

-- Prologue --



Alan is taking a walk



An idea of a Turing machine.



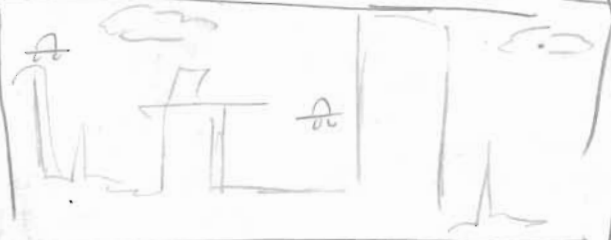
Plan of Turing machine



What it's about how it was discovered.



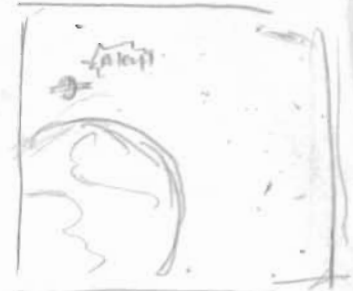
Year 20x1
time of peace



Something
despicable
happened...



When technology
is advanced...



Space station, do
you realize?
That's sailing
approaching

Something
big

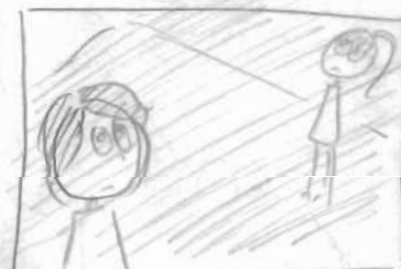


IMMINENT DOOM !!



What's
happening?!

What?
It's just
appearing
out of
nowhere



FOOSH!!



AAAARGH!!

AAAARGH!!



PANIC



BOOM

BOOM

WHAM?



KABOOM!!

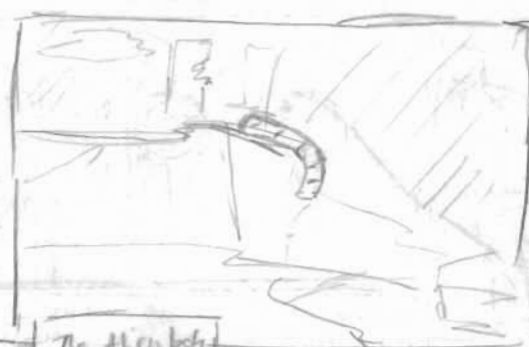
massive
destruction
of human
population



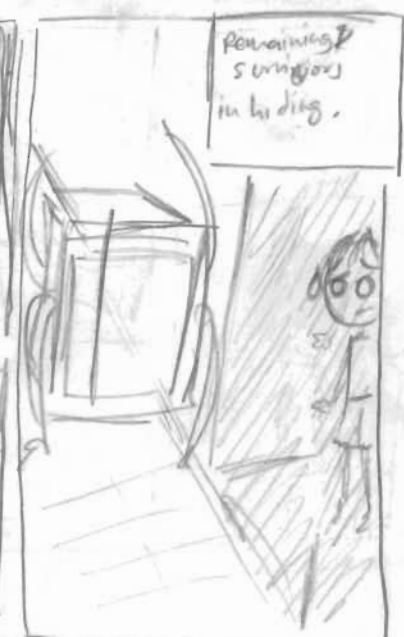
BOOM



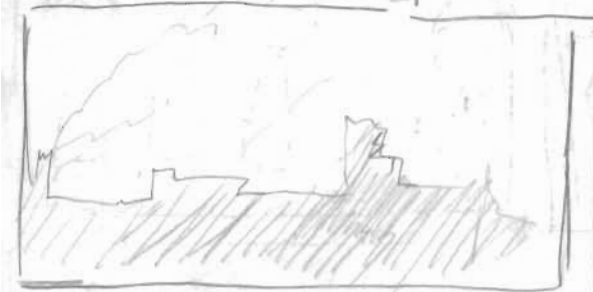
World as we knew it was gone.



The bombs have won.



Remaining survivors in hiding.



Many travelled out of cities and into the wilderness to form refugee camps



Some thing has to be done about this...



There were rumors about a camp in Area 51



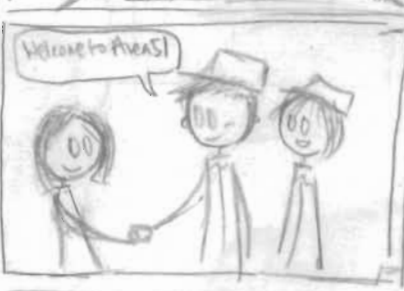
It's only a matter of time before they decide to attack again



That there was a plan for rebellion. I was interested...



I made my way to the camp...



Welcome to Area 51



Another survivor!



They invited me to the rest of them

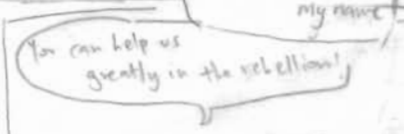
Something weird happened though when I told them my name



Hello everyone! I'm Nala Turing



Name



You can help us greatly in the rebellion!



OMG IT'S THE DEPENDENT OF THE GREAT ALAN TURING



bit

about Turing



Yes I'll try

So it began, the discussions and stuff.

Blah Blah

For a few days, we even stayed in Alien bot parts to test

From the researches of, we know the cores follow logarithmic machine.

You Nala Turing, Hark... what's Alan Turing at anything that might James does?

All his research has been destroyed in the ~~analog~~ machine, where do we look now?

She really loves her van doesn't she?

guys! I have done this research, family diary

I found... why didn't you say so before?

And so, a new more efficient research began...

She had an epiphany and...

hey ~~Nala~~ Guy come together to discuss their findings

Nala Guys, can we make crash the robot's systems?

How? make it run an infinite loop?

It might be able to detect the loop.

If the robot are built on a total Functional Programming language...

At such a program will just not run!

What is that?

TFP

Total Functional Programming differs from most "weak" forms by

- restricting recursion to operating on reduced forms of its arguments
- forcing functions to be "total" (i.e. have definitions for everything inside its domain).

So this solves the problem of waiting for functions right?

Correct. However there are limitations of TFPs. Imagine the ticker tape machine of infinite length, such lengths does not exist in TFPs implementation of a machine!

So that means that TFPs are not Turing complete...

GUESS...

Nala

The Robots Are the based on Idea of Turing Machines!

to refer to 1st page for John Turing mail

I've got an Idea!

That means Programs with Infinite loops do Run Inside them !!!

Silly Guy

```
while(true)
{
}
```

neverending loop!

$\times 7$

Silly Guy

What??

I'm pretty sure such a loop can be detected by the robot

Even my grandma's computer can detect that!

Okay... what can we loop it with then?

Do you guys know what an Undecidable problem is?

Nala

No

No!

Do you know what a decision problem is?

Nala is funny These guys are stupid!

It is a problem with a yes or no answer

Ok

An Undecidable problem is a decision problem that cannot be solved correctly with a single general algorithm

Nala

Silly Guy

Are you thinking what I'm thinking?

What are you thinking?

Nala

Nala has an expression of hope or hardness

a! go to a!

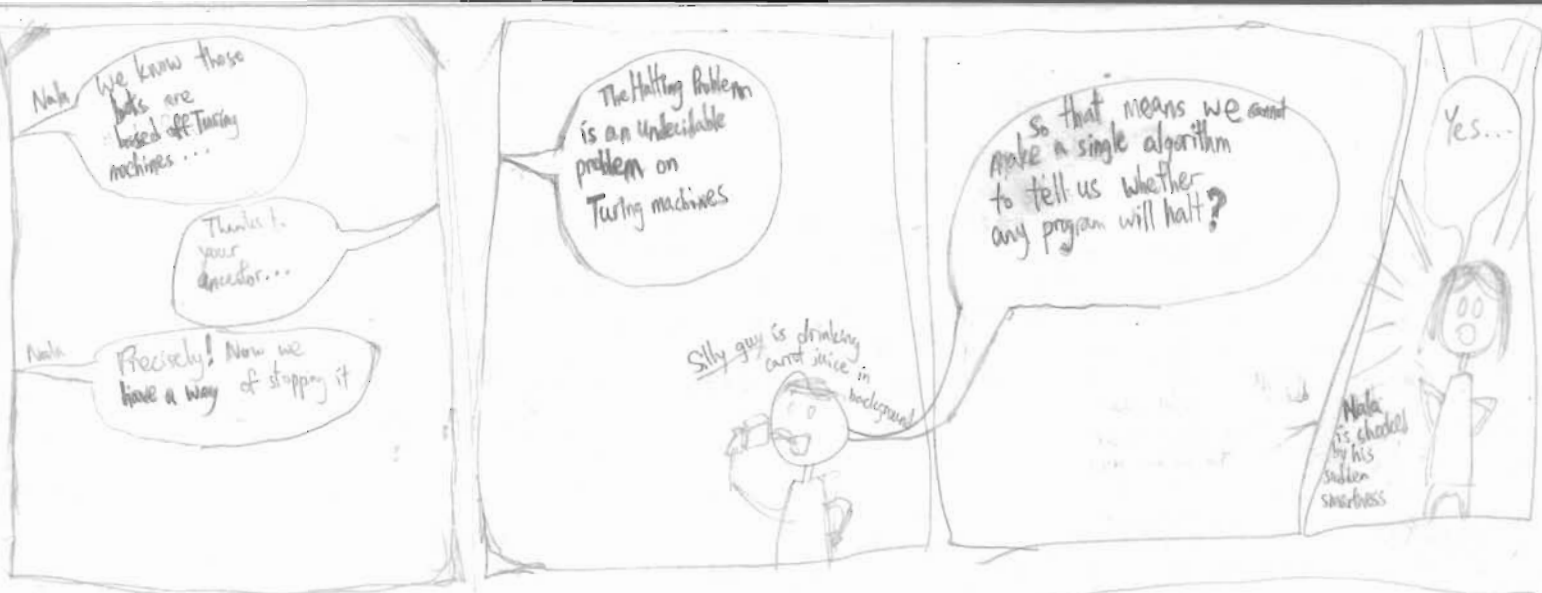
Foreverman

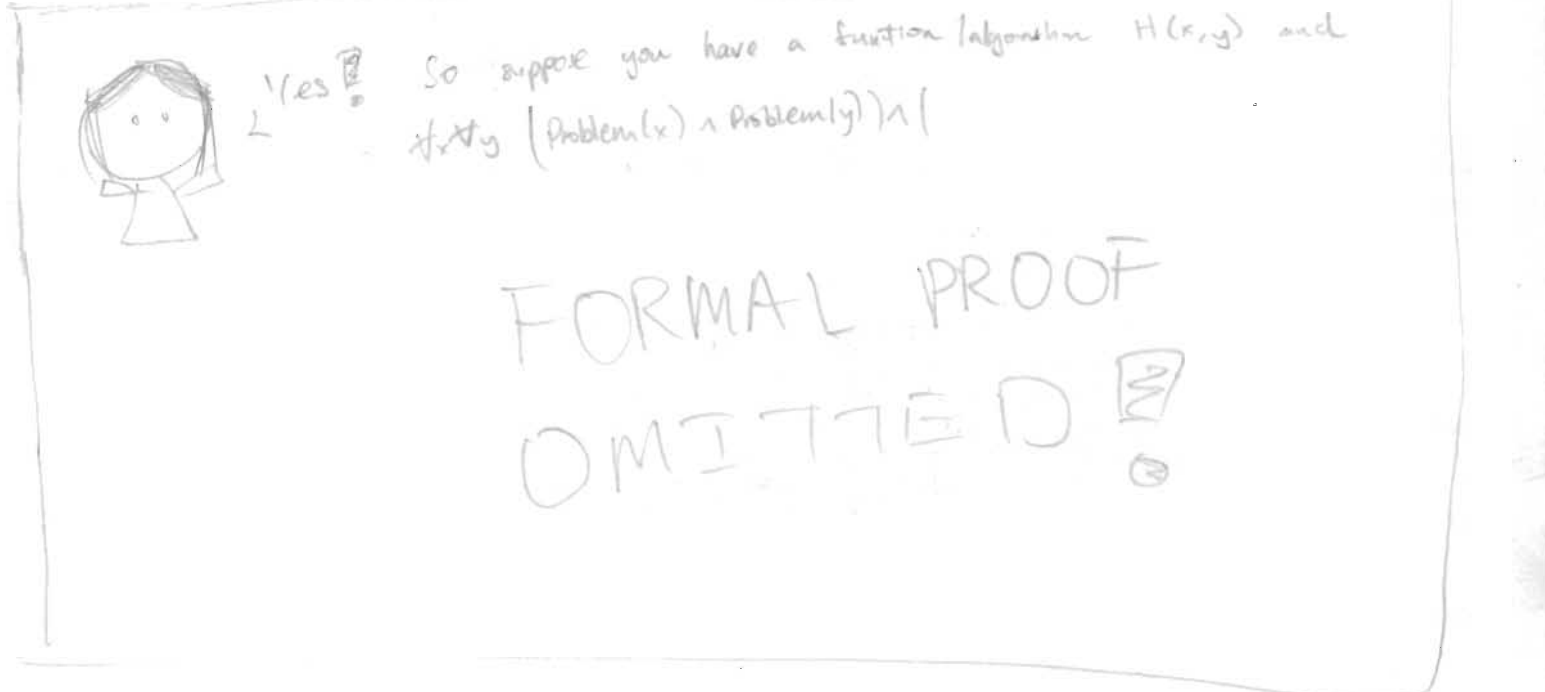
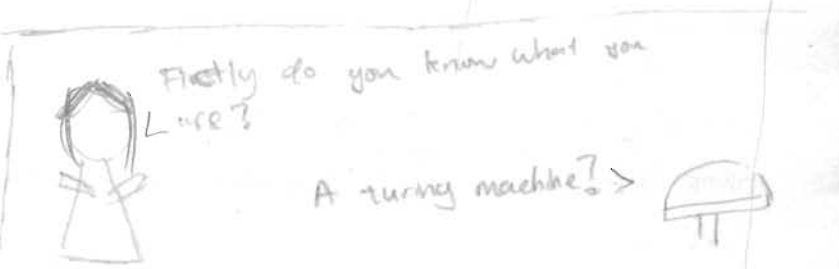
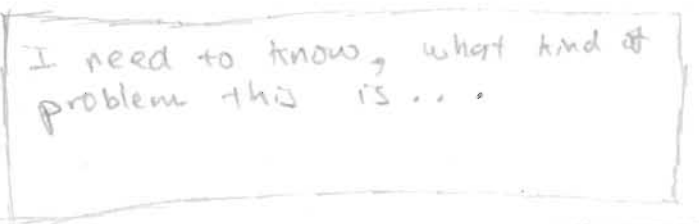
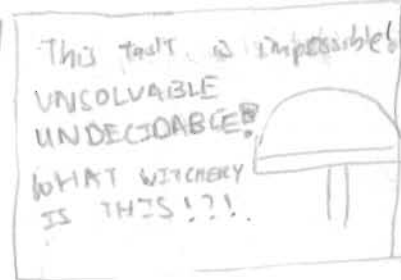
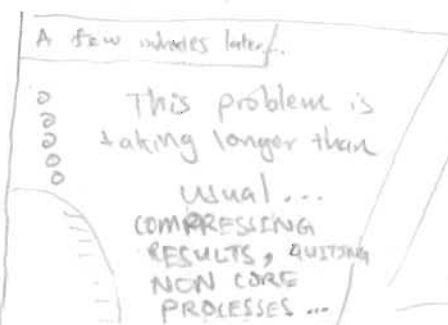
No!

I'm thinking about the Halting Problem!

Woah...

10×3





FORMAL PROOF
OMITTED

