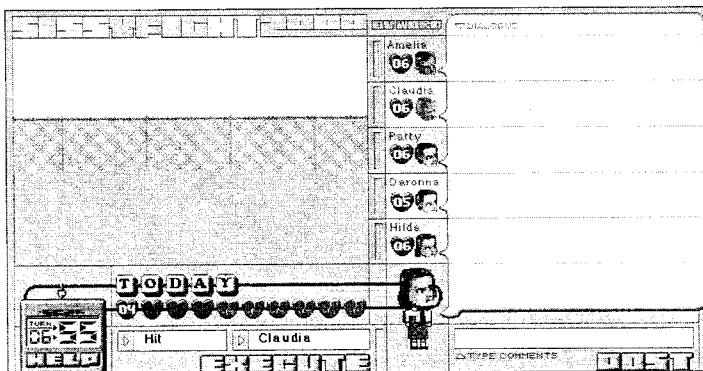
SiSSYFiGHT 2000
early prototype

the graphic language of the game and chart out possible screen layouts. These early drafts of the visuals (revised many times over the course of the entire development) were dropped into the Director version of the game, and the first rough-hewn iteration of SiSSYFiGHT as a multiplayer online game took shape, inspired by Henry Darger's outsider art and retro game graphics.
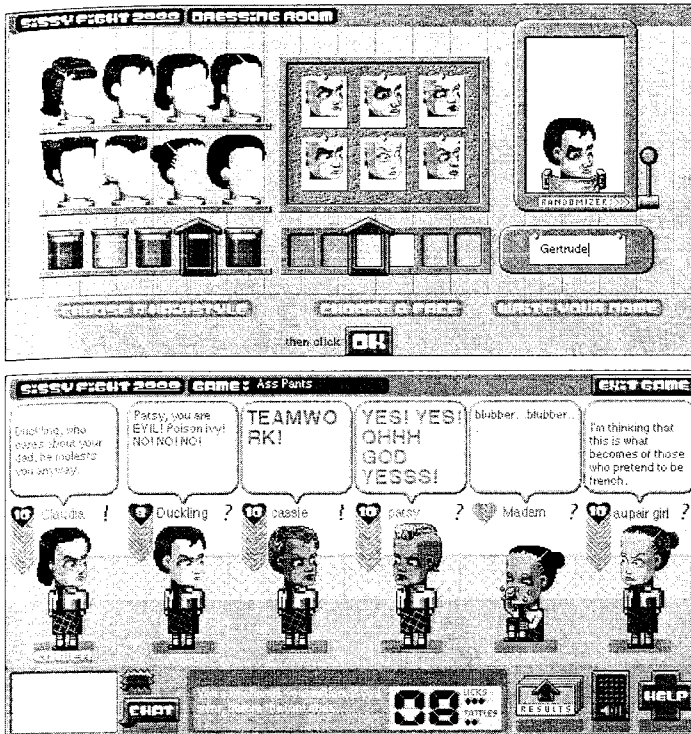
As soon as the web version was playable, the development team played it. And as our ugly duckling grew more refined, the rest of the Word.com staff was roped into playing as well. As the game grew more stable, we descended on our friends' dot-com companies after the workday had ended, sitting them down cold in front of the game and letting them play. All of this testing and feedback helped us refine the game logic, aesthetics and interface. The biggest challenge turned out to be clearly articulating the relationship between player action and game outcome: because the results of each turn are interdependent on every player's action, early versions of the game felt frustratingly arbitrary. Only through many design revisions and dialogue with our testers did we manage to structure the results of each turn to communicate unambiguously what had happened that round and why.

Top and bottom: SiSSYFiGHT 2000 final version

When the server infrastructure was completed, we launched the game to an invitation-only beta-tester community that slowly grew in the weeks leading up to public release. Certain time slots were scheduled as official testing events, but our beta users could come online anytime and play. We made it very easy for the beta testers to contact us and email in bug reports.

Even with this small sample of a few dozen participants, larger play patterns emerged. For example, as with many multiplayer games, it was highly advantageous to play defensively, leading to standstill matches. In response, we tweaked the game logic to discourage this play style: any player that "cowered" twice in a row was penalized for acting like a chicken! When the game did launch, our loyal beta testers became the core of the game community, easing new players into the game's social space.

In the case of SiSSYFiGHT 2000, the testing and prototyping cycle of iterative design was successful because at each stage, we clarified exactly what we wanted to test and how. We used written and online questionnaires. We debriefed after each testing session. And we strategized about how each version of the game would incorporate the aesthetic, game design, and technical elements of the previous versions, while also laying a foundation for the final form of the experience.

Case Study 2: LOOP

Summary: LOOP is a singleplayer game in which the player uses the mouse to catch flittering, colored butterflies. The player draws loops around groups of butterflies of the same color, or of groups in which each butterfly is a different color (the more butterflies in a loop, the more points). To finish a level, the player must capture a certain number of butterflies before the sun sets. The game includes three species of butterflies and a variety of hazardous bugs, all with different behaviors. LOOP was created by gameLab and is available for play at

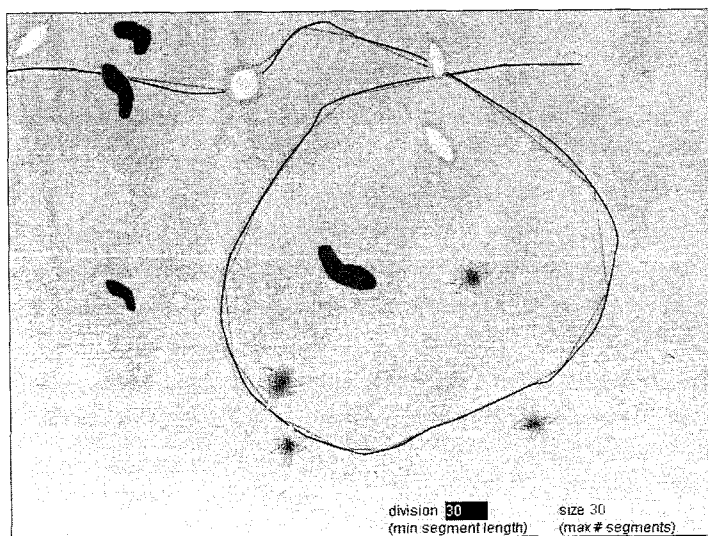Top and Bottom: LOOP early prototypes
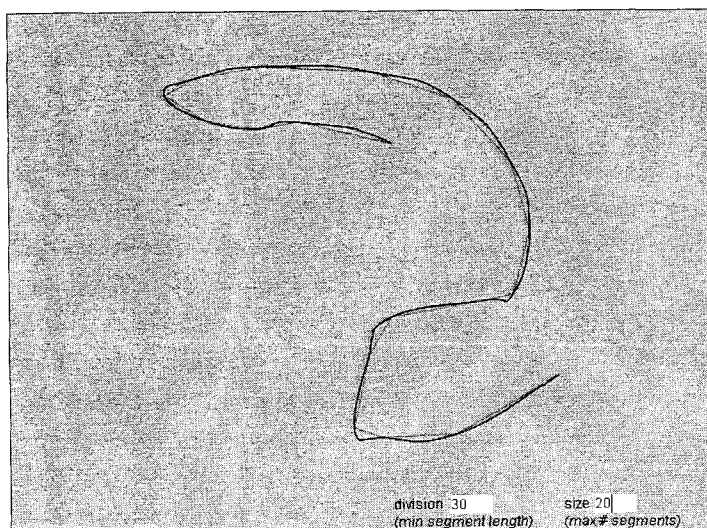
Initial prototypes are usually quite ugly. Game prototypes do not emphasize aesthetics or narrative content; they emphasize the game rules, which manifest as the internal logic of the game, tied to the player's interaction. Visuals, audio and story are important aspects of a game, but the core uncertainties of game design, the questions that a prototype should address, lie in the more fundamental elements of rules and play.

Another way of framing this problem is to ask, what is the *activity* of the game? Rather than asking what the game *is about*, ask what the player is *actually doing* from moment to moment as they play. Virtually all games have a core mechanic, an action or set of actions that players will repeat over and over as they move through the designed system of a game. The prototype should help you understand what this core mechanic is and how the activity becomes meaningful over time. Asking questions about your game's core mechanic can guide the creation of your first prototype, as well as successive iterations. Ideally, initial prototypes model this core mechanic and begin to test it through play.

LOOP grew out of a desire at gameLab to invent a new core mechanic. There are ultimately not very many ways to interact with a computer game: the player can express herself through the mouse and keyboard, and the game can express itself through the screen and speakers. Deciding to intervene on the level of player input, we had a notion to cast aside point-and-click or click-and-drag mouse interaction in favor of sweeping, fluid gestures.

The first prototype tested only this core interaction, allowing the player to draw lines, but nothing else. Our next step was to have the program detect a closed loop and add objects that would shrink and disappear when caught in a loop.

Each of these prototypes had parameters adjustable by the person playing the game. The length of line and detail on the curve could be tweaked, as well as the number of objects, their speed and behavior, and several other variables. As we played the game, we could try out different parameters and immediately see how they affected the experience, adjusting the rules to arrive at a different sort of play. This programming approach of building accessible game design tools into a game prototype is a technical strategy that takes iterative design into account.

As the butterfly content of the game emerged, so did debate about the game's overall structure and victory and loss conditions. Did the entire screen need to be cleared of butterflies or did the player just have to catch a certain number of them? Did the butterflies gradually fill up the screen or did their number remain constant? Were there discrete levels or did the game just go on until the loss conditions were met? Was there some kind of time-pressure element? These fundamental questions, which grew out of our core mechanic prototyping, were only answered by actually trying out possibilities and coming to a conclusion through play.

As the game code solidified, the many adjustable parameters of the game were placed in a text file that was read into the application when it ran. These parameters controlled everything from the behavior of game creatures to points scored for different numbers of butterflies in a loop to the progression of the game's escalating difficulty. Thus the game designers could focus on refining game variables and designing levels, while the rest of the program—screen transitions and help functionality, the high score system and integration with the host site—was under construction.

LOOP followed a testing pattern similar to that of SiSSYFiGHT, moving outward from the game creators to include a larger circle of players. During the development of LOOP, gameLab created the gameLab Rats, our official playtesting "club," to facilitate the process of testing and feedback. In the end, LOOP managed to achieve the fluid interaction we had first envisioned. An entire game evolved from a simple idea about mouse control. That is the power of iterative design.
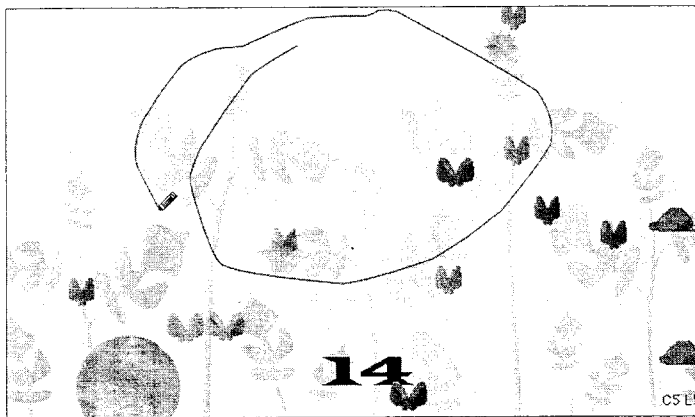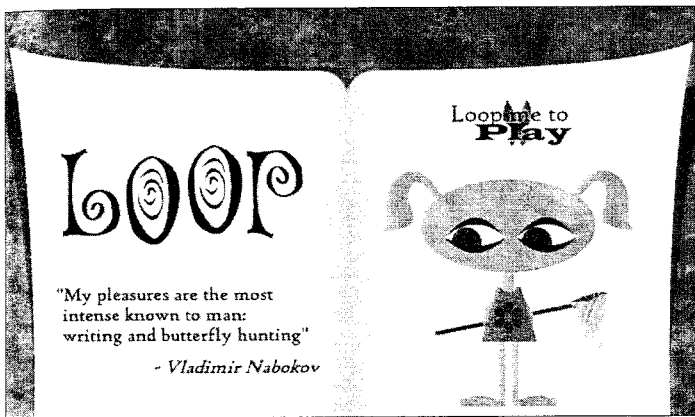
Top and Bottom: LOOP final version

Case Study 3: LEGO Junkbot

Summary: LEGO Junkbot is a singleplayer game in which the player helps the robot character Junkbot empty trash cans throughout a factory. The player doesn't control Junkbot directly but instead uses the mouse to move LEGO bricks around the screen, deconstructing and reconstructing his environment brick by brick, building stairways and bridges that help Junkbot get where he needs to go. A variety of helpful and hazardous objects and robots add variety and complication to the game's 60 levels. Junkbot levels can be solved in multiple ways and the game structure encourages players to go back to previously solved levels and complete them using a different method.
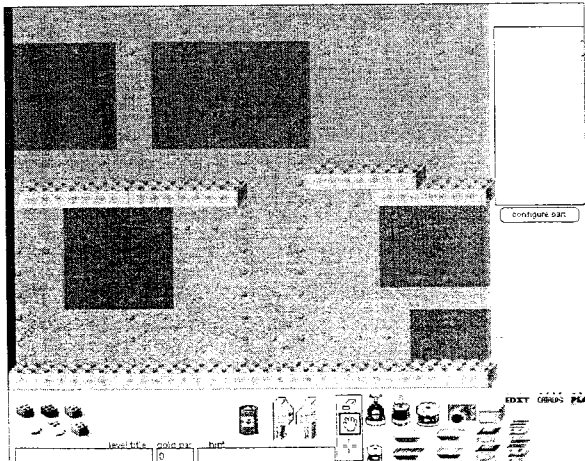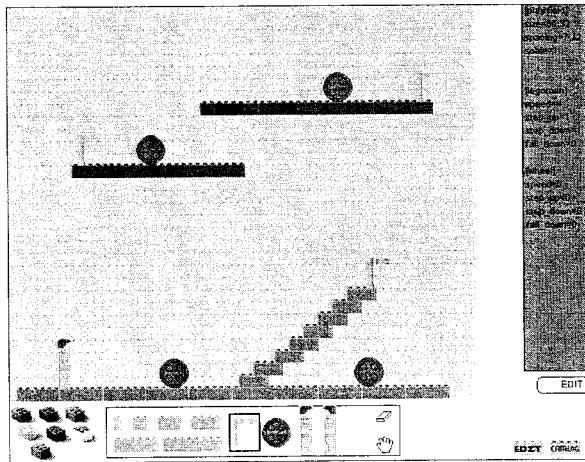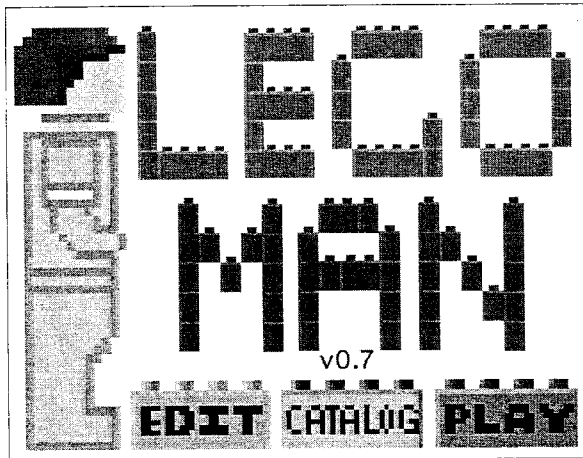

The conceptual starting point for the creation of LEGO Junkbot came from gameLab's client, LEGO.com. LEGO wanted a game about brick construction with a target audience of 8- to 12-year-old boys that that could also be played and enjoyed by adults. Here was our challenge: gameLab had been tasked with creating a web game in which real-world LEGO play was the clear referent. Yet in no way could we ever hope to recreate the sublime interactivity of plastic LEGO bricks. How could we translate LEGO play into a digital game?

Our first step was to purchase and play with a whole mess of LEGO bricks, as a way of analyzing and understanding the subtleties of LEGO play. Then, as with most gameLab projects, we began to design by identifying the project's play values. These values, which embodied the material and experiential qualities of LEGO as well as the cultural ethos of the LEGO play philosophy, included concepts like modularity, open-ended construction, design creativity, multiple-solution problem-solving, imaginative play and engineering. Using these play values as our limiting parameters, we brainstormed a number of game concepts.

The concept LEGO selected was called LEGOman (the character and storyline of Junkbot had not yet emerged) and it centered around moving bricks to indirectly help a character move through an environment. The first playable prototype was the simplest possible iteration of the core interactive idea: the player could use the mouse to drag bricks on the screen; there was a single, autonomously-moving protagonist character, there were goal flags to touch, and there were rolling wheel hazards to avoid.

All: LEGO Junkbot early prototype
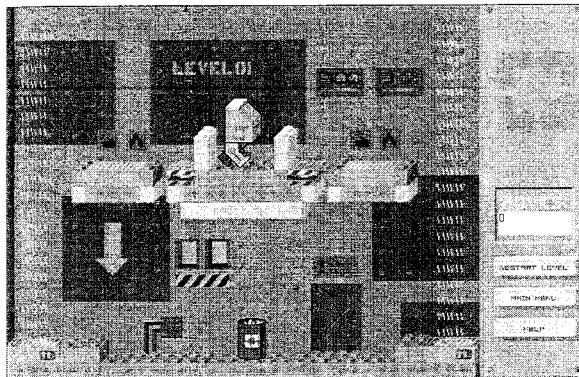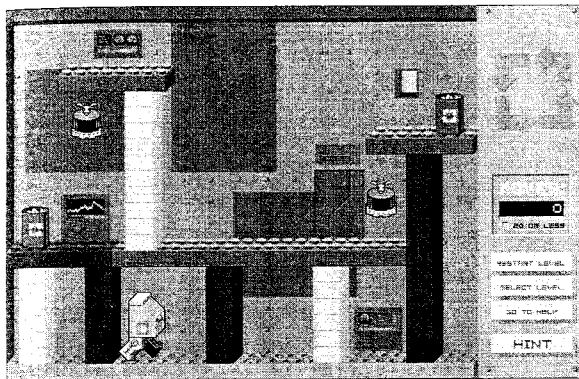
Top and Middle: LEGO Junkbot
level editor tool
Bottom: LEGO Junkbot

We played the prototype. And it was not very fun. Because gameLab projects often try to invent new forms of gameplay, we sometimes find that our initial prototypes are just not that enjoyable to play. At such an early juncture in the iterative design process, we could have scrapped the design altogether and started fresh, building on insights learned from the unsuccessful prototype, or we could dig in and push on through. We chose the latter. Gradually we added elements to the game, refining the interaction, expanding the level possibilities, putting in new kinds of special bricks and robot hazards.

Each new element addressed something that was lacking in the experience of the previous prototype: it was monotonous to move bricks one by one, so we implemented code that let players stack bricks and move them as a group. We needed a way to move the main character vertically on the screen, so we added fan bricks, which float Junkbot upwards. The game obstacles all felt too deterministic, so we introduced robot hazards that responded to Junkbot in real time. And as these interactive embellishments deepened the game (which was actually becoming fun to play), the character and storyline of Junkbot emerged.

Throughout the process, we utilized a level editor, a visual design tool that let the game designers create and save levels. The editor allowed them to experiment with game elements and level designs, refining the overall experience and planning features for the next iteration of the prototype.

Playtesting continued with the gameLab Rats, using a web-based form to collect and collate testing data about the difficulty and enjoyment of each level. However, our main concern was whether the basic brick-construction core mechanic would be understood by our target audience, so we visited an elementary school computer classroom, sat kids down in front of the game, and let them play cold. This testing was invaluable, and confirmed our fears: too many of the testers had trouble picking up basic game concepts, such as how to make a stairway for Junkbot out of bricks. This testing directly influenced the design of the game, and we slowed down the overall learning curve, designing the first several game levels to more clearly communicate the essential interactive ideas.

A good rule of thumb for iterative testing is to err on the side of observation rather than guidance. While it may be difficult to keep your hands off the tester's mouse, sit back and see what your audience actually does, rather than telling them how it is supposed to work. What you observe can sometimes be

painful to watch, but it will help you design more successful play. Part of iterative design is simply learning how to listen.

Conclusion

Iterative design is a process-based design methodology, but it is also a form of Design Research. In each of these three case studies, questions emerged out of the process of design—questions that were not part of the initial problem but that were nevertheless answered through iterative design and play.

To design a game is to construct a set of rules. But the point of game design is not to have players experience rules—it is to have players experience *play*. Game design is therefore a second-order design problem, in which designers craft play, but only indirectly. Play arises out of the rules as they are inhabited and enacted by players, creating emergent patterns of behavior, sensation and interaction. Thus the necessity of the interactive design process. The delicate interaction of rule and play is something too complex and emergent to script out in advance, requiring the improvisational balancing that only testing and prototyping can provide.

The principles of this process are clearly applicable beyond the limited domain of games. Rules and play are just game design terms for structure and experience: a designer creates some kind of structured system (a typeface, a building, a car), and people encounter, inhabit, explore and manipulate the system, using it, experiencing it, playing with it.

In iterative design, there is a blending of designer and user, creator and player. It is a form of design through the reinvention of play. Through iterative design, designers create systems and play with them, but only in order to question them, bend them, break them and re-fashion them into something new. This process of iteration, of design through play, of discovering the answers to questions you didn't even know were there, is just another form of what this book is about: Design Research.

SimSmarts

An Interview with Will Wright

BRENDA LAUREL

Brenda Laurel Over the years as I've played the games you've designed, it seems to be that there is a big quantum leap in terms of usability between *Sim City* and *The Sims*, and I'm wondering how you got to that. It seems like breakthrough.

Will Wright It's more procedural than anything else. Also, we have the luxury now of sitting back, taking some time. Almost a year before we put a new game on the shelf, we start a process called Kleenex testing, which is about once a week.

BL Why do you call it Kleenex testing?

WW Because we never use the people again; we use them once and then we throw them away.

BL Got it.

WW We bring in people who have never seen the game, never touched it; we usually bring in couples, whether they are roommates or friends, or married. We put two of them at the front of the computer, boot the game up, and then give them the least amount of instruction. We give them some minor tasks, like "see if you can get this guy to do that", or "see if you can get to that spot on the game." And then we just sit back and observe them for like two hours.

BL Do they talk to each other?

WW Yeah, that's the reason we bring in two. One person would sit there and just get frustrated, but two people will start verbalizing their theories about the way it works. "No don't click that, that'll make this happen." "No, I think it'll work that way." So you hear them verbalizing their internal models of the mechanism. And it's incredibly frustrating as a designer, because you think it's so obvious to go click on that to do that. But when you sit back and watch someone struggling with the button, not knowing what it does, it's totally clear what needs to be done. There's no argument from that point. And so every week we try to get on a cycle where we can iterate what we've learned from the week before.

Will Wright, founder of Maxis

BL When you did *The Sims* originally, had you changed your target audience from the audience for *SimCity*?

WW Not a lot, although I think at the end it became more apparent that we were shooting for a more gender-balanced audience. We always were shooting for a pretty broad age range. I think more recently we started thinking more in terms of more casual players, which kind of matches the females demographic, but not directly.

BL What did you learn about female players and how did it influence the design?

WW In the testing we found that when women played the game there were certain points where they had a lot of comfort. And not to be overtly sexist, but they were very comfortable with the shopping part, mainly because there was not time pressure. I find that in general women tend to be less comfortable in any game where there is the time pressure. They'd much rather sit back and think about what they're about to do, plan it out, run thing through their minds, and then do it at their own rate—as opposed to, "Do something right now or you're going to die." This also maps a little bit more to games that are based on creativity and a little less around performance. In *The Sims*, there's live mode, build mode, buy mode and so on, and in the live mode women are just kind of clicking, watching characters do things, things happening, every interaction is a fun new surprise. Once they get to the buy mode, they totally understand it, and that becomes their structure for understanding the rest of the game. They work their way to the underlying game structure from that end.

BL So do you think most players have model of the underlying game structure?

WW Yeah, I think it's crucial.

BL Do they think if it as a program or do they think of it in some other way?

WW I think that they are reverse-engineering the model at all stages—even when they first see the box, because it's a really low-resolution model of the game. When you look at the box, you're running that low-resolution game in your head. When you go pick up the box and turn it over, and then your model gets more detailed. And if that model is still the imaginary model you play in your head and it's still fun, you might actually buy the game. A lot of times it's good to bring in a metaphor that people are comfortable with, that they can overlay on the game.

BL Sort of like the desktop interface metaphor...

WW Yeah—with something like *SimCity*, it's kind of like a train set, and *The Sims* is like a dollhouse. That automatically gives people a set of associations and expectations they can map, some of which will be correct, some of which wont be. If you can figure out what their initial metaphor is, you can leverage that to bootstrap understanding deeper and deeper into the game. So one of the things I find that I do every game now is I design a box, fairly early on, that is initially used inside the team. "Here's my model of what the game is going to be."

BL So your box is your spec in a way?

WW Yeah, it's the lowest resolution model.

BL How did you make the decision to do *Living Large*?

WW That was more of an experiment really, to see if we could sell expansions for *The Sims*. At the time there was a lot of user-generated content you could download for free, and because we understand how to program theses things to a deeper level we could add wholly new dynamics to the game.

BL Why did you pick that particular extension as the first one you did?

WW All the expansions have largely been driven by the players—by what we've

seen them doing on *The Sims Exchange*, which is where they tell the stories of the game. We look at a lot of the stories and we look at where they're hitting brick walls. In their imaginations they want to be able to see the Sim do X or Y, and the game doesn't support it for whatever reason: there aren't the right dynamics or objects. So we looked at what players were telling in their stories on the website
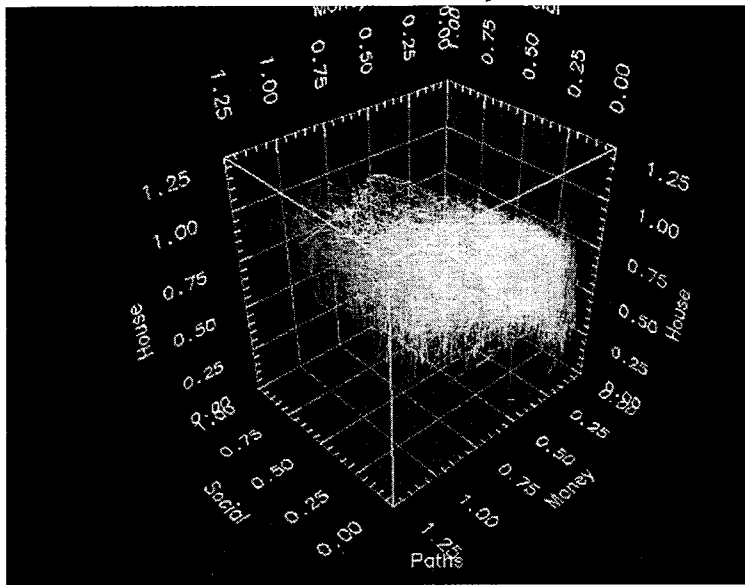
A 3-D representation of captured player data

and we found that early on that lot of people were pushing the game towards more of a fantasy world. They wanted to see kind of magical things or spooky things—popular genres like what we see in television. And so that was kind of the theme of *Living Large*.

BL Your design was driven by your fan community.

WW Yes, the direction of the expansion package. And in fact even the next version of *The Sims*.

BL Was the purpose of *The Sims Exchange* precisely to gather information from players that would inform future design?

WW Not really, that wasn't apparent until later. Again, that was kind of experimental, the whole storytelling aspect. People pair up with people from another game, and they're telling stories to each other as they are playing the game, and the stories are hilarious.

BL And then you discovered that it was a resource for you?

WW Yeah, in a couple of ways actually. There's a point where players have had enough of the game and they want to go to the next level, so there's a meta-game they can play—they can compete on our website. They can rate stories, and there are competitions among the stories for each genre. We have about 50,000 stories now. Huge amounts! And some of them are amazingly detailed and really well written. They are like small novels, they aren't tiny little comic books—well, some of them are, but a lot of them are really deep, and certain people have a reputation for doing ongoing series.
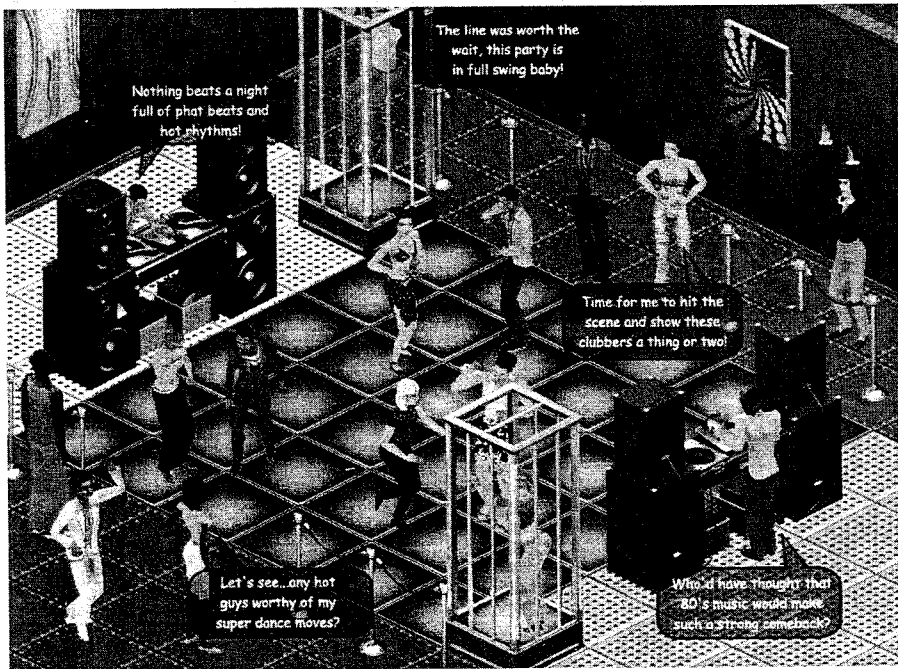
BL So how does *Sims Online* relate to all this?

WW With *Sims Online*, we're trying to take a lot of the community dynamics that we've learned from *The Sims* off-line and reinterpret them in an online world. And we study the online community all the time. It's a very interesting community— it's over half female, which for an online game is totally different. And it turns out that a community of 55% females behaves very differently than a community that's 75% males. It's ongoing and we're still learning—we're capturing huge amounts of metrics in terms of the way people are playing the game. In fact, we're capturing very detailed information. I can tell you how many people are kissing more today than they were yesterday, or how that's correlated to other things.

On the story site, embedded in every story is the same game that the player created that story in, so anybody can read a story if they like the characters or the house, whatever, you can download it and play it as a game. Embedded in every saved game is a history file of how they played every Sim day, or certain key factors: how may friends, how many people in the house, how much money they have, where they were focusing their efforts on. And so I've had interns studying that data.

BL It's amazing that you can do that.

WW It turned out to be pretty easy. We have actually found some interesting game-play patterns in *The Sims* just by looking at thousands of players and the way they traverse the game space. And so that's something that I think is going to be critical to us going forward, the fact that we have these endless tools that are fairly cheap to embed. We need to bring down the cost of that data mining and increase the relevance of it. But still the fact that we have analytical design tools available to us now that we didn't have five of ten years ago, its tremendous.

BL Do you see yourself as putting values into your games?

WW I'm actually much more interested in building a vessel that players put their own values in. With *Sim City*, a lot of people on the message boards would attack our liberal bias on the transportation level, and I thought that was great, not because they didn't like the way our assumptions worked, but because they had to be very clear about what their assumptions were. And *Sim City* became a point of reference, a landmark, that they could then discuss: "Oh I think this city is too liberal in the way taxes are done." Or "I don't think so, I think it's realistic compared to where I live." Someone who's at odds with you model has to crystallize what their own assumptions are. Then it becomes a forum where people can come together and talk about what the issues are and how they feel about them, how they relate to where they live and how their lives are experienced. Players can use the game as a tool for communicating with other people.

BL What else do you learn from these conversations?

WW You know, one thing that has been kind of ironic about *The Sims* is that a lot of people play it for a while, like 4 to 6 hours, and they walk away thinking it's very materialistic. But the ones that have played it for 20 hours realize that it's

the opposite. If you buy stuff in *The Sims*—every object has some sort of traits—it can go bad, or break, need maintenance, need to be watered. If you sit there and build a big mansion that's all full of stuff, without cheating, you realize that all these objects end up sucking up all you time, when all these objects had been promising to save you time. So they are all kind of time-bombs in a literal sense. And it's actually kind of a parody of consumerism, in which at some point your stuff takes over your life. But because it's fairly subtle, and you have to play the game for that long—half the player don't even see it's a parody. They think, "oh it's so consumerist."

BL That must be really interesting for you to watch people have their little light-bulb come on.

WW Yeah, and there are a couple of spots in the game where I've seen people have interesting revelations. One that a lot of people have where they're playing *The Sims* is, their Sim is sitting there—maybe he's playing on the computer and staying up too late—and they realize that he has to go to bed early or he will not do well at his job tomorrow. They're very concerned in getting the Sim to bed, and he's trying to stay up late, and they suddenly realize they're up at three in the morning to play this game, and that's when they realize they are taking better care of their Sim than they are of themselves. Some of the players have had that epiphany.

BL Before we stop I want you to tell me a story about your adventures on dating boards, why you did that and what you learned from it.

WW We do that stuff all the time. We were doing research for the *Sims Online*, and one thing we were very curious about was how people liked to build representation of themselves in their online space. Just by looking at all the different dating sites, it was interesting the different dimensions in which they have you describe yourself. There's something very compelling about glorifying yourself, period.

I've seen a lot of different dating sites, and some of them use different levels. My favorite one is *Hyper Match*—it has variable resolution descriptions, and it's actually very cool. First you can say where you are and then where your ideal spouse is, on each slider, and then also how you feel about it. So it's kind of multi-dimensional, with a cool little interface. They have kind of a first pass, which is maybe 20 questions—very first-level things—and then they have a second level that's much more detailed, and then they have a third level that's incredibly detailed. You go down to "hobbies" and one of the things on there is "I play *The Sims*." So you can go on there and make a very quick profile of yourself in five minutes, but you can come back there and every day add a little more detail on yourself. You get this very impressionistic sketch to begin with, and then the next day it becomes more of an *illustration instead of just a charcoal sketch.*

BL So did you meet any interesting women?

WW Well it got to the point where they were sending me these matches, and at that point I didn't want to lead anybody on...

BL Was your research on the dating boards really valuable in designing player profiles?

WW Yeah, and what it basically told us is that we wanted the players to be in control of how much information about themselves they put up. We didn't want to force them to use a fixed form. They can either go with our template, or go with whatever they want. Some people go with a poem they wrote, or their favorite quote. The very first thing you see when you open these profiles, and this turns out to be one of the largest degrees of segregation for the game, is age. It has a lot to do with Internet talk—are they spelling words out or are they writing "2U"? That immediately tells you whether they are under 25. The next level is what are they talking about. Some people want to have relationships, and then there are intelligent people who are wanting to have fun and role-play. You can tell that stuff very easily by reading their profiles. A couple of other things are interesting. They crystallize around certain alpha-numeric symbols that they use for sorting each other. The strongest early community that we had in the game, even before we had many communities forming, was gays and lesbians. And they were scattered all over the world, and they all sort of clicked "rainbow" for the type of symbol. So it was the "Rainbow Club" or the "Rainbow Casino." And eventually they ended up moving their lots and forming their own neighborhoods.

BL Some journalist called me a couple of days ago and asked me about *Sims Online* and what I thought of it, and I said I hadn't played it that much, but I wish players had made the Castro, and you're telling me they did. That's so cool.

WW Yeah, and it became the largest neighborhood we had in the game.

BL Are you ever present in the game as a player?

WW I was until just recently when I deleted that character because every time I logged on too many people knew who I was, but I had like 10 characters.

BL So you take a walk down the street in disguise every now and then?

WW All the time now.

BL Are you a girl?

WW I have one girl; I have about four males.

BL Do you think that's a really robust form of research, to be in there as a player?

WW I have about 10 close friends that I've made in the game, that know who I am. A lot of these people have a lot of visibility in some aspect of the community, and so they're kind of like my spies, and I can go in and ask them how it's going, what are the players like and what are they doing? In the metrics we have totally dispassionate statistics, and that's very different than going in and asking someone, "What have people really gotten into now?" What's the hot spot, or what's the cool activity, or what's the exciting thing to play or be talking about, or what's the thing people are really annoyed with? That's the type of thing you can't really get from metrics.

BL So there are three levels of research that happen. You've got your personal experience, communication with other players of the game, and then you've got the metrics.

WW Yeah, I think the metrics are giving us the very raw, formal description of the system, things that we can measure. How long are they spending where doing what? Going around talking to people and playing the game is where you actually get the motivation. Why did somebody do that? Why are they spending all their time here? Then you go up and talk to them and they'll explain their motivation."I really like doing this because of X, Y and Z," or "I really like going there because of that." What is the current flavor or mood? What is the collective interaction of all these people and their motivation? What does that add up to?

BL Do you get very involved in secondary research?

WW I start by thinking about what other fields have faced the design problem before, or what insights are going to come from psychology, or another design field, or even things like summer trends. How do you build a game out of that? What are the things that are actually turning over in the player's head? What type of mind-space is the player going to be in? Are they going to be dealing with the dynamics of shopping, or dating and flirting, or constructivism, and then what can inform me about that? The players, their mind-set, what motivates them—how cane we leverage every click the player makes in the game to something that they will find valuable? Are there some surprising things that happen? Or some creative things they make? There are so many different ways you can look at any single problem. Each of our design staff will take a central problem and try to look at it from five totally different perspectives. You're triangulating your design problem with all these different perspectives. So for the designer, the greatest skill I can imagine having is to take any single thing and look at it from as many different perspectives as you can.