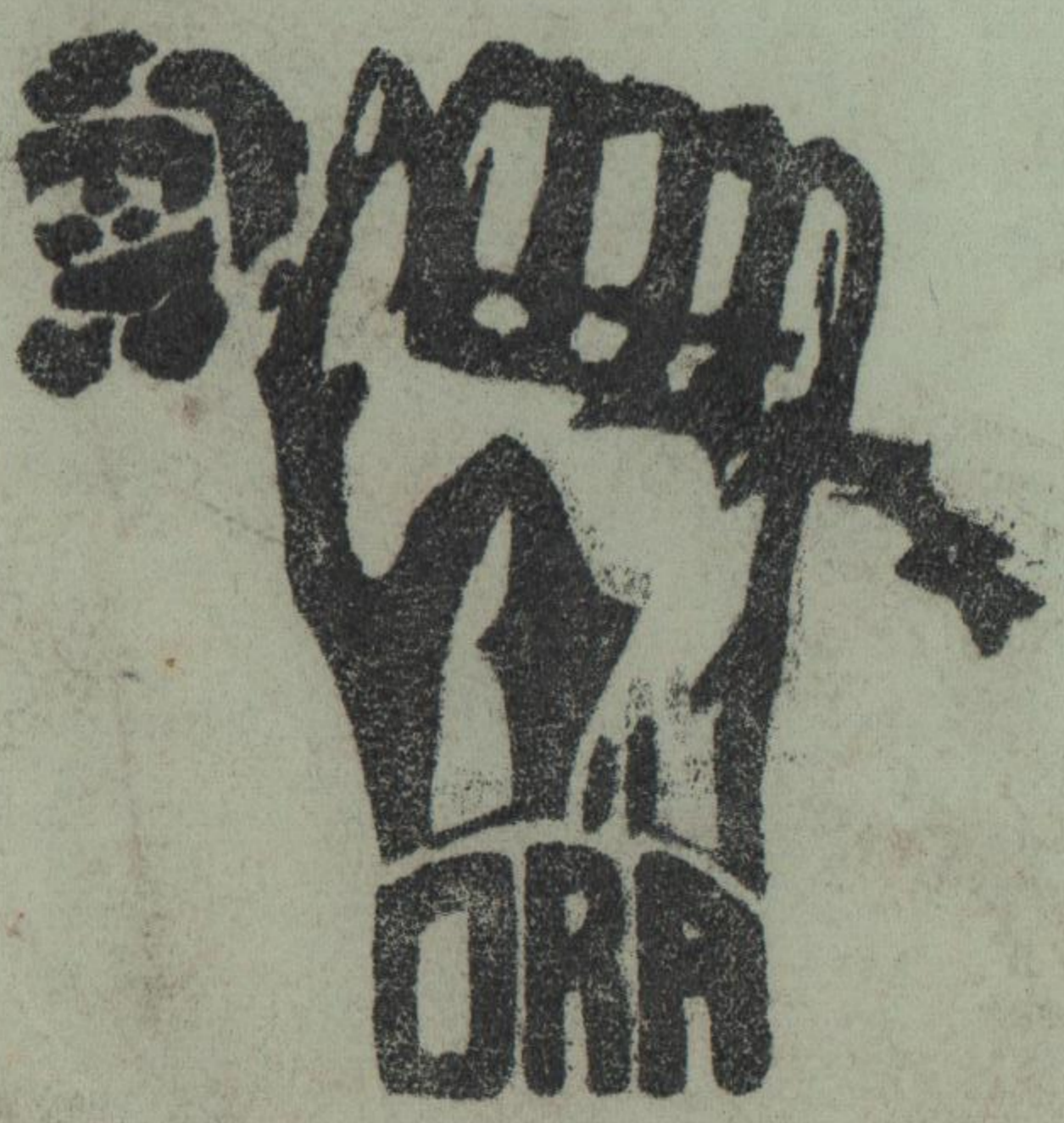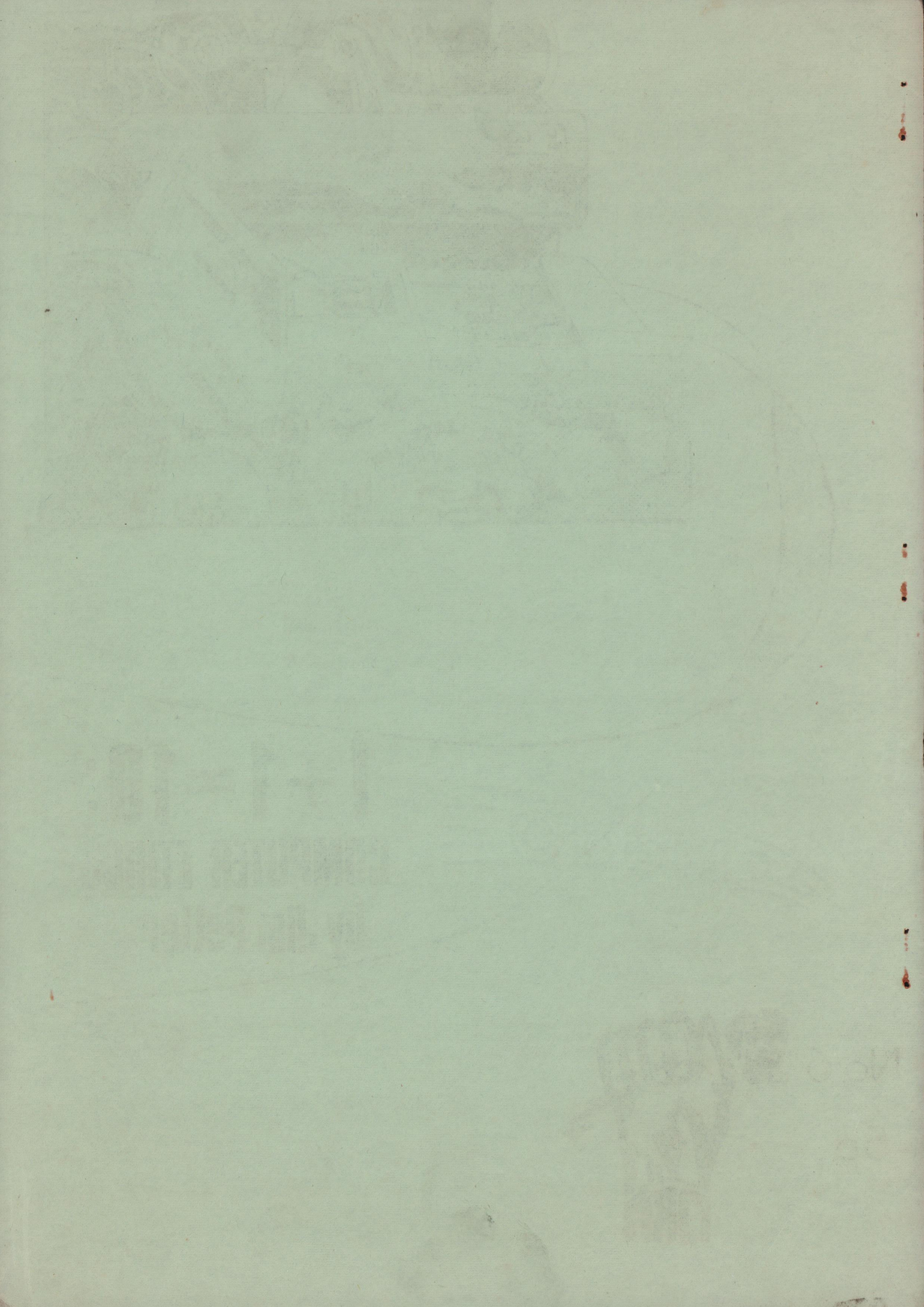# 1+1=10:
COMPUTER ETHICS
by Jim Petter

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ORA

We are all prophets of doom today. To some it is the H-bomb, while to others it is chemical or biological warfare, starvation, overpopulation, pollution, pesticidal poisoning, soil exhaustion, drugs, meteorological calamity through carbon dioxide excess, race war, the permissive society, alienation: in fact just name it and there will be no lack of volunteers to demonstrate their righteous indignation. My own hunch is that far from deprivation or horrendous cataclysm, the human race is more likely to expire through a surfeit of lampreys. Unfortunately, this is not an apocalyptic convulsion and so does not attract disciples; it causes the release of even less adrenalin than the threat of the computer.

There are a few would-be eggheads who are trying to frighten us with the prophecy that by the end of the century we shall all be in the thrall of the computers. So far, the only reaction from professional protesters and starry-eyed dogooders has been the very real concern, that by the year 2,000 a.d. we shall all have a neatly filed dossier in the archives of Scotland Yard. This is bad enough, and an excellent hobby horse for virtuous reformers. By all means - if we can - let us keep the computer out of Scotland Yard; but that will have only a small effect on the progress of capitalism. It is the role which the computer is playing in society as a whole which needs a cool look.

Before we can understand that role, we must have some idea of what a computer is, how it works and what we can do with it.

A computer analyses facts and determines their relationships to each other; as we shall see this analysis is restricted to reducing all facts to one or other of two, and only two, opposing but indiscriminate elements. It is spoken of as a logical machine: that is it insists that there can be no effect without a cause, and to predict a sequel we must isolate the stimulant promoting the movement. Homo sapiens, seldom able to resist the temptation of clairvoyance, deludes himself that only good intention is required for willing a consequence. Political reputations are perennially foundering on this conceit, and I hope to show that processing good intentions through a computer will be only marginally effective in preventing others.

There are two types of computer, the analog and the digital. The analog machine is usually built for a special purpose, to examine a particular problem, and is a comparator. It finds its main use in the hands of scientists and technologists, and although it may spin off by-products which appear in the guise of new commodities, it is unlikely to be a crucial factor in the destiny of capitalism. It is a one off machine, usually hideously expensive, a tool of the egghead and there we can leave it. It is the digital computer which is increasingly affecting all our lives.

In its simplest form, a digital computer is no more than a high speed adding machine. A super, super, super high speed adder. Sums can go through with the speed of light - at 186,000 miles per second. For our purposes this is instantaneously, but as we shall see, this speed is seldom achieved in practice.

Computers can also be made to multiply, subtract and divide, but only by using mechanical and mathematical tricks which considerably slow the process. No computer can handle fractions without an intricate and indirect approach. After cash decimalisation, we are all learning how life is complicated when fractions cannot be meaningfully translated. A third of something is a concept we need to translate many times in our daily life, yet a third of fifty new pence or even £1 no longer has any concrete solution.

There is a hoary myth that a solicitor will charge 6s.8d. for writing a letter, or three letters for exactly £1. If a cut-rate solicitor was today so unprofessional to charge these rates, it will now be at least 35 new pence per letter, or a rounding off to an extra 5 new pence (one shilling to you and me), for three. One third is absolutely meaningless to a computer, although a good deal of cheating at the cost of complication in programming, will allow one third and other fractions to be processed through the machine.

Computerologists have their own jargon, and to their credit they have tried to use words familiar in everyday speech, words which will convey some idea of what they are describing. Unfortunately, this causes confusion, because they use words which in everyday use have a wide range of meaning, while computer jargon restricts these words to a very precise definition. I have already used the word 'logic' to describe the basic computer process. In a sense it is perfectly correct to see the computer process as a logical system, in which any effect must have a cause related to the movement which has taken place; but most of us will shy away when the computer expert starts talking about logic systems. In the same way, when the computer programmer speaks of feeding information into his machine, we are puzzled.

To us, information, at least when it is official, is several pages of small type addressed to infants and drawn up by lunatics. What the computerologist means is that when he has a problem to solve, he first breaks it down into all the single bits of information which may affect the answer; in fact, he calls each single particle of information a bit. These bits are fed into the computer, brought into contact with each other, and what happens is the answer. This answer is the information which the programmer is seeking. To avoid confusion, the programmer distinguishes between the information which he feeds in, and the information which comes out the other end as the answer. What is fed in, he calls data, while 'information' he reserves for the answer. It is not necessary for each bit to be scrutinised by every other bit; the programmer can address his bits to the computer memory. Again 'address' and 'memory' are familiar words, but they have a wider meaning than the precise construction given to them by the jargon.

What the programmer does is to direct his bits into a storage where they will be used in association only with the bits they may effect, and at a point in the sequence where they are relevant; to accomplish this, the programmer will say that he 'instructs' his computer when and how data is to be used.

Basically, the computer is delightfully simple. The programmer just feeds bits into the machine, every bit being of identical value. These bits pass through what are called gates which are really switches; a bit will pass a gate when the switch is closed but not when the switch is open. What makes the gate open or shut is the type of bit which stimulates it; a gate can be stimulated by the bit which is presented to it, or the stimulation can come from the instructions which the programmer has put into the computer store or memory.

Every single bit has to be reduced to one or other of the only two types which the computer will accept, and are designated either with the symbol '0' or the symbol 'I'. This is the binary code which is all that the computer language consists of. When the computerologist talks about computer language, all he means is that any problem he loads into his machine has been reduced to the two binary symbols of 0 and I, and that a sequential addition sum is performed in a manner which he has determined in his program; not in deference to the Yanks, but to distinguish it from "programme" which is a catalogue of some organised activity.

At first sight it would appear that here is something far in advance of even the new arithmetic, and that the binary system should be introduced forthwith

into all schools.

Most of us can write down one million as a I followed by six Os. But in binary, a million becomes IIIIOIOOOOIOOIOOOOOOO, a total of 22 symbols but differentiated only twice. It might be possible to teach children binary arithmetic, but I doubt it. In any case we should have to segregate a whole generation from contamination with decimal symbols.

What humans can take in and translate into meaningful numbers is rather limited, depending quite a bit on the system of numerology. The ancient Greek system did not allow the ordinary greek to conceive anything much above I,000. The Romans did a little better with IO,000 as their limit. Although the introduction of the zero in theory should allow us to identify a number of unlimited symbols, in fact, one million is about the limit for most people. A billion becomes meaningless, and governments are able to draw upon this limitation when they mount their astronomic budgets for defence and space exploration.

We use the word 'astronomic' as a popular adjective to qualify meaningless number because the stars are so distant that expressed in miles, not even the eggiest headed astronomer can have any conception what the distance really means.

Even when stellar distances are expressed in light years, this only serves as a measure of comparison. The nearest star is 6 followed by I3 noughts in miles away, and the sun is 9 followed by 7 noughts. Very few people would guess from this that the nearest star is rather more than a million times as far away as the sun, and even that conveys very little.

Possibly a more meaningful way of conveying the distance of the nearest star is to think that if it takes a space capsule four days to reach the moon, it would take a year to reach the sun; at this rate, if Java man, the oldest known fossil hominid, a creature which could not claim the honorific title of homo sapiens, had left his birthplace in a space capsule, he would now be half way to the nearest star. And after this, distance becomes truly inconceivable.

Although the computer can only process the binary symbols of I and 0, the pure binary system is never used. Computer manufacturers invent hybrid systems so that programs can be more easily coded from decimals and also enable the computer to process the alphabet. The advantage of binary I and 0 is the incredible speed at which problems can be processed, but the limitation is that each data bit can only appear as either I or 0.

Always assuming that by trick or minute dissection anything can be split up into a fundamental I or 0, almost any problem can be computerised by a process of simple addition. It follows that if every bit must be I or 0, it is yes or no, positive or negative, black or white, good or bad, open or shut; there are no greys, no brilliants opposed to dull, no fractions no "m'm,yes, but....". The Computor is rigidly a quantitative machine; qualitative change, mutation or the dialectical process are outside its range. Revolution can never be translated into computer language.

Now let us see what happens in practice. When computer programmers are being trained, one of their first exercises is to construct what is called a logigram or flow chart. This is a computer program written out in longhand before being coded. If you really want to unravel the meaning in an act of parliament or an official leaflet, provided you have plenty of patience, the logigram is a very useful tool.

In their lighter moments, computer students play games constructing flow charts to show how familiar problems may be solved. This is an invitation to the wits and the dirty-minded to show off their skill. Let us take a very ordinary problem and draw up a program for the computer.

You are a young man and you get up one morning and decide that you will sleep with your girlfriend this coming night. Your girl friend is no permissive libertarian. She is a nice, respectable young lady with a christian upbringing, and conditioned to bourgeois morality.

To solve this problem by computer, you must assemble all the ultimate particles of data, the bits, which can aid or hinder you in your resolve. Any 0 bit must be cancelled out by introducing a suitably related I bit. The first and vital bit of data will be," is she menstruating?" If the answer is "Yes", (a binary 0), you've had your answer and need go no further. If the answer is "Don't know", your data is insufficient, and the problem is unsolvable. However, we assume that you are a reasonably sophisticated young man, and have known your girl friend long enough to be confident that last week was her period, and so you can proceed because this bit becomes a I. You next decide that if you splash out on an expensive dinner and theatre, lubricated with just sufficient alcohol, she's yours and as good as in bed.

But have you enough money, perhaps as much as £20? No. This could again be the end, unless you insert an instruction, "raise it". But how? Rob the Bank of England? Well, it's a possibility, but you know perfectly well that will end in an 0 bit standing for "caught red-handed". Borrowing the money holds out better prospects. As you are a good socialist and a member of a revolutionary group, thoroughly disapproved of by your parents, you know family ties won't help you. You manage to squeeze £I out of one of your workmates, and you have £7 in the Post Office, and if that's the lot, you've had it.

However, you can get round this obstacle by playing snakes and ladders. The 0 bit signifying that it's your lot can become an instruction to "Borrow the money". Unless you introduce some fresh bit into the sequence, the computer will go merrily on around the closed circle for ever, producing neither a I nor a 0. As you work in a shop you can introduce an instruction "After second time round, borrow from the till"; of course, at the end of the week you will pay it back. Or, as you are Treasurer of your local revolutionary group, you can borrow something from the kitty.

The road to hell is paved with good intentions, and by the end of the week your good intentions are far more likely to depend upon the winner of the 2.30 if you wish to keep out of gaol or avoid losing your friends. But notice two things here. The fact that you may land in gaol or be kicked out of your group will have no effect upon whether you can sleep with your girlfriend tonight. The other thing is that at this point, you have injected into your program a purely subjective bit.

You may have personal standards of morality and ethics which cause you to reject the idea of borrowing from the till or group funds; on the other hand, you may also have a sunny and optimistic temperament which at times clouds your judgement. Since the computer can only give you a disinterested yes or no, if you do have scruples, the original proposition widens into how you can sleep with your girlfriend tonight without risking a spell in the nick.

You will see now that your problem is becoming far more complex than you ever thought, and you may have to go right back to square one and recast the whole program.

When you have resolved the money problem, you will spot the need for another data bit. You realise that it's going to be a rush job to get home, have a bath and pansy yourself up. You could take a couple of hours off work and do it all in comfort, but then you'd lose time from work and have no hope at all of paying back the loan from the till. So it's rush home, tear off your clothes, into the bath and slam the front door, with only just enough time to make it. But there is not time to clean the bath after you, and your clothes are left in a heap on the floor. You have left a pollution problem behind you; but however much other people may curse your untidiness, this has no effect at all on what is going to happen tonight.

You probably think that at this point the problem should be solved, even though it may have become so complex that it could only be solved by a computer. But is the problem solved? Will she say "Yes"?

You have been conditioned to the male orientated society and the conceit that masculine virility is irresistible; that girls always say no when they mean yes, and that the judicious application of alcohol will break down all feminine inhibitions; you also have an overweening confidence in your commanding presence and charm, and that any other data is quite superfluous. But this is not logic;it is faith.

If you did see the problem as logical, you'd have to admit to the need of a great deal more data about your girl which you have not got, and the computer would find the problem unsolvable.

Without the missing data, you'll have to learn the hard way.

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You will protest that instead of telling a delightful story of passionate love, I have allowed my dirty mind to debase all the finer feeling in human relations to the level of farmyard morality.

Well, that is how a computer works.

A computer knows nothing of love, passion,spiritual values; abstraction has no meaning; integrity,dishonesty, tenderness,selfishness,sincerity,lust hypocrisy,decency have no place in computer processing.

Because you have not the data to solve your problem and must rely on faith instead of logic, it is all too likely that if you do achievo your end, it will be throug an act more or less akin to rape; something which could be pretty shoddy.

But the computer disdains values like more or less,nuances mean nothing to it.

So long as you sleep with your girl, the answer is I, without distinguishing a remorseful I, a passionate I, an ecstatic I, or a dirty I.

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As capitalists can only ply their calling while they make a profit, it follows that the computer is seen as a tool assisting that end.

During the last twenty five years, profit has ceased to be a word with questionable undertones. When hard-faced millowners and ironmasters really did grind the faces of the poor, the classical capitalist ravaging the market for accumulation, was wise to rationalise his lust for profit out of sight. He was in truth only practising the christian virtues of thrift and abstention. He deplored the miseries of those who worked in his satanic

mills and foundries, but the iron laws of economics were immutable.

If he made a profit that was only because he satisfied a need - unless he was manufacturing what was socially necessary, he would be forced out of business. Profit was an act of god, the outward and visible sign of god's grace to those who help themselves (to the surplus value from the labour of others). He believed in the greatest good for the greatest number, and if the greatest number who benefitted from this greatest good turned out to be a small minority, that too was an act of god. After all the less well off majority should be grateful for the privilege of assisting the greatest good going to the greatest number truly worthy of god's reward.

The modern capitalist has no need for such sophistries. Unashamedly, we are conditioned from all sides to accept that nothing is worth producing which does not realise a profit. Tory and Labour squabble over which can best manipulate a society for producing the highest profit.

The socialist fatherland in the USSR proudly displays the profits from its industries. If a social need cannot also produce profit, that is too bad for it cannot be satisfied.

Profit is measured in pounds and new pence, and as it is now quite openly the most sanctified capitalist prize, the accountant is the natural expert to find on a company board of directors.

In his search for profit, he will start of with a flow chart. Our company is producing commodities, so it will have to sell them. The first question is "Will the product sell?". This is identical with your first question; if the answer is I, like you the accountant can proceed with assembling more data.

His data will not be quite so available as was yours. Your sophistication and knowledge of your girlfriend enabled you to answer very confidently, but if the accountant wants real data, he will have to try a little market research. Without reliable data from market research, the computer would find the answer unsolvable, unless the accountant was prepared to rely on faith.

However, the complicated mystique which surrounds market research requires that it is only meaningfulwhen it can be processed through a computer.

When the accountant has surmounted the first hurdle, again like you, his next question is how to raise capital.

If the company is big and powerful enough, the bit "Rob the Bank of England" may be quite an attractive proposition. An accountant with a high sense of drama would have no difficulty in finding logical justifications for carrying out such a robbery, though he is more likely to follow your example.

As accountants are expected to be professionally as amoral as the machines they operate, our man will have no scruples for putting his hand in the till or conning an associate. This is an "I'm all right Jack" society, and one way or another the capital will be raised, and the proviso that it shall be done without attracting the notice of the cops will not arise.

"Will the public buy?", "Will she say 'Yes'?". They are the same questions to a computer, and the answer is "Don't Know", and the problem is really unsolv able.

Your conceit in your masculine charm, blended with a little alcohol,deluded you in thinking that you were irresistible and that further data was unnecessary. And when she told you that she never wanted to see you again, after wallowing in

a lot of self pity, you were able to look around for a more trendy girlfriend, preferably on the Pill. But the accountant has to pay more attention to facts than that, and cannot dispense with data in so cavalier a fashion.

True, he can use his charm on T/V commercials and add a little alcohol in the form of bogus free gifts, but if he doesn't guess right, he is likely to be a second John Bloom, or his company another Rolls Royce. So he starts to collect data.

The computer is no clairvoyant, but it can produce in a trice, all sorts of different answers, using varying and alternative data. Our man probably knows something about cybernetics, so he will feed back information from the computer output as new data for processing, and may recast the whole program. He may not be able to remove faith entirely from the problem., but he can at least avoid the more obvious hazards.

In the manufacturing process, the works will be churning out a lot of material it has no use for, which will be most easily disposed of on somebody else's doorstep. Just as in your case, this pollution will have no effect upon the ultimate end in view. And the long and short of this story is that your peccadillo with your girl friend and the company seeking profit, are posing to the computer an identical problem, and both can be solved with the same program.

Even the end products are computerwise the same. Although, as I have shown, your girlfriend is likely to say "No", if she were to say "Yes", what you experience will almost certainly be a very shoddy article. In the same way, the commodity which our company sells will also be shoddy if profit is to be maximised.

Few capitalist enterprises would invest in a computer just to allow an accountant to dabble in black magic. The machine would be lying idle far too much of the time. If a capitalist is to buy a computer, he will want to use it all the time - on night shift if possible.

What has probably made the computer a compulsive piece of capital equipment is the ease with which any large digital computer can handle a payroll. On Monday morning the time cards, the job cards, the sick notes, the bonus credits, all come tumbling in, and by thursday, several thousand pay packets have to be made up, each with the right amount of cash. Tax reductions, insurance debits, graduated pension contributions, adjustments and rebates have to be allowed for, and the work completed in three days.

Provided it is all carefully programmed, the computer can ease the work of the wages department a thousandfold.

Computer time can also be rented out to smaller firms, and at least during the first half of the week, the machine will be working continuously. But it has to be carefully programmed, in such a way that any change in tax or wage rates can be coded without changing the program itself.

The accountant can use the computer when the wages' rush is over.

The program which the accountant will need is only a reverse of the payroll. The payroll program is an assembly of a large number of varying earnings and tax data, processed to give several thousand different answers: each bit of data is a known and finite number, each one reduced to binary I or O. The accountant assembles an equally varying amount of data which the programmer reduces to binary I or O. The difference is that the variables in the payroll are all actual amounts, while some of the accountants variables are only possible.

The payroll answers go to each individual worker. The accountant, if he wants them, can have an equally large number of answers; they are not actual amounts, but they allow him to select those which appear most likely to produce the greatest profit.

Basically, the payroll program, the profit program, and your love affair are all the same, and any competent programmer could produce one program to process either problem.

When the word gets around that the company is thinking of buying a computer, there is no lack of claims for its use. The sales manager, the chief buyer, the head storekeeper, the chief designer, the work study office, the production office and the personnel manager will all protest that a computer will transcend their admittedly high standard of work into the quality of genius. They are all executives. Executives make decisions, and we all know that before making decisions, information is necessary. The computer is as good as bought.

Some programs take months to prepare. A programmer producing a one off logic draft is no use to a capitalist seeking profit. When he draws up a payroll program, he will try and foresee any variations which a chancellor of the exchequer or a trade union negotiator is likely to make.

As we have seen, the most unlikely situations present identical problems to the deadpan computer. The programmer will devise a schedule which can have many adaptations, and will complete his program like a loose leaf reference book, so that he may extract the pages and shuffle them around to meet almost any contingency.

He is far from a free agent. When he has completed his programm, it has to be coded before it can be fed into a machine.

A capitalist does not want a program which needs sophisticated coders. All a payroll requires is a large number of trendy dollies who have been conned into thinking that computers are glamorous, and in the event find coding about as boring and useless an occupation as any. So they come and go, requiring almost as many checkers to rectify their coding errors while their minds are on pop stars or the next instalment of the romance in "Woman's Own".

A good programmer will make his program easily coded. In this he is assisted by the manufacturer who designs the particular hybrid binary system to be used in his machine. Althoug binary hybrids make coding easier, they make the work of the programmer more complex, but while the latter is the skilled aristocrat of the trade, the coder is the dumb labourer.

Another feature of the hybrid binary is that a monitoring element can be built in which will stop the machine and indicate many of the errors a programmer or coder can make.

Computers vary considerably according to the idea the purchaser may have regarding its main use. They can be made expensively with memories which work with the speed of light, but their storage space is restricted, and unless they are double banked they lose their memories as soon as the bits enter the system. Magnetic tapes can store a prodigous number of bits, and are much cheaper, retaining a permanent record until they are wiped clear. They move fast enough for you and me, but are incredibly slow in comparison with the magnetic core.

The core can be loaded almost at random, but the tape increases the burden of the programmer because it has to be loaded in careful sequence. You can have speed and a small store, or a sluggish processing and almost unlimited memory.

The optimum condition for a large store would be high input and output speed, but this you can't have. Computer manufacturers will build a machine which can use all the 57 varieties of speed and memory, but only American moon shots have sufficient memory for that. So the programmer has to make the best of what the capitalist considers will bring him the greatest profit.

The accountant is responsible for seeing that the computer does in fact help in the search for profit. He wants information like everybody else caught on the management bandwaggon. Exuberant designers and softhearted personnel managers can play merry hell with profit. So the accountant will wish to have control of all the new information which the computer is producing.

It will arrive on his desk like so many rolls of wallpaper. The bulk of it will be completely useless, but he can pass it on to the decoder to abstract anything of importance. Or he can send it back to the prgrammer to process again. Instead of wallpaper, he will now have rolls of toilet paper.

Big Fleas have little fleas on their backs to bite 'em.

Little fleas have lesser fleas, and so on ad infinitum

It's not all loss.

When the accountant sits on the board, and the inevitable idiot asks the inevitable silly question, he can adopt the right posture and produce the right answer from his files; he will acquire a reputation for being a long-headed chap who knows his onions, and if anyone ever asks what he proposes to do with it, he will be able to satisfy everybody by promising to seek more information from the computer.

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We are suffering from a surfeit of information. There is so much information lying about that we don't know what to do with it — except to ask for more information.

We can always delay making a decision by seeking more information It has always been a cardinal belief of the capitalist that bigger must be better. So the biggest possible heap of information is accumulated producing information constipation in management, and the decisions making process grinds to a halt. Ther -e is so much unabsorbed and unabsorbable information polluting the new high priesthood of capitalist management, that any executive can be selective and find the answer he wants; he can produce so much information in support of his obsession that few people will suspect that any other information can exist, even if they do, they can be assured that there is neither time nor money to seek further information.

In the process of production the bigger and better theory pre-determines that only what can be produced in large quantities will be a profit making commodity.

The road to profit lies through increasing turnover. Design for turnover will aim to make it necessary for the consumer to return in the shortest acceptable time to ask for more.

The vision of bigger, if not better, has received a great impetus since the arrival of the computer.

We can now try and assess where the computer age is leading us. Computers, like all technological marvels, are amoral. Most of these marvels can benefit mankind as well as degrade. To the capitalist, the only use for the computer is as an aid to profit.

If this also aids the production of an ever increasing volume of philistine but profitable commodities, the capitalist is satisfied; whether these commodities meet a need or are even used is quite irrelevant.

The sheer volume of this meretricious but undifferentiated affluence is threatening to overwhelm us. Society has always suspected monopoly, but with the help of the computer, the capitalist is able to transmute monopoly into an ever narrowing range of commonplace frippery. The area of real choice diminishes.

Of course under socialism it will be different. But before you go out on the streets and start the revolution, you should pause and think what it will be like the day after all the capitalists are safely strung up from the lampposts of Whitehall.

In the head offices of the government and large industry, you will find the computers. Most of them will have been built for processing payrolls as their bread and butter activity.

As we all agree that a socialist society will have no use for wages, you will be able to throw all the payroll programs on the bonfire with the rest of the capitalist rubbish. In fact this will apply to almost the whole of the computers library.

When the socialist makes use of the computer, he will want to bring to society the greatest variety and choice of artifacts for use and enjoyment, instead of a vast quantity of uniform commodities for profit. There is no reason why the computer cannot be used to help provide society with unrestrained socialist abundance, as it is now being abused by restricting us to capitalist affluence; it will become a social boon instead of a millstone.

But we shall first have to build the programs, and before we can do that we shall need to assemble the data, and before we can do that we shall want to know what are the problems we need to solve, whether indeed we have the data for their solution - that is, whether a real choice exists.

We shall not venerate the computer after the manner of capitalist technologists, and expect it to determine our choices for us. In capitalist society the computer is being used to dictate our standard of living; in a socialist society it will merely be a useful tool for increasing the possibility of a full life to everybody.

The enormous aggregations of capital which today are necessary to set the production process moving, determines the philosophy that only bigness can bring progress. The sum total of what is produced is ultimately a finite amount fixed by the labour power available, and, in a capitalist society, what can be sold at a profit.

Elementary, infant school arithmetic tells the capitalist that if turnover can be increased, profit margins may be slashed, yet the absolute amount of profit can be increased. The next step in this rake's progress is to mass produce vast quantities of uniform commodities, yet this can only be done at the sacrifice of variety. Because the computer can manipulate very large numbers in a time space several million times - yes, several million times - faster than human brains can work, it has become the degenerate tool of the bigger and better philosophy.

In striving to meet the heterogeneity of human need by offering a plethora of standardised commodities, it is inevitable that what is produced is something which will offend no-one, rather than an excellence which will please some-one. The man who does not conform to the norm of urban society, whether he be a dropout in Picadilly or a worker in a small rural community, will have to lump it.

Today, it is hardly possible to buy satisfying bread; profit decrees that we shall eat slivers of insipid - but by no means innocuous - plastic foam called Wonderloaf, Sunblest or Mother's Pride.

In the pub you may buy a bottle of Light, or a pint of Keg, which is exactly the same crystal clear brown chemical, squirtedup from a giant aero-sol under the counter.

A minute substitution of some flavouring essence or colour additive, even a change of packaging, is all that is necessary to scream from the T/V box ever more magical properties for a''new formula'' in detergent, cake mix, petrol or paint - while the basic substance remains exactly the same.

A good deal of this affluence does rub off on the working class. The romance, mystery and mind-broadening of foreign travel is now open even to the unskilled worker. So we buy our package tour and join the overcrowded and superannuated jet, the whole circus organised by the computer. We spend a fortnight in a hotel which might just as well be at Margate, or perhaps rent a chalet that is a replica of Butlin's; we have eggs and bacon for breakfast, broiler chicken for lunch, find Keg in the bar, and finish up with fish and chips (frozen and dehydrated) for supper.

After our minds have been suitably broadened, we return home taking up our Custom's concession with a bottle of Gordon's Gin and 200 Senior Service.

In our innocence, you and I might think that the Postal Service existed so that we can write letters to our friends and relations. But the Post Office is now a public corporation dedicated to generate profit.

It is now the avowed intention of this new profit conscious enterprise to sign commercial contracts, degrading the postman's job into shovelling a relentless cascade of unaddressed sales literature through our letter box. In the name of productivity, our postmen will go out fully loaded, calling at every house. Whether the public wants this boon is not relevant, but we will have the drudgery of dispelling it; probably the local rates will go up because of the increased garbage collection and destruction costs. But the Post Office will make a profit.

The Postal service will deteriorate, while commercial contracts take precedence over social need. Behind all this is the evil genius of the capitalist with his computer. With a prodigal expenditure of labour power, the computer will draw up a work shedule with a mechanical efficiency of 100% (binary I), gratifying no satisfaction to ordinary letter writers (binary O), while profit will be maximised and the product of no conceiv-able use to anyone; if our frustrations and deprivations could also be processed, there would be a negative satisfaction and negative use.

The limitation of the digital computer is that it is essentially an adding machine. Its basic process is linear and arithmetical. Although it can process the most diverse problems, this is only possible by reducing each bit of data to the binary notation of I and O. The computer cannot discriminate a quality. In computer language, I + I = IO. In decimal

numerology **this** is absurd.

Social progress chained to the computer treadmill of ever decreasing choice, condemns humanity to a world shrinking into a desolation of uniformity.

A profusion of glittering gimmickery which never satisfies is no reparation for the loss of things which are innately good, yet cannot be produced in large enough quantity to bring profit to the capitalist.

In the hands of the worshippers of bigness, the computer debases society by imposing a glut of stereotype mediocrity, while destroying the means for producing the unique and dismissing quality as an abberation.

It is only possible to break out of this straitjacket through revolution.

There is far more in the needs for human satisfaction than the binary elements of I and O. Revolution will be the midwife for bringing choice, quality and variety into human relations. We shall be able to transcend the binary I + I = IO, and fashion a new world in which one plus one really does equal ten.

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The Organisation of Revolutionary Anarchists is a part of the Anarchist Federation of Britain, it exists " to bring together the revolutionary elements in the AFB, to develope a more realistic theory and practice, and, to open up communication and cooperation with other libertarian tendencies."

The ORA is working for the establishment of " a lively agitational paper under the control of its producers, writers and sellers."

At the moment it is publishing at least one new pamphlet every month, as well as leaflets.

ORA I -'Towards a History and Critique of the anarchist
        movement in recent times' 5p + 2p postage.

ORA 2 -'Theory and Praxis in anarchist organisation'
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ORA 5 -'Introduction to Revolutionary Anarchism'
        IOp + 2p postage.
(in production as at II.5.7I - Computer Ethics, Bakunin-The
International, China. Other titles are in preparation).

for any of these pamphlets, information on ORA, details of the
November Conference; please write to:-
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                                    Heslington, YORK.