

# Steam Moon

But why, some say, the moon? Why choose this as our goal? And they may well ask why climb the highest mountain? Why, 35 years ago, construct a transatlantic bridge? Why do Oxford row against Cambridge?

We choose to go to the moon. We choose to go to the moon in this decade and do the other things, not because they are easy, but because we are British.

A speech by Prince Edward, his Royal  
Highness the Prince of Wales on his  
acceptance of the role of Vice Chancellor of  
Corpus Christi College at the University of  
Oxford.  
June 17<sup>th</sup> 1961.

“This is one small step for a man  
But a giant leap for the British Empire!”

Neal Armstrong-Jones  
Sea of Storms  
July 28<sup>th</sup> 1969



As a result of Event Four, the one mile, the winner was R.G. Bannister of Exeter and Merton Colleges, in a time which, subject to ratification, is a track record, an English native record, a United Kingdom record, a European record, in a time of three minutes...

...at which the rest of Mr. McWhirter's announcement was drowned out in the enthusiastic uproar.

Norris McWhirter  
Association of Track and Field Statisticians  
Iffley Road Track  
Oxford  
May 6th 1954

*Anticipating Bannister's success Mr. McWhirter had carefully rehearsed his undignified but dramatic "crescendo-suspense" announcement in a bathtub at his twin brother's house the night before the race took place.*

*Despite what was considered an overly flamboyant style, Norris went on to commentate on the next three Olympic games and with his brother went on to publish the highly successful "His Majesty's Book of Superlatives".*

## Chapter 11

### The Information Super Carriageway.

This is the name that has become associated with the information system invented by Sir Timothy Berners-Lee for the Centre for English Research into Nature (CERN).

The original system existed purely within the CERN building in Geneva. This building was sited in Switzerland for fear of the potentially explosive nature of some of the experiments. It was felt that any sort of big bang would be restricted to the banks of Lake Geneva and well away from the God fearing people of the British Empire.

The original system consisted of a series of vacuum tubes connecting the different offices of CERN to the central library. A user wanting some particular piece of information would jot it down on a piece of paper and place it in one of the small canisters provided. The canister would then be placed in a vacuum tube and differences in air pressure would force the canister to the library. A librarian would then open the canister, find out the answer to the question and return it to the sender.

Similar systems existed elsewhere, in department stores for instance, where employees of the lower orders could not be trusted with monies. Staff would place the order and the payment in a vacuum cylinder and the accounts department would return a receipt, and if necessary, any change.

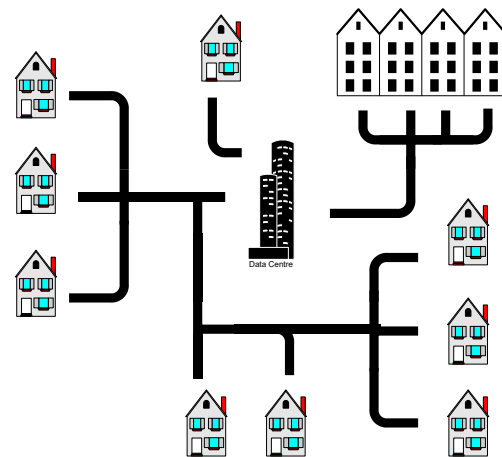


Fig 26.1 How the country could be connected to the Information Super Carriageway

What Berners-Lee did to revolutionise the system was to institute a protocol for the transfer of these cylinders. The Hollow Tube Transfer Protocol or HTTP not only worked for CERN but as figure 26.1 shows, could be expanded to cover the whole of the British Isles.

This is how it works.

1. The request is written, or preferably typed, and placed in a cylinder or *Information Packet*.
2. The top of the cylinder, or *header*, contains details about the destination of the cylinder and to where it is to be returned.
3. The message arrives at the data centre and is picked up by an employee commonly referred to as a *server*.
4. This server then goes to the bank of pages. These pages contain entries from a variety of sources including the Encyclopaedia Britannica, the Oxford English Dictionary and the Holy Bible. The page you are currently holding is one such page.
5. The server selects an appropriate page and copies it using a simple mimeograph technique.
6. If the page is not available, then a telegraph message is sent to the nearest Server that does have the appropriate page. They then forward a copy of the relevant page via vacuum tube to the local Server.
7. Whatever the source of the page, it is then forwarded on to the user
8. In extreme cases, the user is sent a message that informs him that the page is "Not Found". For reasons that no-one has ever understood, this called a 404 error (although it has been suggested that it is named after a particularly poor data server in the London Data Centre).

A small fee is charged for every transaction. Some pages contain advertising materials. If a requestee receives such a page, then the fee is waived.

The speed of this system is remarkable. Simple questions can be answered in less than an hour without leaving one's desk, whereas a trip to a local library might take five or six. More complicated questions can be answered in a few hours whereas a postal request or a trip to the British Museum might take days.

This system makes it unnecessary for individuals to own libraries of their own, a fact that has not gone unnoticed by the authorities with vested interests in books and publishing. Maurice Line, custodian of the British Library, has voiced concerns that the Information Super Carriageway could do away with books entirely.

It is the government's intention that everyone shall have an Information Super Carriageway vacuum tube in their home, although some areas of the north (notably Scotland) may not become connected before the end of the century. It will be an outstanding feat of engineering, up there with the Trans-Atlantic Bridge and the journey to the moon, but they say that information should be as ubiquitous as good drainage and gaslight.

Taken from "How Things Work"  
By Frederick Simmington-Blythe  
Newton Press  
1988

## Chapter 8 Escape Velocity

They were the Dogs of Death.

Purchased from the Chinese Oligarchy, they had been bred for one purpose and one purpose only. To kill.

None of us in Space City had seen them, but we all knew they had teeth of diamonds, claws of tungsten steel and exhaled the putrid air of hell itself. They carried the plague and one bite was a sentence to a death of a thousand screams.

And the sound, that terrible sound.

A howling from the depths of hell. No tortured souls could express their torment in notes of such perfect pitch.

No man survived their bite and no prey escaped their agonised pursuit.

And now they were hunting me.

I thought back to what had brought me here.

The arrangement was simple. I would leave a note in the north end of the trench by the gypsy encampment. My last missive had contained two words.

"Выгони меня"

Get Me Out!

Two days later, I had found a terse note pushed under my door.

"Траншеи. Завтра. полночь..."

The Trench. Tomorrow. Midnight.

I had arrived on time but no-one was waiting for me and not only was no-one waiting for me, there was no-one on the horizon. The night was clear with a three-quarter moon and I could see for miles. I searched the trench for any sign of another note.

The trench had originally held a wall but the stones had long since been stolen to form the barricades of other men's castles. They had left behind them a ditch close to a hundred yards long and a couple of feet deep. I stepped in and lay flat on my back, hiding from imagined pursuers.

And that was when I heard the cries of the hounds.

Trying to take my mind off their rabid cries, I wondered whether the gypsies might be my saviours. They were tolerated by the troops in Space City, protected by the superstitious nature of the guards. They spent their winters in the towns to the south and their summers in the plains to the north, but in early spring and late autumn they inhabited the shrub lands around Space City. But now they had moved on and the land around the trench was deserted.

The screams of the dogs shook me from my reverie. I closed my eyes and waited, alone in my shallow grave.

Suddenly, I heard another sound, the sound of horses and dared to glimpse over the side of the trench. A short distance away I could see a gypsy caravan pulling up by the end of the furrow. It was the biggest of the troop's small fleet and was pulled by four horses instead of the customary one. I recognised it immediately. It belonged to the self-proclaimed King of the Gypsies.

The King had arrived to visit his people just over a month ago. He was a flamboyant character, surrounded by ostentatious wealth and many of the inhabitants of Space City had travelled to see the spectacle of him strutting in his finery.

But now, it looked like he was here to rescue me.

The King's aide, a tall balding man in silver robes leaned out of the back of the van and gestured in my direction.

"Спешите." he said

Hurry!

As I pulled myself up from the ditch, I saw the carriage man had leapt from his seat and was running towards the four horses that drew his ride.

What he did next almost stopped me in my tracks.

He released the horses from their bridles and shooed them away.

The balding man was becoming more agitated. He was gesturing wildly and shouting something I found difficult to understand. Once I had filtered the profanities from his tirade, I realised what he was saying

"Посмотрите за вас."

*Look behind you!*

I glanced behind me and immediately understood the need for urgency.

A few feet behind me were the Dogs.

Their fearful nature had not been exaggerated.

Their eyes appeared to glow, steel talons tore at the short grass as they ran towards me. Moonlight made their teeth shine and the stench of their breath filled the midnight air

I turned towards the balding man.

"Выполнить." he said.

*RUN!*

So I ran.

As I ran towards the caravan, I saw the carriage man released a catch on the side of the van and two panels fell away from the front end.

What they revealed astounded me.

A Steam Engine!

The dogs were snapping at my heels by now, but I forced myself on using the very last ergs of my strength. Trying to run faster than my body could stand, I stumbled in the short grass and threw myself forwards.

The dogs leaped.

And fell.

The carriage man who had taken his place on a seat above the engine pulled on a small chain beside him.

The engine emitted a piercing shriek.

I put my hands to my ears to protect myself from the terrible sound, unlike any I had heard before.

But the effect on the dogs was more profound.

They pulled up suddenly as if the sound coming from the engine was overpowering all their senses.

The engine shrieked again and they stumbled, shaking their large heads as if trying to clear their minds of some terrible miasma.

A third shriek, and the dogs turned and fled.

I pulled myself to my feet and watched them flee. I could not help but notice that they were running towards a number of horsemen who had come over the horizon whilst I had hidden in my trench. The riders were still best part of a mile away, but that distance was shrinking fast.

I knew they were coming for me.

The bald headed man extended his hand in my direction.

“Спешите.” he said again, this time with more urgency.

Hurry!

I reached the caravan and he pulled me aboard. I stumbled in and found myself in a small but beautifully appointed cabin. I found the King of the Gypsies sitting on small but plush sofa. He looked curiously uncomfortable in his long golden robes.

“Make steam!” he shouted.

The caravan started to move. As it jerked forward, I lost my balance and fell to the floor. I could feel the rumble of the engine through boards and I knew this simple device had greater power than I had ever encountered. I read later that these engines could reach over forty miles an hour. The horsemen would never catch us.

As we fled over the Low Lands, the King of the Gypsies tore of his robes. Below them, I was surprised to see he wore plain black trousers and a bleached, starched shirt. He also wore a blue and grey striped tie, which he straightened after a quick glance in a mirror.

His aide too had removed his robes and also wore black trousers, but in his case they were accompanied a cardboard fronted shirt, black bow-tie and tails. He handed the King of the Gypsies a black velvet smoking jacket which he quickly pulled on, carefully fastening the buttons.

“Chivers,” said the King taking a seat and lighting a cigarette. “Perhaps the young anarchist could use a Gin and Tonic?”

I looked at him askance.

“Might I be so bold as to suggest that a good strong cup of tea may be more appropriate under the circumstances?” asked Chivers.

The man in the smoking jacket rubbed his shaven chin with well-manicured hands.

“Yes,” he said. “Quite right, quite right.”

Chivers moved to the back of the ‘van and placed a kettle on a small stove. He began to pour Gin into a long glass.

The King leaned forward and placed his hands on his knees.

“Well young man,” he said. “I believe you have something to tell me.”

Taken from “A Russian Spaceman in London”

Anatoli A. Blagonravov

New Thames Library

1977

## The Diogenes Club

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Of the many secret organisations within our Great British Empire, the Diogenes club is perhaps the most secret.

Few have even heard of the association and of those who have, many have gone missing and the rest, it is rumoured, have joined its ranks.

Although many of its members have been high profile citizens of the Empire (it has boasted several kings and prime ministers and during the early nineteen hundreds, at least six bishops <sup>[citation needed]</sup>), the nature of its business means that the identity of the majority of its members and all of its operatives must remain secret.

The workings of the organisation were formalised by royal decree in 1894 and part of that decree specified that all conversations be recorded. This recording of the



Diogenes club was much contested by Prime Minister Gladstone. He described it as both unnecessary and likely to compromise the security of the organisation. Queen Victoria disagreed, being uncomfortable with formation of an organisation whose machinations would be unknown to her. The recordings went ahead, but she did agree to maintaining the anonymity of the Club's members and no names are attached to the records.

The original recordings were made by a very special, if not unique, man. From 1894 until 1910, the Club employed a stenographer called Raymond Babbit. Babbit was a *savant* with a prodigious talent for recording and recalling what was said. Although he recorded all the conversations, he did this mechanically without necessarily processing the information in any way. His own language skills were poor and it is unlikely that he understood the words he transcribed.

On his death in 1910 he was replaced by a device that recorded sounds by etching grooves into thin brass discs that could later be played back by phonograph. In 1967 this device was replaced by one of the first wire recorders.

It is unlikely that any of these recordings have ever been listened to. The conversations were rated Most Secret and only of importance to those that were party to the original discussions. It is some of these recordings that have fallen into the hands of the BritiLeaks.

We have begun the long task of transcribing these recordings and what we have found will rock the British Empire to its core. Indeed, it may cause us to question the very bedrock on which the Empire is based...

BritiLeaks Entry  
<http://www.britileaks.org/diogenes>  
30<sup>th</sup> July 2010

*This content was removed within minutes of its creation and the transcriptions described never appeared on the pages BritiLeaks.*

*The day following the posting of this page, its author, Julian Fawlkes-Assange had number of charges of impropriety brought against him, including Consorting with Whores and Behaviour Likely to Offend the Public Decency.*

*He went missing three days later and was never seen again.*

A : Cecil is back from Russia I see.  
B : Yes, he was there for over a month waiting for the young Russian to defect  
A : It must have been hell.  
B : There are only so many of the creature comforts you can carry in the back of a caravan. Still, he survived.  
A : I believe Cecil requires more than survival.

*There is a pause in the recording of approximately 45 seconds.*

B : Have you met the young Russian?  
A : Not yet. Have you?  
B : Yes. Strange young man. In some ways more British we are.  
A : In what ways?  
B : Unflinchingly loyal to the King. Willing to lay down his life for the Empire.  
A : And you're not?



B : It has never been asked of me.  
A : Nor I. Fortunately.

*The recording contains the clinking of glasses.*

A : So what did he have to tell us?  
B : The Russians are capable of creating their own satellite.  
A : You mean they are capable of creating their own Moon?  
B : After a fashion. Although the word "Moon" flatters the construct somewhat. It is a metal sphere approximately 2 feet in diameter and weighs a little under 110 pounds. A more accurate description would be a meteor.  
A : What does it do?  
B : It sends a signal by means of the radio waves our anarchist friends are so fond of.  
A : A message?  
B : I believe it will beep.  
A : That barely constitutes a message.  
B : I am informed by those who know about these things that if you have the ability to receive it, a beep is more than adequate as a communiqué.  
A : So how does it work?  
B : If a body leaves the Earth with sufficient speed and reaches sufficient height, it will not return to Earth.  
A : Why does it not fall?  
B : The moon doesn't fall into the Earth, nor the Earth into the sun. I believe the principal is the same  
A : But the Moon is more than quarter of a million miles away.  
B : Slightly less I believe.  
A : Whatever. Surely it is far enough away to be outside the Earth's gravitational field?  
B : Did you not study the physical science at Eton.  
A : Oh yes, the master was Smithers as I seem to recall. Good chap, always had a good story to tell.  
B : Then you'll remember that the further away things are, the less the pull is between them,  
A : Sadly Smithers was hopeless at explaining the stuff. As soon as he started talking about mathematics, I started think about ruggger. Never had a head for figures.  
B : Let us just say that if a body moves fast enough, it can stay in orbit.  
A : It has the sniff of plausibility

*There is a pause in the recording of approximately 50 seconds.*

A : Will not the ether have a breaking effect on the meteor? If it slows down, will it not return to Terra Firma?  
B : I am unclear of the science but I have reassured that this is not the case.  
A : Fascinating

*There is a pause in the recording of approximately 35 seconds.*

A : What shall we do about it?  
B : About what?  
A : The ruskies and their false moon.  
B : Do we need to do anything about it?  
A : Good question. My fear would be that if they can launch an object into the ether,

they can drop it wherever they like.

B : At this point, they are unable to do so. Even if they were, the friction derived from the air would cause it burn. They would create a short lived shooting star. Pretty, but not threatening.

A : Should we let the people know when the Russians launch their moon?

B : I think so. A little healthy fear is never a bad thing. It will grease the gears if we need ever take action against the Russians.

A : Good point. Is there anything else?

B : No. No, wait.

A : Yes?

B : I think we need to make sure we have a moon of our own.

Note : A and B are never named.

Transcription of the Brass Disc Archive  
20<sup>th</sup> February 1956  
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## Of Apples and Attraction

Well gentle reader, we all know that Sir Isaac Newton sat under an apple tree and let an apple fall on his head. For a very clever man, he could be very silly sometimes. Would you sit under a tree that had apples falling out of it? He should have been wearing a crash helmet. He is also supposed to have said "Apples fall down". What did he think they did? Did he think apple growers put nets over the tops of trees and waited for them to fall up? No gentle reader, what he actually said was:

$$g \propto \frac{Mm}{r^2}$$

Where

$g$	=	the acceleration due to gravity
$M$	=	the mass of the planet
$m$	=	the mass of the rocket
$r$	=	the distance between them

This means the force of attraction two bodies is proportional to the product of their masses and the further away the two bodies are, the weaker the pull.

So how does this apply to spacecraft? I hear you ask.

As we saw in the last chapter, the centripetal force  $F$  pushing the satellite out is given by

$$F_c = \frac{mv^2}{r}$$

The force of gravity is given by

$$F_g = mg$$

So from this we can work out the speed a satellite needs to travel is

$$v = \quad \quad \quad \text{(I leave this for the reader to calculate!)}$$

I know that all this seems a bit complicated, but it's not rocket science. Is it?

