Last week, I enlisted Slate readers to help divine how Facebook's "25 Random Things About Me" trend got started. More than 3,000 of you responded, answering queries on when you first saw a "25 Things" note, when you were first tagged, and when (if ever) you wrote your own note. On one level, the survey was a failure: I had hoped to find the trend's Patient Zero, but there's likely no single person who conceived of this scheme. But the absence of a singular "25 Things" creator reveals something much more interesting: Facebook organisms are not created by intelligent design. They evolve.

The idea that culture spreads in biological ways has been around for a while. Richard Dawkins coined the term meme in 1976's The Selfish Gene to describe how ideas propagate according to evolutionary principles of mutation and selection. A quantitative study of the "25 Things" letter seems to ratify that.

As many readers noted in our survey, "25 Things" wasn't always "25 Things." Late last fall, a chain letter titled "16 Random Things About Me" began to chew its way through Facebook. The author of one of these notes would itemize her personality into "16 random things, facts, habits, or goals," then tag 16 friends who would be prompted to write their own lists. And so on and so on. Similar navel-gazing letters had popped up over the years through e-mail and on blogs, MySpace, Friendster, and the venerable blogging site LiveJournal. The Facebook strain had a good run, but by the end of 2008 it appeared to have stagnated.

Then something curious happened: It mutated. Since everyone who participates is supposed to paste the original instructions into her own note, it's easy to tinker with the rules. Soon enough, 16 things (and 16 tagged friends) morphed into 15—and 17 and 22 and 35 and even 100. As the structure crumbled, more users toyed with the boundaries. Like any disease, "Random Things" was mutating in hopes of finding a strain that uniquely suited its host. In this case, the right number was vital to its survival: The more people who are tagged, the more likely the note is to spread. The longer the list, though, the more daunting it is to compose and the fewer participants will be roped in.

By mid-to-late January, "25 Random Things About Me" had warded off its competitors. Once the
letter settled on 25 things (a perfect square, just like 16) the phenomenon exploded. The data we collected reveal a clear tipping point around this time.

As the graph below indicates (Fig. 1), the number of people swept up in the trend climbed steeply for a week starting around Jan. 20, peaking in the last days of the month before declining sharply. Not coincidentally, the Web analytics firm Compete reports that January 2009 was one of Facebook's biggest months for traffic growth.

A graph of when people wrote their own 25 Things note (Fig. 2) forms a very similar curve.

Since I'm no evolutionary expert, I shipped Slate's data to Lauren Ancel Meyers, a biology professor at the University of Texas who models the spread of infectious diseases mathematically. Meyers says that around Day 39 of Fig. 1, we see the "classic exponential growth of an epidemic curve." (Day 39 in this graph is Jan. 8.) She also explains that "25 Things" authors can be seen as "contagious" under what's known as a "susceptible-infected-recovered" model for the spread of disease. Think of "25 Things" authors as being contagious for one day—the day they tag a bunch of their friends. Meyers found that, for that one day, the growth parameter of the "25 Things" disease during its ascent phase (roughly until the beginning of February) was 0.27. This means that, on average, each "25 Things" writer inspired 1.27 new notes.

Another one of our survey questions considered the average number of days between when a person is tagged and when she writes a note. Those results are graphed here.

The highest percentage of respondents—17 percent of those who wrote a note—composed their missive the same day they were first tagged. The numbers decay from there, and the median value is three days. Meyers found that this too was best described exponentially, though the figures decline instead of increase over time. You can think of it like radioactive decay. In the same way that, say, Thorium-231 atoms have about a 50 percent chance of decaying each day, regardless of how many days they've been around, people tagged in a "25 Things" note do not become more or less likely to participate as time passes. Meyers does note, however, that these calculations do not factor in individuals who choose not to participate or have yet to do so.

Why does it appear that the "25 Things" fad has died out? One could argue that a selection bias in Slate's data are exaggerating the decline, as those who haven't yet encountered the meme are likely underrepresented. I don't think this is the case, though. As we see in Fig. 3, most people write their notes within a week of being tagged for the first time. The decline we see in Figures 1 and 2, then, is likely legitimate: Because the fad peaked more than 10 days ago, it's unlikely that there is a large number of people who've been tagged who are still waiting to write their own note. My guess is that, like a Ponzi scheme, "25 Things" fizzled as soon as Facebook ran out of willing participants. Anecdotally, there don't seem to be a lot of people left who are sitting around, waiting to be tagged.

All in all, Facebook infections look remarkably similar to human ones. And like organisms, the odds do seem stacked against all but the fittest of memes. The "Notes" application—including the ability to tags friends—has been a feature of Facebook since August 2006, a Facebook spokeswoman told me on Tuesday. (The PR rep also confirmed that Facebook itself had no part in sparking the trend.) The fact that it took two-and-a-half years for a Notes-based meme to hit it big suggests long odds.
Still, viral marketers might take note of the patterns that "25 Random Things About Me" obeyed. The best hope for someone looking to start a grass-roots craze is to introduce a wide variety of schemes into the wild and pray like hell that one of them evolves into a virulent meme. If evolution is any guide, however, there's no predicting what succeeds and what doesn't. Just look at the platypus.

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