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LIVING EARTH

by John Galt

LIVING EARTH

He awoke on a bed of the softest sheets, with the morning sunrise just peering through the thin green curtains. With an awakening yawn, he took a deep breath, sensing a light, sweet, wooden scent in the air. Removing the Celtic embroidered comforter laying heavily on him, he shook off the chill of the Adirondack night, and stepped into its cool morning. As he opened the curtains, light beamed into the small cabin, lighting the loft where he stood. He donned comfortable polyester boxers, and light nylon shorts. For his shirt, he put on nice fitting t-shirt of micro fiber that would wick away all moisture during the day. He put on his warm wool socks, and his hand crafted hiking boots.

Climbing down the rustic wooden staircase, he stopped and smiled to appreciate the self-built stone chimney, with thin hand-carved twigs entwined and meshed all the way up to the cedar rafters.

He reminisced of building that chimney last year, first collecting stone from the mountainside, and mortaring the stones together. Then he fell a tall spruce, slowly carving out thin twigs and entwining them into the mortar of the chimney. He laughed. How nice it was to burn a fire in that chimney, with the aroma of the spruce being heated into the air. Even now, a small fire was burning, the elder remainders of last night's roaring blaze.

He wandered down to the cellar, antique with its stone walls. A freezing draft circled his feet as he got to the bottom of the stairs. With a thin beam of sunlight shining through the small cellar window, he crossed the cold

basement to a hard oak chest. He opened the chest and saw various foodstuffs on ice. He selected bread, butter, oranges, and half a dozen eggs he had bought back from the general store in town last week. Bringing all the items up to the kitchen, he once again entered the inviting, warm, welcoming sunlight streaming through the floor-to-ceiling windows on each side of the chimney. Although the cabin was still chilly, he greeted the sunlight with happiness. Placing the foods on the counter, he crossed the room to the chimney, where cured wood was stacked, and carefully placed them in the fire. The fire would soon be hot, eagerly consuming the dry wood. He went back to the cabinets and drew out a cast iron fry pan. He then cracked the eggs into the fry pan, and placed it over the fire. He grabbed the broken egg shells and walked to the window left of the chimney. He tossed them out the window. Returning to watching the eggs, he waited silently until the time was right to flip them. With his omelet done, he carried the bread and another frying pan over to the now blazing fire. Within a minute, the bread was nicely toasted, and he set the two slices aside, next to his omelet. Taking the orange, he put it in the lemon squeezer which he had fashioned himself with tin. Having done this countless times before, the large, plump orange yielded just about 8 ounces of liquid. Now he could eat.

The food was delicious; everything was homemade. The eggs were perfectly cooked, and the bread soaked with just enough butter. He ate everything.

Cleaning his utensils, he decided he would go for a hike up the mountain. There was no trail, but the hike always proved to be serene and enjoyable. Taking a small bag of oatmeal and a canteen of water, he set off. Out the back door, he was welcomed to an amazing view of the lake. Not a thing could be heard, not even the birds would speak above this beauty. The lake was misting, and he knew that mist would slowly rise to form a cloud later in the day. Looking into the sky, he saw many fluffy clouds; each of them from a lake, just like his own would soon produce. As the day carried on into the afternoon, the clouds would evaporate higher and higher, leaving a spotless sky.

Being here, just him and the lake, was true beauty.

Ultimate peace was achieved. Everything was perfect. That was why he had chosen this place. The Adirondack Park was one of the few places he knew would always remain untouched by commercial bustle.

Walking though the foggy forest, he heard the birds beginning to chirp, ready to start the day. When he paused for a rest, he could hear the nearby stream, rushing down

the mountain to meet Middle Saranac. Reaching the summit of the mountain, his heart yet again was nearly stopped by the view. He took a full turn view of everything. He could see for miles. It was breath taking. Large oaks, maples, and pines stood, majestic soldiers protecting their mountain. Everywhere was luscious green. Looking up toward the sky, he spread his arms wide and bellowed with all his might, "THIS IS LIVING EARTH!"

He waited, listening, for the five whole echoes that reverberated back at him bouncing off the mountains half a mile across the lake. Satisfied, he sat down in awe and began to think about what he could do today.

Then his phone rang. Brad reached into his pocket

"Well, looks like someone is awake," said a voice through the receiver. It was Jimmy.

"Well, I'm not really awake, if you think about it," said Brad into the phone. At the other end, Jimmy was already sighing, knowing where Brad was going with this. Brad, feeling so giddy, continued, "I'm really sleeping happily in my house. It's probably about midnight by now. C'mon man, let me enjoy acknowledging that."

Jimmy laughed. "Well, it's common sense, you go to bed at 10:00 p.m., and wake up here in Living Earth at 8:00 a.m. But, it's about 10:10 a.m. now, so in the real world, it's 12:10 a.m." Jimmy knew that Brad knew this, but it was just a great feeling mulling over these facts. The boys truly appreciated the technological power of Living Earth. It was the first night of summer for the two friends, and that meant the first night that Living Earth was open to the public.

"Thanks, Jimmy." Brad rolled his eyes at Jimmy's technicalities. "I think I know how it works. Just wanted to reestablish some speculative junk. Man, it's so awesome that school is over. Finals were tough though... I guess you've got to listen to people... high school gets harder each year. I haven't even started to study maps yet. I'll have to bust my ass before the tournament"

Jimmy laughed. "Sorry, just trying to help you out, with the specific times, I mean. But it doesn't matter what time it is in the real world, this is Living Earth! Man's greatest videogame, a virtual masterpiece using only the human brain and computers!" He laughed at himself; of his philosophic talk.

"Okay Jimmy, that's too dramatic. Anyway, can you hook me up with a teleport to the Alps? I have an idea."

"Sure, whereabouts though?"

"Well, I don't know... where's the largest Glacier in the Alps?" Brad said into the phone.

"Let me see..." Jimmy's voice drifted away. Brad could here the clatter of Jimmy's keyboard in the background.

"Hey Jimmy, where are you hacking from anyway?" Brad questioned.

"Oh, I'm just in New York."

"Alright, let me get some coordinates..." Jimmy said thoughtfully. "Ok, I'm routing you through to the alps. Here you go..."

Without warning, Brad was transported. Silence engulfed him, nothing could be heard; he was inside a Think. Transporting was always perturbing to Brad. He always was thrown off by that tell-tale, instant silence of the Think. Also, since thinks were white, he could never had any depth perception, and how far he would have to step get out of it. He would have to sort this out with Jimmy sometime.

Brad took a step forward, not knowing what to expect. The Think ended, and Brad was thrown into a real environment. He instantly shielded his eyes as the late European sun streamed down and reflected off the surrounding snow. He realized Jimmy had given him heavy winter clothes to combat the Alpine chill. Next to Brand, the Think stood defiantly, immune to the winds and snow.

"Hi!" Brad jumped a foot, looking at the source of the voice. It was Jimmy.

"Jesus Christ, Jimmy! I thought you were in New York!" Sure enough, there was Jimmy peeking out behind the Think. He snickered.

"I was when you were just talking to me, but I sent myself here right before you!" Jimmy was really laughing now.

"Relax, dude."

"Yeah, Yeah... So, where are we?" Brad questioned. Jimmy hopped up on his feet. "I'm glad you asked! We stand at 45 degrees, 50 minutes and 34 seconds north, and 6 degrees, 51 minutes and 50 seconds east!" Jimmy pointed up towards a windy snow covered peak. "Just up there is the summit of Mount Blanc, the tallest mountain in all of the Alps! You wanted Alps, you got it!"

Brad smiled. *Leave it to Jimmy, his best friend and hyperactive hacker, to put me in the perfect spot.* He stepped into the Think. Instantly, everything again, was quiet. The snow was gone, and the wind could not be heard. Brad was enveloped in the Think; white light bathed him everywhere. He closed his eyes, thinking of a simple, yet familiar item. Instantly, he felt the weight in his hands. He opened his eyes to see a frost blue surf board. He stepped out of the Think, back into the cold wind.

"Uh, Brad, I think you should have Thought of a snowboard in there." Jimmy said, confused.

"Dude! I'm more creative than that!" Brad commented, faking that he was hurt. "This is where you come in."

"Wait..." Jimmy's gears were turning. "Your not thinking..."

No! That will be crazy! You can't... uh... I mean, I can't!"

Jimmy stuttered, aghast.

Brad smiled. "It won't be that hard. You can just transport to another Think at the bottom of the mountain, if you're scared." He laughed. Jimmy turned serious.

"No, really, I will have to go down there. I'll need to make the changes through a Think further away than this one. Just call me when you're ready." With that, Jimmy pressed a button on his computer, stepped into the Think, and was gone.

Brad trudged up the massive Mount Blanc. The summit was only a few hundred feet away, and he wanted to be at the very top. Jimmy's voice spoke through Brad's small cell phone, the very same that Jimmy had used to call Brad earlier. Despite the wind, Jimmy's voice was crystal clear.

"Ok, I'm at the base of the mountain..." Jimmy's voice faded away as he coded. "Jeez Brad, what you're expecting me to do is a couple hundred lines of code!" Brad laughed, still slowly trudging up the mountain. He looked back down the mountain; somewhere Jimmy was down there typing away.

"C'mon, it's not that bad! Should be some simple melting commands."

Brad looked up at the mountain peak, feeling one with the slope ahead of him. The sun was peering just left of the summit, fogged by the floating, wind blasted snow. He began to climb.

FOUNDATION

HE HAD FINALLY reached the top. The wind carried on with no relent. Snow scratched Brad's face, creating a burning sensation. Jimmy's voice came through Brad's phone, laughing in excitement.

"Ha ha! There you are! So you got to the top!" He stated, more as an amazing fact than a question.

"Jimmy, how can you see me?" Brad asked in amazement. He squinted out into the white haze, trying to spot Jimmy.

"Well, you'd be surprised how much that bright blue surfboard stands out. It's all perspective! It's easy for me to see you! But hey, I'm done with the code modifications. We're all ready to go down here." At the sound of Jimmy's words, Brad felt a surge of adrenaline shoot through him, covering his body with pinpricks. "I'm ready when you are!" Jimmy reminded through the phone. Brad was ready.

"Ok, make the changes!" Brad shouted over the wind. Thousands of feet below, Jimmy pressed 'enter' on his keyboard. The change was sudden. The millions and millions of tons of snow on the mountain was transformed instantly into an immeasurable amount of water. The ice and snow which was once a glacier was now a huge amount of water, succumbing to the force of gravity. Put simply, Brad was on top of a massive river rushing down a very tall mountain. Throwing out the surfboard, Brad hopped on and ducked down for speed.

"Woo-hoo!" Brad yelled in exhilaration. This is nothing like surfing, Brad thought. It was more like snowboarding on water, with a very unstable platform. It was something impossible to be found in the real world, and that is exactly why Brad did it. Modifying what existed to create the impossible was only a small shaving of what could be applied to Living Earth, and Brad knew that fact all too well.

Brad's speed was very high now. His surfboard was not just floating over the water anymore, but completely hydroplaning over the surface.

Suddenly, Brad's board bounced upon a hard object in the water.

"Ahh!" He yelled in surprise. He barely maintained his balance. "Jimmy!" Brad barked over the rushing water. He still looked ahead, continuing to surf down the massive mountain. His phone would be able to pick up his voice from in his pocket.

"I though you melted all the ice!" Brad heard Jimmy laugh from the speaker on his phone. "Whoops! That's till Brad! There are large pieces of rock floating around in there! I

didn't search for rocks to be transformed into water! It was too risky. Heh, well I should say too difficult," Jimmy said shamelessly. "Wouldn't want to melt the whole mountain along with it. Brad laughed in sheer delight.

"This is amazing! I've never done anything like this!" He whooped. Brad was traveling over the water so fast that he could launch off rapids in the water, formed by the uneven rock outcroppings on the glacier. There was a large rapid coming up quickly. Brad launched over it, not sure of the consequences. The surfboard easily managed the pressure, and the buoyancy pushed back, launching Brad and his board into the air. A massive rapid was now coming quickly towards Brad. This rapid looked like a sheer wave; the water was fountained off a large, unseen outcropping against all efforts of gravity. Brad shifted his weight, ready to maximize the float of the board. Without warning, his board went straight through the white rushing water. Shards of ice-blue plastic filled his view, and he saw himself colliding towards solid rock at an untold speed. Everything went black.

#

Dying was something interesting in LE. Normally, due to the human nature of protection, one would wake up if they considered about to die. But, because players knew that they were on Living Earth, their minds knew that there was no real threat. It was unlike a nightmare. Dealing with pain was also something that had a lot of controversy for many years before LE was even used on the first human. It was finally decided that any injury that could be considered 'severe' would cause a play to respawn.

During a tournament during the earlier years of Living Earth's existence, had decided to try and just take all the events which would have caused his brain to create pain. The next morning he was found dead in his room. His brain had simply shut-off as a defense mechanism. It was much like when one wakes up from a bad dream, only obviously more severe. For five years Living Earth servers were shut down world wide. It looked as if the amazing virtual game would be shut down for good.

There was a huge controversy on the negative morality of Living Earth. Stubborn people against Living Earth finally had a chance to jump on the one problem that had ever occurred with the game. Living Earth United argued they had never believed a user would change the pain amount. For a year, heavy cases were brought to courts mainly in the

United States and Europe. Mostly it was parents arguing against the negative effects Living Earth. But this was not to happen; Living Earth drew to much prosperity in sales from tournaments that were hosted worldwide. So, an international team of programmers from Living Earth United set to work, archiving the areas of code that could modify the amount of pain. They took these portions of code, and stored it on a hidden server that could only export data. The server was then hidden somewhere, probably under a vault of concrete, and no one had found it since, or even bothered. LEU had already kept high security on the credentials of their esteemed programmers, so they did not have to worry about snooping kids trying to find the location of the hidden server. Besides, no one would really go to such lengths just to make a change amount of pain they could take in a Living Earth Game, would they? For 20 years, this problem had not occurred, and the pain issue was left alone.

Brad now had to respawn. He found himself in darkness, with only sight to guide him. It was much like sitting in a planetarium. Screens of words appeared in front of him. Because Living Earth was running from within his brain, Brad would not even have to do any acknowledging of selections, the chip in his brain would know what Brad wanted. So, Brad was engulfed in darkness. His moderator, which he identified as Victoria, spoke in through the blackness. Somewhat stereotypically, Brad had given her an English accent. Victoria was considered a moderator, the equivalent of a secretary. Living Earth allowed a player to create a moderator up to all their specifications. Because moderators were literally copies of a human brain, they were extremely life like. Some players even put human form to their moderators, which they could physically interact with in Living Earth. Moderators were the link between Living Earth and the real planet Earth. Many LE players had their computers hooked up to Living Earth servers and could give their moderators tasks to do during the day.

The black room which Brad had appeared in was called the Reception. Each player had a Reception; one would not find another Living Earth user in one. A player would be in their Reception if they had 'died' in Living Earth, or if they were just logging on. At face, Receptions listed the available worlds to log onto, and the amount of players in each world. But users could delve deeper into the information of worlds. They could see what version of LE code the server was running on, and what the weather was like on each server. Each server was within the normal bounds of an exact replica of the planet Earth, but had

various combinations of times, weather, and seasons. Each different server had a season also. Players had gotten annoyed of constantly modifying code to get weather they wanted, or amount of light they desired. LE was more than just the earth. the sun and stars were programmed in to match the corresponding season.

Just last year, the moon had been added to all LE servers as an actual object. Players could now travel to the moon on any Living Earth server. Really, the moon was mainly not used, although some people found it interesting to build houses on the moon for a good look at the Earth. Others bounded around in the zero gravity, but since Living Earth left out no details, some sort of oxygen supplying suit had to be worn. Overall, the moon was more of a statement of Living Earth's true computing power. The moon was now a real physical object in Living Earth, not just a painted background. The sun had still not been programmed as such, simply because there was no practical point for players.

"Quite a spill in the alps?" Victoria questioned.

Brad laughed quietly. His laughs faded away into the darkness. "Uh... yeah. Kinda didn't see that rock hiding behind a foot of water."

"Will you be respawning at your home in Saranac?" She prompted.

"Yeah... Jimmy will probably be there already, waiting to mock me."

"Certainly, sir," Victoria said with the slightest amount of sarcasm.

The change was instant. He was there, back on his bed in his homemade lodge upon Middle Saranac Lake, with Jimmy laughing loudly below. Strangely, he had been spawned under the covers. Normally when he spawned in this particular house to begin with, he was placed like this as though been sleeping. This morning, Brad had bypassed the preliminary Reception spawn, as he had Victoria pick a world for him, so he could enter Living Earth more realistically. Now, having been on Living Earth for more than an hour, this action was just absurd.

"Victoria!" Brad shouted.

"Yes, sir?" She questioned back, her voice echoing through the cabin. Since the small cabin was Brad's LE home, brad could load up his moderator and run that program within the very cabin.

"What is this? Brad asked. "I don't need to be spawned in my sheets every time, Victoria."

"Well sir, you did not specify where you wanted to spawn within your house. No one's perfect." She said in a joking, haughtily manner.

Brad hid his amusement from hearing 'no one's perfect' said with a British accent. Still, it was funny.

"Okay, well from now on, after the first time I spawn here, just spawn me down in the living room on the sofa."

"Ok, sir. I will store this in my memory." The rapturous laughter continued from below. He peered over the edge of the loft railing. There was Jimmy, teary eyed. He spoke as he laughed.

"Dude, you spawn here in your bed? Ahahaha!" Apparently, Jimmy couldn't get another word out. Brad was not embarrassed. He leaned over the railing at Jimmy.

"Hey, I don't care," Brad could not blush; he could not feel guilt for truly loving Living Earth.

Brad stepped halfway down the stairs, and then leapt over the railing, catching Jimmy by surprise. Jimmy almost tumbled out of Brad's wicker chair, but still had the demeanor for more laughter.

"You took quite a tumble, eh?" Jimmy asked with a smug grin, with some of the previous laughter still shining in his eye. Brad gave a big artificial smile. "Yeah. It would have been even better IF YOU PROGRAMMED THE RIGHT CODE!" Brad stressed as a joke. "But how could I react? I was going way too fast. It was awesome though." He chuckled.

"And just as awesome to watch." Jimmy said as he nodded in agreement. "Man, you should have seen that board break! It shattered like glass."

"Like I said," repeated Brad, "Too fast. But hey, let's cook something."

Teenagers, apart from their many shenanigans that they did on Living Earth did their second favorite thing the most: eating. It would seem like a pointless venture because nothing really was real, but the opportunity for someone to eat delicious foods and not gain a pound was a great prospect. Other than girls and sports, eating was one of the most favorite things that all guys shared.

Brad clambered down the steps into his cellar for cooking ingredients. Looking through his food stock, though, he became disappointed.

"Ahh... Jimmy?" Brad yelled up to his friend. Jimmy's muffled voice replied

"What?"

"I only have eggs, flour, and sugar down here... uh, you know, the basic cooking stuff. We're going to have to get some actual substance, you know, like veggies and meat." Brad went back up the stairs. "So we have to get some food," he said. Jimmy sighed.

"Alright, let me get us to a store. He started to pull out his laptop.

"Easy, easy," Brad said. "I'm not a total fool when it comes to a Living Earth hack. I can do a simple transport." Brad pulled out his phone. He already had the coordinates saved on the device. "Alright, here we go..."

The two suddenly appeared on small road. Within view were a drycleaner, an antique store, and 'Saranac General Store'.

"Gee... I wonder where we are." Jimmy said.

"Shut up Jimmy, I try to keep Living Earth somewhat realistic. We can get whatever you want tomorrow. What? You wanted to go to France or Italy right?"

"Uh, Brad? The local game is tomorrow." Jimmy reminded him.

A surge of adrenaline swept through Brad. "Oh yeah! Yes! I can't wait! This will be good training for the big game! This year, I'll be top of the leader board!"

"Yeah, okay, Brad, everyone knows you could do it again." Brad had already been top of the Oxford County board for the last two summers.

"No, Jimmy." Brad said maybe a bit to gravely. "This time I mean the high stakes, number one player. Period. Out of everyone playing." Brad stared hard at the ground. He was completely serious.

Jimmy looked away from Brad and shook his head. "Brad, all your friends and me know you are good. You're just good. You've got all the skills, and you've just got that coordination to all your movements." Jimmy turned to look at Brad. "But there are two billion people that play Living Earth, Brad! Two Billion! I looked at the charts last year, you know how I like to keep track. You were somewhere down in like the twelve thousands. Do you know how many people that is- just ahead of you? That's like..." Jimmy stuttered, thinking, "that's like... every kid in our county! Now, imagine if all those people were the best of the best, the type of people who train all they're lives for Living Earth. How can I have faith in you?"

Brad was serious, but still calm after Jimmy's rant. "All it takes is concentration, just working a bit harder than everyone else. Man, me and you, the world hasn't seen what we can think up on this game. You just gotta use Living Earth to its highest potential. I can do it."

As Brad said this, they stepped into a small general store. The door jingled as the two walked in. This store would be identical to it's counterpart in the real world, only there would be no cashier, no staff in the building. Robot automation could be programmed into Living Earth, but with a town this secluded, Living Earth programmers did not yet create the human programs. Besides, most users liked just walking anywhere with no limits.

Brad and Jimmy walked down the aisles.

"Well, what do you want?" Brad asked Jimmy. "I'm feeling like Italian or maybe just some good ol' American food."
"I don't really care, as long as you cook it good." Replied Jimmy.

Bending back up from one of the shelves, Brad swaggered towards Jimmy with his head held high. "Me? I'm the best cook in the world." He tossed a package of Swiss steak at Jimmy, who barely caught it in surprise. Brad grabbed a few more items. Green Peppers, Mozzarella cheese, and tomato sauce. Putting them all in a bag, Brad smiled and waved to a nonexistent cashier.

"Seeya, Hank! Pleasure doing business with you!" Jimmy trailed after, saying,
"Brad, you're a loser."

#

"So... how is Lydia?" Jimmy asked smugly. He was sprawled out on a wicker moon chair watching highlights from the previous year's European Soccer Cup. Brad, at the grill, smiled.

"She's great, as always. God, I love her. You know it will be three years in July." Brad said to Jimmy, winking. Brad had met Lydia a long time ago, on Living Earth. How much he had been the same... but how much she had helped him over the years.

LYDIA

The endless amber wheat field stretched for miles. Golden tendrils of the amazing grain flowed in an ever-changing orientation through the stiff Indian wind. Brad sifted through the plants with his hands, examining each stick of grain for the highest quality. Sweat dripped from his forehead, from both the heat of the sun and the burden of the sizable basket on his back. Once he found one, he jerked the scythe to pluck out a strand of grain, and gingerly pulled up the crop. He was aware of a presence very near to him, the only matted down imperfection in the field.

Suddenly, a voice evenly stated, "Hello." It was the voice of a girl; but the figure was lying in the grass, and Brad had no time to meet new people on LE. He had a task to complete. Brad only permitted a side long glance towards the source of the sound.

"I knew you were here," Brad spoke aloud, pausing to place another handful of wheat in his basket. "As soon as I spawned here."

"Yes" she replied simply, not at all perturbed. "What are you doing?" Brad responded tritely,

"Making something. And you?" Brad questioned in return. Brad was already being drawn to this mysterious girl. She was interesting, in the way she spoke. He wanted to learn about her life, to hear her continue to speak. Her intelligent and exact language intrigued Brad.

"The waves of wheat here flow so beautifully. This field of amber helps me think. I come here for quiet. Isn't that what we should use this for?"

Brad's face frowned in concentration while he reaped, a little thrown off by her sudden and complex question. It was a while before he responded. "I think we should use this to do things we can't in the real world. If you want quiet, you should just go camping." Brad, a native from Maine, had no trouble with this idea.

"Yes. That's true, but don't you see what a gift this is? The applications of Living Earth are too great. This is a powerful, powerful tool to be unbridled at the hands of everyone on the planet."

Brad had stopped working at his wheat and said, "I still haven't seen your face."

"Nor I yours." She replied. She was smiling under the cover of the wheat, hoping he wouldn't see her bashfulness.

Brad moved towards the girl's location to get a look at her.

"Wait," She said. "You should finish what you're making, and then we can meet each other. My Living Earth ID is 302178AG. I like you. You're different than a lot of people."

See you tomorrow." Brad, completely taken off guard by her forward demeanor, paused in sheer surprise. Her form vanished, and the wheat that was matted under her body slowly rose back to the sky, mocking Brad by becoming one again with the field, flowing in the breeze, like she was never there.

#

Brad could not stop thinking about his interesting encounter the day that followed that Living Earth night. Brad could not name what it was, but there was some element that defined her voice. Brad kept her in his head, like a nagging reminder, but he did not rush through his task. He knew that was the exact thing the girl did not want him to do; the reason why she wanted him to finish it. He continued to work a remaining two nights in Living Earth before he was finished. Finally, on the third night, Brad was ready to meet her.

Brad was greeted with the dark beginning screen again. The female voice filled the room, still Victoria even that early in Brad's use of Living Earth. "Good morning Brad- or should I say night, sir?"

Brad rolled his eyes. He hadn't heard that one before. Still, he was in high spirits. "Good morning Victoria, I have a request for you."

"Yes, sir."

"Well, I have a user code, and I was wondering if you could locate her." He said, attempting to not reveal the fact that he had been waiting for this moment for the past three days .

"Well, well, trying to make friends?"

"Uh, yeah, whatever. The user ID is 302178AG."

There was silence as the computer searched the players for the code. "Ah yes, here we are. That was quite a difficult search, sir. The ID wasn't in any of the most used worlds. The player- hmm, well, she, is in one of the old worlds- World 68- with no updates. There's only 156 users on this world. Shall I send you to your house on this world for starters?"

"Yes, thank you, Victoria," Brad said.

"Of course sir. A beacon will be on you phone to guide you to her. Enjoy, sir." Victoria said with a sly laugh.

Brad flowed down the stairs. On his wooden table, a laptop sat, doing some task. Brad pressed enter on the keyboard

and turned to his oven. Within, lay what had taken him 3 days to procure:

A beautiful apple pie, steaming like it had just come out. Brad had created a simple time stop in his oven on his laptop, holding the exact chemical form of the pie just as it had come out of the oven.

"That is an interesting item you have in you oven, if I don't say myself." Brad's mediator said. Her voice boomed from nowhere. Brad shifted his eyes towards the ceiling as if acknowledgeing Victoria, and then smiled, taking his gaze back to the pie immeresed in the heat.

"This was two weeks of work." He stated simply. "It's probably the most important think I have ever done in Living Earth."

"Sir? It's a pie."

"Yes, yes. But it represents much more. Over two weeks of time and acknowledgement towards this pie, and it shows that an extra bit of concentration and caring results in something so special and so meaningful. Brad's eyes were fixed intently on the pie now, not looking at just its physical form but seeing everything that had gone into it.

"But sadly, no one can really appreciate it as much as me. They did not create it, so they simply see a pie, or perhaps a 'special pie' at that. Brad sat a few moments in his revery, and then stirred. "Victoria, what's the weather like over the west coast of South America?"

"Raining Sir"

"Okay..."

He cracked open his phone. The beacon placed by Brad's helpful mediator was blinking. Brad's mystery girl appeared to be in the Himalayas. Brad laughed to himself. This girl ceased to amaze him.

"Victoria, could you send me to the Think nearest the beacon?"

"Certainly sir. Will that be with proper mountain garments?"

"Yes, please."

"Might I remind you sir, I won't be able to help you locate your friend once you leave the Think."

"Yes. I understand. I am ready to go."

"Goodbye sir."

Silence. Brad stood in a Think. He immediately recognized the heavy weight all around him. He was covered in a parka. Brad stepped through the Think boundary and into a cold, harsh wind. How high he was, Brad did not know. Only black mountains could be seen for miles. Brad pulled out his phone which had been moved into his inside coat pocket. He held the phone out, trying to get his bearings. The beacon displayed a western direction, crosswise about the mountain.

Brad pulled his goggles on,, and began to trudge out across the rocky summit. As soon as he took a step, he saw her, off in the distance. A straight figure in a thick gray coat stood, gazing off into a deep valley. Brad followed her gaze, across the mountain range was large storm. Lightening struck parts of the mountain. The thunder never came.

"Hello," Brad said looking at her.

He was slightly disappointed when he saw goggles covering her face. She turned to him. Brad was drawn in, even though both their eyes were veiled from one another. She turned back towards the storm.

"Isn't it amazing how a small beam of energy can have such power? But if you're too far away from it, the lightening seems harmless. If there's no shake of thunder, it is forgotten."

Brad knew this was more than a simple statement. It implied many ideas. He was shaken, not know if this was a test, or if she was simply seeking his reply. Maybe replying with an honest reply was the test.

"Any type of appreciation is difficult when it doesn't impact you life. But that doesn't make the lightening any less real."

"But that's not how it should be." She said defiantly.

"Everyone is a part of this world. They should take the time to recognize what is on this beautiful planet."

"They do, but they take it for granted. They don't think critically about it. Look, we're teenagers, we're not supposed to appreciate things. We're supposed to take life by the reigns, so to speak."

"No!" She shouted angrily, stepping towards him. Brad stood his ground. "That is the weight of so-called civilization wearing us down. Don't tell me what we're supposed to do, ever!" Brad was taken aback, but responded,

"Where did you become so opinionated?" The girl sighed.

"I'm sorry. My dad's a senator. We live in Boston." All Brad could think of saying was,

"Boston is a nice city." Stupid.

"That doesn't make any difference. Political sludge is global. Don't think I'm inhuman – I love my dad, it's just when he puts on the suit, its all show and talk. It just seems like there is so much potential for a human. I dunno, seeing my dad waste his life is sad." She sighed, sympathetically, not towards her father, but herself.

"Maybe I'm just too critical."

"How I see it, your dad isn't wasting his life. He's doing good things for people."

"Yes, but he's not true to himself. It took a whole year to pass a bill? C'mon, there's better things people can do."

"It's all perspective." Brad said. She was silent, but she saw he understood. She didn't want to talk about it anymore. "So... you have finished your 'item that includes wheat'." She smiled. Brad turned to her.

"Well, yes, if that's what you're going to call it." Brad pulled out his phone. "Do you have a phone?" He asked.

"Yes," she said, producing a sleek golden device.

"I'll send you the coordinates to my house..." Brad's voice drifted off as he pressed a few buttons on his phone.

Almost instantly, the girls' phone rang, after receiving the information. She smiled, at Brad, so attractive even under the large silver goggles that covered more than half her face.

"Well, see you there. Instantly, she was gone."

"Wow..." Brad said to himself. He had a pie to pick up.

Pressing a few more buttons on his phone, he was off.

"Back so soon, Sir?"

"Yup." Brad said, sitting on his bed. It was his default location to span at when going to his house. He moved to the closet, where he pulled out a vertically striped shirt. The beautiful shirt alternated between a deep burgundy and a warm cream. The colors were so fine that the shirt itself had a luminesce glow to it. The stripes were in perfect proportion with Brad's body. On the right of the shirt, the characters #2314 were embroidered, and on every button, cuff and main, the year 2164 was quietly inscribed. Finally, the most brilliant part of the shirt, due to more tricky code, gleaming in luminosity, the letters 'HC' were embroidered in white thread, although unconventionally, on the right side of the shirt. The Hacker's Core. Placing the HC logo on the left of the shirt, instead of the standard logo location on the right, was always humorous to Brad.

"Frikin' Hacker rebels," He mumbled to himself.

The Hacker's Core was composed of over 200 of the best hackers in Living Earth. They met after the yearly tournament. Brad's shirt probably began as a strong, raw cotton fabric, and through manipulating the LE code, the hackers added color molecules at a time to create the brilliant, yet deep colors. The shirts were then measure specially to the customer's order, sewed up with Kevlar thread, and polished until the shirt was as soft as skin itself. Because the process of making such shirts is time-consuming, the Hacker's Core allows only very few customers to request a shirt. Likewise, the design of each shirt for a given year is identical; only the size, and consequently the width of the stripes are changed.

These HC shirts were very valuable. Brad had sat on a waiting list for 2 years before he received his shirt, when

he started actually realizing the rarity of the shirts. Even better, like houses and personally uploaded items, termed 'unique'; they could not react to any physical destruction. Loop hole- shirts could be used in combat- although remember, all physical rules are turned off, so players, if wearing an HC shirt, say to show off their skill or to show off their wealth, they are reclaimed at their house instantly, like any other personal item bought or uploaded from the real world.

Players often traded many items in return for homes. Brad had a handful. His favorite house was here, in Middle Saranac, but he also had a home up in a penthouse in an east coast ocean city, an amazing home on the western coast of south America, and a small city house in France. The houses suited Brad well, and they served they're pupose. Brad looked at himself in the mirror with his Hacker's Core shirt. It appeared luminous, almost glowing in its superb quality. He was sure that he would never trade his shirt for any house anywhere. Brad only wore this shirt for very special occasions.

"Your pie finished just a minute ago Sir. I have been keeping it warm."

"Thank you Victoria." Brad walked over to his counter where a small white box sat, about the size of a microwave: it was really a Think. Getting a small Think in Brad's house was not simple. With Jimmy's help, it still took a full LW day to create the small Think on the counter. It was very helpful for Brad; the nearest Think was out in the middle of the lake.

Brad put one of his hands in the Think, and began to concentrate. He began to mold a rectangular prism, long and think, like a pizza box. He pictured two oven burners and infused them into the sides of the box. Adding a power source, Brad pulled his creation out.

"That is a curious item you have there, sir."

"It's a hot box for my pie." Brad pulled the amazing apple pie from the oven, and slipped it into the hot box. "Ahh. Perfect fit." Brad said happily.

"Okay, I've gotta go." Brad held the pie at his side.

"I'll teleport you right away, Sir."

#

Brad's South American home was a work of art. It was located in an amazing spot: in the foothills of the Andes Mountains, with the ocean still in sight. The entire house

existed on one stepped, cascading floor that followed the mountain side. It rose above massive pillars. A wide stream ran under the house.

The front entrance to the house was guided by a small walkway a long path that came up from the ocean far below. It was Living Earth; there was no need for a road to extend towards the house, although Brad did have a proper driveway for off-roading on the mountain.

If one were to travel up the slope of board walk, they would come to a very interesting house of contemporary architecture. The rooms and halls of the house were furnished but many of the walls were full glass panes, displaying the rainforest outside. Due to the mountainside incline, the house had many dips and in-set rooms.

Brad was lounging in a plush sofa waiting for her to arrive. His line of sight followed the boardwalk until it could no longer be seen off the edge. Brad waited like that, staring down the line of the boardwalk. It was drizzling outside. Brad first saw her face, rising in a smooth rhythm as she stepped up. Her eyes were already locked with his. Her hair barely went passed her shoulders. The color was of a deep, shimmering cordovan. Her eyes were the exact same, glinting in clarity and self-consciousness. Her mouth was held neutral, as if she were contemplating a work of art. There was no hint of smile, only radiating confidence. Her face was lean and looking of an older woman, but still full of smooth flowing planes. She had a smooth but strong neck, as if it had been help up defiantly many times. Brad now saw her shoulders coming into view, covered only by small strips of brilliant teal. Her skin was a warm tan, the color reflected from her eyes and hair. Her athletic arms waved under control as she continued to climb. Her bust was small but firm, and guiding down to her midsection and waist were defined but still emerging feminine curves. Brad could not see the sky blue fabric was an extremely thing dress, barely more than a nightgown. He could see the contours of her legs pushing through the fabric as she walked. He could see her legs were well defined.

Brad suddenly realized he was opening the door for her. The damp gust of wind and cool steel handle of the door seemed very far away, like at the other end of a tunnel she was blocking. In autopilot, Brad greeted her, and she responded, for the first time smiling. The girl had a beautiful smile, but it was a different type of beauty, different than the thoughtful and confident face she often held. She laughed suddenly, of joy, of understanding. Brad was finally jolted out of his trance.

"Boys will be boys," She said, mimicking a gossiping girl. It was voice she would never use seriously. Then, in a playfully manner, she asked, "You've been undressing me with your eyes, haven't you?" Brad was rocked. He literally felt as if he had taken a step back, but experience told him it was only mental. This girl was something else. She had blatantly asked him if he was admiring her. But he only skipped a beat, recovering, "Well, it's hard not to, with what your wearing." He laughed, realizing she was not disappointed. There was a short silence as they stood studying each other's eyes. Brad broke the silence. "Would you like to eat something?" He said tactlessly. She laughed. "It's not real you know." "Huh?" Brad was confounded. He had been able to interact flawlessly with anyone else. "Oh yeah, I know that, but I can make anything I want. Its like an iron chef kitchen in there. Don't you like just making stuff?" "Of course. I'll gladly join you." She smiled. The kitchen was modest and comfortable.

CREATION

For Brad, that was only last night, and the huge Living Earth tournament was fast approaching, too fast for Brad who needed to be at the top of his game for the tournament. Everyone in Brad's small town, Bethel, Maine, or the world for that matter, knew about Living Earth. Developed by Lockheed Martin, it was originally supposed to make robots more life-like, but instead it turned out to be an extremely complex program for amazing virtual reality. The first thing done was just a simple electronic probe of the brain, and how it worked. This would help Lockheed engineers see how the brain was organizing, so they're robots "brain" could be organized a similar fashion. After the first probing of the human brain became the biggest revelation in the 21st century.

The basis of the brain was so simple, yet organized into almost infinite categories. To carry out thoughts, let alone movement, was extremely difficult and complex to track. After much testing, the scientists and engineers began to realize how simple the human psyche was. For example, the hands' nervous system detects touch, so, with a certain zap, the nervous system carries the message to the brain, takes a certain path, and, the human brain with its unique feature, reason, discovers what that thing the hand touched was. It would use its library of stored textures and deduce what the item touched was. The brain would even store that certain texture for later use, if needed. But there was even more unique paths created, such as how hard the surface is and what textures it has. All these facts were stored in the human brain with its hunger for complexity. Now the scientist needed to figure out how the messages were sent and what those 'unique paths' were, and where they went. This was no small task. There were billions upon billions of paths used by the brain to create thoughts, not to mention trillions of brain cells used to store information. All of these things were compiled into one program consisting of one petabyte-or 1,125,899,906,842,624 bytes-the largest amount of information ever stored on a single program.

Now, remember, everyone's brain was organized with miniscule amount of thoughts stored differently. This created a problem where one universal program was unable to mirror every to every human brain. The first program created, used a completely healthy, somewhat average male American, age 20. The boys name was Adam; he was the son of a Lockheed employee. This program, named after the subject himself was what scientists declared "the base brain". The scientists believed a human brain was fully developed by

age 20 and was organized the best it could be. The scientist concluded that, even though a 20 year old human brain could continue to learn and store information, it will have reached its mature stage and highest point of efficiency. Now that this program was created, what could the scientists use it for? They answered they're own question immediately: virtual reality.

Using the brain program, they could use things already recorded in program 'ADAM' to create artificial reality. Using the program ADAM, they learned what a human eye knew as 'wall' or what the human ear knew as 'singing'. Then, using textures, colors, and physical properties, and the senses of a human, a world could be created. In the eye section of the program, scientists could apply an x, y, and z value to give objects size. They then would look through the brain program to get texture, weight, and color properties. They decide a good starting program to test was a wall. The scientist at Lockheed programmed, separately, a cedar wall, five feet high, ten feet wide. They also programmed a simple floor, just a solid mass for the subject, so he could stand. The scientist did not also forget the laws that rule our universe. They remembered to program gravity, and air, and light. All of this was stored in a server with one zettabyte of memory, which more than twice the size of the petabyte-sized brain program. The overall size of the wooden wall, the gravity, air and light took up only 100 gigabytes in the server, but rest assured, the full zettabyte would be used later. Now it was finally time for the first test of Living Earth.

For Living Earth to work, a test subject (In this first test it was Adam) would have to fall asleep, which is when the brain is most idle. When Adam was fully asleep, the Living Earth program went into action, basically creating a very realistic dream. Later, from interview, Adam claims he found himself in the sleeping position, on a completely white floor. He claims everything was white, yet he could feel a floor beneath his feet, and gravity was present. Five feet away from where he lay was a wall. Adam say he walked towards the wall, instantly recognizing it was wood, with a coarse texture, just like a real wood grain. It felt real because his brain thought it was real.

So, the scientists had used the program to run on Adam, the test subject itself. Now the program was tested on another employee of Lockheed Martin. Small problems began to arising on the program, because the slightly different brains did not completely comply with the base program. The scientists realized the base brain program, ADAM worked because the host was itself, its own program. Of course the

program would work for its host; it was just like thinking, except from a remote location. This was where the 'different brains' problem arose. The scientists quickly setup a system to fix the different brain problem. At birth, a person would get an implant of a sand grain sized chip, placed in the left or right shoulder. The area of the shoulder has almost no nerves, so it would not be uncomfortable. It was also fairly close to the cerebral cortex, the mainframe of the brain. Now installed, the chip would carefully see how this unique brain it was hosting differed from the base program ADAM. Carefully tracking learning, experiences, emotions and feelings, the chip would record more information. Slowly making updates every week, the chip slowly built its own unique program for its own human that would still work with ADAM's basic code. By the time the child was 11, the program would work just as well as ADAM itself. The chip owner could now use Living Earth for whatever they dreamed.

The chip also doubled as a messenger to send information to the Living Earth server to and from the host brain. Using this system, a town could share a Living Earth server, without everyone having a server in they're own home. This also helped creating games in Living Earth. Everyone logged on to Living Earth in the real community was logged in the artificial Living Earth server. It is somewhat possible that one could see their neighbor or they're friend from across town anywhere in Living Earth by coincidence. So, the first, simple test of Living Earth had been successfully executed. The, scientist of Living Earth went to the next level. They talked with NASA, receiving extremely accurate satellite photos of the earth, in scale from miles high to inches from the ground, and all in high detail. Job openings started to come up, and Living Earth servers sprang up across the globe. Every inch of earth began to be converted into the Living Earth program, thus creating the name. The real world was recreated into LE program, making a living, breathing, world, that could be used to do anything you like. The project was done, but what to play on LE? Anyone could go on and interact with each other. At first, people were left to do whatever they wanted. Exponentially participation in the LE grew, and millions and millions of people logged on to play every night. Copies of unique servers were made for people who wanted specific weather patterns anywhere on a certain part of the earth, or a certain "time of day" for the planet. A user could get almost any combination, whether it be thunderstorms in Finland, tornadoes through the Gaza strip,

or snow in the rainforest. The possibilities were truly endless...

#

Brad and Jimmy found themselves in a torturous end-of-the-year meeting at Bethel High School. Brad and Jimmy would be sophmores next year, and It was the last hour push even after finals had already been conducted. It was mostly to remind kids of when school started next year, and to unsuccessfully try to tell them to have a safe summer without any drinking or drugs. The teachers of Brads

"Hey, I heard we just got a new server. It's got a better firewall, and even better software. Fun for us, harder for our hackers. They might not be able to start early like they always do" Jimmy whispered sidelong to Brad.

"I didn't know we got a new server!" Exclaimed Brad. "Damn, now I want to go on LE even more now!"

Jimmy laughed. "Well, we were on last night... didn't you Your right, the new server is pretty sweet, and it will finally challenge our hackers. I mean, it's actually like a real update, you know what I mean?" Brad gave a quick nod. "There's totally new sections of code." Jimmy laughed. "I remember earlier... the code so messed up and easy to edit..." Jimmy's eyes lightened. "Dude! You've seen our roster, right?"

"Yeah." Brad had seen the roster for the final tournament in LE. The players in LE were listed at the Town Hall of Fish Creek. Only people between 13 and 18 could play in the same league Brad was in. For many reasons, LE was banned over the school year. It was simply an addictive game. Disabling LE would keep teens from being distracted from school. When Living Earth first came out, servers were never blocked. But kids began finding means to make themselves fall asleep, some even referring to drugs to play the game. After these problems were worked out, it was decided the game would be available to everyone only in the summer.

After the years and years of summer activity on LE, a standard method of game scheduling had developed. For the entire northern hemisphere, the central government building of a town would printout a calendar during the two summer months of July and August. This would be the schedule of Brads town in Maine. For the southern hemisphere, these

months would be December and January. On this calendar was listed the schedule of events taking place. The largest event in LE was the classic, capture the flag game, this year from July 19th to August 16th, Friday to Friday, exactly 4 weeks.

"Yeah, I know, I know, our hacker section is stacked."

"Yeah it is. Man, we got Max Yates! 'Member? He was voted best hacker in Fish Creek for 2163, and 2164!" Exclaimed Jimmy.

"Whoa... he's gotten two years of awards? I thought he only had one... Sweet! He'll be on fire this year. Third times the charm, you know?" Jimmy said.

The two boys realized that everyone around them was filing out of the stands. The meeting must have ended.

Brad turned to Jimmy, mustering as much seriousness as possible. "Jimmy, now that we're on the same team this year, you know we have to win. And remember, I'm going to be on top of the charts. I'm serious. None of that bullshit I've been saying on LE. I've been studying all sorts of maps for the past two months. I know every tactically crucial neighborhood in the United States." The two walked out of the gym. (sees other noobs that were in the local tournament)

There were shouts of, "Hey, see ya tonight!" and "Blue rules!", "Red is going to win this year!"

As was tradition, the playing field was unannounced until the Opening Ceremony of the tournament. Hackers tried as they may, but they could not find any leaks of information from any LE source.

REQUESTING AN ITEM

[[Here brad talks to brian, his 'title' is not revealed yet. Brian get measurements of Brad's body, but nothing is revealed about the weapon. Brian is working hard on something, so can't see brad. They speak through intercom, or maybe phone. Brad is measured from his moderator Victoria.]]

THE CHEMIST

Brad had arrived at the site desolate building, in the middle of the great plains of Montana. The building was a stout, concrete rectangle that stood against the earth like a rock formation. The wind blasted dry dirt into the air, giving the heavy building an even more brutish look. This was always an interesting visit for Brad, but he had been doing it for the past three years. Starting to knock at the large, cast iron door, Brad shook his head in disappointment, remembering that he, his friend within the building, was very casual. Brad lifted the steel lever that was aligned across the strong door, and traveled in.

Instantly, Brad acknowledged the dim light in the edifice. Still, he could manage to see dozens of separate moving clouds of evaporate moving from many chemical set-ups. Before Brad even shut the door to escape the harsh wind, an unseen voice spoke from somewhere inside.

"Well, were you going to come in or not? You knocked almost three times this time!"

Brad laughed, knowing his friend was not serious. "Yeah. I just remembered that you don't mind walk-ins. I don't know, the quality of this... uh, military compound just throws me off. Why do you have such a dank place anyway?"

The source of the responding voice was still to be found.

"Hey, it serves its purpose, so shut up! And if you're about to bitch about the location, you can forget about it! I like the wide open spaces. Helps me think."

Brad could think of nothing to say to that, so he put his hands in his pockets and observed the interesting room. Brad heard a combination of clinking glass, steaming gasses, and bubbling liquids in the square of the building. It was all one room, exactly like Brad remembered in his previous visits, although the evaporate combined with the dim lighting cut his visibility, so much so that only half of the room was visible. Large steel tables were thrown askew all around the massive room, some of which held many test tubes and beakers, while others held complex masses of tube and glass. Steel shelves hung from the low ceiling holding countless solutions and mixtures.

Finally, the lights came on. In slow snaps, the many halogen lights zapped to life over the room. Brad quickly identified his friend across the room. Moving from the light switch, he moved towards Brad with a combined smug and kind grin. He was a striking guy, with dark swirled hair and deep green eyes. His face was lean and almost pointy, but he could not be called gaunt or eagle-like. Behind his joyful teenage features, a straightforward driven complexion could be seen. His face could best be

described as determined. He had a normal athletic build, and his limbs were lean but thick enough to hold their own.

This teenager was entitled 'The Chemist' by many players of Living Earth, but Brad had gotten to know him well through the years, and knew his real name was Brian. Brad still refrained from telling most others about Brian's name, as the name 'The Chemist' was a little inside joke that Brian and his friends found to be hilarious. Still, the name held to be true, as Brian was a quality chemist, and enjoyed making a variety of items that needed applied chemistry. Brian would of course take these commissions for an item traded in return. Usually, LE players would need him for two reasons: if they needed a chemical based item they did not have the ability to program with the Living Earth code, or if they were simply too lazy to acquire such an item. Brian had one area of expertise: weapons. Using his knowledge of metals, he could build amazing swords. With although a simpler use of compounds, Brian created a variety of volatile substance that could be used for almost any competition in LE. All these would be encompassed with the use of Thinks and applying LE code to perfect them. Because all these items were chemistry based, the use of them was not really frowned upon to use in competitions. Also, the chemicals and elements had to react as they would in the real world, because of the LE code that governed them. Many times, there was no need to fiddle with the LE code like with many other situations in the game. It was really a win-win situation, and Brian had a great enterprise that he kept getting better at.

As Brian entered conversational distance, Brad did a little head raise to acknowledge him. "Hello, O Great Chemist!"

Brad hailed in a British accent. The two laughed.

As he came across the room, he said, "Sorry about the dimness," He said, waving vaguely around the room with one hand. He removed his heavily stained goggles with the other, and tossed them onto the table. Brad stared at them pointedly, with his eyebrows.

"What?" His friend asked with conviction.

Brad burst out laughing, "This is Living Earth, dude!" He exclaimed. "There's no need for an apron, goggles, or any of that crap!"

"Oh yeah?" He asked haughtily. "Get this! I'm doing some work with acids, I spill some on my face or body, and then I am forced to respawn, and although I can respawn right here in the Lab, it's just a hassle. It's much easier to just to wear the goggles and be safe! Besides, it's a habit."

Brad couldn't argue with his logic. He laughed and said, "Whatever, Mr. Chemist."

Brian looked at Brad for a few seconds, shaking his head. Then he said,

"Okay, well... yeah. The darkness. I was just finishing the spectrum analysis on your finest order." He finished the last two words with some corny finesse. The two laughed.

"But anyway, it's done. The results were just as I expected. Check it out." Brian motioned for Brad to follow him, and the two strode across the laboratory. Squinting through the gas, Brad could see a small black velvet cloth that glimmered under the white halogen lights. Brian gestured to it with an open palm. "Just to keep the dust off." Brian tossed the cloth aside with one quick motion, and pulled the object towards him with one hand, sliding the item off the edge of the table. A liquid, sharp, metal-on-metal sonar landed in Brad's ears, and he knew he would be a very happy Living Earth player. While the object moved, it became more brilliant, and then returned to a normal hue, It also emitted a whooshing sound, like a calm wind, but it was lower and more controlled..

Brian brandished a beautiful sword. As it gleamed in the light, Brad stood in awe.

"Oh my god!" Brad exclaimed

Even Brian, the creator of the amazing instrument marred at the sword's brilliance. It was a brilliant gold-yellow metal, and the hilt looked like liquid steel, yet glinted like a crystal, just as reflective as its blade. As the metal got closer to the edge, the blade became more and more transparent. The outermost edges of the blade were as clear as glass. The hilt had no hand binding, only a powdery substance that looked like it would prevent slipping. The cross piece was just over fifteen and a half centimeters across, formed by two thick, rounded stubs of the same like as the hilt. Brian pointed the sword towards Brad, but never took his eyes off the blade. He spoke transfixed.

"What a beaut this is. It took quite a while to create this." After a few more seconds, his trance broke. His head flashed up at Brad. "Seventy nine centimeter blade and a fifteen and a half centimeter hilt. It's a longsword, but just barely so. It's short enough to use with one hand if you're in tight quarters, but great for hacking and slashing with two hands." Brian could tell Brad was still studying the blade. "Yeah, the blade is thick; you can never tell what you might have to cut in the Tournament. But let me get into the cool parts of this sword. It's way more than you could ever imagine. Here, take it," Brian said smugly. He handed the sword to Brad, who was eager to

grab it. Brian then walked across the lab, and out of Brad's sight, who was already gazing at the sword. Brad, still gaping at the sword, took a few swings and laughed in amazement.

"It's so light! How did you do this with such a thick blade?" He questioned, finally looking up across the room at Brian.

"That's what I'm about to tell you bud." Brian said. And with a dry ruffle of paper, he returned with a large sheet of drafting blueprints. "Alright, now only about half of this is mine, but here you go." He laid down the prints on the counter where the sword was first resting. He pointed to a sketch of a thin bar bent around in a symmetrical, elongated diamond. The middle of the diamond was split by another thin line. All in all the drawing looked like two isosceles triangles end to end. "This is the shape of blade. You see the entire outer edge"- he traced his finger around the diamond shape "Is only a thin sheet of metal, and it is only supported by this spine"-he moved his finger back and forth on the midpoint bar "Which runs up the entire sword. So really, most of that sword you're holding is hollow." Brian scoffed. "But don't just think that hollow space is filled with normal, everyday air. Oh no, it's filled with ionized helium, which is really just a pair of protons. That's why your sword is so light. I wanted to use hydrogen, which is even lighter, but that stuff bonds with everything it gets its hands on, and it was interfering with the sword compound. But then, I realized ionized helium would be far better, because it could carry an electrical charge." Brian paused a moment to let Brad take in the information.

"But wait..." Brad said his gears turning. "Doesn't helium have a wicked high ionization energy?"

"Exactly!" Brian exclaimed, like one who loved one's own craft. "In fact, it's the highest of all the elements. There are thousands of volts of potential energy in that sword," Brian said, pointing at the golden masterpiece.

"But let me tell you more. This sword is a metallic compound. I couldn't list it out for you, because it's just too long. But anyways, it's a jumble of titanium, iron, aluminum, and many of the rare metals, like strontium and platinum." Brian suddenly stopped. "That's why I love living earth! I would never have been able to get as much platinum as I needed to make this sword. But here, I can just program in platinum, and it will react exactly as it would in the real world. Anyway, uh, there's also some sodium in it, and that's what gives it the golden color. And... oh yes! The edge. As you get farther and farther from

the spine of the sword, more and more diamond is mixed into the sword compound, so by the time you get to the edge, it's entirely diamond. Actually, I shouldn't say it's diamond. It's that cool nanorod stuff. ACNR I think they call it? They've always had trouble creating it in mass quantities, but it's no problem in here. I can just pack carbon atoms straight in a line, the jam them right on the sword. But basically, the ACNR is 40 times harder than diamond. And get this! ACNR is inert to any electric current, so you won't have to worry about any BS interference. God, that thing is so awesome!" Brian suddenly shouted with sheer joy "You better get top standings in that damn tournament, Brad!" He yelled. Brad laughed.

"You know I've been getting close every year. This is my year. Bring it on."

"Man, I had such a hard time making the exact compound I wanted. You know, there all atoms in the middle of the table, so their morphologies are always unpredictable. Big and confusing, its by chance how they will form really, uhg! But there's Living Earth for you again, so I just got the percentages of each of the elements, and combined them electrically. You just toss them in a Think. If they didn't yield the properties I wanted, I just scrap them and try again. Its really just luck of the bonding."

Brian beckoned for Brad to come over to the blue prints.

The two leaned

"But anyway, more on the structure," Brian said, tapping on the diamond shape again. "Because the compound I made was so heavy, I needed the sword to be hollow from the very beginning. But still, I had no idea about how to keep the structure strong. I had to talk to my physics friend. He suggested the gold ratio. From it's highest tip to it's lowest tip, the spine of the sword is exactly 2.5 centimeters tall." Brian slide his finger up and down the divider of the two isosceles triangles. "Thus, the angled side lengths are just over 4 centimeters due to the golden ratio. I can't remember exactly what that measurement was. But, this structure is extremely strong, probably the strongest for the given situation. The thickness of the actual walls was a bit of fun. I had to make some ratios between the space left for helium in the hollow sword against the tensile strength of the sword. I finally decided of a constant .5 centimeters. Now, at the end the sword where it tapers to a point, all those walls will be converging to a point, and that creates a little nub of my compound at the very tip of your sword. Plus with the added

diamond edging, the tip of sword is probably the strongest piece of matter in Living Earth.

There was a pause in the conversation. Brad swung the sword around gracefully. The sword flared, giving off a bright gold light every time it reached a high speed.

"Oh yeah!" Brian exclaimed. "The buzz. That's the molecules jumping up an energy level or two. They release quanta. You know that, right? You should have learned this from chem." Brian said to Brad.

"Yeah, I think so. Right..." Brad said thoughtfully, pausing. "Doesn't sodium have a bright yellow spectrum?"

"Well, yes, part of it is a thick cluster of bright gold light. Anyway, my compound is so huge that the friction from the air is simply enough energy to make the electrons jump and release the golden light. It wasn't exactly what I was looking for, but hey, it's a sweet effect." Brad froze for a moment. "Oh my god! Wait a sec here! Oh, this is going to awesome!"

"Uh... what? Your not telling me this thing can do more?" Brad asked rhetorically. Brian strode across the room, this time to a steel cabinet, opening it. It was full of all sorts of electronic gadgets.

"What is all this shit?" He muttered, rummaging around for a while. After some metallic dings and scrapes, Brian pulled out a large gray and black device. He walked back to the counter.

"Well, I don't know why the hell I have this programmed into my lab here, but I'm sure glad I have it today. It's an all-band scanner." Brian hefted the object on the same counter as the blueprints.

Brad was confused. "Wait. What? Radio?" Brad plugged the scanner in, mumbling to himself. He pushed the scanner aside with one arm, leaning over the blueprints. He began mumbling again, while turning the dial on the scanner, as if he was fine tuning it.

"Uh... Titanium... atomic radius... 170... but it's valence will stretch... uh... Ferris... 4s has 5.43 charge... so, like lowest radio wave... hmm... Brian stopped. "Brad, swing your sword." He said, preoccupied with the scanner.

Brad was caught off guard, still trying to make sense of what Brian was doing.

"What?"

"Swing your sword." Brian repeated.

Brad waved the sword around lamely. The small whoosh of the sword was minor, and the sword didn't even brighten.

"No!" Brian chastised. "Hard!"

Brad whipped the sword around, feeling powerful in his ability to control the light instrument. As he did so, the

green band on the scanner moved in sync with the swords hum. Brian fiddled with the knob slightly, perfecting the receiving band.

"Yes!" Brian shouted triumphantly. "The sword gives off friggin' radio waves. There's more than just light energy released when electrons jump, you know."

Brad instantly saw the connection.

"Man! This is going to be so helpful during the tournament. Do you know how far the radio waves will travel from a sword like this?"

"Hmm... that's a difficult question to answer. Obviously, the amount of energy in the radio waves released is directly effected by how hard you swing the sword. I'd say, while you're using that in normal combat, almost a mile. I have no idea though. You'll have to test it. But I know radio waves can travel pretty far with low energy."

"Well, I think that's all. I'm sure there's a bunch of other stuff your sword can do, but you'll have to find out for yourself. I don't have time to research all its chemical properties. Oh yeah! Wait!" Brian exclaimed suddenly. "this sword has only one weakness." Yet again Brian walked through the lab, and returned rolling a large robotic arm. This Living Earth stuff is true to it's word. I got this thing from MIT, they have it in the real world, and it was programmed right in their lab there. It's one of the strongest robotic arms in the world. I think MIT was studying something like the brittleness of metals back in 2090s. It has up to 500 million pounds of force. They kept it around for undergrads and interns to fool around with. Anyway, It can show you the one true flaw in the sword. May I?" Brad handed Brian the sword. Brian lifted the sword up to the robotic hand, and turned a nob. With a small buzz from the vorticks, the arm clenched the sword hilt. He glanced over at Brad. "Now, your sword is a width length sword, so you realize you have to attack with the sharp edges for the best results. You could block with the wider part, cuz the spine through the middle of the sword is strong enough, but the sword can't take too much pressure in that direction. Ok, got that?" Brad nodded. "Alright, here we go..." Brian said with concentration He pressed a button on the arm.

All at once, the robotic arm turned towards the the edge of the black counter top and slammed the sword down. For a split second, Brad saw the sword bend over the strong edge of the surface, and he began to yell out. Before he could even hear himself, there was a bright flash of light, and everything went black.

Brad was in the reception. "Goddammit!" Brad shouted mainly at Brian. "Victoria, spawn me back at Brian's house, immediately" Brian had long allowed Brad's specific player code to have the ability of spawning directly in his lab. "Right away, sir," Victoria said, dealing with it as a common occurrence.

Brad was in the lab, right away hearing Brian's laughter. That was awesome dude! Ha! Helium negative two has never been reacted with air. I guess we know what happens now if your sword breaks, Brad. Man, talk about last resort! Haha! I'd hate to think what would happen if this occurred in the real world. You would probably end up fried to a crisp! Woohoo!" Brian noticed Brad's face. "Hey, hey, hey, calm down, I have like three more exact copies of your sword. I like to keep stuff like that around. It's fun to tinker with my inventions when I get bored."

Although Brad knew Brian as a good friend, he disliked the copying that Brian did. Brian was a genius, but there should have been only one sword made for Brad; a mutual trade between friends. With more swords Brian could, although unlikely, sell out to other players. Even worse, Brian's other friends that had automatic access to his house could fool around with the sword copies, even if they could not remove it from his house.

"Speaking of busy... what's with all these distillation setups?" Brad tried to say casually.

"Oho! Big man! Using some chemistry vocab!" Brian laughed. "I dunno, man. I'm getting a lot of requests for acid and base compounds for the Competition. And you know, I'll take basically any request. I've been trading my work for user's LE houses mostly. I can spawn in almost any country on the planet with all the houses I have."

"Nice." Brad replied. Brad smiled upon his meager four houses, but still, he was content with what he had.

LAST MINUTE PREPARATIONS

Brad rode his bike through the gap in wooden fence in his front yard, careful not to make any loud sounds that would crash through his dark street. He leaned his bike against his garage wall and unlocked the door to his house. He slipped into his living room and quietly locked the door behind himself. What a blast that party was, Brad thought. Still, his happy feelings slowly faded away into the back of his thoughts. It was late right now; nearly 11 o'clock, and Brad had some work to do before logging on. The Opening Ceremony was probably already at a high level of activity now, but still, it was tradition that most people log on late opening night. This was the last night of partying before players got seriously into the tournament. Brad gingerly stepped down the hall and into his room, shutting his door. "Victoria," he whispered. "Cut the sound. It's late and I don't want anybody to wake up. We have to get some work done before I go to sleep."

"Certainly, sir. Feel free to talk at normal volume levels." Victoria activated the reverse polarized speakers around the room to cancel out any sound that was produced. Speaker resonators built into the walls were standard since the 27th century, and by now in the 32nd century, they were commonplace. Pulling out his phone from his pocket, he pointed it at his speaker system and pressed the music button. Instantly techno at a decent volume filled the room. The high speed rhythm brought feelings from the party back into Brad's mind, but he pushed them aside with his excitement and anxiety for the quickly approaching ceremony. The fast drums and thumping bass urged him to get to work. "Okay, Victoria, the Open Ceremony tonight is in Living Earth's New York City, right?" Brad already knew this but was in such an expectant and excited mood he had to ask. "Yes, Sir. You know this very well." "Right... and it is currently night on the game server... Yes, well, where is the location of the game server's moon right now?"

Without any delay, Victoria responded, "Currently it is directly over (coordinates here) which is basically near the Canary Islands, sir. It would sit fairly low to the south in the New York sky, and I would assume that Living Earth Programmers have left it that for a, how would you say, 'romantic' effect."

"Okay Victoria, including rotation of the Living Earth Earth itself, and the orbit of the moon, could you find the best possible point of trajectory from the moon in order to land a projectile at the top of the Freedom Tower in New York City? Such a projectile would way only about 2000

kilograms. Calculate it as though the only force necessary would be to escape the pull of the moon's gravity."

"Hmm... that's quite a question sir... I'll suppose you also want me to include friction, the carioles affect, wind resistance, and gravity into this problem?"

"Yea, yea," said Brad, rolling his eyes. "Just like it's a live test, just like if I was in Living Earth myself."

"And what time would you like this 'projectile' to arrive at it's destination?" Victoria asked.

Brad did some quick time converting in his head. "At exactly 11:58 PM Living Earth time should the projectile land on top of the tower."

"This will take my processors a few minutes." The computer emitted.

Brad walked into his bathroom and brushed his teeth, urinated, and trudged back to his bed, falling over onto it. He was tired, and was ready to go to sleep.

"Sir, you would have to launch such a projectile on the west side of the moon where it is dark, at the exact location of (coordinates here). You must equip the projectile with 2645 kilojoules to just escape the pull of the moon's gravity. From there, gravity will take over and the projectile will fall in a direct path for the Tower. The projectile must launch at exactly 11:53 PM and 24 seconds. Sir, It is not my place, but I would recommend you do not do anything of a violent nature during the Opening Ceremony. As you know, you would be quickly disqualified from the tournament."

"Victoria, there won't be a problem. What I am going to do will be certainly unprecedented, but also completely harmless. Send those moon coordinates and exact time of take off to my phone in Living Earth. Send me right to my Ocean City home when I log on. See you on the server," Brad said. He stripped off all his clothes exept his boxers and slipped under his heavy sheets. The window was already open, and midsummer Maine air flowing in was intoxicating. Brad snuggled up under his heavy comforter, and was quickly asleep.

THE OPENING CEREMONY

Josh Melvin sat on the Hudson just outside of Stony Brooke, admiring the stars slowly come into being. The horizon was brilliant pinkish red, quickly fading into a deep blue, centered by a large orange moon, usually low in the sky. Josh enjoyed watching the stars, appearing high in the sky, and slowly appearing more and more southern, as both the colors and sun raced away from his sandy domain in New York.

Josh had just come back from a straining junior year at college, and he was glad to relax here in LE. He chose this world exactly for the sunset conditions: they were perfect here for his hometown. Besides, this was the newest world, and it wouldn't hurt to check it out.

Josh had seen that there were many users on this world, and he wanted to really check how quite and secretive his sandy bank really was, just for the sake of nothing better to do. He was pleased that it was still amazingly silent; no one had found this amazing spot.

Josh had not been able to enjoy such quiet since last summer, in his life he had always lived in the city, and knew nothing but hustle and bustle. There was something though, something that was brushing into his dome of silence. No, it was not a breeze, there was none. The river was placid. It was almost completely dark, and no lights were on here; no LE user was around.

Josh stood up. There was something, though. It hummed with a low bass tone he was surprised he could even pick up. He went on to postulate that it was possibly the lowest tone able to be captured by his human ears. He knew the sound must be from miles and miles away. It did not vary, just a steady bass tone. The tone had a high timber to it though, like a roar. Josh pulled out his phone.

"Computer, where is that noise coming from?" An electronic male voice emitted back out from the phone, responding immediately

"The south, sir. I am detecting more than 1.5 billion users congregating around Central Park, New York City"

"One point five billion users?" Josh strained in a whisper. "New York City is 200 miles away from us.... How loud is it down there? What the hell is going on?"

"It is the Opening Ceremony for the LE tournament, sir, if you haven't forgotten"
"Oh my God, it is!"

The roar was deafening: 1.5 billion teenagers clustered in a 10 kilometer by 10 kilometer square centered around Central Park. The streets were as packed as any night club, from (some street to some street), kids roared with excitement. The air was a humid but not hot, and the clouds still had a slight pink hue from the very late sunset. Like Victoria predicted, the moon was big and low in the sky and reflected of the New York Harbor. For any one user, if the moon had a chance, it could be seen dancing in between the tall skyscrapers. All in all, it was a gorgeous summer night: the air was electrifying and full of energy.

At the center of central park was a huge stage, looming at least 5 meters above the massive crowd. It was donned with brilliantly reflective satin banners, gold in color. Each gold banner had the black imprint of the classic LE conifer tree, the famous symbol of Living Earth that had been in existence since LE's formation. One of the banners upon the roof of the stage was red white and blue, signifying the tournament was being hosted (and played) in United States of America. Right now, the stage was dark, but would be the center of attention in a LE hour or two.

Skyscrapers were filled with people; people of every country: Russians, Spanish, South Africans, Mexicans, Americans, Canadians, South Americans, Chinese, Indonesians; every country was represented in one way or another. Colored lights and flashes could be seen from every structure, each floor of each building was never the same at any one moment. Players had been signing up and renting areas of the New York City Opening Ceremony for months in advance. Each floor was filled with different cliques of people or people with common interests or people with the same nationalities. Somewhere in the city there would be an area for Hackers, an area for very skilled and serious players, and areas for people who already knew they were on the same team together, and wanted to get some early strategizing, even though the exact map had not been revealed yet.

The city was one massive party. Subway tunnels had become dance floors, small city shops at street level had become meeting places. Many people waited at Times to welcome friends who they knew would be arriving soon.

Because this year's Opening Ceremony was directly accessible from water, thousands of LE players could have boats at the Opening Ceremony floated thousands of boats, again, filled with all sorts of people. Some boats were small, some were as large as small shipping boats. From the

Hudson river to New York harbor to the Long Island sound, the Manhattan peninsula was surrounded with watercraft, and everyone was having a blast. People chatted and danced on the decks, and others jokingly tried to commandeer nearby boats of people they knew. Every boat had it's lights on, and with addition of dance lights and strobes, the water reflected with an unnamable jewel quality. People splashed and swam in the water, and the boats bobbed slightly in the choppy water. It was a fantastic setting.

Although appearing at first to be chaotic, the organization of boats was very structured. Many boats in one given area were from the same area of the globe. Because the global LE tournament took so much planning in advance, tournament were announced three years in advance. Brad's friends and some others from Bethel had been able to reserve a spot early because they were residents of the United States itself and heard about the to-be location of the tournament soonest. Just recently however, they had made the final plans for a boat and TeamThink'ed up something they could all enjoy.

For next year's tournament, they were not so lucky, for the tournament was scheduled to be in Indonesia. Brad and his friends found many good spots taken already, even when signed up as quickly as they had heard about the tournament. That was two years ago.

Many other people from Bethel surround the main Bethel boat in their own boats, simply because there was not enough room for every player in the community. Still others were probably on land, partying in a skyscraper or walking the streets.

Jimmy just had waded up out of the water and headed up the boat's swimming ladder. Amidst the flashing lights and darkness, no one had seen that he had arrived yet. Like Brad, he was late to log on this night. Despite this tradition though, the experience of the Opening Ceremony was too enticing for most and they went to bed as early as the server was open. Many people were already on the boat. However, like everything about the Opening Ceremony, everything was segregated into the two teams, which, as brad and jimmy had discussed earlier, had already been picked.

People always tried to have the Opening Ceremony mixed with players from both teams, but the situations always proved to be too awkward. A 50-50 mix of the two teams was too tense of an atmosphere that didn't belong at such a party as the Opening Ceremony. The Opening Ceremonies always naturally formed a separation of teams. The minority of people that did want to see people from other teams would

make their visit quickly and return to their respective team. They were not ignored or even looked down upon. Jokes would be shared around, of course. For instance, when one competitor found himself surrounded by many friends of the opposite team.

Jimmy pressed a button on his phone, and he was instantly dried. He had uploaded that little hack-app a few days ago. The ladder led right up to the open air dance floor of the boat, and people were clustered in various groups, sipping exotic drinks and talking. Jimmy was welcomed warmly by a group of guys he knew well. Jackson, Clark, Steve, the whole lot. These guys really spent there time to do well on Living Earth.

Jimmy, possibly sharing the same feelings with almost every other LE user at the Opening Ceremony, was enthused with uncontrollable energy. He met the group with a big grin.

"One party to the next, eh?" He commented. "Its great that we're all on the same team this year. I missed you last year, Steve." Jimmy said, glancing towards Steve. Steve nodded in agreement and the others all held there smiles, ready to kick some ass this year. Still, we don't have Duncan... our tank man. He's with those reds this year..." A few people sniggered, but knew it was all luck of player picking.

"Still," Jackson said, "It's only to our advantage, as everybody knows, we know some of his strategies. But still, I think we're all pretty creative, and I'm sure everyone here is going to think up new strategies."

"Yeah, Duncan will be thinking up new strategies, too." Steve reminded him.

Jackson smiled a wholesome, knowing grin to Steve, a smile full of understand Steve's statement, but also a smile of pleasure, pleasure of being in Living Earth, to soon join 1.4 billion other teenagers in the largest competition in human history. Even so, Jackson returned to his usual seriousness, challenging the excited party aura around that was the Opening Ceremony.

"Every year is different you guys, you all know that. We'll have to bust it out and do well this year. As far as we know for Bethel, we have a good squad, and god knows there's bound to be some other badass mofos out there as well." Everyone laughed at Jackson's rude speech, but they saw truth in what he said. No one wanted to admit it to avoid being laughed at, but the truth was that they were all getting older, and many of these intelligent guys were really getting to understand how to play in LE. They applied what they learned in school, plus research they did on their own time. To each is own, and each of Brad's

friends had different areas of interests. They were still all around very good: the top players of Bethel, Maine. Everyone stood around in slight reverie, but it could not last with so much excitement around. Finally Clark took a poke at the big elephant in between all of them. "Where's Brad?" He questioned flatly. All the guys turned to Jimmy, waiting for a response. Jimmy was not nervous in front of all these kids.

"I really don't know guys. He said he would be here when I asked him at the party... he was kind of quite though you know... like he was thinking." As Jimmy said this a smug grin grew across his face. "But... you know, that's Brad for you. I'm sure he's got some sort of plan that he's going to unleash." Everyone, including Jimmy did shook their head and some chuckled to themselves. However, these actions were not in mockery, but in respect and for some, disbelief. They all knew now that Brad was being bold, making a statement, and he would now have to back it up to not look like an idiot.

With so much excitement and simply so much to talk about, Jimmy's fellow friends shifted their conversation elsewhere.

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Brad was roasting in his Mark III space suit, the same used by the astronauts on they're recent trip to Mars in 2120. This really did not reflect his excited feelings of the Opening Ceremony Tonight. Instead, a different kind of excitement was coursing through him in the form of adrenaline, wondering if all his preparations for this would count for something. It was a simple projectile fall, not much could go wrong. He had done very similar problems in physics.

"Victoria! I didn't expect to be on the lit side of the moon!" In lieu of his phone, a small electric voice emitted instead from an electric panel on Brad's space suite.

"Sorry, sir," The voice emitted with the slightest sarcasm. "It was all I could do to even find a launch point, let alone having it on the dark side of the moon. With only your muscles as propulsion, I had a limited amount of choices to launch you from, given your very specific set of conditions," she added somewhat haughtily. With Brad rolling his eyes, she continued. "Even with my superior processors that already had eliminated possible launch points there were more than 30,000 possible outcomes, all

of which I had to select. You are 22 yards from the launch point."

As Brad bounded through the incinerating light that seemed to bear down on him with physical weight, the only company he had was two green lights integrated into his glass visor: his own, moving blip, and the stationary, blip of the launch site.

"Halt," Victoria emitted through his visor. "Launch in 2 seconds. Enjoy the flight sir."

"What?!" Brad yelled. "Two seconds?! Dammit!" Brad said. He immediately began to jump, knowing it would take him nearly 2 seconds to jump under the strange low gravity.

BLUE TEAM MEETING

"Welcome, Blue Team!" There was an enormous roar of response- 5 billion individuals cheering with all their might. A feeling of genuine pleasure came from the speaker's voice, a feeling of warmth, excitement, and adrenaline. However, the roar was quickly followed by confused questions. Brad himself sidelong glanced to Jimmy. Was that the voice of a girl? They both recognized each other's expression. Brad, behind the mass of bodies, was trying to peer above the thousands of heads in front of him. The stage, a plain box that rose up from the field, was lit brightly. Was it long golden hair he saw shimmering in the light? It was too far to see, Brad decided, but when he heard the voice, he knew their leader was indeed a female, something that had not happened for the two years he had been a participant in the Living Earth tournament: "Ah... so we find ourselves at the beginning of the Living Earth tournament yet again. And here we are in the rolling fields of Quebec." More bursts of cheers and other random shouts filled in periodically as the female voice continued. "Yes, that's right, Blue Team, I'll repeat what you heard earlier, we are defending the great city of Montreal during the tournament! This city is one of the oldest in North America, and I am proud to defend it! Yes, indeed, we are attacking towards the city of Atlanta Georgia." Shouts of boos and mockery erupted.

"I know I must lead all of you, but I will not-I cannot- do so without the help of all you. Yes, I am a strategist. But in such a complex playing field with such complex combatants, I will take suggestion from anyone at any time." Brad found this interesting. Whoever she was, she was instating a precedent that no other Team Commander had ever done in any game before. "I have an open door policy. Now, this does not mean I will give all suggestions the same consideration, and I will exercise the right of discretion to the value of the player to me: I will indeed give higher ranked players more time to talk and This is the largest game in human history, and as teenagers, with our rash decisions, our high-strung emotions, our love for life, this becomes a battle which is fought on more than just strategic fronts." There were a few snickers from crowd, most peoples laughter was sincere, mocking the Team Commander. Brad's was a sarcastic laugh which he shared with Jimmy, both of them knowing these things she was saying were very true, having experienced them before, but they both silently shared the knowledge that in such a situation it was what a teenager would call 'phony' for her to list these things at such a large crowd. Still, Brad

found this situation different, because she spoke these words so sincerely that the words had conviction. It was only the situation that pulled them down.

"In approximately 5 hours, this playfield will become pure chaos. I honestly think we have. I want sensors based around 50 and 100 mile perimeters of this base - in all dimensions from 20 miles into the earth. I trust our hacking team and Operations team can Think up some excellent solutions for that."

"Then we need to think about the king pins - New york of course is going to be a hot coal bed of activity for this entire tournament. I need to commit about 50% of us to that location alone."

Murmurs dispersed throughout the crowd. Brad and Jimmy glanced at each other. Committing 50% of players to one location was rarely, if ever seen. She continued.

"However, I'm certain Boston will be an easy win and can act as a major launch pad that will help for new york. The Red team will be coming strong out of. In short, the eastern seaboard is going to be a clusterfuck this ter
"I've picked Saratoga as our forward operating base for . It's still 3 hours out of the city, but small enough that it may be avoided by Red Team scouts looking in cities.

"Study your maps people, we've only got 3 weeks to make this happen. To all those hero and go getter type out there - Don't worry about bringing the flag all the way back - it just has to be closer to our base - please try to remember that!

"Now, with the large majority of , I'm deploying a medium sized scout team to head

"This battlefield is interesting because the Applachian mountain range runs almost straight through the field. This is going to be a pain in the ass logistically for the tournament as a whole, and for people on the ground out there.

"Finally, and I know this is said every year and it is often wasted. Please don't share these plans with anyone on the Red Team" She laughed to herself, despite the fact that nearly 500 million people were watching her. "Leaders say it every year and still someone always spills the beans. I know I can't control what you do when you wake up tomorrow - but let me put it in perspective. Just wait 24 hours - and then you can talk to everyone about everything - because - well I should say if Red Team knows what they are doing - everyone will know everything about the battlefield by Wednesday morning." She paused hesitating. "Well, not everything - but I've got that part covered." She winked and walked off the stage.

"What do you think?" Jimmy asked Brad.

"She seems good. Seems like she knows her shit. We'll see what happens. I just can't wait to get started. Good old USA man! I'm gonna pour over those maps again."

FIRST STRIKE

The Atlanta International is the largest airport in the United States. (LIST RUNWAYS, FACTS, ETCS.) The fact that there was a large size Think that happened to be placed right on the airport grounds made the Red Base City an amazingly powerful tool.

On the first day of the Tournament, more than a hundred thousand planes left the Atlanta airport and made a heading directly towards Staten Island.

NEW YORK CITY

He was there. The first thing Brad noticed was that it was dark. Distant rumblings of all kinds signaled to him that the battle was close. He glanced overhead. Massive paratrooper carriers rumbled south towards the city, outraced by dozens of fighter jets. Around him, tanks, armed jeeps and cars were zooming away. Squad leaders looking at maps. Blue team members were pouring out of Thinks. He walked across the dark street, up and to the right, up the escalator. He was in Pelham Bay Station, the terminal of the New York subway line 6. The space was filled with Blue, different companies moving to accomplish their own tasks. In his visor, his designated leader was highlighted. He strode carefully and efficiently through the packed underground space. The command leader did not look up from his tac-map as Brad arrived.

"Seems like you like taking your time, Brad." The officer said, still studying the map

"Yeah, sorry, I was just in Pennsylvania with my standard crew, then at Headquarters in Montreal. This free-agent stuff is new to me." Brad said, letting some of his excitement show.

"Blue team leader told me you were good, so lets go." The group leader raised his voice. "All right! Everyone onto the subway!" As he said this, a train came rushing into the station. The group leader jogged over to a hacker working at the think. Brad could see he was in charge of the trains for this station.

"See to it that this train gets to BLANK"

"Yes."

The company filed onto the train, amongst hundreds of other Blue team members that had their own tasks to accomplish. The group leader spoke up. "So here's what we're going to do in the city. Red team has got thousands of players, way more than we expected trying to assault Manhattan; its that large think in the harbor they want But we want it more. We need it. As it is, we're spawning players at maximum rates through the Thinks controlled in the Bronx and Queens, and we're trying to control Jersey City right now. Really, that's inconsequential. What our job is to do is complete fortify the entire northern half of Manhattan in order to stabilize a goddamn full hearted attempt on those cranks. That means from the sewers to the top of the damn Living Earth building we need turrets, sniper positions, and mines. Use a small think, and I don't care what the hell you guys use so long as it works. Once we're all set up, I'll se what I

can do about a little covert ops for you guys so you can get you some points and thin out the red crowd.

"Since its only you guys, we're going to have squads doing what company-sized groups should do. If you die, respawn at BLANK station, it's the closed think we control, the southernmost think of the Bronx, and get your ass on the subway back to Manhattan. We've got hackers running these things directly into the city at 5 minute intervals. Alright, got it? Acquaint yourselves with each other; this operation is going to last a few nights at the least."

The train rushed deeper into the city, admits flaming plane manifolds and clatter of machine guns.

Clark rushed across the large avenue, wheeling the robot gun and preparing it for firing operations. He then rushed up the street to lay down the infrared drums on both sides of the street, for as he was told, vehicles would be moving two-by-two up 7th. He switched them on, and sprinted back to the store. He had his full EM spectrum radio and command computer behind him, and an LED display showing output from the drums right to the right of his XR. As the vehicles crossed the threshold of the drums, the computer would receive information on the type of vehicle, average speed and seat height of the driver for each vehicle in the convoy. The drum on the far side would give information to the automatic gun, while Clark had to use the near side's info. Because the drums were only a few feet down the road, Clark could use the information accurately to eliminate drivers from the red team exactly as they lined up with the threshold of his gun's barrel. He had already included his reaction time into the command programming so that he could follow the orders right when he heard them. It had taken him weeks to do these calculations earlier in the summer.

Clark turned the lights off, and went prone, his gun mounted with a digital sight that gave angle of inclination from the horizon. Clark had bolted the gun to the table to allow only vertical rotation. He would need it for the type of shooting he was about to do. A large trail of ammo hung out; a standard clip size would not be sufficient for this job.

"Loud and clear Clark, we have eyes on the convoy, make no mistake, the convoy is coming."

Sure enough, Clark heard the unmistakable shake of huge diesel engines rumbling towards him from his right down the street. The response from the infrared up the street spiked as the first vehicle crossed the drum's threshold. Clark leaned into his sight, and took a deep, calm breath of a true marksmen. Seconds later, his laptop was announcing firing commands. With each command came a ground shaking report from Clark's rifle.

"8 degrees above horizon. Fire." BANG.

"14 degrees. Fire" BANG.

"10 degrees... 6 degrees... 11..." BANG. BANG. BANG.

Clark had no time to see what type of vehicle he was shooting at, or how many there were. He did not see each vehicle he fired at slowly careen out of control and swerve off the road. He was aware only of the green angles in his sight and the commands relaying again and again in his ears. Essentially, he was his own spotter. He knew the gun on the other side of the street was following similar commands. Together, they were eliminating every driver in every vehicle in the convoy.

Suddenly, the commands stopped. Clark blinked in the sudden stop of commands, and was well aware of the sounds of twisting, mangling metal he heard piling up on 7th street. Clark heard crackling emitting from behind him on his full EM spectrum, from one of the Red Team leaders: "What THE HELL is going on down there, what the fuck's name happened to that convoy?!" In another crackle, "We don't know, every single driver got fucking shot! We only have about a handful of players who didn't have to respawn!"

Clark smiled to himself for a split second. And anyone who is left will be cleaned up quickly. Heart still pounding, he pulled out a pistol and shot the bolts of the mounting system off the XR, ripped it off the table, and headed through the back of the store and up the stairs of the 80 floors to the roof of the building.

#

Brad jogged down the dark passageway through the dripping, ignoring the all too well copied smells of the New York. The smallest of muffled sounds could be heard from the battle raging the few stories above his head.

The drone whizzed out towards New York harbor. It was heading towards massive carrier ships that were full of red team members being shipped over from

Jersey City. The naval battle for the blue team in the harbor faired poorly, and these large carriers had no trouble landing.

Clark had quickly lost site of the drone's movement behind multiple buildings as it went in the New York night, but by the conn on his computer, he knew it was heading in the right direction.

Soon, the drone arrived. Red team member were now pouring out

The drone was his eyes and ears, and with its infrared sensor and color-assist scope, it lit up the escapade as though it was still daytime.

Again, Clark drilled holes into the concrete roof as he did before on the bottom floor, only this time, his weapon would have full range of freedom. He set his laptop to his left and went prone.

Taking deep breaths, Clark opened his mind. He was more an artist at a pallet than a marksman. He double cranked the upwards. Once for windage, once for gravity. The ticks on his scope were useless to account for the carioles affect. He would have to account for that by aim alone. What was good about the XR, however, was that even at outrageous shooting distances, spin drift never mattered. The unique titanium 4 inch bullets traveled so fast and spun at such a high torque.. Figures, Clark thought to himself, that's why I have to literally BOLT this thing down when I use it. Not the most mobile weapon.

Even so, windage at such a great distance was nearly impossible to account for. This is when the power of the drone came into play. Clark touched the XR to the right, bringing the barrel to angle right at the docks. Clark saw on his conn that the drone was hovering about 100 feet above the torrent of running red players. A large red circle was then illustrated on the conn from the drone, appearing across a the scrambling red team players. This red circle was over 10 feet people wide, much like a high powered laser appears when landing on a surface from a far distance. The circle, brightest red at the center and slowly fading away as it got to the edges, represented the drone's estimate of where the bullet could land after being fired. Clark wanted to see how sensitive these shots would be, so he ever so slightly flicked the butt of the XM to the right. On his laptop conn, the red circle slid over more than 50 feet to the left, unwavering in diameter. Shit! This is gonna take everything I've got. Clark thought grimly. He extended the butt of the XM to make his movement reference smaller. At such a distance, even a quarter of a

degree of movement would send his shots hundreds or even thousands of feet off target. Furthermore, with such a large size of predicted landing, even if 5 people happened to be standing in the zone, Clark knew he only have about a 1/20 chance of hitting any of them, and even then, this was considering all of them being stationary.

The drone began identifying officers; people that when forced to respawn all the way back in Jersey City, would cause the most confusion for the red team. With this, the drone boxed them in a bright green color, also with a ticker of how many seconds it would take the bullet to get their.

Clark picked one out who was walking in a nearly straight line, looking like he was heading to the top of his regimen. Clark tensed his arm, and with the slightest of movements slid his gun until the red circle was well above the officer.

"Damnit!" Clark shouted, even as his shout shifted the projected landing circle a hundred feet. He missed, and the officer clearly hesitated, if only barely for a half step. Brad focused all his attention to his eyes, on the conn, and his hands, so gingerly he was barely touching the XM. The sounds of the planes flying around, the explosions below faded out of consciousness. He had to get the shot off while the officer was still moving at a constant, straight line velocity. Clark counted off the seconds that the drone recommended, shifting his gun yet again with an impossibly small movement, towards where he though the officer would be in the given time. Clark closed his eyes, they would be of no use now, and concentrated on pulling the trigger in a perfectly symmetric fashion. The guns report exploded him out of his reverie, and Clark immediately looked at the conn, waiting for the bullet to make its way down to the harbor.

Ryan Costling was proud he was about to lead over 50 soldiers into New York. If they won this spawn, they could heckle the blue team endlessly until the flag was thiers As he strode up in front of his, the strangest thing went across his vision, so brief, he wasn't sure anything at all had happened, and he could have sworn he heard a powerful bump as if it had been some sort of ballistic. He looked around. Surely there couldn't be any snipers this far ahead of the red team lines, which were still up in Manhattan? If there were, they would have been quickly highlighted in his

vision as bright blue, a nice little app a hacker had developed for him. He sighed, reassured, and continued up the sloping harbor side. Just as he was about to rouse his group into attack, however, he froze as a particular feeling held him, and everything went black.

Clark watched the officer walk and counted off the seconds... 1... 2... 3... 4... Had he missed? No, the other shot had taken more than half a dozen seconds, and there was no signs of ground impact. He waited a bit longer. The officer stopped mid step, and fell to the ground. A hit! Yes! Clark thought excitedly, too amazed to let words escape. Even at such a distance, the XM's four inch bullet was devastating. Although of course no gore could be visible on an LE server, the bullet did go straight through the officer's chest. All this Clark saw unraveling before his eyes from the drone's view.

It took nearly

But these shots were much, much longer. The shots were over four and a half miles.

THE ATLANTIC DEEP

2000 subs slid against the golf stream, ever. More than a mile below the storm stricken surface, . These were Thinked subs; they were most likely nothing like. But within the realm of Living Earth, they were the most quiet body in the water - so quiet in fact that it was discovered a decomposition of the sound profile of these subs returned voids where no sound was detected. To remedy this over-perfection, small underwater speakers had to be used to match the infinitesimal abiance

To Grey Waters, it was all a game of numbers. Currently, however, he wasn't in exactly a state of calculated calm. "Negative 80 decibels, that's what I said! You understand how quiet that is? That's a shrimp, munching on food, from 100 meters away! Do you understand that when your life depends on that you don't care about much anything else? Do you understand the cold logic you need to make decisions, even when they aren't the best ones? Do you know why? Because there is never a best decision in battle, but by god if I don't get a sub kill this tour I'll quit LE for good."

Waters was leading the mid atlantic sub tour. The ultimate plan was to very carefully and of course, very quietly make way to . Waters had no idea if there even was a sub team for the Red Team; he had no knowledge of and did not care to read the bio of the Red Team leader. Plus, it didn't make much sense from a tactical standpoint. The closest they would be able to get to Atlanta was in the Ossabaw Sound in georgia, all 2000 subs nestled up quietly in the plethora. There they could surface safely without the hope of any radar detecting them and It took special types of people to choose such precise and relatively mundane task of inching ever closer to Ossabaw.

OSSABAW

At about 2 am local Living Earth time, just off the coast of georgia near the Ossabaw sound. Communicating with eachother and treating Atlanta as a discretized grid, the subs each launched a single tomahawk missile.

#

Mick stood out of his chair, looking twice at his monitor.
"Holy shit- Sir! We have over 2000 bogies headed at us from the south east. They're tomahawks, riding low. We've gotta get them out of the sky, or we're screwed!"
"2000 bogies?!?! where did they come from?!? ground and sea radars turned up squat! What the hell is the Engineering team doing these days?"

THE MOON

Perhaps the most ingenious idea that ____ came up with for
It was only about a team of 10 people. *Amazing*, he thought.
*We have the ability to literally change the map and we're
sitting up here sucking our thumbs and waiting for big
brother to give us the go-ahead.*

Today though, things would be different.

The phone rang.

"Yes?"

"Firing request for location.

#

Mick saw it all. Sir - we've got a strange transmission just
intercepted - we could decrypt it because it was such a -
a pretty unusual wavelength for long distance transmissions."

"Well, what does it say? Any battle plans?"

"Not exactly, sir - Just a single set of coordinates."

"I see. What's the location? Well, thats the thing sir... its
not on the playing field. Its

"Interesting... could be a code of some sort. Run all
decryption algorithms you have on antartica.

One of the younger. Wait, captian, switch t

"Zoom in on that."

The room fell silent as the coordinates were displayed. The
pin reflecting the coordinates was right over the dome of
Georgia Capitol building.