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Clouds aristophanes pdf

Last night walking home after dinner in Brooklyn, I looked up at the sky and gasped. It wasn't one of those crazy day-glo sunsets; but the clouds above are plump and ombre in purple and gray, floating in ripples of cotton-candy pink. It was subtle but very amazing - I couldn't believe that no one else was staring at the sky, agape mouth. I've been thinking about plant blindness lately – a term coined by a pair of botanists, who define it as the inability to see or notice plants in one's own environment. And I wonder if there is a similar term for clouds. The consequences of plant blindness are more troubling, to be sure, but it seems that many people don't take the time to appreciate the natural world in general – and that can't be a good thing. Now of course, I live in New York City where we have a lot more important things to do than observe nature - we seem immune to the flora and fauna here, let alone the clouds. I imagine that people elsewhere need more time to admire the sky. Fortunately, NYC has plenty of urban trees and green space for us city rats to get a natural fix – but that doesn't help much when stuck inside staring out the window or walking through high-rise concrete and steel valleys. That's when it's time for some cloudspotting. It's a show that's constantly changing there. Of course, some days will be cloudless – but in the days when clouds adorn us with their presence, what a spectacle! They come in shifts in shape and size, creating layers that cross the sky at different speeds. They come in endless textures and patterns, sometimes solo, sometimes covering the sky like lace. They form creatures and tell stories, while holding shades of color that make the painter's palette ashamed. And all this happens right above our heads; Why don't we look up all the time? I mean, it might be nice that we don't, but you know what I mean. Treehugger/Melissa Breyer There has been a lot of research on the benefits to the mind and body of spending time in nature; even just observing the nature around yourself has proven to be salubrious. While most research centers connect natural-health around greenery, I think it's unlikely that observing clouds won't have a healthy effect. If nothing else, this is the time for contemplation, attention, and meditation. In this fast-paced world filled with news, noise, and all sorts of other chaos, getting lost in the clouds, even if for just a few minutes, is an easy welcome and reprieve. I'm definitely not the first person to sing the praises of the clouds. They've played cultural and religious traditions around the clock. And there's even a Cloud Appreciation Society! I would say their manifesto sums things up nicely: WE BELIEVE that clouds are unfairly vilified and that life would be much poorer without them. We think that they are the poetry of Nature, and the most egalitarian of its appearance, because everyone has a fantastic view of them. We promise to fight the 'blue sky thought' wherever we find it. Life would be boring if we had to look at monotony without clouds day after day. We try to remind people that clouds are expressions of mood, and can be read as a person's face. We believe that clouds are for dreamers and their contemplation is beneficial to the soul. Indeed, anyone considering the form they see in it will save money on psychoanalysis bills. So we say to everyone who will listen: Look, admire the beauty while, and always remember to live life with your head in the clouds! There are 10 main types of clouds found in nature. This cloud is a combination of three different families: cirrus, cumulus and stratus clouds. According to the Patricia and Phillip Frost Museum of Science, various cloud families include cirrus curl clouds, cumulus stack clouds, and stratus layer clouds. This combination of different cloud families forms 10 types of clouds, which include cirrus, cirrocumulus, cirrostratus, altostratus, altocumulus, nimbostratus, stratus, stratocumulus, cumulus and cumulonimbus clouds. Cirrus clouds are wispy and high in the atmosphere. Stratus clouds are low and gray clouds. Cumulus clouds look like cauliflower and appear before the storm strikes. Cumulonimbus clouds tend to bring thunderstorms. Last month, ExtremeTech revealed to you the true scale of internet pornography. At one time, adult video streaming probably used about 30% of the total internet bandwidth, which equates to about 6 terabytes of porn consumed every second. But what about the other 70%? Netflix, YouTube and other non-adult video sites are big bandwidth hog, probably accounting for as much as 40% of internet traffic. Digital file lockers, such as Rapidshare and Megaupload, account for about 10% of worldwide traffic. Web surfing and email (and spam!) is 15%. And then there's cloud computing. Today, most web services and sites are hosted in the cloud. By this I mean that, instead of companies (like Ziff Davis/ExtremeTech) managing their own hardware, third-party cloud storage and computing services are used. Amazon Web Services (AWS), Microsoft Azure, and Google are three prominent examples of large cloud clusters, but there are hundreds of small operations that range in size from an entire data center to multiple racks. Cloud power is given in the fact that it can be emptied and plugged into different tasks as a cloud-based supercomputer, into webmail, to simple document storage. On a single cloud cluster, Google can host and render petabytes of YouTube videos and store all your emails and documents. From all aspects of the cloud, though, today we will focus on cloud storage. Data centers temporary storage may not be as sexy as terabytes of RAM and thousands of CPU cores, it is the most reliable way of measuring cloud size, especially when we take into account bandwidth usage. From the total amount of storage, we can also find out the cost of cloud storage — and from there, we can finally find out why the people like Google, Microsoft, and Dropbox fall on top of themselves to provide cloud storage services. Like porn stories, we will first start with some theoretical numbers, and then move on to some real-world (and hardware) figures from Backblaze, a cloud backup provider. PetabytesFor the most part, the real numbers of large companies, such as Google, Facebook, Amazon, and Microsoft, are few and far between. However, if you surf the web, some rude ballpark figure appears:Facebook, in its IPO filing, says it stores more than 100 petabytes (PB) of media (photos and videos). It is unrealistic to say that Facebook may have total storage capacity far beyond that, once you take into account backups and other data (status updates, likes, and so on), it may be in the range of 300PB. Microsoft recently admitted that Hotmail stores more than 100 petabytes, and that SkyDrive, with 17 million subscribers, stores 10PB of data. Like Facebook, Microsoft's total capacity, once we take into account azure and its entire web properties, may be more than 300 petabytes. Megupload is relatively small in comparison, apparently storing only 25 petabytes. Amazon, rather than giving us a nice and easy petabyte count, instead announced the total number of objects stored by its S3 cloud storage service. As of April 2012, Amazon S3 stores 905 billion objects. If we assume an average size of 100KB, that's about 90 petabytes; if the average size is 1MB, it's 900 petabytes – almost at all! Dropbox, a year ago, stores 10+ petabytes of data. It had 25 million users then, and 100 million users today, so all the same things with the company now store about 40PB of data. To put these numbers into perspective, the average computer may have a hard drive of 500GB or 1TB, and the petabyte is 1024TB. At least, then, Microsoft and Facebook data centers rotate hosts to more than 100,000 hard drives. Without building special hardware, you can squeeze 48 drives into a 4U cage. After taking into account the network equipment, that means you may see about 400 hard drives per 40U rack - or 250 shelves, each of which occupies about a square meter of floor space. This may sound like a lot, but when you consider that Google, Amazon, Facebook, and Microsoft regularly launch data centers with floor plans of more than 30,000 square meters (300,000+ square feet), it's really not that much. In large-scale things, more space is dedicated to servers (i.e. CPUs) and network equipment. BandwidthBandwidth-wise, we have less data than the big boys. We know that, in the last year, one million files are being stored every five minutes - so today, with four times as many users, it's 800,000 files per minute. Amazon S3, which is significantly larger than Dropbox, handles 650,000 requests per second. We don't have any data on how much data Dropbox is sending per minute (i.e. people downloading files from their Dropbox), but it may be in the region of 10 to 20Gbps. Amazon S3, which is primarily used to store static files for websites (images, style sheets, videos), may have a lower average file size than Dropbox. If we assume an average size of 100KB per file, then 650,000 requests per second come to an overall total of 61 gigabytes of data transferred per second, or 488Gbps. This is very close to the 800Gbps figure we estimate for a large porn site, which equates to about 2% of total internet traffic – Amazon is quite large! Facebook and Microsoft, with storage of between 100 and 300PB respectively, may fall somewhere between Dropbox and Amazon in terms of bandwidth usage – maybe a 200Gbps piece. But enough theory! Let's discuss some real world numbers and real-world hardware! Hardware!