Exponential Growth of the AncestryDNA Database

I posted a few times in the summer of 2015 when 23andMe and AncestryDNA both reached the threshold of genotyping their first million customers. I’m consistently amazed at how popular these commercial DNA tests have become. In this year, 23andMe has grown to **2 million customers** in the 10 years since launching the first version of their DNA testing service. AncestryDNA now has **5 million customers** in their database, adding over 2 million so far this year. The graph below plots the growth of 23andMe and AncestryDNA customers. The graph includes press releases of customer numbers, and also includes customer numbers and test dates from the #Powerof1Million social media campaign that shows a more detailed picture of early growth of the database than represented by the press releases. It would be nice to have a similarly fine-grained view of the growth from 1 to 2 million, because the 23andMe product has undergone a lot of changes during this period (e.g. website redesign, carrier status reports, FDA approved health reports). While the addition of the 2nd million 23andMe customers over about a year and a half is remarkable, growth of the AncestryDNA customer database is truly astounding.

To get a better view of growth in the AncestryDNA database, I've dropped the start date in May 2012 and the first reported size of the database (120,000 customers) the following year and plotted customer numbers on a logarithmic scale over about a 3-year period. This does a good job linearizing the exponential growth experienced by the AncestryDNA database since the spring of 2014, which is about the time when I gave tests to my parents. Growth of customer numbers in the first year after introducing the product was a bit lower than it has been over the past 3 years, so the April 2013 number is a bit of an outlier. Remarkably, there does not appear to be any slowdown in the recent growth rate. The time it takes for the database to double in size has been about 10.5 months over this period, so if this trend continues, anticipate that the database will reach a size of 10 million customers in the summer of 2018!
23andMe and AncestryDNA are by far the two largest and well known direct-to-consumer (DTC) genetic testing services, and the sustained growth of the customer bases at both continues against ever increasing competition. MyHeritage recently launched a DNA service to accompany their genealogical platform. Many companies are entering into the health and trait prediction market and working hard to compete. At the Baltimore Ravens football game this weekend, for example, Orig3n is giving away DNA test kits. American, and increasingly international, consumers are clearly interested in the interpretations of DTC genetic testing services. An article by Andelka Phillips that reviewed over 200 DTC genetic services astutely pointed out, "there is also a continuing need for educational initiatives that will allow consumers to understand what test results will mean for them in order to make informed decisions about whether to use such services."