**Transparency**

**Apple just said something it rarely says: "We apologize," said Will Oremus in Slate.com. The world's most valuable company acknowledged last week that it has used software updates to slow down older iPhones to help preserve the devices' batteries. That "long-unacknowledged" feature, which the company says was designed to extend the devices' life but often caused slower scrolling or app delays, has "fueled conspiracy theories" that the company was deliberately slowing older phones to prod customers "to buy new ones." Apple conceded it should have been more transparent, and announced it was slashing the price of battery replacements from $79 to $29 and providing an iOS update in early 2018 to give users "more visibility" into the health of their battery. Any apology from Apple is "unusual," said Matt Weinberger in BusinessInsider.com. But this one was all the more "extraordinary" because it wasn't about malfunctioning hardware or a software glitch; it was about "a choice Apple consciously made." And it could "fundamentally change a key piece" of the company's business. Vast numbers of iPhone owners have upgraded to new devices at great expense because their phones became "slow and buggy." Apple just conceded that "merely swapping the battery" might have resolved the issue. *(The Week magazine, January 12, 2018)***

**The transparent brain: A new technique that renders a mouse brain transparent could soon allow researchers to map the human brain in unprecedented detail. Stanford University scientists have created a clear, Jell-O-like substance called hydrogel that can replace the opaque fats and other tissues in a dead mouse's brain, revealing the networks of neurons and their arm-like axons that carry information from one region to another. Previously, researchers could only study brain anatomy by examining thin slices, which made it impossible to see how different regions were connected. By contrast, the hydrogel technique lets researchers observe the complex wiring of an intact brain. "This is probably one of the most important advances for doing neuroanatomy in decades," Thomas Insel, the director the National Institute of Mental Health, tells Nature.com. "(It) should give us a much more precise picture of what is happening in the brains of people who have schizophrenia, autism, post-traumatic stress disorder, bipolar disorder, and depression." In fact, testing the technique on a small part of the preserved brain of an autistic boy who died years ago has already revealed at least one structural abnormality that could hold clues to treating the disorder. (The Week magazine, May 3, 2013)**

**There are few places to hide in the open ocean. Even in the "twilight zone" -- the depths where sunlight gradually fades away -- a mere silhouette can mean the difference between being a meal and finding one. But Cystisoma, a little-studied crustacean cousin of the sand flea, has a dazzling way to elude predators: It's as clear as glass. Now researchers at Duke University and the Smithsonian have discovered how the solid creature manages to be so transparent -- a finding that could lead to our very own invisibility cloak. Cystisoma belong to a suborder of marine crustaceans called hyperiid amphipods, which live in every ocean, from just below the surface to right near the floor. The insect-like animals are masters of disguise and evolved dramatically different camouflage depending on the depth. Below 3,000 feet, where sunlight ends, the species are red or black. Transparent species such as Cystisona tend to live between 30 and 1,000 feet, where the light is increasingly dim. (Emily Underwood, in Smithsonian magazine)**

**This, too, turned up in a check of medical records: Nudists as a group have lower blood pressure than average. (L. M. Boyd)**

**The Internal Revenue Service turned over four years of President Richard Nixon's tax returns to a congressional committee the same day they were requested in 1973, according to letters released by House Democrats. President Trump claims that demands for his tax returns are "unprecedented." *(The Washington Post, as it appeared in The Week magazine, August 9, 1019)***

**Some of the more fashionable Romans of old wore transparent togas. (L. M. Boyd)**

**Baby sea horses are called colts. They're transparent, so you can watch their hearts beat. (L. M. Boyd)**

**The outer layer of the skin, called the epidermis, is nearly transparent. Over the eyelids it is only two thousandths of an inch thick while almost one sixteenth of an inch thick on the soles of your feet. (Preferred News, 1991)**

**The winged glory of flies: The transparent wings of flies and wasps aren’t prized for their beauty, but that’s only because we haven’t looked properly. A new study reveals them to be “as distinctive and marvelous as the much-studied, much-celebrated wings of butterflies and beetles,” reports Wired Science. Fly and wasp wings are made of transparent chitin, which lets most light pass through but reflects some back, much like a soap bubble does. Viewed against a white background – the usual approach of modern entomologists studying veins and other structural features – the wings look colorless and drab. But when biologists from Lund University in Sweden began placing them before black backgrounds, the sings revealed vivid, stable patters of swirls, spots, and stripes. The designs, which differ consistently between sexes and among species, are thought to function as signals for territorial defense or mating. “I envision taxonomists going back to their animals and looking at them in a new light,” says co-author Daniel Janzen, an evolutionary ecologist at the University of Pennsylvania. “It’s like discovering a whole new piece of the animal.” (The Week magazine, January 21, 2011)**

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