

Raising Ruth

By Robotech_Master

With JonBuck

September 28, 158 A.L.

Realtime: 8 Days Since Departure

Crechetime: +9 Months

The cave was small and cozy, with front and rear entrances and ample places for two adult snow leopards and one kitten to curl up together. The occupants had elected not to be limited by too much realism, either—rather than going with the traditional cold stone floors, they had opted for thick, comfortable shag carpeting. It was a comfortable little home.

At the moment, it was occupied by two proud parents, with a single mewling kitten nestled between them. And that was when the doorbell rang.

Uncia poked her own snow leopard head into the cave. “Hey! We’re not too early, are we?”

“Not at all. We just dropped back into realtime a half hour or so ago, and sent out all the invitations,” Rochelle said. “Good to see you again. It’s been months!”

Uncia snorted. “For you, maybe. Out in the real world, it’s only been a couple of days for us. Not that I’m complaining about you getting to see how the other half lives for a change.”

Another snow leopard joined her a moment later. “Hello, you two,” Nils said. “So that’s the little stinker, huh?”

“Stinker is right.” Chet rolled his eyes. “Someone remind me again why we opted for the maximum-realistic settings?”

Rochelle shook her head. “We’ve been through this. Advice from the creches suggests it’s a good idea to raise them as close to nature as possible. That means realistic smells, bodily functions, and even injuries. Prepare them for life in the real world, if they decide to go organic.”

“I meant that as a rhetorical question.”

“I know, but I figured they ought to know, too. After all, it’s always possible they might decide to try parenting, too.”

Uncia snorted. “Not likely! I’m much too young to be a mommy.”

“I’m still having a hard time adjusting to the idea of RIDEs having kids,” Nils said. “The idea of humans *turning into* RIDEs to have kids is a whole new level of weird to deal with.”

“You didn’t spend all that time in here by yourselves, did you?” Uncia asked. “Just the two of you and no one else?”

“Nah, we’re part of the Stellar Nursery fast-time virtual creche,” Rochelle replied. “It’s a whole interconnected neighborhood and town. There are a couple of dozen families involved. The rest of them are off having their own real-time baby showers, birthday meet-and-greets, and so on right now too. We’ll all hook back up and drop back into fast-time again in a few hours. But for now—it’s time to show off our bundle of joy so nobody feels left out. We’ll bring her outside once more people start to show up.”

Uncia peered closer at the blue-eyed kitten. “So what’s her name? How old is she?”

“She’s three months, as virtual time goes,” Chet said.

“As for her name, well, we’re going to leave that a surprise until more people show up,” Rochelle said. “Wouldn’t do to spill it before the person we named her after

gets to find out.”

A pair of lynxes entered, followed by a pair of tigers who took up a huge amount of space. “Hey, tight fit in here,” Zane said.

“Just a sec,” Chet said. The cave-den expanded, growing large enough for a larger number of people for the party. “We’re hoping Rufia and Yvonne show up, so we should’ve adjusted the size earlier.”

“Ivy and Cira will be along soon. Last I saw they were racing one another around the street,” Rhianna said, padding in somewhat awkwardly. “Can’t say I’ve been on four feet that often.”

“I gotta train her up a bit,” Kaylee added.

The second tiger was Terry, looking rather sleepy. “I don’t normally wake out of Zane’s id, but since you invited me specifically...”

“You really should get out more,” Rochelle said. “We’ll miss you if you stop coming around.”

“You won’t get any argument from me,” Zane said. “Wow, what an adorable little bundle of fur you’ve made.” He glanced across at Rhianna. “Can you believe it, Rhi?”

“I think my ovaries are going to explode,” Rhianna said. She padded over in front of the kitten. “That’s the most womanly thing I can ever think of doing, Shelley.”

“And doing it by *accident* makes it even more so,” Uncia said. Kaylee swatted her with a paw.

“You know, there’s no reason it wouldn’t work for you and lover boy there, if you were serious about it.” Rochelle grinned. “If there’s one thing this proves, data is data, no matter what kind your mind is. Of course, you’d have to get you some more implants...but you’re from Earth as it is, so...”

“It may be just a *little* premature for that,” Zane said. “Uh...we’d have to talk about it first, I mean. Which we haven’t yet.”

“Unless he brought some of his sperm bank deposit with him...” Rhianna raised an eyebrow. “You haven’t, have you?”

“Uh...I’m taking the fifth. Of vodka.”

A pair of identical silver vixens dashed inside at a lightning pace, zooming between Terry’s legs. “I win!” Ivy declared, bouncing around like a child with a sugar rush. “I win this one!”

“Only by a nose!” Cira said. “Good race, though. Really good.”

“Whoa, there!” Chet said.

The pair were the smallest in the room—not that much bigger than the kitten herself. They pulled up short and peered at her, and she peered curiously back at them and squealed.

Cira rolled over, her legs in the air, twitching. “I have died and gone to Cute Heaven.”

“Rufia and Yvonne are taking their time,” Ivy explained. “They wanted a look at the neighborhood. They really went all out, didn’t they? Schools, businesses, grocery stores, parks. The EI Greenhouse is just down the street.”

Rochelle nodded. “Since we aren’t planetside the Creche Committee thought we should go as real as possible, as a baseline. Of course, every family decides the simulation levels in their own home, but a lot of us go as real as possible there, too.”

Chet added, “We’re supposed to show the Totalians that we Zharusians have some stuff we’re still adapting to. Or something. I mean, our little one is kind of a new

lifeform, isn't she?"

"A human-RI hybrid," Rochelle said. She licked her kitten atop her head. "I can't say we're the first, though. There were reports of some on Zharus. I checked the newsfeeds we got while I was waiting for the little one."

"Young Miss Jeanette sure opened up quite the can o' worms," Kaylee said. "Not that I'm complainin'. If ya need some kitty mothering advice, Shelley, I raised eight of my own."

"Hey, if Rhianna and Zane do get busy, maybe you and Terry..." Uncia began, but trailed off when Kaylee looked daggers at her. "Or maybe not!"

"Don't tell me the party's started without us!" Rufia said as she and Yvonne entered. The elk were larger than the tigers, and certainly much taller. They towered over everyone else in the room. "What's with the shag carpeting? You go full 70s in here or something?"

"We didn't want to risk our daughter catching a cold," Rochelle said. "Welcome, you two. Glad you could make it."

"Wouldn't miss it," Yvonne said. "I wanted a look at the sprouts in the Greenhouse before we came in. Our EI cousins are fascinating. I thought the plant thing was a metaphor."

"It sort of is. It's just someone let their sense of humor run away with them," Chet said. "Still, they grow from 'codeseeds'. It's a group home for them."

"Since you're here now, I think it's time we made our little announcement," Rochelle said. "Rufia, I wanted you, and everyone else, to know, we decided to name our daughter in honor of you. Not *after* you, exactly—we couldn't quite countenance naming a non-crossrider 'Rufia'—but we named her Ruth because it was the closest thing we could come up with that was *almost* Rufia."

The elk blinked. "Whoa...seriously? That's...pretty cool. And...yeah, I can understand not wanting to call her 'Rufia' too. It'd just get very confusing. I *do* feel sorry for the poor girl, not getting to be confused with someone as awesome as *me*, but... Vonnie, stop laughing!"

"Sorry! Sorry!" Yvonne sputtered between chuckles. "No, in fact, I'm not sorry at all. Still, she's so cute I could eat her right up."

Zane grinned. "Give her a few years and it'll be the other way around."

"Seriously, I'm flattered," Rufia said. "And a little surprised. I'd have thought you'd name her after Rhianna or Kaylee."

"*Everybody's* going to name their babies after them," Rochelle said. "And it'd get confusing around the garage. But you showed me there was more to life than working when I was Roger, and you helped me get used to being Rochelle, so you seemed like the ideal candidate."

"Wow," Rufia said. "Well, like I said, I'm flattered. It's a good thing I have all this fur right now or you'd see me blushing red like a beet."

"So, what's the plan here?" Rhianna said. "How's her cognition? I don't even understand how to raise a human child, let alone..."

"There's a lot of literature about it," Rochelle said. "Well, about RIDE offspring, at least, and the few digitized human ones so far have fit the pattern too. We've had time to do a lot of reading, the last few months."

"She's as smart as any human three month old," Chet said. "We won't be keeping her in that kitten form all the time. She'll have anthro forms, and we'll introduce her to a

human variant when she's old enough."

"Okay, that's reasonable. I guess."

"We're winging it too, Rhi," Rochelle said. "I figure we'll raise her until she's about...oh, fifteen or so here and bring her into the Real full time then. Depends on what she turns out to be like growing up."

"Fifteen years?" Rhianna said. "Shelley...you're going to be way older than me subjectively by the time you're done."

"If Jeanette could do it, so can we." Rochelle chuckled. "If nothing else, it'll teach me to be more careful."

"I wasn't really crazy about the idea at first myself, either," Chet said. "But I spent the last umpteen however many years sleeping and arbitraging. Feels like I owe myself some awake years now. Especially if I can fit them into just a few days."

"She'll need a DE frame..." Rhianna mused. "I'll design one for her, if that's okay. The Marshals have done some really interesting work with hardlight-dominant frames lately..."

"Of course it is," Rochelle said. "Just don't get *too* carried away. You know, if you wanted, you *could* join us, both you and Kaylee. Get the implants but don't transfer to a shell, just put your body in cryo while you're in here." She nodded to Uncia and Nils.

"Offer's open to you two, too."

"That's a...tempting offer," Rhianna said. "But it's kind of a big step to take all of a sudden."

"We'll visit a *lot*," Uncia promised. "But we really do kinda want to take advantage of this chance to have human bodies of our own for a while."

Rochelle nodded. "That's about what I figured. But the offer will remain open. So if you want to join us a few years down the road, we'll be happy to have you."

"Is this a private party, or can fuh—ah, *funny* anyone join?" Three tawny jaguars padded into the cave, which grew slightly larger again to accommodate them. One of them walked confidently, and the other two a little more awkwardly.

"Hello, everyone. We were just in the neighborhood..." Joe Steader said.

"This is a new experience," said the third jaguar, in a voice instantly familiar to Rhianna. She nearly stumbled. "I've hunted jaguars in VR, but this is the first time I've actually *been* one."

"Nana! You made it!" Rhianna bounded over to her and headbutted her grandmother affectionately.

"Well, how could I not, when there are children involved? Which reminds me, when are you and that handsome tiger of yours going to get busy, hmm?"

"Er..." Zane said.

"Welcome, all of you!" Rochelle said. "It's good to see you."

The jaguars padded up to peer thoughtfully at the snow leopard kitten. "Well, isn't she just lovely!" Socah cooed.

"Fuh—uh, for sure!" Julius agreed, sniffing at her. Baby Ruth squeaked and batted at his nose.

"What an amazing world we live in," Joe Steader mused. "To think such a thing is even possible..."

"Oh—hey," Rochelle added. "I appreciate you all coming here in animal form, even those of you who don't have natural ones. But we're not going to insist on stretching out the ritual. So if those of you with 'em want to change back to other ones,

feel free. After all, Ruth should get to know you as you are.”

“Thanks,” Rufia said, shrinking and standing up into her ordinary human shape. “Being an elk is a revelation, but it is more comfy on two legs. For me, anyway.”

Zane glanced at Rhianna. “Shall we?”

A cloud of sparkles surrounded the lynx, her shape flowing into her lynx-tagged self, wearing her workaday coveralls. A moment later, Zane joined her, standing back up into his standard humanoid tiger persona, wearing khakis and carrying his usual cane.

“Don’t mind if I do!” Uncia said, shimmering into a version of Rochelle’s human avatar with her hair in a short pageboy cut. A moment later, Nils followed suit, taking on Chet’s human appearance.

“Heeeeey, now,” Rochelle said.

Uncia blinked innocently. “What? This is what my body looks like now.”

Rochelle rolled her eyes. “I’m going to have to sue for custody after this is over, aren’t I?”

“Hey, it’s only going to be a few weeks for me. Sixteen *years* for you. If anything, I may have to take *you* to court to get my sweet nested DE shell back.”

“Maybe we shouldn’t count our chickens,” Nils put in.

Two of the jaguars stood up into humans. Joe Steader was wearing Heywood Floyd’s suit from 2001, while Socah Gates was wearing what at first looked like a jaguar print dress—but closer inspection revealed it to be an actual jaguar pelt formed into a dress, ragged edges and all. And the pattern of spots was identical to Julius’s own.

“Uh, Nana?” Rhianna said.

Socah raised an eyebrow. “Yes, Rhianna?”

Rhianna looked at the proud smile on Julius’s face. “Nevermind.”

“Don’t my spots just look fuh—*fully* awesome on her? She earned that pelt in Nature Range, she did. With a *spear*.”

Joe chuckled. “Your grandmother is a woman of *many* hidden talents, Miss Stonegate.”

Ivy grinned, flashing her a quick thumbs-up as she stood up in her human avatar too. “Way to go, Nana!” She pumped her fist.

“Had some survival training in the Amazon,” Socah said.

“That’s our Colonel Thermopylae,” Julius said smugly. “I hadn’t expected she could live up to Joe’s memories of her, being as you humans are in fuh—in heat all the time...but son of a bi—*gun*, she did.”

Rhianna shook her head. “The things you find out about your relatives.”

“There’s something to be said for having a long and interesting career,” Socah said. “And seems to me you’ve got a good head start on the ‘interesting’ part yourself.”

Rhianna chuckled. “I won’t argue, Nana.”

“Fuh—oh, fer crying out loud.” Julius grumbled. “Maybe I’d just better go. If I can’t watch my fuh—*funny* tongue around the kid, I’m gonna end up starting some nasty fuh—nasty habits.”

“Hold on a minute, Julius,” Rochelle said. “I’m sorry, I should have thought of that. I may be able to code something up for this VR space.” She cocked her head and stared off into space for a moment. “I think..yeah, that should do it. Try saying something blue, Julius. Go on.”

Julius blinked, then opened his mouth. “BLEEP.” He cocked his head. “Seriously?”

“Should block out pretty much any profanity in the dictionaries,” Rochelle said. “Try some more.”

“BLEEP,” Julius said. “BLEEP BLEEP BLEEPing BLEEP BLEEP BLEEP handingers BLEEP motherBLEEP BLEEP BLEEP fruitcake.” He considered. “Well. BLEEPing A. Any way you could code that up as a module for my vocoder for use out in the real? That could be BLEEPing handy.”

“I’ll see what I can do,” Rochelle promised.

Baby Ruth mewed and burred. Chet chuckled. “I think she likes you.”

“Well, sure. That’s me. Naturally BLEEPing likable. You ever need a kitten-sitter, I’m your guy!”

“So, how about we move this party outside?” Rochelle suggested. “We’ve got a nice sunny day out, a pleasant clearing, and a forest close at hand. We’ll rez up some lawn chairs, or whatever your preferred mode of seating is, bring in some virtual refreshments, and enjoy the virtual sun.”

“Works for me!” Uncia said. “I’m looking forward to experiencing lawn chairs.”

“There’s not all that much that’s special about them. They’re just a chair you put on your lawn.” Rochelle grinned. “But yeah, you can find that out for yourself.”

As they all filed out into the grassy clearing, four more new arrivals padded in—a pair of leopards and, of all things, a pair of poodles. “Hey, everyone, sorry we’re late,” Madison said. “We had a...*slight maintenance issue* with our ship.”

“I *told* you there’s nothing wrong with your ship,” the poodle said. “It’s just that you kind of don’t have a fabber right now. But I was working on fixing that!”

“The *Daydream Believer* is fast developing a tradition of stowaways,” Samantha said.

Uncia blinked. “What, *another* one? We just found four ourselves the other day.”

One of the leopards stood up into Madison Brubeck, and one of the poodles became a teenaged girl with curly black hair, floppy dog ears, wet black nose, and poofy-cut poodle tail, in a pink poodle skirt. “This is Geena Bernadette, formerly cabin girl on the *Clementine*, and her partner Fifi,” Madison said. “Up until about fifteen minutes ago, she was serving as the *Daydream Believer*’s on-board mini-fab. I only happened to notice when I went back for a spare DIN and caught her fabbing parts all by herself.”

“Well, I had to replace your *real* fabber, which I sort of left behind so there’d be room to fit me,” Geena explained reasonably. “It would have been rude to leave you without one. I was about two thirds of the way to being able to put my replacement together, and then you’ve never have noticed.”

“She’s a shapeshifter,” Samantha added. “Pretty slick one, too.”

Madison facepalmed. “I *should* have double-checked the fabber before we left. I already *knew* she’d been one before, and she was really disappointed when the *Clementine* left her behind.”

“You shouldn’t blame yourself,” Geena said. “After all, you were distracted, and I *am* really good.” She peered curiously at the others, and the snow leopard kitten Rochelle was carrying out by the nape of her neck. “Ooooh, who’s this? Is she yours? She’s really cute!” Meanwhile, Fifi wandered over to sniff curiously at Cira, who returned the favor.

Madison rolled her eyes. “And since pretty much everybody I know was already going to be here, I figured, might as well bring her along and ask for advice about what to do with her.”

Rochelle placed Ruth in a blanket-lined crib, then nodded to Geena. “Nice to meet you. I’m Rochelle, this is Chet, and the baby is Ruth. Heard good things about the *Clementine*.”

Geena nodded, absently waving a finger in front of Ruth for the kitten to bat at. “She’s a really great ship, and a great person, too! And so are the crew. But then they decided to leave me behind when they went off to go save the first undiscovered colony world since *ever*. So I had to figure out a way to come along.” She blinked. “Wait...you’re Rochelle? But...Madison said you were *human*. But...you’ve got a baby RI?”

“We were human, yes. And with any luck, will be again. It’s complicated.”

“That’s a nice outfit you’ve got on,” Ivy said. “Very stylish. 1950s?”

Geena turned to face her. “Uh-huh! Designed it myself! Well, actually, designed the real-world version myself. That is, the version I used to wear, before Fifi and I got squished together. Now, of course, I can shapeshift it on. But I can still design clothes for other people! And even fab ‘em myself, too.”

Ivy’s eyes widened. “Oooh, really? Could I maybe ask you for some commissions, out in the Real?”

“I’d be happy to! Tailoring is my life—especially now that I’m also my own sewing kit.”

“I see your sister’s still lookin’ for new and different ways to out-girl you,” Kaylee observed.

“More like the same old ways, over and over.” Rhianna rolled her eyes. “But if it makes her happy, I won’t complain too loudly. *I’m* just happy to have the family together again. Even if some of us did turn right around and ship out for Totalia.”

Zane ambled over and leaned on his cane, peering thoughtfully down at Geena. “Well, now, Geena Bernadette. What *are* we going to do with you?”

Geena returned his glance. “Take me along to Totalia! My shapeshifting talents could be really helpful. And anyway, it’s not as if you can turn around.”

“No, but we *could* dispatch a ship to take you right back home again as soon as we arrive,” Zane said. “We do have them to spare. And you’re awfully young to be going into a war zone.”

Geena blinked. “*I’m* young?” She nodded toward Rochelle. “*They* just had a *baby*.”

“Hmm. Well, there is that.” Zane glanced at them. “But they’re going to spend fifteen years or so in fast-time along the way to let her grow up to something approximating maturity. So in terms of accumulated experience, she *will* be older by then.”

“Well, hey, if that’s all it takes, sign me up!” Geena said. “Well—not for the whole *fifteen years*, maybe, but if I just need to be, like, four or five years older, I could ‘accumulate that experience’ in here too. Maybe Ruth could use a big sister when she gets older!”

Now it was *Zane’s* turn to blink. “Uh...does it even *work* that way for Integrates?”

Madison stared at her. “You’d really be willing to spend *several years* in here for the sake of getting to go to Totalia?”

Geena shrugged. “Well, sure, why not? If it means I get to go there in the end, sure. It’s not as if I could have waited until I was grown up back home and still gotten to come along.”

“Seems to me like she may have you there,” Nils said. “I mean, we RIDEs have

used fast-time forever, and we know that compressed time is still real to the person who experiences it, subjectively. If she needs to grow up for five more years...well, in here, she can.”

The other poodle spoke for the first time. “It’ll probably be good for her. Especially if there’s some authority figure she’ll listen to. It’s pretty hard trying to raise her by myself, even now that I’m part *of* her.” She glanced at Rochelle and Chet. “But that depends on them.”

“Oh, I don’t want to impose,” Geena insisted. “I could just live somewhere in here and come over for visits or something.”

“If Madison vouches for you, we’ll certainly consider it,” Rochelle said. “Why don’t you come over and visit for a while? We can get to know each other and talk about it.”

Geena nodded. “Thank you, ma’am. I’d like that.”

“So!” Julius said. “Who’s up for some BLEEPing Nature Range?”

Yvonne looked around. “Might be just a little one-sided, don’t you think?”

“Oh, we have some other deer, elk, and moose neighbors,” Chet said. “Really nice folks. I’m not really sure I’m all that much on the game myself yet, but given they’re natural-born RIDEs, it’s not a problem for them. And they’re all having their own parties right now during the realtime day. We can drop them an email, see if they’d be up for it.”

Rochelle looked at him. “I can’t believe you just used the phrase ‘natural-born RIDEs.’”

“You know what I mean!”

“And for the humans among us, we can play Frisbee or something,” Rochelle said. “I’ve gotten pretty good at the mouth-catch and toss. Or we could set up a screen and play movies—at least, if Joe Steader over there hasn’t already seen them all.”

Julius snorted. “Fat BLEEPing chance of *that*.”

Joe chuckled. “I think Frisbee sounds like a great idea. Especially in here where I can still actually be athletic.”

“Don’t BLEEPing kid someone who’s seen you play Twister that you can’t still be BLEEPing athletic out there, too.”

“I could get behind a game or two of Frisbee,” Fifi said. “That’s in canine Nature Range, you know.”

“Yeah!” Cira put in. “And we foxes are pretty good at it, too.”

“Nils and I are looking forward to learning more about what *we humans* do when the RIDEs are off playing Nature Range!” Uncia said. “Sounds like a plan!”

“Or we could even just...y’know, talk among ourselves,” Chet added. “We’ve got all day, anyway.”

“Awww, what fun is *that*?” Uncia protested.

Realtime: 20 Days Since Departure

Crechetime: +6 years

“Happy birthday to you... happy birthday to you.”

“Yay!” Ruth took a deep breath and blew. All five candles on the cake flickered and went out.

“There we go, then.” Mommy gave her a friendly tongueswipe, then stood up on

two legs to cut the cake and dish it out onto plates with her *hands*. Ruth watched, eyes wide as always whenever Mommy or Daddy *changed* like that. It looked like so much fun, and so useful, too! You just couldn't do that kind of stuff with clumsy paws or even clever lips and tongue.

There was a lot she didn't understand, such as how Mommy and Daddy could do things like that. They'd tried to explain it to her, but it had been too hard for her to follow. But they promised she would understand when she was older.

Ruth sat on her haunches in front of the small table where she ate. It was rare to get human food—Mommy and Daddy said too much of it wasn't good for her. Usually it was raw meat—either from some rabbit or other small animal Mommy and Daddy had killed and brought home, or occasionally pre-cut steaks when the weather was bad or the hunting wasn't good. Sometimes they would cook it for her a little, but mostly she just ate it raw. It actually was tastier raw, but the cooked kind was interesting too. But birthdays were days for special treats.

Mommy and Daddy put the slice of cake down in front of her—it was dark chocolate with white chocolate frosting, her favorite! Then they took their own slices to a table, where they sat and ate it with forks. Ruth tore into her cake, smearing frosting all over her muzzle, while watching them daintily slice little bits of theirs off with their small metal tools and raise them to their human mouths. She wished she could do that!

After they all had finished their cake, Mommy knelt down with a damp washcloth that was almost as good as her real tongue and cleaned the frosting off her muzzle. "So how about that? You're five years old today."

"I know, mommy!" For some reason, grown-ups always felt like they had to tell you stuff you already knew. But Ruth had learned to put up with it.

"Ready to open your presents?"

"Yes, Mommy, yes!" Ruth squealed. There was a small pile of them against one wall of the cave, and she'd been staring at it with anticipation for days.

"This first one's from us." Now Daddy went over and brought the first one over to her, and she used her sharp little claws to shred the wrapping paper carefully, without damaging whatever was inside.

Ruth had a sneaking suspicion she knew what it was from the odor, and it turned out she was right—a little mouse toy with an enticing catnip scent. Daddy put it down on the floor, and it started to trundle around in random directions. "Ooooh!" Ruth squealed, watching it move and dropping into a crouch. After a few moments, her butt wiggled and she *pounced*.

It was tempting to just play with it for a while, but Ruth remembered she had other presents to open. So she reluctantly put it aside and turned back to her parents. "Thank you, Mommy and Daddy!"

"Now, this one's from Geena." Geena was the nice doggie-girl who came by every so often. Like Mommy, she could go on two legs or four, but when she was on four she was a very fancy poodle. She was fun to play with, whether it was chasing around or wrestling. Sometimes she'd put Ruth on her lap and read a book to her. And since this present was large and flat, Geena had a sneaking suspicion it was a book, too.

And it turned out she was right! Mommy held it open and turned the pages so Ruth could look inside. It turned out to be a picture book showing human people in all different kinds of clothes and outfits. Ruth peered at it curiously. She hadn't had any idea there *were* so many different kinds of clothing. It seemed like she learned

something new about humans every day. “Wow, it’s pretty!”

Mommy chuckled and put it aside. “Want to open another one?”

“Uh-huh!”

The presents from various family friends and relatives included more toys, including an economy-sized version of one of those circular scratching pads with a ball track around the exterior, and several more books. The books all looked interesting, but they also reminded Ruth that she didn’t have the proper equipment to hold them herself.

At last the last one had been opened, and the wrapping paper dispelled, and Ruth sat peering at the collection of new toys before her. She was just about to turn her attention to the cardboard mouse again, when Mommy spoke up. “There’s...one more thing, honey. We think you’re old enough now.”

Ruth blinked, her ears perking straight up. “What’s that, Mommy?”

“Well...we were thinking about showing you how to turn into a human, like us. Would you like that?”

“Oooooooh yes! Yes, Mommy, yes yes!” Ruth squealed. “Will I look *just like* you?”

Mommy chuckled. “Oh, not *just* like us. You’ll be a lot smaller, just like you are now. But sooner or later, you might look pretty close.”

“Yay! Okay! Then show me!”

“All right, hold still.” Rochelle knelt and reached down to put a hand on the top of Ruth’s head, and she felt a tingly feeling that spread out to cover her whole body. And then, before she even quite understood what was happening, her forepaws left the ground and she started...*changing*. Her legs were shrinking into arms, paws into hands, the fur disappearing.

A moment later, she was standing straight up, on two human legs, with Mommy holding one of her hands to steady her. She looked down at herself, and...there she was. She had a tall, slim human body, with a pair of legs at the bottom and arms at the top, and she was wearing a white dress. “I’m...just like you now!”

Mommy smiled. “You sure are! Look.” She rezzed up a mirror and held it in her other hand so Ruth could get a good look at herself. She was a human girl, with bright blue eyes in a face that looked a little like Mommy and a little like Daddy. She had short greyish-white hair that came down to her shoulders—not all the way the floor like Mommy’s. She turned her head back and forth, looking at it.

“Want to try walking?”

Ruth took a step forward experimentally, and then another, with Mommy holding her hand. It felt funny, like the times she tried balancing on her hind paws, only this time she didn’t lose her balance the way she did when she was a cat. “Wow, I can walk!”

“Uh-huh. We made it so you wouldn’t have to learn all over again...but you’ll still be a little clumsy for a while, so be careful.” Mommy let go of her hand, but stayed nearby to catch her just in case.

“I like this, Mommy!” Ruth said. “I can’t wait to show everyone!”

“You can change back and forth just by wanting to,” Mommy said. “Try it?”

Ruth screwed up her eyes and thought about being a kitty again—and suddenly she was! And then she thought about being human again, and changed back. “It works!”

“It does indeed,” Daddy said. “That’s my little kitten. But we’ve got one more big

surprise for you, too.”

Ruth blinked and peered up at him. “You do?”

“Uh-huh. You know how we told you that this whole place is actually just a *pretend* world, and someday you’ll get to live in the real world?”

Ruth frowned. She knew Mommy and Daddy had *told* her that, but she still wasn’t sure she believed them. After all, *this* world seemed pretty real to her, and none of the places *she’d* pretended about ever were. But on the other hand, she hadn’t ever known Mommy and Daddy to *lie* to her. And they’d just showed her one thing she hadn’t expected she could do before—so why not another? “Uh-huh?” she said cautiously.

“Well, how would you like to go out and *visit* the real world, and see Aunt Uncia and Uncle Chet, and Aunt Rhianna and Aunt Kaylee?”

Ruth tilted her head in puzzlement. “*Visit* the real world?” she echoed.

Mommy nodded. “We can take you there for a little while.”

“All your friends will be out there waiting for you,” Daddy said. “Today’s a special day for everyone here.”

“I wanna go visit Aunt Uncia and Aunt Kaylee!” Ruth said. “Can we go right now? Can I take my toys along?”

“We can’t take any of your toys along, because they’re *pretend* toys,” Daddy explained. “But there will be other toys for you to play with out there, and these will be waiting here when you get home, okay?”

Ruth still didn’t understand, but she just nodded. “Okay, Daddy!”

“Atta girl.” Daddy reached down and lifted her up to his shoulder. Ruth wobbled for a moment, then put an arm around his neck and got her balance. “C’mon, we’ll take you there.”

Rochelle opened her eyes—Uncia’s shell’s eyes—in the real world. She and Chet had popped out here the night before to set everything up with Rhianna, and now was the time. Rhianna had a Laurasian RIDE cradle set up in the Dreamchaser’s cargo bay, with a kitten-sized shell in it. Prompted by Rochelle’s movement, Rhianna glanced over at where Rochelle and Chet had parked themselves.

“It’s ready. Took a few days of intense brainstorming, and consultation with half a dozen other specialists aboard, but it’s ready. I hope she likes it,” Rhianna said. “Her transfer into the on-board core went flawlessly, and she’s sleeping in Passive right now ‘til you’re ready for me to wake her up.”

Across the cargo bay, Uncia and Nils came in, in their borrowed human bodies. Uncia waved. “Hey, you two. Good to see you again. It’s been *weeks!*”

Rochelle snorted. “For *you*, maybe. I keep having to stifle the impulse to ask you lot how the years have been treating you. Fast time is weird.”

Chet looked around. “Wow, I’d almost forgotten what this place looked like.”

“You’re still thinking a *little* too much like a human,” Nils said. “We don’t really forget anything. But I’ve got to say, I’m not sure I’ve got the whole ‘being human’ thing down yet, myself.”

“I keep telling him the Steaders could help with that,” Uncia said. “After all, they dug up and released the whole TV series. Both of them.”

Nils rolled his eyes. “But nothing’s going to help *her* get over her punning habit.”

“I’m going to take her out of the cradle before waking her up. She might get upset

if she wakes up latched in like this,” Rhianna said. Kaylee Fused with her and they picked up the metal-skinned LRIDE that was the size of a human child, they lay it on the floor. “System prestart...”

The hardlight came on, turning the metal cat into a sleeping young snow leopardess. “Wake her when you’re ready,” Kaylee said.

Rochelle padded over and put a paw on Ruth’s shoulder. “Wakey wakey, kitten.”

The kitten murmured in her sleep, then blinked her eyes open. “What happened? I went to sleep?”

“Just for a little bit. That’s how you enter the real world. And here you are.”

Rochelle waved a paw all around.

“Ooooooh,” Ruth said, peering around. “I’ve never *been* here before.”

“Hey there, lil’un!” Kaylee said. “Try an’ stand up. It’s a lil’ different than what yer used to.”

“Once you’re steady, we’ll go see your friends,” Rochelle reassured.

Ruth blinked. “This feels funny!” she declared. “Like I’m...too heavy?”

“Try *thinking* about being lighter,” Rochelle said.

“Okay...?” Ruth slowly began to rise into the air. She goggled. “I’m flying?”

Rochelle put a paw on her back and pressed her back down to the ground. “Not *that* much lighter.” She removed the paw and Ruth stayed on the ground. She started walking around, pausing every so often to glance back at herself, or to peer at various things in the room.

“Hey, c’mon up here.” Chet padded forward toward the cockpit. “Wanna show you something.”

“Okay, Daddy?” Ruth followed, a little awkwardly at first but becoming surer as she went on.

He led the way in, revealing the four-seat cockpit with windows looking out onto a larger starship, set against a background of featureless white. “Someday, there will be stars out there, and planets. But right now, we’re in a space jump, so we don’t get to see any of that.”

Ruth put her paws up against a window and peered out curiously. “What’s that big *thing* down there?”

“That’s another spaceship, the *Great Western*. It’s where our friends are living right now—well, there and some of the little ships attached to it. And we’re going to go and see them now.”

“All right, Daddy!” Ruth said.

Rochelle chuckled. “She always says that whenever she doesn’t understand something.”

“She’s what? Five Zharus years old now? Give her time,” Rhianna said.

“I’m the one who *is* giving her time. *You’re* the one who’s missing out on the best years of her life.” Rochelle grinned. “You know the offer’s still open. Get the implants, come spend a year or so with us.”

Rhianna cringed a little. “I dunno, Shelley. Fast-time as a whole has always felt creepy. I don’t know how you do it.”

“What’s not to know? I mean, how many times have we wished we had a little more extra time to do all the things we needed to get done? This is just like that.” She purred. “Besides, *you’re* the one from Earth where they implant *everything*. I’d have thought you’d have jumped at the chance to get ‘em.”

Rhianna's ears flicked down. "Well...I need to think about it. I don't know why I'm so antsy, but there it is."

Rochelle nodded. "I know. I was that way, too, until Miss Short-Hair over there got on my case about it. And my own mild curiosity crossed with figuring it really wasn't fair to her not to let *her* try it got me over the hump. 'Course, with Kaylee not eager to try out a human body herself as far as I know, you don't have that motivation." She flicked her ears. "I'll check with you again in a few more years, then."

Chet padded back out of the cockpit, with Ruth scampering along behind him, batting at his tail. "Okay, I think we're ready to go say hi to the neighbors now."

"All right! And the rest of you can feel free to come along, if you like." Rochelle padded over to the cargo elevator in the back of the shuttle, there being a few more people than were really convenient for the smaller hatch. Chet and Ruth joined her a moment later. "Ruth, I'm gonna put a tether on you for now, to keep you connected to me while you're still getting used to being in that body." A hardlight leash appeared connecting Rochelle to Ruth.

Ruth peered at it. "Okay, Mommy!"

"Wait for us!" Uncia and Nils walked over to join them. "Coming, you two?"

"We'll be following along. Kaylee did a remote checkout of that frame, but it's somewhat experimental as these things go," Rhianna said. "It's supposed to grow *with* her until she wants to transfer to a Fuse-capable unit."

"If she does," Kaylee added.

Ruth blinked. "What's a Fuse...thing?"

"That's a special thing we can do out here, honey. We'll tell you more about that later. Let's go see Aunt Madison and Geena."

"Okay, Mommy!"

Ruth squealed in surprise as the floor began to lower away beneath them. "We're going down!"

"We sure are, sweetie."

Rochelle chuckled as Ruth rose into the air again, trying out the new lifters. "I'm flying, Mommy!"

"You sure are," Rochelle agreed. *I'm glad I've got a leash on her.*

"Why's everything all metal?"

"Because we're in a space ship—a big metal box that goes from one planet to another," Chet explained. "Someday we'll get to another planet and we can go see what it looks like."

"But for now, this is someplace new."

Realtime: 40 Days Since Departure

Crechetime: +11 years

"I still don't understand why we have to learn *math*." Ruth wrinkled her nose as she padded up the lane with her friends. "*Without* using our computer. I mean, we run *on computers*. How are we ever *not* going to be able to let the computer do it in the real world?"

"Well, you *might* decide to be a human when you grow up," Renfield, a wolverine pointed out. "They don't get that stuff built in, you know."

"But we're not organics!" Soren hooted from above as the snowy owl flew from

branch to branch—he didn’t want to get too far ahead of his three friends. “Well, I’m not, and Ren’s not. Not so sure about you, Ruthie.”

“And why am I always excluded from your organic assumptions, Soren?” Stacia, the fourth member of the circle of friends wasn’t RI, or human-derived RI like Ruth. She was one of the Greenhouse sprouts, an Evolved Intelligence like the one who ran the Great Ship they were traveling in. Unlike the other three she appeared human. She skipped along the path like a fairytale character surrounded by her animal friends. “Such things are trivial to simulate in the Slow. I will inhabit such a frame for a time, at least.”

“Ugggggggh,” Renfield groaned. “You just reminded me that today’s a Slowday at school! Ugggggggh!”

“I like those!” Ruth said. “We get time off classes, and we get to meet neat people! And we get that much closer to where we’re going!”

“It’s such a load of fertilizer!” Renfield growled. “Really, the whole thing is. Why couldn’t we just have been *programmed* like our parents were? Get all the smarts we need stuck in our heads and boom, we’re done. None of this boring *growing-up* stuff.”

“Because doing it the old way makes our parents less...flexible, I think?” Soren said.

“*My* parents weren’t programmed like that,” Ruth said.

“Yeah, but you’re weird,” Renfield said. He didn’t say that to mock—just as a statement of fact.

“Everyone is weird for someone,” Stacia said. “You bunch of weirdos.”

“But you’re basically a plant, right?”

“No, I’m not a plant. Gramma Lucy just liked the terminology.”

Ruth stared at her, wide-eyed. “You mean you’re *not* secretly here to keep an eye on us and report back to people?”

Renfield rolled her eyes. “You and your puns.”

“Anyway, if it’s a Slowday, that might mean we could maybe get our folks to let us spend some time in the Real after school.” Ruth smiled. “I’d like to visit my aunts again.”

“It is *so weird* we have to spend all our lives growing up, while they just get to coast along for a couple months,” Renfield grumbled.

Soren fluffed his feathers. “The way I look at it, we have time to enjoy ourselves, while they’re all in a big hurry.”

“Well, I’m glad *someone’s* enjoying themselves,” Renfield muttered. “I’d trade all this for a body out there in a heartbeat.”

“Funny you’d say that,” a new voice spoke up. “I’ve just traded in *my* body out there for five years in here.” Geena Bernadette stepped onto the path in front of them, wearing her usual poodle-tagged human appearance and poodle skirt. “Hi, Ruth! You ready to put up with a live-in big sister for a while?”

Ruth blinked. “You mean that? You’re coming to stay with us?”

Geena nodded, falling into step beside them. “Uh-huh! Like I said, I’m here for the next five years.” She made a face. “It’s my penance for stowing away. They don’t think I’m old enough yet to hang out in a war zone, so I get to spend a few more years growing up in here.”

Renfield stared. “Really? They’re just...sticking you in a cyber jail? Harsh.”

“Well, it was my choice.” Geena shrugged. “It was either that or get sent right

back home again as soon as we break out of jump. I didn't want to go to all that trouble and *then* miss out. So five years in here with you, and then I get to play with the big boys."

Ruth cocked her head. "But...you're just as old now as *we're* gonna be when we get out. If you're not old enough, what about us?"

"Well, you're not going directly into the *war zone*. At least, I don't *guess* you are." Geena shrugged. "But I want to get back to my friends on the *Clementine*. Which went planetside to help. So I gotta be older."

"So are you why we're having a Slowday today?" Soren asked.

Geena shook her head. "Not entirely. It was just a good opportunity to sync up and come in. I think the real reason is a chance to show your creche environment off to some of the diplomats. It's the first chance a lot of them will have had to see anything like this."

Stacia frowned. "Diplomats. Including the ones from Earth? Is it really a good idea to show them *us*? I thought we were supposed to be trying to keep them in the dark about Zharusian technology."

"That ship has more or less sailed at this point." Geena rolled her eyes. "It's a little hard to keep everything under wraps when we're building a whole sorta-military expedition full of it to go off and rescue another planet. So I guess now we're trying to intimidate them instead. Make 'em give up 'cuz we're already too far ahead or something? I dunno."

Ruth frowned. "That doesn't sound like it oughtta work, from everything Mom and Dad have ever said about Earth."

Geena shrugged. "It's not like they've got much of a choice. They're gonna see us in action no matter what, so they might as well see it all. Oh hey, we're nearly here."

The cyber-creche's school building was, like so much of modern Zharusian culture, an homage to the 20th-century. An unmistakable 20th-century school building occupied the entire block, complete with a circle drive for bright yellow school buses. "Why do they even *need* school buses?" Renfield muttered. "We're all in a computer. We could just...*beam* in."

"The same reason I gotta go to the litterbox all the time, I guess." Ruth sighed, wrinkling her nose. "We gotta train ourselves up for when we have to live in a world where we *can't* just 'beam in.'"

Soren smirked. "*Some* of us find our little ways around that."

Ruth blinked. "Really? You've hacked the poop protocols? Share! Share!"

The owl looked uncomfortable. "Eh...see me after school, mebbe..."

Geena tilted her head. "Are you sure you should be doing that?"

"Why not? It's our bodies." Ruth frowned. "Well, our, uh, *pretend* bodies. Anyway, we should have the right to decide if we wanna poop or not!" She paused. "Uh...you're not gonna tattle, are you?"

Geena shrugged. "As long as you don't do anything *really* risky, I guess it's not any of my business. Just so long's you know that if you *do* go organic, you're not gonna have a choice in if you poop or don't."

"Not saying that I really *am* a plant, but I have to admit, plants *do* have it a lot easier when it comes to organic waste," Stacia said.

"I don't even know why I'd *want* to go organic, if it's gonna be this much trouble." Ruth wrinkled her nose again. "If anything, it makes it more tempting to go

RIDE, just so I *don't* have to anymore.”

Geena smirked. “It does have its compensations. But there’s time to go into that later.” She held the door open for the others to go into the school.

“I really think Mom and Dad take the whole ‘reality’ thing too far. You know they won’t even let me have my hair long like Mom’s without keeping the reality setting high so it keeps getting caught on stuff?” Ruth wrinkled her nose. “*Mom* doesn’t have *her* hair in ‘reality mode’ in the *Real*.”

“Perhaps she just doesn’t want you to make the same kinds of mistakes she did?” Geena suggested.

Ruth rolled her eyes. “How big of a life mistake can you make with *hair*?”

Renfield snorted. “That’s parents for ya. ‘Do as I say, don’t do as I do.’”

“*Doo-doo* as I do,” Ruth muttered.

Inside, the school would have looked very familiar to anyone who had grown up in the 1990s. Tile floor, painted cinderblock walls, colorful decorations including juvenile art projects taped up outside each classroom...the staff had gone the extra mile to make sure everything looked perfect to the eyes of one who’d grown up in the 26th century while overdosing on pop culture from the 20th. *Like we care*, Ruth often grumbled. *We don’t even know what the now is like yet, and we’re growing up five hundred years in the past?*

There were a few concessions to their virtual state, of course—most notably, the way that school desks and chairs could be banished to nonexistence rather than having to be shoved out of the way when not in use. But at the moment, the desks in their virtual classroom were arranged in perfect order—as usual for the start of the day. Miss Markam liked to call roll in human form. She said it made them easier to count. Ruth sighed and stood erect, shrinking back into the shape of a young teen with shoulder-length grey-white hair. Beside her, Soren and Renfield followed suit. Soren was a studious-looking young man with thick glasses, and Renfield was a boy with freckles, bristly black hair, and a surly expression. Stacia, of course, was still the brown-eyed, blonde-haired, vaguely elfin girl that she’d been all along. Together with Geena, they filed into the classroom.

Most of the other students were already there, but they weren’t the only ones in the room today. A dozen or so other adults were standing by the teacher’s desk, talking to Miss Markam, and a few others were elsewhere in the classroom, examining the decorations on the walls or chatting with other students. The virtual classroom had been unobtrusively expanded to accommodate all the extra people.

The most interesting-looking of the group was an androgynous sort of person with very pale skin, a bald head, and wearing a silver shirt and pants. He or she didn’t seem to be entirely there. Others in the group had more natural human appearances, to a greater or lesser extent. Three had tags suggesting they were either partners to or RIDEs themselves. Those were all just appearances, though. There was no way to tell for sure what any of them were without pinging them, and that was generally considered rude, or so Ruth had been taught.

Ruth, Soren, and Renfield found their usual seats, and Geena went up to talk to Miss Markam for a moment before taking a seat near them. The last few stragglers straggled in, then the bell rang.

“Good morning, class!” Miss Markam said. “As you know, today is a special day; we have a number of visitors with us from the world outside. They’re interested in

seeing how we do things around here, and in return, they have presentations for us on their own unique cultures in the real world.”

Renfield rolled his eyes and muttered via their group sideband chat, “Oh, yay. More *social studies*.”

“You’ll be glad for the information when they kick us out to the Real,” Soren hissed. Renfield only rolled his eyes again. Almost everyone had their eyes on the odd one, so their teacher started with him or her. “Well, I’ll let our guest from Eridani introduce himself.”

“Thank you. My name is Mikel Steader, and I appreciate your warm welcome. Please pardon my technical difficulties...it’s something of an accomplishment that I’m even here at all.”

“Your tech’s based off stuff that’d make us itch, right?” Renfield said.

“Believe it or not, it’s fundamentally analog,” Soren added.

Ruth blinked. “What, like it’s full of tiny cogs and gears?”

“That’s...not *quite* correct,” Mikel said. “But I’m not at liberty to correct idle speculation. Suffice to say that my own cybernetics are akin to an Integrate’s DIN.”

“So you need a special adapter?” Ruth said.

“Exactly. So please excuse my translucence.”

“There are so many different kinds of people,” Stacia said. “Even ‘real’ people can be digitally different. Neat!”

Ruth had it in mind to ask Mikel about Joe Steader, who showed up at her parents’ place from time to time with his partner Julius, and had mentioned his brother Mikel a number of times. But that could wait until after class when there weren’t so many other kids around. At the moment, Miss Markam was moving on to introduce the other visitors.

“These are Mr. Andrews and Ms. Zeta-Smythe, from the colony of Kepler. They’ve expressed a great deal of interest in learning about the way things work around here.”

“I’ll just *bet* they have,” Ruth muttered. “Is it just me, or do they look a little rodenty around the eyes? I’d almost swear they’d Fused a rat.”

“Those pointed noses aren’t doing them any favors either,” Soren opined. “Really, I keep having this subconscious urge to *swoop* on them. It’s very confusing.”

“Are you sure you’re not just projecting?” Geena put in. “If your folks talked about the Keplers the way the grown-ups I’ve known have, you could already have been *predisposed* to think of them as rat-like.”

Ruth, Soren, and Renfield exchanged glances, then shook their heads in unison. “Naaaah,” Ruth said. “They’re just generally ratty is all.”

“On reflection, I think I have to agree with you,” Geena said. “They *do* seem rodent-like. I wonder if those are common ethnic features on Kepler? Does something about the environment naturally select for long ratty noses? Maybe it’s really smelly there or something?”

“I don’t *think* that’s how natural selection works,” Stacia said. “Though if it isn’t, maybe it ought to be.”

Ruth scrutinized the Kepler representatives closely. They were looking around the room, trying their best to seem open, friendly, and casually interested, but there was something more. In one of her periods of infatuation with the Real, Ruth had downloaded skillchips on reading microexpressions and unconscious gestures, and

she'd since found that a lot of humans didn't know they could filter out those expressions when they ported into VR, so they didn't. From the unconscious cues that pair were giving off, she could readily imagine them smirking and saying something about what a nice classroom it was, it would be a *shame* if something were to happen to it.

Ruth shivered. But surely the adults were keeping an eye on things. After all, it was as Geena said—*nobody* trusted the Keplers, who seemed to have a knack for staying just *barely* this side of getting ostracized as pirates and mobsters. Even if the grown-ups wanted to play nice with the rest of the colonized galaxy and gather allies against the possibility of a war with Earth, surely they weren't going to be so lax as to give away the farm, right?

The Earth diplomat was one Charles de Gaulle. He seemed like a nice-enough fellow, but the really interesting thing was he had a RIDE partner, a bird named Redwing, which Ruth had heard wasn't exactly commonplace for an Earther. "We might have to catch up with them later," she suggested. "I want to know more about that."

There wasn't much noteworthy about the scattering of representatives from the other colonies. There were a few RIDEs along, too, and even a couple of Integrates. Ruth sensed some private sideband activity between Geena and a couple of them, but that was to be expected.

After everyone had introduced themselves, as Miss Markham had said, they launched into presentations on their respective worlds and cultures. Most of it was stuff the kids had already learned in class, but Ruth did have to admit it made a difference to be hearing it directly from someone from the place in question, able to answer any questions they came up with right then and there. Even Renfield was able to find a few things to ask about.

That took up much of the morning, leaving the afternoon for regular classes. Most of the colony representatives stuck around for those, sitting in the back of the classroom and taking it all in, as well as chatting one-on-one with the more curious students who approached them to speak. Almost nobody approached the Keplers, Ruth noticed. There was a definite sense that they were just generally bad juju, and people didn't want to risk any of it rubbing off on them.

After classes ended, about half the students left, and the other half stayed around to talk more to their observers. That included Ruth, Geena, Stacia, Soren, and Renfield. While Geena and Stacia chatted with the woman from Ibn Rushd, Soren investigated the Earth rep and his RIDE, and Renfield spoke to the man from Neorus, Ruth finally found the chance to chat with Mikel Steader.

"You're Joseph Steader's brother, right? He and Julius come by our place sometimes."

"That's me. Born on Zharus, but I'm more Eridanite now. Joe and I used to be quite close. But, life being what it is, there are a few decades where I was somewhere else. Changes you."

"I thought so. He's mentioned you sometimes. So...why'd you pick Eridani?"

"I'd say, after all these years, Eridani chose me. I had a serious accident when I was traveling with the Star Circus. Their cybernetics saved my life. Suffice to say that they grow on you. They're actually a lot like my home polity, Nextus, but without the standoffishness."

"Kinda funny you ended up with the one place whose tech doesn't like to talk to

ours.”

“Funny, I suppose. I can’t really imagine what it’s like for you kids, growing up like this. Eridani tech doesn’t lend itself to artificial intelligence, so we don’t have that sort of experience there.”

“I can’t imagine what it was like for *you*, growing up in the real world in slow-time and knowing stuff would have changed completely out there by the time you finished. Well...except there wouldn’t be an ‘out there’ for you, since you’d *be* out there...”

Mikel chuckled. “I never thought about it like that. I guess the grass is always greener.”

“Unless whoever coded the VR sim liked some other color better, yeah.”

“So that’s how you think of the ‘real world’? ‘Slow-time’?”

“Well, that’s what it is, isn’t it? Time that’s slower than everything in here...” Ruth shook her head. “I can’t even imagine what it’s going to be like after we graduate, and we’re out there in it full-time. Or what it would have been like growing up like that. I mean, I’ve read books, seen vids...but that’s not the same thing as living it.”

“I would guess it’s about the same as growing up in here...just without another, slower reality to dip into. But it’s only a guess.” Mikel shook his head. “Well...I really should move on and see more of this place while the opportunity presents.”

Ruth nodded. “I should be heading home anyway. Give my love to Uncle Joe and Jules!”

“I will. And look me up next time you’re in the Real. I promise I’m *slightly* less translucent there.”

Soren, Renfield, Stacia, and Geena were waiting outside the classroom when Ruth joined them. “Well...that was kinda neat.”

“Meh,” Renfield said. “It’s the same crap every year when we do a sync day. So this time they brought in a bunch of stuffed shirts from elsewhere in space, so what? And it’s like a ‘snow day’ from old Earth, you know—every one of them we have means it’s a day later in the Real when we finally do get out.”

Soren hooted derisively. “Entropy being what it is, we’ll probably never even notice we’re missing a couple of *weeks*, Rennie. What with the universe having billions of years left in it and all...”

“Yeah, well, it’s the principle of the thing.”

Ruth smirked. “I think the *principal* of the thing is okay with it, or else they wouldn’t have shown up at our school.”

Renfield groaned. “Boooooo! You and your lame puns.”

“They run in my family. Or maybe *pun* in my family...”

“Boooooo!”

“What are you all going to do now?” Geena asked. “Head back home?”

“Yeah. Maybe head by our hangout and people-watch in the real world. We might even head out into the Real for a few hours; we’ve still got another 15 or so of sync left.”

“Those of you *with* shells, anyway,” Renfield grumbled. “My folks still haven’t sprung for one yet. Though every year I hope they’re gonna surprise me with it...”

“I don’t have one either, yet,” Stacia said. “But if I make all As this year, my parents have said they’ll look into it.”

Ruth patted Renfield on the shoulder. “It’ll happen sooner or later. Anyway, we’ve still got all the public camera taps, so we can at least watch and listen to people

from the shipboard feeds instead of peering out at frozen tableaux.”

“Yeah, big whoop.”

“Oh, hey...” Ruth glanced at Soren. “You said something earlier about getting around the reality-mode restrictions?”

“Well...yeah.” Soren glanced around, then offered Ruth a small glowing cube representing a data transfer. “That’s a program I worked up. It’ll bypass the ‘reality mode’ limiters so you don’t get hungry or thirsty or tired unless you want to, and don’t have to poop. There’s a subroutine to create random, ah, *logs* you can leave behind in the litterbox if you think they might be checking your, heh, *output*.”

“Oooh, awesome! Thanks.” Ruth pocketed the cube. “That was the one system I never could quite get my head around. I look forward to trying this out.”

Soren nodded. “Be careful, and if they catch you, you didn’t get that from me.”

As they headed back up the trail toward home, Ruth and Geena gradually drifted back from Stacia, Soren, and Renfield as they talked with one another about their impressions of the day. Ruth was still excited that Geena was going to be joining her full-time for the next few years. It was going to be neat having a live-in big sister!

They were walking and talking, with the other three a few dozen yards ahead, halfway along the path that led to their neighborhood, when Ruth caught something odd out of the corner of her eye. She stopped in her tracks, holding up an arm to halt Geena, too.

Geena cocked her head quizzically. “What is it?”

“Look.” Ruth pointed to the sides of the path.

“What is...*oh*.” Geena blinked and stared where Ruth was pointing. There were trees lining this section of the path, which wasn’t unusual—but what was unusual was that the same tree, and surrounding shrubbery, repeated itself. The trunk shape and branch shape was identical. On the other side of the path, a stone shaped like half a football was similarly doubled. It was as if someone had sliced half a meter out of the world and dropped it in next to its source.

Ruth raised her voice. “Hey, Soren, Renfield, Stacia, could you come back here a moment, please?”

Ahead, the owl and wolverine RIs and human EI turned back. “Sure, Ruth, what’s up?” Soren asked. Then, right as they reached the point where the terrain repeated, they slammed right into an invisible wall. “Ow! Hey, what...?”

“Oh, BLEEP.” Then, even as Ruth spoke, the path in front of them shimmered, flickered, and faded back to normal, with no duplication—and Soren, Renfield, and Stacia vanished.

Geena stared. “What just happened?”

Ruth grabbed her arm. “Fast-time. *Now*.” The world flickered around them, and then they were in a small room, set up like an office with a desk, comm screens, bookshelves lining the walls, and a comfy sofa and fridge in one corner. The walls were translucent, showing a view of the path where they’d just been.

Geena blinked. “What’s this?”

“My hackerspace. I keep it as a VR overlay I can pull up when I need it.” Ruth cracked her knuckles and placed her fingers on the comm’s keyboards. “And boy, do I need it now. Let me see if I can figure out what just happened to my friends.”

“What...*did* just happen to them?”

“Shush, I’m trying to figure that out.” She entered a series of commands, and the

screens blinked as information scrolled up into them. “Hmm. It looks like someone breached our ‘frame and installed a digital shunt in the path ahead of us.”

“A what?”

“A shunt. Basically, they diverted any data that passed into that space into their own server. Data like Soren, Renfield, and Stacia. And like us, if we hadn’t been paying attention.” She entered another series of commands. “I’m trying to trace where it went now. At least we jumped right into fast-time when it happened...we’ve got more time before the trail grows cold.”

Geena looked around. “Where did you get all this software you’re using?”

“Well...Mom’s cloud storage, actually.”

Geena raised an eyebrow. “She just...gave it to you?”

“Well, no...but she’s not very good at coming up with RI-proof passwords.”

“Ruuuuth...”

“Hey, if she really didn’t want me to have this stuff, she should have made it harder to get access to it!” Ruth turned her attention back to the screens. “It looks like the data trace is leading into the diplomatic sections, so it must have come from one of the embassies. But I can’t see where it goes once it gets there. Not from here, anyway. Their firewall is just too good.”

“So what do we do then? Tell your folks? Have them contact the authorities?”

Ruth frowned. “We *could*, but...it would take too long to get anyone to believe us. We need to get to them as quickly as possible.”

Geena held up a hand. “Uh, Ruth? We’re in a sealed spaceship in the middle of a hyperspace jump. There’s literally nowhere for the bad guys to go. We’ve *got* time.”

“If you’re talking about getting them off the ship, sure—but they could still *hurt* them, and I don’t want to give anyone extra time to hurt my friends.”

“All right, so what’re you thinking?”

“We need to take a little field trip.” Ruth grimaced. “To the ‘real world.’”

Not too long after the ship had gotten underway, Rhianna and Rochelle had started getting service requests from fellow passengers on the trip. The *Great Western* had its own maintenance department, of course, but so many of those passengers had been Freeriders Garage customers that naturally they turned to the people they knew and trusted—even if they had to pay out of their own pockets.

This had led, in turn, to Rhianna chatting with Zane about getting a franchise from the fleet, so they could take payment from the maintenance department stipend rather than their customers. Zane had been fine with it, and had been as adept at cutting through the bureaucracy as you’d expect from a Nextus-born citizen.

A little bit of paperwork shuffling led to the docking annex where Uncia Maxima was parked being ceded to the Freeriders and turned into a workshop that, if it didn’t necessarily rival their digs back home, was at least nothing to be ashamed of. In addition to the maint cradles Zane shook loose from a couple of onboard workshops, they also had a couple of the portable cradles they’d found in their Shed rummage, so they were pretty well set-up.

The annex also had a small room—more of a utility closet, really—where they kept the latest Drive Extender shell meant for Ruth’s use in the real world. When they weren’t actually working on it, it was kept hooked up and ready for immediate transfer, since they never knew at what moment the creche would have one of its real-world sync

days. And the transfer was keyed to Ruth's RI process, so the only lock on it was one to which she was her own key.

Moments after deciding on the field trip, Ruth opened her eyes on the utility closet. She ran a quick system check, then ejected the interface plug, stood, and stretched as the hardlight snow leopard pelt flickered on. "Ahhhh..."

"Niiiiice kitty!"

Ruth jerked. "Huh wha?"

The voice had come from a small box nestled into one corner. A standard mini-fabber unit, it appeared. Then the fabber grew arms and legs and stood up, shrinking down into a poodle-skirt-wearing, poodle-tagged girl. "Nice kitty!" Geena said again, giggling. "Since I'm going to be your live-in sister, they figured I might as well just park myself here with you."

"That's convenient."

"Dogs and cats living together!" Geena came over and peered at Ruth. "So this is your real-world shell body?"

"My second one, actually." Ruth lifted a paw and regarded it. "They'd planned to have my kitten one 'grow up' with me, but soon realized that wasn't as practical as just making me a new one at full-scale when I'd grown up a little. And that freed up the tiny one for rental to other parents who want to bring their kid out into the real for a while."

"Neat! Does it Fuse?"

"I can Fuse, and I've got Shell Mode, too." Ruth stood up and shifted into a humanoid snow leopard form. Geena applauded politely. "Though, of course, Fusing with an Integrate would do nasty things to both of us."

"Yeah." Geena cocked her head. "You got a vehicle mode?"

"Uh-huh! It's a skimmer bike—sort of a next-next-next-generation version of the one Aunt Kaylee is." Her hardlight fur flickered out and she unfolded into a sleek tri-lifter skimmer bike with snow leopard highlights.

Geena patted one of the boxy pannier constructions toward the rear. "Is this a standard module slot?"

"Yeah, they decided to make me a utility frame. Most versatile, they said. They can always rejigger it if I should want to fledge as assault or comms or whatever."

"Can you open the housing? I wanna try something."

"All right...?" Ruth said. The front and top of the cover raised, folded together, and slid back. Geena sat down in the housing slot, pulled her knees up against her chest and put her arms around them, then melted down into a mini-fab unit similar to the one she'd been earlier. With a click, she latched into place, and Ruth felt a standard faber module handshake request, with a deeper undercurrent that was currently carrying giggles.

"Well how'bout that? I fit! And no Fuser compatibility issues, either. G'wan and close the lid?" Ruth did. She accepted the handshake, and a moment later Geena reappeared in the hacker's "office" she still had up in her cyberspace. "Cool!"

Ruth blinked at her. "And...you'll actually function as a standard fabber like that?"

"I *am* a standard fabber like that—one hundred percent!" Geena said. "Of course, to actually fab anything you'll need to add a tank of fabber gel in the other slot."

"I think there's some over there against that wall. They store parts and things like that in here, too."

“Oooh! Raise the lid back up, I’ll hop out and get it for you.” She did so, and a moment later Geena slid the tank of fabber gel into the right-hand slot before climbing back into the one on the left. “There you are! We’re good to go.”

“Great! I’ll pay them for the gel tank later. Or Mom and Dad will.”

Geena giggled. “I’m the one that’s gonna use it, so maybe I should! Are we all good?”

“Think so. Just a sec.” Ruth slid back into her humanoid Shell Mode form, then moved to the door and slid it open a crack. By the ship’s clock, this was the same late afternoon period as in the creche. Ordinarily, Rhi and Uncia would have been hard at work on some customer’s shell, but this was one of the days they took off—there wasn’t enough shipboard work for them to work every day. So, happily, the garage was empty. Of course, the security cameras would show them leaving—unless, of course, some clever little RI hacker fiddled with the records. “Okay, we’re on our way.” Ruth dropped to four legs and began to bound through the corridor.

“Great! Could I have a moment in fast-time, please?” Geena asked.

Ruth kicked up the processing speed. “What you need?”

Geena faced Ruth, hands on her hips. “It’s what *you* need, actually. I didn’t want to say anything about it while you were busy getting us out here, but now we are, you really need to let people know what just happened.”

Ruth blinked. “What? What do you mean? We’re gonna go take care of it ourselves.”

“That is what I mean, actually. We gotta be responsible about this. Like, what if something happened to us, too? Then nobody would know, and we’d all be in big trouble. And for another thing, Stacia, Soren and Renfield’s parents have the right to know what just happened to them.”

“Oh.” Ruth considered. “We’ll get in trouble for hopping out here...”

“We’ll get in trouble anyway. But we’ll get in *less* trouble if we at least tell them what’s going on.”

“They might tell us to go back...”

Geena grinned. “No one said you have to tell them in a two-way conversation. Send ‘em an email, then just don’t check your inbox after that.”

“Oh.” Ruth considered that. “All right. Let me just package up the records then.”

“Be sure you include how creepy those Keplers were at school today.”

“Right.” Ruth considered the external view of the corridor they were striding down, currently frozen in fast-time. “Well, at least we’ve got plenty of time to wrap up the details.”

Geena nodded. “So let’s don’t rush, and let’s be sure we do it right.”

The two of them spent a subjective hour (or about a second of real-time at their current compression rate) drafting their message, then they sent it off to Ruth’s parents, the parents of Soren and Renfield, and Rhianna, Kaylee, Uncia, and Nils as well. Then it was back into real-time and they were off again.

Not surprisingly, chat requests started coming in shortly after that, but Ruth set the “do not disturb” flag and carried on.

The diplomatic section of the *Great Western* was located in a broad, open, multi-level area which offered access to exhibition spaces for each colony for people to visit and see what life was like there—not only other members of the ship’s crew, but also the Totalians once they got to that world. In addition to the open exhibitions and embassies,

each colony also had its own private ambassadorial space, to which only members of the embassy staff had access.

In its own way, it seemed like a real-world equivalent to the visitation program that had brought colony representatives to Ruth's school. Ruth had visited it a few times on earlier trips out into the world, to see friends of her parents who lived here and there.

Unfortunately, from the public spaces Ruth only had access to public-access areas of the ship's network—not to the parts behind the diplomatic firewall. "We need to get access to the private networks." Ruth frowned, pulling up the *Great Western's* spec sheets. "It looks like the easiest way to do that is through one of the engineering decks. But they don't have any public access ports in this area—they're all accessed from inside the private sections, and good luck getting us into one of *those*. We can't just stroll up and expect them to let us through."

"Yeah, that would be kinda awkward," Geena said. "I was wondering what your plan was."

"I kinda didn't have one. Just making it up as I go along."

"So what're you gonna make up now?" Geena asked.

Ruth pondered. "Well...I had one idea, kinda...but I don't think you're gonna like it very much."

"Try me?" Geena suggested.

"You're right. I don't like this idea very much at all."

They stood in one of the small utility airlocks near the diplomatic section. Ostensibly security sealed, the airlock panel had proven amenable to a couple minutes' worth of RI-enabled prime number crunching.

"It should be perfectly safe as long as we stay on the hull of the ship," Ruth said. "The drive field extends a hundred meters out on a ship of this size. I've got magnetic feet, and we don't have to worry about breathing..."

"This is nuts!" Geena protested. "If this doesn't kill us, your Mom and Dad will."

"Do you have any other suggestions for how to get by their firewall?" Ruth asked. "Other than file a diplomatic protest and get in a big argument, during which they have plenty of time to do whatever, maybe even including *deleting* them to get rid of the evidence?"

Geena sighed. "No...I guess I don't. This just...isn't going to look very good. I'm *supposed* to be a moderating influence on you."

"Yeah, and my friends *aren't* supposed to get kidnapped by people." Ruth reached to the control panel on the wall. "I'm bypassing security so no one will notice we're using the lock. It's just a hundred meters or so to another lock with access to the e-deck. We shouldn't even need to go all the way inside if there's a net socket inside the airlock like there is in here. And there should be, it's a standard configuration."

"Maddie and Samantha are gonna *kill* me for this. Fifi's not terribly happy about it, either."

"But she's not gonna try to stop us?"

"I don't see much alternative, either," the poodle in question said. "As you said, they could just delete them."

"Not if we can stop them." Ruth opened the vents to let the air out, then opened the outer door once the pressure had equalized. Leaving it open behind them, she set out across the hull of the ship.

It was a strange experience, walking across the hull of a ship in white-out hyperspace jump conditions. All around them, everything that wasn't the hull of the ship, or of another ship latched onto the hull, was simple, flat, featureless, distanceless white. Ruth kept expecting Lawrence Fishburne to step out and explain that no one could *tell* her what the Matrix was. Her magnetic footsteps made a hollow CLOMP, CLOMP, CLOMP that was felt, rather than heard, except to her inner audio sensors that detected vibrations.

But happily, the other airlock was right where the schematics she'd downloaded said it should be, and the hatch was as easy to access as she'd hoped. There wasn't even a lock on it, though she did override the access indicator so it wouldn't show up as having been opened. It was assumed that anyone out there at the moment was already authorized to be there, after all, and there was no need to put extra obstacles between them and lifegiving air and heat.

Ruth slipped into the lock, reorienting herself to the ship's artificial gravity, then reached out to the access panel on the wall and linked in. In the office hackerspace, the screens flickered to life with diagrams and data traces. "Okay...let's see. Are we in...? Aw, BLEEP. This only provides access to the general ship networks. The firewalled portions must be further inside."

Geena peered at her. "Wait...what did you say? Bleep?"

"BLEEP. It's a swear word. Uncle Julius uses it all the time."

"But that's..." Geena frowned. "Uh...well, it's not something you should do in polite company."

"Yeah, I know. That's what Mom and Dad say. Though for some reason it seems to make them giggle a lot when I do it." Ruth shook her head. "Anyway, it looks like we're gonna have to go a little further in after all."

"Are you sure that's safe? What if someone sees us?"

"It doesn't seem too likely; these e-decks are basically the equivalent of crawl spaces, or 'Jeffries Tubes' from that old sci-fi show Mom and Dad watch sometime. There probably won't even be anyone here. Anyway, it's got to be safer than taking a walk across the outside of a spaceship in jump, right?" Ruth peered out the glass panel in the interior door, moving her head across to either side. The corridor was dim, and appeared to be vacant for as far as she could see in either direction. "Guess we'll just have to risk it." She worked the controls, and air began to hiss back into the lock. After pressure equalized, she slowly opened the hatch and peered out, thankful at least for the regular maintenance that kept the hinges from squeaking.

"Doesn't appear to be anyone around, at least," Geena said. "But there are probably optical pickups. Can you hack them?"

"Not without finding a physical access port first. We better hurry before someone notices us."

"If there are any digital intelligences monitoring them, they've probably noticed you already."

"We'll just have to take that chance."

"Which means they could be waiting for us when you jack into the network..."

Ruth shrugged. "All I can do is hope..." She moved up the corridor, glancing at the electronic equipment and other utility boxes that lined the walls. "There's an access port. Give me a moment." She withdrew a cable from her wrist, and plugged it into the jack in the wall. "Okay...zeroing out the images of us...planting a little thingie to keep us

invisible to the cameras for the next little while. If it works. I hope it works.”

“What about Soren and the others?” Geena asked.

“I’m looking...but I’m not picking up any signs of the hack crossing this node. I need to check other nodes, deeper on into the deck.” Ruth disconnected. “Onward and upward! Or at least, onward and sideways...” She moved down the dimly-lit corridor, heading deeper into the deck. Every so often, she stopped and plugged into another port along the wall.

“Anything yet?”

“Negative. But we’re just about to where the main trunk passes through this level. That’s most likely where we’ll pick up the trail.”

“Is this level supposed to be this empty?” Geena wondered.

“From what I read, this is a pretty low-maintenance ship. So not much reason to be here most of the time.” Ruth turned a corner and moved up the passage. Ahead, a large bundle of cables ran along the ceiling. Ruth moved to a data port in a nearby wall. “Let me see...checking...checking...bingo!” Ruth grinned. “Found the trace. Now it’s just a matter of following it home.” She dropped back into her “office” in fast-time, and started running traces. “It looks like it’s going into an unused part of the diplomatic mainframe. One of the sections blocked off for use by Totalians on the way back, if they send a full diplomatic mission back to Zharus.”

Geena peered over her shoulder. “Huh. So someone got in past the blocks?”

“It’d be simple enough, if they were able to get to the physical access point. Which...from what I’m seeing, should be in one of the similarly blocked-off unused portions of the embassy deck.”

“Those wouldn’t happen to be located anywhere near the Kepler Embassy, would they?” Fifi the poodle wondered from Ruth’s other side.

“Funny thing, that. The Keplers are located way off away from everyone else...in the middle of a lot of empty space. You’d almost think no one wanted to be near them.” Ruth pulled up deck plans in another window and peered at them. “I think there’s an access hatch to the empty space further on in this engineering deck.”

“Hmm.” Geena frowned. “Are you sure that going there is a good idea?”

“Well, what else did we come out here for?” Ruth said. “I’m not thinking of charging in guns blazing—I don’t even have any guns! But they can’t be expecting anyone to be onto them this fast, so the sooner we get there and look around, the more we’ll know at least.”

“Y’know, I could *make* you guns,” Geena said. “Well...fairly simple ones anyway. With the fabber.”

Ruth blinked. “Really? Uh...maybe you better do that, then. Just in case.”

Fifi cleared her throat. “I *really* don’t think that’s a good idea...”

“And going up against RI-nappers unarmed is?” Ruth asked.

“I don’t think we should be going up against RI-nappers at all,” Fifi said. “Maybe email this added information to the parents and let them decide how to handle it?”

Ruth considered. “Well, I *will* email the info, yes. But they’re out there, and we’re right here. And this is time-critical. Geena, make me a couple guns. But Fifi, I promise I’ll *only* use them if I have to, in self-defense.”

The poodle growled, but Geena nodded. “Right. I’ll get right on that.”

Ruth dropped back into the real world, consulted the map, and stalked off down the corridor. Mindful of her promise to Fifi, she quickly emailed the additional

information she'd turned up on the probable location of the kidnappers, then once again ignored the flurry of responses and chat requests that started pouring in.

As she got closer to the access point, Ruth slowed down and started paying closer attention to her surroundings. After all, she didn't know but what there might be guards in the area. She set her sensors to maximum sensitivity, then dialed them back after a few too many false positives started making her jumpy.

The access point was in a section where the corridor narrowed to an ending, with a bulkhead hatch set in the ceiling. "I really hope this thing doesn't creak too loudly when I turn the wheel..." Ruth muttered. But given how new the ship and all its fittings were, she needn't have worried. The wheel turned perfectly silently, even if it did take much of her DE shell's strength to push it open.

Ruth slowly peeked up over the edge, pushing herself up with her lifters. As she understood the schematics, it was a blocked off section along the edge of the massive, open diplomatic deck. The walls would be taken down and it would join the rest of the space when there was a tenant ready to take up occupation for the return trip, but for now it just looked like another wall of the ship.

The room was a vast, dark space—but in the distance was a dim glow that might bear investigating. Ruth lifted herself up and through and slowly closed the hatch to shut off any light flow from below. Then she moved off to one side into the darkness, as silently as she could.

"OK, got your guns ready," Geena said. "A couple of pulse pistols. They're poking out the top of the fabber, behind your left shoulder."

Ruth reached back and grabbed them, then examined them. "Got it." She mag-clamped them to her hips. "Only in self-defense, promise." Then, crouching low, moving as silently as possible, she crept forward toward the light. She remembered that this shell had low-light optics in the eyes, so she cranked the light amplification to take a look. There seemed to be three humans crouched over a computer terminal, whose screen provided the only illumination. The terminal was plugged into a dataport in the wall, presumably the access point to this area's section of the diplomatic mainframe.

"So what're we gonna do, then?" Geena asked, via internal comm only. "Three of them, and they're probably armed. Even if they're only human, they could still have guns that could hurt us."

"I'm thinking. Gimme a sec." Ruth dropped back into her hacking office in fast-time so as to do an hour or so's worth of pondering in that sec—and then the idea struck her. "Waaaaait a minute...these guys are human. So they can only think and act in real-time."

Geena peered over her shoulder at the screen. "Uh, yeah? So can we, kinda...there *are* limits to how fast your body can move."

"Yeah, yeah, but...if we can get to that port and plug in, we might be able to clear everything up in just a few seconds. The Keplers don't have any RIDEs working for them, export laws being what they are and stuff, so all we'll have to face on the inside are expert systems. Easy-peasy. We can be in and done before any human operators elsewhere even know what's going on."

"There are still the human operators *here* to consider, though..." Fifi pointed out.

"Yeah...but the beauty of it is, we only have to distract *them* for a few seconds, too." Ruth cracked her knuckles and bent over the keyboard, pulling up schematics and making a few quick changes. "You can fab about a half dozen of these, right?"

Geena peered at them. “Sure, just send them over. But these are...uh...wind-up catnip mice?”

“Battery-powered, actually. The wind-up key’s just ornamental. Aunt Rhi used to fab these for me to play with when I came out to visit them in the real world in the smaller body.” She shrugged. “They’re a handy design that I had on hand. I just added some noisemakers and remote control. And got rid of the catnip scent.”

“So, uh, what’re you gonna...oh!” Geena considered. “I think I see. OK, I put the order in. It’ll take about 30 seconds real-time to have them ready.”

“All right, good. So...you’re not a hacker yourself, right? Either of you?” Both Geena and Fifi shook their heads. “All right. Well, you can still back me up in there, if you want to help. Even if that’s just lending CPU cycles.”

“Are you sure this is a good idea? In general?” Geena asked.

Ruth shrugged. “Probably not. But they’re my friends, and I can’t just sit by and wait when I’m in a position to do something. I can leave you guys back here where it’s safe...”

Geena sighed, and shook her head. “If we’re gonna get in trouble anyway, we might as well go all the way. Right, Fifi?”

The poodle whined a little. “Whatever I say, I’m pretty clearly outvoted.”

“Right!” Geena said. “So it’s unanimous.”

Ruth took a few more minutes to plan, then dropped back into realtime. Thirty seconds later, she had a half-dozen robot mice in her hands. She dropped one where she was, then moved forward and put the others on the floor, giving them instructions to head to various positions on the opposite side of the room. Once they were all in place, she directed one of them to start making noise—nothing overtly suspicious, just bumping and shuffling sounds to make it seem like someone or something was there. Then she crouched behind a pile of leftover construction material along one of the walls and waited.

At the computer, one of the men stood and looked around. He pulled out something that looked like a pistol, and Ruth crouched a little lower. Just because she had pistols of her own didn’t mean she wanted to get into a firefight.

“What’s that?” one of the men said.

“I dunno, I’ll check it out,” said the one with his gun out. He started moving forward, across the darkened room. He didn’t have a flashlight; Ruth supposed he was using low-light goggles. Just as well most of the mice were in part of the room away from her.

Ruth waited until he was nearly there, then had another one of the mice, at another corner of the room, start making sounds, too. Then a couple more. Now one of the other men at the computer got up and moved to investigate. In her inner office, Ruth squealed and rubbed her hands together. “It’s working!”

“There’s still that one at the computer, though,” Geena said.

“Right.” Ruth triggered all the rest of the mice, on full volume. Rattling, shuffling, scurrying sounds came from all around. Nothing really human, and certainly not what a security squad would sound like moving into position. It was more like an invasion of rats—something completely unexpected, but hopefully not enough to make them suspicious enough to do anything to the computer.

The two men investigating the corners of the room weren’t having much luck—especially since the mice were dark enough to blend in, and were able to move out of the

way whenever one of the men got close. “Come on, come on...you want to go check out the noise too; you know you want to...” Ruth muttered in the office.

Finally, the guy at the computer couldn’t stand it any longer. He closed the lid on the laptop, then moved over to join his friends. Ruth waited until he was a good twenty meters away, then moved forward, as quickly and silently as she could. Ten seconds to get to the wall port—the noises still keeping the men distracted; they hadn’t even turned to look back yet. Another second or two to whip out the cable and slot it into the plug—and time in the outside world slowed to a standstill as she connected in fast-time mode.

Of course, even once she was inside, there was still security to overcome. It manifested as a big locked steel door barring the way from the exterior landing that represented the access port. Ruth was just pulling up her tools when it slid wide open.

“Hey, would you look at that?” Geena said, appearing next to her with Fifi. “Like I said, I’m no hacker, but it turns out they don’t have DINsec on their laptop. So I just scooped all their access keys, and all the data they had on board.”

Ruth grinned. “Wow, you’re handy to have around.” She moved ahead through the door, taking a moment to glance back out into the real world. Maybe a hundredth of a second had passed; the humans were still frozen like statues, looking away from her. So far, so good.

Inside, the data structure was set up as a utilitarian warehouse space. A Zharusian might have gone for a full virtual skin depicting it as a laboratory, or prison, or whatever, but these Keplers (or whoever they were) clearly had other things on their mind. At one end of the room was a large glassed-in area where Stacia, Renfield, and Soren could be seen. Between them and the entrance on this end were a half-dozen generic VR avatars, which presumably represented the telepresences of humans logged in from elsewhere. They were standing at consoles which had to be the control interfaces for whatever analysis and firewall software they were running.

Since Ruth was still in fast-time, everyone else was standing still like a statue at the moment—virtual intelligences and humans alike. “They must have our friends throttled down to realtime speed,” Ruth said. “All right, well, let’s see what needs to be done to get them out of here.”

Ruth, Geena, and Fifi moved from console to console, peering over the shoulders of the frozen telepresences. “Wow, they’re really serious about trying to figure out how we work, aren’t they? Just as well we got here when we did...if they tried some of the decompile routines they’ve got loaded...well, it could hurt. Ow.”

“Hey, look over here. I think this might be the one you want.” Geena nodded toward one of the consoles near the holding pen. “It looks like this is the upload/download controls.”

“Let me see.” Ruth came over and considered it. “I think that’s the one. If I fiddle with it a little, maybe I can figure out how to reverse it and send them all back. Or at least shunt them into a public system not under the bad guys’ control.” She considered it a moment. “I guess it’s our luck that they had to use part of a central mainframe for this, so they couldn’t physically disconnect the machine from the rest of the network when they were done. Maybe that was going to come next.”

Ruth checked the real world again. Another few tenths of a second had passed. “I guess I’ve got time to puzzle this out...the thing is, as soon as I do anything, it’ll probably trigger whatever intrusion countermeasure software they’ve got in here. So we need to be ready for a fight.” She rezzed up a pair of rifles and handed them to Geena and Fifi.

“These are codeguns...defensive software implements. They should disrupt any bad guys who show up, hopefully...”

Geena raised an eyebrow. “Hopefully?”

“Well, I’ve never had to use them in real life before...” Ruth shrugged. “Now let’s see. I just need to unlock the firewall, then I can upload them out of here. It looks like the hole into the creche has already been plugged—good for them!—but I think I can send them to a public space in the Rama grid. They should be safe there, with plenty of other people around, until they can get back to the creche. That is, assuming the IC doesn’t stop me before the program can run.” She looked up. “You ready?”

Fifi rolled her eyes. “No, but don’t let that stop you.”

Geena nodded, gripping the rifle and wagging her tail. “Do it.”

Ruth nodded, reached to the keyboard, and began entering commands. A progress bar appeared on the panel, creeping slowly to the right as the system began to execute the program. In the real world, the complete execution of the processes would only take a second or so, but at the current fast-time speed it would seem like several minutes to them.

As the command began to run, several other things happened. The other VR avatars winked out, as the security software severed their connections. But it couldn’t do the same to her, since she had a physical link. But there were other ways to deal with that.

Doors all over the warehouse opened, letting in...

“Rottweilers?” Geena wrinkled her nose.

Ruth shrugged. “Whoever skinned this place didn’t seem to have much imagination. Really, ‘watchdog program’ is just an *expression*, guys...” They were charging in through the doors now, fairly artificial implementations of slavering, toothy canines. There were half a dozen of them so far, and they were heading right toward the three of them. “If you want, I could reskin them to look like something else...zerglings, maybe?”

“Just kill them already!” Fifi growled, raising her gun.

Ruth produced a rifle of her own, and the three of them blazed away at the onrushing hounds. It didn’t take too many hits before the digital dogs pixelized and disappeared. “Well, so far, so good...” Then more doors opened and two dozen of the dogs charged in at once. “Ack! Maybe zerglings *would* be the best metaphor...”

“Less talking, more shooting!” Fifi said.

The dogs vanished one by one, but kept getting closer and closer before that happened. “How much longer is it gonna be?” Geena asked.

Ruth glanced at the console. “It’s a fourth done...a few more minutes, maybe? If we don’t hold them off ‘til it finishes, it’ll cancel the process.”

Geena frowned. “You, uh, don’t happen to have any *bigger* guns, do you?” The doors opened again and a veritable *flood* of tawny, toothy guard dogs charged in.

“Uh...lend me some of your processing power?”

“Sure, take it!”

With the extra clock cycles, Ruth quickly upgraded their software weapons, changing them from rifles to the equivalent of bazookas. They managed to wipe out this newest wave of enemies...but the doors stayed open and more of them kept pouring in.

“How much longer?” Geena asked.

“Still only about halfway!”

They poured through the doors in a furry, growling, slavering flood, and even three bazooka cannons were hard-pressed to keep up. The air was thick with a haze made of left-over pixels that hadn't faded out yet, but they were still coming, and coming, and coming, and...

Then everything went white for a moment. When Ruth's vision cleared, all the dogs in the room were gone—and a white-haired, armored, feminine figure stood before them, sword in one hand and cannon in the other. Ruth blinked and stared. "... Mommy?"

Rochelle turned to glower at her. "How in the world did you learn to hack? Who taught you to do this stuff?"

Ruth remembered a TV commercial from one of the Steader Archive shows they'd used to watch. She stuck out her lower lip and assumed a pouty expression. "You, all right? I learned it by watching *you*."

Geena had apparently seen the same commercial. She put on a sober announcer's tone. "Parents who hack have children who hack."

Rochelle rolled her eyes. "Ruth, you are GROUNDED FOR LIFE." She paused. "How much time off you get for good behavior depends on just how good a hacker you *are*. So show me what you've got."

Ruth swallowed. "Yes, Mommy!" She glanced at the console. "We're almost done..."

Fifi pointed to the door. "And it looks like we've got more rotters on the way in!"

"On it!" Ruth frowned. Something told her that just making a bigger gun wasn't going to impress Mommy in the way that she needed to. Then she checked some of the other readouts in that other virtual space in her head. She'd been distracted by the onslaught of attack dog software, but now that she paid closer attention, she could see there were other access paths available to her. If she harnessed some of Geena's processing power, she could easily brute-force the access points in the Kepler software that controlled the entrances the dogs were using. Just a little effort, a little twist, and...

"There!" Grated portcullises slammed down in front of all the entrances, sealing the slavering software hounds securely away. "That ought to hold them for a while."

As the dogs pawed ineffectually at the gratings, the console beeped, and the three digital intelligences in the holding cell at the other end of the room vanished.

Ruth glanced at the console. "Yes! Transfer successful! They're safely in Rama now!"

"Let me see that..." Rochelle leaned in over the console and took a look. "Got it. I'm letting their parents know where to pick them up. Now let's get out of here before those dogs break through your lockouts."

Ruth glanced out at the real world. Another second or two had gone by, and the humans were starting to turn back toward the computer. "Right...uh, about that..."

Rochelle accessed Ruth's optic feed. "Did you really just run out and jack in while their backs were turned?"

"Well, I only needed a few seconds..."

"But you didn't give much thought to what you were going to do after those seconds were up, huh? We're going to have a *talk* about this before too very long." Rochelle frowned at her. "Shipboard security's about thirty seconds away from getting there. Duck and cover and try not to get shot until that happens."

"Yes, Mommy."

“Don’t just stand here ‘yes Mommying,’ *go*.” Rochelle blinked out.

Ruth sighed. “Boy, am I gonna get it when I get home.” Then she yanked the plug in the real world, and turned and ran.

“Hey! You! Get away from that!”

Ruth dived behind another pile of construction equipment as pulse blasts started flying. She reached for her own guns, but Fifi said, “Nuh-uh. Stay *down*. We’ve got backup coming in a few seconds.”

“Right, right...” Then it occurred to Ruth that her mouse toys were still out there. She reached out and grabbed control of them, and moved them in on the three humans.

Geena frowned. “Ruth, what’re you doing with those mice?”

“A little closer...little closer...*there!*” There was a series of bright flashes, and some yelps and swearing from the humans.

Ruth giggled. “I overloaded their capacitors. They popped.” She raised her head to see one of the thugs beating out a burning trouser leg, and another on the ground. “Wow. More juice in those things than I thought.”

Then a panel opened in one of the walls, letting in a shaft of light with a number of figures silhouetted in it. “Security! Everybody freeze where you are!”

Ruth relaxed. “They don’t gotta tell *me* twice.”

“I don’t think you kids realize how *incredibly lucky* you were today.”

They were all back in the snow leopard cave, which for the occasion had been reskinned into something more foreboding. Gone were the welcoming shag carpet and consumer fittings—now the place was bare stone, with a few flickering sconces stuck in the wall here and there. Ruth shivered. Mommy was inclined to remove the carpeting when she was about to give a scold, because she felt all that comfort undercut her severity, but she’d never gone quite this far toward making it look like a *dungeon* before.

And now she was pacing back and forth in her dangerous-looking feral snow leopard form, addressing Ruth and Geena, while Chet sat behind her lending his presence. (After a little discussion, Fifi had been excused from the scold, and now sat on her haunches next to Chet looking more than a little severe herself.)

“But we did find where they were!” Ruth insisted. “And if it hadn’t been for us, it coulda taken minutes longer for anyone to know where they had them. Which coulda been too late!”

Rochelle growled. “That’s *part* of how lucky you were. Because *someone* among you had the sense to insist you tell us what you found as you found it, we were able to get there in time to help. If you hadn’t, I don’t like to think what might have happened to you, *or* the other kids.” She rolled her eyes. “But, of course, you *are* right—thanks to being in the right place at the right time, you *did* at least *partly* save the day. So we can’t punish you *quite* as harshly as we might otherwise have been inclined to do. Or else we’ll never hear the last of it from Soren’s, Stacia’s, and Renfield’s families, who are understandably very grateful.”

Almost as if she sensed Ruth and Geena starting to relax, she turned to stare directly at them. “*But!* That doesn’t mean you’re getting off scot free. In particular, *you*, Ruth. I’d been waiting to start teaching you coding and hacking until I thought you were ready, but now I see my estimates were a *little* off. Hazards of never having parented before, I guess. That said, while you show promise, you should *never* have tried to stand off all that security software with just codeguns. You should have done that portcullis

trick at the outset.”

Ruth hung her head. “Sorry, Mommy. I guess I got distracted.”

“So, given that I’m not going to see any child of mine making *more* embarrassing mistakes of that kind, and we’ve got plenty of time ahead of us, in addition to your normal school you’re going to go through my own personal hacking boot camp. Or as Uncia would probably call it, ‘reboot camp.’ And *don’t* think it’s going to be a picnic.”

Ruth swallowed. “Y-yes, Mommy.”

Rochelle turned to Geena. “And as for *you*...”

Geena swallowed. “Uh...”

“You’re already on probation, you know.”

Geena nodded. “I just...uh...” She considered, then shook her head. “No excuses, ma’am.”

“Hmm.” Rochelle considered. “I gather we have you to thank for insisting that Ruth keep us informed of her findings.”

“Yes, ma’am. Though, uh, Fifi did help.”

Rochelle sighed. “Duly noted. I doubt you could have stopped Ruth from charging off after them on her own in any event, and if you’d gone for help instead of going with her, it would have meant she wouldn’t have thought to keep us in the loop. So, I guess this adoptive big sister thing is showing some benefits already.”

Geena blinked. “So...uh...I can stay?”

“You’re *still* on probation, mind you,” Rochelle said, frowning. “But...given that you did help save the day, just this once, I don’t see any reason to break off the deal at this point.”

Geena swallowed again. “Th...thank you, ma’am.”

Given that the temperature in the room seemed to have raised by just a few points, Ruth thought it was safe to assay a question. “So...uh...were those guys Keplers after all, then? It wasn’t really clear from the stuff Geena got from their laptop...”

“They were *theoretically* Keplers,” Rochelle said. “The Kepler ambassador says they were members of one of the minor Kepler ruling families who got stuck into the diplomatic mission because someone owed someone else a favor, with no actual ‘official’ standing where the mission was concerned.” She rolled her eyes. “It’s certainly a handy enough reason for being able to disavow their actions, even if it could be seen through by your average four-year-old.”

“But at any rate, they’re in the ship’s brig, and will stand trial either on the ship or back on Zharus, depending on how things go when we get to Totalia,” Chet said. “And they won’t go kidnapping any more children.”

“So!” Rochelle clapped her hands, and the room flickered back to its normal “comfy cave” appearance. “Now that we’ve got *that* out of the way, I gather there are some friends of yours waiting outside who really want to thank you for your part in rescuing them. So go run along and play, for now—but after supper, we’re going to start the ‘reboot camp.’ I’m really interested in seeing what-all you’ve managed to learn behind my back...”

“Hey, guys. Glad to see you’re okay.” Ruth waved as she and Geena headed out of the cave into the clearing where their friends awaited. “You *are* okay, right?”

“Little tired, and wondering what bus just ran me over, but okay, I guess,” Renfield said. The wolverine-based RI was in human form at the moment, and he

rubbed his temple as if to massage away a headache. “I hear we’ve got you to thank for getting us out of there.”

“Well, maybe a little,” Ruth said, blushing. “I just...did whatever I could, and managed not to get hurt along the way.”

“We’re just glad to see you’re all right,” Geena said. “Did those jerks ever tell you what they wanted?”

“They didn’t talk to us at *all*,” Stacia said. “They just poked and prodded at us with decompiling tools. If you hadn’t shown up when you did, they might have moved on to the vivisection part.”

Ruth wrinkled her nose. “Ew. Seriously?”

“They seemed to be the sort of people who figure out how something works by taking it apart,” Soren said. “And to them, we were just another category of ‘thing.’”

“I guess it’s not always the best thing to be unique,” Stacia mused. “At least, given the sort of things people are ready to do to find out how you work.”

“I hope you didn’t get in too much trouble over it,” Renfield said. “I mean, they told me what you did. Went out in the real world, went *outside the frigging ship* to get to where they were holding us?”

“Uh...well, I wasn’t really thinking about it at the time,” Ruth said. “I mean, I just did what I had to. And I had help from Geena and her partner Fifi. I guess I kinda did get in a *little* trouble, but I guess everyone’s too glad you’re all right to make a huge deal out of it.” She rolled her eyes. “I did kinda have to reveal to my Mom that I’d been doing some hacking—and my ‘punishment’ for that is she’s going to teach me to hack better.”

“Something tells me you’re going to be leaving *me* in the dust before I know it,” Soren said.

“Aw, if she teaches me anything you don’t know, I’ll be happy to share,” Ruth said. “What’re friends for?”

Renfield yawned. “Anyway, after going through all that, we kinda need to go home and get some downtime. I guess we’ll see you tomorrow at school?”

Ruth nodded. “I’ll see you then. Be sure and keep an eye out for repeating terrain in the future, huh?”

Soren rolled his eyes. “Trust me, we’re *all* going to be watching where we walk more carefully after this.”

Ruth and Geena watched them file out of the clearing. Ruth shook her head. “All’s well that ends well, I guess?”

“I guess.” Geena kicked at a pebble. “Your Mom’s right, you know. That could all have gone pretty badly.”

“Yeah, I know.” Ruth sighed. “But I couldn’t think of anything else to do. If I’d just left it, who knows what shape they’d be in by now?”

“Yeah.” Geena shrugged. “Hopefully that was the *last* excitement we’ll have for a while—at least until we get to Totalia.”

“I’ll be keeping *my* fingers crossed.” Ruth smiled. “But anyway, thanks for your help. I couldn’t have done it without you.”

Ruth grinned. “Hey, what are big sisters for? C’mon, let’s go wash up for dinner.” And the two kids headed back into the cave.

THE END