## An essay for Mary Mulvihill science journalism award

## Appreciating the Past, Living the Present to the full, and Creating the Future

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"Psychologists say that the stories we tell ourselves have a profound impact on our sense of identity, on our relationships, and on our choices." Mary Mulvihill, Irish Times, 12 March 2015.

So here is the story I chose to tell myself:

She had her camomile tea with lemon and honey in a carved, painted-in-blue mug from Iran, about to write the stories of the extraordinary life she lived. She is now 80 years old and has decided to publish her biography as stories for the public to leave a legacy of love, commitment, honesty, and sense of purpose.

She was staring at a piece of stone in her collection of stones from all over the world. Each piece reminded her of one contribution, one movement, one commitment, hard work, as hard as stone.

There was a pointy, gray stone which she got from the Madagascar stone forest during her trip in 2041 to organize the "Energy and Peace" congress. She proposed this congress in collaboration with United Nations energy agency to identify all the instances in the world where energy issues are creating war or keeping people from living a peaceful life in their homes. She studied energy systems, so her creativity led her toward this path to make the world a safer and more enjoyable place to live using energy. She was always concerned about Peace in the world and was reading the biographies of the successful women who got the Noble Prize in peace, e.g. Shirin Ebadi, or Malala Yousafzai to be inspired and find a solution in her own way. This congress was a solution she came up with at the age of 54, twenty four years from now!

Tundra, the piece of green shiny marble from Norway, took her back to summer 2038 when she went on a conference in Lofoten, Norway. This conference was

proposed by her and held by her colleagues to officially announce the termination of extraction and use of fossil fuels in the world. She called it "NoBurn". As a result of this project and after years of contribution in this field, 78 countries which were the main users of fossil fuels joined the commitment to stop burning fossil fuels. She was so happy that her country Iran also joined the campaign after her efforts to introduce renewable energies like wind power and solar energy in the potentially capable regions of Iran. That was a different project, started in 2022 and was named "Bad Wind". She called it Bad, as it is the equivalent of wind in Persian language. "Bad Wind" contributed to ten wind energy farms in seven most windy areas of the country. These energy farms were enough to satisfy the need of electricity for %44 of the need in Iran. The rest was answered by other forms of renewable energies such as solar energy.

There was going to be a big celebration with scientists from different countries who contributed in finally making the tidal turbines a reality. The project to mass produce electricity using the ocean waves and tidal forces. She was so excited about the whole ceremony; also, deep down in her heart she knew the main idea of this project was ignited in 2017 when she was doing her PhD in National University of Ireland, Galway on energy systems modeling and control.

She met this guy who was in construction industry, but his ideas were far more than just construction of a shelter. To him, the house was not just a shelter, but an envelope to invite all useful sources like solar radiations but to remove all unwanted effects like cold weather. One of the first love stories exchanged between these two was about tidal turbines! This idea seemed perfectly possible to implement in Ireland, and that's what made their conversation going to the point where they couldn't stop seeing each other!

It was October 2017 when she started a project among her community in Galway, to monitor how much oil they burn each day. The consequence was to plant a tree for every 10 Litters of oil they use. This supervised monitoring of the oil consumption and the amount of money all these tenants have to pay for the oil and gas were such an eye-opener for the Galway community that they joined her campaign to reduce the consumption of fossil fuels and instead use renewable energy sources to provide electricity and heating.

Her first contact with the United Nations happened on the night after her 30th birthday on the 30th of April 2017. She wrote a letter to the sustainable energy development program horizon 2030, and expressed her enthusiasm toward energy efficiency and renewable energy science and industry. The United Nations contact point of the project replied back appreciating her ideas on a sustainable energy development in Europe and particularly in Ireland where she was studying.

Less than a month before that, on the 3-4 April 2017 she was awarded the best essay on Mary Mulvihill science journalism in Dublin. This was a breakthrough for her mainly because she become connected with other passionate women in science who cared about the future of the world and how science can help to improve it.

And now, at this present moment, she is writing the story of her life from the future to the past as if it all happened and will happen as she has written here; Because she believes she is the creator of her life, she has the pen to paint whatever she likes on the canvas of her life, and this story is how she decided to paint it. And here is how she panted her story already:

In February 2017 she joined the FameLab competition by the British council in Galway to present her science talk in three minutes about "How to get rid of your energy bills?" in front of the public audience. She presented the concept of Net-Zero-Energy-House that consumes the same amount of energy that it produces over a course of a year. This idea is possible through the renewable energy production mainly solar panels and wind turbines. When she gave the talk, she could see people nodding their head thinking about the energy facts they just heard and they were never aware of:

"Every minute, the sun gives us enough sunlight to to satisfy the world's energy demand in an entire year."

The audience were so much impressed that night that the judge said I will surely check my energy consumption tomorrow having heard this three minute concise reality of what we are consuming in our houses.

After having read this sentence in some energy news she was following, she personally could not just walk around and not care about the energy generation and consumption anymore. She felt that she can do something about this. This energy

is not being employed enough in the world; However the technology is simple and available for anyone to use.

The universe has always been on her side, also when she decided to choose electrical engineering as her major to study in college. She did her studies in the polytechnic of Tehran, where she met hundreds of other passionate men and women contributing their time and effort in science and technology.

Her years of high school was a great asset to take her where she is today at this moment. She appreciates all her smart and competitive classmates whom were a bigger motivation to her to excel in her studies among the top students all over the country. She was awarded many prizes for her achievements ranging from mathematics competition to Persian Calligraphy. She could get a sense of identity by putting the words into calligraphic shapes as if they are talking to her, saying stories.

The idea of collecting a collection of stones also came from her time in elementary school where her father brought a collection of volcanic stones for a science laboratory. Those pieces of beautiful stones shining in her eyes and her mind, inviting her to collect more of them later herself when she could actually travel to those places.

Then it came to some vague stories that she remembered from her early childhood, being five or six years old. Here is one of them:

- "Be careful with that magnifying glass, love!" Said her older sister, while grabbing it out of her hands)
- Why? I am just playing around with it to observe my feet fingers from close. It's nice and light here in this beautiful sunny day.
- You may burn yourself with that. The sun is such a huge source of light and heat, and when you place the magnifying glass under its radiations, the glass will make all that heat and light focus in one point, which is huge and can cause fire. This point could be your fingers!

So her childhood experiences include visiting domes, picking leaves of the similar shape and categorizing them in groups, collecting fossils from the nature, finding different stars in the sky on a dark night of camping in the deserts.

Her mother was a science teacher and her father an specialist in children's education of math and science, she couldn't have been born for anything rather than science and education.

When she read the first sentence by Mary in Irish Times, and after months of working on herself, and developing new ideas, she decided to apply Mary's theory in practice and write the story of her life in the next 50 years. May this essay "have a profound impact on my sense of identity, on my relationships, and on my choices"

To create the future according to this story,

Cheers

Adeleh Mohammadi 3 March 2017 Galway, Ireland