### Alice and the Wander

#### 2299 – A Return Home

Accelerating into space, a contented smile could be seen on Alice's face. She began to think back about her career, how she got where she is, and on how much quicker the return home trip would be. Alice still had her mother, now 80, and was returning home to see her in Boston, Eastern Region. She was astounded with how much quicker her flying time would be. Her first flight to Mars took 1 day, 12 hours, nine minutes, and three seconds to be exact. This flight was scheduled for exactly five hours. Not bad when the first flight to Mars was only four years ago.

# 2288 – The Wander Discovery

Looking back on the Wander discovery was something Alice liked to reflect on often. She was still amazed how much of a prominent role she played with its development and how successful it turned out to be. She still doesn't know exactly how she was chosen to be a part of the development and also with the aliens! She remembers that her team was outnumbered almost two to one by the different alien species, the Greys, the Greens, the Nordics, and more, in the initial discussions. Just two years before this, she didn't realize that even one alien species lived on earth.

Involvement in this project was one of the biggest thrills and achievements in her life and her career. To represent the actuarial profession was not only an honor for her, but an honor for the actuarial profession to be involved in these discussions. But it really made sense as actuaries had developed into some of the most diverse problem solvers of any profession.

Creating the Wander from the alien's "joy stick" was Alice's greatest career achievement.

Examining the "joy stick" for the first time filled Alice with awe. As much as she knew from a technical perspective, she appreciated how far technology had come, even beyond her. This shouldn't have come as a surprise, as most of the alien species on earth had been around thousands of years before humans. Despite this advanced technology, there was so much more to do to shape it into the "Wander". There were many insights early on that were learned and thoughts on how to take this to another level. By the way, the Wander did have a name until the work had been mostly completed.

Shaping the Wander took Alice, and her team of experts, three years of full time work to complete.

## 2291 - The Wander Abilities

Wander began as a vision from Alice, and the others, in 2288.

Artificial Intelligence from the humans was not as advanced as that from the aliens, but Alice took the original learnings and built something that not only actuaries, but all of society could also use.

Not understanding the complete capabilities of the "joy stick", Alice began to dig in to understand its capabilities. Each of the alien species had a slightly different version. She decided to begin with the version from the Greys.

Discussing the capabilities was easy, as the aliens were enthusiastic teachers. In fact, they were thrilled to finally be "discovered" after being in hiding for almost 350 years. But with their long lifespan, Alice was able to meet with some who were the first to arrive to earth.

Exactly how the "joy stick" worked was not easy to explain. The first thing that needed to be understood was that this was an advanced communication tool. Most alien species communicated telepathically, that is, they were able to send signals to another by planting their thought in another being's brain. Sounds were still used, but were limited, as hearing was not well developed in most alien species. Words were also not used, but you knew exactly what the alien wanted to communicate. It was strange and hard to explain, but aliens were also able to communicate whatever thought they wanted. For example, if they wanted to communicate that they were going to the store, you would see a visualization in your mind of that alien moving toward the store. The "joy stick" was used to supplement the communication, actually make it even more vivid in the receiver's mind. It is something difficult to explain unless you "see" it first hand.

Researching and truly comprehending the full capabilities was difficult. Maybe difficult is not the right word. Alice was initially in absolute awe of the initial exposure. But she quickly took on the challenge given to her, to make it available and usable for humans. She began to think about the possibilities and changes needed to turn the alien "joy stick" into a "magic wand" (or Wander) that could also be used by humans.

Describing the capabilities to Alice did not take long, but she initially had to pause and take in the possibilities, being in awe of what was before her, not just what she learned about but also about what the future could hold' and what the possibilities could entail. Alice found this whole new world absolutely amazing.

Intelligence, artificial and otherwise, is what got Alice where she was and she was the right person for this job.

Digging right in, less than a week after the training, Alice began her planning. She wanted to develop a tool that would benefit all of humans (no small order!), help enhance communication skills, and speed up every process now being done by humans.

Young and old alike would benefit.

Once she thought through her plans, Alice brought in help from other experts, both humans and aliens. She didn't limit the aliens to the Greys. Others could and were willing to help.

Understanding the latest in artificial intelligence, quantum computing, and more was need. Again Alice was the right person, having learned the most advanced technologies in school and throughout her career.

Not withstanding the lofty goals, Alice created a practical high level plan, and then began to work on the details

Organization was one of Alice's skills.

Tasking others with certain aspects of the project was another strength of Alice.

Including the aliens in this process was certainly unique for this time, but after the success of the project, would become commonplace as the relationship between aliens and humans grew and evolved.

Carrying out clear directions to all involved required an understanding of each individual's (human or alien) strengths.

Expertise in multiple areas was had by all involved.

The initial focus, not surprisingly because Alice was in charge, was on actuarial applications.

Hoping to provide solutions on all types of actuarial pricing, Alice and her team began to test the ability of the wand to recognize people and things. They found it already had the capabilities to recognize people (personally), but things more generally, in multiple categories. But the goal was to also recognize specific characteristics of the people and things in order to provide a proper pricing assessment.

Actuarial and non-actuarial programmers because to write algorithms to accomplish these goals. For example, for people, a health assessment was needed. Therefore, they initially programmed the wand code to look for skin quality, blemishes, tautness, wrinkles, etc., but later became more sophisticated, looking for signs of specific diseases.

This work took 5-6 months of trial and error to get to the point they were satisfied with. They tested the algorithm on themselves until they were satisfied with the results, being able to identify impairments that they actually had. One important finding was the Wander was more accurate when assessing themselves in person than on a picture.

The next step was to work on assessing things. Here, the initial focus was on homes, automobiles, and other objects that would be insured, e.g., other vehicles like airplanes, jewelry and more.

Homes were the initial focus, trying to assess the age of the home, the structure of the home, any visible faults, quality of gas and water connections, etc.

Exterior of the home assessment was accomplished relatively easily, especially after the detail needed to assess humans. They moved to home interiors and this took longer as the Wander needed to be able to "see through" walls and other objects, but were able to accomplish this as well. They hoped the assessments would not be made when someone was showering! As with people, assessing live rather than in a picture improved the accuracy. The improvement was only about 1% with jewelry, but 12% for homes, 9% for automobiles, and 35% for people.

For life and health insurance, this meant visiting directly with the potential insured was important. But waiving the Wander around the person took seconds and was not intrusive, other than having to do it in person.

Interestingly, this work on actuarial pricing also increased the accuracy of actuarial valuation.

Review of the results and testing of each algorithm was then conducted and small adjustments were made.

Starting work on societal benefits was next.

This proved to be a challenge. Alice and her team took over three months to brainstorm on what this meant. What could they create to benefit/help/improve society?

Loving the idea overall, they began by focusing on humans, but then they to benefit society as a whole, i.e., humans and the aliens.

Examining how they could better bring the alien and human groups together, they had a couple of initial questions were: What could be learned from each other? How would the Wander help with this?

They wanted to try to resolve this issue on their own without bringing the aliens into the discussion, at least initially.

Time slipped away quickly during these brainstorming sessions.

Every approach they took and algorithm they tested seemed to reach a dead-end.

Researching the habits of the different alien species, Alice came finally came up with an idea.

Open dialogue, working together, living together.

First and foremost, a society that comes together will benefit from each other.

Every species must be represented in every community.

All members of the whole team loved the idea, but implementing it would not be easy.

Considering the challenge of creating the new U.S. when it broke into the Eastern, Middle, and Western regions based on political preference was something all of the team members remembered from their history classes.

However, they were all up for the challenge of making this work.

Programming various algorithms was the easy part, but being satisfied with the outcomes was not!

Algorithm after algorithm was written over many months.

Realizing time was slipping away, they needed to find a solution, as they had with the actuarial work.

All at once a solution everything clicked!

Grow each community with representation from each species, young and old. Hold a weekly and monthly get together where ideas can be shared, problems can be solved together.

Regarding the Wander, this became the communication tool for society, as well as the actuarial tool to more quickly and accurately assess risk. Nothing like the simplistic algorithms created over two centuries earlier. The other thing the Wander did was diagnose any coming issues and prescribe the proper treatment for each and every individual. This was even used by the aliens to extend their life.

## 2297 – Retirement

Alice retired six years after completing her work on the Wander and twenty years after formal training.

Perhaps the retirement might be considered early, but Alice accomplished so much in her twenty years and deserved it.

However, the primary reason for the retirement was the shortened life expectancy of the times, only 63 years for both women and men, and Alice wanted to enjoy a long retirement.

Starting with the pandemic, climate change, and the restrictive policies that followed, life expectancy began to decline. Reducing carbon was probably the biggest driver because carbon is beneficial for life.

Perhaps things could have been different had it been realized sooner, but there was a slow and steady decline in most years that did not seem reversible until now.

Exactly when this was realized was not clear in the history books.

Long life still exists, but it is the exception rather than the rule. Alice's mother living longer than average will hopefully also bring good fortune for Alice too.

Living through both exciting and stressful times makes it unclear exactly what Alice's life expectancy will be. However, her Wander estimates about 72 years, with a 90% confidence interval of 68 to 85.

Since Alice began researching her retirement, she explored Phoenix, Western Region and Miami, Eastern Region. She considered the two top warmer weather locations, but then decided on a quieter and more exciting location, Mars.

2295 - Mars

Airplanes began flying to Mars in this year. They were large enough to accommodate not just passengers, but also other supplies.

Settlements began to be built on Mars shortly after the initial commercial flights.

The tranquility of Mars is probably what appealed most to Alice and was probably just what she needed.

2281 – Alice's Career

Over the length of Alice's career, she always had the most interesting and challenging projects. The Wander was just one of her many achievements.

Right after graduation, Alice began learning how to price health insurance. Just several months later she moved into setting reserves on auto insurance. From there, she moved rare stone risk management. She mastered everything that was given to her and moved into increasing managerial and leadership roles.

Yet, her favorite role after the Wander, was leading a task force of chief actuaries on determining the best approach to risk management across all lines of business. A true actuary!

Collaboration on projects helped bring Alice other insights.

Other things that helped her career and the development of the Wander were her mother's influence and her education.

2277 - Graduation

Notable was Alice's educational achievements being completed in just three years.

Graduation was a hectic time for Alice, as she also had to help her mother care for her ill father.

Rest was all that could be prescribed for him. But someone needed to be present at all times. While the past two leading causes of death, heart disease and cancer, had all but been eradicated, other unknown mysterious diseases seemed to be cropping up all of the time.

Although the care was time consuming, Alice focused on her studies, including the latest advances in Q2, the second level of quantum computing. While Q2 sounds like a small increment, it really represents two million times more powerful.

Tackling this plus advanced materials, physics, actuarial mathematics and more kept Alice plenty busy. Not unexpectedly, she was more than capable of handling the load.

Understanding virtually everything the first time through was one of Alice's greatest abilities and served her well not just in college, but her professional life as well.

2299 – Living on Mars

Living on Mars was not for everyone. You had to be independent, adventurous, and not be scared of the little things, like the three-foot long spiders.

As mentioned earlier, Mars was settled quickly.

This meant a fast population growth on Mars. There were births and deaths, but there wasn't a single death due to the large spiders.

It was also iexciting how quickly the Wander was adopted. For example, one could take the Wander, waive it over a whole cemetery, and a whole mortality study could be generated.

Other than those who settled in, there was now a steady stream of visitors, who visited someone they knew on Mars, as well as those looking for an adventurous vacation.

Nothing was more difficult there than trying to throw or catch any kind of ball in the thinner atmosphere, so sports were only played indoors.

In every way, Alice had found the place she was most happy. Her only regret being so far from her mother. But the Wander had another purpose, to replace the phone glasses everyone wore before it, and that allowed Alice to stay in touch with her mother.

2286 - The Aliens

Following the history of the aliens was quite a challenge because most were not aware of them until 2286.

Yes, there had been rumors for centuries, but the aliens were able to hide out on earth in less traveled areas, such as caves and underwater.

Over the years there had been attempts for the aliens to communicate amongst each other, but those discussions always ended in disagreements. They even attempted to communicate with human leaders around the world, but no agreements could be reached.

Understanding each others needs and desires was never successful. And communication, until the Wander, was also problematic. The "joy stick" worked between some of the aliens.

Maybe I should introduce you to the various aliens. There the Greys, who stand about 3-4 feet tall. They are hairless and have a large head with black almond eyes with a slit for the mouth. They also had 3-4 fingers.

Another species was called the Hopkinsville goblin. These beings were small and greenish. There were also the "little green men".

Depending on underground shelter and living arrangements were the Nordic aliens, named this by humans because they appeared to be Nordic.

Evoking possibly the greatest human fear among the aliens were the Reptilians because there appearance was that of a large reptile.

2296 - Travel to Mars

In 2296, travel to Mars became a regular event for some.

Travel in the early years was not only extremely long, but choppy as well. But travel improved quickly. Within two short years, it was about the same time and turbulence as a trip from the Eastern Region to the Western Region, but certainly at a much greater speed.

This improvement came about because of the use of hydrogen propulsion. This was looked at about two centuries earlier and abandoned for some unknown reason.

Open invitation to those who want to take a trip to Mars, and as an actuary, Alice agreed to meet you there in person.

The End. Hope you enjoyed the story.