DISTANCE 01

with essays by

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http://**distance.cc**

DISTANCE 01

concerns *beginnings.*

Wherein:

Benjamin Jackson discusses the problems with new conventions in game design.

Jon Whipple writes about how to institutionalize research among teams in an agency.

Vitorio Miliano analyzes how to improve the activities of local professional communities.

✤

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Note on citations

Distance exists in quite a few forms: book, PDF, ePub, and Kindle. We know that people read all sorts of ways, and we want the text to fit your reading habits, not the other way around. 1

Most citation methods refer to a work's page number, but only two of *Distance*'s forms have discrete pages. Consistent, understandable citation by page number is impossible, so wayfinding must exist within the actual text. 2

In an attempt to solve this problem, *Distance* doesn't have page numbers. Instead, each essay's paragraph has a little number to the right, as seen here. *These numbers will always be consistent among each format of an issue of Distance.* 3

This is similar to the convention of "purple numbers" in blogging,[1] and it will remove any ambiguity about what's being referenced. As a rule of thumb, where a page number would go, use the **paragraph number** instead. 4

For example, MLA citation should look like Whipple, Jon. "What Designers Know." *Distance* 01: 14-17 for the 14th through 17th paragraphs of Jon Whipple's essay in this issue. 5

1. See also CIM Community, "Purple Numbers", http://dsn.tc/01x-01 and Simon Willison, "PLinks", http://dsn.tc/01x-02.

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Editor's thanks

by **Nick Disabato**
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After a lot of work and patience (which is a kind of work), at last: the first issue of *Distance*.

We have so many great places to write about design, but I believe that *Distance* is a different thing: theory and high-level ideas geared towards practitioners. Towards that end I'm grateful for the backers who took us on faith to publish this, sight unseen.

To the authors of this issue: *Distance* couldn't have been a thing without you, and I'm eternally grateful for your faith in this.

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[Information] creates a need for propaganda in man, which in turn opens the door to psychic aggressions and to sentimental, political seductions. Once again, let us refrain from erecting the kind of Manichean world that propaganda suggests – one side white, the other black, a good side, a bad side – saintly information, on the one hand, diabolical propaganda, on the other. The truth about the devil is that he created ambiguity.

—Jaques Ellul, *Propaganda*

Hard Fun

The Zynga abyss.

by **Benjamin Jackson**
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A young boy visits his ailing grandmother on her deathbed. 1
She beckons him to her side. *Come close, my boy. I have something to share with you. In my will, I have left you a beautiful homestead with over a thousand acres, covered in orange groves, corn fields, and a flower garden with the rarest and most exotic orchids in the world. Young man, you will inherit the most spectacular plot of land this side of the Pacific Ocean.*

The boy stares blankly, unmoved. "Grandma," he says, "I'm done with 2
FarmVille. My friends and I switched to Mafia Wars last summer."

In 1769, Wolfgang von Kempelen built a machine to impress Maria Theresa, 3
the queen of Bohemia. Dubbed the *Automaton Chess-Player*, it baffled spectators across the Americas for over eighty years, inspiring an investigative article from Edgar Allen Poe.[1] The machine consisted of a cabinet with a chessboard on top, and playing as an imaginary opponent, it defeated the most skilled human players of the time.

But the machine, more commonly known as the **Mechanical Turk**, was 4
an elaborately constructed ruse: a highly-skilled chess player of extremely small stature was hidden in the cabinet. Openings on the sides revealed gears,

1. Edgar Allan Poe, "Maelzel's Chess-Player", *Southern Literary Messenger* 2:318-326, Apr 1836. This piece has been reposted in full at http://dsn.tc/01a-01.

levers, and machinery that tricked spectators into thinking that the Baron had devised some mechanical way to intelligently respond to a player's moves.[2]

The Mechanical Turk is an early example of unethical game design.[3] Later examples include Three-Card Monte, in which a spectator is shown a card, is asked to follow it with their eyes, and is misled into following the wrong card. Many casino games are unethical, too; for example, slot machines usually randomize their payouts to encourage players to keep playing, even when they're clearly losing money.[4] But unethical traits can appear in any game, no matter how subtle, and recent games indicate a fuzzier moral ground.

Penguin Suits, Virtual Crops, and Dead Fish

Social games have emerged that leverage networks of friends – mostly via Facebook – to create **Massively Multiplayer Online Role-Playing Games** (MMORPGs). These games are free to play, but they often include virtual currencies that can be earned in-game or purchased with real money, and they don't encourage players to pay until after they sign up. Examples abound:

- In 2005, New Horizon Interactive, a three-person interactive graphics company, released an MMORPG for ages 6–14 called Club Penguin. It casts players in the role of cartoon penguins, each with their own igloo, who chat with their friends via an *Ultimate Safe Chat* that only allows a list of predetermined "safe" phrases. In addition, players can use "coins", an in-game currency, to decorate their penguins by purchasing clothes, accessories, and in-game pets called "puffles". An "allowance" of coins can be purchased by the player's legal guardian for a fixed monthly fee.

2. The Mechanical Turk's impact reached further than Baron von Kempelen could have ever imagined. Over a century after Poe wrote about the hoax, the Turk inspired Alan Turing to write the first computer chess program, which began a line of achievements that led to IBM's Deep Blue, the chess machine that defeated then-world champion Garry Kasparov in 1997. Coverage of this event is available at "Kasparov vs. Deep Blue: The Rematch", *IBM Research*. http://dsn.tc/01a-02.
3. Terry Schenold, "Unethical Game Design & Compulsion Manipulation", *Critical Gaming Project*. http://dsn.tc/01a-03.
4. A more thorough discussion of slot machines and partial reinforcement can be found in Berstein et al., *Psychology, 9th Edition,* Wadsworth Publishing, 2011, p. 215. http://dsn.tc/01a-04.

- In July 2007, Mark Pincus, a Wharton grad with a background in financial analysis and venture capital, co-founded Zynga, a company that specialized in social gaming on Facebook.[5] In 2009, Zynga released FarmVille, an MMORPG where players are cast as farmers who tend crops on a virtual plot of land. *Farm coins* are used to purchase equipment, although the most valuable currency, *farm cash*, is normally only earned by "leveling up" (reaching an arbitrary level of accomplishment) or completing offers. Farm cash is the only way to buy some items; additional farm cash can be purchased with real money, and farm coins cannot.[6] 8
- In April of 2010, Mitch Liu and Rizwan Virk co-founded Gameview Studios and released Tap Fish, an app that allows children to maintain their own aquarium. Players are provided with a set of free fish, or they can buy new fish through in-app purchases. Fish can die from neglect if the child hasn't signed on for a while – for example, if they go on a family vacation – but they must then pay to "bring it back to life". 9

Before we get into the human psychology that underlies these games, a historic example. 10

A Brief Glossary

In the interest of reaching the broadest possible audience, I've defined some terms below. If you've been playing video games long enough that you owned an original Nintendo, you can probably skip ahead to the next section. 11

- **Achievements:** Also known as trophies or challenges, these are meta-goals that are unrelated to the game's main structure. World of Warcraft has explicit "Achievement Points", and later Call of Duty titles acknowledge difficult tasks with awards like "Four of a Kind", which is awarded after 12

5. Since Zynga's inception, the company has purchased many popular casual games with player bases largely outside of Facebook, such as Words With Friends and Drop7.
6. Val Wilson, "Farmville Coins and Cash – What is the Difference?", *Farmville Magic*. http://dsn.tc/01a-05.

performing four "headshot" kills in a row.[7] Leveling up is a specific kind of an achievement.

- **Balance:** Tuning a game's rules to create a level playing field and moderate enough difficulty to keep players from becoming discouraged. For example, a fighting game might seek balance in the abilities of each character in order to prevent severely mismatched gameplay.
- **Behavioral Psychology:** A branch of psychology concerned with the study and alteration of human behavior, including our actions, emotions and thoughts.
- **Engagement:** The desire to continue playing the game. Engagement is created when there is enough game balance and novelty that the player is willing to spend the time and effort to achieve mastery. Engagement is maintained by offering a constantly-evolving challenge.
- **Experience Points (XPs):** An arbitrary unit of measurement, commonly used in RPGs to measure progress outside of the actual mission. Experience points are usually awarded after completing a goal, overcoming an opponent, or discovering a hidden item.
- **First-Person Shooter (FPS):** A style of game in which the player sees through the eyes of a gun-toting hero. Wolfenstein 3D, released in 1992, helped popularize the genre. Other popular titles include Doom, the Quake series, Halo, Half Life, and Counter-Strike.
- **Flow:** A mental state of full immersion in a single task. Characterized by feelings of increased focus amidst long periods of uninterrupted activity.[8]
- **Freemium:** A business model where a product is offered for free while charging for related features, functionality, or services. Often used to monetize MMORPGs.

7. "Call of Duty 4: Modern Warfare Achievements", *xbox360achievements.org*. http://dsn.tc/01a-06.
8. For more on flow, see Mihály Csíkszentmihályi, *Flow: The Psychology of Optimal Experience,* Harper Perennial, 1990.

- **Gamification:** The use of game mechanics in non-game environments to solve problems and engage audiences. Used by companies like Weight Watchers, Foursquare, and Stack Overflow to encourage desired behaviors.[9] 20
- **Leveling Up:** The act of collecting a predetermined number of experience points so that the player reaches a new "level". A type of achievement most often seen in RPGs, leveling up is usually accompanied by an increase in strength or endurance. 21
- **Mastery:** Comprehensive skill in a game. Acquiring mastery is the subject of much study; for example, Anders Ericsson researched "the 10,000 hour rule" by describing how masterful classical musicians had practiced for 2–3 hours a day for at least ten years.[10] 22
- **Massively Multiplayer Online Role-Playing Game (MMORPG):** A subgenre of RPGs where a large group of players interact with each other in a virtual world. World of Warcraft, Second Life, and Minecraft are common examples. 23
- **Replay Value:** The ability for a game to be played more than once. Games with high replay value are generally held in higher regard, as they are considered more "timeless" by reviewers.[11] 24
- **Reward Systems:** Game mechanics that condition a player to respond in a certain way. A classic example: the Goomba from Super Mario Bros. When Mario walks into one, he loses a life. This teaches the player to kill the goombas by jumping on them, rather than to run into them headfirst. 25
- **Role Playing Game (RPG):** A game in which players assume the roles of characters, and act out a story in a fictional (usually fantasy) setting. The most famous RPG is Dungeons and Dragons; World of Warcraft has dominated online. 26

9. Gamification is sometimes mistakenly used to describe the practice of applying RPG-like elements, like leveling up, to other games. You can only gamify things that aren't already games.
10. Anders Ericsson, "The Making of an Expert", *Harvard Business Review,* Jul 2007. http://dsn.tc/01a-07.
11. Adam Bishop, "The Myth of Replay Value", *Gamasutra*. http://dsn.tc/01a-08.

Skinner's Box

In the 1890s, while studying natural sciences at Saint Petersburg University,[12] a Russian mathematician named Ivan Pavlov was analyzing dogs' saliva output. Pavlov noticed that dogs tended to salivate more before eating – and that merely the sight of a white lab coat would induce salivation, even if no food was on the way.[13] So he rang a bell before presenting them with food, and found that over time, the dogs would salivate even if a bell was rung with no food presented. 27

Pavlov's research defined classical conditioning, in which a **primary reinforcer**[14] – one which naturally elicits a response, such as food or a small electrical shock – is associated with a conditioned or **secondary reinforcer**, such as the lab coat or bell. 28

Forty years later, as a young psychologist in graduate school, Burrhus Frederic Skinner built on Pavlov's observations. He constructed a soundproof, lightproof chamber that housed a small animal. A lever or button was placed within the animal's reach, which triggered a primary reinforcer.[15] Called the **Skinner box**, the device paved the way for a new experimental method, leading to innovations in study design, allowing researchers to determine the relative addictiveness of cocaine in isolation versus in a larger community,[16] and to explore the question of whether rats have empathy.[17] 29

Skinner is now credited as the father of **operant conditioning**: a form of learning where a subject eventually responds to a secondary reinforcer by associating it with some form of primary reinforcement. Not only did Skinner's work show that associations between primary and secondary 30

12. Now called Saint Petersburg State University.
13. Lotta Fredholm, "Pavlov's Dog", *Nobelprize.org,* 14 Jan 2012. http://dsn.tc/01a-09.
14. Also known as an *unconditioned stimulus*.
15. In Skinner's case, the animals were pigeons and the primary reinforcer was a small treat.
16. Bruce K. Alexander's *Rat Park* study used a Skinner box to show that rats will self-administer cocaine in isolation, but will refrain when housed in a larger community. See Bruce K. Alexander, "The Myth of Drug-Induced Addiction", 2001. http://dsn.tc/01a-10.
17. They do, though sometimes male rats take the low road. See also Inbal Ben-Ami Bartal et al., "Empathy and Pro-Social Behavior in Rats", *Science* 334(6061):1427-1430. Also available behind a paywall at http://dsn.tc/01a-11.

reinforcers appear in nature, it also demonstrated that new reinforcers can be developed.[18]

Skinner and Pavlov both proved that primary reinforcers are extremely powerful motivators. For example, after sex and sleep, bacon is one of nature's most powerful primary reinforcers, partly due to its high fat and protein content in comparison to other meats. Bacon has become known as the *gateway meat*: the smell can trigger intense cravings, even in vegetarians.[19] But in a world where fatty foods are so readily available, our instinctual craving for them can cause significant health problems.[20] 31

The box also taught us two fundamental lessons, one of which had ramifications that extended far beyond Skinner's experiments. Humans are hardwired to respond to primary reinforcers, just like any other animals. And while primary reinforcers have a diminishing effect once we're satiated, secondary reinforcers, like money or social status, exist outside our biological needs, and these never hit a satiation point. In other words: we are hardwired to seek approval from our peers, and we can never get enough of it. 32

So, many people defend FarmVille as a harmless distraction, arguing that the thousands of hours spent playing the game would still have been wasted on other activities. But there's no question that the social game market, with its virtual currencies and unlimited stock of goods, is a huge cash cow.[21] And it's also clear, as we'll see shortly, that it was engineered to coerce users into tending their virtual plots of land for as long as possible. But before we go into the details of FarmVille's design, it's worth asking a simple question: are any games really *bad*, beyond just being terribly designed or just plain drudgery? 33

18. For proof, ask anyone who's taken a smoking cessation aid and then smoked how the cigarette tasted. Bupropion has a success rate of 27% vs. 11% placebo at 26 weeks. Serena Tonstad et al., "Bupropion SR for smoking cessation in smokers with cardiovascular disease", *Eur Heart J* 24(10):946-55, May 2003. http://dsn.tc/01a-12.

19. Eliza Barclay, "Why Bacon is a Gateway to Meat for Vegetarians", *NPR*. http://dsn.tc/01a-13.

20. Usually these are called lifestyle illnesses when they result in preventable issues with one's daily routine. For more information on the spread of such problems, see Kate Devlin, "Lifestyle diseases 'on the rise as traditional killers cancer and heart disease decline'", *The Telegraph*, 1 Apr 2010. http://dsn.tc/01a-14.

21. Jeferson Valaderes, "Freemium Mobile Gamers Spend Most Money on Items They Don't Keep", *Flurry Blog*, 16 Aug 2011. http://dsn.tc/01a-15.

After all, it's just a game, right? 34

Black, White, and 254 Shades of Gray

Moral relativism aside, I think "bad" games exist – provided we define 35
"bad" in unambiguous terms. In *Groundwork of the Metaphysics of Morals*, Immanuel Kant tried to define this with the **Categorical Imperative**, a set of rules to gauge the ethical consequences of any action.[22] But regardless of how we choose to evaluate a game's morality, there are certain traits that can push it closer to the "evil" side of the spectrum.

The primary characteristic of unethical games is that they are manipulative, 36
misleading, or both. From a user experience standpoint, these games employ **dark patterns**, which are common design decisions that trick users into acting against their will.[23] Dark patterns are usually employed to maximize some metric of success, such as email signups, checkouts, or upgrades; they generally test well when they're released to users.

For example, FarmVille, Tap Fish, and Club Penguin play on deep-rooted 37
psychological impulses to make money from their audiences. Here are some of the techniques they use:

- **Completion urge:** Humans have a natural desire to finish what they start. 38
Direct mail marketing companies were among the first to notice this when response rates spiked by adding peel-off stickers and half-finished stories to the covers of marketing materials.[24] These appealed to our natural tendency to complete unfinished tasks, so we removed the stickers and read the entire story.[25] In gaming, FarmVille prominently displays a progress bar that

22. *Groundwork of the Metaphysic of Morals,* Immanuel Kant, 1785. http://dsn.tc/01a-16.

23. See the Dark Patterns Wiki at http://wiki.darkpatterns.org/ for a full list, and Harry Brignull, "Dark Patterns: Deception vs. Honesty in UI Design", *A List Apart,* http://dsn.tc/01a-18 provides a more nuanced discussion of the topic.

24. Because they successfully encourage a behavior that the product's creators desire, dark patterns tend to fare well in usability studies or A/B tests. Many businesses need to make a case against their use in the face of numbers that may indicate positive change on the surface.

25. Edward L. Nash, *Direct Marketing: Strategy, Planning, Execution,* McGraw-Hill, 2000, p. 226. http://dsn.tc/01a-19.

compels players to "like" the FarmVille page, turn on email notifications, and spam their friends' walls.[26]

- **Partial reinforcement:** Also known as uncertain rewards, the encouragement of repeated play by providing sporadic, randomly-timed rewards. Most social games time their rewards on an uncertain schedule. 39
- **Avoidance:** The threat of punishment for extended absences from playing. When a player stops playing FarmVille for an extended period of time, their crops wither and die. This plays on humans' natural tendency to avoid negative stimuli, even if it involves repeating dull tasks.[27] In one experiment, rats were placed in a cage with a metal floor that delivered a small shock at 30-second intervals, unless the rats pressed a lever to defer it. The rats quickly learned to press the lever to avoid the negative reinforcer.[28] 40
- **Reciprocity effect:** Providing generosity before asking for something in return. Members of the International Society for Krishna Consciousness, commonly known as the Hare Krishna movement, often give people free books and ask for donations shortly afterward. FarmVille allows players to send free "gifts" to each other. Friends feel compelled to return the favor, which encourages a virtuous cycle that drives players back to the game.[29] 41
- **Egotism:** Our natural drive to focus on our own favorable traits. This has been shown to affect our ethical judgements[30] and how we perceive our own work.[31] We're proud of our own accomplishments, and we assume that others are deeply interested in our lives. Social games take advantage of this by 42

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26. Brian Meidell, "STF - What I learned From FarmVille So You Don't Have To Play It". http://dsn.tc/01a-20.
27. The notorious "button" in J.J. Abrams' TV series *Lost* is an interesting example of the avoidance principle in popular culture. See "Pushing the button", *Lostpedia*. http://dsn.tc/01a-21.
28. Murray Sidman, "Some Notes on 'Bursts' in Free-Operance Avoidance Experiments", *J Exp Anal Behav* 1(2):167-172, Apr 1958. http://dsn.tc/01a-25.
29. Jamie Madigan, "How Reciprocity Yields Bumper Crops in Farmville", *The Psychology of Video Games*, 18 Jan 2010. http://dsn.tc/01a-26.
30. N. Epley and E.M. Caruso, "Egocentric ethics", *Social Justice Research* 17:171-187, 2004. http://dsn.tc/01a-24.
31. E.M. Caruso et al., "The costs and benefits of undoing egocentric responsibility assessments in groups", *Journal of Personality and Social Psychology* 91:857-871, 2004. http://dsn.tc/01a-47.

frequently providing opportunities to share our in-game activities with our friends.

This trend is not just limited to social games, though. Many combat games, like America's Army, serve as thinly-veiled recruitment tools for the U.S. Military.[32] Some brands have launched Facebook games, such as Cheez-It's Swap-It!,[33] as tools to sell more products. Both of these games employ dark patterns (or, at best, vapid marketing); they can be used in any sort of game, in any context. 43

Of course, not all games fall neatly into a clear division between good and evil. "Good" games can ask little in the way of critical thinking and problem solving, but still be fulfilling by your own standards. Tetris is a complex, enriching game that is just as addictive today as when it debuted in 1988, but many would argue that it lacks the problem-solving challenges or rich plots that make adventure games like Sword & Sworcery and The Legend of Zelda so compelling. Different people find meaning and fulfillment in different aspects of gameplay; that's what makes gaming so fun for players and game designers. 44

Hard Fun

One of the best-selling independent iOS games[34] is a side-scrolling jumper called Canabalt. It consists of a tiny man running over the rooftops of a dystopian cityscape. Players tap to jump, and the scrolling quickens over time. There is no end to Canabalt, only longer runs; the longest run yet recorded, at 8 minutes and 16 seconds, takes the player through more than 22km of crumbling buildings and falling obstacles.[35] 45

32. China has developed their own version where the enemies are American soldiers: see "Gamers Target U.S. Troops in Chinese Military 'Shooter'", *Wired,* 17 May 2011. http://dsn.tc/01a-22.

33. Swap-It! has since been taken down, but you can see a demonstration of it at Blockdot, "Cheez-It Facebook Game Swap-It", *YouTube*. http://dsn.tc/01a-23.

34. The app, released in late 2009, sold over 225,000 copies at the relatively expensive $2.99 price tier before being open-sourced at the close of 2010. "Over $25,000 Raised For Charity: Canabalt Goes Open Source!", *SemiSecret Blog*, 30 Dec 2010. http://dsn.tc/01a-27.

35. Ibrahim Kaluzny, "Canabalt Record 22317m, 2009–09–14, complete run", *YouTube*. http://dsn.tc/01a-28.

At IndieCade in October 2011, Adam Saltsman, Canabalt's creator, discussed the notion of *time until death*. All of us have a finite amount of time on earth, and any time we spend on a particular activity is time that we can't spend doing something else. This means that the time we spend gaming represents most of a game's cost of ownership, far more than any money that we spend. If we found that time enjoyable (or rather, if its benefits outweigh its costs), then the game was worth our time. 46

Gaming value is subjective, of course, but it's often created by modulating a game's difficulty until players achieve mastery. In a panel at Seattle's CasualConnect in 2011, game designer and consultant Nicole Lazzaro described two types of fun: **easy fun** and **hard fun**.[36] Games that don't challenge players beyond a certain point – "easy fun" – will never allow them to achieve mastery, which could deprive them of a highly rewarding part of playing. On the other hand, "hard fun" demands something of us, and can provide a more worthwhile experience. 47

The panel also included Demetri Detsaridis, the general manager of Zynga's New York office. Zynga has its own ideas of what constitutes the "real fun" in FarmVille and similar games, and these ideas align with the company's business interests. His answer of how they approach "easy" vs. "hard" fun was telling: 48

> You know, while we don't necessarily have this framework in particular in mind… you know, while I was looking at this chart yesterday, while we were talking, I was thinking "Well, Zynga does a lot, if not most, of its development work in this kind of infinity symbol loop here between 'people' fun and 'easy' fun… there's sort of an overlap here that isn't maybe entirely clear on the chart, but a lot of… I think a lot of social games kind of are really quite close to the top, you know three-quarters of this, that the 'people' fun and the 'easy' fun are really sort of mushed together, and that where you see the hard fun coming in is in perhaps surprising places, like thinking about your social graph and how you, in real life, are managing that – well, am I sending, you know, friend requests to these, these people? Is that – you know, so that's actually part of the game, and

36. Margaret Wallace, "Your Brain on Games: The Hidden Psychology of Gaming", *CasualConnect*. http://dsn.tc/01a-30.

> designers know that, so that sort of is an interesting almost meta-game layer of almost 'hard' fun on top of what otherwise might seem in this structure to be really people- and easy-centric.

Detsardis nodded in approval as Rob Tercek, the panel's moderator, summed it up:

> The games themselves aren't where the action happens; the strategy component is: when do you reach out into your social graph? When are you going to spam that list? How frequently are you gonna do that?

I'll reiterate this in plainer language, just in case the quote wasn't clear: Detsaridis said that one of the most compelling parts of playing Zynga's games is deciding when and how to spam your friends with reminders to play Zynga's games.

Creating hard fun isn't an easy task. It requires thinking deeply about 49
the gamer's experience, not just using cheap tricks to drive engagement. FarmVille, Tap Fish, and Club Penguin all employ Skinner-like techniques to persuade people to spend more time and money. But there are plenty of honest ways to create real engagement, and it's our responsibility as creators and consumers of games to demand more honest and fulfilling fun from our entertainment.

We've established that many games take behavioral shortcuts to drive en- 50
gagement, but to play devil's advocate, one might make the argument that these games have some redeeming qualities – even if they don't extend much further than art direction and character design. So if we're to argue that a fully "evil" game might exist, it begs the question: *what would such a game look like?*

The Worst Game Ever Made

Described by Wired as "a borderline-evil piece of work that was intended to 51
embody the worst aspects of the modern gaming industry", Ian Bogost's game Cow Clicker, released in 2010, was first intended as a joke:[37]

37. Jason Tanz, "The Curse of Cow Clicker: How a Cheeky Satire Became a Videogame Hit", *Wired*, 20 Dec 2011. http://dsn.tc/01a-29.

> The rules were simple to the point of absurdity: There was a picture of a cow, which players were allowed to click once every six hours. Each time they did, they received one point, called a click. Players could invite as many as eight friends to join their "pasture"; whenever anyone within the pasture clicked their cow, they all received a click. A leaderboard tracked the game's most prodigious clickers. Players could purchase in-game currency, called mooney, which they could use to buy more cows or circumvent the time restriction. In true FarmVille fashion, whenever a player clicked a cow, an announcement – "I'm clicking a cow" – appeared on their Facebook newsfeed.

Instead, he became trapped in an existential nightmare for 18 months.
Within two months, the game grew to 50,000 players; many, but not all, were in on the joke. Cow Clicker was conceived as an insult to players of massive social games, but it turned out to be surprisingly addictive. In fact, by most accounts, it appears to have been fairly enjoyable. What it lacked in gameplay variation, it made up for with the same kinds of dark patterns that Zynga uses to encourage players to return:[38]

> Bogost kept his players hooked by introducing new cows for them to purchase using virtual mooney or real money. They ranged from the crowd-pleasingly topical (a cow covered in oil and sporting a BP-esque logo on its rump) to the aggressively cynical (the Stargrazer Cow, which was just the original cow facing the opposite direction and for which Bogost charged 2,500 mooney).

Nick Yee, a researcher at PARC, offered a solid explanation for the game's success:[39]

> [Yee] says that good games usually offer meaningful opportunities for achievement, social interaction, and challenge; otherwise, players become little more than rats in a Skinner box, hitting a button to get a jolt of reinforcement. "The scary thing about Cow Clicker is that it's just an incredibly clear Skinner box," Yee says. "What does that say about the human psyche and how easy it is to seduce us?"

38. *Ibid.*

39. *Ibid.*

It's safe to say that Cow Clicker is an unethical game. And it might be fine to criticize games for these shady tactics, but it's of little use without pointing out a way forward. To what standards do we hold games, and their creators, when they walk the line between harmless fun and deliberate manipulation? To answer this, we need to explore some of gaming's most universal traits.

Moving the Goal Posts

Gaming is frequently most enjoyable when it has high **replay value**. 53
Chess, for example, is a game with extremely high replay value, with over 10^{123} permutations.[40] Partially because chess has a high replay value, it's remained popular for over 1,500 years, even when played against a computer opponent.[41]

Games have long employed various techniques to increase their replay 54
value. For example, racing games have time trials with ghost cars, and "battle modes" that pit two players against each other; fighting games and first-person shooters have varying levels of difficulty; platform games have "survival modes" that test how long the player can stay alive on a particular level.

But replay value doesn't matter without **balance**: the careful tuning of 55
game mechanics to ensure a fair contest. Balanced games consistently offer a range of options to players, all of which exhibit **fairness**: there are many ways to win, but the outcome is a toss-up, with neither player gaining an unfair advantage.[42]

Tic-Tac-Toe is an example of an unbalanced game. A novice will be quickly 56
dispatched by any competent player. And once the logic of the game is revealed, it ceases to have any entertainment value, as the tiny number of variations can easily be committed to memory. Any pair of moderately experienced players will force any Tic-Tac-Toe game to a draw.

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40. Claude Shannon, "Programming a Computer for Playing Chess", *Philosophical Magazine* Ser.7 41(314), 1950. http://dsn.tc/01a-31.

41. One could have created a mechanical Tic-Tac-Toe player at the time of the Mechanical Turk – but because Tic-Tac-Toe is so easy to solve, it would hardly have had the same impact. Chess is a classic example of a game with both balance and replay value, partly due to the number of possible outcomes.

42. David Sirlin, "Balancing Multiplayer Games, Part 1: Definitions". http://dsn.tc/01a-32.

Pong, on the other hand, is an extremely balanced game. A novice can pick 57
up the controls in a few moments, and the ball moves slowly at first while they get the hang of it. So not only is it easy to learn, but it's fair, too: no player is able to hit the ball faster than another.[43]

Balance can often be manipulated by the player, against both the AI and a 58
human opponent. It can also be manipulated by the game designer, either to make the game mirror reality (e.g. the "Rage Meter" in Mortal Kombat vs. DC Universe[44]) or as a deliberate crutch. Take, for example, the infamous "Rubber Band A.I.":[45]

> A hypothetical: You're playing John Madden Football. Your team is up by 13, there's three and a half minutes left until the end of the game, and you have the ball. Your victory is assured, right?
>
> Wrong, because suddenly the AI is twice as fast as you, knows what play you're going to run, and shuts down your offense, forcing you to punt - or, worse, your running back with a high "Hands" rating fumbles the ball, or an AI defensive back makes a miracle interception. On their drive, the AI marches downfield with no difficulty by completing several consecutive bombs, scoring an easy touchdown. Rinse and repeat, and before you know it you've lost what you thought was a safe lead. The video game has just experienced a Miracle Rally.[46]

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43. This helps explain Pong's immense popularity: during its existence, it consistently drew four times as much revenue as other coin-operated machines. See also Steven Kent, "The King and Court", *Ultimate History of Video Games,* Three Rivers Press, 2001, pp. 53–54.

44. Mortal Kombat Wiki, "Rage Meter". http://dsn.tc/01a-34.

45. TV Tropes Wiki, "Rubber Band A.I." http://dsn.tc/01a-33.

46. TV Tropes Wiki, "Miracle Rally". http://dsn.tc/01a-36:

> A pre-requisite of sporting flicks, where the competitor or team… seems to be on their way down, until a pivotal moment happens (often a case of *Put Me In, Coach!*), after which the team stages, yes, a miraculous comeback ending in victory.
>
> Miracle rallies are common among video games; one example is Mario Kart 64, where computerized opponents become considerably faster in the final seconds of a race. They don't frequently happen in real life, though, and using them in a game is unrealistic.

Balanced games consistently reward players as their skills increase, and discourage others from obtaining an unfair advantage. Games that encourage cheating – or which cheat themselves – do a disservice to their audiences by upending their own balance.

Many recent games have tried to create the illusion of replay value. 59
FarmVille, Tap Fish, and Club Penguin all use Skinner's work to persuade people to play for longer, which generates more income for the developers. They also allow players to pay to adjust the difficulty level, but in practice this fosters an environment where one succeeds if they pay the most – and even then, there's no technical end to the game.

But why mention this when companies like Zynga aren't doing anything il- 60
legal? Aren't they free to make whatever they'd like? Let's take a look at how the legal system deals with the use of behavioral psychology to manipulate consumers.

Ballerina Dolls Don't Dance

There's plenty of precedent for government restriction of the unethical use of 61
psychological techniques. The advertising industry's history is littered with sleazy tactics that play on our weaknesses. For example, the tobacco industry has frequently ignored the harmful effects of their products. Cigarettes are often promoted with images of healthy people, and actors and actresses frequently smoked, providing sex appeal. And junk food companies have long associated their products with fun cartoon characters (e.g. Tony the Tiger, Count Chocula, Chester Cheetah) that create a bond with young consumers. Kellogg's tries to depict Frosted Flakes as the basis of a healthy lifestyle, when a large bowl of sugar-coated cereal every morning is probably not the quickest way to a flat stomach and a healthy heart.[47]

Lawmakers eventually caught on, and many dishonest tactics have been 62
legislated out of existence. Congress has banned the marketing of tobacco and alcohol to minors, and in June 2009 it extended that ban to include cloves and flavored cigarettes. The Better Business Bureau was established in 1912 to deal with "snake oil" scams in the medical industry, after a federal lawsuit against

47. They even depicted Tony riding a horse and racing against cowboys. See Stapuff, "Tony the Tiger rides a horse", *YouTube*. http://dsn.tc/01a-38.

the Coca-Cola company failed to compel them to remove caffeine from their product.[48] Locally, some cities require chain restaurants to display calorie counts next to menu items.[49]

The FTC has a 23-page document detailing the guidelines for advertising 63
to children.[50] The document is worth reading for the hilarious subheadings alone, but for the sake of brevity, I'll quote one of their guidelines, *Ballerina Dolls Don't Dance, Toy Horses Can't Stand Up, and Bread Doesn't Help with Homework*:

> During the past three decades, the Commission has brought a number of cases challenging deceptive performance claims in toy advertisements. For example, a ballerina doll was shown to pirouette on one toe unassisted in a TV ad; however, she could not perform in the playroom.
>
> Toy helicopters were depicted on TV as flying and hovering in mid air; in reality, the helicopters were suspended by monofilament wires attached to poles and manipulated by unseen people. A horse named "Nugget" was shown standing on his own; in fact, "Nugget" fell over without human assistance. In each of these cases, the ad was examined from the viewpoint of a child in the age group to which the toy was targeted. While an adult viewer might understand that special techniques were employed in such commercials, the child would expect the toy to perform as shown.

Someday, our government might take a look at the mechanics of games like 64
FarmVille, Tap Fish, and their competitors. In time, their manipulative intent might become clearer. Their virtual – and hence unregulated – currencies are a legal minefield, but in a bizarrely poetic coincidence, they may fall under the same gambling laws that regulate slot machines: perhaps the most profitable Skinner box of all time.[51] While Congress has usually been slow to enact such

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48. Ludy T. Benjamin, "Pop psychology: The man who saved Coca-Cola", *Monitor on Psychology*, 40(2):18, Feb 2009. http://dsn.tc/01a-37.

49. "New York's calorie counting", *The Economist*, 28 Jul 2011. http://dsn.tc/01a-35.

50. Federal Trade Commission, "Advertising to Kids and the FTC: A Regulatory Retrospective That Advises the Present", *FTC.gov*. http://dsn.tc/01a-40.

51. Ed Sperling, "Regulating Virtual Currency", *Forbes*, 15 Apr 2010. http://dsn.tc/01a-44.

regulations, this day might come sooner then we think, especially if others echo the complaints of Frank Mendez: [52]

> Frank Mendez told a local NBC affiliate that he downloaded the free Tap Fish iPhone application for his 7-year-old to play with. The aquarium game allows kids to clean the tank, feed the fish and more. What Mendez didn't realize is that the free app also includes "in-app purchases," which allows users to purchase fish and other virtual items.
>
> So imagine his surprise after opening his May debit card bill and finding charge after charge for "bundles" of fish totaling $613. "I'm aware I have to pay for that, but I think they're taking advantage of the innocence of the kid," Mendez told NBC.

The Daily Show picked this story up, and interviewed Rizwan Virk, one of Tap Fish's founders. They skewered the game's misleading user experience by interviewing a family that spent over $1,500 on the game, and asked Virk how mortal fish can be "revived" for money: [53]

> Interviewer: "So that's a good lesson for kids. If you kill something, you can throw money at it to bring it back to life."
>
> Virk: "Well, that's how the game works."

To be fair, the interview was cut for dramatic effect, and Virk responded on his blog with a lengthy rebuttal of some (but not all) of the show's criticisms. [54] And while a $1,500 expenditure isn't common, other similar incidents have occurred. [55] If stories like Frank's continue to make headlines, these companies will be subjected to the same system of punishment that

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52. Jorgen Wouters, "Child takes iPhone's 'Tap Fish' bait, reels in $600-plus bill", *Daily Finance,* 7 Dec 2010. http://dsn.tc/01a-43.

53. Kirk Hamilton, "The Daily Show Gleefully Rips Into Free-To-Play Gaming", *Kotaku,* 9 Dec 2011. http://dsn.tc/01a-45.

54. Rizwan Virk, "Top 10 Things the Daily Show with Jon Stewart Got Wrong about Tap Fish!", *Zentrepreneur,* 9 Dec 2011. http://dsn.tc/01a-46.

55. Kevin Tofel, "My iTunes Account Was Hacked for $375 – By My Own Kids", *Bloomberg Businessweek,* 8 Jul 2010. http://dsn.tc/01a-42.

they employ in their games. If history has revealed one effective way to prevent businesses from tricking their customers, it's to make the offending practices illegal, and punish them until they stop.

Educating the Sharecroppers

In a Harvard University Press blog post on the Mechanical Turk's history, the editors observed that the device represented something larger than just a simple hoax: [56] 65

> Kang notes that the significance of the Turk "points not to the celebration of the mechanical, as in the works of the previous decades, *but precisely the disillusionment with it in the larger culture,"* a disillusionment that Kang takes to mark not just the end of "the automaton craze" but also a significant development in the era's political thought.

If we take history at face value, we're witnessing the birth of a new craze, where an obsession with virtual cash and cartoon penguins has replaced our ancestors' fascination with space exploration, self-directing machinery, and the race towards artificial intelligence. The creators of these games are reaping billions of dollars every year, from a modern day Mechanical Turk. But rather than fool us with a physical illusion, they tap into our subconscious and measure every possible way to maximize revenue. 66

There is hope, however. The Turk had its day, but it was eventually exposed as a cheap parlor trick. If we evaluate games with more than quantitative ratings – if we examine them closely, and look past their spinning gears and whirring motors into how they truly work – we might look back at the 21st century and tell our children about what we used to play, before we all knew better. 67

56. "The Mechanical Turk", *Harvard University Press Blog*. http://dsn.tc/01a-41. Emphasis added.

What Designers Know

Keeping research pervasive.

by **Jon Whipple**
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I'm always surprised by how many things we know. We train keyboard shortcuts into our muscle memory. We continually learn tips, tricks, and insights from bosses, mentors, and colleagues. Instructors drill ideas into us at school. Over time, we cultivate taste: we know what looks cool and what doesn't. We know how to persuade people and garner attention. We can help people remember things. We can sell toasters. And the things we know aren't limited to what we've been taught – we also know what we've read, recorded, and experienced. We've seen great ideas succeed and fail. We remember the expressions on people's faces when they first see our work. We've learned the right way to present our work, and the right people to present it to. 1

Strange, then, that we always begin our projects with a research phase, as if we know nothing, as if the problem hasn't existed in some other form, as if the client has all the time and money in the world. To be fair, all projects have unknowns. Nobody likes surprises, and sometimes, research reveals important things that we never knew before. But what about the vast majority of our projects? Or the vast majority of the problems that we solve within a project? I'll wager you or your colleagues have seen these problems before – and there's a fair chance that the solution is documented elsewhere in some form. 2

If research is budgeted, scheduled, and properly conducted, it can be a tremendously valuable activity. It can provide feedback on all of the things we make. But when research is poorly conducted or poorly applied, it can leave the client with the idea that research is expensive and not worthwhile, and that hurts us all in the long run. 3

Because we already know a great deal, we can move research from a step in the design process to an ongoing, agency-wide activity: we can adopt a **distributed research model**. This model would result in better, more focused work, allowing us to spend more of our energy on specific issues relevant to 4

the project at hand. It would also help us meet deadlines, because we can capitalize on the experience of the designer and community while maintaining a good relationship with the client. In this essay, I'll describe how research is built and distributed across teams, and how it can benefit all of us to focus on institutional knowledge.

The context

I work at a cross-platform agency for web design, print design, corporate identity, and enterprise CMS development. Over the past few years, I've focused on speed in designing for all types of clients. Faster implementation creates something useful today, rather than something perfect tomorrow, while sacrificing as little as possible in quality. 5

We're a small firm, with a total staff of ten. Given the size of our team and the demands of our clients, projects rarely contain a traditional research phase; instead, "research" becomes an ongoing conversation during design and development. For example, an international manufacturer of wireless devices required specialized websites for their developers and sales partners. Building on our experiences with similar businesses, we created a design that addressed most of their objectives, so we could achieve the site's primary goal in a short timeframe. They were startled by our fast response, but as we took them through our designs, they were pleased with their accuracy and utility. The project led to an opportunity to design their corporate website. 6

While they expected a research phase with far more preliminary work, we drew from our own personal experience instead. Exhaustive research and analysis were replaced with simple conversations with the client. Our approach would be refined during its implementation, and even the refinements came from our prior experience. After going through this process a few times now, we've learned a new way of doing things. We trust our existing knowledge and experience, we keep our research and knowledge at the top of our minds[1] as we design, we organize our research so it's easily available to everyone, we structure the company so people collaborate across disciplines, and we keep the client involved through every step. 7

1. More thoughts on this notion are available at Paul Graham, "The Top Idea In Your Mind", Jul 2010. http://dsn.tc/01b-01.

Before I explain this further, though, a few words on the history of design processes. 8

The current way: the *Research First Model*

As designers, we usually talk to our clients and colleagues in terms of a **design process**, or a particular way of moving from ideation to execution. It's something that typifies design activity on all kinds of projects, and this practice is taken very seriously. In some cases, organizations value their processes so much that they have even copyrighted or trademarked them.[2] 9

In *How Do You Design?: A Compendium of Models*,[3] Hugh Dubberly describes over 80 design processes. Many of them are quite similar, usually variations of the 4D model: define, design, develop, and deploy.[4] Indeed, design activity can't take place without some definition of the problem to be solved and how we might go about solving that problem. These parts of the design process are generally covered by research and analysis. 10

In *Generic Work Process Version 1.0*,[5] Bas Leurs et al. define the elements and cycles "…of the methods and techniques which can be used throughout the user-centered design process". The process begins with research and analysis, and progresses through conceptualization, design, development, and implementation. 11

A pattern emerges after enough time. Research plays a part in establishing credibility: it moves design decisions away from personal preferences, easing client relations in the process. Research functions as a lubricant, reducing friction around contentious issues and providing consensus among designers, developers, and clients. The upshot is that a clearly defined result, commonly understood facts, and relevant data make design discussions easier. Project 12

2. For example, Landor's process once hinged on its proprietary Brand Driver™. See also Landor, "Capabilities: Brand Driver", *Landor.com*. http://dsn.tc/01b-03.
3. Hugh Dubberly, "How Do You Design? A Compendium of Models", http://dsn.tc/01b-04. Also see http://dsn.tc/01b-02 for a range of design processes.
4. For one such example of the 4D model, see "4D: How We Work", *MyProgrammer*. http://dsn.tc/01b-05.
5. Bas Leurs et al., "Generic Work Process". http://dsn.tc/01b-14.

stakeholders can move from debates of *personal preference* to decisions based on *comprehensive understanding*.

The **Research First Model** is based on several assumptions:

1. **We're confronting a unique problem.** We may confront problems that are unique to us, because we haven't yet been asked to solve them in our own careers. But most problems have probably already been addressed by someone else. The fact that we may not be able to find an existing example doesn't necessarily prove this assumption true, as it's hard to know the things that we don't know.[6]
2. **There are many unknowns for both client and designer.** In this case, people think the problem domain is so unfamiliar that undiscovered information will have a critical bearing on the project's outcome. Although it may be true that something unknown could change the solution, this represents the exception, not the rule. For the vast majority of problems, the broad approach has already been discovered.

Design patterns help address this.[7] For example, if the user needs to "view data items from a potentially large set of sorted data that will not be easy to display within a single page", we can display that list across several pages by implementing *pagination*.[8] If the "user wants to find or submit a particular piece of information based on a date or between a date range", we can provide a *calendar picker*. We might need to change the way these patterns are implemented, but they provide us with a solid foundation. In situations where

6. This leads to a phenomenon known as the *Dunning-Kruger effect*. For more on this, see Errol Morris, "The Anosognosic's Dilemma: Something's Wrong But You'll Never Know What It Is (Part 1)", *The New York Times*, 20 Jun 2010. http://dsn.tc/01b-06.
7. Pattern libraries are a collection of repeatable solutions to common design problems. Inspired by the framework set forth in architect Christopher Alexander's *A Pattern Language* and *The Timeless Way of Building* (Oxford University Press), design patterns can apply to programming (Erich Gamma et al., *Design Patterns*, Addison-Wesley, 1994), user experience design (Jennifer Tidwell, *Designing Interfaces*, O'Reilly, 2006), and many other fields.
8. Yahoo!, *YUI Pattern Library*. http://dsn.tc/01b-08.

there doesn't seem to be an existing pattern, it's best to finish applying patterns in other parts of the project, and then return to the original problem and work on a customized solution in context.

3. **We design in a vacuum.** Design has no value outside a context of business requirements. We often discover that a client has many processes that work against a design solution; or that their organization is factional, persistently infighting. The project changes because the problems gain clarity, and suddenly we're consulting on issues far more broad than the design of only one thing. When a project's resolution acts as a "pipeline to your corporate soul",[9] designers grapple with far broader questions. 17

4. **No previous research has occurred for this type of problem.** Design process has been an area of study since the 1920s, and the subject of significant interest since WWII.[10] Interest in HCI and UX has existed for as long as computing itself.[11] The Web led to an explosion of research around what we practice. Common interactions adopt common, useful, and effective solutions. Through repeatedly applying these solutions, they become subtly refined over time. We don't need to conduct any cognitive science research to discover them; all we need to do is figure out what's been done before, and adapt it to the problem at hand. And along the way, we may find ways to improve them. 18

5. **There is enough time and money to conduct research.** When it comes to institutionalizing research, an agency is its own worst enemy. Agencies emphasize research when upper management creates the budget for it. Likewise, if clients believe they need to focus on research, they'll choose a research-focused agency. Freelancers or small boutiques may not be able to justify this cost, or they may not be able to successfully sell research to their clients. 19

9. Alan Cooper, "The pipeline to your corporate soul", *Cooper Blog*, 20 Sep 2011. http://dsn.tc/01b-07.

10. Vannevar Bush, "As We May Think", *The Atlantic*, Jul 1945. http://dsn.tc/01b-09.

11. For example, Richard Saul Wurman coined the term "information architecture" in 1974, almost a decade before the introduction of the personal computer. See also "Richard Saul Wurman: The InfoDesign Interview". http://dsn.tc/01b-10.

6. **There are enough qualified interview subjects to conduct research.** Even if there's enough time and money for a formal research project, there may not be enough help from the target audience. This assumption is based on the existence of enough qualified, easy-to-find participants who can be guided by an experienced professional. Recruiting qualified researchers and participants can be difficult, especially for small firms.[12] In situations with tight timelines and poor resources, this issue can be circumvented through guerrilla-style research techniques.[13] 20

7. **We can know everything relevant there is to know about the problem.** This assumption justifies most research effort: the idea that we can discover and analyze all of a project's relevant information. Though reassuring, this is a dangerous line of thinking that chases an impossibility. How do we ever know when we know "enough"? Horace Dediu refers to this as the **Analyst's Paradox**.[14] Research is required, of course, and more research can lead to better analysis and decision. However, more research also means more time and money are expended before we can take action. At some point, we must always base our recommendations on a degree of informed intuition. Where do we draw the line? 21

Over the course of my career, I've seen many ways that the Research First model has worked against us. In one such instance, a client asked us to re-develop their content management system with customer-facing web pages that would be designed by a partner agency. The project repeatedly stalled, as both the client and my firm waited for the agency to conduct research and create UX deliverables. While waiting, we restructured the CMS and familiarized ourselves with the existing content model, so we could determine how it could be modified. 22

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12. The best participants for these studies have rarely, if ever, participated in one already, so they can use a product with few preconceptions about its utility. Fortunately, tools now exist that try to find a way around this problem, such as Bolt|Peters's "Ethnio": http://ethn.io/.

13. See also Cennydd Bowles and James Box, *Undercover User Experience Design*, New Riders, 2010; Jakob Nielsen, "Guerilla HCI", *useit.com*, http://dsn.tc/01b-13; Jakob Nielsen, "Discount Usability: 20 Years", *useit.com*, http://dsn.tc/01b-12; and Todd Zaki Warfel, *Prototyping*, Rosenfeld Media, 2009.

14. Horace Dediu, "Episode 12: Back to the Future", *The Critical Path*, 7:01. http://dsn.tc/01b-16.

As the other agency generated content requirements and wireframes for each type of page, we also called the client's sales team and listened to the frustrations that they and their prospects currently faced. This simple act of "research" was really just a practical conversation, and it resulted in a lot of useful knowledge that we shared in team-wide meetings. We used our research to critique the other agency's work, both confirming good ideas and pointing out problem areas. Surprised by our feedback, they frequently requested extra time to revise their work. 23

Subsequent meetings confirmed our previous discoveries. When the client finally approved our work, they provided the caveat that subsequent visual design would be subject to significant time constraints, which heavily narrowed our scope in the interest of meeting our deadline: hardly the outcome we meant to obtain. 24

In this example, of the seven assumptions that I previously outlined, *all of them* were disproven. 25

- *The problems confronting the client were not unique.* They wanted to make it easier for their customers to get the right information about their software. This is a common problem in our field, and I'm sure the design team had experienced it in similar forms. In fact, their organization ostensibly exists to address this very problem. 26
- *There weren't many unknowns.* The sales team already knew most of the problems, and had relayed the information to other team members. This was clarified in phone conversations, where we discovered a disconnect between what users expected and what they experienced. Meanwhile, the design team contacted some of our client's customers to find out about their experiences. Despite translating through the sales team, we had more accurate information than the other agency's team did, and because we frequently shared our findings with each other, we were able to act on them more quickly. 27
- *The design team's research didn't help* when it became apparent that our client faced internal criticism. This was compounded by the short timeline that the client's executives had established. 28

- *In fact, previous research had already occurred.* How do you connect prospective customers with useful information? What does the prospect need to know before they speak with you? What do you want them to know that makes your product more compelling than that of your competitors? Surely these questions have been answered before, and the other agency's designers must have confronted them regularly with other clients.[15] 29
- *There wasn't enough time, money, or participants to create quality research.* Assumptions 5 and 6 became problematic when the design team requested more time for research and analysis, even when the rest of the project was behind schedule. The client was already convinced that the problem had been defined, and they believed that we had sufficient information from our interviews. 30
- *Finally, the design team couldn't comprehensively understand all of the problems that the sales team confronted.* Again, substantial information was already available through previous conversations. Although our information wasn't entirely precise, it was useful enough to act on before the project's deadline. 31

❖

This experience isn't unique. I've disproven these seven assumptions in many different circumstances, across many kinds of project. Time after time, deploying a proven pattern for a particular problem, asking questions, and comparing findings with known examples has resulted in effective, useful, economical solutions that provide robust foundations for a project's future. 32

A New Approach: the *Distributed Research Model*

Knowing all of this, I propose a new way of working in an agency: the **Distributed Research Model**. Distributing research throughout an organization provides it with a cultural identity that can set a strong 33

15. We certainly had, and we were able to suggest solutions and patterns that we had used before.

precedent for the future, while aiding its capability to solve common problems. Mule Design's Mike Monteiro describes a similar model: [16]

> We don't do research before we start designing, we do research as *part* of designing. This is an integral part of the design process. It cannot be taken away, otherwise you have not designed anything.

Even without dedicated research staff, we have consistently benefited from the following values:

- *Always research.* Keep your radar on. Record and share the details of every story, essay, article, and book that you encounter. This builds internal knowledge that more forcefully informs future decisions. Spreading that knowledge also ensures a broader understanding of any research activity. 34
- *Always experiment.* We try new things as often as possible. We try new design tools, prototyping techniques, visual effects, and programming methods. Sometimes we abandon them because they aren't a natural fit at the time, but we always leave the door open to revisit them later. Either way, the results are treated as internal research, and they become part of the firm's general knowledge. 35
- *Conduct multiple activities at once.* Be wary of projects that don't allow you to conduct multiple activities at the same time. If a "waterfall" project's steps contain all previous steps as prerequisite, it probably isn't the most efficient use of your time and effort. Not only can this impair your speed of delivery, it also makes the project harder to mine for research. 36
- *Try to create something that is useful now.* If knowledge is widespread in your organization, it builds closer relationships that allow you to work more quickly without second-guessing each other as often. Working quickly allows smaller iterations, which provide more flexibility if things aren't working. It also places your client in a posture of action: they're primed to respond to ongoing work, and encouraged to keep up with the project's momentum, with greater focus on what work needs to be done. 37

16. From the podcast *Let's Make Mistakes,* "Episode 3: Making Things for People", 13:20. Recording available at http://dsn.tc/01b-15.

- *Sacrifice the project's scope if needed.* Rather than sacrifice quality under tight timelines or small budgets, we narrow the project's scope and adapt any previous work to solve the new set of problems. Usually, narrowing the scope identifies the core problems that must be immediately addressed. But we do this with an eye to the future, so the client has a useful starting point for incorporating the rest of the features at a later time. 38
- *There is no spoon.* Design processes are flexible, and precedent shouldn't set them in stone. Take the time to occasionally reevaluate how you work together. Don't be slaves to any process that takes too long and imperils the project's budget. 39

Research helps everyone

Research can have many consequences beyond its ability to influence design decisions, and sometimes our research benefits people in other roles more than our designers. 40

- *Project managers* benefit from all agency activity if they treat it as research. Any progress on the project – good or bad – provides internal research that people can reference for future similar projects.[17] 41
- *Salespeople, principals, and planners* can compare the agency's patterns of income and expenditure, pointing out where costs are focused in order to manage potential issues before they become harder to handle. They can also get a sense of whether new prospects are exhibiting the same kinds of "symptoms" as existing problematic clients. 42
- *Account managers* could research opportunities for follow-up projects and refinements after a project has been finished. This applies to all manner of communications, including refining or supplementing publications, or adding additional features to previously launched websites. Ongoing relationships are based on chains of incremental improvements over a long period of time. 43
- *Developers* can benefit from research as well. For example, in our work for a global enterprise software company, the conversations we had with their sales and technical teams provided crucial insights for the information architecture, user experience design, and visual design that would follow. 44

17. We don't have dedicated project managers in my firm, so our team leaders and client contacts collect and distribute our research instead.

Caveats

This approach doesn't prohibit research: it simply generalizes it, and tries to spread internal knowledge as widely as possible. Instead of making research a discrete step, we need a pervasive culture of research.

You still need to discover what problem you're going to solve. But your experience and general knowledge can serve you well; research can be simple, limited in scope, and far more economical than we commonly perceive it to be.

Concluding thoughts

Research works at its best as a pervasive, ongoing, and informal effort. Research is useful and appropriate in small, focused doses, when it ceases to be a phase in and of itself. This builds client confidence, which in turn developes a thoughtful, practical reputation for yourself.

❖

The Distributed Research model is:

- **Pervasive.** Research must happen in every area of the company. Everyone has something valuable to share.
- **Fast.** Research should be handled frequently and incrementally; don't let it pile up. Both you and your client will feel more confident if you make research a routine action.[18]
- **Repeatable.** By generalizing the process to any kind of information and any team member, it's easy to accumulate a lot of knowledge.
- **Catalogued.** On the other hand, it's possible to have too much knowledge. Eventually, enough research builds up that it needs to be categorized and curated if it's going to be of any use.

18. Don Norman corroborates this point in his Core77 essay "Act First, Do the Research Later", *Core77.com,* 1 Aug 2011, http://dsn.tc/01b-17; and in "Why doing user observations first is wrong", *jnd.org,* http://dsn.tc/01b-18.

To spread research with the client's interests in mind, your business processes have to be flexible. But we've found that clients are happy, even relieved, to move at our speed, because we can quickly provide them with useful solutions and they can adopt a more hands-on approach. 53

My experiences may be different from yours. You may have worked in situations where projects have appropriate budgets or less constrained timelines. If that's true, I congratulate you. See if you can't use some of your time to research more, or to share more of its results across your organization. Increasing internal knowledge will always help a company, and we all stand to benefit from a culture built around sharing and collaboration. 54

Local Communities In Practice and By Design

New ways to meet each other.

by **Vitorio Miliano**
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It's early October 2011, and IxDA Austin is hosting a happy hour. I'm having drinks with forty-some-odd folks from the Austin design community: UX practitioners, graphic designers, usability professionals, and creative directors. The tables at this hip East Austin bar's back patio are full of patrons bearing name tags – and many more, similarly branded, are standing, mingling, talking, and networking, with the occasional trip inside for a refill. The happy hour started at 6, and will include an unscheduled third hour before people start to leave en masse. 1

I've met two newcomers tonight. Jenica Welch is from San Francisco, which she characterizes as having a large enough design community that you can't walk down the street without running into a designer on their way to another event. She's been in Austin for a year, but only discovered the IxDA group recently. This is her first time meeting local designers that she doesn't work with. Georgette Sullivan moved here from Kansas City, which she describes as having a small enough design community that all the Adobe software users have to participate in a single user group, instead of one for each product. 2

Georgette was looking forward to Austin's larger community. Jenica was surprised by how small and hidden it was. Does Austin exist between these two perspectives? How can the local community have failed to support a new designer for a year? What other issues does our design community face? Does your city have similar problems? How can the situation be improved? 3

Exploring How Austin's Communities Began

Austin has three primary design communities: the active[1] local chapters of AIGA,[2] IxDA,[3] and UPA.[4] For interaction design, usability and user experience, there is also an STC[5] chapter and a growing content strategy meetup,[6] but no other professional chapters.[7] For graphic design, there are Adobe user group chapters[8] and a "design and media" meetup,[9] but no presence beyond these.[10] Web developers have multiple groups, but web-specific designers only have a local Refresh[11] chapter. In this essay, I will analyze the composition and behaviors of the attendees of our local IxDA and UPA chapters. 4

The aforementioned happy hour paints a rosy picture of a vibrant community that wasn't always so. Agencies have only participated recently, and their support remains tepid. Pentagram has had an Austin office since 1994,[12] Frog 5

1. I define "active" as having a maintained web site, a responsive organizer, and at least four events a year.
2. AIGA, the professional association for design. Austin: http://www.aigaustin.org/. Parent: http://www.aiga.org/.
3. Interaction Design Association. Austin: http://ixdaaustin.ning.com/. Parent: http://www.ixda.org/.
4. Usability Professionals' Association. Austin: http://www.austinupa.org/. Parent: http://www.upassoc.org/.
5. Society for Technical Communication. Austin: http://www.stcaustin.org/. Parent: http://www.stc.org/.
6. Austin Content: http://dsn.tc/01c-10.
7. Such professional chapters include, but are not limited to, UX Book Club, Product Design Guild, ACM SIGCHI, American Society for Information Science and Technology, or the Human Factors and Ergonomics Society.
8. "Search: groups matching Austin", *Adobe.com*. http://dsn.tc/01c-09.
9. Austin Texas Design and Media: http://dsn.tc/01c-11.
10. Other professional organizations without Austin chapters include the Graphic Artists Guild, Society for News Design, Society of Publication Designers, Society for Environmental Graphic Design, and the Chartered Society of Designers.
11. Refresh Austin: http://www.refreshaustin.org.
12. Jenny Sullivan, *Graphic Design America 3: Portfolios from the Best and Brightest Design Firms from Across the United States*, Rockport Publishers, 2005, p. 194. Accessed 21 Oct 2011. http://dsn.tc/01c-13.

Design since 1996.[13] But while Frog has hosted SXSW parties since 2004,[14] they have only actively opened themselves to the local community since September 2011. Razorfish has had an office in Austin since 2005.[15] Possible Worldwide[16] and Adaptive Path have had offices in Austin since 2008, but Adaptive Path's coming-out party wasn't until October 2010.[17]

Independent professional organizations haven't fared well, either. Austin UPA's final meeting was in November 2004.[18] Meanwhile, IxDA's Austin chapter had never before held a meeting; its previous organizer had publicly stated he was only interested in hosting formal presentations organized by others.[19] A lack of support from both industry and the existing community finally drove people to organize by themselves. 6

The watershed moment came in January 2008, when UI designer and researcher Kyra Edeker, after feeling a "hole" in the community over the past year, hosted a happy hour at a new wine bar on a Monday night and unexpectedly packed the house.[20] One of the attendees was Tori Breitling, a freelance user experience designer who found the turnout galvanizing.[21] 7

13. "frogdesign acquires ZFI, adds to Austin office", *frogdesign,* archived 11 Jun 1998. http://dsn.tc/01c-14.
14. Media firm GSD&M hosted the opening party prior to Frog, according to archived pages. "SXSW Interactive Evening Events", *SXSW,* archived 29 Mar 2004, http://dsn.tc/01c-15.
15. There were no references to an Austin location prior to the Avenue A merger. "office locations", *Avenue A | Razorfish,* archived 4 Feb 2005. http://dsn.tc/01c-16.
16. Sandra Zaragoza, "Schematic Yesterday, Possible Today", *Austin Business Journal,* 21 Feb 2011. http://dsn.tc/01c-17.
17. "We're Throwing a House Party, Texas Style", *Adaptive Path,* accessed 21 Oct 2011. http://dsn.tc/01c-18.
18. "Austin UPA calendar", *Austin UPA,* archived 5 Jul 2008. http://dsn.tc/01c-19.
19. "Texas IxDers," *IxDA mailing list,* last modified 9 Oct 2007. http://dsn.tc/01c-20.
20. Kyra Edeker, email with the author, 17 Oct 2011: "I emailed ~65 people I knew personally/professionally and also the national IxDA list, the local UPA folks and asked friends at agencies around town to spread the word. I stopped counting people at 65 that night (more than half I didn't know - a coincidence that it was near my list total) and I think everyone was surprised at how many of us there were."
21. Tori Breitling, email correspondence with the author, 26 Sep 2011: "…Kyra organized that mixer at that wine bar, at which gobs of people showed up, which showed me that I wasn't the only one interested in getting the community together."

Frustrated with the local IxDA organizer's neglect of the chapter despite multiple entreaties from the community, Breitling launched a UX Book Club chapter[22] in November 2008[23] while pursuing remedies through IxDA's board. At the same time, usability researcher Julie Lowe, originally seeking a local mentor, had met with the previous UPA chapter's organizer and elected to take it over, keeping it focused on testing and research.[24] UX designer Amy Jones also saw the community's unmet needs and, spurred on by her manager, announced monthly lunches and a mailing list under the name **Austin UX**, choosing independence over the political battles of existing organizations. 8

Austin UX's first lunch and mailing list posts came only a few weeks before Breitling's book club announcement. Lowe opened Austin UPA's web site in September 2008, and its first meeting was held in January 2009. Austin's UX Book Club held its first meeting at the end of January 2009, but IxDA Austin was turned over to Breitling at the end of February. After holding IxDA Austin's first meeting at the end of March, Breitling didn't have the time to manage both and, unable to find a co- or replacement organizer, she shuttered UX Book Club in July 2009. 9

As IxDA and UPA relaunched, members joined at a rate and number which seemed to reflect the openness of their parent group.[25] UPA grew slowly from its initial 34 members in the first two months, spiking to 67 after its first meeting, and settling into an average of 10 new members a month until they changed over to a new mailing list in July 2010. IxDA grew at more than double UPA's rate: 89 members in its first month, and maintaining an aver- 10

22. Tori Breitling, email correspondence with the author, 26 Sep 2011: "I thought, well, here was something I could do for myself and Austin, so I jumped on the bandwagon. There was a very strong response from the community, probably around 50 people signed up in a matter of days."

23. One of the first, #13, within four days of Dave Baty founding the project. "Welcome to UX Book Club!" *UX book Club Wiki,* archived revision from 30 Nov 2008. http://dsn.tc/01c-21.

24. Julie Lowe, email correspondence with the author, 10 Oct 2011: "[Tori Breitling] saw UPA being focused on testing and research and IxDA being about the interaction design. Being aware of the two groups for a while now, I would agree with that."

25. You must be a dues-paying member of the national UPA organization to hold office in a local UPA chapter, whereas IxDA is free and entirely volunteer-run. This almost certainly impacts the potential participation levels of each.

age of 24 new members a month over the same time period. Just over half of UPA's initial membership signed up with IxDA after its launch, and after that, members present on both lists were twice as likely to have joined IxDA first.[26]

11 Meetings in both groups were irregular and informal: a lot of happy hours and short talks, and the duplication of event types may have gone unnoticed because each group was targeting different segments of the community. I felt this was awkward; surely at least the social events could be coordinated?[27] I also felt there was an unmet need for more formal mentoring, continuing education, and technical practice, none of which were directly supported by IxDA or UPA (and, at this point, I had not yet heard of Austin UX).

12 Feeling like these professional organizations were lacking in formality, in December 2009 I published an essay[28] proposing a practice workshop for designers, which was patterned after Toastmasters International. In January 2010, the Design Workshop held its first meeting, and I would hold these meetings every two weeks through August 2010.

13 With the resurgence of community activity, Amy Jones shuttered Austin UX in August 2010. I learned of Austin UX as it was closing and, seeing this as further evidence of the community's fractured nature, I relaunched it as an event calendar to document the meetings of design organizations (and non-design organizations holding design-related events) citywide.[29] It provided the appearance of a cohesive community to visitors and outsiders, but the community, when defined as *organizations holding events and attendees of those events*, doesn't behave this way in practice.

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26. Austin UPA Ning membership roster export dated 13 Jul 2010, provided by Julie Lowe, covering 4 Sep 2008 through 12 Jul 2010. IxDA Austin Ning membership roster export, collected by the author with access given by Tori Breitling, dated 26 Dec 2010, covering 27 Feb 2009 through 23 Dec 2010.

27. Whether this was a common feeling remains undetermined: "I never felt the 'fractured nature' of the communities was necessarily a problem, but rather a micro-reflection of the parent group[s]." Tori Breitling, email correspondence with the author, 30 Dec 2011.

28. Vitorio Miliano, "Practice user experience and interaction design with your peers", last modified 12 Jan 2010. http://dsn.tc/01c-22.

29. http://austinux.org/.

Qualifying Community Membership

Both IxDA Austin and Austin UPA define their "membership" as names on a mailing list. No dues are required to participate, and there is no other barrier to entry. Not all events require RSVPs, so attendees may make up a different segment of the population than those signed up on the organization's lists and websites. Finally, the mechanics of these lists and websites may affect participation. 14

IxDA Austin is a Ning[30] site containing web-based forums, a calendar, and a broadcast-only mailing list. A "member" is someone who has signed up to receive notices about events, RSVPed to an event, or posted a job ad in the forum.[31] The group continues to see growth at an average of 22 members (median 19) a month, and now has 749 members on its roster. Job posts and event listings are frequent, but there isn't much other conversation. 15

Austin UPA also started as a Ning site, but it migrated to a WordPress blog and Google Group mailing list in July 2010 after Ning dropped support for free sites.[32] This afforded a unique opportunity for analysis – members who migrated might be more engaged in UPA specifically, as IxDA did not exist when UPA first launched. The Ning site contained 245 members at the point of the migration, of which 121 were also present on the then–444-member IxDA list.[33] For the switch, the original membership was asked to rejoin the new list. 100 users joined within the first few days, 133 joined by the end of the year, and there are 183 total members today, including the same overlap percentage (90 members). Not counting the initial spike, the Google Group sees new members join at an average rate of 5 members per month; whether due to the decrease in join rate, increased specialization, or other factors, only one third of new members will end up joining IxDA as well (although members of 16

30. "Ning, the World's Largest Platform for Creating Social Websites™". http://www.ning.com/.
31. For the first two years, you had to be a registered member to even view events; now, membership is only required to post and RSVP. Only administrators can post to the mailing list.
32. "Austin UPA Website Launch", *Austin UPA mailing list,* 24 Jul 2010. http://dsn.tc/01c-27.
33. Austin UPA Ning membership roster export dated 13 Jul 2010 and IxDA Austin Ning membership roster export dated 26 Dec 2010.

both are twice as likely to have joined IxDA first).[34] The blog supports comments, but they are rarely made, and logins are not shared between the site and the list.

17 Austin UX started out as a mailing list, blog, and monthly lunch. I don't have participation information on the blog,[35] but at the time the original site was disbanded, the list had 33 members. It now has 99, but the subscribers rarely post; they seem to use it only to receive the weekly list of design-related events. I supplement the mailing list with a Twitter account,[36] which tries to follow as many local design-related people and organizations as possible, and its followers have increased at an average of four per week,[37] despite not directly participating in conversations.[38]

18 In fact, there appears to be no online, public Austin design community, when either defined as *design-related conversation centered around Austin-based individuals*, or as *conversations within the online presences for the Austin design communities*. I viewed this as a bad thing; it seemed like a substantially unmet need to have no way to sample the pulse of local designers, or to find someone to talk with in person. Shouldn't it be easiest to find like-minded professionals when they're down the proverbial street?

19 Designers are finding their sense of community elsewhere. As you'll see in the next section, it's not primarily through in-person meetings. Even the 130-odd Austin designers I follow with the AustinUX Twitter account don't seem

34. Austin UPA Google Groups membership roster export dated 24 Oct 2011, provided by Craig Tomlin. IxDA Austin Ning membership roster export dated 22 Oct 2011.

35. Unfortunately, the site was hacked shortly before it closed, and I was unable to find a preserved copy. The mailing list archives were kept members-only.

36. "Austin UX", *Twitter*. http://dsn.tc/01c-26.

37. From the dates of Twitter follow notification emails from 30 Sep 2010 through 22 Dec 2011, with notable spikes around SXSW and the week of the happy hour from the introduction. Details available on http://distance.cc.

38. I do not run the LinkedIn group of the same name, but almost all of its activity is job postings.

to talk much amongst themselves;[39] rather, I believe they primarily communicate through location-independent venues such as the parent IxDA list, or through sites like Forrst,[40] Behance,[41] or Dribbble.[42] This idea is supported anecdotally in published interviews with local designers, including creative director Phil Coffman[43] and artist Shyama Golden,[44,45] both of whom talk about their "creative communities" as being online, rather than local and online, or local and in-person.

Experiences With a New Local Community

My understanding of unmet community needs revolved around criticism and feedback. I wanted to brainstorm, and solicit feedback on designs from more experienced professionals. I sought input from those who could suggest design patterns, best practices, and competitive insights. I wanted to occasionally check in with them to confirm I'm "doing it right", ideally with critiques both during and after the design process. This would give me (and others) a way to both practice design fundamentals and learn how to apply new techniques. This was a persistent need in my own professional development, and in casual conversations with coworkers across different companies and during local meetups, I felt I wasn't the only one.

39. At any given time, Twitter only exports the last 800 tweets from your timeline. Of 736 tweets from 136 people over 4 days, 5:52:12 in the middle of December 2011, exclusive of @AustinUX's own tweets and tweets to @AustinUX, 60 tweets were between 19 followers: 8% of Austin designer tweets were between the 13% of accounts which knew of each other. If you remove tweets between two known couples, that number drops to 47 between 17 accounts, or 6% between 12%. Details available on http://distance.cc.

40. "Forrst is a community for developers and designers". http://forrst.com/.

41. "Behance is the Creative Professional Platform". http://www.behance.net/.

42. "Dribbble is show-and-tell for designers". http://dribbble.com/.

43. "'Is it important to you to be part of a creative community of people?' …I finally made a blog and signed up for Twitter and my eyes were opened… We've been doing Dribbble meetups…" "Phil Coffman", *The Great Discontent,* last modified 29 Nov 2011. http://dsn.tc/01c-25.

44. "After joining Twitter, Facebook, and Dribbble, a website that allows designers to share their portfolios, Golden noticed people were beginning to take an interest in her work." Jessica Lee, "Shyama Golden uses social media, local venues to show paintings", *Daily Texan,* 13 Sep 2011. http://dsn.tc/01c-23.

45. On reading a draft of this essay, Golden remarked over text message, "Also very much what I experienced in Austin, always thought it was just me." She has since moved to San Francisco.

My beliefs were partially reinforced during the design workshops I held in 2010: people always showed up, but I was surprised by their professional diversity. Attendees seemed to average only 50% professional designers: students, developers, and managers comprised the rest. People were interested in a variety of workshop activities – brainstorming, concepting, problem solving, sketching – but they wanted to end each session with a tangible, applied result instead of abstract knowledge. This, along with their irregular attendance,[46] made it difficult to successfully assign "homework" or to support work over multiple workshops.[47] The amount of time and effort necessary to run a workshop (8-16 hours of preparation, 20+ hours to document the results) was a possible reason no one ever volunteered to run one, and only three organizations specifically requested to hold a workshop in support of their ventures. 21

Design-related practice outside of one's work day appears to require interesting, fun, atypical elements and immediately tangible results. Practicing formal critiques or delivering presentations was "too much like work," as one attendee put it. I wondered if current practitioners felt their education and experience provided all the training they needed. Or, maybe they felt their workplaces should encourage any additional training, and if they're not currently doing it, it doesn't need to be done. 22

Discovering Community Needs

In February 2011, after being prompted by user experience evangelist Sara Summers, I designed a 27-question survey for Austin's design community.[48] It was sent to the IxDA Austin, Austin UPA, Austin UX, and Refresh Austin mailing lists, and it remained open for twelve days, garnering 103 responses. 23

A little over half of the respondents gave a design-related job title, and up to 86% of respondents worked primarily on the web. Despite the lack of uniform connection to the design industry, there were few statistically significant 24

46. Most people would not attend every single week: every other meeting was more common, or at best two or three contiguous meetings.

47. The lone attempt failed due to no overlap in attendees across workshops.

48. A copy of the survey as presented to users, as well as its analysis, is available on http://distance.cc.

Timeline of Austin's Local Community

1994

- Pentagram's office opens.

1996

- Frog Design's office opens.

2004

- Frog Design hosts its first SXSW party.

2005

- Razorfish opens its Austin office.

2008

- Adaptive Path opens its Austin office.
- Possible Worldwide opens its Austin office.

January 2008

- Kyra Edeker hosts an unexpectedly successful happy hour for UX designers at an Austin bar.

September 2008

- Julie Lowe launches Austin UPA's site.

November 2008

- Tori Breitling launches UX Book Club Austin.
- Austin UX launches and holds its first meeting.

January 2009

- Austin UPA holds its first meeting.
- UX Book Club Austin holds its first meeting.

February 2009

- Control of IxDA Austin is turned over to Tori Breitling.

March 2009

- IxDA Austin holds its first meeting.

April 2009

- Frog Design hosts an IxDA Austin event.

July 2009

- UX Book Club Austin holds its final meeting.
- Austin UPA migrates from Ning to Google Groups after Ning drops its free support.

January 2010

- Vitorio Miliano begins holding UX workshops patterned after the work of Toastmasters International.

August 2010

- Vitorio Miliano stops holding his regular workshops.
- Austin UX closes.

September 2010

- Austin UX relaunches.

October 2010

- Adaptive Path holds a happy hour.

September 2011

- Frog Design hosts another IxDA Austin event.

differences between designers and non-designers,[49] suggesting many types of employees, managers, producers, directors, developers, researchers, and freelancers suffer from the same problems.

I asked a mixture of questions I felt would help define the community's 25
makeup, engagement, and experience. To provide a measurement against national figures, some questions were copied verbatim from A List Apart's 2010 web design survey.[50] As ALA found when they launched their survey in 2007, it would seem no one had surveyed local design communities to discover their makeup or their needs. The closest the overarching design community has are "salary and benefits" surveys conducted by UPA,[51] STC,[52] and the IA Institute,[53] which don't look for the same sort of data. Our 103 local responses compare favorably with IAI's 282 for their 2010 national salary survey and their 105 national responses for a "local leaders" survey in 2009,[54] as well as STC Austin's range of "75-150" for their regional salary survey.

Some of the results were expected, such as a strong relationship between 26
where people lived and where they worked, and that weekday evenings were preferred meeting times. Furthering the idea of a distinct event-attending subgroup, 47% reported they don't attend events because they don't have time, and 36% don't keep track of events at all. Write-in comments mentioning family obligations, scheduling conflicts, and transportation issues all lend credence to convenience being a major factor around attendance, but the questionnaire wasn't specific enough to explore this problem more deeply.

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49. *Design-related titles* (some written in): Creative, Designer, HCD Lead, Hybrid, Information Architect, Interaction Designer, Interface Designer/UI Designer, UI Developer/UX Designer, Usability Expert/Consultant/Lead, UX Architect, UX Designer/Consultant/Lead, User Researcher, Web Designer, Writer, Editor, Art Director, Creative Director.

    Non-design-related titles: Business Analyst, Marketer, Media Coordinator, Product Manager, Web Administrator, Web Director, Web Producer, Web Service Director, Founder, Developer, Senior UI Developer, Software Engineer, and Project Manager.

50. The survey has now closed, but you can see an analysis of its results at ALA Staff, "Findings from the Web Design Survey 2010", *A List Apart*. http://dsn.tc/01c-24.

51. "Salary Surveys", *Usability Professionals Association*. http://dsn.tc/01c-33.

52. "Salary Survey Results Available", *STC Austin*. http://dsn.tc/01c-30.

53. "Salary Survey", *IA Institute*. http://dsn.tc/01c-28.

54. "Local Leaders Survey", *IA Institute*. http://dsn.tc/01c-31.

The results around the community engagement questions were surprising. 27
Of all who responded, 74% regularly collaborate with other designers, suggesting even lone designers (35% of respondents) can find help, but the survey questions weren't able to conclusively say how help was found.

In addition, more than half of respondents reported ten or more years in 28
the field, which seems to be a lot of expertise. Was that a contributing factor to such a large proportion of the community not attending events? It turns out there is a statistically significant difference.[55] Respondents who reported over ten years of experience were more likely to say they had no time to attend events,[56] and were less likely to say they don't keep track,[57] compared to people with fewer than ten years of experience. It is assumed that senior people are more likely to have families and more complicated work schedules, so despite the apparent likelihood that they know what is going on in the community, they do not have enough time to attend. What explains junior- and mid-level practitioners having the time (at least, not reporting that they don't have the time), but not keeping track of events? Is it an issue with the individuals, the organizations, or both?

Regardless of experience, senior respondents were no more or less likely to 29
be interested in the fundamentals of design than anyone else. Most respondents sought basics of IA and UX, brainstorming, sketching, and prototyping; more than half wanted to learn user research, ethnographies, customer development, A/B testing, metrics, and feedback systems. Mentoring, critiques, criticism, and processes led the pack of missing features in the workplace, along with contacting end users, customer research, and market research. Can a mature, well-supported local community really still require education about the basics?

55. Dr. Llewyn Paine, a cognitive psychologist and Austin UPA chapter treasurer, computed the statistical significance for the survey results.

56. $X^2(1, N = 82) = 12.25, p < .001$

57. $X^2(1, N = 82) = 16.86, p < .001$

A Failure of Perspective

Given the available information, it appears that industry and national organizations have neglected us for years. A few motivated individuals rise above this to spearhead local groups, but they're going it alone. Looking at participation, we don't see any evidence of a public, online, local community, and anecdotes suggest people are finding a sense of community elsewhere. 30

I started a new community, and found that participants want to conduct professional activities without them feeling like work. I conducted a survey, and found that people are collaborating somehow, but the most senior people don't have time to attend events, the most junior people don't know what events are happening, and everyone still wants to learn the basics. How do all of these pieces fit? 31

They don't. 32

I asked at the outset: does Austin exist between these two perspectives? I believe the answer to be no, because "Austin" as a cohesive design community does not exist at all. Rather, Austin contains a loose collection of dozens, perhaps even hundreds of micro-communities centered around workplaces, with social events being the driver to get people to interact outside of them. 33

What cohesive community could there be without ongoing support? Substantially motivated individuals have been necessary to keep the local organizations going, and they receive little to no support from local companies or parent organizations. Without sustainable talent development, or national or global chapters assisting local chapters with marketing and technology, every group has had ongoing problems with awareness, attendance, adoption, and infrastructure. 34

What kind of community could exist without awareness? At each of eight informal lunches I hosted through IxDA Austin, there were a handful of user experience designers, interaction designers, and user researchers who had never heard of the IxDA, the UPA, or Austin UX: in fact, they attended because someone personally invited them. The same experience persists at IxDA happy hours: they've been practicing interaction design for years, and have interaction designer friends, but have never heard of the IxDA existing either locally or globally. Austin UPA, IxDA Austin, UX Book Club Austin, and Austin 35

UX have all lain fallow in the past, because an organizer wasn't motivated enough.

What kind of community could exist without engagement? There appears to be little Austin-specific online chatter. Experienced designers know what's going on, but they don't have the time for it; and junior designers have the time, but they don't keep up. Everyone yearns for a more supportive work environment, but they want to keep it at work, Mondays through Thursdays. Any free time must be expended on something fun and new; and even then, most people prefer **passive enrichment**: learning from web sites, rather than attending training in person. Unfortunately, the survey wasn't detailed enough to discover how respondents were applying what they learned, if they were truly learning at all; after all, idle time spent on design blogs is very different from active practice.[58] And even if you build a great local community, some people simply won't give up their free time for any reason. 36

Do sociological theory or group theory explain these trends, and offer a way forward? If Austin truly is not a community of practice, can one be made? Should it? If designers aren't getting what they need from their workplaces, can local social organizations support them? 37

Four New Premises

Looking for theoretical solutions, I turned to academic and popular literature: primarily small group research in social psychology,[59] supplemented by related material in other fields like organizational culture, activity theory, and social software design. 38

Writer and researcher Clay Shirky provided an accurate and accessible adaptation of 50 years of sociological research by Bion and others,[60] and social interaction designer Xianhang Zhang offered several compelling anecdotes.[61] 39

58. Nathaniel Davis, "Call Yourself a Practitioner? Prove it", last modified 9 Jan 2012. http://dsn.tc/01c-29.

59. Also called "group dynamics" by many researchers.

60. Clay Shirky, "A Group Is Its Own Worst Enemy", last modified 1 Jul 2003. http://dsn.tc/01c-32. I cite similar sources elsewhere in this essay.

61. Xianhang Zhang, "Social Software Sundays #2 - The Evaporative Cooling Effect", last modified 10 Oct 2010. http://dsn.tc/01c-36.

Etienne Wagner's *Communities of Practice*[62] was not as helpful as I had hoped, and the harmonious foundations laid out in Peter Block's *Community: the Structure of Belonging*[63] are unproven. I don't cite research in activity theory or chaordic organizational theory, as I don't think either field is directly relevant at this time.

40 **Plausible hypothesis 1: Most cities don't harbor local, public design communities.** Rather, there are motivated actors seeking fulfillment in groups and companies which serve their own needs. Marvin E. Shaw says "people join groups in order to satisfy some individual need."[64] These needs can include affiliation (wanting to find someone to commiserate with), or to fulfill needs from outside the group (appearing to learn more to advance at work).

41 This could also be something of an American problem. In many European countries, the apprenticeship system still exists and is sometimes legally mandated, requiring companies to foster potential future employees and ensure a community is self-sustaining. Here, however, designers – and professionals in all sorts of fields – often go it alone.[65] More than half the respondents in our survey had at least one other designer in their workplace, and while it's possible to find community with as few as two other people,[66] small, insular groups don't grow the networks and leadership of larger ones. The demonstrated need for a motivated actor to launch and sustain an organization suggests that, should Tori Breitling falter or the current UPA board fail to sustain interest, Austin would lose its nascent public design scene.

42 *What to do about it?* First, given the fractured nature of the existing local and global community organizations, are better local communities even needed? Is there value in being a "designer in Austin" versus a "designer at X agency", which just happens to be in Austin, or an "IxDA member" of which

62. Etienne Wenger, *Communities of Practice,* Cambridge University Press, 1998.

63. Peter Block, *Community: the Structure of Belonging,* Berrett-Koehler, 2008.

64. Marvin E. Shaw, *Group Dynamics: The Psychology of Small Group Behavior,* McGraw-Hill, 1976, p. 106.

65. Leah Buley, "Being a UX Team of One", last modified 18 Mar 2009. http://dsn.tc/01c-34.

66. W. R. Bion, *Experiences in Groups,* Basic Books, 1961, p. 26.

the nearest chapter is in Austin? The value of an "Austin design community" should not be assumed.

Second, it should be established what needs the existing communities are filling. Can these needs be filled in more routine ways? In the cases of senior practitioners not having time, and junior practitioners not knowing what's going on, would fixed events improve awareness, if publicized well in advance? STC Austin, for example, establishes and publishes the entire year of its fortnightly lunches at the start of every year. Organizers would then be free to focus on more unique events, making it less traumatic to the community if an organizer steps down, because the social framework would still persist.[67] 43

Third, are there ways in which better software can address group paradoxes?[68] As groups formalize their structures to the extent that their members require structure,[69] is there an effective way to organically automate ad-hoc group forming without violating social customs? Shirky echoes Tuckman[70] and other academics in saying that social software developers, not unlike social psychologists, tend to repeat their mistakes by not understanding earlier research, which results in similar theories existing without enough empirical evidence.[71] 44

67. This is because small groups often split their leadership responsibilities across task-based leaders and socio-emotional leaders. See also A. Paul Hare, *Handbook of Small Group Research,* Free Press, 1976, p. 303.

68. For an example of group paradoxes, Shirky describes a party that you're disinterested in – but stay at – until everyone seems to simultaneously want to leave. This is one of many natural group behaviors that software never replicates; in this example, unless you're 4chan, there's always group persistence in group software.

69. Marvin E. Shaw, *Group Dynamics: The Psychology of Small Group Behavior,* McGraw-Hill, 1976, p. 285.

70. Bruce W. Tuckman, "Stages of Small-Group Development Revisited", *Group and Organizational Studies* 2(4):426, Dec 1977.

71. The design of better group support software is left as an exercise for the reader.

Plausible hypothesis 2: Most designers don't believe in design as a profession. Bion doesn't use the term "participation inequality",[72] but he notes complaints that 80% of patients were "shirkers", comparing this to equivalent problems facing organizations and groups worldwide.[73] Is it truly unexpected to suppose only 20% of your community cares and acts more than the rest? How else to explain the dominant desires for fundamental training, for passive learning, for nearly a third who only do design 9-to-5? 45

A profession can provide solidarity, specialized training, ethics, and standards. More established professions, like sports, law, and medicine, require ongoing education, training, and reinforcement, and they work to sustainably advance members regardless of where they're employed.[74] Even when a profession requires only certain types of lifelong education, its practioners often find value in additional methods, such as coaching.[75] Design has no such codifications, but the UPA and IxDA were founded in part to provide these elements.[76] Still, the lack of professional standing means designers are not acculturated to believe these things are necessary, nor do they believe they have a personal responsibility to support their field's advancement, resulting in the 46

72. The *Pareto principle,* also known as the 80-20 rule, is an illustration of a power law, where an outsized portion of events – in this case, active participation – are the result of a comparable minority of attributes (here, the number of total possible participants). Participation inequality in online communities is often expressed as the 90-9-1 rule: 90% never contribute, 9% occasionally contribute, and 1% account for an outsize majority of contributions. It's conceivable that real-world communities would follow a similar breakdown if it were possible to track them as accurately. See also Jakob Nielsen, "Participation Inequality: Encouraging More Users to Contribute". http://dsn.tc/01c-35.

73. W. R. Bion, *Experiences in Groups,* Basic Books, 1961, p. 18-19.

74. For example, athletes work with coaches and trainers throughout their careers; a medical residency is effectively an apprenticeship which hospitals are required to support; meanwhile, lawyers can pass their state bar exam, and be licensed regardless of their practicing status.

75. Atul Gawande, "Personal Best: Top Athletes and Singers Have Coaches. Should You?" *The New Yorker,* 3 Oct 2011. http://dsn.tc/01c-37.

76. Bruce Tognazzini, "It's Time We Got Respect", last updated 28 Oct 2003. http://dsn.tc/01c-38.

acceptance of inadequate working conditions and the unsustainable practices of not training up junior designers.[77]

47 *What to do about it?* Bion and Nielsen independently suggest that disparate engagement levels are a fundamental feature of groups. Furthermore, today's designers don't believe they need ongoing development, and so they don't seek it out. This hurts the local design community because its would-be members see no value in it. Today's designers do not demand work environments more conducive to traditional design practices, with training and critiques and codified processes, so they do not receive them. This hurts the local design community because it lowers the effectiveness and value of all designers throughout the city. If there is any value in a local design community, it may be in declaring principles for designers to follow, improving outreach for and education about those values to reduce participation inequality, and collectively pressuring local industries to meet those basic professional needs.

48 **Plausible hypothesis 3: There is not enough high-end value for senior practitioners.** Zhang talks about disinterested, high-value members leaving a community, thus setting it on a path to mediocrity. By proxy, could high-value members not join in the first place if the group is already perceived as being mediocre?

49 Online communities often attempt egalitarianism, and the IxDA was founded on principles of inclusion and openness. But humans are social, status-seeking animals, and successful, long-term, real-world organizations have "elitist promotion structures". Zhang uses the example of putting high-value contributors on a pedestal as a way of encouraging their continued favor, and participation in his own Product Design Guild[78] is by invitation only.

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77. "I think the number one reason there is a dirth [sic] of mid-level designers is because we (the big we meaning companies, hiring managers, managers) failed to make them. Did we expect them to grow on trees? No. We choose not to create them. We choose not to hire junior people and train them into mid-level designers. We choose to hire only senior designers for various reasons. So the solution is right there - if we want them - we have to commit to designing environments and organizational structures that will support the creation of mid-level designers." Will Evans, comment on Jeff Gothelf, "Why Are There So Few Mid-Level UX Designers?" *The Hired Guns,* 29 Sep 2011. http://dsn.tc/01c-39.

78. http://productdesignguild.com/.

Designers are not immune to special treatment, no matter their experience level.

What to do about it? We infer things in the survey data that may or may not be true. Namely, we assume those with ten years of experience are true senior practitioners. We assume their reasons for not attending are true. We conflate experience with contribution value. Moving forward, it is necessary for each community to determine what it seeks to gain from high-value contributors. 50

If high-value contribution – whether in the form of knowledge sharing, group leadership, mentoring, standard setting, or other functions – does not come with experience, perhaps the most interesting conversations can be (or are already being) held without the most experienced practitioners. The absence of a demographic does not necessarily mean the community has lost anything. If their presence is desired or needed, then methods for drawing them in can be applied, whether through tailored content or personal invitations. 51

Plausible hypothesis 4: Either there is a shadow design community of private groups, or the Austin community is too immature or fractured to support such a shadow community. Zhang references the "shadow community" of private events and groups in San Francisco as being where "all the real work in the Valley is done", and comments if you are any good and can network, you'll find yourself with an invitation into a small part of it. 52

Caleb Clark's mailing list[79] illustrates the beneficial nature of private communities. As his list grew too large, he shut it down, but he gave key members a new list address, and they invited their trusted friends, returning cohesion and community. That I find issues and unmet needs in the public design scene may mean it is the mediocre result of all the high-value contributors being elsewhere. It could also mean for a shadow community to exist, there must be a certain amount of public cohesion which San Francisco exhibits, but Austin does not. 53

79. Derek M. Powazek, *Design for Community,* New Riders, 2002, p. 178.

What to do about it? I am told New York City's design scene started out privately – drinking wine in someone's condo – and later grew into something public, so apparently it can work multiple ways. If the situation is the former, I am not sure anything should be done about it: barriers to entry are necessary for groups to protect themselves. If the situation is the latter, can the tail wag the dog? Would forming an exclusive, private design meeting in Austin push the public, accessible groups to be more competitive? 54

Local Communities By Design

The issues faced by the Austin design community might be shared in other cities, as well as by other types of communities. I imagine New York and San Francisco to have such a density of designers as to be culturally different from any other cities in the country – perhaps the world. If you don't live in New York or San Francisco, then these issues – awareness, attendance, adoption, infrastructure – are likely yours, too. You don't know how many designers exist, what they do in their jobs, how supportive their workplaces are, what their needs are, what their interests are, and if they talk with other designers. You may only ever see the motivated 20%, 10%, or 1%. 55

We are an industry that claims to promote measured, analytical design, but we're ignorant of the history of social group design[80] and we're ignorant of the makeup of our own local communities. How can we design a community of practice if we don't study ourselves as users? 56

Last year's survey was a good start, but better data could be collected, and as groups make changes to address these issues, ongoing testing and validation is necessary. We've developed a revised survey for 2012, which tries to discover how engaged and experienced your group members are. We've also designed feedback forms for continuous analysis of your progress with each event you hold. In conjunction with this essay, we're making everything available for you to use with your local community group.[81] 57

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80. Formed months after Shirky's talk, IxDA violates all of his recommendations for good social group design. It supports none of "handles the user can invest in", "some way in which good works get recognized", "barriers to participation", nor "a way to spare the group from scale" from "A Group Is Its Own Worst Enemy".

81. Dr. Llewyn Paine consulted on the 2012 survey and event response card.

The survey is available online through Qualtrics, a survey tool used especially for qualitative research, and their free trial accounts support up to 250 responses, which should be enough if your response rate is at all comparable to ours from 2011. We provide full documentation on how to release the survey in a section about this essay on the *Distance* website, http://distance.cc. After we analyze the 2012 Austin results, we'll update it with instructions on how you can do the same. 58

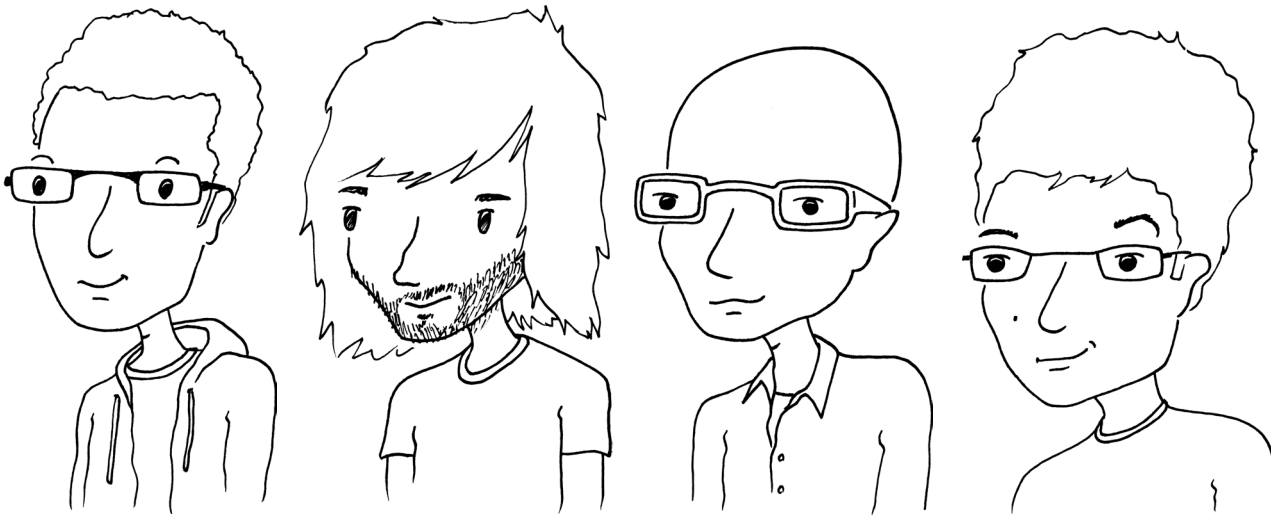
The event response cards are for handing out and collecting at every meeting you hold. They've been designed to match the survey, and along with taking a headcount, they try to tell you how well your event was received, how well it met people's expectations, if the attendees were new or existing members, and their level of engagement. A Google Docs Spreadsheet is provided with a form to make entering responses as easy as possible, with formulas included to display an analysis of the results, automatically. Full instructions are available on http://distance.cc. 59

For the first time, local leaders have data to compare group growth, sentiment and ongoing practices against. If you're a local leader, give the survey to your community and use the feedback forms in your meetings. If you're not, share this information with your group's organizers and help them adopt the survey and feedback forms. Fight to spread the word and collect responses. Demand answers from attendees at every event: whether a happy hour or a private lecture. Look at the data and compare it to both the national figures and those from other cities of similar size. We've provided all of our data and recommendations for Austin on http://distance.cc, and we'll be providing additional analysis after publication, including how we've changed. Learn what your community is doing and what it wants. Tell others what you want to see from it. Use this information to help build the community you wish you had. 60

If you believe in design as a profession, as a community of practice existing in your city, this is the next step. The national organizations can't help you[82] and your industry doesn't support you. Building a thriving local community is up to you.

82. While IxDA compares to AIGA in size with over 20,000 "members," their 2010 report was a tweet: http://dsn.tc/01c-40. In contrast, every AIGA chapter produces an annual report on its membership. STC is the next largest, with a third of the members, and appears to be second to AIGA in formality, surveying for possible improvements at the international level. UPA provides a handbook for chapter leaders, but they have a tenth of the membership. The IA Institute has only a twentieth of the membership. No organizations appear to provide ongoing support for managing local chapters nor discovering local community needs. I discuss the concept of a better company of designers as an outline for a new sort of professional organization in another essay: http://vi.to/better/.

About the authors



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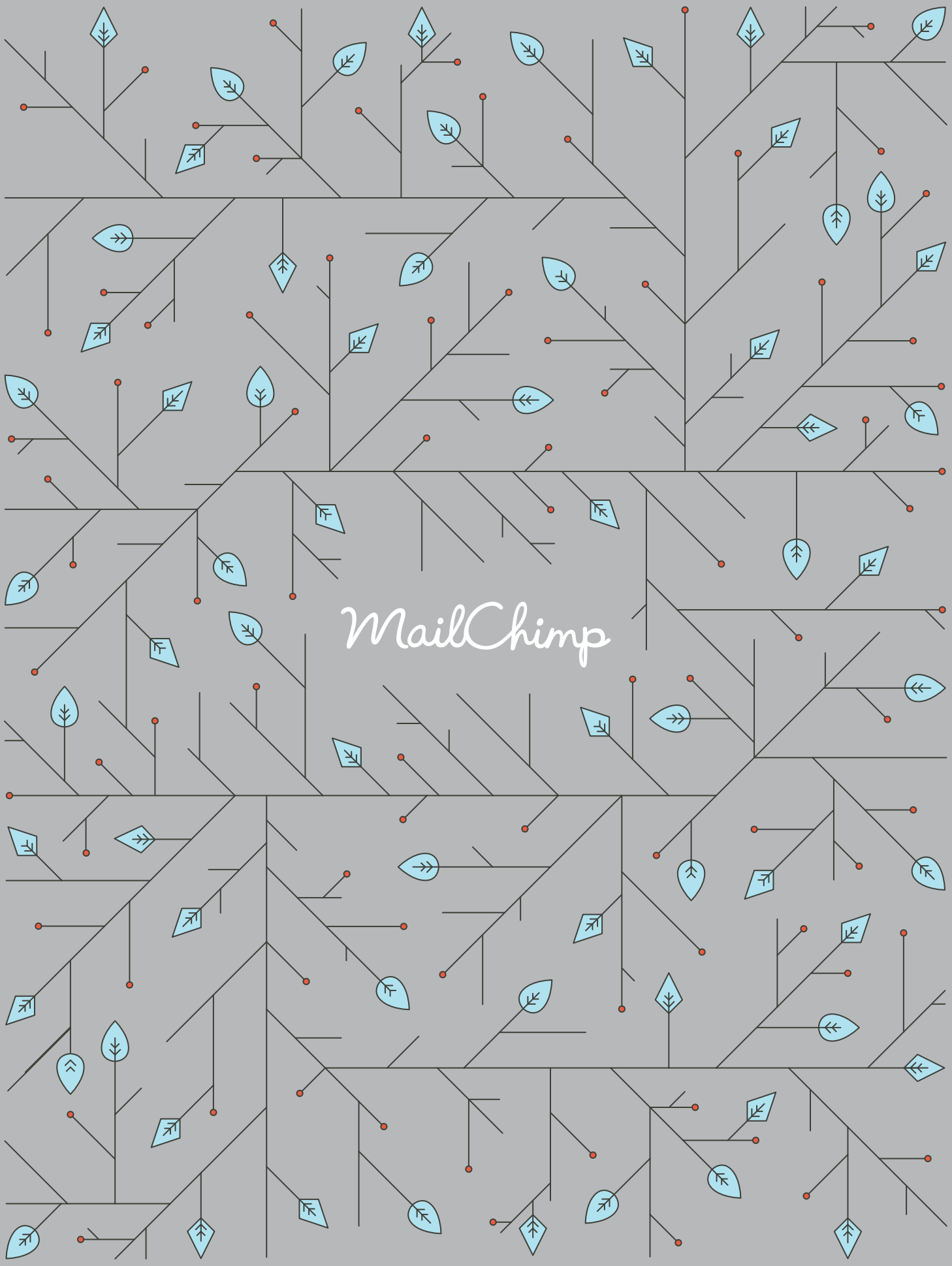
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