Caterina Fake started Ludicorp in the summer of 2002 with Stewart Butterfield and Jason Glasson. The company’s first product, Game Neverending, was a massively multiplayer online game with real-time interaction through instant messaging (IM). In 2004, they added a new feature—a chat environment with photo sharing—which quickly surpassed Game Neverending itself in popularity.

The team knew they were onto something big and put Game Neverending on hold to develop a new photo-sharing community site called Flickr. Flickr became extremely popular and was acquired by Yahoo in March 2005.

With its emphasis on user-generated content and its devoted online community, Flickr is one of the most commonly cited examples of Web 2.0 companies.

Livingston: How did you get started? How did you know your cofounders?
Fake: Stewart and I are married. When we met, I was living in San Francisco and he lived in Canada. One of his wooing strategies was to suggest that we start a company together. Both of us were doing web development at the time and his idea was that we do some type of transnational web development company—which is kind of a harebrained scheme. We didn’t end up doing that, but we did fall in love and have a long-distance relationship. I eventually moved up to Vancouver and we got married. We went on our honeymoon and came back and two days later started Ludicorp.

The name is from ludus, the Latin word for “play.” We were building a massively multiplayer online game called Game Neverending. It was a lightweight web-based game, and atypical for massively multiplayer games. Most of those have Sword and Sorcery or science fiction themes, and are usually CD-ROM based. Game Neverending was very much based around social interactions; you could form groups, instant message each other, and there was a social network associated with it.
When we came up with the idea for the game, Stewart had been working at the CBC, on the kids’ site, and in doing research he started playing all these online games. Neopets was one of the inspirations for Game Neverending. It’s really fun. I was totally addicted. They have these pets, which are Tamagotchi-like, and you can buy them presents and give them toys. But what’s interesting is that it has a market and you can trade things with other people in the game. The little area that I cornered the market on was trading JubJub hats. My sister became completely absorbed in it, and we thought, “Wow, there’s something interesting here.”

Both of us have backgrounds in web design and development, and I have a focus on social software. Before Ludicorp, I worked on or participated in a bunch of online communities including the WELL, Electric Minds, the Netscape online communities, and various sites I’d started on my own. At Interval Research, I worked on a collaborative animation game, which was a cousin to the Game Neverending idea.

**Livingston:** It was just the two of you?

**Fake:** At the beginning it was me, Stewart, and Jason Classon. Jason and Stewart had started a company together in 1999 that was acquired by a venture-backed startup out of Boston after about 6 to 9 months. Jason went and worked in Boston for a year and came back and then the three of us started working on the game together. I did the game design, Stewart did the interaction design, and Jason did the PHP for the prototype.

**Livingston:** Did they fund the game with money that they made from the acquisition?

**Fake:** Partially, yes. It was really a friends-and-family investment.

It was the three of us and we added Eric Costello very soon thereafter. Eric is a phenomenal web developer. He’s recognized as one of the great DHTML gurus. He lives in New York, so we were working with him remotely. If you have somebody who’s really fantastic and they live in New York, that’s OK. He likely wasn’t going to move (he has a family and is very settled there), but Eric was a phenomenal addition to the team.

He’s a front-end developer. Soon thereafter, we were hiring for a back-end developer. It was actually very difficult to find that person in Vancouver. We felt that person needed to be local. We didn’t want to be too dispersed.

There are a lot of companies that are virtual companies—a bunch of people that are living in different places, but I think that’s tough. You can do it with one or two people, but I think for the most part, everybody being in the same place is important.

Stewart, Eric, and I had worked together on a project before, so we knew how to work with him remotely. The project was the 5K contest, which was a web development competition. It emerged out of a conversation that Stewart had with somebody at his web development agency who had said, “Oh, you can’t make anything worthwhile under 5K.”

**Livingston:** Where did you start working?
Fake: We had a friend who was subletting a space, and he had a contract job that kept him out of the office all the time, so we sublet his subletted space. This was in 2002 and it was still in the great technology bust period. There were failed dot-coms all over the place, so office space was cheap. And some really awesome developers (like Eric) were available, who wouldn’t otherwise have been out on the open market two years earlier. So it was actually really well timed.

I think that the timing was really important because you could operate in a much more independent mode. The money was scarce, but I’m a big believer that constraints inspire creativity. The less money you have, the fewer people and resources you have, the more creative you have to become. I think that had a lot to do with why we were able to iterate and innovate so fast.

Flickr was kind of a lark. It was a side project that we built while we were in the process of building Game Neverending. The back-end development of the game fell really far behind the front-end development, and so while we were waiting for the back end to catch up—being restless hacker types—we built this sort of instant messenger application in which you could form little communities and share objects. And we just added the ability to share photographs.

So Flickr started off as a feature. It wasn’t really a product. It was a kind of IM in which you could drag and drop photos onto people’s desktops and show them what you were looking at. We built it really fast; we had a lot of the technology already from the game, but we built the first instance of Flickr in eight weeks. We had the idea in December and built it out by February and then presented it at the O’Reilly Emerging Tech Conference.

Livingston: What type of response did you get when you unveiled it?
Fake: It was hard to say. The response was positive, but it didn’t end up being a compelling product mainly because it was a feature. It had a critical mass problem. Unless all of your friends were already on it, the sharing feature wasn’t valuable to you.

It still grew, slowly. But it really started getting traction when we added the ability to put your photographs on a web page.

Livingston: Why did you decide to make it available on a web page?
Fake: When we started it, we were under this deluded idea that we wanted to create something new, but not a photo-sharing site. This is weird, but one of the things that enabled us to innovate within this space was that we hadn’t done our research. We hadn’t sat down and said, “We’re going to build a photo-sharing site. We’re going to do the research, figure out what the business model is, and raise some venture capital.” We were naïve and optimistic.

What we did was just start building stuff. And I think if we had sat down and done the research, we would have looked at --the companies that had actually made businesses in this area, like Ofoto, Shutterfly, and Snapfish. Basically their model was that photo sharing was a loss leader for photo finishing services. It was all about the funnel to get you into buying prints. Photo sharing
wasn’t seen as a valuable enough activity that people would pay for that itself. So I think that our naïveté was what made the whole thing possible.

Other things were happening too. Stewart and I were longtime bloggers. I’d started blogging back in 1999, and had had a personal site on the Web since 1994. At the time when we were developing Flickr, social networking services had been bursting onto the scene. The Friendsters, MySpaces, and the Tribes were all happening around that time. So it was a convergence of all of this personal publishing stuff, as well as social networking and the rise of camera phones.

One of the things that I think was new about Flickr was the idea of publicness that hadn’t been there when Ofoto and Shutterfly were being built, which emerged from blog culture. There’s no such thing as a public photo on those sites, whereas on Flickr and a blog, the default is for it to be public.

Social networking got people used to this idea that they could make an online digital identity. They could put up photographs online and talk about who their friends were and what their interests were. And social networking as social networking pretty briskly showed itself to be a fairly pointless activity. People would go in and collect up all their friends and then there was nothing to do; there wasn’t any sort of core interest. But when you tied it to a very specific, very connective activity like photo sharing, it really flourished.

Livingston: So Flickr was taking off. How did you, as a company, respond?
Fake: We tried to do both Flickr and Game Neverending in parallel. It was really tough because we were only six people, and that just wasn’t enough resources to do both. Eventually, I think in July of 2004, we had to put the game on hold and stop development on it because Flickr was really taking off.

We were sad to do that because we all really loved the game. It had a lot of avid fans and we already had 20,000 people signed up to test the prototype. It was hard to let it go; it was the thing that we had started the company to do. But you couldn’t argue with the momentum and growth that we were seeing with Flickr.

Livingston: What were some of the next turning points? Did anything go wrong down this new path?
Fake: We were extraordinarily fortunate in that the road was pretty smooth. The tide completely turned for us with Flickr. We’d been trying to get the game off the ground. Raising money for the game from outside investors had been really grueling. Raising money is very hard, especially in that market. We were building something that was not really known to people. If it wasn’t a shrink-wrapped game sold at Best Buy, they didn’t know what it was.

Livingston: Were you talking with VCs or angel investors?
Fake: At that time we were talking to venture capitalists and they didn’t get it. But with Flickr, it completely turned around because the momentum behind it was so strong that at one point, we were getting calls from three to four VCs a week. They were getting in touch with us—completely different from when we were going door to door and beating the bushes trying to raise money.
Livingston: Did you wind up taking any investments?

Fake: We did a small angel round, but we didn’t take any venture capital. And we lucked out and got an interest-free loan from the Canadian government. We’d applied for it, and gotten rejected, and then just sent the same application in again when it was open again, and much to our surprise, we got it. And here’s the other thing that was interesting about Flickr: almost immediately after we launched—even when we were just the IM client—we were being approached by potential acquirers. So it was clear that we were onto something. People really weren’t sure what yet, but there was definitely a lot of excitement and interest.

Livingston: Why did you decide not to take venture capital?

Fake: A couple reasons. We didn’t think that we were ready, and we were kind of in a holding pattern. We weren’t sure we wanted to take venture capital at all. We were being approached by all the acquirers and VCs and still many angels who were willing to invest. We had enough money to carry us through six months into the future and we already had some great angel investors, including Esther Dyson and Reid Hoffman. So we didn’t feel we had to go for it. That was the ironic thing, because when you need money, nobody will return your calls. When you don’t need money and you say, “Sorry, guys, don’t need any money,” they can’t stop calling you. They just can’t help themselves.

At that point, we were almost at break-even in terms of our operating expenses. If we were to take venture capital, it would have been making a big bet, expanding rapidly, rather than growing organically. And we were already growing at such a fast rate, we were barely keeping up on the back end. You know, all those scaling issues that come with rapid growth.

Livingston: What else happened?

Fake: Tagging really revolutionized the way that the product behaved. Tagging is an incredibly simple concept: you just add a keyword to the photograph, and once it’s networked with all of these other people, you can see not only all the things that you’ve tagged (so it acts like this organizational system for yourself) but you can also see what everyone else in the system has tagged themselves in the public stuff.

So if you go to Tokyo and you take photographs, you can then visit the global Tokyo tag and see what everyone else has taken. You can find photographs of anything—mountain goats, McDonald’s, anything that you can think of you can find in Flickr.

The other thing that tagging enables is the ability to see newsworthy events. Suddenly there’ll be photos that are uploaded all at once from Live 8 concerts or the bombings in London. You have the ability to immediately surface all of these events from people distributed all over the globe.

When the Australian embassy in Jakarta was bombed, within 24 hours three people had uploaded photographs from the site of the bombing. And this was when Flickr only had 60,000 users. Three of them were in Jakarta with cameras,
near the embassy, took photos, uploaded them and tagged them Jakarta. So it was emergent behavior.

The other thing that was happening was that people were creating groups for collaborative creativity and this was a completely different behavior for people. Photographs were being used in a completely different way. The best-known group of this kind is the Squared Circle group, in which people take a photograph of something circular, and then crop it to a square. It’s incredibly beautiful to watch in a slide show, as suns and manhole covers and dandelion globes melt into each other. People have made all kinds of creative groups, and giving people a forum and an audience for their creativity is a big part of Flickr.

Back when photographs were really expensive, they were like these iconic photographs. For example, my grandparents—there’s a picture of them that was taken in a studio. It’s very posed and it is this special photographic event. As cameras became more and more distributed, you would take photographs at weddings, birthdays, or events. But then digital photography really changed that because photos are totally inexpensive. You can take hundreds of photos and only save five. So people started taking more photographs, but sharing them became an increasing problem. Then, the next step in the evolution in the photograph was when it was attached to a delivery mechanism. A camera is now in a phone and you can send the photo immediately.

There are cameras everywhere now. Nokia is apparently the biggest distributor of cameras in the world. And people are taking photographs of things that you would not normally take photographs of—maybe a funny thing that they see on their way to work. One completely new behavior that we saw was that people were taking photographs specifically to participate in a group on Flickr.

Content gets more and more defined. For example, if there’s a car accident on this corner right now, that would be really interesting to you and me and the people that live within a five-block radius: there’s an accident at 18th and Sanchez. Not interesting to people who live in Istanbul, or even people who are ten blocks away. People can find things that are relevant to them more easily, and I think that tagging has a lot to do with why that’s possible.

Here’s an example: there’s a guy who was on vacation in Maine and got an alarming phone call from one of his neighbors saying that his apartment building (in Atlanta, Georgia) was on fire. So he immediately went on line to Flickr and typed the name of his apartment complex, “Atlantic Landing Georgia,” and found all of these pictures of his apartment complex on fire. He was able to see that the fire was on the opposite side of the building and that his apartment wasn’t affected, so he didn’t have to panic and call his insurance company; he could continue on his vacation.

Livingston: What surprised you most?

Fake: The whole thing has been a surprise. We started out expecting to do the game and we ended up doing a photo-sharing site. We never expected that, could not have planned that.
The success that Flickr has seen has been a huge surprise. Obviously when you start a business you hope and pray that it will be successful, but I think it's also something of a surprise when it actually happens.

Also, we could not have timed it better. All of these things were in the air: blogging, social networking, camera phones, the ubiquity of network, suddenly more people were on broadband. All these things converged at the same time and we were really well-positioned to ride that wave.

Livingston: Were you nervous about any competitors?
Fake: There were people that did pieces of what we did, like Ofoto, but the competition wasn't apparent.

Livingston: You weren't worried that Ofoto would try to copy you?
Fake: Well, we knew they wouldn't because they wanted to acquire us.

Livingston: Is there anything that you would have done differently?
Fake: We may be the most boring startup that you interview for your book because our path was fairly smooth. There were times when we were really broke before we had our angel investment, when only one guy who had children was getting paid. One of the big risks of startups is that they're inherently unstable. They don't have an established business; they're often trying to invent something new. They are relying entirely on investment and not on revenue.

Livingston: What was it like starting a startup with your husband?
Fake: In the beginning it was kind of tough because a lot of our skills overlapped. Both of our backgrounds are in design. So in the beginning there was a lot of jockeying for position—who did what and who made which decisions. But once we were able to figure that out, it worked out really well.

We have very complementary personalities: Stewart's very improvisational and he likes to do things in a fairly loose manner, whereas I tend to be very directed and driven toward a goal. So in combination, he sort of loosens me up and I get him on a path and those two things work really well together.

Livingston: What kinds of challenges have you faced as a female technology startup founder?
Fake: There is a lot of institutionalized sexism working against women in business and I think that people aren't even aware that it's there. One example happened when we went down to Silicon Valley to meet with a venture capital firm. After the meeting, the VC spoke to someone associated with our company and said to him, “Tell Stewart not to bring his wife to VC meetings.” Which was shocking to me, and Stewart was furious about this as well. He let everybody know, “Caterina is not 'my wife.' She is instrumental to the success of this company. Her contributions have been equal to mine.”

It takes a lot of nerve for women to face up to this assumption—and the assumption is everywhere, even in some of the most surprising places—that they don't measure up, that they're not good or tough enough. Twice as much will be expected of them. I hear this from women again and again in business: they have to be twice as prepared as men.
This happens to me all the time: I go to meetings and I’ve stayed up late preparing my presentation and I’ve got all my papers in order and know exactly what I’ll be talking about and I come to the meeting and a bunch of guys show up and say, “Hey, so what’s this meeting about?” They haven’t done any of the preparation or work.

Livingston: Do women bring any advantages to a startup?

Fake: I was talking to another entrepreneur, Judy MacDonald Johnston, and she said that women are much more passionate about their businesses. They’re doing it less for the money and more because they love it. There’s something about that that really rings true to me. Women are able to put their hearts and souls into it in a way that many men cannot—or rather, are not known for doing.

I’ve been very conscious of this too, and it’s important to give something back, so I’ve been a big participant in a lot of women-in-technology organizations, like the Forum for Women Entrepreneurs. I think it’s really important for us to continue supporting each other and make sure that women have an equal shot. I do a group blog, www.misbehaving.net, with a bunch of other women in technology, and we’ve been working on getting women more speaking engagements at industry conferences. Being invited to conferences and elevating your profile in the industry is an important part of growing businesses, making contacts, and building partnerships, and we want to make sure that women get a fair shake.