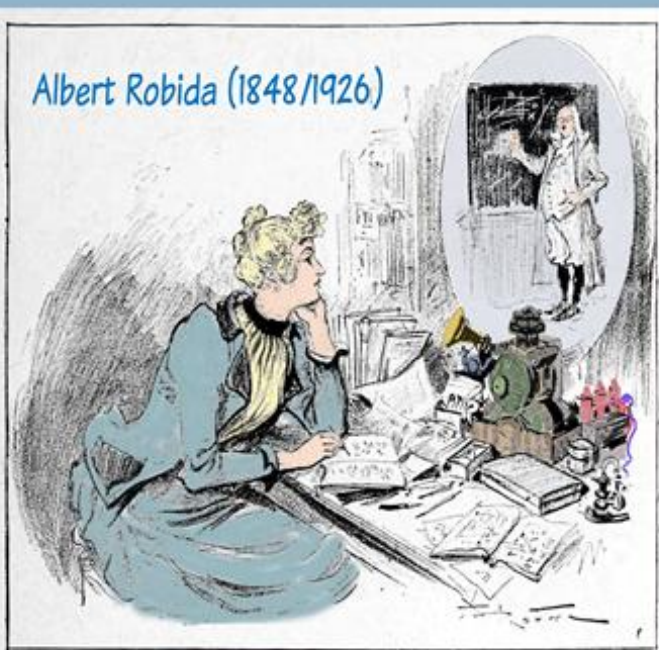


1880... he imagined...
the Internet

Albert Robida (1848/1926)



LES COURS PAR TÉLÉPHONOSCOPE.

English version: William Skyington

ArmorScience production

In the period of enthusiasm that accompanied the International Electricity Exhibition of 1881 in Paris, a brilliant graphic artist, illustrator, etcher, lithographer, caricaturist and novelist named Albert Robida started to imagine a futuristic twentieth-century world... which actually became a reality a century later. His writings, which have been recently rediscovered, are surpassed by his wonderful drawings, which attract collectors. Compared to authors such as Jules Verne, he had the advantage of being an extraordinary graphic artist.

Judged by modern standards, Robida was lacking in technical knowledge, but he imagined a set of services that are found today on the Internet. So we are tempted to ask: Could it be said that Albert Robida invented the Internet? Maybe *yes...*

1880... he imagined
... the Internet

ALBERT ROBIDA



1848/1926

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Cartoonist, novelist, futurist, illustrator, traveler,
Albert Robida marked the end of the 19th century

with the participation of *Association
des Amis d'Albert Robida*

**ArmorScience**

Let's imagine the world of 1880. It's interesting to understand the context of this period, especially for young people who only know smartphones and the Internet. When night fell, in the countryside, house lighting was created by candles and kerosene lamps. Gas had just appeared and was growing rapidly in the city. A sign can sometimes be seen on old buildings: GAS ON EVERY FLOOR. Living without electricity was relatively easy. The first supply of electricity dates from 1881. It grew in cities around 1920 and spread widely into the countryside after 1950.

Horses made it easy to get around without walking, and the railroad was one of the first industrial revolutions at the end of the 19th century. The horse-drawn omnibus marked the beginning of public transport in the city. Automobiles did not appear until around 1930, and did not become widespread in France until around 1960.

The 1870 war had been fought with rifles, horses and cannons. Communications were reduced to the postal service, whose postman was immortalized by the painter Van Gogh. The telephone was a major attraction of the International Electricity Exhibition in Paris in 1881.

Women's rights were very limited. They were excluded from many professions and their education was mainly devoted to household care. In 1880, the first signs of rebellion were the *suffragists*.

Those were the times in which Albert Robida lived. So let's introduce him.

LIFE in 1880

The industrial revolution just started.



We light up with a candle or an oil lamp,
and gas just arrives into homes.
We communicate by post and telegraph.



We still travel on foot or on horseback, in a carriage or in an horse towed omnibus.

Women do not vote and many activities are prohibited to them. They start rebel.



LE TRAMWAY AMOUREUX

« Le tramway amoureux ».
Illustration paru dans la revue
« La caricature » du 12 mars
1881.
Rédacteur en chef:
Albert Robida.



We are emerging from a war that was waged on horseback, with saber and cannon.



My name is Albert Robida. I was born in the heart of old Compiègne in 1848. My father was a carpenter and he would have liked me to take over from him. Alas, I was short-sighted and therefore very clumsy. So I was unfit for manual work.

Fortunately, I had elegant handwriting. My father negotiated my entry into the office of a solicitor in Compiègne, Maître Rouard. Along with this activity, I attended the free municipal drawing lessons of Monsieur Félix Glatigny, who became more famous for his boxes of colored pencils than for his painting. I enjoyed his lessons and even received the first drawing award from the city of Compiègne in 1866.

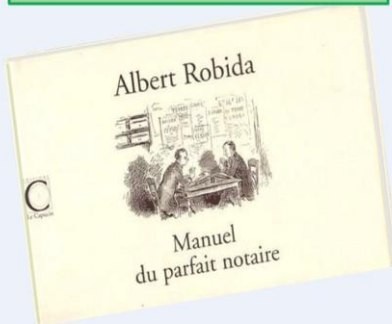
But the solicitor's office bored me. I wasn't made for that profession. So I continued to draw, and sketched my colleagues. I finally used my savings to publish a little book entitled *Manual of the Perfect Solicitor*. This humorous book did not please my employer, who decided to part with my talents. But this book led to my vocation and future.

At 18, I left Compiègne and moved to Paris.

Albert Robida's First Steps

Albert Robida was born in Compiègne in 1848, where he spent his childhood and adolescence.

Short-sighted and clumsy, he becomes a solicitor's clerk. He is deeply bored there and devotes himself to caricature.



He dares to publish his first book which is a humorous review of his work.

This book is not to the liking of his employer, but Robida has found his way: he will be a cartoonist.

18 years old, he leaves Compiègne with a view to develop his talents in Paris.



What could I do in Paris? I met up with authors of the humorous press, and I drew caricatures for them. I made friends with Georges Decaux, director of the “*Librairie Illustrée*”, who was interested in my drawings. Under his direction, in 1880, I became the chief editor of the weekly review “*La Caricature*”. More than 200 cartoonists joined me, including Caran d’Ache, known for his drawings. My nature pushed me towards caricature and I began to wonder how I should draw. In 1894, after the publication of 652 issues, I left the review and started to participate in several projects.

How many drawings did I produce during my lengthy career? Maybe 50 to 60 thousand?

I have contributed to more than 200 books, either as a designer, a co-author, or even as both a writer and illustrator.

I liked to work in children's books, for I found that children appreciated my images.

ALBERT ROBIDA

JOURNALIST, ILLUSTRATOR, NOVELIST

Arrived in Paris in 1886, he quickly rises to fame.

He will make more than 60,000 drawings, which are very much in demand today.

With some friends, he create *La Caricature*, "political, satirical, funny, prophetic, atmospheric and literary review", and publishes it for several years.



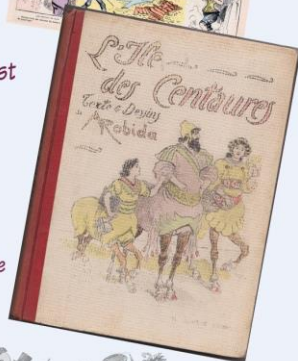
Journalist and
cartoonist



Novelist



Illustrator,
particularly
for young people



But that wasn't all. I had another hobby: travel. Accompanied by my wife and children, I explored France, and we traveled through many European countries. These trips were rarely organised. One of our children would point a finger on a map of France, to choose a country at random, and we would set out on an adventure, and I always had my sketchbook with me. While my wife was looking for more or less comfortable accommodation, I would draw and sketch.

I had a long-standing passion for urban architecture and came back from our voyages with a large quantity of images. I decided to turn them into books, which are still used today as tourist guides. They all bear witness to my time. The *Old France* collection presents our beautiful provinces: in particular Brittany. I finally bought a house in Ploufragan.

Another of my passions has been the search for witnesses of the past. It was a vast project. I finally presented the results of my work during the Universal Exhibition of 1900 in Paris, with a reconstitution of old Paris in over 6000 square metres on the Quai Branly. There were old streets that have now disappeared, or been destroyed by Baron Haussmann, and visitors could discover Molière's house in the Rue Saint Honoré.

Using Robida's drawings, the video producer Laurent Antoine has produced a 3D movie from this reconstitution, which you can see on the Internet.

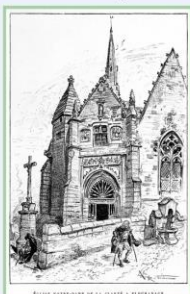
[Le Vieux Paris à l'Exposition de 1900 on Vimeo](#)

ALBERT ROBIDA

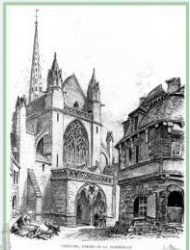
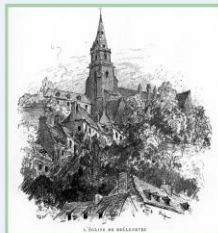
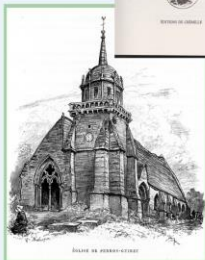
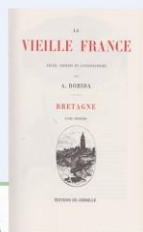
GREAT TRAVELLER

Robida liked to say: Open up your eyes to the beauty of things.

He travels through some of our beautiful countries, and describes them in *La Vieille France*, a series of books which are attractive tourist guides, .



For example, at random from his book on Brittany, one can still visit Lannion, Perros-Guirec, or even Tréguier without getting lost.



He even builds an over 6,000 m² historical reconstruction of Old Paris, during the 1900 Universal Exhibition .



Tour d'angle - Rue des Vieilles-Ecoles



I became famous for my anticipation novels. The first theme was war. At the beginning, the problem of future conflict fascinated me. I tried to imagine what kind of warfare would appear in the next century. I published some works in newspapers such as “*La Caricature*”. Then I put all my ideas together in a book called “*La guerre au XXème siècle*” (War in the Twentieth Century).

I wrote and drew a novel in 1882 with all my ideas for the twentieth century. I completed them in a second book in 1892. Read my two novels: “*Le Vingtième Siècle*” and “*La Vie Electriques*”. Compare my ideas with what you know, and with likely developments that are only beginning.

I was impressed, indeed amazed, by what I discovered at the International Electricity Exhibition in Paris in 1881. From there, I described and drew what might be the life of a family in 1953. Look through the present exhibition and tell me if I was wrong. The most fascinating thing was to describe the profound modifications in this modern society. Many people have heard about my telephonoscope, and the important changes it was to bring into everyday life, but I also planned a society where:

- Women take the upper hand over unfortunate men, who would be forced to defend themselves.
- Transport would be far more rapid.
- Food production would be handled by massive industries.

But, I'll let you browse the present exhibition and discover everything I imagined.

ALBERT ROBIDA ANTICIPATION

From August to November 1881 is held in Paris the International Electricity Exhibition.

Electric bulbs, the electric tram, the telephone, the theatrical telephone and many other discoveries inspire Albert Robida in his 3 anticipation novels.



L'Exposition Internationale de l'Electricité de 1881 à Paris

1887

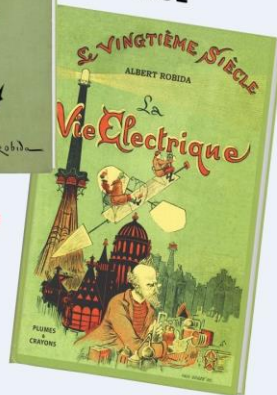
1882



LA GUERRE
au Vingtième Siècle

These three novels
will make him
famous.

1892



Movements for women's right to vote in France only date from the early 1880s. The situation at that time had barely changed since the Middle Ages. Women had no basic rights other than those of procreating and managing household goods. Some of them had won advanced positions, but they were mostly aristocrats or well-born bourgeois women. Under the leadership of "Olympe de Gouge", the French revolution was about to create the declaration of women's rights in 1791. But the Convention, by a very small majority, had rejected the project.

When Robida wrote "*Le Vingtième Siècle*", a few women began to follow the English suffragettes.

Robida became a strong advocate for the empowerment of women. At the *Political Conservatory*, women entered a government establishment where young people who were destined for politics received a special education. That was De Gaulle's idea in 1945 when he created the "E.N.A. (National School for Administration).

In Robida's novels, which take place in 1953, women fought for the right to vote and be elected: a right that they acquired in 1945. They created the women's party that resulted in lifting the interdictions.

This completely changed the behaviour of the parliament. Some became ministers, such as their leader "Louise Muche" who entered the government with the Interior portfolio and provided the support of its 45 female votes to the majority.

ANTICIPATION WOMEN AND POLITICS



« La République Citée » par Robida (1843)

Through *La Caricature*
and in his novels, Albert Robida
emancipates them.

He invents the Political Conservatory,
a precursor of the French National
School of Administration (E.N.A.)
where women are very active students!

They also become electors, officialy
eligible and potential
ministers.

In France, they will have to wait until
1945 to obtain these rights.

In 1880, women were not al-
lowed to vote, to be doctors,
lawyers, solicitors.
Mathematics and Science are
forbidden to them.



In 1880, studies for a woman were limited to learning about household care. They had access, for the well-to-do classes, only to the "humanities" which excluded science and medicine.

In terms of jobs, women could not exercise legal activities as judges, lawyers, solicitors... and, in medicine, they were confined to subordinate jobs and therefore could not be doctors. In her novels, which take place in 1953, women had access to all professions including stockbroking, and some women became prefects.

For justice, Robida explained: In the "*Salle des Pas Perdus*" of the courthouse we now see that female lawyers tackle various great cases that are exclusively reserved for them. The influence of the feminization of justice has led to undeniable social changes. Justice has long since sheathed the old sword that was part of its attributes. At the beginning of this century, philanthropists obtained the abolition of the death penalty, this last vestige of centuries of barbarism which has swept through humanity.

It took a hundred years for philanthropists to make these changes, which were starting to worry certain men.

In all careers, women show themselves to be more and more superior to us poor men! So here is my ward: a young girl, barely out of college, who has just placed herself among the ranks of great lawyers.

Gradually, women began to overwhelm the male race and unfortunate men, overwhelmed by this female tide, were led to create the league of men's rights.

Robida proclaimed:

”
The stronger sex is the lovable sex, which encompasses our wives. We, poor men, used to slander them as the weaker sex. Weakness is natural to man, just as meekness and kindness are their particular special prerogatives. The sex, that oppresses us, has always posed as a victim and always affects to claim to be led and terrorized by us. But men, brothers, husbands, my colleagues: the truly frightened victims are us!!

ANTICIPATION WOMEN IN SOCIETY



In his novels, set in 1953, women have won access to all jobs in society.



Lawyer



(ADAM LA PRÉFÈTE.)

Prefect



M^{lle} LA DOCTORESSE BARDOZ.

Physician



LA LIGUE DES REVEILLATIONS HAUCAINES.

To defend themselves, poor men, are reduced to create the Emancipation of Man League.



Recall that in 1870, a lightning war ravaged France. After defeat, France was subjected to a heavy territorial and financial ransom. Robida was violently anti-German, and warfare was one of his major subjects.

The war he described was premonitory. The major invention at the end of the 19th century was the *chassepot*, a form of the French musket.

Robida imagined three forms of warfare that would turn the 20th century upside down.

- The first one was the use of “rolling guns”, which foreshadowed tanks (which did not appear until the end of the First World War).
- The second was the importance of aircraft which, too, did not appear until 1914.
- The third was chemical warfare, which gave rise to heavy damages during 1914 conflict.

He predicted, 50 years before the Blitzkrieg and Heinz Guderian's breakthrough in the Ardennes, that future wars would be won in aircraft and “rolling guns”, a remark taken up by De Gaulle in 1940.

Robida spoke of an extraordinary form of nasty warfare: “the miasmas warfare, that we would now designate as *microbial warfare*. He described discoveries that he found frightening:

The new warfare brings about the removal of old armies and the complete rejection of old military systems. This nasty war is performed only by the offensive medical corps in possession of devices that carry the most harmful horrors to the enemy. No more explosives as before, no longer even chemical artillery, but only the artillery of horrors, germs and bacilli sent electrically into enemy territory.

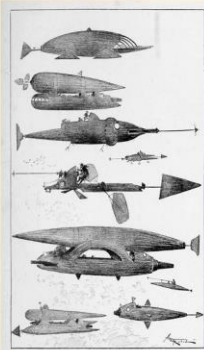
When you think about how society was disrupted globally during the Covid-19 pandemic, what he described was premonitory.

ANTICIPATION THE WAR IN THE TWENTIETH CENTURY

Through a series of drawings and absurd texts, A. Robida describes the war of the future in the review *La Caricature* of October 27, 1883. There are: submarines, airplanes, armored cars, colossal shells, gas asphyxiating, disproportionate cannons ...

There is even "The Neutral people" who witness the carnage, from their window.

The battlefield



Aircraft

La guerre chimique



GRANDS LIONS, LUTRANT DANS L'AMBIÈRE CHIMIQUE.

1883: Robida

The war will be won in aircraft and rolling bombards.

1936: De Gaulle

Our successes tomorrow and our victory, yes, our victory, will one day come from our armored divisions and our attack air force.



wheeled bombards

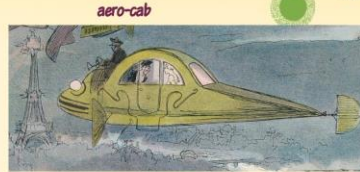


The field of transportation was also an inspirational source for Robida. When we see images of Parisian life in 1890, we are surprised by the number of vehicles circulating in an anarchic manner on the boulevards. To escape this confusion, Robida abandoned the automobile, which rarely appears in his drawings, and suggests that cities be redesigned architecturally so that mini-helicopters can circulate and land. We would now call them “drones”. Private drones, aero-cabs, and even aero-buses, circulate over Paris, invading the sky. Have a look on these traffic jams of drones at the exit of the Opera

To handle these flying machines, it would be necessary to design new infrastructures and in particular landing rooftop platforms, an example of which can be seen on this panel. These drawings can be compared to the current reality of flying taxis in Shanghai, which land on platforms whose silhouette is very similar to those designed by Albert Robida.

ANTICIPATION CITY TRANSPORTS

As early as 1880, A. Robida imagined air traffic to relieve the traffic jams in Paris. His devices are akin to what today we call drones.



Note the similarity between Robida's design and the picture of the platform for air taxis (top left) currently in service in Shanghai.



Robida imagine traffic jams after a performance in Paris Opera house .



For long-distance transport, Robida foresaw two techniques that

went on to compete in the market.

First, it's the air, where a gigantic aircraft can carry up to 400 people like its current counterpart: the A380. Robida described it as follows:

In the west appeared the gigantic "Aeropaquebot" of South America majestically.

But ground transportation had not had its last word. Several attempts at pneumatic systems were born, such as the atmospheric railway of Saint Germain en Laye. Further trials took place south of London in 1864 in Thomas Rammell's 500-metre tube. These experiences were swept away by the railroad. Robida was inspired by it, and imagined what he called "the *Tube*", formed by gigantic pipes connecting the European capitals. Powered by a pneumatic system, the vehicles would cover great distances in a few hours, making our High Speed Train, appear as a witness to the past. Today the train takes us in three quarters of an hour from the west of Brittany to Paris, and the express puts takes 28 minutes. Electricity and compressed air take us rapidly through the "tube".

In 1889, in " *La Vie électrique*", he invented the latest technology of the 21st century, the hydroloop, the first tests of which were currently taking place.

But this transport by the "Tube" competed with the Telephonoscope. Customers had the choice between shopping in department stores that were within the *Tube*, in reach of their home, or using the store's e-commerce service.

Let's follow Madame Lacombe who traveled from Switzerland to Paris by the "Tube" regularly.

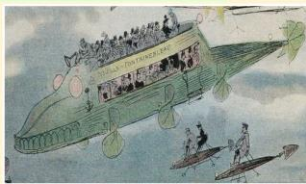
Madame Lacombe prefer the *Tube* for shopping, instead of being presented by the telephonoscope with fabrics or clothing that she and her daughter might need.

ANTICIPATION : LONG-DISTANCE TRANSPORT

Airships inspire A. Robida. He imagines flying objects (without worrying about their realization).



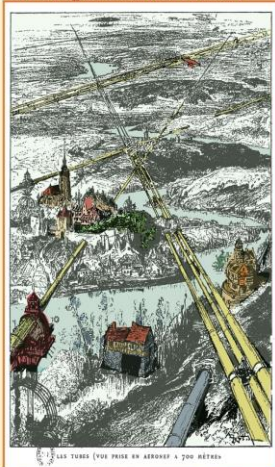
2005: AIRBUS A 380



1883: the Aéro-liner

While the first underground was inaugurated in London in 1840, A. Robida designed huge tubes connecting European capitals. A pneumatic system propels wagons at extraordinary speeds. Brittany is one hour away from Paris !!

1883: long distance tubes network



LES TUBES (VOI PRES EN AEROS) A 700 METRES.

La vie électrique par Robida (1892)

2023: Hyperloop .

An Elon Musk project: capsules circulating in a very low pressure tube.



tube wagon .



UN WAGON DE

« Le 20e siècle » par Robida (1888)



« Le 20e siècle » par Robida (1888) - La ligne Paris-Madrid-Gibraltar-Tanger

It's interesting to compare what Robida *knew* with what he *drew*.

The telephone had been one of the revelations of the 1881 International Exhibition. He had an old dream of being able to talk and hear one another from a distance. Robida was enthusiastic about this technique and the young ladies of the telephone who ensured the switching of messages.

Let's recall that this service was primarily urban and that France was very backward until the middle of the twentieth century. In the countryside, there was only one line in the villages around 1950. The generalization of the telephone and its automation were only performed in 1980, more than a century after its introduction.

Another dream was finally fulfilled. The recording and reproduction of sound appeared in 1877 with Edison's roller phonograph. It recorded with a stylus that transformed sound vibrations into an impression on a wax roll, and a reverse operation was used for reading. The roll was for single use. The printed disc did not appear until 20 years later, followed by the long player in 1950 and the compact disc in 1980. All these technologies have been swept away by MP3 today.

KNOWLEDGE IN 1882

SOUND

In 1882, telephone exchanges were set in major French cities.

The connection between subscribers was manual and required a large workforce.

telephone young ladies



Only 200 subscribers
in 1883.



1877: the roller
phonograph

The wax roller gramophone, invented by Thomas Edison in 1877, was supplanted by Berliner's disc phonograph in 1887, by the LP in 1950 and by the CD in 1980

Today The digital MP3 format swept away these witnesses of the past..

1885: the disc



Robida could not have known about these developments, yet he made a large place for microphones and acoustic pavilions in his novels.



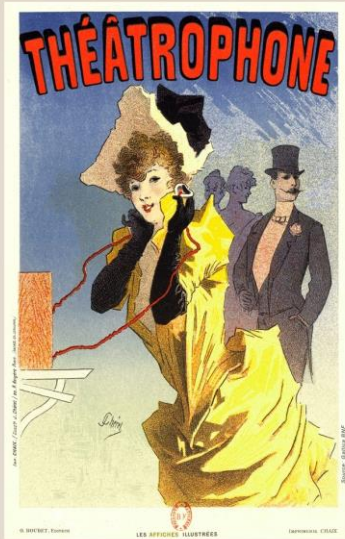
Clément Ader was famous for his aerial exploits. He is less known as a prolific entrepreneur who installed the first private telephone network in Paris. During the International Electricity Exhibition held in 1881 in Paris, he presented his “theatrophone” as a technical feat:

Microphones were placed at the back of the pavilions on the ramp of the “Opéra-Comique” and the “Comédie-Française”, with the pavilion facing the actors. They were connected by a complex electrical system to telephone headphones installed in two rooms of the exhibition. The left earphone picked up the action taking place on the left of the theatre stage, while the right earphone retransmitted the action from its side.

The press echoed this new phenomenon. Those who attended the experiments noticed a particular phenomenon that could be called “audio perspectives”. The broadcast was not always easy. In addition to the dramatic plot, listeners followed the slightest hiss, the smallest crackle, the various rustles and the hubbub.

When the exhibition closed its doors, Clément Ader's installations were taken over by the “Musée Grévin” in Paris, which offered, among its many attractions, the repertoire of “*Eldorado café-concert*” where the microphones were now installed. One of the regular theatrophone subscribers was Marcel Proust, passionate about Wagner's operas. The theatrophone closed its doors in 1881.

KNOWLEDGE IN 1882 THE THEATROPHONE



« Affiche : Le théâtrophone » par Jules Chéret (1880)

The Theatrophone who inspired Robida, will extend its career at Musée Grévin until 1931. Marcel

Proust was one of its subscribers.



Terminal of Theatrophone

Star of the 1881 exhibition, Clément Ader's theatrophone allows you to listen choosingly to the performances of Opéra, Opéra Comique, and Comédie Française.



At the end of the 19th century, performance halls, illuminated by electric bulbs, diffuse live operas and theater plays.

Advertisements appear in newspapers.

GRANDS MAGASINS DUFAYEL de 2 heures à 6 heures
Attractions variées

THEATROPHONE. — Auditions de ce soir : Français
Le Marquis de Priola. — Opéra-Comique : Lakmé. —
Nouveautés : La Bande à Léon.

Spectacles du 14 février

Opéra : Les Barbares. — La Korrigane.
Français : L'Enigme.
Odéon : Tartufe. — La Gageure imprévue.
Opéra-Comique : Grisélidis.

After his visit to the 1881 exhibition, **Victor Hugo** wrote:

"It is very curious. We put on our ears two earphones corresponding to the wall, and we hear the performance of the Opera, we change our earphones and we hear the Comédie Française, We change again and we hear the Opera Comique.

The children were charmed and so am I."



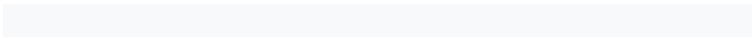
Images played an essential role in Robida's work. The end of the 19th century was revolutionary in this area.

Getting painted was an aristocratic favor until the end of the 17th century. Then came engraving, which made it possible to multiply the portraits. It was more and more popular in the upper middle class. The invention of the daguerreotype in 1839, then film photography, gradually reached all layers of society.

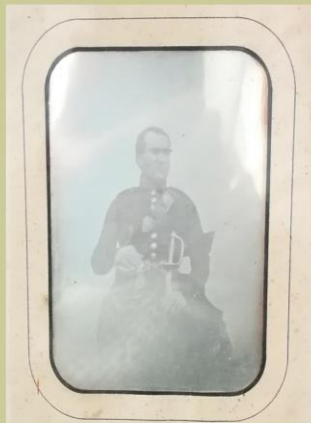
The first flexible Kodak film dates from 1880. It popularized photography by introducing it to the general public. You simply bought a camera with its film, and then you took your pictures. You went back to the store with the camera, and you left with a new box. Then you would come back to get the photographs.

Press photography and the invention of the postcard became widespread at the end of the century.

Robida, a man of the press, was naturally familiar with these developments, but in his drawings, he emphasized animated images, whereas only the beginnings existed when he wrote "*Le Vingtième Siècle*."



KNOWLEDGE IN 1882: STILL IMAGE



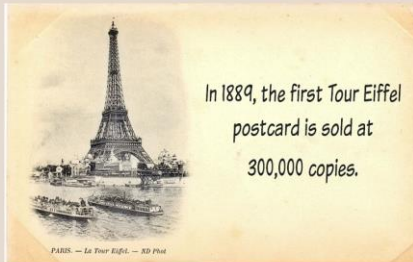
In 1835, Louis Daguerre makes the first stable photography process.

In 1900, Kodak launches the first model of the Brownie series, using films.



Photography revolutionize publishing.

It makes the success of *The Illustration* founded in 1843, and from 1891, first one to publish photos



In 1889, the first Tour Eiffel postcard is sold at 300,000 copies.

Although he it late to discover these innovations Albert Robida it greatly inspired by them.



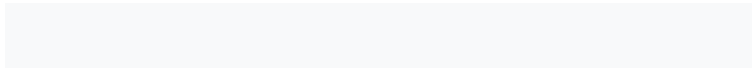
The Lumière brothers invented the *cinematograph* in 1895. The first, two-second film, was realized by Graham Bell in 1891. Robida obviously could not rely on these innovations, but most of his drawings are based on movies.

His knowledge was probably limited to Emile Reynaud's *Praxinoscope*, presented in 1876. A cylinder contained about a hundred small images, which made it possible to reproduce movements. This equipment used retinal persistence, which causes the brain to memorize an image for a tenth of a second, and the eye only distinguishes two different images if they are spaced apart in time of a tenth of a second.

The Lumière apparatus shown here was based upon this principle. Note that the film, after passing in front of the lamp, dropped into a basin. Take-up reels came later.

Other innovations that Robida could not imagine were radio and its extensions to broadcasting or television. Marconi presented these principles in 1896, but the first retransmission was not made until 1921, broadcast from the Eiffel Tower.

Robida could not imagine the transmission of information by radio, so he imagined that sounds and images would be sent by cables.



WHAT ROBIDA COULDN'T KNOW

In 1882, when Albert Robida imagined life in next century, cinema and radio were unknown.

cinéma



The Lumière brothers device

At that time, only the principle of moving picture was known, via Emile Reynaud's praxinoscope, invented in 1876.



Praxinoscope

In 1895, the Lumière brothers make the first movie projection.

Though he cannot know these developments, yet in his novels Robida gives prominence to the animated picture.

radio

In 1899, Guglielmo Marconi succeed doing the first radio trans-Channel connection. In 1921, first broadcast from the Eiffel Tower



In 1900, in *Punch*, a cartoonist, emulator of Robida, imagined wireless messaging.



Robida presented a few drawings or writings describing the technological aspects. Its interest is primarily focused on the uses that are made of it.

As for the image, he imagines large flat screens, most often oval in shape, based on a crystal plate.

Here is his description.

“A kind of lightning crossed the crystal plate, a luminous point formed in the center, grew with vibrational movements and sparkles, then suddenly the stage of the Opera appeared with the greatest clarity. At the same time the thunder of the orchestral brass erupted. And when the show was over, the crystal plate went out and the living room was plunged into darkness.”

The flat screen used by television, computers, tablets, smartphones and connected watches was the outcome of studies carried out at the National Centre for Telecommunications Studies in Lannion from 1978 to 1986. Current technologies are derived from it.

For shooting, we do not know how to operate at Robida, but the drawing presented here and its comparison with professional shooting cameras is interesting.

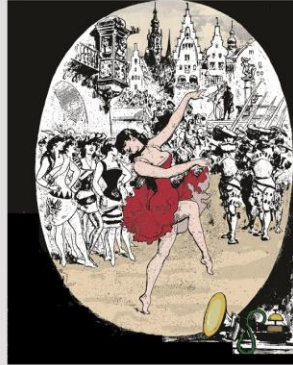
TECHNOLOGIES ACCORDING TO ROBIDA

Robida's reference is the Passage des Panoramas, located in the 11nd Arrondissement of Paris, described by Emile Zola in *Nana* in 1867, where panoramic paintings of the major cities of France and Europe were projected.



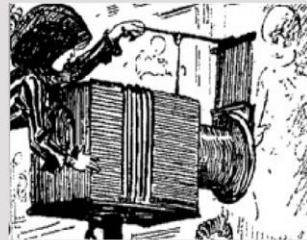
At home, news or shows can be seen on an either rectangular or oval screen.

screen



Robida was unaware of the cinema invented twelve years later. Yet the camera he draws here is very close to the modern report video camera.

camera



For sound, Robida brought together what he knew at the time.

The *Telephonoscope* used the acoustic cone for reproduction and a microphone for transmission.

This is how he described the tele-phonograph, an essential accessory for his Telephonoscope. It was no longer necessary to hold the conductive pipe to your ear and speak into the receiver. It was enough to speak in an ordinary voice at a short distance from the instrument, and the system, both ear and mouth, soon produced detailed syllables of the answer.

This was a hands-free system. Robida could not imagine the echo or Larsen effect that such a system would produce. It was not until the 1980s that these problems were solved, thanks to the technical progress of electrical and acoustic signal processing.

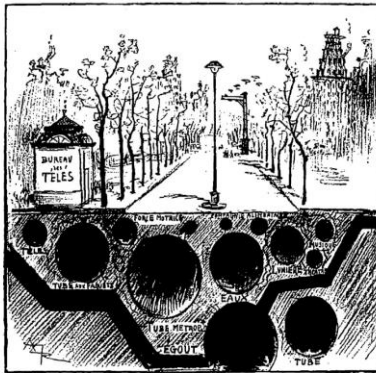
Robida imagined services sent by wire. He understood that they would require many cables, especially in cities. He then designed a Parisian basement with a multitude of pipes, which is very close to current reality.

TECHNOLOGIES ACCORDING TO ROBIDA



Sound

On these pictures, people use a microphone and an acoustic pavillon. They do not know that this will create a hiss called "Larsen effect". This technical problem will be solved 130 years later.



infrastructure



today

Routing all the services invented by Robida will need many galleries for installing cables in the Parisian basement.



Robida was aware of the weight of books, and he looked for ways to reduce it.

In his book "*Le Vingtième Siècle*" he invented a laboratory device that led to condensed books. Each author was summed up by a mnemonic quatrain that was painlessly swallowed and easily remembered. It went much further than *The Readers Digest* did at the end of the sixties with their condensed books.

Robida, assisted by Octave Uzanne, invented technology that would store the complete works of great authors on small wax cylinders. Although he knew nothing about the technologies that were to appear in 1975, or the tremendous information storage capacities that have developed since, the result was remarkably close. These little cylinders carried huge quantities of information, just like our USB keys. This product is displayed in the following panels.

His intuition was amazing.

TECHNOLOGIES ACCORDING TO ROBIDA USB KEY

In 1883, in *Le Vingtième Siècle*, A. Robida designed an information compression system in the shape of this retort.

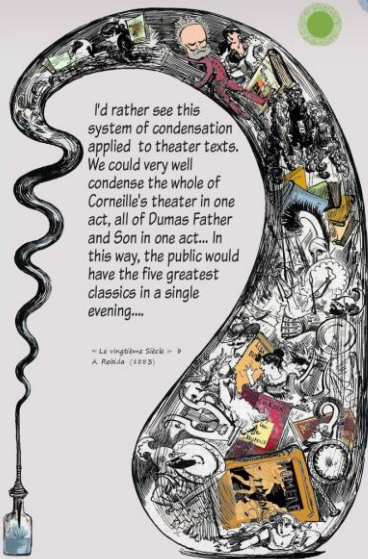
In 1895, in *The End of Books* written with Octave Uzanne, he imagined stocking the content of books and music in small wax cylinders, probably inspired from the cylinders of roller gramophones.



Gramophone's roller



manufacturing the « binding of the future »



I'd rather see this system of condensation applied to theater texts. We could very well condense the whole of Corneille's theater in one act, all of Dumas Father and Son in one act... In this way, the public would have the five greatest classics in a single evening....

— *Le vingtième Siècle* — p.
A. Robida (1883)



binding of the future
The Binding of the Future
(Tubes de luxe.)

All Hugo, Goethe,
Dickens in this
"binding of the
future".



These two drawings are interesting because they show that Robida was aware of the complexity of the system he had created.

On-demand service was handled by operators as for telephone or theatrophone.

The first operator was a service manager who responded to customer requests. This operating method was obviously based upon the young ladies of the telephone. We call an operator, indicate our choice, then we are put in touch with the proposed service, stock market price, opera or poetry.

The second shows an operator completely overwhelmed by the number of wires, coils and motors.

It goes without saying that Robida had no idea of the concept of programming and the Internet software.

TECHNOLOGIES ACCORDING TO ROBIDA HOW DOES IT WORK?

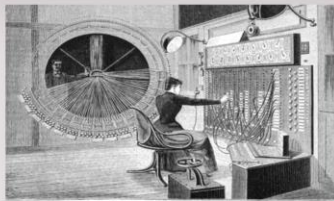


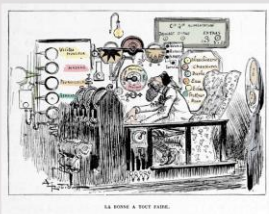
Fig. 8. — Bureau central Au théatrophone, à Paris.

Albert Robida could not imagine the notion of software.

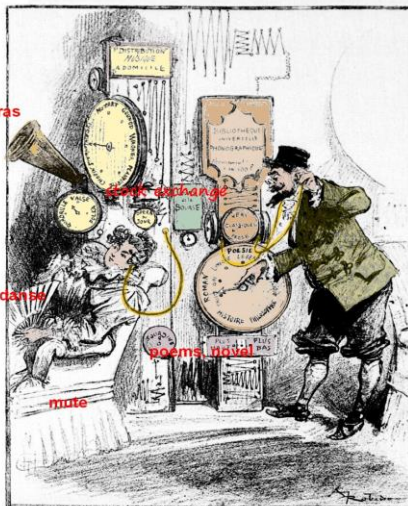
To order services, his reference is the theatrophone's operator .

The customer dictates his choice for a service to the operator who executes it by operating joysticks.

Unfortunate operators are overwhelmed by the number of wires to manage.



— La vie électrique — par A. Robida (1892)



— Contes pour les télégraphes — par A. Robida (1892)

LITTÉRATURE ET MUSIQUE « AT HOME »



In 1883, the telephone was a very new invention. There were only 300 subscribers in Paris. The 1881 International Electricity Exhibition had brought it to the attention of the general public. Thirty cabins were scattered around the hall and visitors could converse with friends or strangers.

The drawing on the right is comical. In 1872, Paris to set up Wallace fountains, named after the philanthropist who had financed them. Robida modified them a little by turning them into phone cabins like the ones he saw at the exhibit.

Robida drew heavily on these techniques to imagine the future, but he also extrapolated the uses of the telephone.

The drawing on the lower left tells the story of a young man who saved a young lady journalist during a duel. He went on to court her every day at 6 pm ever since.

In the drawing at the bottom right, Robida imagined individuals who had become a great disturbance in the telephone service. He called them *camvassers*.

THE TELEPHONE AS SEEN BY ROBIDA

The téléphone inspires the cartoonist



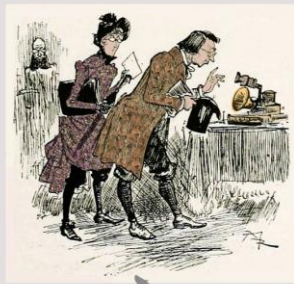
In 1878, the review « La Vie Parisienne » informs the readers of the arrival of the telephone in Paris. The experience is conclusive: we can all be connected!!

The terminal of fire department is equipped with public telephone. It also displays the date: September 29, 1952.



Through his drawings, he leads us to the discovery of this new world.

In His book *La vie électrique* (1891), the solicitors are already there.



By the end of the 19th century, newspapers had emerged everywhere. Jules Ferry's school education system had enabled countless individuals to read and write. Consequently, newspapers were multiplied. Robida himself began his career in the satirical newspaper "*La Caricature*". Major scandals such as the Dreyfus affair and daily newspaper serials such as "*Les mystères de Paris*" created a vast arena for the press.

As a journalist, Robida projected himself into the 20th century by inventing what would later be broadcasting. What is very interesting is the fact that, this spoken information arrives by cable in the family. Indeed, the TSF (Wireless Telegraphy) did not appear until 1895 and broadcasting from the Eiffel Tower in 1921.

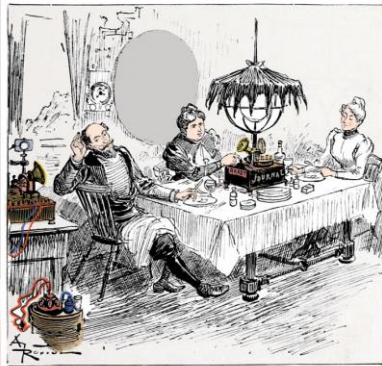
Robida explained how it works: Under the pressure of Mr. Lacombe's finger, the spoked newspaper worked and the machine started the political bulletin with which Mr. Lacombe liked to accompany his morning coffee. The newspaper appeared regularly, four times a day: at eight in the morning, at noon, at six o'clock and at midnight. But as soon as an event occurred, a supplement immediately brought the news to subscribers.

It was like being on the BBC.

SERVICES

NEWS AT HOME

Visionary Robida foresees cable connection of subscribers to the Telephone office as the possibility of mass diffusion of News. He invents what will become the broadcasting in 1921.



LA FAMILLE LACOMBE À TABLE. — La Vieillesse 3166 — par Robida. (1895)



ARRIVÉE DU JOURNAL TÉLÉPHONIQUE CHEZ L'ABONNÉ.
— La Vieillesse 3167 — par Robida. (1897)

As early as 1892, A. Robida imagine remote children watch. Later on, this device will be called a "Babyphone"!

News via cable play a large role and foreshadows Internet radio.



LES PREMIERS VAGABONDS DE L'ENFANT, VUS PAR LE PHONOGRAPHE.
— La Vieillesse 3168 — par Robida. (1897)



In 1880, the telephonoscope had been drawn by Georges du Maurier (father of the author Daphné du Maurier).

Robida popularized the concept by giving it a thousand applications. here is how he presents it:

Among the sublime inventions of which the 20th century is honored, among the thousand and one wonders of a century so fertile in magnificent discoveries, the telephonoscope appears one of the most marvelous, for one of those which will carry the glory of our scientists.

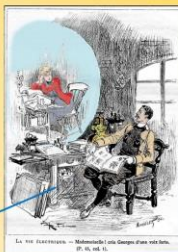
This invention made it possible for an individual, to converse at long distances with people who were connected to networks of wires running around the world. The invention of the telephonoscope was greeted enthusiastically. For a small fee, the device could be adapted to the phones of anybody who requested it.

Robida imagined a ubiquitous terminal. He described it almost as the ADSL technique that made it possible to adapt telephone lines to the Internet. Robida's multifarious tool offered all the services that are found in today's Internet: television, videophone, on-demand services and e-services.

ROBIDA'S INTERNET THE TELEPHONSCOPE



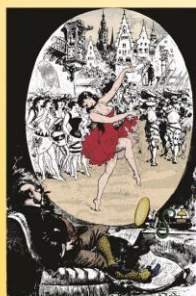
In Telecom's history, videophone has been the Loch Ness monster. Created in 1969, it will only take off with the Internet and smartphones.



The Telephonoscope is Robida's all-rounder

television

the videophone



on demand services



e-services



As we have seen, Robida, was a journalist. He was very interested in the use of new technologies to disseminate information. But, while the press of the time only dealt news with a delay of several days, the technology he invented allowed for immediacy.

In addition, the success of the magazine *L'Illustration* showed him how images were becoming increasingly important to the public. It was therefore natural that he transformed his Telephonoscope into an information dissemination medium. At the same time he invented one of the most popular television services. This instant television information was made possible by several technologies.

An important event has taken place. A correspondent, armed with a pocket-sized Telephonoscope, is controlling all electric communications. He points his instrument at a particular subject. Immediately, on the large telephonoscope of the newspaper, an enlarged image appears, concentrated on the limited field of the small Telephonoscope. One could thus be eyewitness of an event occurring far away from Europe.

Without knowing anything about future technologies, Albert Robida described a technique that was very similar to our satellite parables.

This was an opportunity for Robida to create two of his most famous drawings, reproduced here. They correspond to events that marked his time: the Beijing massacres and the colonial wars in North Africa.

THE TELEPHONOSCOPE TELEVISION



Albert Robida invented the
broadcasted news, as today's
BBC.

Marked by the predominance of pictures in the magazine *L'illustration*, Albert Robida sends his telephonoscope all over the world and creates a media wick gives an essential part to the events.

Here we are witnessing the sack of Beijing, an event which had profoundly marked the minds in the end of the 19th century.



The *Telephonoscope* was used in different ways.

These drawings show applications that corresponded exactly to modern television services. At the end of the 19th century, theatre was the most popular show, along with opera. Robida made it a natural application comparable to “*Au théâtre ce soir*” on French TV.

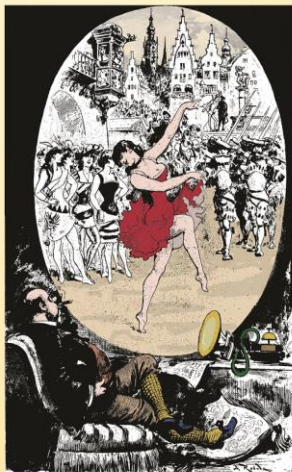
Dramatic art found in the Telephonoscope the elements of immense prosperity. The Theatrophone, already in great vogue, turned out to be fantastic as soon as the spectators, not content to hear, were also able to see the play.

Cabaret shows are reserved for a particular clientele and are not accessible to young girls.

They are a big hit with the gentlemen.

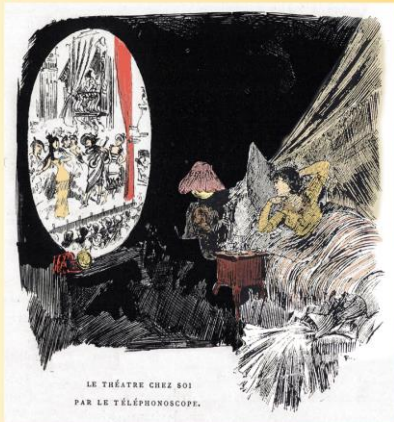
Robida imagined that, the services could be offered to the inhabitants of the distant countries, as in this drawing in Africa.

THE TELEPHONOSCOPE THE TELEVISION



Light shows, operas,
concerts, theater,
everything is on
telephonoscope.

The theatrophone had created the idea of the "home show". Robida goes further by imagining what television will be, like today's luxurious shows.



It even allows to export TV
to distant countries.



Better than the telephone, the videophone allowed sentimental effusions for this young separated couple. Robida went so far as to invent the videophone kiss.

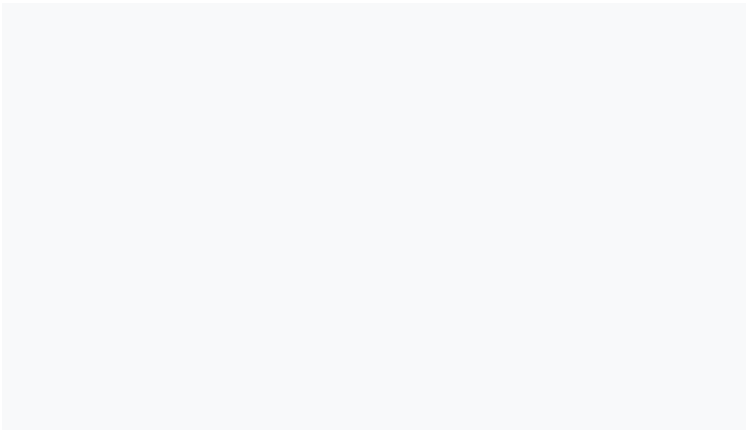
He planned everything. *When you were not a subscriber, all you had to do was to go to the nearest Telephonoscope office, request the corresponding office, and communication is established.*

The *Telephonoscope* was great for travelers. People were no longer worried about going abroad, because they could every evening contact their family at the *Telephonoscope* office.

This is how he drew the image of a father, on a mission in Asia, who was able to see and hear the baby's first cries.

Some links are not necessarily desired. So this wife, who had left home for thirty years, tells her terrified husband that she is coming back to her place at home.

Yes the *Telephonoscope* sometimes had drawbacks.



THE TELEPHONOSCOPE THE VIDEOPHONE



*Social connections
Expatriate in an Asian
country communicates
with his family from
the telephonscopic
international office.*



*Telephonscope
may also
bring a few
storms...*

*... such as this
wife announcing
her return home
after many
years.*



This face-to-face *Telephonoscope* was called a *Picturephone*. Following a gigantic power failure, chance brought the young man in the drawing together with the frightened young girl. He reassured her, and a *Telephonoscopic* romance came into existence.

Robida explains:

And on the Telephonoscope screen, the image ceasing to move in the confusion, gradually became clearer, then suddenly a sharp and precise image appears in the apparatus and did not change any more. So the young man will court by Telephonoscope and get married after an outing in Brittany.

In telecommunications history, the *Picturephone* has resembled the Loch Ness monster. In 1970 the first terminals used the very recent digitization of images and digital transport. But it was a failure, although the Bell company in the USA had created a factory to manufacture them.

The *Picturephone* was to be star attraction at of Biarritz experiment in 1984, but it was a virtual failure.

It was introduced without success in 1986 on the Integrated Services Digital Network. On the Internet, after a long period of stagnation, the *Picturephone* service has exploded due to the Coronavirus.

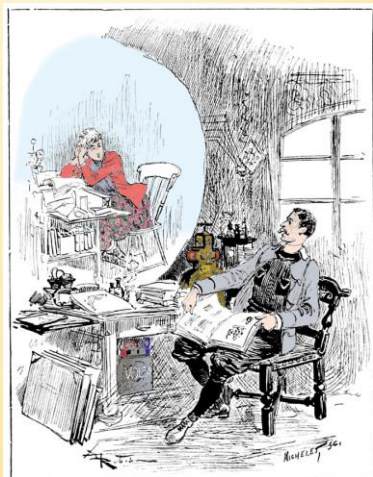
During confinement, it has proven to be an essential tool for maintaining social ties via Skype or Whatsap. Its videoconferencing version has been a resounding success and many families and businesses have adopted it.

This drawing shows the family meeting members on all continents. They've been separated during lockdowns, following Covid 19, and Robida had imagined it in 1889 and described in *La vie électrique*.

Happy suppression of the absence, which makes the happiness of the families often scattered by the world in our busy time and however always gathered in the evening in a common meeting, if they want, dining together

at different tables, well far but nevertheless forming almost a family table.

THE TELEPHONOSCOPE THE VIDEOPHONE



It took over a hundred years for the videophone to finally take off. For Robida it appears as a universal service.

*Happy suppression of absence.
In our busy times, families are often
scattered around the world.
They can gather on evenings and have a
happy hour together*

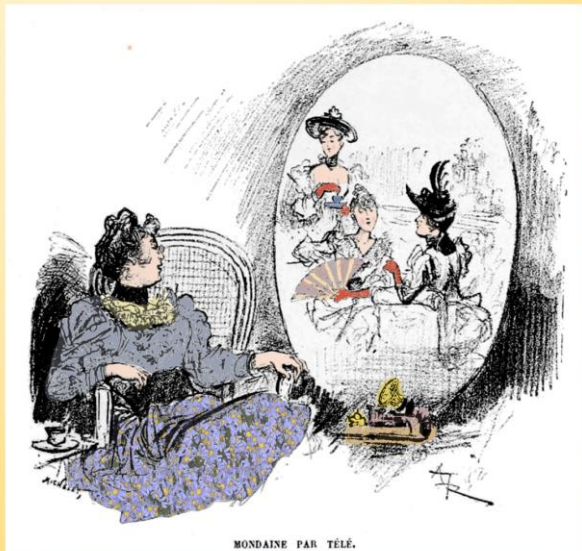


Robida was heir to a long tradition dating back to the 17th century, that of social salons. In these, people talked, made music, played, flirted or listened to authors declaiming their poems. These salons appear frequently in the literature of the 18th and 19th centuries. Some of them became famous, and were frequented by high society. In the European journeys of Casanova (*Story of My Life*) and note that his first instinct when arriving in a city was to document himself on these local salons.

Naturally, around the Telephonoscope, Robida imagined a virtual lounge where people could talk together. Here the ladies are chatting on either side of the Telephonoscope as they might be doing today on our social networks such as facebook.

THE TELEPHONOSCOPE THE SOCIAL NETWORKS

During 18th, and 19th century, literary salons spread. Good society gathered for lively debates around writers and artists.



MONDAINE PAR TÉLÉ.

With Telephonoscope, Robida reinvents them, anticipating what we are experiencing today. Our discussion places are now teleconferences that can bring together dozens of participants, or social networks with up to thousands of "friends".



Returning to the time when Robida drew these images, let us recall the vogue for *Bon Marché*, the first department store in Europe, which served as a model for “Emile Zola” to write his novel “au bonheur des dames”. It was precisely around 1880 that this type of trade developed, attracting the increasingly educated world of the petty bourgeoisie and employees.

The first mail order service was created in 1885 by the “*Manufacture Française d’Armes et de Cycles de Saint-Étienne*” which later became *Manufrance*. It was soon followed by Printemps and Bon Marché. Enticing and well-documented catalogs allowed the public, who could not reach the fledgling department stores, to afford items not found in the provinces.

Robida was aware of this novelty. He took it and made e-commerce an ideal service for his *Telephonoscope*. As an example, he considered a negotiation on the choice of a fabric or a toilet, which was one of the classic niches of Bon Marché. A seller has presented to Madame Lacombe, a character from the book “*Le Vingtième Siècle*”, the fabrics or dresses that she or her daughter need. Later, she would prefer the *Tube* which, in an hour, conveyed her from Switzerland to Paris.

THE E-SERVICES E-COMMERCE



Social and societal innovation,
Le Bon Marché, first
department store in Europe
inspires Albert Robida.
It starts mail-order selling a few
years after his precursory
drawings of "e-commerce":



In 1881, a major event marked Robida. Minister Jules Ferry created compulsory school for boys and girls. This event provided Robida with new ideas. Very quickly, he offered several original teaching concepts.

This is how he gives an example of a traditional history lesson, illustrated by documents projected via the *Telephonoscope*. This concept has been adopted on television by the French department of education.

He also imagined interactive distance learning, eventually in the presence of an assistant teacher. Beyond their lectures, teachers were able to question and even reprimand students.

For Robida, modern technology should make it possible to bring education to everyone, wherever they are, without having to travel. The service that we see here has been the basis of education during the Covid-19 pandemic. It has shown its effectiveness in enabling classes to continue.

THE E-SERVICES E-LEARNING



1881: Jules Ferry's laws create free secular schooling for boys... and girls.

This event impresses Robida who invents distance schooling to democratize teaching.

From night school to e-learning

He imagines TV lessons...



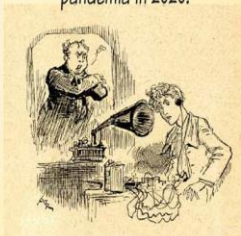
A history lesson on Vercingetorix.



Interactive course. Note the repeater on right side.

But also interactive lessons: the teacher questions the students while they stay at home.

A similar service saved public teaching during the Covid 19 pandemia in 2020.



A student being scolded by his professor.



Apart from lectures, it was possible to take private lessons. Albert Robida wrote:

Estelle, since the age of twelve, followed courses at the Polytechnic Zurich Institute, without leaving her family, only by *Telephonoscope*. A valuable advantage for families far from any centre, who were no longer forced to intern their children in regional high schools or colleges.

The *Telephonoscope* allowed her to vary her schooling.

She also followed courses of the Central School of Electricity in Paris, and took rehearsals from some renowned masters. Unfortunately she had not been able to take her exams by telephonoscope, since outdated regulations opposed it. Despite technical progress, the Administration was still lagging behind.

This remarkable drawing reveals several interesting characteristics. Estelle has access to lectures where she can intervene and ask questions. The service Robida describes was the same as that currently offered by major international institutions such as MIT, Harvard or the *Ecole Polytechnique de Lausanne*. Women, at the time, could, at a pinch, take courses in literature or music, but Science was reserved for boys. Robida lifts this barrier. Take a good look at the drawing. We can clearly see a projector, and the hands-free sound system we have already spoken of, which allows the student to intervene.

THE E-SERVICES E-LEARNING

A young lady at home having a mathematics lesson from Polytechnic Institute of Zurich.



Just like today this one follows
MIT OpenCourseWare (MIT OCW).



We have presented broadcast services, whether spoken or in pictures, and we have seen face-to-face services. Robida went even further and invented on-demand services.

The book was, at the time, the main tool of culture. Publishing, at the end of the 19th century, was very popular, particularly with the serial novels in the press. Before the Revolution, the notion of library was the prerogative of the aristocracy or the very upper bourgeoisie.

Public libraries were quite recent at the time of Robida. Inspired by the English examples, he must have known, he imagined this on-demand book service.

In his book *Le Vingtième Siècle*, Robida wondered about reducing the weight of books by condensing them, but he completely transformed reading by foreseeing the end of paper books, replaced by audio-books.

In 1895, he illustrated a work by Octave Uzanne entitled *The End of Books*. One of its maxims was: "*I believe in the success of anything that flatters and maintains the laziness and selfishness of man.*" In this work, books have disappeared and are replaced by audio books. As we have seen previously, these are recorded in the form of small wax cylinders, the premonitory ancestors of our USB keys. This is how the young woman, drawn in the book *The end of the books*, listens to a novel reading on her sofa.

Similarly, to prepare the A-level, audio book is very useful.

THE ON DEMAND SERVICES BOOKS



Albert Robida's
illustration for Octave
Uzanne's novel,

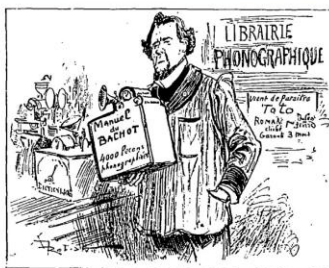
The end of books.

All works are published in the form of
what we call audiobooks today.
A young woman on her balcony listens to
her poetry book.

Likewise, preparing a diploma
using "phonographic" books.



Same thing on the Internet.



The roller phonograph was only a few years old. Albert Robida

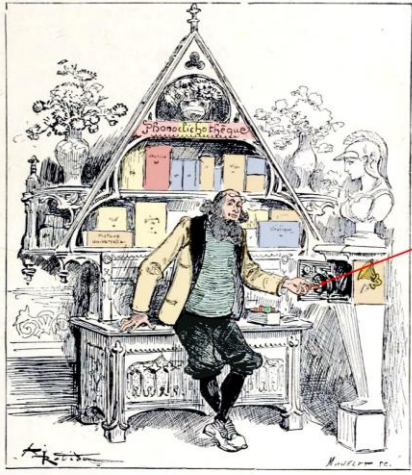
improved the system by making it accessible remotely. An operator gave access to your favorite music. This was the technology that we saw previously, very similar to our USB keys. He inserted into the machine the small wax cylinders on which the previous music or audio-books were recorded according to the customer's request. Then again, he imagined an on-demand music service of the kind that we see on the Internet today.

In the home of Monsieur Ponto, like everywhere else, music arrived electrically through the conduits of the Grande Compagnie de Musique, which had centralized all the subscriptions and absorbed all the rival companies, for light and serious music.

That sentence was premonitory. It indicated the concentration of digital services into a few large groups. His description of the "*Grande Compagnie de Musique*" is strangely similar to what we know with the big names in the digital economy.

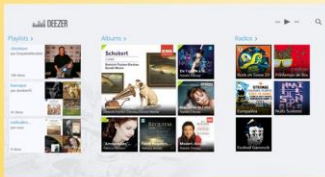
ON DEMAND SERVICES

MUSIC



The operator introduces the small cylinder previously described, equivalent of our USB key, into the machine.

The customer can choose his favorite music to fall asleep.



The same on the Internet.



The moving image was the focal point of Robida's fantasies. He imagined video-on-demand which is currently one of the most popular services on the Internet: for example the services of Cinétek or Netflix or even the video or replay services offered by Internet television operators.

When he designed these drawings, Robida knew neither video tapes, cinema or television. Its only reference is the theatrophone. He had to display wild imagination. The drawing describes access to the video-on-demand service as follows:

“Monsieur Ponto pressed the button on the device, and said these words into the telephone tube: “Put me in touch with the Paris Opera.”

A voice answered him immediately.

“Communication is established, said Monsieur Ponto. Turn down the lights. We don't need the light anymore.”

ON DEMAND SERVICES

VIDEO



The Romance of the Future.
(With Kinetoscopic Illustrations.)

— The year of death — © Ullman, illustration A. Robida (1915)

While the cinema will be invented more than ten years later, the animated picture is Albert Robida's highlight.

He comments video on demand :

"And Mr. Ponto pressed the button on the device and said these words into the telephonic tube : *Put me in touch with Paris Opera!*

A timbre answered him immediately.

Communication established! said Mr. Ponto, *Turn down the lights, we don't need light."*

— Le vingtième siècle — Chapitre V — A. Robida (1913)

People who enjoy nightmares
can even order horror movies to
view in bed.



— Order pour la bibliophilie — © Ullman, illustration A. Robida



We have previously seen home-information delivery services and access to on-demand services. Albert Robida went even further and invented on-demand services in the Madeleine-Bastille omnibus. Of course, he could not imagine what a smartphone would be, but here we see the foreshadowing of what can be seen in Singapore or on line 14 in Paris which takes the same route as Robida in the Madeleine-Bastille omnibus.

This drawing is absolutely remarkable. It foreshadows future Internet services connected with smartphones in the metro or elsewhere. Here, of course, each person has access to the services by connecting through a headset.

He took up the same idea of mobility in a book written with his friend Uzanne (*Tales for Bibliophiles*), this time in a London train. People are in a traveling reading-room with audio books.

MOBILITY

MUSIC PLAYER OR SMARTPHONE ?

Albert Robida knew none of our technologies. Yet he draws characters who roam the countryside or climb the mountains, with machines that strangely look like music players of the 1990s.



Phonographic Literature for the Promenade.

« The end of Robida » © Usama - Illustration A. Robida (1847)



« Concert pour les Indigènes » © Usama - Illustration A. Robida (1847)

Notice how contemporary these earphones look, though Robida was only supposed to know stethoscope.

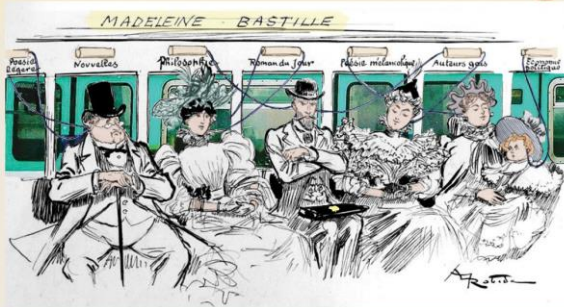


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MOBILITY IN TRANSPORTS



« Carte pour le Bibliophile » - O. Uzman - Illustration A. Rabut (1842)

in horse-drawn omnibus



« The Era of Books » - O. Uzman - Illustration A. Rabut (1842)

Reading on the limited

a traveling reading room in England



These two drawings look oddly contemporary. Passengers are connected to different services such as, on opposite picture, those of Singapore Subway.



Robida knew that all technical progress had its setbacks. So he drew a phenomenon that we know well today: the intrusion of sounds coming from everywhere. He imagined the Videophone, but it could annoy some people.

Just as, in the third act of Offenbach's last masterpiece (1819-1880) "*Les Contes d'Hoffmann*", the distraught hero discovered that the devil has stolen his reflection, the person represented in this drawing is terrified by the *Telephonoscope*, which she suspects of having stolen her image. This drawing had an amusing consequence. During the Biarritz experiment in 1984, where 1,500 videophones were installed, some people covered the device with clothing so as not to be surprised in a shirt or curlers.

Robida was aware that, like any high-tech technical achievement, the network he imagined was susceptible to major outages or malfunctions. We've seen how he imagined such unintended consequences, which had allowed two young people to meet virtually by chance, then to form a lasting telephonoscopic romance.

Indeed, Robida said that unexpected incidents could occur:

In the early days, people wanted telephones everywhere, even in the bedrooms; so when you forgot to turn off the device completely, you could be exposed to indiscretions.

This is what happens in this most realistic drawing. At a meeting of old gentlemen, an error shows them a young girl undressing.

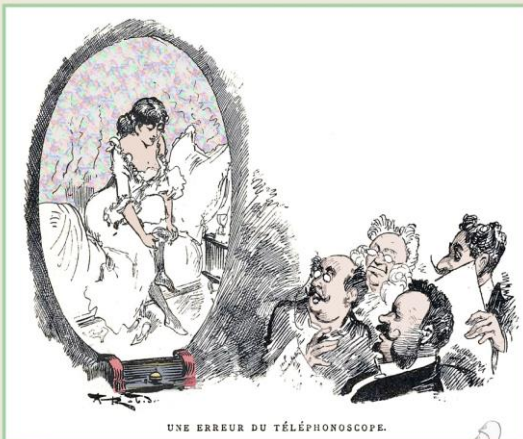
No, ladies did not undress in front of the *Telephonoscope*.

NUISANCES AND « BUGS »

New technologies sometimes have flaws.



some users may have a phobia of invasive noises or of their image being captured and reject new technologies. Others seem to particularly appreciate... switching errors!



Overcome by all these technologies and services, stressed by drones that invade the entire city, inhabitants found it more and more difficult to endure city life. So Robida created the *Armorique Park*. Here is how the park was described in *La Vie électrique*:

Where are we? Have we stepped back 150 years, or are we in a part of the world so distant and so forgotten, that progress has not yet penetrated?

No !

We are in France near the Brittany Sea, in a corner detached from the old departments of Morbihan and Finistère, forming a special territory under the name of Parc d'Armorique.

Through a conservation law, the government created in Brittany a protected zone in which all the innovations of science and technical progress are banned, along with the Téléphonoscope. People, who are nervous, overworked by their electric life and exhausted, come to rediscover themselves, seek restorative rest, forget the overwhelming concerns of city life, far from everything, without Téléphonoscope, without phonos, without tubes, under a sky empty of all traffic.

Robida described the arrival of these stressed people within the park:

It was the annual arrival of sad citizens coming to seek rest in the peace and quiet of the moors. Finally they found pure air, not soiled by fumes blown by the monstrous factories.

Tranquility. Complete relaxation of the brain and nerves.

The supreme joy of feeling reborn and the happiness of reliving. You could see people springing from all the cars and letting themselves fall on the grass.

Here communications were handled by old-fashioned letters and the last postman took care of the service.

After vespers, we dance in the square. On a platform made of

planks placed on barrels, biniou players blow their shrill instruments. Bretons and Bretons forming immense circles, turn and jump, singing old simple and naive tunes.

THE ARMORIC PARK

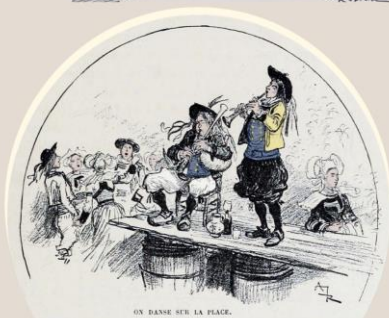
LE LAST REFUGE

1969: opening of Armoric Park in Brittany.
 1892: Albert Robida had imagined the creation in Brittany of a refuge, *the Armoric Park*, where modernity is banned, particularly.. *the telephonoscope.*

Fleeing Parisian life's miasmas, the "nervous people" land in Brittany and delightfully roll in the grass.



the last postman



the Bretons resist thanks to their "fest-noz".



After 1890, Robida, abandoned prospective studies and devoted himself to the illustration of his many projects.

The war of 14-18, which he had portrayed so well in *War in the Twentieth Century*, took one of his sons and seriously injured two others.

In 1919, he returned to futurism in the journal *Les Annales*.

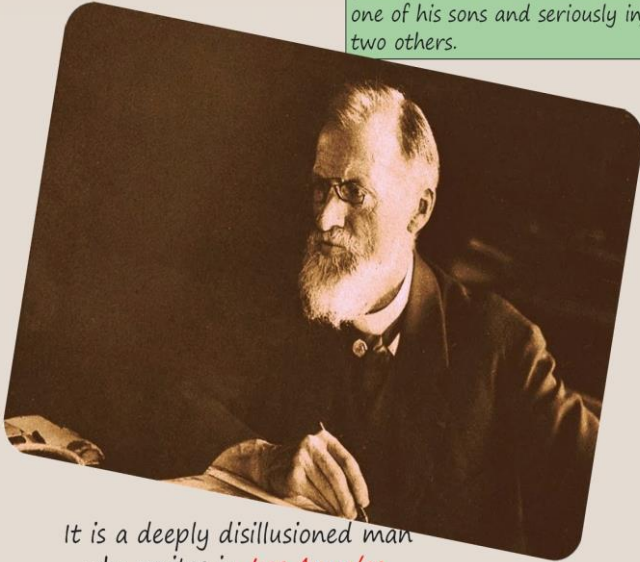
Many things had happened and many of his anticipations had come true. But his prophetic verve was extinguished. Far from being a propagandist for the developments of science and of mechanized society, Robida expressed his deep doubts about the future and recalled the happiness of a time in the past when people could stroll around in the town or countryside.

Read this text that appears to come from modern environmentalists. He joins the pessimism of Jules Verne who, in his novel *Paris in the 20th century*, had depicted in 1960 a life where industry and finance had killed poetry, literature and reverie.

1919...

DISILLUSIONED ALBERT ROBIDA

In 1919, Albert Robida was 71 years old. The First World War killed one of his sons and seriously injured two others.



It is a deeply disillusioned man
who writes in *Les Annales*.

"But you see, I don't envy those who will live in 1965. They will be caught in the gears of society, mechanized to the point where I wonder where they will find the time and the means to savor the joys that were offered to us in the past: strolling in the streets, by the water or in the woods, silence, calm and solitude. They will not have known these joys, and they will not know how to regret them; but for me, who know, I pity them."



Robida was disillusioned at the end of the war.

Robida projects us into a fictitious world that did not exist at his time, but which is a reality today.

Everything he imagined or designed finally happened. The craziest ideas such as flying taxis or cross-border tubes have barely left the laboratories.

What can we say about these drawings on the war of horrors of which Covid-19 could be an avatar?

Like any creator, looking back on what he designed, there comes a time when he wonders if it was really useful, or if it was not better to roll in the grass and enjoy the Breton *fest-noz*. At a time when we live in a world overwhelmed by technology, but where the uses of scientific progress can lead us into a dangerous spiral, Albert Robida's words resonate strangely.

But we can accept the optimism of Jean Perrin for whom the science of the 20th century has profoundly modified society. That of the 21st should offer us a better future.

Albert Robida

A Genius of Anticipation

IN 1880

AND TODAY



We cannot hide the fact that Albert Robida is disillusioned at the end of a war he had described so well. Anyone else in his place would have been too.



Through his writings and his drawings he gave a breath unusual and daring to a society that has lived in its wake on the promise of progress.



Science has been able to create, throughout the 20th century,



the universe he imagined, a world in which women and men can access the widest possible culture, can move quickly, a world where distance is freed from speed, and knowledge through sound and image.



Faced with Albert Robida's pessimistic vision, we will oppose him with the words of Jean Perrin, creator of the CNRS, who wrote in 1930:

Quickly, maybe only in a few decades, if we make the slight sacrifice necessary, men, liberated by science, will live happy and healthy lives, developed to limits of what their brain can give ...*It will be an Eden that must be placed in the future instead of imagining it in a past that was miserable.*



Information

The exhibition, which you have just visited, used an original process developed by AmorScience: the GuidExpo AS.

This tool includes:

- a nanocomputer, an autonomous Internet server equipped with a Wi-Fi system, on which the comments accessible by a smartphone or tablet are stored.
- website software that allows presentations that are self-adapted to the viewing medium (smartphone, tablet or PC).

These technologies give us the possibility, with the same editorial bases, to produce four complementary versions:

- A physical exhibition in the form of panels or objects, commented in several languages and embellished with additional video, image, or text.
- An associated virtual exhibition in the same languages and accessible via the Internet at the address www.robida.armorscience.com
- The printed work you have in front of you.
- A video that may be available in the same languages.

Your comments are welcome by sending them to:
contact@armorscience.com

Exhibition's Information

This multilingual and multi-format exhibition was prepared by **ArmorScience**.

Exhibition curator

Michel Tréheux

Image processing

Michel Bodin, Francis Nativel

Drawings and texts verification

Jean Marie Haussonne, Michel Bodin, Daniel Lacrosnier, Michel Urien

GuidExpoAS realization :

Jacques Chatras,

Sound treatment:

François Delaplace, Yves Montreuil

Speaker :

Automatic text to speech

The drawings mainly come from two Robida's anticipation books

Le Vingtième Siècle and *La Vie Électrique*.

Other sources:

Octave Uzanne et Albert Robida, *La Fin des livres*

Octave Uzanne et Albert Robida, *The end of books*

Review *La Caricature*

The drawings in this exhibition were touched up
for a large size presentation .
We felt free to color some of them
so that children and teenagers better
appreciate them.



Albert Robida and his family visit the exhibition dedicated to him guided by smartphones



Drawing by Michel Urien