

CONCORSO PUBBLICO, PER ESAMI, A N. 1 POSTO DI CATEGORIA C, POSIZIONE ECONOMICA C1, AREA AMMINISTRATIVA, PER LE ESIGENZE DELLA RIPARTIZIONE RICERCA E TERZA MISSIONE DELL'UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II, PER LA TUTELA E LA VALORIZZAZIONE DELLA PROPRIETÀ INTELLETTUALE, DEL TRASFERIMENTO TECNOLOGICO E LA CREAZIONE DI NUOVE IMPRESE START UP/SPIN OFF (COD. RIF. 2013) DEL QUALE È STATO DATO AVVISO SULLA G.U. IV SERIE SPECIALE – CONCORSI ED ESAMI N.60 DEL 04/08/2020 - INDETTO CON DG N. 509 DEL 27.07.2020.

Prova orale 12.10.2020

Elenco quesiti estratti suddivisi per argomento

Principi di diritto della proprietà intellettuale

- Le forme e gli strumenti di trasferimento tecnologico in ambito universitario;
- Come sono disciplinati i diritti di proprietà intellettuale nella ricerca collaborativa;
- Effetti della domanda di brevetto europeo;
- Le invenzioni dei dipendenti Universitari come deroga all'art 64 del codice di proprietà intellettuale;
- Cosa sono le royalties;
- I diritti patrimoniali che scaturiscono dallo sfruttamento industriale dei risultati della ricerca conseguiti in particolare da uno Spin off dopo la sua costituzione;
- Differenza tra autore/inventore e titolare di un brevetto;
- La proprietà dei risultati nella ricerca collaborativa;
- A chi spettano i profitti derivanti dalla vendita o dal licensing di un brevetto;
- Cosa si intende per tutela della proprietà intellettuale
- Quali sono le condizioni ostative alla brevettabilità
- Chi è il titolare di un brevetto
- Il contratto di licenza di un brevetto
- Definizione di un brevetto
- Il corrispettivo della concessione del diritto di utilizzazione del brevetto
- Differenze fra l'art 64 e l'art 65 del codice di proprietà intellettuale
- I diritti morali (inalienabili e intrasmissibili) nella proprietà industriale
- Quali sono gli effetti di un brevetto
- Cosa si intende con il termine anteriorità nella procedura di brevettazione
- L'art.65 del codice della proprietà intellettuale
- La durata un brevetto italiano
- Quali sono le aree principali della proprietà intellettuale
- Le modalità di una eventuale concessione del marchio spin-off dell'università
- Il contratto di licenza di un brevetto
- L'art 64 del codice di proprietà intellettuale
- Differenze fra l'art. 64 e 65 proprietà intellettuale
- Quali sono le principali clausole da includere in un accordo di co-titolarità
- I requisiti di brevettabilità di una invenzione

- La valorizzazione delle attività di ricerca in ambito universitario, condotta in collaborazione con privati, con riferimento della proprietà intellettuale
- Concessione e cessione della proprietà intellettuale

Principi di economia e gestione delle imprese:

- I requisiti di una start up innovativa;
- I principi generali di redazione del Business Plan
- Cosa è una start up
- Come è composto un Business Plan
- La fattibilità economica e finanziaria di un'idea di business
- La conduzione del personale e la leadership in una impresa
- Cosa si intende per innovazione tecnologica
- Principali fonti di finanziamento di una impresa
- Cosa è uno spin off?
- Come e quando sono nati i Contamination Lab
- Cosa sono gli incubatori
- La pianificazione di marketing nel contesto del Business Plan
- Differenza tra start up innovative e spin off universitari
- Cosa è la swot analysis
- Le fonti di finanziamento di una start up
- Cosa è l'Open Innovation
- La strategia aziendale
- Start up innovativa: vantaggi
- Il Venture Capital cosa è e come funziona
- La gestione del processo innovativo
- Modelli di progettazione organizzativa delle imprese
- In che modo gli spin off universitari perseguono gli obiettivi di valorizzazione della ricerca
- La formulazione della strategia competitiva nelle imprese
- Che cosa è il private equity e come opera nell'ambito degli strumenti di finanza innovativa
- Procedura per la costituzione di una start up innovativa
- Strutturazione e pianificazione di una nuova iniziativa imprenditoriale
- Start up innovativa: agevolazioni
- Il principio di completezza del Business Plan
- Clausole e patti parasociali degli spin off
- I concetti di affidabilità e attendibilità del Business Plan

Principi di legislazione e normativa universitaria

- Il ruolo del Direttore di Dipartimento
- Quali sono le funzioni del Rettore
- L'elettorato passivo nelle elezioni del Rettore
- Quali sono le funzioni del Direttore Generale

- Come è composto il Consiglio di Amministrazione
- L'elezione del Rettore
- Definizione del public engagement
- Quali sono i fini primari dell'Università
- La terza missione dell'Università
- Come è composto il Senato Accademico
- Come viene eletto il Nucleo di Valutazione
- Le funzioni del Consiglio di Amministrazione
- Quali funzioni e compiti dei Dipartimenti
- Come funziona un ufficio di trasferimento tecnologico
- Elezioni del Direttore di Dipartimento
- Chi elegge il Senato Accademico
- Da chi è composto il Nucleo di Valutazione
- L'iter di approvazione degli spin off
- Che funzioni svolgono le Scuole
- Quali sono gli organi di un Dipartimento
- Come sono costituiti i dipartimenti
- Quale è l'organo deliberante delle Scuole
- Chi elegge il Consiglio di Amministrazione
- Cosa sono i Dipartimenti universitari
- L'elettorato attivo nelle elezioni del Rettore
- Quali sono i compiti e le funzioni del Nucleo di Valutazione
- Quali sono le funzioni del Senato Accademico
- Come si valuta la terza missione
- I contenuti del regolamento di Ateneo Federico II sulla proprietà intellettuale con riferimento alla cessione dei diritti
- Cosa sono i casi studio secondo il DPM n.1110 del 29.11.2019

Informatica

- Apri PowerPoint e crea una nuova presentazione
- Inserisci "Museo comunale" come titolo della prima slide
- Aggiungi alla presentazione una seconda slide con titolo "I Grandi artisti italiani" quindi inserisci il seguente elenco di grandi artisti, formattandolo come elenco puntato: • Giotto • Michelangelo • Raffaello • Tiziano • Caravaggio
- Salva il file sul desktop con il nome "prova"

-
- Creare un nuovo documento con Excel, comporre una tabella indicando in colonna A un elenco di 5 nominativi, in colonna B il genere (M o F), in colonna C i seguenti valori per ogni singolo nominativo: 25, 29, 18, 22, 20;
 - Calcolare con la formula appropriata la media dei voti inseriti
-

- Creare un nuovo documento Excel, comporre una tabella indicando in colonna A un elenco di cinque nominativi, in colonna B la città di residenza, nella colonna C la data di nascita.
 - Utilizzare la funzione e ordinare i valori in ordine crescente per data di nascita (colonna C)
-

- Creare un nuovo documento con Excel, inserire due colonne di intestazione denominate Nome e Cognome, riempiendo 5 righe con dati casuali.
 - Impostare l'area di stampa in modo che la riga di intestazione sia ripetuta in ciascuna pagina
-

- Apri il programma Microsoft Word
 - Scrivi il seguente testo così come è riportato:
“I programmi per l'elaborazione dei testi, word processor, sono di grande utilità nei settori più disparati della vita quotidiana: scuola, ufficio, tempo libero, ecc.”.
 - Seleziona tutto il testo
 - Porta a 1,5 righe l'interlinea del testo
 - Imposta ad Arial il font di caratteri
 - Salva il file sul desktop con il nome “prova”
-

- Apri PowerPoint e crea una nuova presentazione.
 - Nella prima diapositiva devi inserire un titolo
 - Applica un'ombreggiatura titolo.
 - Ora crea una seconda diapositiva all'interno della quale devi inserire il seguente elenco puntato: • Tradizione • Cultura • Inserimento nel mondo del lavoro • Didattica innovativa
 - Salva il file sul desktop con il nome “prova”
-

- Aprire un nuovo file Excel
 - Nella cella A1 inserire il titolo “Numero ID”
 - A partire dalla cella A2 creare rapidamente una successione numerica da 1 a 100
 - Salvare il file col nome “Prova”
-

- Aprire un nuovo file Excel
 - Applicare un riempimento giallo alle celle da A1 a F5
 - Applicare un riempimento rosso alle celle da B7 a C20
 - Salvare il file con il nome “Prova”
-

- Aprire un nuovo file Word

- Inserire il testo: “Il dottorato nazionale in Intelligenza artificiale: un'opportunità per il Paese”
 - Applicare uno stile sottolineato al testo inserito
 - Salvare il file come PDF con il nome “titolopdf”
-

- Aprire un nuovo file presentazione Power Point
 - Creare tre diapositive vuote con un titolo a piacere
 - Inserire, con l'apposita funzione su tutte le diapositive, data e ora
-

- Aprire un nuovo file Word
 - Scrivere su due righe il testo: “Alla Segreteria Studenti Area Didattica Farmacia e p.c. Al Dipartimento di Farmacia”
 - Allineare il testo inserito a destra
 - Salvare il file con il nome “Prova”
-

- Apri Excel
 - Ricopia la seguente tabella:
AteneoIscritti
Napoli 5000
Roma 1000
Milano 700
Torino 2800
 - Inserisci un grafico a “torta” con i dati della tabella.4. Salva il file sul desktop con il nome “prova”
-

- Aprire un nuovo file Excel
 - Inserire i seguenti valori nelle prime 4 righe della colonna A “Ateneo, Studenti, Professori, Ricercatori”
 - Spostare i valori inseriti nella colonna C a partire dalla cella C6
 - Salvare il file con il nome “Prova”
-

- Apri il programma Word
 - Incomincia a digitare il seguente testo: “Carissimi amici, ho intenzione di organizzare una cena in occasione della festa della donna.”
 - Il testo deve essere formattato con il seguente carattere “Verdana – 12 punti – nero”.
Salva il file sul desktop con il nome “prova”
-

- Apri il programma Word

- Inserisci nell'intestazione di pagina la scritta Esercitazione Word
 - Inserisci nel piè di pagina il numero di pagina sulla destra
 - Inserisci il seguente elenco puntato, con le seguenti parole:
"Verde – Rossi – Bianchi – Rossi – Napolitano – Bianchi"
 - 5. Salva il file sul desktop con il nome "prova"
-

- Apri il programma Microsoft Word
 - Scrivi il seguente testo così come è riportato: "Primi passi con un elaboratore di testi I programmi per l'elaborazione dei testi, word processor, sono di grande utilità nei settori più disparati della vita quotidiana: scuola, ufficio, tempo libero, ecc."
 - Seleziona tutto il testo Porta a 1,5 righe l'interlinea del testo
Imposta ad Arial il font di caratteri
Salva il file sul desktop con il nome "prova"
-

- Apri il programma Word
 - Scrivi il seguente testo: "L'uomo è dotato di intelligenza e di forza creativa per moltiplicare quanto gli è dato, ma fino ad oggi egli non ha creato, bensì distrutto. I boschi sono sempre meno, i fiumi seccano."
 - Impostare il foglio con 2 cm di margine superiore, 1 cm di margine a sinistra e a destra, 3 cm di margine inferiore.
 - Modificare il formato del carattere del testo in Verdana, 12 pt, normale.
 - Salva il file sul desktop con il nome "prova"
-

- Creare un nuovo documento Word
 - Impostate i margini del documento a 3 cm per entrambi i lati
 - Scrivete un titolo (Arial, 36pt, grassetto, colorato, centrato)
 - Scrivete un breve testo (Arial, 12pt, interlinea 1.5, giustificato)
 - Salva il file sul desktop con il nome "prova"
-

- Apri PowerPoint e crea una nuova presentazione scegliendo un modello a tuo piacere.
 - La prima diapositiva deve avere come titolo "Prova"
 - Crea rapidamente 5 diapositive uguale alla prima.
 - Salva il file sul desktop con il nome "prova"
-

- Apri PowerPoint e crea una nuova presentazione;
- Scegliere un layout diapositiva e scrivere: "IL SISTEMA OPERATIVO";
- Inserisci una nuova diapositiva con il seguente elenco:
-Regolare il funzionamento delle componenti hardware
-Tradurre in linguaggio specifico le richieste dell'utente
-Input da tastiera

- Input da mouse
- Analizzare la compatibilità dei programmi e gestirne il funzionamento.
- Organizzare le informazioni
- Attiva la modalità presentazione

- Ricopiare in un nuovo file Excel i seguenti dati:

	15/03/2020	20/04/2020	31/05/2020	05/06/2020	07/08/2020	21/09/2020
Voto	21	30	24	18	30	25

- Sulla base dei dati inseriti creare un grafico a colonne

- Apri il programma Word
- Inserisci il titolo “Tabella” in Times New Roman 14 grassetto color blu e centrato
- Crea la seguente tabella

difficoltà incontrate	attività			

- 5. Salva il file sul desktop con il nome “prova”

- Aprire un nuovo file Word
- Inserire il seguente testo: “Napoli fu l’unica città meridionale sede di studi universitari (a parte la scuola medica salernitana) fin dopo l’Unità. Ciò contribuì alla sua crescita demografica e al suo prestigio di città capitale. A Napoli studiarono Giovanni Boccaccio e Francesco Petrarca.”
- Impostare l’interlinea al livello massimo
- Salvare il file con il nome “Prova”

- Apri il programma Word
- Imposta il carattere del testo ad Arial, dimensione 12.
- Scrivi il seguente testo:

- “Tipi di software. I software si suddividono in due grandi categorie: software di sistema gestisce le risorse hardware del computer; software applicativo serve per utilizzare il computer a scopi pratici.”
- Seleziona il testo “Tipi di software” e impostalo a grassetto.
- Imposta a corsivo le parole “software di sistema” e “software applicativo”.
- Salva il file sul desktop con il nome “prova”

-
- Apri un nuovo file presentazione Power Point
 - Sulla prima slide inserisci il titolo PRESENTAZIONE
 - Inserisci il seguente testo su due colonne affiancate

Dipartimento1	Fisica
Dipartimento2	Medicina
Dipartimento3	Scienze Politiche
 - Salvare il file con il nome Prova

-
- Aprire un nuovo file Word
 - Inserire il seguente testo: “Napoli fu l’unica città meridionale sede di studi universitari (a parte la scuola medica salernitana) fin dopo l’Unità.”
 - Evidenziare in giallo oppure sottolineare la frase tra le parentesi
 - Cancellare la frase evidenziata/sottolineata
 - Annullare l’operazione di cancellazione

-
- Aprire un nuovo file Word
 - Inserire il seguente testo: l’università degli studi di Napoli Federico II
 - Convertire con l’apposita funzione tutte le iniziali del testo inserito in MAIUSCOLO
 - Salvare il file con il nome “Prova”

-
- Apri una nuova presentazione Power Point
 - Inserisci una diapositiva con il layout «Diapositiva titolo», una con layout «Solo titolo», una con layout «Titolo e contenuto», una con layout «Due contenuti»
 - Riempi ciascuna diapositiva con contenuto a piacere
 - Visualizza la presentazione a schermo pieno

-
- Apri il programma, Microsoft PowerPoint
 - Crea una presentazione vuota
 - Scegli per la prima slide un layout Diapositiva titolo
 - Inserisci nello spazio per il titolo “Il computer”
 - Inserisci l’immagine di un computer presa da internet

- Salvare il file con il nome Prova
-

- Ricopiare la tabella di seguito riportata in un foglio di lavoro del software Excel, rinominare il foglio in “Report”

Cognome	Nome	Matricola
Sempronio	Marco	32425
Caio	Veronica	31232
Tizio	Michele	87643

- Ordinare in modo crescente l’elenco riportato per cognome e quindi, per matricola.
-

Lingua inglese

- Fire

Although fire wasn’t technically invented, the ability to control fire was both fundamental and crucial for human civilization. Ancient humans who walked the Earth around two million years ago discovered and used fire for their benefit, but it wasn’t until 125,000 years ago that fire was fully utilized to the point where it was considered a tool.

Apart from giving us warmth in the cold and light in the dark, fire led us to develop skills like cooking. The ability to prepare healthier food and cleaner drinking water helped ensure not only human survival, but also higher intelligence due to proper nutrient intake.

- Wheel

Many people think that the wheel is the greatest invention of all time. Around 3500 B.C.E., the Mesopotamians invented the wheel, but mainly for pottery-making. It took about three centuries before the first wheel was attached to a chariot and it could only get better after that.

In our modern life, we take the wheel as a ubiquitous piece of engineering that we rarely pay attention to. Before this invention came to surface, humans were limited in terms of transportation and haulage. That being said, the wheel was only one part of another life-changing invention: the wheel-and-axle. In other words, the idea of attaching a wheel to a non-moving platform in a proper configuration so the two could work together.

- Paper Currency

Before money, trade was the commercial exchange of goods and services. Money took various forms throughout history including precious metals, coins, foods, vegetables, livestock, and basically anything else useful as tradable bartering assets. Again, China was the first to make use of paper money in the 9th century, and Europe followed suit in the late 1600s.

Despite having no intrinsic value and initially being used as legal-binding notes issued by banks as a promise of future payments, paper money soon became the most common bartering asset to purchase goods and services. Paper money started a new era of trade that transformed the face of economics at a global scale.

- Printing Press

Thanks to Johannes Gutenberg, the spread of knowledge and historical records reached an unprecedented pace. In 1439, he revolutionized note-making, turning it from a hand-written form to a printed one. He devised the equipment that would allow ink to be transferred to pieces of paper repeatedly, making the entire process of writing much quicker than it had ever been before.

Prior to the Internet, no single innovation contributed more to educating the world. Gutenberg built his equipment based on existing presses with the use of a mold to increase production speed and capacity of lead-alloy type pieces. Not only was the assembly effective, but it also made books much more affordable for the lower classes. By 1600, the Gutenberg presses printed more than 200 million books.

- Electricity

It would be unfair to credit the invention of electricity to one person, as the idea developed over the course of thousands of years. Thales of Miletus was the first to research the phenomenon, but Benjamin Franklin is generally regarded as an American Renaissance man who helped us get a better understanding of electricity.

It is certainly impossible to overestimate the importance of electricity in human civilization. Other inventions such as the light bulb, battery, computers, toasters, and even coffee machines are the extensions of electricity's potentials. We have arrived at a point where we can safely say that we can't live without electricity.

- Steel

The unaware will think that steel is a naturally occurring metal, but it isn't. Steel is an alloy comprised of mostly iron and a very small percentage of carbon. The utilization of various metals such as iron and bronze started earlier than 4,000 years ago, but steel took a prominent role in human civilization during the Industrial Revolution.

Mass production of steel began in the 1850s using the "Bessemer Process," a technique used to create steel by using molten pig iron. Since then, steel has been used in the construction of everything from bridges and houses to engines and skyscrapers.

- Antibiotics

Joseph Lister and Louis Pasteur were the first to start the war against bacteria, but it was Alexander Fleming who propelled the medical world to take a giant leap ahead in the same battle thanks to his discovery – albeit accidental – of the bacteria-inhibiting mold we now call penicillin in 1928.

Penicillin proved to be a major step forward in the world of antibiotics and was used widely throughout the 20th century.

Although Fleming eventually abandoned his works on penicillin in the 1940s, his findings were further researched at the Radcliffe Infirmary in Oxford by Howard Florey and Ernst Boris Chain, funded by the U.S. and British governments.

Penicillin finally entered mass-production after the Pearl Harbor bombing. In fact, by 1944, we had enough penicillin to treat all the wounded Allied Forces in World War II. Death by bacterial infection dropped to only 1% in WWII from 20% in the previous war. Penicillin has found to be effective at fighting all kinds of infection such as influenza, tuberculosis, and some sexually transmitted diseases.

- Refrigerator

Up until the early 20th century, ice and snow useful natural elements to help preserve foods and medicines. Ice-making machines were available but mainly used in large factories and breweries. Home refrigerators became typical household appliances in the 1920s following the development of environmentally-safe chemicals used to refrigerate.

The ability to keep food at a cold temperature revolutionized the food industry and eating habits; refrigerated trucks also made sure that all food would be delivered in desirable condition. It is certainly convenient to have easy access to fresh meats, vegetables, and fruits every single day even if there isn't a farm nearby where you live.

- Alphabet, First Millenium B.C.E.

The alphabet was developed over the course of hundreds of years by many people in many places including ancient Egyptians, ancient Greeks, ancient Romans, ancient Hebrews, and even ancient Chinese. Alphabetization came to surface around the first millennium B.C.E. Yes, it took a thousand years for the world to make a universal alphabetical order that kids in today's elementary schools can memorize easily. Alphabetization has made everything much more searchable.

- Language

There is no single clear point when and how language started to develop. Human's ability to invent and use many forms of language — verbal, written, body language, codes, symbols — is arguably the most powerful force behind civilization.

It's a system we use to communicate ideas, feelings, emotions, war strategies, and intentions. Without understandable language, people would not be able to cooperate and negotiate their terms; simply put, we probably wouldn't survive this long without language.

- Theory of Evolution

In many cases, the study of physics is much more complex than any other branch of knowledge, except perhaps when it comes to Darwin's theory of evolution. At least until now, Darwin's ideas of evolution offer the best explanation of our origins and the rest of living organisms in the planet; who our ancestors are, what animals are direct descendants of dinosaurs, why and what lives where, and so on. The search for the true first origin of life continues, but from all discoveries so far, nothing contradicts the theory of evolution.

- Mirror

Prior to the mass production and widespread use of mirrors, people could only see their reflections on calm water or very shiny metallic surfaces. Of course, what they saw could not do justice to their actual reflections, mainly due to an uneven surface or poor lighting.

The mirror, which came about during the Renaissance, changed that. A single mirror can show exactly how you look in front of others, which in turn forces us to develop manners of eating, grooming, shaving, and behaving.

Thanks to the mirror, you don't have to ask how you look when wearing a jacket or raincoat, and you can practice table manners on your own if need be. Psychologically, a mirror is the embodiment of self-consciousness and retrospection because you can see yourself as if you have the eyes of others.

- Digital Music

The first digital recording and playback system was invented by James Russell in 1970, who was then a scientist with the Pacific Northwest National Laboratory. With his method, sounds were represented by a pattern or string of 0s and 1s etched on a photosensitive platter.

A laser read the binary arrangements to produce music. A set of converters were necessary: analog-to-digital for recording and digital-to-analog for playback. Unfortunately, Russell did not manage to convince the music industry to use his invention. CD manufacturers including Time Warner had to pay \$30 million for patent infringement 20 years later as a settlement to Optical Recording Co., James Russell's former employer.

- Microscope

For many thousands of years, humans couldn't see things smaller than a piece of sand. Everything changed when the microscope came about in 1650. We gained the ability to examine small things like food particles, bacteria, and other microorganisms.

Despite its prominent usefulness in scientific research, it remains unclear who invented the microscope. The debate usually revolves around two parties: either Hans Lippershey or a father-son team, Hans and Zacharias Janssen.

- Railway

George Stephenson, with his "Rocket" locomotive, made headlines during the 1820s when commercial train networks were still in their infancy. He was a real pioneer and was appointed as the engineer for Stockton and Darlington railway in 1825.

It took only four years before the first public roadway was opened. Both Rocket and the opening of the railway became powerful forces to drive the development of the industry. The next major improvement in the business would have to wait until the diesel engine came about in the 1890s.

- Internet

The Internet doesn't belong to anybody, not even Google, but it is for everybody to use. While the Internet is an invention, the whole system was the result of many people's contributions. The precursor of the Internet, known as ARPANET, was a project by the U.S. Department of Defense in the 1960s.

Vint Cerf and Robert E. Kahn later developed the Internet protocol suite (TCP/IP) that became the standard Internet networking protocol until today. The rise of technology, email, and instant inexpensive overseas communication suddenly changed the way we live, conduct business, learn, and spread knowledge.

- Camera

Paper, writing, and the printing press have all allowed us to study history and preserve knowledge, but things would have been very different without photographs. One thing that a camera does best is stop time and make an event more easily remembered by future generations. The first permanent photograph was captured in 1826 by Joseph Nicéphore Niépce using a camera designed by Charles and Vincent Chevalier. Figuratively speaking, the camera has witnessed its own evolutionary stages from the obscure to DSLR.

- Beer

The invention of beer is estimated to have taken place around 10,000 B.C.E. in present-day Iraq by the ancient Mesopotamians. By 2000 B.C.E. the Sumerians were able to brew eight different types of beers with distinctive strength from strong to good dark; the recipes soon spread elsewhere. Ancient Egyptians also had a taste for suds.

- World Wide Web

It would be blasphemy to list the greatest ideas of all time without including the World Wide Web. It's a way of accessing data. Tim Berners-Lee may not be the father of the Internet, because the moniker goes to the two people who invented the Internet protocol suite. However, Berners-Lee is the one who made the Internet more easily accessible by all. The first website in the world was hosted on Berners-Lee's computer.

And that's that! I know, this was a long list, but you've made it through. I hope you've taken some inspiration from this article, as the most influential ideas and inventions were sometimes made by mistake, while others took years of perseverance.

- Electric Traffic Light

Imagine driving on today's busy roads without traffic lights. Credit for the first electric traffic signal goes to James Hoge, although early forms (both manually-operated and electric-powered) had existed earlier in many parts of the world.

The system based on his design was first installed in Cleveland on August 5, 1914. He devised a wired traffic signal attached to a single post to be installed on each corner of an intersection. Because the lights were all wired and configurable, the police and fire departments could adjust the rhythm of lights as needed. James Hoge filed the patent in 1913 and was granted it five years later.

- Phonograph

The phonograph was another idea put forth by Edison. The first public demonstration of the phonograph occurred in 1877 for the Scientific American magazine. To the astonishment of all who present at the event, Edison cranked his machine and it gave a greeting. The machine played, "Good morning. How do you do? How do you like the phonograph?"

It wasn't just an early model of an answering machine, but a revolutionary piece of engineering that enabled music to be played in the home. It brought music to a much wider audience and promoted jazz with an unprecedented level of aggressiveness.

- Match

The idea of controlling fire for human purposes was remarkable, as was the invention of the match. One of the earliest methods to produce fire was by focusing sunlight through a lens onto timber. It would only work on sunny days, which wasn't too helpful since you needed fire the most during the night.

Striking flint and steel together to create a spark was another common method. The chemical match was invented in 1669, but a non-poisonous match did not come about until 1910. Before this, the number of chemical substances (such as sulfur and phosphorous) required to produce a single spark was more than enough to kill a person.

- Automobile

The steam engine cleared the path for the industrial revolution, and the automobile came out of it. While automobiles are not the first means of land transportation, the way that it's propelled by the engine makes traveling much quicker.

The automobile is also a combination of many inventions; some people may even say that it's like a small home filled with a collection of innovations including wheels, internal combustion, the radio, air conditioning, batteries, and in some cases, a refrigerator.

The 1885 Motorwagen was broadly considered the first automobile, and automobiles are being developed as we speak. The automobile, at least in its early days, was mainly a luxury item designed for the wealthy; the poor simply walked on. Henry Ford with his revolutionary assembly line made cars more affordable for the lower classes.

- Religion

Up to this day, we have no consensus of what constitutes a religion. What we do know is that it may be comprised of worldviews, ethics, organizations, prophecies, life after death, supernaturalism, spiritual beings, and cultural systems.

There are more than 4,000 religions in the world today; based on that, people of different beliefs must be worshiping thousands of gods. The impact of religions on human civilization is wide-ranging from marriage rules to constitution of a country.

- Copernican Theory

Published for the first time in 1543 by Copernicus, it was basically both revolutionary and blasphemous at the same time. It was revolutionary because it defied common sense: anybody could see (not observe) that the sun revolved around the earth and it moved from east to west. It was blasphemy because it contradicted the church.

While there are some inaccuracies in Copernican theory, it did set the movement of modern astronomical observation. It would take a person of great courage to propose an idea that defied common beliefs and religious orders back then.

- Typewriter

In the early 1800s, the world saw the first mechanical typing machine that was used with carbon paper — both were the inventions of an Italian named Pellegrino Turri. The development of modern typewriter started there, and the equipment was finally standardized in 1910.

This means that all typewriters, regardless of manufacturer, followed mostly the same design with only minor variations allowed. An important milestone in the development occurred in 1874 when a typewriter with a QWERTY keyboard layout became available as the Remington Standard 2.

The idea behind the layout was impressive. Christopher L. Sholes, the man who created it, figured out a method to prevent jamming by putting the most frequently used letters farther from each other — not the keys themselves, but the actual type bars inside the machine. It has become the standard layout in modern computer keyboards and most (if not all) typing devices.

- Battery

Our life wouldn't be quite the same if we didn't have batteries, and their history may be much older than you may think.

The first prehistoric batteries may be about 2000 years old. Ancient Parthians filled clay pots with vinegar solution and inserted an iron rod surrounded by a copper cylinder in it. It's believed that they used it to electroplate silver.

However, the first electric battery was invented in 1800 by an Italian physicist Alessandro Volta. It consisted of copper and zinc plates stacked on top of each other and separated by paper disks soaked in brine. While Volta thought that his invention had inexhaustible energy, it actually could not provide energy for sustainable periods of time.

A British chemist named John Frederic Daniel improved the battery and made it more practical 36 years later. Yet, it utilized liquid electrolytes and could be dangerous if it wasn't handled correctly. The end of the 19th century marked the invention of the first dry cell battery which was the first practical and relatively safe portable energy source.

- Periodic Table

The periodic table that we know today was influenced by the same thing presented by Dmitri Mendeleev in 1869 at the Russian Chemical Society. It wasn't the first periodic table, but the first to gain worldwide acceptance from the scientific community.

The main difference between the old-school and modern version of the periodic table is the order of the elements. The older method used atomic numbers while the new one relies on atomic weight. Interestingly, this doesn't change anything, but it remains an important distinction to remember.

- Flashlight

A flashlight is a pretty simple device — an electric lightbulb connected to a switch. The first U.S. patent for the flashlight was obtained by a British inventor named David Misell in 1899. Some of the early flashlights were donated to the New York City police.

Because early models were inefficient and needed to take a brief “rest” to stay functional, the light only flashed multiple times instead of being continuous, hence the name.

- Fire Extinguisher

The earliest model of the fire extinguisher was more dangerous to the operator than the fire itself. It was comprised of a cask that contained liquid and a gunpowder chamber made of pewter. The whole apparatus was set off by igniting the fuse.

Once activated, the gunpowder generated an explosion needed to scatter the liquid retardant. It was invented in 1723 by Ambrose Godfrey and patented in England. The fire extinguisher was the subject of development throughout history. Today, the most common models include air-pressurized water, carbon dioxide, and dry chemicals. Each works best when used to put out fire on specific types of flammable materials.

**PER ORDINE DEL PRESIDENTE DELLA COMMISSIONE
IL SEGRETARIO
f.to Luca PISCO**