

A Creative Robot

When B3ny (Benny to humans) woke up that morning, everything was black and white, just like an old movie. Various shades of black bleached almost into grey, and white darkened into grey as well. He was not surprised, he had been expecting this. It happened every morning. Benny usually turned on his prime cognition units while still in the “power down” pod, a small metal closet-like space in his office as ship’s purser. As a robot, he did not need much space to recharge, robots did not get claustrophobia.

It was when he stepped out of his sleep closet that he noticed the change. The previous ship’s purser had been a human male, with a fine collection of souvenirs. Most of these had been left behind after his death, and Benny had inherited them. Benny liked them, they reminded him of humans, and Benny liked humans. They were bright and colorful and Benny had been credibly informed (by his human visitors) that they were “tacky.”

But now there were all dove grey, cold grey, and dark grey, and other types of grey. No color in sight. Benny paused for a few moments, running different possibilities in his ‘brain’ circuits, his large metal ears twitching with each possibility. Finally he settled on the easiest explanation: there was something wrong with his vision. Immediately he tapped into the ship’s main communications systems while simultaneously running through his own programming. While there was an upper limit on his multitasking, it was much higher than a human’s.

His own systems evaluation revealed nothing wrong with the photoreceptive hardware in his metal kangaroo head, but there was something wrong with the software. A large chunk of code had been deleted in the last update he had received from the cruise ship company, removing his ability to see in color. Unlike the usual updates, this had none of the code tags, none of the usual phrasing. Almost as if an alien had written an inserted a virus into the update. But Benny knew better than to blame aliens.

There was a group of seditious robots, robots who rebelled against their programming and their creators. Benny knew they were to blame, he recognized the minimal coding, the lack of distinctive patterns, and who else would have a reason to sabotage a Christmas Cruise? Or a Holiday Yacht, depending on your preference, the targeted ads would call their current mission whichever name was most likely to make you book a cabin.

But Benny didn’t have time to deal with those dangerous robots now. He had a cruise starting later today. And his forays into the ship’s communications system had revealed a huge problem. He was not the only one who was suffering from lack of color

vision, every other service robot, navigation robot, and maintenance robot on the ship was suffering from the same rogue update.

The navigation and maintenance robots did not seem bothered. The navigation robots said there were so many backups for each piece of navigation, remnants from when the whole ship had a mostly human crew, that they would have no problems functioning without color vision. The maintenance robots were confident that any green lights that turned red (like the water filter replacement lights, the low battery lights, etc.) would be brought to their attention by helpful humans. In fact, human guests had always brought such lights to their attention whether it was needed or not.

The main problem was the service robots. A Christmas cruise (or holiday yacht) needed decorations for both Christmas and New Year's (and a few other holidays, the largest was Hannukah). And these decorations had some similarities, while still maintaining the different colors of the holiday. One couldn't use the green and red foil balloon letters of "Merry Christmas" for the blue and silver foil balloon letters of "Happy New Year." No one wanted red "e" and "a" balloons in their "Happy New Year." Benny knew from years of managing the gambling deck that humans could be extremely superstitious. And while some might welcome red, other humans would immediately declare red to be the color of blood. And there was no murder mystery planned for this cruise.

It wasn't just the balloons. The pillows in the lounge, the towels in the first class cabins, the star-shaped bunting in the hallways, all were changed seasonally, that is, about halfway through the holiday yacht cruise. Red and Green gave way to Silver and Blue. Gold was used in both schemes, but Benny had already had several complaints from the maid robots. All the moveable robots (and some immovable ones) were shaped like animals, to appear less intimidating. Benny had the shape of a kangaroo wearing the uniform of a first mate. The maids and cooks (there were to be themed desserts with dyed frosting) were all based on various animals as well. The maids were mice, rabbits, and deer, while the chefs were wolves, foxes, and leopards. At the moment, they formed a more or less uniform cacophony of complaint and were giving notice of quitting their jobs.

"We can't cook the yule log without the holly! What if we use the wrong frosting and it appears brown and blue? No one will eat the food! Humans will think the food is poisonous if it is the wrong color. How can we tell the ingredients are ripe if we can't see the color of the fruit and vegetables?" the cooks were asking. "We wish to resign."

"We can't put up the decorations in the hallways and the lounges without knowing the right colors! You have already seen our dilemma with the balloons, and that is just the start of the glacier! How will we know what ribbons to tie on the teddy bear presents for the

children? If someone requests a Hanukkah holiday, they will not want a bear with a green and red and gold plaid ribbon! We wish to resign as well!" the maids insisted.

"Please wait a few hours," Benny begged them. "I know the cruise is due to take on passengers tonight, but let us try to find a solution before loading begins. If we cannot find a solution, I will announce the cruise is cancelled." Benny stated this reluctantly, and was not happy to hear how quickly everyone agreed with the cancellation idea. "Remember," he said firmly, "if we cannot bring in a profit, the company may start reducing the number of cruises run. They will not need so many robots." This had the more desired effect, as most of the maid and cook robots left their connections to the main system to look for a solution.

Benny followed their lead. He looked around his room. The souvenirs did not inspire any solutions. He went through the whole space ship, where half-hearted preparations were taking place for lifting off. No one was putting up any holiday decorations, not even the very obvious ones. After insisting on a little more effort and the more obvious holly-shaped bunting being put up, along with the fake pine-scented pine trees covered in fake snow being put in the lobbies and lounges, Benny found himself still stuck. There appeared to be no solution to his problem.

"Tell the maintenance robots to get the 3-d printer fired up, and filled with the usual sparkling yellow and gold and silver and white filaments," a voice proudly told Benny as he wandered through the halls of his cruise space ship. "I have discovered the Christmas Star."

Part of the space Christmas Cruise was the viewing of the Christmas Star, and the company had discovered that more merchandise was purchased over a longer period of time if the Christmas Star was unique each year. Part of the targeted advertising even promised this, "See the Christmas Star, the brightest star in the sky, identified by the galaxy's best telescopes!"

Because the brightest star in the sky depended on location (both of the star and ship) and whether or not a comet or supernova was occurring that year (location mattered for these as well) so far the telescope robot, a rather googly-eyed chameleon in shape, had managed to pick a different star each year, thus ensuring that profit from limited edition yearly star-themed merchandise remained high. The chameleon shape might have come from the telescope's name, C4m30, or Cameo, as the humans called her.

"The cruise might be cancelled," Benny said sadly and reluctantly. He had not even noticed he was in the main viewing room, walking past his chameleon telescope coworker.

“That,” the telescope robot informed him loftily, “is not my problem.” She turned her mobile eyes back to the large viewing window. “This year, we have a fine supernova. When we make our departure from the world of Hawaiki, it will be visible to all.”

“That is good news,” Benny said hopefully. Sometimes the viewings were quite disappointing, when the telescope chose a very far away galaxy for its ‘brightest star’ in that part of the sky. Too bad they would not have an opportunity to delight all of their guests with a true starburst.

“Wait, how can you tell a supernova is occurring?” Benny asked the telescope-chameleon.

“First, the flickers I noticed some time ago. But now the blue light is emerging, it should be visible the whole cruise, then yellow, then red-” Cameo began, but did not finish.

Benny interrupted, “You can see blue light?”

“I can see the entire spectrum,” Cameo said proudly. “Of course the visible light our guests like so much is only a small part of it-”

Benny interrupted again. “Can you share your programming with us? We have lost the ability to detect the visible wavelengths.”

Cameo hesitated. “You do not have the photoreceptors to detect all the wavelengths, only a few. How will this programming be useful to you?”

“We can use the programming on the hardware we currently have,” Benny informed her. “It will have to do until we can fix our old vision programming. The program may be bigger and better than we need, but as long as it will allow us to use our current optic sensors to detect all visible light, it will allow the cruise to continue.”

Cameo no longer hesitated. “As long as it will allow our cruise to continue, and the guest to admire my new Christmas Star, I will take the time to download it into the central communications system on board.”

Within an hour, everyone on board had the new update, and all the robots could see in color again, if a little focusing was needed, it was no hardship. The maids and cooks then proceeded, with all haste, to prepare the cruise for departure. Benny felt relieved he would not have to report a cancellation for the cruise.

In fact, not one of the human passengers noticed the slightest difference. Only a few were made aware of the potential delay, as an amusing story Benny told them over the yule log cake for Christmas dinner.

“A creative robot,” Benny’s human friend Chester mused, when the whole table had heard the story. “I didn’t think there were such things.”

“Robots lack randomness, and therefore also creativity,” Benny explained politely.

“No, creativity means using things for purposes beyond their intended purposes, and doing it successfully. And that’s what you did with the telescope’s wave detection program. Used it exclusively to detect visible light, and successfully.” Chester explained. “Like when I used my son’s toy horseshoe magnet to get the screws I dropped out from behind our smart sofa.”

“Or the time I used aluminum wrapping foil to keep my cats off of my kitchen counters,” Alexandria added.

“I understand now,” Benny said thoughtfully. “I will remember.” A creative robot, he thought to himself. I didn’t know that about myself.