

THE DUAL DIPLOMA TIMES

WRITTEN BY STUDENTS AROUND THE WORLD

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How to Conquer Consumerism

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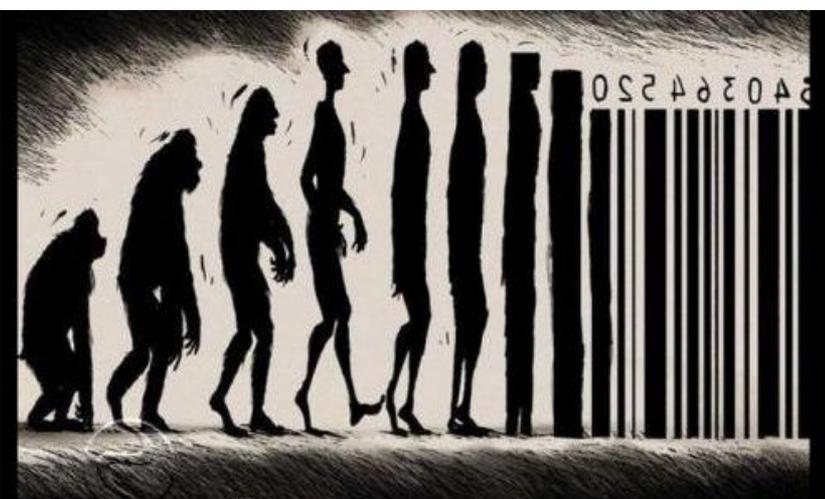
Consumerism, “the actions of people who spend a lot of money on goods and services,” has become more widespread in the past few decades. This has resulted from the increasing prevalence of marketing techniques that target the middle class. Some people may believe it to be good because it reflects the ability of more people to buy more often, but in reality, it is damaging people’s psychological and economic well-being.

Our society wasn’t always like this. In the past, the working class just bought what they needed, preferring to save their money for a rainy day. It wasn’t until the late 18th century when, in Britain, businesses started using envy as an easy way to skyrocket their sales. With the pass of the centuries, more people escaped poverty and became financially stable, causing trends to start playing a bigger role and consumerism to rise.

But how does it work? Consumerism makes consumers buy more using people’s desire to climb the social ladder. Products that were, a few years ago, a luxury for the rich are now items that people frequently consume in excess, such as clothes. Companies also try to increase consumer rates of their products, and one method by which they do so is creating apparently luxurious items that in reality, most people can afford with some effort. This is obvious in the technology field, and it’s no wonder that, along with clothes, computers and smartphones are amongst the most recurrent objects of consumerism.

Consumerism has a detrimental effect on its subjects. To some, going on shopping sprees may seem fun, but consumerism is linked to less happiness and fulfillment in life. It also increases the chances of people having depression or assorted social pathology while emptying the bank account. Financially speaking, it is horrendous, as people spend money on products that they usually don’t use that much when they could be saving or investing. Needless to say that the environment suffers from the excess of products manufactured.

The Covid-19 pandemic has significantly lowered consumerism rates, but that was due to the higher unemployment rates. Regarding mindset, it has had a mixed effect on the population. On the one hand, it has made some people aware of their unhealthy buying habits. On the other hand, some other people have released their frustration with the situation via impulsive shopping. Nevertheless, the pandemic has reminded people of the importance of human connection, which is expected to lower consumerism rates in the near future.



Two people have bags on their heads, representing how consumerism is controlling them

Here are some tips to achieve balance and escape impulses:

1. Consider your motivations: What drives you to buy those products? If it’s a way of trying to live up to social norms or feel fulfilled, then you don’t need the item. It may help you to reflect on why you want to buy each product and take home only what you genuinely like and want.
2. Reduce exposure: Try to go less to shopping malls or shops where you buy in excess. Even if you have to go out of your way to do so, it will benefit you in the long run.
3. Make a wish list: Write down everything you want to buy, and leave it for some days, or preferably, weeks. If you still want to buy a specific item, go ahead. But maybe after the heat of the moment, things don’t look so tempting.
4. Set a monthly budget: Choose a reasonable quantity that won’t make you financially strain and stick to it. Once you reach that amount, you can’t buy anything more. Alternatively, you can do the same with a set number of items instead of money.
5. Practice mindfulness: This habit will make you realize when corporations are planting thoughts, and if your consumerism comes from a need for fulfillment, it may fill that void. It is a powerful tool to help tame your impulses, and it will benefit you in other areas as well.

These tips will help you conquer consumerism, but know that what works for others may not work for you, so you may have to resort to trial and error to find the perfect solution. Lastly, remember that you are not alone. Many people suffer from consumerism, and some others have already overcome it, so do not be afraid to ask for help!

The Sneaker Business: A Booming Market

Louise Dugast

They are everywhere - SNEAKERS! According to the professional federation Chaussure de France, today, a little more than one in two new shoes sold in France is a pair of sneakers. On a global level, the market is worth more than 88 billion dollars, and it is still growing. Look around you: regardless of age, gender, or socio-professional category, everyone wears sneakers. It is the most democratized shoe model. Let's zoom in on this accessory that has become a daily essential.



Sneakers have invaded the space - not only urban - and have mostly become our everyday shoes.- Laurence Bentz

City Shoes

Nowadays, we don't necessarily buy sneakers to practice sports. We buy this style of shoes mainly because they are practical, comfortable, and because it is a fashion accessory. It's paradoxical because most of today's trendy sneakers models were made for sports athletes, can you believe Olympians have won medals with Converse shoes?! Now, would we even dare to wear them for a little Sunday jogging?

Taboos Fall

If it works, it's because most taboos have fallen. In fashion, associating a suit and sneakers is no longer a fashion faux-pas and sneakers are now a staple on the catwalk. In politics, more and more leaders are taking action: Barack Obama, for example, was a big fan of sneakers. Brigitte Macron, the wife of the President of the French Republic also wore Louis Vuitton sneakers. Even in very strict sectors such as finance, dress codes are becoming more flexible. As a result, on the shelves, the offer has diversified considerably. There is something for every taste and every budget, from the supermarket sneaker at a dozen dollars, to the high fashion sneaker at four figure prices.

"Ugly Shoes" and "Smart Shoes"

The most trendy 2019 models? Those that Americans call the "ugly shoes": these massive models, with very large soles, already in Vogue in the 90's and which benefit from the return of the vintage look. But to keep the momentum going, brands are now focusing on innovation. On the production side, 3-D printing has already started to disrupt the industry by making it possible to manufacture custom shoes. On the product side, with the arrival of "smart shoes", these intelligent shoes, like Nike and its self-lacing shoe launched this year. Tomorrow, your sneakers will probably be able to warn you when you are too tired. It will then be time to take off your shoes!

A Flourishing Business

Sneakers have become a real business with collector pairs selling for close to a million dollars. Some of them are so exclusive that your name has to be drawn to buy them. That's why some people have started reselling shoes. This second-hand market started by using social networks, eBay, or Craigslist, which gather enthusiasts, collectors, resellers, but also scammers who do not hesitate to show bad faith by offering counterfeits, sometimes reselling pairs 3 or 4 times more expensive than their real value.

Sneakers are therefore more trendy than ever whether it is to practice a sport or simply as a city shoe. The models offered are diversifying and it is no longer rare to see celebrities wearing them from the White House to fashion shows. The sneaker market has experienced an unprecedented boom, everything suggests that with these many innovations its growth should not stop anytime soon.

Adapting to Climate Change

Irene Salas

Everyone has heard the news about climate change: the ice is melting, the temperature gets hotter every year, and there are countless threats to biodiversity.

So, are we doomed? Is that it? We could be, but there are ways to prevent the catastrophes climate change will bring (and is bringing) to our lives. We are all aware of the direct consequences climate change is bringing: floods, harsher weather, droughts and extremely high temperatures. But what some people aren't quite aware of is how all of those direct consequences have their own set of problems they're connected to. For example, floods provoke infrastructural damage, people who from a day to the next lose everything they owned, leaving them dependent on their government's ability to deal with the problem. However, there are ways we can endure the catastrophes climate change is bringing and which will only be harsher in the near future the most obvious ones are stopping the problem at its source.

One of the biggest causes for climate change is fossil energy and is also a difficult one to amend since almost everything works with fossil energy: cars, light, even the cooker inside of houses works with butane gas. Or does it?

Putting our focus on the U.S., hydropower is more used than most people realize. According to the Department of Energy, "Hydropower currently accounts for 37% of total U.S. renewable electricity generation and about 7% of total U.S. electricity generation." This may not seem like much, but only two states don't use hydropower (Mississippi and Delaware) even though some use it more than others (The state of Washington produces 76% of its energy this way). Hydropower is also a very affordable source of energy. Like any significant project, upfront costs are necessary but the long duration of the facilities makes the maintenance cost (which is already minimal) spread over time, all this makes states like Idaho, Washington, and Oregon have lower electricity bills. Hydropower also has other benefits, like flood control and management of the water supply.

In addition, solar power is a type of energy that is not only good for reducing the use of fossil energy, but it could also give a developing chance to continents like Africa. The majority of Africa is a zone where energy transportation is a hard task, but with solar panels, the energy could be produced locally. Perhaps in no time, Africa could be selling energy at competitive prices to Europe for example, some of its countries are the sunniest ones in the world after all.

These are only some of the ways in which using renewable and accessible sources of energy could be beneficial in many ways. As explained before, climate change can't be stopped or avoided, but we can mitigate its effects. In order to do that, we need to stop the causes first to prevent the problem from getting bigger.

Everyone is familiar with the water cycle: water evaporates from bodies of water, condensates, moves to land, and precipitates down in the form of rain, snow, or hail. The issue with climate change is that it makes evaporation increase significantly. This leads to more frequent and intense precipitation and to drought in some land areas.

Droughts bring with them water crises that are not only a problem by themselves, but they also add food crises that can lead to increased poverty and hunger as well as a rise in prices which contributes to poverty as well. Another major problem that drought brings is desertification. One solution for this could be investing in water treatment plants so the dry zones don't run out of water entirely. Another one is building water reserves the food crisis could be partially redeemed.

Harsh climate conditions can also lead to infrastructural damage or failure because our buildings nowadays just aren't adapted to the conditions we are going to have to endure in the near future. Flooding is also a problem that can be prevented in some cases, and in the worst cases, dealt with more effectively.

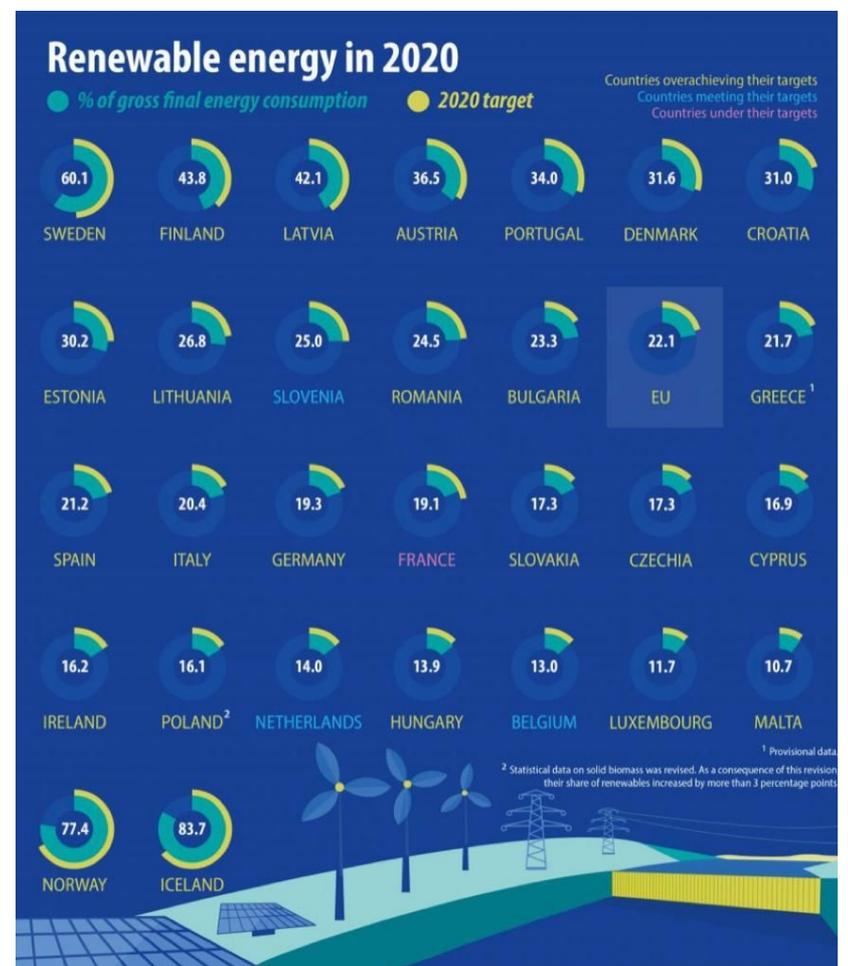
The first problem that comes with flooding (especially the sudden flooding) is landslides, a geological phenomenon that involves soil movements that drag along anything it has above. A prevention method could be planting vegetation to partially stop the landslide; However, building terraces in the way of steps have proven to be more useful. Some other forms of flood management are rock beams, rock rip-raps, or sandbags. Rives prone to cause flooding are also usually carefully managed by, for instance, building alluviums.

These prevention and management methods can be effective in minor floods, but nowadays they are barely enough to endure the harsher floods. And with climate change making them harsher and more usual by the year, some countries are already getting overwhelmed with disasters.

Hence why adapting our buildings, roads, and cities is important to be able to endure climate change at our best. Needless to say, if global warming keeps going at this rate and the poles melt, flooding would be unavoidable and many cities would end up underwater. According to Los Angeles Times, data from this year says that the sea level could rise 10 to 12 inches (25-30 centimeters) by 2050

The multiple problems that climate change will cause will most likely make social and political situations more extreme and polarized, which would cause problems on its own. The exact consequences are impossible to measure, but climate refugees are almost a given, due to the possible wars for resources and the natural disasters people will seek shelter. To put it into perspective, the war of Syria has brought to Europe round up to more than 6 million refugees, according to the UNHCR, and that is only one country, we can only imagine the numbers if countries started flooding and being buried in natural disasters.

Misinformation and dismissal are dangerous when it comes to problems like climate change, which is creeping upon us and we are not paying enough attention to it to be able to endure the consequences that it will bring (and has already been bringing). This is why being informed and up to date with the issue is important. Climate change is not coming, it's here, and acting upon it is crucial to be able to endure it.



Some countries like Sweden, Norway or Iceland get their 60% or more energy from renewable sources.

<https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20220119-1>

The Power of Youth

Abril Castillo Camacho

I'm Abril Castillo Camacho, and I have been fascinated by youth activism for years. So much so that over a year ago, I decided to conduct a research project investigating how young people have affected and continue to affect our world. My findings were fascinating.

My research project, *The Power of Youth*, aimed to cover the involvement of youth in political, economic, and social decision-making at all levels, from local to international. To do so, I assessed larger international organizations, historical movements, and smaller youth-led non-profits through chronicled archives, current news, data reports, and personal experiences. I wanted to focus on how youth can become an actor for change in society and the means currently in place to support this position.

First, I learned that youth departments in International Organizations vary in size, development, and importance both inside and outside the IO. Some IOs don't have a specific Youth Department (the International Labor Organization or the International Criminal Court), others have these in the shape of recruitment programs (the World Trade Organization, the International Monetary Fund, the World Trade Center, and the World Bank). And then, there are some IOs in which there are several different youth divisions (the United Nations or the EU).

These Youth Departments or Initiatives can sometimes be quite public with their actions and be well-known. For example, Connect4Climate from the World Bank and World's Youth for Climate Justice from the International Court of Justice participated in the recently held COP26 convention on climate change.



Next, I assessed youth-led movements. These are historical events in which youth guide social, political, or economic protesting. For research purposes and following guidelines of different organizations, I established the term youth as people aged twelve to twenty-five.

Historically, there are periods in which youth movements gain momentum much easier, gaining international importance and then triggering others across nations. Once certain circumstances get denounced in one country, others with the same issues join in the fight. These movements can have many different goals such as the gaining or protection of human rights, educational reform --demanding an updated curriculum, better living conditions for students, or the lowering of education fees--, political reform --fighting for the abolition of the current political system (especially in the case of tyranny or dependence on another country), the establishment of democracy, or national sovereignty--, or climate change and its effects worldwide.

About the organization of these movements, pre-existing youth-or student-led organizations take the lead in most. Sometimes, however, these cause the creation of a new organization. Lately, social media has been a great tool to spread the word about these movements and gain followers.

About the organization of these movements, pre-existing youth-or student-led organizations take the lead in most. Sometimes, however, these cause the creation of a new organization. Lately, social media has been a great tool to spread the word about these movements and gain followers.

The outcome of these movements is also varied. Some have had great success, with big consequences on a national or international scale. Most had some degree of success. While they did not achieve everything they demanded, their consequences still held quite an importance at the moment and became the seed for future action. A few did not succeed as they were met with harsh responses.

However, despite how successful a movement was, they all were a space for young people to be heard and explore social mobilization and organizing to achieve a goal. Therefore, these movements contributed to the importance of youth voices in the political and social landscape of their respective countries and the international community. For most, if not all, of the movements below trespassed borders, languages, and cultures to reach other young people and spark indignance to injustice.



Lastly, I shared my own experience as part of a youth-led international organization, a non-profit in my case. I wanted to show how this organization works just like any other, with the small exception that we are all in our late teens or early twenties and manage to balance our work at the organization with our studies, extracurriculars, and social lives. I also shared a data analysis of impact reports for the programs that we organize. I love those because we can gather information like our students being more open-minded and more willing to take action in their communities after their experiences in the organization. For me, it completely changed my life. I realized that, in the future, I want to work towards cross-cultural communication in an international environment to tackle global issues.

I would summarize the conclusions determined in this project through the following: Firstly, youth activism in larger organizations could, and should, be better. International organizations should invest more in youth, their development, and their involvement in decision-making, considering the amount of financial assistance they receive and their reach. Secondly, youth has long been an origin for revolution but is often forgotten or undervalued in history. We ought to seek to amplify these stories and give youth credit for their accomplishments. Lastly, spaces for young people in international politics enhance international cooperation and multicultural understanding.

A stronger global youth community is arising as more and more people join organizations to move towards common goals. These circumstances, in turn, allow youth the growth of connectivity beyond any barriers and a deeper understanding of the world we all inhabit.

Are you Competitive?

Irene Higuera Gómez

Competition is always around us. To be the first, to get the best job, or to be the best of your team. To achieve all of these goals we have to compete with other people. But, is competitiveness a great quality for us?

We live in a demanding society, where competitiveness and being better than others is encouraged. This phenomenon can positively influence us, help us to improve, and help us to offer the best version of ourselves. However, it can have negative consequences. It can cause us discomfort, sadness, frustration, fear, and significantly affect our value or our self-esteem.

An excess of competitiveness can make us see everything in an extreme way. There is only success or failure, being good or bad, being a winner or a loser. When seeing the world like this we make an unfair judgment of ourselves since there are not only good or bad things, there is always a middle ground. Each person is different and has greater potential in some aspects than in others, either because they have trained or because they were born with a talent to perform a certain activity.

Another problem that very competitive people have is that they do not value the entire process that they have had to go through to achieve their goal. They only think about the result, whether it is good or bad. A clear example in this regard is sports. There is always a great admiration towards the one who has won, the one who has been first and the people left behind are not valued enough. These people have made a great effort to get to where they are and they do not have the recognition they deserve for it.

Taking into account everything mentioned above, it seems that competitiveness is a negative thing for us. But in everyday life competitiveness affects us positively. Without a doubt, there are a greater number of positive aspects than negative aspects in competitiveness that can make us better workers or athletes or even better people for ourselves and the people around us.

Although we don't realize it, being very competitive also affects the people around us because we don't think about our effort, and even less about the effort that the people who want to help us have made.

Now comes one of the biggest questions. How can we make competitiveness good for us? The first and most important step is to achieve a balance between our self-demand and personal acceptance. For this, a series of guidelines can be followed. Being aware that when we compete against others we are competing against ourselves, knowing that people are not better than others, and accepting our limitations. Last but not least, we must always remember that we are not the results we obtain, we are everything we do to achieve the goals we want, the way we strive.

To sum up, competitiveness makes us better people. However, we must learn to manage it and use it in a way that is not something harmful to us.



<https://mercado.com.ar/wp/wp-content/uploads/2020/06/competitividad.jpg>

Teens and Politics

Clara Sanmartin Ocaña



Today, teenagers are a part of Gen Z, which is known as the most progressive generation in history. This generation is the one that will change the world in terms of climate change and social injustices. But to reach these goals, it's vital that the young people that are voting, know what they are voting for. There are several ways to get well informed about politics, from social media to reading the electoral program of different parties. But the best way to be informed about politics is watching the news daily. The news informs you about important things going on in your country and in the world, and in all that politics. You should try to avoid social media platforms like Twitter and Facebook due to the amount of fake news that browses them. The hourly news is a good example of fact focused options that can provide you with accurate information. Reading the newspaper is also a very helpful way to get informed, nowadays you can subscribe to a newspaper on the internet or if you like you can buy it.

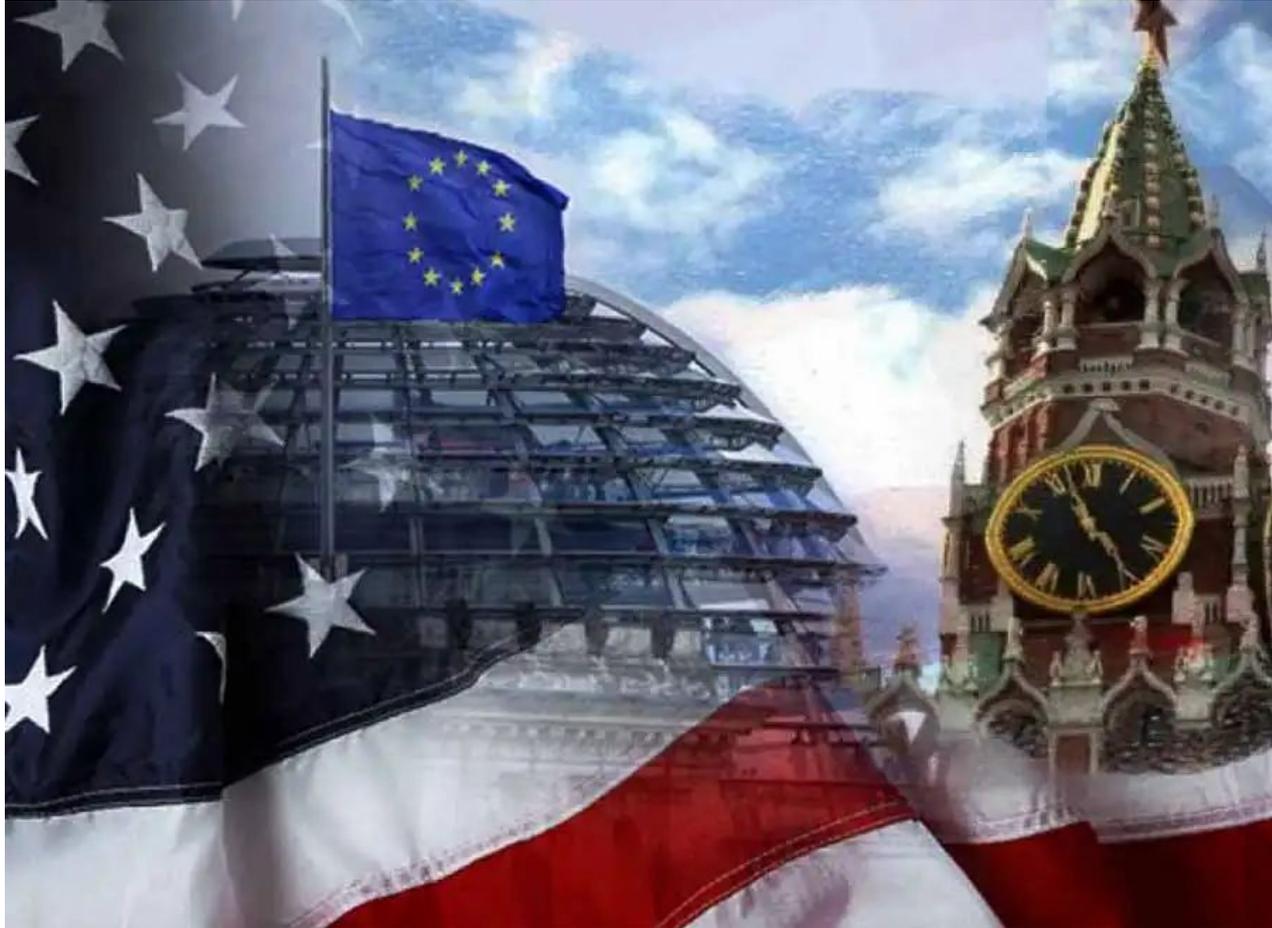
According to childtrends.org, "from 1972 to 2016, the proportion of youth ages 18 to 24 who reported voting in presidential elections decreased from 50 to 39 percent." This proves that Generation Z cares less about politics than the previous generations. As a solution to this disinterest in the politics of the young generation, parents and schools should at least try to teach a base of politics to kids in an interesting, fun, and friendly way.

On the other hand, many people believe that kids shouldn't be worried about politics until they are allowed to vote. And more so, there are some people that think that the voting age should be higher than 18. Some say that youngsters aren't mature enough to have an opinion about politics, or that they should worry about their studies before focusing on politics. However, this type of thinking is wrong if we want our generation to be informed citizens.

In conclusion, even though some may believe that teens are too young to care about politics, I think that they really should. Because if we want to change the world we need a good leader to do so. Therefore, if teens don't know about politics, then in the future they won't be able to choose the right leaders. This is why I urge teenagers nowadays to dedicate some time to read and get informed about politics, talk to adults and get involved so that we can all build a better world by choosing the right leaders.

The United States vs. the Rest of the World: Intense Relationships

Elias Forestier-Depresle



<https://www.gistrat.com/latest-russia-declares-war-on-ukraine-2022/>

Do you know the Kapla game? Diplomatic relations are a bit like this game, where each player lays a foundation and tries not to collapse everything that has been built so far.

The United States of America plays a major role in the international balance of power, be it political, financial, or military. It is, therefore, more difficult for the U.S. to be firm but also gentle. Since the end of the 19th century, the United States of America has been one of the most powerful countries in the balance of power. However, as wise men have said, “With great power come great responsibilities,” and this quote makes sense in this case. In fact, the U.S. has to face a lot of issues and has to deal delicately. Thanks to embassies with agile diplomats, important assets, and influential relationships, the U.S. manages to maintain a certain framework and order that remains quite peaceful.

If we take the example of Russia, one country with which the U.S. is often at odds with, we can indeed see the complexity of the diplomatic relations they maintain. Russia is one of the most powerful countries in the world as well as the United States, and their relations affect the rest of the world’s governments.

The two states don’t want to recreate the mistakes of the Cold War (which almost led to a third world war much more terrifying than the first two), the White House has a direct telephone line with the Kremlin in order to discuss as soon as possible the subjects that can be conflicting, such as the Russian war with Ukraine. The United States, who have been engaged in the alliance of NATO and the United Nations are then obliged to support Ukraine, since it is said that any invasion of one country will be considered an act of war and the invading country will therefore have to face extremely serious repercussions on the political, economic and financial level. In making their decisions to help, United States of America has a lot to weigh in the balance, but how far does this power extend?

Let's take as an example, a hypothetical crisis between France and the U.S.. France wishes to expand its offshore oil exploitation area in order to obtain more oil and thus have a greater distribution and autonomy. This decision will inevitably displease a country, let's say that this country is the United States of America. The U.S. wishes to make sure that France does not have as much oil in order to keep its exports in France and thus keep an important source of income. The United States has a choice to make: either decide on a compromise that will make them lose money (in billions) or impose its project/idea by force by several means. The first, boycott all products exported from France and thus generate a kind of minimal but costly economic crisis. They can also use a more drastic means which is military force (the United States of America being the first world military power, it is thus impossible to compete alone against this government).

Another more interesting question is: "How does the U.S. act in times of crisis? This question can be summed up quite quickly. First of all, the White House meets with its advisors to establish a solution that is as fair and effective as possible, while keeping in consideration it’s allies. The second step is to inform the Senate of this decision. Indeed, the White House, the president of the United States, has an obligation to inform Congress of all decisions taken. The third step is to implement the action and the final step is to deal with any fallout that will occur in the post-crisis period.

In conclusion, it is important to know that the United States, even if it is the case of all countries, has an even higher responsibility than others in the "balance of power". What appears to be simple relationships are in fact very complex and extremely difficult to manage.

Russia Ukraine: War is Declared

Louise Dugast

The images of cities devastation by bombing, apartment buildings destroyed, and refugees fleeing the war went around the world. On Thursday, February 24 at dawn, the Russian army attacked the Ukraine. Fighting and bombing took place over a large part of the territory, including the capital, Kyiv, without sparing inhabited areas. Many civilians have fled, are trying to do so, or have taken refuge underground, particularly in the subways of major cities. Let's look back at the major stages of the conflict.

A Conflict that is Not New

It's like déjà vu. Seven years after the annexation of Crimea by Russia, Ukraine is once again at the heart of diplomatic tensions. For several weeks, Russian forces have continued to gather near the Ukrainian border, as satellite images have revealed, raising fears of an invasion of the country by the Kremlin. If the threat is not new, this time it seems to take a more serious turn: up to 175,000 soldiers are being deployed on the Russian side, according to U.S. documents made public Friday, February 25. The situation since 2014 is conflicted. Russia has illegally incorporated Crimea into its territories and Vladimir Putin is supporting pro-Russian separatists in Donbas who are fighting against the legitimate Ukrainian government. The war in Donbas has resulted in approximately 15,000 deaths.

What does Putin Want in 2022?

By the end of 2021, Putin has massed 100,000 Russian troops on the Ukrainian border to exert military pressure. Officially, Russia has one primary demand: a written assurance from the West that Ukraine will never join NATO. Such a written assurance would deny the sovereignty of the Ukrainian people to freely enter into alliances of their choice. As a reminder, NATO is a political-military defensive alliance (created in 1949) of 29 nations such as USA, most of the European Union or United Nations. "While only 19% of Ukrainians were in favor of joining NATO in 2012 (before Russia's aggression in 2014), they are 60% of Ukrainians today," according to a poll whose results were by the Russian news agency Itar-Tass. However, the accession of Ukraine to NATO is not on the agenda: Germany and France are opposed to it and it requires the unanimous agreement of the members. So NATO is a pretext: Putin simply cannot stand Ukraine's emancipation from Russia and its democratization. He has an imperialist vision that is contrary to the freedom of the people to decide for themselves. The real intentions of the Russian president remain unclear, however, there is also talk of a desire to "denazify" Ukraine, but it would seem that the president does not limit himself to Ukraine but also attacks Romania and Georgia.

The Major Stages of the Conflict

On February 21, 2022, in a televised address, Vladimir Putin announced Russian recognition of the independence of the Donetsk and Luhansk People's Republics and Russian armed forces invaded eastern Ukraine controlled by pro-Russian separatists.

Several sanctions were imposed by the United States and Europe, which strongly condemned this annexation. On February 24, 2022, Russia launched a military operation in Ukraine, with explosions in Kyiv and several major cities being reported less than an hour after the Russian president announced a military operation with the aim of "demilitarizing and denazifying Ukraine." Russia wants to create a neutral state in Ukraine to make a barrier between them and NATO's countries in Europe, as well as fighting against "nazis," which are for Vladimir Putin at the head of Ukraine. The area of the Chernobyl nuclear power plant fell into Russian hands, several problems of reactivity were reported due to the conflicts, and several pieces of equipment used to protect the site were damaged. On February 25, Sergei Lavrov, Russian foreign minister, announced that Russia was ready for negotiations if Ukraine laid down its arms. That same day, the Council of Europe suspended Russia in response to its acts of war in the Russian-Ukrainian conflict. The conflict escalated rapidly, although Kyiv has not yet fallen into the hands of the Russians. Vladimir Putin announced on February 27 the "alert" of the nuclear arsenal he has after the exclusion of the country from the international system SWIFT, excluding the country's major banks from the international banking system.

The United States strongly condemns the escalation of the conflict and Europe closes its entire airspace to Russian aircraft. Almost a month after the beginning of the conflict, Ukraine is besieged on all sides and many cities are completely destroyed such as Mariupol in the south-east of the country.



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(800x600) (goadnews.com)

The Consequences of this War

In just a few days of the war, many people have fled Ukraine to Poland and the European Union to escape the bombing. Although many men have left the country, many are returning to Ukraine to fight since President Zelensky ordered general mobilization. The border countries have already organized the reception of refugees in camps set up at the border and all of them say they are ready to receive other people who would need help. On its side, Russia has to face numerous economic sanctions from all over the world. On February 22, 2022, the United Kingdom sanctions five Russian banks and three Russian economic figures. Germany has suspended the commissioning of the Nord Stream 2 gas pipeline with Russia, which would have served a major part of its gas supply. For its part, Japan announced the freezing of assets, a ban on trade with Japan, and the suspension of the issuance of visas to secessionist individuals and organizations. It also banned the purchase of Russian debt by Japanese citizens and entities. After a crisis meeting, The EU suspends all exports of Russian oil to the European Union, as well as all sales of European aircraft components, and strategic components to Russia. It also announced sanctions against Russian military companies and a large part of Russian banking companies. Following these sanctions, the U.S. also decided to send weapons and funds to support Ukraine through NATO. It is estimated at the end of March that the number of refugees was nearly 3 million, a number that should continue to increase in the coming weeks.

After less than a month of conflict here is what we can remember from this Russian invasion:

- Russia has one primary demand: a written assurance from the West that Ukraine will never join NATO. Nevertheless, the real intentions of the Russian president remain unclear, however, there is also talk of a desire to "denazify" Ukraine
- The conflict continues to intensify with the siege and bombing of many cities such as Kyiv, Odessa, and Mariupol.
- The human damage is also very important: At least 691 civilians, including about fifty children, have been killed in the Ukraine, and more than 1,140 wounded. 1,300 Ukrainian soldiers have been killed since the beginning of the Russian invasion. The Ukraine also claims that the Russian army has lost about 12,000 men. We are also talking about more than 3 million refugees.

Claudette Colvin: Civil Rights Pioneer in Black History

By Valentine Voyer



Fight against segregation, the *Freedom Riders* of the NAACP

The Jim Crow laws were promulgated after the Secession war during the 20th century. They were made to limit the constitutional rights of Black Americans within the American territory. These laws were the subject of many conflicts for about a whole century. Claudette Colvin, who was known as an outlaw teenager, is unknown to most. She was a superheroine who said no to segregationist America in 1954. Despite threats, she fought for her and African American people's rights.

According to *Newsweek*, Famous history holds that Rosa Parks was the leading black American lady to sit on a bus to challenge segregation regulations in December of 1955. Notwithstanding, another female, Claudette Colvin, 15 years old at that time, nine months sooner, made the very same motion on March 2, 1955.

Born in 1939, Claudette Colvin grew up in the poor neighborhood of Montgomery, Alabama, after both her parents left her with her aunt to take care of young Claudette, due to financial complications. Around then, Alabama authorized 27 Jim Crow segregation regulations, which commanded racial segregation in every public facility. These laws were introduced after the American Civil War and enforced racial segregation in the Southern United States. Claudette Colvin lived under numerous prohibitive regulations scrutinizing the social rule of individuals of color. She, for example, couldn't use the same restroom as white people at the time the Jim Crow laws were in effect.

Like Rosa Parks, Claudette Colvin took the bus each day. She rode the bus home from school, and when she was fifteen years old, her life changed. She entered the bus, where she sat two rows away from the front door, tired from the long day. A few minutes later, some white passengers enter the bus. As the Jim Crow laws mandated, the driver immediately asked Claudette to give up her seat, in which she refused. "I felt like Sojourner Truth was pushing down on one shoulder and Harriet Tubman was pushing down on the other—saying, 'Sit down girl!' I was glued to my seat," she affirms in *Newsweek*. The police arrested Claudette Colvin after the bus driver called the police to signal a violation of the community's segregation laws. "I was petrified because you just didn't know what white people might do at that time," Colvin later said in *The Guardian*. Terrified, Claudette stayed in jail for many hours. She was accused of many troubles, including disturbing the peace and battery. Around then, the National Association for the Advancement of Colored People (NAACP) attempted to cancel separation among white and ethnic minorities by looking for realities and unjustifiable arrests. They considered utilizing Colvin's case to challenge the segregation regulations from the start. However, they rejected her case due to her age. NAACP preferred to use the case of someone older, making the legal procedures easier. So all things being equal, they followed Rosa Parks, who was arrested when she was 42, making her the ideal case to battle for individuals of color's freedoms.

Claudette Colvin was declared herself not guilty during her trial, and the court decided to rule against her and put her on probation. Because of that trial, Claudette was considered a troublemaker. She ended up dropping out of school and therefore did not go to college. The reputation created around her also made it complicated, if not impossible, to find a job. Nevertheless, she became a nurse after moving to New York in 1958.

Why was Claudette Colvin forgotten? This question is valid because, later, Rosa Parks did the same thing on the same bus line. She refused to give up her seat and was fined \$15, with the popularity and the echo that we know about forcing the Supreme Court to abolish segregation within buses and transport. Therefore, why didn't we talk about Claudette? Claudette explained to CNN, "Because it was judged that her image was more acceptable than mine, more effective in convincing white America. I was a teenager, who was said to be a little crazy, and what is more, with darker skin." While writing about civil rights-focused Rosa Parks, Claudette Colvin received little notice.

Colvin helped advance civil rights change in the city of Montgomery and fought for Alabama's laws in general. Fred Gray, her former attorney, told *Newsweek*, "Claudette gave all of us moral courage. If she had not done what she did, I am not sure that we would have been able to mount the support for Mrs. Parks".



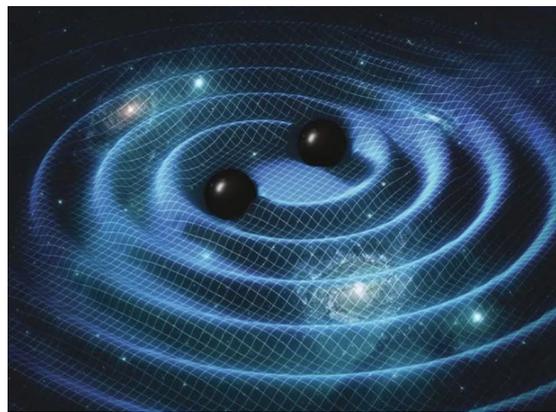
Claudette Colvin, then and now

Stephen Hawking: A Brief History of a Life

Iris Hermes

Have you ever wondered how black holes function? Or if time travel is possible? Stephen Hawking was a scientist known for his genius work on relativity as well as black holes. He's also the author of many popular science books. If you are interested in the matter, you must consider reading one of those. They all explain complex ideas with simple words making this baffling science accessible to someone like you or me.

Stephen Hawking was a British scientist, famous for his books that simplify science such as *The Theory Of Everything* which got him a huge audience. He is also known for his theses in cosmology, and astronomy. Unfortunately, the brilliant scientist contracted the disease of ALS, a neurological disease, explaining how you probably picture him in a wheelchair with a robotic voice speaking for him.



Gravitational waves from colliding neutron stars were detected on Earth in October 2017. (Image credit: Future)

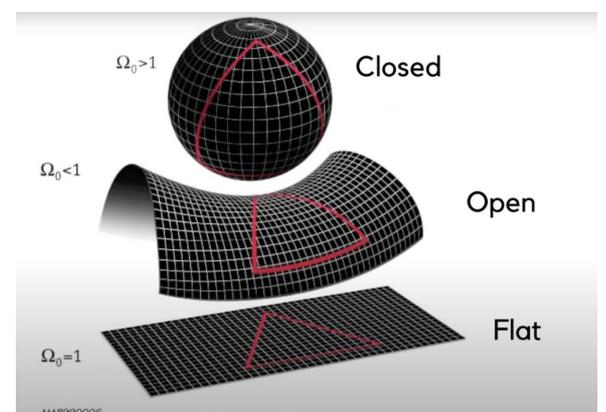
At the beginning of his astonishing career, it is his Ph.D. Thesis that made Hawking renowned in the scientific world. During most of his life, this document was not public. Fortunately, "Properties of Expanding Universes" was made public not long before he passed away. As he was diagnosed one year earlier with ALS and given two years to live, he didn't even know if he could finish his thesis and obtain his Ph.D. He wrote his thesis in 1966 and chose to talk about the idea of the universe constantly expanding which was quite recent at the time. He explains how "static models" which are representations of the universe with a constant size can't be right. He goes from then on with different possibilities. To explain his process of thinking he relates several times to Einstein's general theory of relativity which is in simple terms the idea that space and time are related. In his thesis, he proves that other theories are wrong and explain why. He also demonstrates that galaxies can't form as the result of the growth of small perturbations. Nevertheless, nowadays, we believe that that is exactly how galaxies form.

In this thesis, Hawking talks about gravitational radiation that we now call gravitational waves which were anticipated by Einstein first in 1915. As said previously, according to Einstein time and space are related meaning that gravitational waves are undulations of this space-time fabric moving outwards through the universe. They were observed for the first time in 2015 proving both scientists right. Those gravitational waves were the result of a collision between two massive black holes, 1.3 billion light-years away from earth.

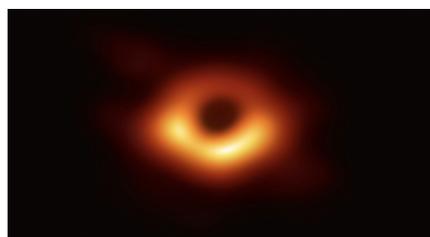
In his last chapter called "Singularities", he talks about open and closed models of the universe. In simple terms, the difference between those three models of the universe is that in an open universe space has a "negative curvature". Indeed, when you look at the picture down below, you can see that the triangle looks smaller than it is. Moreover, the universe has no bounds: it will expand forever. The opposite is a closed universe that has a "positive curve". Again, in the picture, you can observe that the triangle looks a lot bigger than the others. Space is not expanding. Lastly, the last option is, if space had no curvature at all; a flat universe.

Nowadays, we believe that we live in a flat universe.

Through his work on singularities, Hawking asserts that they can exist and are fundamental for the universe to function. This means that there is some infinitely small and dense point at the origin of space-time itself thus the universe; the Big Bang. Hawking proves it by using a mathematical theory: proof by contradiction. Indeed, he starts by saying "assume that space-time is singularity-free". By doing this he encounters contradictions, saying that the universe would be both open and closed at the same time. "This is a contradiction," Hawking said. "Thus, the assumption that space-time is non-singular must be false."



Closed, open, and flat models of the universe. <https://www.quora.com/Is-it-impossible-to-know-what-shape-the-universe-is>



The first picture of a black hole was taken, on April 10, 2019,

<https://www.eso.org/public/france/images/eso1907a/>

Later, Hawking will keep working on this subject with the help of Roger Penrose, a mathematician, and cosmologist, to extend these theories on singularities. They published in 1970 proof that the universe must have begun as a singularity if it is to obey Einstein's general theory of relativity in "The singularities of gravitational collapse and cosmology".

After demonstrating the existence of singularities and the Big Bang, he worked on black holes for the rest of his life. He showed that they can emit what we call now "Hawking radiations". At the end of his life, he worked closely with a group of scientists in the Brinsop Court to take a picture of a black hole, which was never done before.

Unfortunately, the renowned scientist died at the age of 76 on the 14th of March 2018, before he could see the results of his last work.

We could sum up the entire work of this scientist by quoting himself: "My goal is simple. It is a complete understanding of the universe, why it is as it is and why it exists at all." -Stephen Hawking.



Stephen Hawking on the 26th of April 2007 during a zero-gravity flight (image credit: <https://www.ladepeche.fr/diaporama/retour-en-images-sur-la-vie-de-stephen-hawking.html>)

Happy Brain, Happy Life!

Marta Marco Laguna

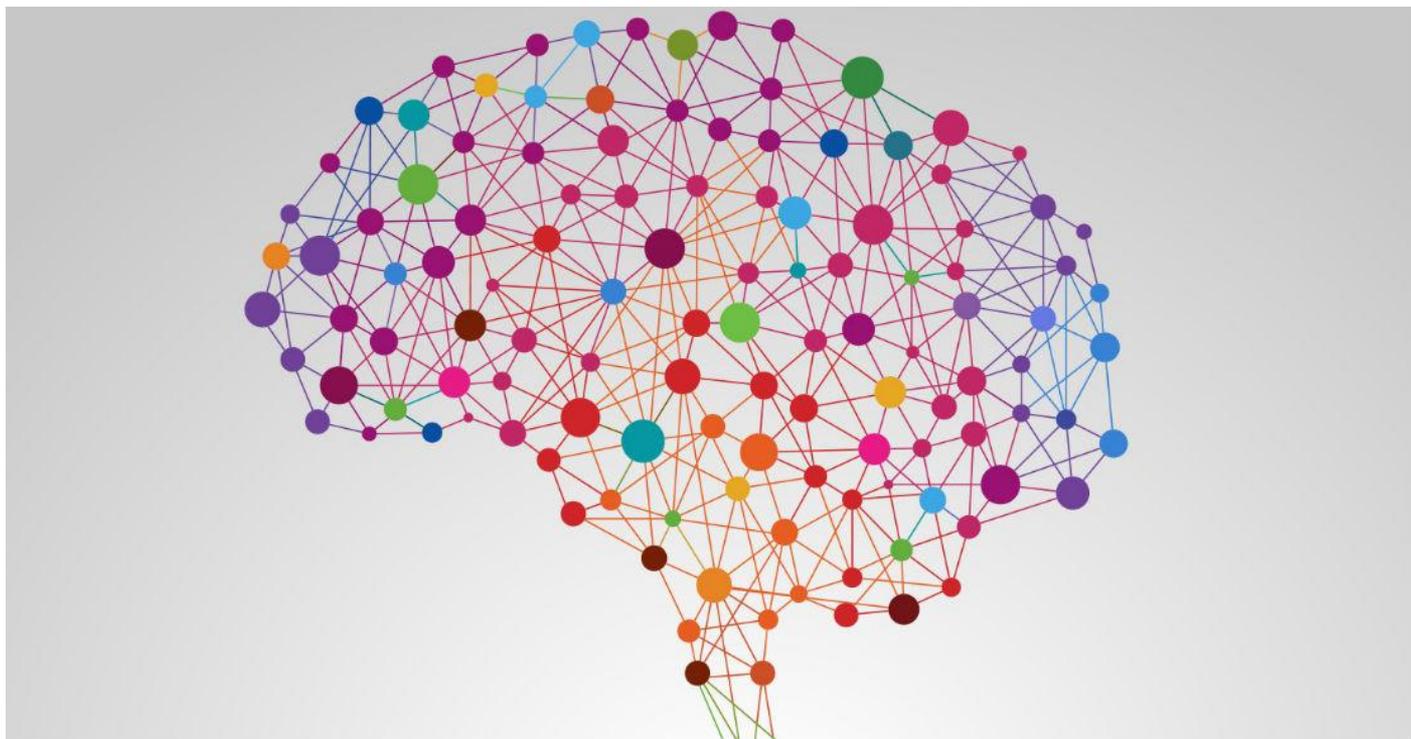
Our lives have changed in less than two years, now we do not do the “normal” things that we used to. COVID-19 has affected not only physical health, but also mental health, and we cannot avoid that with masks. We have to search for other solutions. We also have to train ourselves to have a strong mind. And how can we do that? Only by learning where happiness comes from.

The pandemic has also crushed our goals, it has affected our family dynamic, job roles, and even economic stability. As a consequence, it has affected our mental health. It is tough, but it is real, so the best solution is to learn what happens inside our minds.

It may sound difficult, but this article is here to help you! Happiness is a way of life, and the first thing we know is that it comes from the brain. Being logical also comes from the brain. Every facet of humans involves our mind, our brain. So, I will be more specific, happiness is a feeling, a mood, an emotion, and also a mental state. Experts divide happiness into two different types.

On the one hand, we have the happiness that comes from little things that make us happy. According to Steve Cole, (Professor of Medicine, Psychiatry, and Biobehavioral Sciences at UCLA, in the United States) it is like smelling a beautiful flower or eating a delicious meal.

On the other hand, we have the happiness that comes from taking part or working for something bigger than us.



An article published in “Proceeding of the Natural Academy of Science” concludes that the happiness of taking part in something bigger has a much more positive impact on your genes and your health than the happiness of searching for little and personal wins. In fact, the people that only have the happiness of little whims present similar symptoms to the people that have stress and depression (high levels of inflammation and low antiviral and antibody gene expression), while the people that have experimented with the happiness of working for a great project or team have a lower level of inflammatory gene expression and strong antiviral and antibody gene expression.

Why is this so important? And how is this related to COVID-19? As I have mentioned before, happiness is related to having a strong immune system, better lung function, less pain, and better cardiac health. All of these points are important in living during the Coronavirus pandemic without problems.

So, I encourage you to face big challenges to make yourself happy, and find happiness in teamwork and group projects. Volunteering in your community, joining a group, whether it be a sports or recreational team, a book club, or even an online social group can boost your happiness! Search for what inspires you and look for ways to bring people together!

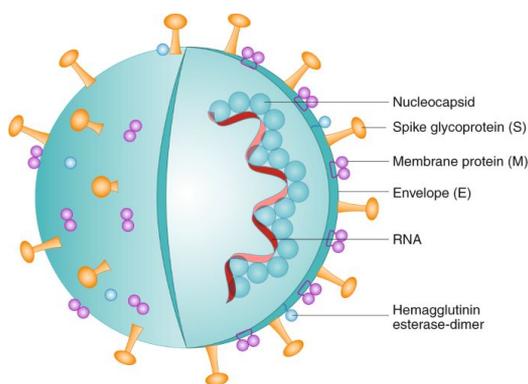
The Inner Workings of the Covid-19 Vaccine

Irene Salas

Vaccines have become a part of our lives now more than ever and learning how they work is important to be able to make informed decisions about them.

To understand the Covid vaccine, first, is necessary to understand vaccines as a whole. So, what is a vaccine? According to Oxford, a vaccine is “a substance used to stimulate the production of antibodies and provide immunity against one or several diseases, prepared from the causative agent of a disease, its products, or a synthetic substitute, treated to act as an antigen without inducing the disease.” This definition is correct but very ambiguous (this is due to vaccines not being all the same, they are more diverse than most realize). To simplify, think of your body as a country that your immune cells have to protect. The immune cells are exceptionally good at their job of identifying the *self* from the *other*; but some bacteria and viruses are even better at hiding through various methods. Not only that, but your immune system is at a disadvantage during the beginning of the “battle” because when the innate immune system (your first line of defense) gets overwhelmed, it needs help that only a specific type of cell in your body has, and not only is this cell one particular type, but there are only a handful among millions of other cells that need to be notified for your body to be able to properly fight the invasion. The second line of defense (your adaptive immune system) takes a few days to arrive and become effective, and by then the invasion can be well spread and settled. What a vaccine generally does is create a fake enemy (or an extremely weakened one), and it puts it there like a straw man, so your immune cells give a signal and the adaptive immune system have it easier when a real enemy attacks your body, and is able to identify it faster, therefore attacks it more effectively from the start.

Cells have little receptors with specific shapes that help them receive signals. Cells are mindless biochemical robots, they work via chemicals “bumping” into each other, and to do this they need a way to interact. Enter these proteins, which are in charge of receiving signals and producing more signals on the cell that trigger reactions. Covid has a particular receptor (as multiple viruses do) that helps it enter the cell because it triggers a reaction that provokes the cells to admit the virus to the membrane, thus bringing the RNA (the code that has the instructions to make copies of the virus) to the inside of the cell, where it gets mixed with the cell’s own RNA (the cell’s code to make proteins). When the viral RNA gets to the Endoplasmic Reticulum (ER for short) it codes viruses instead of the proteins it’s supposed to code and it starts sending them to the outside of the cell via an organelle called lysosomes (that are usually a way for the cell to get rid of trash), which it hijacks and uses as transport. The cell naturally becomes useless and it eventually dies. The vaccine uses RNA to make the cell produce only a small part of the virus rather than coding for the whole thing. Those small parts are those proteins that look like little spikes (the ones that enable the virus to get to the cells). The cell then puts the protein in its membrane, so that the immune system can identify the *other* without the need for the virus being there. It basically provokes the same response from the immune system, sending signals to the adaptive immune system and preparing antibodies (special weapons), which, in case of infection will be done and ready to fight the real threat. If it’s the same thing, why make it an mRNA vaccine instead of a normal one?



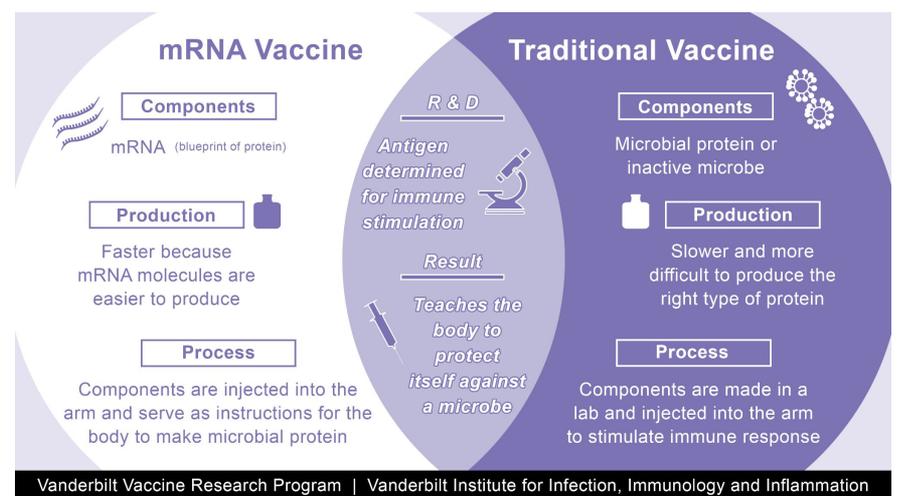
Well, viruses (like any living thing, though it’s an ongoing debate whether or not viruses are alive) have a biochemical composition that is very specific and rather hard to replicate in a lab. The COVID vaccine was sort of rushed. Traditionally, vaccines take up to 10 years to develop, and months to be approved by the FDA. This long time is sometimes due to the need to make sure that the weakened pathogens work just fine. In comparison, the COVID vaccine was made and approved for emergency use in under 1 year. So, taking the time that’s usually used to produce the strawman viruses just wasn’t a viable option, we were out of time and needed those vaccines out as soon as humanly possible. Plus, vaccines have a number of regulations and a trial period (this is mainly to make sure vaccines work and that they’re safe to the public), so that was “wasted” time we needed to count on. The Vanderbilt vaccine research program from the Vanderbilt Institute for infection immunology and inflammation published this useful chart:

We’ve been over how vaccines work and why the mRNA vaccines were the best option for the pandemic, but you might be wondering, how are they different brands if all vaccines do the same thing? Well, the objective is the same, and naturally, the brands haven’t publicly shared their inner workings, but here are the differences that we do know about: There are three brands being used in the United States at this moment: Pfizer, Moderna, and Johnson & Johnson.

The Pfizer-BioNTech vaccine was the first one to receive FDA Emergency Use Authorization (in early December 2020), later, the FDA gave approval in August 2021 for people over 16 years old. This vaccine has two shots spaced by 21 days, plus a booster which is advised for everyone who is 12 years old and older (who have taken the first two doses from Pfizer), which is recommended about 5 months after the second dose. The effectiveness rate is 95% on COVID 19 (it can wear out over time, but this is easily solved with a booster), and scientists are still learning how well it works against variants like Omicron.

The Moderna vaccine received FDA Emergency Use Authorization one week after Pfizer did, and then got the full FDA approval in January 2022 for people 18 and older. This vaccine, similar to Pfizer, requiring two shots 28 days apart, but it doesn’t become fully effective until 2 weeks after the second shot. Anyone who is 18 or older should get a booster 5 months after the second shot.

This wasn’t an issue for the J&J vaccine, this is because it was a traditional vaccine. The Janssen vaccine got FDA approval in February 2021, and it was the most convenient at the time due to their one-shot strategy. However, concerns rose in the spring of that same year due to blood clots associated with the vaccine which lead to the government pausing it for a little. In December, the CDC answered to concerns towards the vaccine by announcing preference towards Pfizer and Moderna. As a matter of fact, everyone older than 18 should get a booster from Moderna or Pfizer at least 2 months after the primary shot. The side effects for the J&J are similar to the other two: pain, redness or swelling in the arm of the shot, fever, chills, dizziness, headache, tiredness, etc. The FDA warns about thrombosis as a mortal possible side effect, being a product of the vaccine and low platelets; nevertheless, it’s still permitted because the FDA considers the benefits to outweigh the risks.



<https://www.vumc.org/viii/infographics/how-does-mrna-vaccine-compare-traditional-vaccine>

The Novavax vaccine is applying to be FDA approved, but at the moment it still isn’t. This vaccine has been used in other countries, and it takes a different approach to the vaccine, strengthening the immune response rather than triggering it, it also produces T-cells that produce antibodies (because this is the main objective to every vaccine). It has a 90% effectiveness (theoretically) and it claims to work for variants such as Omicron, but this is yet to be confirmed by studies.

In summary, the COVID vaccines are (mostly) mRNA vaccines that work by having your body produce pieces of the virus so your immune system identifies it and when your body gets invaded by the real virus it will know how to act. There are many different brands that produce mRNA vaccines, in the U.S. three of them are approved by the FDA: Pfizer, Moderna, and Johnson & Johnson. Each of them have different advantages and disadvantages, but they are all part of the solution in beating this pandemic that has haunted the entire world since early 2020.

Women in STEM

Marina Díaz Britz

I was walking down my school's hallway chatting with my friends. We were looking for one of our teachers. As we passed through the labs and workshops, I saw only boys at first glance. No big surprise, as it seems to be the norm that most people who study or work in science, technology, engineering, and mathematics (STEM) are male. For example, in my engineering class, the teacher is a man, with a class of 20 students, and 18 of them are male! Maybe this has happened in previous years in my school. So naturally, I started researching information and found what might appear as shocking numbers, but, in reality, they do not surprise me as much as they should. Why do so few women participate in STEM? Women are not incapable of doing research or innovating. There have been unique and brilliant women who have done many impactful things throughout the centuries, and some whose names we will never know. Unfortunately, some capable women are discouraged from pursuing STEM before even knowing what it is.



Moreover, Cantlon had done an experiment with the same idea. They investigated 500 children between the ages of six months to eight years old, the results were different this time. It showed that children in third grade and older started to show a gender difference. As they get older, this gap continues to grow until we can clearly distinguish those ability differences between boys and girls. A third of women in the U.S study degrees related to mathematics and science. According to the American Association of University Women (AAUW), women make up only 28% of the workforce in STEM.

So why does this gender gap emerge if girls have the same ability as boys? One possible answer is that women have been influenced since childhood. Women may have been influenced from a young age that STEM is difficult, and only for men. This is a possible reason why women do not pursue STEM studies.

Another aspect to consider when studying STEM as women, as we have been taught that STEM is difficult, the women that are studying or working in STEM are geniuses. It is so rare to see a woman in an engineering class that we immediately think she must be so intelligent! When we see a man who studies engineering, we never think that way. We accept that a man is there without blinking, but seeing a woman is peculiar. We have to think of a motive for her presence; which is not the case with men. This thought is so profoundly put in our culture; as I said before, it is the norm. According to *Why We Need More Women in Labs* by Mia Rozenbaum, there are only 28% women researchers in labs and make up for only 3% of winners of the Scientific Nobel Prize are women.

In addition, there is a difference in how we treat young girls and boys. For example, most toys that are given to young girls are related to cooking or taking care of babies, while boys are given toys related to construction and logical thinking. Due to gender, society treats the child differently, and this is given some inputs according to what is established by the patriarchy. That sets a role in the child's interests and ambitions, and is reflected in the future.

"There is no limit to what we, as women, can accomplish."

- Michelle Obama

Ana Roqué de Duprey, Lillian Gilbreth, Ruth Rogan Benerito, Edith Clarke, Ellen Ochoa, and Katherine Johnson are just a few names of the many women who have contributed to STEM in their respective fields. Women are just as capable as any man to work in STEM. No gender has an advantage in STEM. Yet, many times women have faced the backlash for being a woman in fields that are apparently for men. Still, these women, who have coped with judgments and obstacles, have been able to succeed in their fields. Each of them is brilliant; we are just as capable as any boy or man.

There are many ways to encourage girls to pursue STEM. Fundamentally, girls are encouraged at home without hearing any comments about how hard these subjects were for their parents. Pursuing STEM needs effort from both boys and girls. Also, we could organize activities related to STEM at school and introduce women that also contributed to STEM; everybody knows Albert Einstein or Isaac Newton, but what about Ada Lovelace?



Ada Lovelace was born in the 19th century and she was a pioneer of informatics (the science of how to use data, information, and knowledge to improve health). She developed some concepts that during her time were difficult to understand. She explained how the actual algorithm that is used in our computers works. It is not known for sure if she was the first person to create a coding language, but she was the first one to publish it.

Nowadays, some associations aim at approaching women to work in STEM, like AWM (Association for Women in Math). They aim to create communities where women can enter, learn from each other, and allow marginalized genders. Moreover, these associations thrive on representing young girls whose dream is to work in STEM.

To sum up, women are capable of working in STEM. However, when young girls show interest in STEM-related activities, they may have influences that make them doubtful. Nevertheless, men have a favorable treatment in showing interest in STEM, school, or home. Therefore, girls should be encouraged to pursue STEM and have representation. As Barbara McClintock, the winner of the Nobel Prize in 1983 in Medicine and Physiology said, "If you know you are on the right track, if you have this inner knowledge, then nobody can turn you off... no matter what they say."

Rosalind: The Mother of a Generation of Scientific Women

Irene Fraga Martín

Rosalind Franklin represents any woman who has ever been stepped on by a man. She was one of the best scientists of all time, but she is often forgotten. She was a woman of talent in a moment when being a woman took away any talent you might have had.

Rosalind was born on July 25, 1920, in Notting Hill, London. She was the second daughter of a wealthy Jewish family. Her father was a banker and professor. She studied in prestigious schools, and with the help of one of her aunts, she entered the school of Newnham, Cambridge to study chemistry against her father's wishes. In 1941 she graduated from Cambridge University. She received a scholarship to finish her thesis, but the Second World War started, and the British association offered her a job. Through this work, she helped her country, and used what she learned to defend her doctoral degree in 1946. Then in 1947, she was encouraged by Adrienne Weill to go to Paris where she discovered the Laboratory of Central Services of Chemistry in Paris, where she learned the diffraction technique she would use for DNA research. In 1951 she got a place in the King's College of London where is commissioned by John Randall with the study of DNA structure.



Rosalind Franklin born 1920, died 1958

Photo 51, May, 1952



While at King's College, she perfected the machine to see images of DNA to get better quality photos. In 1951 she gave a meeting to talk about her results. Present in the meeting was Maurice Wilkins, with whom Rosalind didn't have a good relationship and who was also a researcher of the DNA structure. With him, there was Francis Crick with James Dewey Watson. In May of 1952, Franklin and Raymond Gosling, her doctoral student, got the "photo number 51" which became a key to their research. This photo shows an X-ray diffraction image of crystallized DNA and gives the main information for developing the DNA model. Shortly after, Watson and Crick, the competing scientists, saw the "Photo 51" without permission. They used Rosalind's research to present about DNA Structure, which led to a magazine publication and accolades.

Rosalind had already wrote that her results proposed a helicoidal structure with 2, 3, or 4 chains, with the phosphate groups toward the outside, but the speed in the publication of Watson and Crick stopped her from proposing her model. Some people say that she didn't know that they based their article on her investigation.

Later, Rosalind decided to move to Birkbeck College, in London, because she was tired of the problems with her male colleagues. Randall let her leave with the condition that she does not continue her work in DNA, so instead, she works on the virus of polio and tobacco mosaic. She posted 17 articles about viruses and she laid the foundation for structural virology.

In 1956, she discovered that she had ovarian cancer which was caused by her exposure to radiation and she died in April of 1958. In 1962 Watson, Crick and Wilkins won a Nobel Prize in Medicine because of their discoveries about the molecular structure of nucleic acids, But no one recognized Rosalind Franklin.

She was one of the millions of women that suffered due to the idea that being a woman makes us less able, less intelligent or detracts from our achievements. Rather than recognizing her contributions to science, in his book, *The Double Helix*, Watson writes, "She [Rosalind] was determined not to emphasize her feminine attributes. Although she was of energetic features, she was not unattractive and could have been very pretty if she had shown the slightest interest in dressing well. But she did not." Instead of talking about her professional career, he decided to talk about the way she looked, something that is totally demeaning. But after all, this story has a happy ending. Now Rosalind is probably happy about all the advances that women have made. Although there is still room for improvement, Rosalind Franklin is probably smiling seeing all the women that are now working in scientific fields..

MS: The Fight is On

Victoria Gioles Prado Ibáñez

One small step for a study, one giant leap for MS sufferers, that is how I would describe the latest finding about this illness. Multiple Sclerosis (MS) is a condition that affects the brain and the spinal cord (central nervous system); this disorder affects around 2.8 million people, 35.9 in 100,000 people in the world, and the average lifespan after being diagnosed is around 25 to 35 years. The results of a study carried out by Harvard T.H. Chan School of Public Health researchers, published January 13th 2022, have linked the Epstein-Barr Virus (EBV) to the disease. Throughout the years, many new drugs have been developed to treat the symptoms, and many hypotheses have been formed around what the cause of this condition is, hence if the connection is proved, it will be a major breakthrough in the treatment and possible cure of this illness.

The EBV infects more than 90% of adults, for this reason, establishing a causal relationship can be difficult. 10 million young adults on active duty in the US military (955 of whom were diagnosed with MS while on service) had serum samples taken biennially and analyzed. According to the results, the risk of MS increased 32 times after being infected with EBV, but other viruses had no effect which makes the EBV the leading cause of MS.

As to why this is such an important finding, Alberto Ascherio, professor of epidemiology and nutrition at Harvard Chan School and senior author of the study said “This is a big step because it suggests that most MS cases could be prevented by stopping EBV infection and that targeting EBV could lead to the discovery of a cure for MS.” Besides, the possibility of finding a cure to MS or preventing it is a great incentive to develop a vaccine against EBV, we may not have to wait for long as Moderna (yes, the same company as the Covid-19 vaccines) is currently carrying out clinical trials of a possible vaccine.

Even though it would be amazing to be able to cure this terrible condition, we have to be cautious. In the first place, EBV being the first cause of MS does not mean that everyone who has been infected (more than 90% of adults) will develop MS, there are a lot more factors like a lack of vitamin C, age, or certain infections. In the second place, a vaccine would be key for stopping the spread of EBV, but would not be of much use to those who are already infected, so this finding is also really important to develop new treatments for the symptoms, and, ideally, curing MS. Lastly, this hypothesis is still being proved, the results of this study are clear and reliable, but more tests are needed to make sure it is irrefutable. Therefore, even though there is still a long battle to fight against MS, we are not unarmed anymore.



Electron microscope view of two Epstein-Barr virions Portada Facultad de Medicina de la Universidad de Chile.



The world of dreams

Whether you are wide awake or deeply sleeping, one thing is always running through your mind: your dreams. Deep in the night, you find yourself in another world, another reality. One that is all yours and where anything and everything is possible. In total, you spend about 25 years asleep and six years or more are spent dreaming. But did you know that when you wake up, 95% of your dreams are already forgotten? This whole other world only exists in your mind, you are the creator of it and yet, it collapses when your eyes open. People often say to make your dreams a reality, but how can we do it if we don't even understand them? Even though dreaming occupies such an important part of our life, awake or sleeping, we still know little about it.

Everyone dreams, although some people don't remember it. That's certainly why the history of dreams goes back to the beginning of time. Dreams have always fascinated people and were already documented on clay tablets in 3000-4000 B-C.

Dreams: Another Reality

Serena Senovic

In primal societies, members were unable to distinguish between the dream world and the waking world, they only considered it a more powerful reality. In the Greek and Roman eras dreams were seen in a religious context and were believed to be messages from the gods or the dead. Dream interpreters even accompanied military leaders into battle to help with war strategy.

Moreover, many superstitions surround dreams and still have an impact today on different cultures. For example, the Chinese believed that the soul left the body to go into this different world. Dreaming was seen as an actual place that your spirit and soul left every night to go and visit. However, they also believed that if they were to be awakened, their soul may fail to return to their body. That explains why even today some Chinese people don't use alarm clocks. Native American tribes and Mexican civilizations believed that their ancestors lived in their dreams and took on non-human forms like plants. Dreams were seen as a way of visiting and having contact with their deceased loved ones. This view of dreams as a positive omen drastically changed during the Middle Ages when they were seen as evil. They thought that the devil filled the mind of humans with poisonous thoughts to mislead them down the wrong path. In the early 19th century, dreams were dismissed as having no meaning, but Sigmund Freud revived their significance through his study. Through time and even today, dreams are still a source of mystery.

However, nowadays, with science, we know more about dreaming than any other civilization in the past. Did you know for example that not everyone dreams in color? Dreams are largely influenced by what we see and do in daily life.

Back then, the TV was in black and white which explains why at 60 years old, only 20 percent said they dreamed in color whereas about 80 percent of participants younger than 30 years old dreamed in color. Furthermore, one small study explored the dream diaries of 14 people with impairments and found that “around 80 percent of the dream report of participants with deafness gave no indication of their impairment.” They could speak, hear, and understand spoken language! As for people who are born blind, they experience a heightened sense of taste, touch and smell in their dreams rather than visual imagery. People who lost their vision later in life can still dream in visuals, although the images tend to fade as they grow older. Another phenomenon that can happen in dreams is lucid dreaming. This occurs when a person is partially or fully aware that they are dreaming. Thus, they can control their dreams and fulfill their fantasies!

Even though scientists have expanded our knowledge of dreams, we still have a lot to learn about them. However, in waiting for discovery, you can still make your dreams in real life come true! After all, what is life but a dream in itself?

Media & Entertainment

WRITTEN BY STUDENTS AROUND THE WORLD

May 2022

The Impact of Netflix in the Real World

Alexis Gouret

The first television series was broadcast in 1951, but today in 2022, series have never been more popular. Streaming video services have created a social phenomenon. Today, series occupy a lot of our free time. We live in a world where Netflix gathers 125 million subscribers across the world. Seriously, who has not watched a series once on Netflix or Amazon Prime or Disney Channel, or even on Apple TV? Today, series on streaming services are influencing reality and the way we live.

Video streaming services' success has an influence on society. Especially when people are forced to stay at home because of the Covid-19 pandemic situation. This context plays a major role when we talk about the video streaming services growth in the recent years. The binge watching culture has established a new way of seeing things. It has become an easy way to teach things like history, languages, sciences... This is the case for social movements. For example, in some protests, we find the outfit of 'Money Heist'. Even in Iraq in 2019, young people resisting the authoritarian regime got dressed as hostages from Money Heist series. Another example would be the problem of racism that the U.S. faced in the 1990s that Netflix tackles in the O.J Simpson case series. Netflix also takes possession of environmental problems like climate change via series such as 'Snowpiercer' in which people are forced to survive on a train, as climate has cooled substantially down to -148 degrees Fahrenheit.

There is also the 'Don't Look Up' Netflix series which denounces the denial of the most powerful people in front of reality.

This influence that video streaming services have on us forces our society to acknowledge challenges. Netflix has opened the possibility to a general cultural basis. Series have become a real topic of debate in schools between students and teachers alike. It brings some advantages such as the emphasis on countries like South Korea, whose culture is not well known in the Western culture. For example, the series: 'Squid Games', 'Love Alarm', 'My Name' and 'All of Us Are Dead' these Netflix creations allow to South Korea being influent and increasing its soft power at the international scale.

Also, Netflix could be considered as a Hollywood decentralized. As a matter of fact, Netflix has created a brand of new stars. We can mention Millie Bobby and Finn Wolfhard, the main actors of 'Stranger Things' or Anya Taylor-Joy who's following skyrocketed when she played the main role in 'The Queen's Gambit'. Netflix has become a cinematic powerhouse which is as much important as political power because currently more people are interested in watching series than voting or, even for few people, saving and gaining money.

Furthermore, we shouldn't forget that people can become addicted. Few Netflix tools to make us addict are the binge-watching (the act of consuming famous series shared at least by 61% of Netflix subscribers, this activity is considered liked by our brain which is secreting dopamine: the happiness hormone), it could also be the price quality-ratio for the catalog (Netflix has the largest catalog at this given price).

When we think about the power of Netflix, it becomes scary, indeed, Netflix could ignore certain details, remake history, and influence the way we see things.

Even if video streaming services have a real influence on the real world, this one has a trend to decrease, when people return to work again. But we can say that series have never been so popular since their creation. Series and movies have evolved and have reached a point where they are almighty because they allow people to dream, a thing that politics is able to do in time of revolution. It is perhaps a phenomenon that we will talk about to the next generations, similar in the way that we remember COVID-19 pandemic.



Illustration: by Martin Gee

Broken Mirror: The Portrayal of Teenagers in the Media

Ane López-Zuazo

From what we are seeing in the media, teenagers today have changed. The acne-filled faces and the braces have been replaced by high-quality glitter makeup, astonishing outfits, and wonderful hair. Teenagers today look like 25-year-old models. However, it's in their attitude that we see the biggest difference. Either they are awkward people who talk like they text, using emojis in real life, or they are rude, self-centred youngsters who do drugs and drink alcohol all of the time, party every day and are involved with gangs, violence, murders. Well, as we have been told many times, don't believe everything you see on TV.

To begin with, I will start analyzing some scenes in the series that are completely wrong in portraying how we communicate. The Netflix show *Ginny and Georgia* has received a lot of criticism about this same topic. For instance, we see the boyfriend of the protagonist start tap-dancing across their high school hallway as a way to congratulate his girlfriend on her birthday. This same boy sends the protagonist a Snapchat video with a dog filter on singing and telling her good morning. Another time, a boy approaches the protagonists and says: "Your song, like, follow, subscribe. I stan". These are just some of the cringy moments that this TV show contains, but it is not the only one. As another example, we have the show *The Sex Lives of College Girls*. Here, two of the protagonists are shopping and when they find a dress they like, one exclaims: "This is the dress! Fire emoji, head exploding emoji, tongue hanging out emoji!"

This is a pattern used in many shows where they just make the characters speak as we do in texts. For this, they use emojis, elements of social media, that we would never use in real life, resulting in embarrassing moments that nobody relates to, nor understands. Nevertheless, even if these bizarre interactions confuse the audience, it is essential to clarify that this doesn't have to mean the show isn't enjoyable. Even if they are not realistic, we might still enjoy these shows and films.

Moreover, not all shows are unrealistic because of the way they portray teenager communication. The famous HBO show called *Euphoria* has also been subject to criticism in this field for how it portrays teenagers' lives. Personally, I love this series and I think the acting is marvelous. However, even if I am really engaged with the storyline, I have to admit it is, as the series before mentioned, unrealistic. This series shows real issues in society and features all kinds of problems people have such as insecurities, mental health problems, addiction. Therefore, it makes it quite relatable. Nonetheless, the characters are supposed to be high school students (16-18 years old) and the activities they engage in are really shocking considering they are minors. In addition, as far as the cast goes, we find actors who are 23 to 30 years old and naturally, look more mature or older than most teenagers nowadays.

The same happens with *Riverdale* where seventeen year olds are involved with solving murders, drugs, gangs, owning bars and speakeasies and all while getting in Ivy leag schools and experiencing "the highs and lows of high school football". Here are some pictures of both series' cast to have a reference of how different they are from teens.



<https://www.pinterest.co.uk/pin/741827369858013535/>

Madelaine Petch
Riverdale
Age Portrayed: 16
Real Age: 27



<https://www.vogue.es/celebrities/articulo/cole-sprouse-nina-gomila-a-los-met-qs-de-ti-nelicia-movistar-amor>

Cole Sprouse
Riverdale
Age Portrayed: 16
Real Age: 29



Copyright Gregg DeGuire/FilmMagic

Camila Mendes
Riverdale
Age Portrayed: 16
Real Age: 27

In reality, we are just people whose lives are changing by the moment. We are facing dilemmas, making mistakes, learning, loving, getting our hearts broken, enjoying our time with our friends and overall, changing. The media isn't helping us, it just makes us have more insecurities over the fact that we simply don't look like that. What's more, it gives society a false perception of how teens are and behave. In the future, it would be, in my view, beneficial, if they hired some teenagers or at least asked them for help when making a film or TV series. Like this, we could relate more and viewers would see how teenagers really are.

Harry Potter: Generations of Magic

Candela Sainz Sacristán

Twenty years have passed since Joanne Rowling, nowadays known as J.K. Rowling, published, on June 26th, 1997, the first book of what would be the most important literary and film saga in History: *Harry Potter and the Sorcerer's Stone*.

Harry Potter has been many things: an inspiration, a friend, and a hero. Harry Potter is a world phenomenon now, having sold many editions of the series, creating films, and even entire theme parks based on these stories, but the way to success was not easy. J.K. Rowling started brainstorming this idea when she was traveling by train from Manchester to London, when she began writing. However, more than ten editorials refused her novel, alleging it was childish and would never triumph, until Bloomsbury decided to publish it, obtaining an absolute success in a matter of weeks.

Years later, Warner Brothers offered Rowling a film adaptation, showcasing the seven book series as an eight part film. These films have had the most economic benefits in history, beating even James Bond or Star Wars. Rowling sold in 1999 the rights of the first four adaptations for only £1,000,000, and I say "only" because their income was hugely higher, reaching 974 million dollars for the first one, according to Taquilla España.

During these twenty years, the "Potterhead" phenomenon has spread throughout the world, among people of all ages and countries, and through several generations, having sold over 500 million copies of the books, and being the most translated saga, with the highest and fastest sales. Also, J.K. Rowling is one of the only in history who has earned thousands of millions of dollars with writing as her main source of income.

Generations of children and adults were educated in reading thanks to Harry Potter, with a surprising increase of readers index between 1997 and 2007 (when the novels were published), according to Kids and Family Reading Reports.

In the year 2021, we celebrated the twentieth anniversary of *The Sorcerer's Stone* film premiere, and under the slogan "20 years of magic," it was reran in cinemas all around the world, and lots of massive events were carried out. As well as a HBO's special program in which the films' cast was gathered to tell their experiences and let Potterheads of the whole world know that the magic is still alive.

And because the magic of Harry Potter is still alive, without a doubt, we can see people wearing Hogwarts' houses scarves everywhere. Because of that, United States' parks, London studios and the thousands of Wizarding World's shops around the planet have enormous incomes. Therefore, thousands of children, young people and adults are still reading the books, watching the films, saying frequently words like "muggle" or "patronus," and enjoying a world where everything is possible.

On the other hand, with *Fantastic Beasts* (spin off of Wizarding World) appearance, the Potterhead movement has been intensified and lots of people have become fans. Harry Potter is definitively a phenomenon that joins people, both on social media, the fan clubs, and in real life, where we can see long lines at libraries and cinemas, going to theme parks and to studios. As Robbie Coltrane, who plays Rubeus Hagrid in the films said, "to another twenty years of magic, and because in fifty from now, I won't be alive, but Hagrid will," given that this young wizard will always be in our hearts, our memory, and our bookshelves.



Hogwarts



Harry Potter Studios



Harry, Ron and Hermione



Kings Cross celebrating first day of Hogwarts' school year

A New West Side Story?

Sarah Prunel

You may have seen the latest film of Steven Spielberg, *West Side Story*. It was nominated seven times to the Oscars due to an amazing cast, phenomenal stage directions, and also the timeless music of Leonard Bernstein. Continue reading for my review about this masterpiece. Let me present you with the cast:

First, Maria is interpreted by Rachel Zegler, a 20-year-old actress and singer. Never seen before on the silver screen, Rachel had to audition nine times before having the role. There were no less than 30,000 people who went for this role, and Rachel was chosen by Spielberg. According to him, "The high bar was set by Rachel on the first day of casting." He could not believe that "somebody could sing as well as they act." With the beautiful contrast between softness and power, Rachel Zegler won the Golden Globes Award for the Best Actress in a motion picture or musical. A success that has not gone unnoticed because she has already been chosen for the role of *Snow White* in the Disney remake. *West Side Story* is also the revelation of Ansel Elgort as a singer. Already known by the audience for his acting talent, especially in the trilogy *Divergent*, and in the film *The Fault in our Stars*, Ansel Elgort plays the role of Tony in the New *West Side Story*, thus succeeding George Chakiris. Apart from the main roles, *West Side Story* is a formidable mosaic of actors, singers, and dancers at the same time, including Ariana DeBose, David Alvarez, Josh Andrés Rivera, and Mike Faist. With this amazing cast, one question remains: Which are the differences between the 1961 *West Side Story* and the Spielberg one?

First of all, Spielberg decided to exclusively cast Latino actors for the Sharks roles. Rachel Zegler, who interpreted Maria, is an American of Colombian origin. Another distinctive feature of the remake is that the film is completely bilingual, reinforcing the difficulty of the Sharks integration. In addition, the bond between Toni and Riff appears more complex in the 2021 remake. They seem to have a great attachment for each other, which does not prevent them from having different opinions on how to solve problems. Spielberg explores this duality and creates richer characters, with very dense personalities. Last but not least, the difference is the scenery, the lights, and the colors. The shots of Spielberg come with the story and the audience is immersed in it. We feel the genuine, bright colors are well-chosen: blue hues with the cool colors that tend to represent the Jets, the white color representing Americans, whereas red, yellow, orange, pink, warm colors tend to represent the Sharks, making a reminder of Puerto Rico and Latina America. Spielberg and his assistant make a genuine combination of colors, fabric, and integrate them to set up a pictorial artwork.

Then, what could be disappointing in this remake? Many reviews assure that Ansel Elgort was quite below Rachel Zegler's level for singing, or even not really up to the dancing level of Mike Faist. Fortunately, all these imperfections are hidden by his magistral performance of Tony. Another reproach made to Spielberg was his choice of making a remake of *West Side Story*. He could have written another storyline for another film, but he decided to tackle *West Side Story*. Spielberg didn't answer this question in any interviews but he said that he was more inspired by the story of *Romeo and Juliet* and the musical *West Side Story* than the older version. An influence well spotted in the movie, especially in the character's relationships or the lights and the decor.

This being said, you should see it on the silver screen if possible. By watching this film, you will time travel to America in the 1960's, with nuanced characters, breathtaking music, and majestic settings. Do not wait any longer, go and watch it!



Ansel Angort as Tony and Rachel Zegler (Maria)



Ariana DeBose as Anita and David Alvarez as Bernardo



The Jets and the Sharks

The Arts: Photography, Poetry, & Fiction

WRITTEN BY STUDENTS AROUND THE WORLD

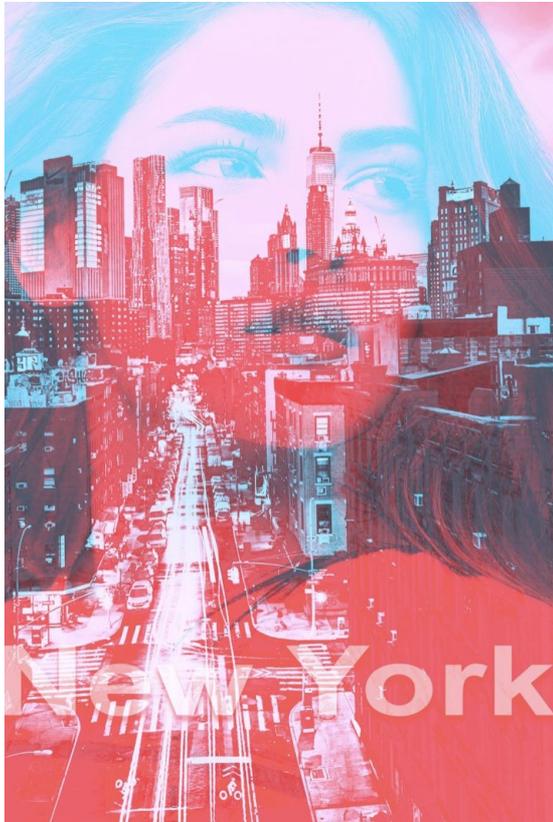
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Photo Edits from Quarantine

Nicolas Cholin

During quarantine, I had to create a photo edit reflecting a problem that the world faces today, and it was quite new to me to make a photo edit. At first, it was complicated, because I had never used editing software before, and I was struggling a lot. As I watched tutorials online it made me understand how Affinity Photo works, and it made me more creative. I started my photo editing journey with easy edits on portraits at first, and gradually, I started to create more complex edits with high resolution images that took more time to create something extraordinary. Many of my family and friends, teachers at my school, and in the Dual Diploma, were impressed by my creativity. Since then, I have continued to make photo edits. Inspiration comes when I see an image or portrait and then I brainstorm the layout of each image in the edit. One of my photo edits is exhibited in my school in France, and another is at my grandparents' house where they imagine what the girl on it sees in the horizon.

Double Exposure Effect



The Double Exposure Edit was designed to show a city landscape inside of a woman's portrait. The original images were a portrait of a woman and a photo of New York City showing the Empire State Building. The idea came when I looked at the two images next to each other and I thought how could I combine them together? I brainstormed the perfect placement with the colors to make something extraordinary.

Double Exposure Edit



Paint Splash Composite Effect

The Paint Splash Edit was designed with a dark woman's portrait with a splash of colors on her face. This was a complex edit to create because there were so many parameters to change for the woman's portrait, but the most difficult was when I applied the paint splash on the face because I had to remove certain areas of the paint with a lot of precision to make it perfect. When the difficult part was finished, I painted the eyes blue as the finishing touch.



Sharpen Portrait

The Sharpen Portrait was created to show a sharper image with more detail, making it more professional. My inspiration came from the image herself and some parts of it were too dark and not shown enough, so I decided to show them with more precision. The original image was darker in some parts.



Double Color Edit



Black and White to Color Edit

The Black and White to Color edit was designed to show two different colors in the same image with a lot of detail. The original image was a woman surrounded with roses. What gave me the inspiration was 2 colors in the same image, we can think that the woman is coming from the past to the present.



Double Color Exposure Effect Edit



Autumn Effect Edit

The Autumn Effect Edit was created to show how we could apply a new color on a background of an image. My inspiration came first when I watched the movie *Pride and Prejudice* from Jane Austen's Novel, and this edit makes me think of Elizabeth Bennet in the flower fields of the countryside.



Photography Series

Martina Bulagrelli



Seggiovia di Monte Solaro, Anacapri



Beach in Greece, Mykonos



Florence, Italy



Mykonos, Greece

The Pearl Hong Kong, An Imagined Marvel Of Modern Engineering

Nicolas Cholin



The Pearl Hong Kong is a 3500 foot fictional building from the movie *Skyscraper*. It is supposed to be the highest building ever built by mankind, surpassing the Burj Khalifa. The Pearl is a 225 floor building constructed directly in Victoria Harbor, with an internal structure shaped like a dragon with multi-story voids. The building's shape is based on a dragon with a pearl in its mouth, in reference to an ancient Chinese myth, The Dragon's Pearl. Across Asia, the dragon symbolizes strength and courage, echoing the character of The Pearl's owner and developer in the movie. The resulting tower's curving glass resembles a dragon, snaked at the bottom then reaching skyward, holding the spherical "pearl" in its mouth at the top. The "eye" is created by double-helix wind turbines that help to power the building, while its "belly" is a 30-story atrium where much of the film's action takes place.

The Pearl was designed to be entirely self-sufficient and includes amenities like a cultural center and shops at its base. The building can be divided into two halves, the lower half includes the lower pavilion, that encompasses a designer boutique, retail center, entertainment hall, fine dining restaurants, and The Pearl Hotel & Spa. The upper half includes The Pearl (Observation Deck), luxury condominiums, and residential apartments. On the 225th floor of The Pearl, is a hall of mirrors that can project cameras on both sides of the sphere. When activated, a seamless view of the Hong Kong cityscape can be observed around you.

The Pearl Hong Kong is an autonomous building that can be controlled from a tablet inside the building, or a portable tablet to monitor its systems while away from the building itself. To access the building's systems, the user must log in with administrative credentials when inside the building, or facial recognition. When using the tablet itself, once logged in, the user can monitor the surveillance cameras, run a system analysis, unlock certain areas of the building, and check the blueprints from each floor to see specific information. Some areas in the system require higher access to access specific rooms such as the Penthouse on the 220th floor, where only the owner of the building can manage these systems.

The Penthouse is a room located on the 220th floor where the owner of The Pearl Hong Kong lives. This room is secured because it is equipped with Military grade titanium doors that can only be opened by the owner and someone that he trusts. In order to access the Penthouse, a person must scan their biometrics on one of two statues at the entrance of the Penthouse, but the owner can open the doors with a smart watch. When the owner is in the room and someone enters the room, he will receive a notification on his tablet that the Penthouse doors are opening. If the doors are open without any reason, the owner can secure the doors directly from his tablet.

During an emergency, for example, if the fire alarm triggers on the floor, the doors will open automatically. In case the system is compromised, the only way to open these doors is by the owner's tablet or smartwatch, because the system controlling the Penthouse is an isolated sub-routine from the tower's entire system, meaning that no one can control the room's systems from a tablet within the building. The subroutine access panel controlling the Penthouse doors is located behind the two giant turbines, meaning practically no one has access to it. The Pearl Hong Kong is monitored by an offsite facility that is a mile away and it ensures that the building is functioning properly thanks to a small team monitoring all its systems.

The Pearl Hong Kong is not a building in real life because the systems inside of it are nonexistent in today's world, and I think such technology will not arrive until around the year 2050. A building with these technologies would cost a fortune and many people won't have access because of its price. I think these kinds of buildings will appear when we as a species trust artificial intelligence to perform certain tasks to control a building and access sensitive information. As of now, we don't know if artificial intelligence would be beneficial or a threat to mankind.

A building that is similar to The Pearl Hong Kong in today's world is Hive from Schneider Electric. This building is located in Rueil-Malmaison, France, and it uses artificial intelligence inside to perform certain tasks. What makes this building similar to The Pearl Hong Kong, is that it uses artificial intelligence to control certain parts of the building. For example, cameras in a room detect the number of people inside of it by the employee badges and heat up the room if there are a few people in the room or stop the heating system if there are a lot of people inside.

Having to control a building from a tablet is a great way to reduce maintenance cycles and reduce costs for an organization, but there can be problems if we don't pay attention to the building's systems. A person can easily steal one of the tablets and access the security systems, making the building vulnerable with all of its systems offline.

These two buildings, although one is fictional, still have similarities. It is within the scope of technological advances and artificial intelligence, that one day we may have more buildings like these. Only time will tell.



The Pearl Hong Kong



Hive from Schneider Electric

Ballad of the World

Martina Bulagrelli

This period, something that has never,
ever happened to us... it makes me feel so sad.
“I want to get out,” she said,
and revive those days in which we all could be free and glad.

Sometimes I think of the summer sea,
the wind whistling and the ripples curling up, lapping on the shore.
Surfers flocked to ride the waves, that joy you could see,
and kids trying to make the biggest sandcastle I bet no one has ever seen before.

I think of the mountain sometimes,
after a long day out, getting those heavy boots off,
sipping on that sweet hot chocolate, the best feeling of all times,
once the week is over, getting back to everyday life is tough.

Also, the Tuscanian plains are in my heart,
those immense and extended fields filled with flowers.
They make me feel inspired and ready to produce art,
this is the only time that I feel empowered.

I miss the Thai rice fields,
speaking to the locals and learning about them makes me feel better,
their hands are worn out, collecting all their yields,
one old lady was so kind and gentle that it is impossible to forget her.

New York, with its non-stop traffic and cars,
and the green lung of the city is Central Park.
I can still recall musicians in the subway playing guitars,
and all those inspiring young artists lighting in me a spark.

Paris, the style and elegance of the natives strolling around,
the sunsets on the Seine and the lights never going down;
The lovers hanging their love locks, their dedication really is profound,
the crepes at Montparnasse, a mouthwatering taste. It's obvious they are renowned.

This period, something that has never,
ever happened to us it makes me feel so sad.
“I want to get out,” she said
and revive those days in which we all could be free and glad.

These adventures can only be dreamed of,
this is why it's hard for teenagers to keep up with this pandemic,
we are social and don't want to keep in these cages that trap us from above,
I guess we must only suck it up and focus on our academics.



Sports & Travel

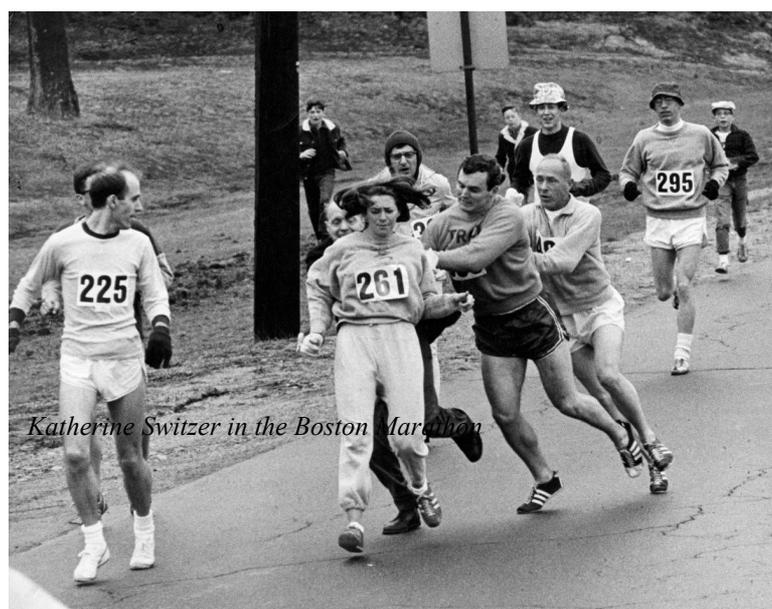
WRITTEN BY STUDENTS AROUND THE WORLD

May 2022

Women's Participation in Sports

Laia Rivas Beumala

Since old times, it was thought that in many cultures, women were only supposed to partake in domestic tasks and take care of the children. Women didn't have the same rights that men had, such as voting, being politicians, or even, participating in sports wasn't allowed for women until the 1900's. After many manifestations, protests, and fights to face gender inequalities in sports, times have changed and women are now involved in sports more than ever before.



Katherine Switzer in the Boston Marathon

The number of women athletes has increased a lot in the last century, thanks to all the women who fought in the past to achieve equality between genders. Some of the most outstanding women include Katherine Switzer and Luisa (Lucy) Harris,

Katherine Switzer was the first woman who ran an important marathon, the Boston marathon, although the race was originally only for men. While she was running, the co-director of the race tried to disqualify her the race with violence. Since then, she keep trying to achieve equality and now, she leads an organization, the "261 Fearless", that encourages people to create clubs to promote women in running.

Another example is Lusia (Lucy) Harris, the first and only woman to compete in the NBA in a masculine team in 1977. She also won a silver medal with the American Basketball team in the Olympic Games in Montreal in 1976. Luisa chose to leave the team to start a family. She is considered one of the precursors of women's basketball competitions.

A major problem that exists is the difference between men's and women's salaries. Lionel Messi, one of the top earning soccer players, earns about \$44 million dollars every football season. In contrast, Alex Morgan, one of the top earning female soccer players, earns \$450,000 for the season. This shows the huge difference in salaries between genders.

Billie Jean King, a female tennis player, changed the difference of salaries in tennis players. She made history in a match with Bobby Riggs, called "The Battle of the Sexes" to demonstrate how women can be as good, or even better than men in sports. She won the match with only three sets, and also won the respect of many tennis players. After this amazing match, she threatened to boycott the United States Tennis Open unless women receive the same prize money as men. Since then, thanks to Billie, tennis players are more or less, paid equally despite their gender.

Nowadays, although there are less injustices, we have more room for improvement. For example, talking about tennis, the famous player Rafa Nadal, won the last Grand Slam, so this makes him the tennis player with more Grand Slams. However, there are three women tennis players with more Grand Slams than Nadal

The week after Nadal won, he appeared in the news, for being the tennis player with the most Grand Slams in the world. You can research on the internet "Tennis players with the most Grand Slams," the only names that appear are men, although, there are three women who have more Grand Slams than any men: For example, there is Margaret Court, an English tennis player with 24 Grand Slams; Serena Williams, an American tennis player with 23, and Staffi Graf, a German tennis player with 22.

Knowing this, do you think it is fair that Nadal appears in the news, the newspaper, or on the internet more often than these three amazing female tennis players?

This is evidence that there are lots of injustices for women, but I'm sure we will enhance this aspect, and eventually, we will bridge the gender gap and not have these differences between women and men in sports events.



The three people with more Grand Slams(Margaret Court, Serena Williams and Staffi Graf)

Salamanca, an Unknown Treasure

Diego Alfonso Nunes Alvarado

Salamanca is a Spanish city and municipality, located in the autonomous community of Castilla y León, in northwestern Spain. It's history dates back to the Celtic times and it is known for its ornamental and sandstone architecture. It was a key intellectual center in the 15th and 16th centuries and its university remains the nerve center of the city, providing it with vitality from both national and international students.

Salamanca preserves one of the most important monumental ensembles in Spain, for which it was recognized by UNESCO in 1988 as a World Heritage Site.

Architecture

Our visit to Salamanca can begin with the *Plaza Mayor*, one of the most beautiful landmarks in the country, the center of civil life and the most popular celebrations in the city. Among the squares and gardens we can highlight the *Plaza del Concilio de Trento*, the *Plaza de Anaya*, the *Campo de San Francisco* and the *Huerto de Calixto y Melibea*. We can continue by what are undoubtedly the two main monuments: the Cathedrals, the Old in Romanesque style, and the New, in Gothic style.

We can also see a large number of religious buildings along the streets of Salamanca, such as the *Clerecía*, the Convent of San Esteban or the Convent of the Annunciation.

On our way we will find interesting civil buildings such as the *Casa de las Conchas*, the *Casa Lis*, the *Palacio de Monterrey* or the *Casa de las Muertes*, as well as stately homes and mansions. We arrive at the University of Salamanca, the oldest in Spain, whose most emblematic buildings are the *Escuelas Mayores* and *Escuelas Menores*, located around the *Patio de Escuelas*. We would finish our tour in some of the sites that will help us know more about the history and traditions of the city, such as the *Puente Romano*, the Wall of Salamanca or the Cave of Salamanca.

If you like art, there are also museums where we can also learn more about the culture and traditions of this beautiful city, such as the Museum of Art Nouveau and Art Deco, *DA2*, House-Museum of Unamuno, Museum of Salamanca, Museum of the History of the Automobile, Museum of Commerce and Industry or the Cathedral Museum.

Traditions and Festivities

The traditions and festivals of Salamanca are ones in which you must participate, if you coincide with any of them. The best way to know the culture and traditions of a place is to live them. The first to be celebrated is *Santa Águeda*, on February 5, which is the day when women take over the city through traditional costumes, parties and dances. We continue with the *Lunes de Aguas*, which is celebrated on the first Monday after Easter, where families and friends gather in the countryside to eat *hornazo*, a type of patty filled with some meat, and other typical products.

The great festivities of Salamanca, in honor of its patron saint the *Virgen de la Vega*, last from the eighth to the fifteenth of September, time in which there are various cultural events, attractions, and large number of booths that fill the city where we can taste a variety of *pinchos* of our gastronomy.

The thirty-first of October *El Mariquelo* ascends to the bell tower of the New Cathedral, where he plays a *charrada*, traditional music of Salamanca.

And we finish our popular festivities with the University New Year's Eve, around the fifteenth of December. University students gather in the *Plaza Mayor* before the Christmas vacations to celebrate New Year's Eve in advance, eating twelve jelly beans instead of the traditional twelve grapes.

Gastronomy

After so much culture and festivities you have to regain strength, and what better way to do it than enjoying the great gastronomy of Salamanca.

We can enjoy the delicious *Hornazo*, a type of pie stuffed with meat and typical of *Lunes de Aguas*, although we can enjoy it all year round.

The chanfaina is a rice dish stewed with trotters, tripe and lamb's blood.

Chichas is meat that is reserved from the preparation of *chorizos* and is usually accompanied by fried eggs or rice.

Patatas revolconas or *meneás*, which is a wonderful mashed potato with paprika, bacon and other meat products.

All of this without forgetting to try the *morucha* meat, which has great aroma and juiciness, and the magnificent sausages, such as ham, loin, *chorizo*, *salchichón* or *morcón*.

To accompany such great food, the province has some great wines such as the protected denomination *Arribes* and wine from the *Sierra de Salamanca*. And of course we can not leave without dessert, with the most typical sweets of the city, such as *chochos charros*, *perrunillas*, *Bollo Maimón*, *Rosquillas de Ledesma* or *Amarquillos de La Alberca*.

After having enjoyed all that this great city has to offer, we can finish our trip with one, or several, of the guided tours that we can sign up for, among which we will find a night tour, a mystery and legends tour or a bike tour.

Salamanca offers this and much more; it is a great little city in Spain!



Plaza Mayor



Cathedral



El Mariquelo in the cathedral tower.



Perrunillas



Hornazo

A Week in Paris: Follow the Guide!

Louise Dugast

Paris is a huge city, and it can be hard for strangers to fully enjoy their trip. In this article, I have included a guide on what to do and where to eat when traveling to Paris. So whether you are a couple, a family, or a single traveler, get your tickets now and follow me in Paris!



Nelson Mandela's wax statue visible at the Grévin Museum

What To Do in Paris?

Dive into French history alongside Joan of Arc and Louis XIV, or take your picture on the red carpet with Hollywood actors. For \$27, stroll among 300 wax figures bearing the effigy of your favorite stars, that's what the Grévin Museum offers in the heart of Paris, open since 1882. *Do not hesitate to book your tickets in advance to avoid the line.*

Despite the fire that ravaged Notre Dame in April 2019, it is still possible to visit this magnificent cathedral thanks to an immersive virtual reality with the bonus of an 850-year journey back in time. "The Eternal Notre Dame" immersive experience takes place in a 500-square-meter space; a 45-minute tour that transforms visitors into real players in the cathedral's history. From the first sketches on a plan to the reconstruction work after the fire, from the stained glass windows to the frame of the cathedral through the monumental organ, Notre Dame will no longer have any secrets for you.

For sports lovers, take a tour of the Parc des Princes, the home of the famous football club, Paris Germain, since 1897. From the locker rooms to the stadium's lawn, from the trainer's office to the VIP lounge, with a 3D sound experience that recreates the stadium's atmosphere, put yourself in the shoes of Neymar and Mbappe and enter the backstage of this legendary club. This visit is done with an audio guide that will allow you to follow it in any language.



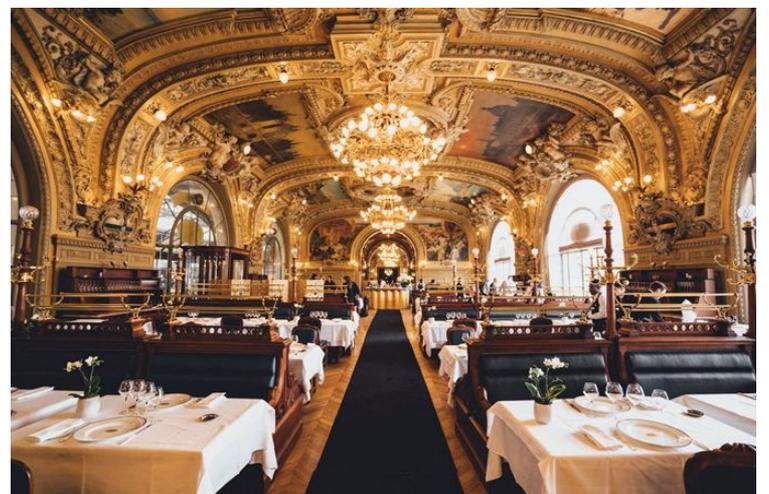
Stade du Paris Saint Germain, one of the biggest clubs in France

There are many other things to do, such as visiting the Eiffel Tower, taking a tour in flyboats, and visiting the Basilica of the Sacred Heart, the Marais neighborhood, and a lot more.

Where To Eat?

Paris and, more generally, France is known for its gastronomy. However, Paris is also a major tourist city where it is easy to be ripped off by restaurants with a cuisine far from the homemade of yesteryear. Here are some good addresses where you are sure to enjoy a good meal.

If you are strolling on the Champs Elysées, don't hesitate to stop at the Alsace or the Fouquet's, two emblematic bistros of the capital. With French cuisine, neat decorations, and waiters in costumes, you will appreciate the French charm around a good meal. Le Train Bleu restaurant in the middle of the Gare de Lyon is a typical example of the Parisian bistro, discovering French specialties in a Belle Epoque setting. Although a little expensive, the setting and the plate will leave you with beautiful memories.



One of the dining rooms of the restaurant Le Train Bleu

Paris has many nice restaurants, so stroll through the streets of the capital. Thanks to some advice here, get out of the tourist circuits: prefer a short menu that guarantees homemade dishes, avoids areas too touristy, looks at the number of clients, and generally a good quality meal will attract people!

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WRITTEN BY STUDENTS AROUND THE WORLD

May 2022

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