

COURSE 1 - 28.02.2025

COURSE 2 - 7.03.2025

Recap:

CMB – energy + information in a state of entropy

Appearance of light

Manea about gravitational waves

Some of the stars bursted/exploded (as Einstein said, bends the space-time continuum around it)

Some of the explosion debris swells around healthy stars, forms an own gravitational field and become planets, others remain at the form of asteroids, comets. “cosmos rocks”

How does a planet increase their mass? By pumping asteroids

As we are life forms on terra, evolved life forms, we came to a crossroad in our philosophy regarding the topic of “how life came to this planet”. One theory is that one of such rocks hit the earth, but if we look at terra, we can see it is composed of 2 main parts: land and sea. What state of matter is our planetary environment (the biosphere)? Liquid? Only Liquid? It’s a mixture of Gas and Liquid. Gas OR Liquid = Fluid. If the ocean is a mixture of water and gas, so is the atmosphere => the atmosphere and the planetary ocean are one thing (we are swimming in). All the weather-related phenomena are done by this atmosphere. We as humans have fluids, gasses and “hail” (grindina). The collatz rules mimic what happens to the hail stones in the clouds up until they drop.

Going back to the topic, the hypothesis came to the idea that life began in the sea. We do not know it for certain, but there are many scientific proofs, even though “there is no substantive evidence” that life did not lie elsewhere before water, as there are limitations in our science.

Aristotle said on a rock that we do history because we get kicks.

Thank you Aristotle.

Debate break

A cool trick about history is to remember its patterns and not repeat them. One hypothesis about the appearance of life on this blue ball is that life appeared from an asteroid that crashed into the sea and making the building blocks of life. How can we know from earth the chemical composition of the stars from the earth (WE TALKED ABOUT IT?????) Paul

Pink Floyd pyramid. What...

What Newton proved to everyone is that white light is just a mixture of spectrum of colored lights. If I look at the stars, do I see the LGBTQ flag complete or is there something missing? What is light? It is made out of photons. These photons meet obstacles in their way. If these photons do not meet any obstacles, until us, we see the light, which “excites our eyes”. The light is not complete as some photons are blocked by the composition of the stars. There is an experiment that can be made which shows that at some exact positions, depending on which element you have put, you can see how the light is blocked by that element’s existence. At some points, a star emits nuclei of the star itself, which can intercept the photons coming to the earth.

A lot of ladies mapped the stars on the sky

Radio astronomy was founded in the early 1930s with the work of Karl Jansky...

Using this type of analysis, scientists can look from the earth and get the composition of any stars in the cosmos. Therefore, they noticed that these stars have some compositions that would mark the beginning steps of life.

Miller–Urey experiment

- What these guys did was a hypothesis, a play with the unknown. If an asteroid would fall, as we claim it did, and there was a mixture of some chemicals and we put it in a controlled environment, we cool/heat(?) it and then we hit it with a lot of electricity, would that lead to the building blocks of the building blocks of life?
- Did they succeed? They got the Nobel prize, so I guess. They zapped it with electricity until they formed amino acids. Why do we need amino acids? They create the building blocks of life, which are macromolecules such as RNA (ribo nucleic acids). What is ribo? The ribosome. What is a ribosome? It is an information system. What is the input and what is the output? The input: Energy and the output: RNA, information. Where does energy come from? The powerhouse of the cell, mitochondria. Everything is thermodynamics. How does mitochondria work? Takes sugar (glucose), chemicals from the surrounding and creates an exothermic chemical reaction. Did you know the mitochondria is kinda a cell? It has almost everything a cell has, it’s a proto cell.
- Who appeared first, the virus or the mitochondria. We do not know. Why is this relevant to CS? Do we know who was asking these questions? John von Neumann.
- Viruses are not considered by us, “life” as “being life”. What is life? The problem comes from self observation. Life is life observing itself, or else it would not be life.

Debate break

- The idea of John von Newmann's head was not really about RNA, but about replication of RNA. What is replication? To make something identical. What is a replica? A copy, also known as a clone. The ability of information to clone itself. What is fighting against replication? Entropy

GATTACA (cica va apareia la examen) – this is how the human genome starts. What data type would you use to hold in the memory of the computer DNA? Linked Lists, but why? What is the operation of an array that are very bad? Insert and remove.

When trying to replicate GATTACA, a lot of things can happen, the addition, deletion, mutation of something caused by entropy. Claude shannone. Who helped us do it? Why is it called ethernet? Why is it called "ether"? what was ether? A substance that people up until the late 19s some people thought that permeated outer cosmos. Why did they need something to be there in their minds?. Because everything we knew about mechanics and physics was Newtonian mechanics. Since light was moving, it had to latch on to something for it to make sense in Newtonian mechanics. The "culprit" was thought to be this ether. There is no ether in the cosmos, only after Boltzmann and his ideas appeared did people start looking at some other aspect and turned away from the idea of "ether". Once we dropped this hypothesis and we contemplated the idea that nothing was there, only then did we start working with our collective minds throughout the years and get hypothesis such as einsteins "that you have a time-space continuum and stars bend this time-space". However, the universe is booming with radioactive crap

Do we know about error detection mechanisms?

The birth of modern computers

Somehow, nature found a way to perfectly replicate RNA. You can see it happening, by a way of cloning genetic information in an almost perfect manner. If you put a proteic epsilon on top of it, you get a virus. The only flaw a virus has is that it has no metabolism. The goal of a virus is such to insert its own code as an input to the ribosome, such that it recreates the input of the virus and not that of the ribosome.

What was first, the creation of RNA or metabolism? In order to have life you need both.

Newmann replicated a cell and called it "software", and then called "hardware" chloroplast.

The touring machine. What was wrong with it/. It was slow. Why? Because most of the energy was lost as mechanical work force. It was not effective from an energy point of view. What happened to john von newmann. He created a computer to mimic the cell based on the questions he was asking itself.

His analysis of the structure of self replication preceeded the discovery of the structure of DNA. While thinking about the beginning of life, he implemented his thoughts in the computing machine. What is a computing machine. A machine that performs computations on what? Arithmetical and logical operations. What is the smallest form of operation? A bit. Addition gives us an extra bit, multiplication doubles the amount of bits

$0 + 0 = 0$ (and) 0 (xor)

$0 + 1 = 01$

$1 + 0 = 10$

$1 + 1 = 11$

What is xor? Can it be written in a disjunctive normal form? Xor is the bad boy of ai?

A and NOT B or NOT A and B

With these 3 operations, not, and, or, we can build a machine.

What do we need to achieve these 3 operations? Semiconductors

How transistors run code? – core dumped

Who came up with the notion of logic gates being able to do computation? Claude Chenn. Who invented the notion of logics? Aristotle. What is the principle that logics is based upon? The law of the excluded middle. In the beginning there was one.

2001 SPACE ODYSSEY

Someone(?) invisioned a machine with an infinite amount of bits. What is a bit? Is it a state or does it have a state? A bit is an entity that can have exactly 2 states that you move from one to another by “not”. What you cannot do in a bit is to be stuck in between the 2 states. Who decided that? Aristotle. He wrote the book on logic called Logica (comes from logos which means word). What was the best outcome to come out of this? Contradiction. You could have not contradicted a mf before Aristotle, People could say that P could be true and then say not P be true and nobody could catch that bullshit. Why is Aristotle considered the best philosopher in ancient times? Because he took his newfound tool which is Logica, took all the wisdom coming dfrom the predecesors, Socrates, Platos, etc. and put them through this newfound weapon and thus eliminated all contradictions which lead to him understanding the surrounding of the universe. As sherlock holmes said, once you leave the impossible, whatever remains has to be the truth

The notion of a bit stands from the idea of Aristotle that there are no more than 2 states. Principiul tertului exclus. George Boole comes up (mathematician from the Victorian period of Britain).

Why the first computers were made out of light bulbs – veritasium

***discussion about cpu and memory = ram(done by magnets) + storage(done by electrons)

This model was proposed in the 50s. What is the computer von newmann and turring worked on and was used during the ww2? ENIAC. ENIAC was a couple of rooms filled with electronic devices that ran on machine code (byte code). You had a room in which you flipped switches or gave perforations on a carton card (as input), and then a room in which the input was being processed and then another room that returned an output as a punch card or (?). Where have we seen this? In the beginning of the flinstones.

COURSE 3 - 14.03.2025

- Discutie despre Inna, "THE NEXT LADY GAGA" (?????)
- "You guys are in for a treat this class"
- We have come to the inflexion point
- Discutie despre tricoul Spiderman al unui baiat
- Ecranul au ramas pe acelasi video ca data trecuta
- Lasa-l pe gabi sa fie un special little snowflake, a working class hero....
- We have come to a pivotal moment in the development of hardware
- RECAP:
- "let's make it a discussion about sexes" oh no
- Coming back to the discussion of the ribozon
- John Von Newmann – invented the Von Newmann machine and perfected the ideas and collaborated with Turring, in order to create the ENIAC
- Let's talk about (biological) *sex*: Mihnea is not ready. Is sex important to problem solving? What is sex? Where does the name come from? It comes from the word "section", which is another term for dychothomia. When has sex appeared in nature? Why has it appeared, from a biological perspective. The most evolved species were the ones

developing a sex, as they were the most adaptable to their environment. This has to do with genetic material and the ability to recombine them (the genes). In order to become complete cell, you need chloroplast, aka energy, and ARN with protein.

- Newmann was the Messi of Computer Science. The guys who worked with him at MIT and bell Labs said that “this guy was going into his mind palace, imagining the model of a quantum fluctuation inside his mind”. He then came to them and convince those guys to run his experiments and he most of the time proved to be right. All the scientists did up until now is to climb on top of the former people of the world. The first computer used light bulbs
- What is sex? What does it mean that you create a section.
- You might have heard there is a way to get the dna of ancient people, Can you find the dna of the debunct? From the marrow of the bone? No
- What is DNA?
- ARN – replacitation, protected by a coat of proteins is called a virus. If the membrane of the cell is not around arn it will disintegrate and decompose.
- In star there were the first mass object, atoms of hydrogen and helium. It's positively charged the nucleus. In our current “atom model”, we have electrons (the quantum thingy - wave particle duality) that can only be found at integer multiples of some constant, which means they can onlhy move from an electron layer to another by eliminating a photon to which we can calculate the energy of. If another electron emts a photo and we are on the other side of the nucleus, some part of the spectrum will be blocked by the nuclei that form the star. *talk about colors from light*. By analyzing the color structure of the light, we can analyse the chemical structure.
- In the 19th century in the British empire there were guys who used this spectrum analysis. Ada Lovelace was the first informatician but she had to collaborate with a dude in order to be mentioned, Charles Babbage. Razboi de tesut = war loom bravo Octavian. They added some sort of programable loom. You could create a pattern mechanically by telling the machine (the loom). Ada Lovelace was the daughter of Lord bayren(?).
- Who invented the engine was James watt.
- Knowing the “barcode” for all elements means we can get the “barcode” for more complex elements
- The muller hypothesis was that maybe life appeared on an asteroid that smashed into the sea in a warm environment with high energy. The macromolecules of life appeared and then disappeared, due to RNA.
- Our mental model of primordial soup was this RNA forming and immediately disforming up until, sometime, some proteic cover protected our RNA and thus nature protected RNA from entropy. In the same time, maybe you had some mitochondria that might have formed in order to produce energy. At some point these combined at some points to become rhibozome, the beginning of life. Why? Because it is diff from any sort of

biological structure we had before. A star is an information system that turns information into energy and mass because light is a limit to sending information. Information is something that has been here since the beginning and is intertwined with energy to an indistinguishable point. At some point gravity sucks energy and information from the same place at the same time and if we gave upon the cmb we can see that some areas lack causal links and thus contain no space nor no time. We cannot comprehend sth without the existence of space and time.

- The trilogy of knowledge – Lucian Blaga
- The RNA replication is called by John Von Newmann software and the metabolism is called hardware in an essay about how cells might have appeared. Devices are reimplementations of cells. Our app at fp is a cell.
- In the beginning we had replication RNA independent of Metabolism until joined together and becoming ribosome. Ribosome has meaning / purpose. When we contemplate stars and their appearance we do not know why or when they appeared. We have entropy and then gravity that “maybe willingly”, fights entropy. At the core of the star we have a factory of mass and entropy. We can see this ying yang dynamic with
- The heaviest object in the universe is Mihh’s mom.
- Another controversial concept: what if this energy is plain. Why did it form stars? Cause it wanted to. Why? Cause it was cool. What is happening next?
- Sa vedem Vikings
- Sex is just a way to split energy from information once again. DNA can be extracted from the teeth, because their core is protected by the shell. It is decayed, but it is still present.
- You kickstart evolution with the existence of the predator
- What is better for evolution? Sex or predatory.
- We have 2 realities since beginning of life. Life (sex) and death. You have a predator genetically created to kill you. Where do we find this story in the bible. Islam vs the sons of the held lady vs the sons of the actual wife of eldra. Abraha, was the first guy god liked after primordial sea. His wife was rather old and could not have any other kids so god gave him the right to impregnate another servant????? Although his wife was old, his mom also got him a son. God tested Abraham to see if he was willing to kill his son, and he was. It is said every son of isaac vs every son of Issachar(?) would fight
- What if what we see around us has a design. what if god was one of us, just a loner on a bus.
- Read “homoludes”?? a philosophical essay that tries to prove that everything we have created stems from our innate willing to be a kid that plays. There is no society of men without any representation of a sacred thing, aka religion.

- In the first great civilization, babylor, the city itself is not only the wall. People used to do things more creative back then. The walls they built during Sumerian or Babylonian age they build a “friza” which told you everything you need to know about cultures.
- Insert family guy meme (?????????)
- Maybe the story of enkidou
- Just like all the guys in this room have a very good friend that fought with once or twice. What is the greatest theme in the story of Gilgamesh is the power of friendship.
- We are creators. We create pottery but we do not stop at that, we add some decorative crap on it, but that decorative crap always help us define the time it was created.
- Each cell inside our dna tells us to make it look like this. If we’re davinci, we can see there is proportion, we can see it respects all the bulshit idea of design
- Sex splits one in two
- The dna we can get from ancient can only provide the dna from the mother side, because that is the dna of the mitochondria?
- Sex means that you have ovul and then spermatozoid, Spermatozoid is like a virus and only has information. Ovul has mitochondria, aka energy (?????????) **coaie ce preda omu asta**
- In order to bring life we need to separate information from energy and bring it back

COURSE 4 - 21.03.2025

COURSE 5 - 28.03.2025

COURSE 6 - 04.04.2025

DISCLAIMER: Not for the faint of heart

WW2 - Ellen Turing, Bladgley ... invented the ENIAC

The imitation game – this will be in the test

Type of technology: silex tools, pottery, fire, decorations, the wheel, citadel, dyes, roads, bridges, coins (they kill people), clocks, the engine



Fire + wheel = better pottery

Dyes + better pottery = better **decorated** pottery

Everyday I am suffering

“Can you fuck yourself?”

Morality about inventions:

- What is good

The Enigma code to decode the Nazi secret messages with the Bombe.

A MAN = “o creatura care produce “Samanta” reproductiva care nu are metabolism by itself”

Alternative definitions to man: What is a man? A creature. | Do you have an ovulum that has its own metabolism? Do you have mitochondria? Then you are a not man.

Gabi quote: ”I am here wanting to talk about pottery, about aqueducts, about Grace Hopper and then here you are with 'wHaT IS a mAN?!'. You are terrorists.”

Gabi quote: “Who held Einstein tied to the radiator to make the atomic bomb?!”

When you put water into a glass, it becomes the glass. When you put water into a jar, it becomes a jar. Become the water. - Bruce Lee

Alan Turing a fost castrat chimic => no longer a man

Boltzmann was a man, but he was an idiot

Nu cred ca intram in ceva in care ar trb sa intram

EUCLID LUAL-AR DRQ

Weird inference: Socrate taught Plato. Plato taught Aristotles. Aristotles was the teacher of Alexander the Great (one of the greatest rules of Antiquity). Alexander the Great and Diogenes THE CHICKEN. The Library of Alexandria was founded. Euclid(One of the greatest mathematicians of Antiquity) and Eratosthenes also had contributions to the library. Egypt. Stuff with Cesar and Antony. Cleopatra had some stuff to do with Alexandria. Rosetta Stone. Champollion decyphered the Rosetta stone. Napoleon

Came up with a way to measure the circumference of earth - Erathostenes

Time + Space = Causality

You cannot write stories without causalities

You cannot trust archeologists or history

Ora de “Gabi ne invata despre nihilism”

We need ideas, philosophy and we need technology and we need to figure out causality of technolog

Socrates

– teacher of Plato

– teacher of Aristotle (The greatest Historian of Antiquity)

– Alexander the Great (The greatest Emperor of Antiquity)

– met with Diogenes

– founded with Alexandria

- Cleopatra

- Rosetta Stone – was deciphered by:

- Champollion – Napoleon Egypt (WHO VISITED EGYPT)

– Egypt

– founded the Library of Alexandria

– Euclid (The greatest Mathematician of Antiquity)

– Erathostenes(?)

“what we do In life echoes in eternity”

Zarathrusta

- Had a paper written on him by: Nietzsche -> the funny german boy

Karl + Fredrich -> lenin

1848 – primavara popoarelor

When was the non-boil engine developed: James Watt (insert years here)

Newton (1643 – 1727)

- Calculus

- The derivative

- $F = m \cdot a$

Liebniz (1646 – 1716)

- Also Calculus

- Also the derivative

- Also $F = m \cdot a$

Boltzmann (1844 – 1906)

Einstein (1879 – 1955)

Bolyai (1802 – 1860)

Evariste Galois (1811 – 1832)

Eminescu

John of Arc (? – 1431)

Elizabeth R (1553 -

Anne Boleyn

Henri the 8th

Thomas Morus – wrote “Utopia”

Rene Decartes (1596 – 1650)

- Cogito ergo sum
- Cartesian system
- Cartography

Occam (1287 – 1347)

Columb

Francis Drake (1596 – was fighting the Spanish Armada

Have all these guys influenced the technology of computing:

Conquest of paradise

Gabi cand nu castiga o dezbatere se intoarce in timp

Gabi = Dio (sincer nu stiu ce voiam sa zic aici)

A man for all seasons (un om pt eternitate)

Mugur de fluiori.

You either die a hero, or you live long enough to become a villain. You became the very thing you sought to destroy.

Put the microphone to the phone speaker. Romanian Ingenuity.

N'oubliez jamais - Joe Cocker

The Butterfly Effect, what Cleopatra did thousands of years ago caused Georgescu to be a candidate.

COURSE 7 - 11.04.2025

Istoria informaticii course 7

“niciunul de la axa germana” – o sa pice toti

“too few of us”, so the graph comes after the holiday

What happened after the discussion of the transistor

The transistor was first discovered 1947 by Bell Labs by (mainly) William Shockley alongside John Bardeen, Walter Houser Brattain

...WATCH M.A.S.H.

- Used to protest the Vietnam War
- Depicted events from the Korean war (1950-1953)

William Shockley

- Part of the US Military
- Part of an interdisciplinary crew
- In the 2 years that followed the ending of the war
- In 1948 bell labs published an official image

HORATIO HORNBLOWER

SHARTE

AI CUZA

- Founded the first university on the current surface of Romania done spoken in romanian
- Started the 1st universities out of the muntii carpati

Any correlation between cuza and Benjamin franklin

- They were both suspected of adhering to the same secret society, the free masons
- This was a trend all throughout Europe

1848 – the spring of nations

Reforma agrara – improprietaria taranilor

Taranii primesc boi si resurse -> duc copii la scoala ->

War had a big role in us discovering computer science

Dc sultanul a lasat Unirea mica

British Kingdom

Napoleon Wars

La Marseilles

Relationship between american and French revolution

COURSE 8

Recap:

Ah shit here we go again

- Transistor

The most important topic in cs, biology, chemistry, physics, everything in today

What is computation? (from a historical perspective)

- We do not know
- Computatinn is calculus
- What do you need to compute? What can you compute?
- Let's say you first learn addition and then subtraction and then multiplication and then division. Which out of these 4 is the trickiest one. Division? Sure.
- Where were the first nr ever used? Where was the first exhibit of a number depicted? The ishango bone, in the fisherman settlement, in congo. A possible mathematical device dating back 20 000 years before today, resembling a counter.
- The romanian term? Raboj, apparently.
- This was used as a form of language used to trade and sell
- What is language? It is formed of logos that needs to have meaning
- How can we achieve meaning? A label, which has to be in a bijection to the meaning
- Who gives the label to the actual notion
- we have all of this data, calculus, done on a bone, treaded by some shaman (apparently)
- all this leads to science => RELIGION (in *early* history)
- since the beginning of our paleo communities we have representations of words and numbers. They are the same, since they give some physical manifestation to some meaning
- a computation is a story
- this was a debate fest

the first informatician (not programmer)

- ada lovelace

- she was the daughter of lord bayron(?), the romantic poet from the 19th century brittain
- she said from the beginning of the phenomenon that informatics is an art form

“flori pt algernon”

watch “the evolution of intelligence: a 600 million year story – art of the problem”

- pitagora si-a luat cunostiintele din culture orientale
- cultul lui pitagora nu manca fasole
- cultul lui pitagora a inventat instrumente medicale (o doime, o octava, etc.)

povestea lui zalmoxe – to determine

CUEVA DE LA MANOS????????????/

- religious crap was usually found in a cave
- da acum 20 000 de ani NU LOCUIAU ACOLO??

Mark twain fix 76 de ani

Conspiratie stiuta = poveste

COURSE 9 - 09.05.2025

I just don't want to be here..

The exam will be in the last week

We left the coolest topics for these last weeks

1. Drugs
2. Games
3. Ai

The history and impacts of all these elements with respect to info

Ø We talk about drugs today

Ø We go to see ancient arcade games in the field

Ø We will cover ai

m-a facut terrorist?

REMEMBER THE TRANZISTOR?

When was the transistor discovered? 1947 – 1948

The coolest instution in informatics, bell labs, strikes again with a new discovery

TELENOVELA REGARDING THE TRANZISTOR

The name of the asshole from the team that discovered it: William Shockley

Shockley was called out by his teammates (who was the boss of). The other 2 guys. Bardeen John and Brattain Walter said that Shockley did not actually make it and was at home asleep. At first bell labs agreed with Shockley but due to his behaviour, they rejected him, so Shockley went on to go to Silicon Valley and created a company called Shockley Semiconductor Laboratory.

Bell labs constantly hired out of college the brightest minds in mathematics, physics, and many other domain. This is how they became the biggest it company in regard to the things that were produced there.

By going to the westside, Shockley started recruiting people from the universities over there. But he was still an asshole. As the years went by, the trio received the nobel prize for their discovery, due to just how important the transistor was.

FROM THIS MOMENT ON

We delve into the 50s with the invention of tranzistors

What did this lead to

Who controlled the western population in the 50s. it was a device. Television and radio. Those could not have been produced without transistors, those lead to widespread.

In America, the climate needs to be mentioned.

The era of the 50s was known for a specific phenomenon

Due to Iron curtain. Germany was separated east vs west. So there was a clear delimitation from the eastern and western parts of the world.

In regards to politics, while America was ruling the world, americans were fearing communism infiltrating their own government. The hunting of communist thus began, which had the spirit of a witch hunt.

The guy who actually did the chart of the rate of technological advancement

Moore's law.

Moore was one of the chemists hired by Shockley due to his competences within one of the neighboring colleges. His name was Robert Noyce.

GOODNIGHT AND GOODLUCK MOVIE FUTURI MORTII MATII GABI

FILMUL DESPRE FACEBOOK CU ANDREW GARFIELD SA-MI BAG PL GABI

We have Shockley is very arrogantly telling these 2 young people which he paid well however with the condition that "any research they do has to have his name on it".

Gordon Moore and Robert Noyce betray Shockley because they see they can make a lot of money with their research. Shockley thus calls them "the treacherous eight"

Thus, those 2 went to the opposition, bell labs.

They created a technological way of printing transistors on a small silicone tray. By shrinking the transistor, they created **INTEGRATED CIRCUITS**. (used in tvs during that era)¹

HOW DOES A TV WITH INTEGRATED CIRCUITS

- It shoots electrodes in the middle of the screen
- There are electromagnets on all sides in which the tension would be like a saw
- That is because if you put high tension in top left it uses electromagnetism to make an array of electrodes that shoot from the canon to the first pixel of top left. As you keep top by the max, the left eases, and then the top a little, and then the left, and so on and so forth

- This happened till the image was formed

Due to moore, the number of processing units doubled by the end of It is about how many computations per energy wasted (either due to computation or heat, light, etc.)

Now you increase the content of computation due to being able to use these integrated circuits

Gordon noyce was a ladies man, the other was a guy who wanted to get shit done.

After a couple of years, noyce urged moore to start their own business, but moore wanted to play it safe. Over time, however, noyce convinced moore to go form their own company called **INTEL** which “fulfilled the prophecy” by taking the integrated circuit making the microcircuit (1968)

The drug treatment territory

1969: moon landing (NOT ALLEGED GABI)

- The moon landing was televised
- It was done with neil Armstrong as astronaut
- They needed computers to achieve this
- Were there microchips used for moon landing? yes
- *The only skill we need to acquire from history is to seek for proper information (says the guy who says the moon landing was alleged)*
- *Asa gabi, “always question everything”*
- *Viata e de kkt iar tu pari plin de viata*
- *Socrates said everything is bulshit as he took a shit in the forrest*
- *Another important topic is causality*
- *The building blocks for history is causality*
- *History means story, whichj you cannot tell a story without the use of causality.*

The story of Ernest Hemingway

Who was he? A bearded guy? One of the greatest novelists from the 20th century. He was a warrior and fought in all the conflicts that spanned his lifetime, from the Spanish civil war to Italy in 1st WW to 2nd WW and afterwards he became a spy in Cuba, being a "bff" with the leader from that time.

He wrote one of the coolest novels, called "The Old Man and the Sea" SA MA PIS IN TIME GABI.

Old man Santiago going on one of if not the last fishing trip

If you look at the image of his beard (which he had due to it being a useful defense mechanism from skin burn and therefore skin cancer)

So what happened to him? How did he die?

Stupid joke: similarity between Kurt Cobain and Michelangelo. They both used their brains to paint the city. Kurt Cobain "copied the arm" of Hemingway. Hemingway did what he did because his wife and his bf/publisher were fearing that he became paranoid with fears of Hemingway that he was being followed. After WW2, he befriended "Fidel Castro". During the hunting of communism, he was earmarked due to the ideas of his publications. In the later part of his life, he always felt watched. If you are a hunter and a fisherman (ca gabi) you know when you become the prey. The guys who followed him went to the authorities.

His wife and his publishers made him visit a psychiatrist, who were up and coming at that time, since as time went on psychoanalysis became more and more sought upon.

Alan Turing death (tldr): he was gay. He went in the streets and found an underage minor. He built the computing machine. He went to BBC (British Broadcasting Company? Asa venea?) and he was pumping up his idea that now that we have the computing machine, we can create a whole human, with that machine as the brain. During one broadcast, there was a guy, a psychologist that was pumping the views (due to him being a Freudian stan) that you cannot create a human without sex drive. The Freudian look at emotions was that all the emotions came from blood going to organs. Turing understood the assignment, and found out he also has sexual urges, thanks to a minor "who consented". He asked the kid for doing some equations for a fortnight. The young kid was a thug from the streets, who said to all the other guys from the street that Turing was hella rich. When he went to report his loss, they found out he was gay (which was illegal). Due to the fact they found out he was gay, the law mandated he is chemically castrated. He had immunity, bc he took UK out of the war, but they revoked his immunity. Thus, he had to go every month and for chemical castration.

Hemingway was committed to an institution (by his loved ones) to a psychiatric institution and was diagnosed with paranoia. The treatment for paranoia was shock therapy. Both these affected their psyche, sent them into a downward spiral till it was too much to bear.

Alan took the gay "elegant" way. He took something "syonite?" with which he injected himself

Hemingway had a bullet salad

In the 2010s, the fbi were forced to reveal their documents, who proved Hemmingway was right and he WAS followed...

REFERENTIAL MOVIE: ONE FLEW OVER THE CUCKOO'S NEST (NIMENI NU L-A VAZUT DECI SIGUR NE DA)

The writer of the novel is ken Elton kesey

The 60s.

1969: the year of the moon landing (again)

Society and culture wise

The summer of love

- Woodstock

Lsd was the drug of choice

Santana's acid trip – metroFocus

Cultural components: drugs, music and counter culture

This connects to what we had before

In the west side, which opposed to east side (was more conservative).

Wasp – white anglo-saxon protestant (in the east side)

In the west, there was the Vietnam war and there was a lot more effervescence, which was carried by the Korean war.

Who provided the drugs at wpoostock

Check kesey Wikipedia

Kesey was used by cia without his knowledge in the project mkultra involving hallucinogenic drugs (including mescaline and LSD)

Fear and loading in las vegas

Ted Kaczynski was also affected

CIA used sleep deprivation, psychological warfare and drugs. They did that to destruct the human

BRIDGE OF SPIES INCA UN FILM SAJKDBASNGFBRHW

The greatest algo of all time was invented during this period:

The most beautiful algorithm to the day: fast fourier transform

“the most important algorithm of all time” – Veritasium “might be on the test”

Pink Floyd – Mother

John Wayne – the greatest American actor from the movies.

Back in one flew over the cuckoo’s nest, it was a story about a guy who was supposed to become perfect by drugs and electroshocks. “you tell me after watch it”

He then became part of merry kesllers, people who were given lsd by cia and then started preaching it as a way of unlocking your mind

How does it tie in to informatics?

Vannevar Bush – an American engineer that developed a plan for evolution technology since the beginning of 20th century. He was part of “the industrial military complex”, as an architect. In 1939, bush left MIT for Washington dc. What is the Manhattan project? Oppenheimer. The mastermind behind it all

As we may think – article

From 45 to 68, we had: transistors -> integrated circuits -> microchips

Bush was the ferment of all this

There was a system that guided actions through all these moves.

Shockley had a patent that allowed only him and the other 2 to create tranzistors

In 1968 – the mother of all demons

- Ange
- This guy introduces the world to the mouse and the monitor

- He wanted to turn bush's memex machine idea into a reality
- Stewart brand, the editor of the whole earth catalog (a publication done by the dude with the same name, who was part of the merry pranksters, in which that dude put a photo of the world from the moon)

Von braun (from nasa)

Operation paperclip

- It was an us army operation
- Since ww2 ended, the nazis had really good technology experts of any kind
- Operation paperclip made the nazis be heads in their own institution due to their knowledge of nuclear power

Tarantilo branded on nazis

Every time you look at an institution from America in 70s 80s and you see someone with a scar, you should know that he was a nazi. Th deeper the scars, the tougher you were.

In 69, the 70s begin and then we have another huge revolution:

The state effects from a cs perspective

By 69 we have major computers in all major schools

We have telephone lines that connect telephone info from east side to west side

If we put these 2 together, we get another army project

ARPANET – an army project

They take the technology we already have

The opposing ideas get connected through this project (see wiki page)

In order to build the internet, you need to require something not even needed for the moon project

Software needs to be more reliable and easily writeable

Grace hopper: the girl who debugged the first bug (ladybug story)

The first compile for COBOL – in the late 50s (she ditched her husband – who was a linguist – bc he was too boring and joined the navy) (she wrote the code for the machine of the navy, the mk1 computer)

What was the creation that needed to happen for arpanet to be implemented?

It was done at bell labs

They built a multi user main frame computer

Many people with their own mice and keyboard and monitors could work on the same computer. This was done only thanks to c

This led as well to the UNIX operating system

What does UNIX stand for?

Steward mixed the culture of hippies and the culture of the techies (traducere pt oameni normali: people left on leaning side invented new shit that was not for war)

You have therefore new information due to guys high on lsd

AI MIT team guy

The creator of the open source community: Richard Stallman

Rock and roll

By a team of hippie looking mfs who invented C

Dennis Richie and Ken Thompson

In the 60s with assembly as the ruling language but also this compile

To do this thing, you need something you do not even have

Assembly was used to get to the moon

It is on github

Maragaret Hamilton

STORY ABOUT CIA, FBI AND DRUGS

PSYCHOANALYSIS, PSYCHIATRY

In the 50s, you had ENIAC. A lot of energy was wasted on light back there. Then came the transistor, who was also helped by von newmann as a consultant.

TODO – talk about cold war

COURSE 10

The Social Network movie - Mark Zuckerberg stuff

Gabi quote: 'remember mpp?'

Shockley put the condition that all research his hires were doing must write his name on it as well even if he didn't work on it.

The traitorous eight left Shockley's firm and founded Fairchild Semiconductors. They shrunk down the transistor to create the integrated circuits. Gordon Moore and Noyce formed Intel. They took the integrated circuit and created the microchip. They founded Intel in 1968.

Obs: 1968 and 1969 are very important for the test!!!

The Diamant TV has integrated circuits.![Pasted image 20250509162739.png]]

The cathodic tv used a ray of electrons to the middle of the screen and electromagnets with the tension from left-right, top-down. That's why the image shrunk down when the tv was closed.

Gabi quote: go hang yourself. please don't.

1969 - the moon landing? apollo 11. A lot of code was written for 72 kylobytes only Margaret Hamilton. ![Pasted image 20250509164209.png]]

CAUSALITYYYY ![Pasted image 20250509164423.png]]

Metallica 1981

When the bells toll 1984

Enter Sandman 1991

Ernest Hammingway (1899 - 1961)- story writer, a spy in cuba, bff with Castro. He wrote "The old man and the sea". He was accused to be a communist. CIA

SPF was invented in 1962.

Now comes FBI, CIA, DRUGS, Psychoanalysis.

Psychiatry has a boom during the Post World war 2 period.

Alan Turing died at 1941 due to suicide. MFI. Von Neuman and Turing did the turing machine.

Study about Freud, Jung.

gabi quote: "Degree of jeg"

Both Hemmingway and Turing went through medical procedures

test? One flew over the cuckoo's nest- movie and book, protag randle mcmurphy -ken kessey is author

There's a rumor that the apple logo is inspired by the bitten apple with cyanide that Alan Turing had on his nightstand after he died?

Woodstock - music festival? 3 days of festival. It was countercultural. Ken kessey provided the drugs as he was used by the CIA with the project MKULTRA.

wasp - white anglo-saxon-protestants

1950s had the korean war. It split korea in the current north and south korea.

Dennis rodman and kim jong un are besties?!

Fear and Loathing in Las Vegas: A Savage Journey to the Heart of the American Dream - drugs stuff

theodore kaczynski also was subjected to MKULTRA stuff

bridge of spies - movie, tom hanks plays in it

See no evil, hear no evil, speak no evil, do no evil

the peace sign was for anti nuclear armament as they were a group against war (hippie)

mother - pink floyd "mother should i trust the government"

test: Check the most important algorithms of all time - veritasium

john wayne - actor, played in many western movies. died because of the nuclear tests fallout.

anti-cultural movements west bands: The doors, the branded dead etc. The CIA had something to do with theses? Caused the drug use and stuff

another hippie group is the merry pranksters who were also given drugs by the cia?!

test: vannevar bush - developed the plan for technological development during ww2

the manhattan project

test: as we may think - article

the mother of all demos - 1968 engelbart and vannevar, tried to put the latter idea of memex into reality (some sort of artificial intelligence)

stewart brand - editor of whole earth catalog, he was part of the merry pranksters. he was given a photo of the earth from the moon by nasa

nasa nazi? operation paperclip, someone Braun. a lot of employees of nasa had scares caused by fencing as they were related to the nazi movement?!

gabi quote: "doctor mengele type of cuckoo"

movies made by tarantino

Zalmoxis de Alexandru Busuioceanu

Serious Sam game from 2001

COURSE 11

Quiz Mate Info:

1989 - sir by queen of england, tim burners lee, world wide web

1968 - The mother of all demos

as we may think - pineal gland, vannevar bush

jacquard - automated weaving tool with punch cards

an open letter to hobbyists - altair basic, bill gates

hacker, 15 year dude who was nicknamed c0mrade and broke the code of the pentagon and nasa

treacherous eight - william shokley got the nobel prize for the transistor

XOR gate, K-model named after it being made in the kitchen, bell company

e-thernet wire evolution

graham bell - telegraph, telephone, sub-atlantic telegraph wire at the end of the 19th century could ring from europe to america

principia mathematica - isaac newton

ted kaczynski -manifesto
geometry elements
appendia prima - johannes bolyai
kurt goedel - mathematics after isaac
basic concepts - algorithms "the art of computer programming"- donald knuth, mentions ada lovelace
perceptrons - marvin minsk, seymour papert - ai winter
mesopotamia - pythagoras theorem already proven
bernoulli numbers - ada lovelace sent a letter to charles babbage (mechanical computer)
inspector gadget, war games
the girl with the dragon tattoo
minority report, tom cruise
swordfish movie
the conversation - spy movie
1989 movie - sneakers
the matrix
mark albert - the italian job
ned stark, boromir - sean bean - the golden eye
sandra bullock - the net
kevin midkiff
the unabomber
guccifer
john mcafee
the whistleblower - edward snowden
terrance andrew davis
radio contest hacker
Lloyd Blankenship - hacker manifesto
cambridge analytica
dijkstra, backpropagation, simulated annealing, convolution, ciurul lui erastostene, inverse square root, convex hull, huffman encoding, min-max,

A brief history in info:

The 70s:

The most low level high level computer language: C (vance moment) - dennis ritchie and ken thompson (worked at bell labs)

They created the UNIX system with C. Mainframe computers - multiple users could enter the same computer with their own monitors, mouse etc.

A start of the geek culture.

Multics (mainframe computer) with the UNIX system (nerdy name)

The paradigm shift - change in politics, economics, society, technology.

Wall Street - economical shift.

The cold war - the ideological war between the ussr and the usa especially.

The first satellite - Sputnik (1957). FRIENDS joke spud - potato (spudnick)

The french put a cat in space. They also had a fully white flag for a while. gabi quote: a country of p....

The first representation of ai in a movie is Metropolis 1927 in germany.

2001: a space odyssey - 1968 movie stanley kubrick, the monolith

1969 - appolo 11

the shining - hereeee's johnnyyyy - 1980

"what do we say to the god of death?" - "not today" - game of thrones

a view over intelligence can be coming up with new algorithms to solve unseen problems

history of the cosmos

history of the world

history of informatics

the turing machine is a monolith machine

the cave was the monolith of human history

the virus is the monolith of the cosmos

information can be processed, stored and transmitted. A dichotomy is to separate the process from the storage.

Cosmos has mass and light, with the appearance of gravitation. Speed of light is the limit at which we can quantify and send information in the universe.

The ability to send information between machines, the internet, is the 70s discovery.

What is common between computer, cell, fortress - input and output of energy and information. Systems of energy and information.

"The environment is the outside of an entity"

Hardware - cell morphology, software - rna behaviour - analogy

the jacquard machine can be considered the ribosome. the punch cards are the rna. the carpet was the created protein.

von neuman and turing turned the mechanical machine to the electronic machine.

study biology again dude.

remember aristotle was alexander the great's teacher

lightbulb->transistor->integrated circuit->microchip

Arpanet - check the cold war situation

questions such as how did life start? inspired the creation of computer science

wall street 1987 movie, bud, michael douglas: greed is good

genghis khan : **I am the flail of god.** Had you not created great sins, god would not have sent a punishment like me upon you.

microsoft, apple, ibm - the big guys in the 70s-80s

richard stallman started the open source movement in the late 80s "GNU's Not Unix" is the recursive name of GNU

50s-machine code, 60s-Assembly, 70s-C,TCP-UDP, HTML, 80s-C++,90s-Java,2010-deep learning

c++ was made by bjorn strauss (he worked at bell labs) - 1983

1995 - java

in the 90s silicon valley is in a boom

2000s - Y2K

Look at silicon valley - hbo

.com vine de la combagia, comlombia (dot commercial)

2010 - deep learning.

franc rosenblanc - neuron 1958, marina sua

minsky - perceptrons book

linus torvalds - creator of linux kernel, successor of richard stallman

Agricultural Revolution, Technological/Industrial Revolution, Informational Revolution

msdos (disk operating system)->windows versions

total commander

facebook - 2006

geoffrey hinton - godfather of ai