

Social and Legal Issues in Informatics

MSc Management – IS and Services Science

Challenges in Modern Information Systems

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(Some slides provided by Roger Johnson, Birkbeck College, University of London, UK)

Modern Information Systems

- Most complex artefacts yet built
- Essential to modern civilisation
- Robust and Secure
- Still poorly understood by public
- Raise many issues in different areas
- Existing laws not always cover all cases

Social and Legal Issues

- Privacy, data protection
- Lack of face-to-face social interactions
 - World of Warcraft
- Censorship, denial of access to data
- Parental control, security on line, cyberbullying
- Accessing data online – downloading/sharing / Google books / CCTV / Hadoppi Law (France)
- ...

Privacy, Data Protection

- Google – StreetView



Many countries where people request pictures to be removed

Data Protection

- Data Handling

HOME > TECHNOLOGY > FACEBOOK

Facebook does U-turn after personal data row, Mark Zuckerberg announces

Facebook has reversed its decision to change its rules on allowing people to delete personal information, founder Mark Zuckerberg has announced in his blog.

By Urmee Khan, Digital and Media Correspondent
Published: 9:58AM GMT 18 Feb 2009

1 Comment



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Technology 

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Data Protection

- Financial loss

Berne veut tirer les leçons de l'affaire

Après l'épilogue dans l'affaire du forcené de Bienne, le canton de Berne et la ville de Bienne s'efforcent de procéder à une analyse sans concession de l'affaire.

Sur ce sujet



Forcené de Bienne:
«Peter K. n'a pas
opposé de
résistance»

Forcené de Bienne:
Peter K., recherché
depuis trois ans

Les réflexions portent notamment sur le question de savoir comment améliorer la collaboration entre police, justice et institutions sociales.

Car, durant les dix jours de traque, la police ne disposait pas de toutes les informations disponibles. Cela a compliqué son travail, ont souligné ce week-end le commandant de la police Stefan Blättler et le conseiller d'Etat Hans-Jürg Käser dans différentes interviews.

L'histoire du forcené avait débuté bien avant le 8 septembre et

Green IT

Greenpeace Attacks Facebook on Coal-Powered Data Center

By: [Chloe Albanesius](#)

09.17.2010 2 comments

Greenpeace fired another round in its battle against Facebook's Oregon data center Friday with the release of a [video](#) that attacked the social-networking site for building a structure that uses coal-powered electricity.

The cartoon video, voiced by what sounds like a computerized child, first attacks the company's CEO Mark Zuckerberg for being a nerd, a la "[The Social Network](#)" trailer, before criticizing its choice of power for the Prineville, Ore. data center.

Facebook had the option to choose wind power, but "silly Mark Zuckerberg chose dirty old coal," according to the video.

<http://www.pcmag.com/article2/0,2817,2369306,00.asp>

<http://www.youtube.com/watch?v=QPty-ZLbJt0>



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Intellectual Property

- Video copyright

Google found liable in German YouTube copyright case; intends to appeal.

By Brad McCarty  on September 4th, 2010

YouTube shall not, according to a ruling by a German court today, publish videos and must provide information to settle compensation for a holder claiming copyright to Sarah Brightman performances. The suit, which has been tied up in German court for quite some time, finalized today in a 60-page ruling.



Google Books

- Copyright
- Antitrust

Google Books



DOJ Cites Antitrust Issues with Google Book Settlement

By Mark Long
February 5, 2010 12:22PM

Follow NewsFactor on [twitter!](#) [SHARE](#)

The Department of Justice has raised antitrust concerns about the proposed book settlement between Google and publishers. The DOJ called the proposal "a bridge too far" that would give Google a monopoly, shutting out competitors like Amazon.com, and boosting Google's search engine. The DOJ wants the court to order more discussions.

» The Department of Justice believes significant antitrust, class certification, and copyright issues remain in the amended book settlement proposed by Google and publishing industry representatives in September. However, the government attorneys also said Thursday that the U.S. believes the parties have approached the effort in good faith.

In a new filing before the U.S. District Court for the Southern District of New York, the DOJ said the amended settlement agreement (ASA) attempts to use the class-action mechanism to implement forward-looking business



Google Books screenshot

(s) Google
system Any (web based application)
Online Library Book Search
books.google.com

<http://www.clipsyndicate.com/video/playlist/5658/1313894?title=clipblast>

E-Commerce

Page last updated at 00:12 GMT, Monday, 9 February 2009

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 Printable version

- International dimension
 - Illegal to buy sell some items
 - Taxes

eBay illegal knife sale reviewed

Auction website eBay has admitted it needs to do more to protect its members after a BBC investigation revealed it was being used to sell illegal knives.

Watchdog researchers bought five knives which are illegal to sell or carry in the UK from international sellers.

eBay said it had "a responsibility to keep the site safe" and would review the sale of all knives.

Home Secretary Jacqui Smith recently launched an initiative with retailers to ensure knives are sold responsibly.

The scheme was set up with more than 20 retailers.

The knives purchased, which all cost less than £10, were sold by US sellers through eBay's site in the UK.



The number of fatal stabbings in the UK rose last year

Governance

Résultats des élections régionales à partir de 18 heures

Dans : Info > Société

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Annonces Google

La publication du résultat des élections régionales françaises est strictement interdite avant 20 heures. Pourtant, il est facile de trouver les résultats dès 18 heures.

Comme pour le premier tour des élections régionales 2010, les élections européennes 2009 ou encore les élections présidentielles, les résultats du second tour des élections régionales seront publiés sur les sites d'informations étrangers à partir de 18 heures.

En effet, la loi française interdit aux sites Internet français ou chaînes de télévision de diffuser les résultats avant vingt heures, sous peine d'une amende de 75.000 €. La législation

ne s'applique cependant pas pour la presse étrangère.

<http://www.actualite-francaise.com/depeches/resultats-elections-regionales-partir-18-heures,8756.html>

Defective Software

TECHNOLOGY SPECIAL REPORT

Can Software Kill You?



By Jack M. Germain
TechNewsWorld
04/13/04 6:00 AM PT

 Print Version
 E-Mail Article
 Reprints

Many of the studies on software quality show there is little concern for quality assurance over profit.

According to the National Institute of Standards and Technology, developers spend about zero percent of their development costs on identifying and correcting defects.

▼ advertisement

Free Enterprise Network Device Scanner

Network over 100 seats? Discover all devices on the network-Free download now!

Software can kill you. Don't think so? Talk to the family members of 21 deceased patients treated at the National Cancer Institute in Panama in November 2000. The cancer patients died after being overdosed by a Cobalt-60 radiotherapy machine. The technicians who entered patient and medication data into the software that guided that machine will stand trial starting May 18th in Panama City on charges of second-degree murder.

The Panamanian hospital tragedy may be an extreme case of software failure causing deaths. But consider an example much closer to home. According to published reports, Ferrari's

<http://www.technewsworld.com/story/33398.html?wlc=1284993207>

Software is Mission Critical



Flying on a wing and a prayer? ... air traffic control will go ahead without a computer on two of the busiest nights of the year

Upgrade to shut down air traffic control

Mike Simons

AIR traffic control computers will be shut down for the next two Saturday nights to move a 25-year-old software package from 10-year-old IBM 4381 mainframes to IBM S/390 machines.

The upgrade, which will take place on two of the busiest weekends of the year, will not cause passenger delays, said Frank Agnew, IT director of the National Air Traffic System (NATS). "It is relatively straightforward," he said.

NATS officials said that commercial factors, rather than direct year 2000 problems, have led to the upgrade being brought forward from 2001 or 2002.

The move is driven by IBM's withdrawal of technical support for the 4381s next year, the Civil Aviation Authority's Y2K freeze in the last quarter of the year, and the need to concentrate resources at its Swanwick centre in Hampshire.

"We wanted to do the work in advance of other upgrades we will need for Swanwick," explained Agnew.

The new computers, costing up to £3m, will run the National Flight Data Processing software, which was introduced in 1974 and has been heavily modified since.

"The software is unchanged by the upgrade," said Agnew, who was expecting a smooth transition.

Others are less sure. One expert, with high-level experience of the existing systems, said, "I am surprised they say the software is unchanged. You would expect some timing problems as it runs on new mainframes."

CW Aug 5th 1999

Huge Costs

From rates to council tax—a £300 m trip

Technology correspondent **Christine McGourty** analyses the computing costs of revenue changes over the past six years

WHEN the first council tax bills go out this month local authorities will hope that a six-year nightmare has ended. In that time their computers have had to be reprogrammed twice over. Systems companies, however, have enjoyed a bonanza. The total cost of adapting software and hardware to handle first the community charge and then the council tax is estimated at more than £300 million.

The community charge, better known as the poll tax, was announced in 1987. Between then and its implementation in Scotland in April 1989 and the following year in England and Wales, authorities spent an estimated £166 million on new hardware and software, according to the Society for IT Managers (SO-CITM), which represents local government computer managers. The computers used to compile rates bills were not capable of processing the new tax.

Then in March 1991 the council tax was announced. The cost for again adjusting computers is estimated at £145 million.

Introduction of the poll tax led to a scramble to develop the com-

plicated new revenue collection systems. Then the legislation was amended in the face of public protests. Widespread software failures resulted. Some authorities, in despair, abandoned their computer systems and prepared the bills by hand.

When the Government then announced that the poll tax would give way to the council tax, much of the newly installed software had to be scrapped.

Most authorities did not need to buy new hardware. For those that did, an IBM AS400 D80 — needed to run IBM poll tax software — would set them back £440,000, though a smaller authority could use a D70 costing about £250,000.

According to *The Council Tax Software Guide*, published by Gimlet Management Consultants, IBM's software for an authority with a population of about 60,000 would cost about £85,000 and, for a population of more than 400,000, about £300,000. These prices include software that can also handle housing benefit and business rates, but in addition comes an annual maintenance charge of 15

per cent and an installation charge of £60,000.

A survey by Gimlet of 93 per cent of the 414 billing authorities in England, Wales and Scotland finds that the average bill for new revenue software (including council tax, benefits and business rates) is £200,000. Apply this average to all authorities and the national cost of software alone totals £82.8 million.

Central government is footing much of the bill, providing an average of £160,000 per authority.

Different figures are provided by ICL, which has 129 customers for its council-tax software. ICL estimates £150,000 as the average cost of hardware, and £100,000 for software, services, implementation and training. That totals £250,000 total for each billing authority.

James Price of GMS thinks that ICL's estimate is "closer to the price of the software alone". He said that Beverly Borough Council in Yorkshire and Colwyn Bay City Council in North Wales were estimated to have spent about £700,000 each on hardware and software for council tax.

A nationwide total for HARD-

SYSTEMS

WARE alone would be £62.1 million, using the ICL estimate. Adding this to Gimlet's more realistic estimate of £82.8 million for SOFTWARE yields a grand total of £145 million for the switch to council tax. Last week Channel 4's *Dispatches* programme put an all-embracing price of £21 billion on the entire changeover from rates to poll tax and then to the council tax. That included such huge elements as £3 billion in grants to make up for changed business rates, and attributed £13.5 billion to "Norman Lamont's Budget bonus". However, *Dispatches* did not identify the source of these figures.

Will introduction of the council tax go smoothly? Mr Harry Pearson, revenues spokesman for SO-CITM, said: "Over the next fortnight everyone is going to be printing bills, but only after three or four weeks when people start paying their bills and others move house, shall we know whether we have viable systems."

The council tax certainly

should be easier and cheaper to collect than the poll tax. There are fewer bills to produce — one per house rather than one per person — and while people move around, houses can't. Because of this, significant reductions in authorities' administrative staff are expected, and this may offset much of the extra cost of introducing the new tax.

Many councils have kept their rates' databases and will be able to transfer that information into the new system, with some updates. Some council tax operations, such as billing routines and debt recovery, will be similar to those for the poll tax.

Robin Hacking, managing director of ICL's local government and health division, said that collecting the poll tax required five times as much processing as rate collection, but collecting the council tax requires only two to three times as much.

"The computer costs of the council tax are less than those of the poll tax because there are fewer transactions, but you have to remember that most councils are still collecting poll tax and will have to run that system for at

least another year. They are facing a peak of cost this year while they run both systems together."

Many local authorities were reluctant to buy expensive new hardware for the council tax but are now faced with running both the poll tax and the council tax with their original hardware for the next two years while arrears are being collected. If they stretch the hardware too far, a system could collapse.

Although computer companies had only about 18 months to prepare the software, compared with about two years for poll tax, the process has been smoother, second time around.

Poll tax collection was hampered by poor software, much of it delivered late, which then had to be changed as the Government repeatedly changed its mind. Many computer companies inexperienced in the vagaries of local government were ultimately unable to cope. Some went bust.

Arthur Boulter of the Chartered Institute of Public Finance and Accountancy, which represents local authority finance officers, said preparation this time had been much better. "There

have been fewer cases of software being delivered late and the Government has been more co-operative. But that is not to say people's bills are all going to be correct. The proof of the pudding will come in the next few weeks."

Fewer last-minute changes to the legislation have helped. "The software industry has done much better this time," Boulter said. "A lot of companies have bowed out, and those left are ones that have got their act together."

One authority in five has changed its supplier, reflecting some of the dissatisfaction with poll tax software.

After a review of the implementation of the council tax late last year, which involved visits to more than 30 metropolitan, district and borough councils, the Department of the Environment produced a report saying that long-term collection costs were thought to be around 65 to 75 per cent of the poll tax collection costs, somewhat higher than the original estimate of 40 per cent.

One data processing manager said: "Some software could turn out to be useless and companies could go to the wall as a result."

Software provides output lift for Brown

■ Revised ONS figures boost UK's economic standing

By Chris Giles, Economics Editor

Gordon Brown's battle to raise UK productivity is to be given a boost after government statisticians admitted they had seriously understated the contribution of software investment.

Revisions to the way business investment in software is measured will instantly boost figures for economic output, business investment, and prosperity, lifting Britain's position in international economic league tables.

The changes will raise gross domestic product by 1 per cent — more than half the level of economic growth last year — and revise annual growth rates upwards by close to 0.1 per cent for all years since 1992.

China recently overtook the UK as the fourth largest economy in the world, but history may even show the UK held its position a little longer than had been thought.

The Office for National Statistics said the value of software developed within a company would be five times higher than had been thought. The ONS said its estimate for such investment in 2003 was likely to rise from £2.5bn to £13bn.

ONS officials told the Financial Times yesterday that estimates for software investment had been based on outdated assumptions stemming from a Department of Trade and Industry survey of the computer services industry between 1971 and 1991.

The new method will use current employment surveys to estimate the number of people working in the software sector, along with assumptions about how

much of their time is sorting out present IT problems versus developing new products. The changes are likely to enter official statistics in summer 2007.

Nicholas Oulton, a senior fellow at the Centre for Economic Performance and the London School of Economics, said there had long been a puzzle over the UK's low recorded levels of software investment: "There was something odd about UK software, it didn't relate well to the recorded purchases of computers, and you would expect the two to be related."

Higher levels of measured output will give an immediate boost on many fronts to the chancellor.

It will improve the UK's relative position in the league tables for prosperity; boost measured productivity; show business investment to be considerably higher than thought; and lower the recorded burden of tax and public expenditure in GDP.

The results will put the UK's total software investment on par with other countries and show that UK in-house software development as a share of gross domestic product is higher than that in the US. The ONS said this was a reasonable result given the large share of financial services in the UK economy.

The industry yesterday welcomed the ONS's consultation document. As software investment is to be recorded at about 1.9 per cent of GDP, Beatrice Rogers of Intellect, the hi-tech trade association, said the Treasury should give the sector more prominence in its deliberations.

Fiscal flames fanned, Page 2

Software investment has a major impact on national GDP

FT Feb 14th 2006

Unsettling Global Markets

Tokyo exchange's computer crash halts trading in key bond contract

By Julie Hess in Tokyo

The Tokyo stock exchange's attempt to reinforce its position as Asia's largest financial centre took a knock yesterday when its computer system crashed, halting trading in Japan's benchmark government bond contracts.

Hitachi, the electronics conglomerate, has just completed an upgrade of the system aimed at making it more user-friendly.

The failure – the second in a fortnight – is an embarrassment for the stock exchange. The combination of the trading halt and a recent increase in the supply of bonds led to increased volatility and price distortions yesterday. Hedging sales increased as dealers who had bought four-year government notes found it impossible to sell them to investors.

The yield of the benchmark 10-year JGB bond increased by 10 basis points to 1.14 per cent compared with Monday – a large rise

compared with the yield two weeks ago of 0.85 per cent.

The system failure caused an immediate sell-off in bonds, but some investors argued the price decline was the beginning of a new trend. Stuart Baker, managing director at Barclays Capital Japan, said: "Given the Japanese fiscal position now and next year, the decrease in bond prices does not come as a surprise."

He pointed out that supply had risen recently and that a further increase could be expected in view of the potential rise in government expenditure and falling revenues. Data released yesterday showed that tax revenues in October had fallen 14 per cent. On Tuesday, the volume of the four-year note auction reached Y900bn, much higher than the usual Y400bn to Y500bn.

Following Hitachi's systems upgrade early last month, the stock exchange has been struggling with bond futures transactions. Hitachi

has pledged to increase the number of staff assigned to oversee the system, the exchange said.

"Under the guidance of the Tokyo stock exchange, we are working to recheck the futures and options trading system at the earliest possible time in order to improve the quality of the system," Hitachi said.

It won the contract to supply the new trading system in competition with several other suppliers, including Fujitsu, Japan's largest computer manufacturer.

Although the system has caused problems since it was introduced, the exchange said it had no intention of replacing it in the near future. Given the complexity of introducing a new system, that was not practical, the exchange said.

The new system was introduced in part to take advantage of a much faster processing rate and the ability to view more information, it added.

Bonds, Page 40

Disappointed Customers!

Online retailers face threat of holiday glitches

Internet shoppers are unforgiving when outages occur so it is important to gauge the correct level of demand



e-gifts

By Tom Foremski
in San Francisco

With some of the best-known online retailers already suffering repeated outages, the prospects of a glitch-free online holiday shopping season look bleak.

Big names including Amazon, eBay and Dell Computer have all reported recent problems that have prevented potential customers from placing online orders.

Last week, when US consumers turned to cooking web sites for advice on how to roast a Thanksgiving turkey, slowdowns and outages meant that many had to resort to the time-honoured telephone call to mother to find out how to quickly defrost the bird or figure out when it was fully cooked.

With outages lasting from

several hours to more than a day in some cases, the result for e-retailers is not only missed orders but also the loss of returning customers. "We estimate that a lost customer is worth about \$8,000 to \$10,000 in business over the course of several years," says Jack Staff, chief internet economist at US-based market research company Zona Research.

"In the early days of online shopping, internet users were much more forgiving if there were problems in accessing a site. That has changed and expectations are now much higher." This holiday season will bring record numbers of online shoppers, according to Zona and other market research companies tracking electronic commerce markets. Tens of millions of internet users will be making their first online purchases and their initial experiences will either convert them into regular online

shoppers or drive them back to traditional retailers.

To prepare for the holiday season, many online retailers have installed additional computer server systems and communications lines.

However, in trying to determine expected levels of demand, companies face a difficult dilemma. If they misjudge customer levels, they may have either invested too much capital in their web sites or be faced with frustrated visitors unable to place their orders.

"During the 1998 holiday season, we had reports of some companies adding a server per day to keep up with demand. And we are likely to see similar activity this year," says Mr Staff.

Having the right amount of hardware in place is just one part of the preparations companies must make. They must also carry out regular maintenance on their systems, which often means shutting down their web

sites for an hour or more. With online shoppers placing orders from different time zones, there is no ideal time to schedule shutdowns.

To help online retailers deal with sudden surges in visitor traffic, several companies offer services that quickly step in to handle increased demand and prevent a web site from becoming overloaded.

US-based Akamai Technologies and Sandpiper Networks, for example, offer global networks of servers that hold copies of client web site content. These networks use technologies that route content around congested areas of the internet to speed delivery to online visitors.

Such networks make it possible for online retailers to add extra web site capacity without large capital investments in computer systems and communications lines.

Online retailers can also

make use of "fault-tolerant" computer servers that have multiple microprocessors and data storage systems to guard against component failures. Such servers can be combined to afford additional levels of protection.

ICL, the UK-based IT services group, recommends that online retailers adopt a three-step approach to avoid outages.

The first step is to make a reasonably accurate determination of expected site traffic based on their current customer data. The second is to use computer systems that can be easily expanded to accommodate as many as 20,000 simultaneous shoppers. The third step is to integrate the online retail operations with a company's current IT systems.

Despite the preparations by online retailers, Mr Staff expects problems during this year's holiday season "and in some cases those problems will be quite dramatic".

Crime around the Globe

Man in St Petersburg steals from New York

J. Green-Armytage

A RUSSIAN hacker who penetrated computer systems at Citibank New York stole at least \$400,000 last year.

Vladimir Levin, of St Petersburg, is alleged to have used a laptop computer to connect into Citibank's systems which allow corporate officers to transfer funds among bank accounts.

After the theft was traced Citibank worked with other banks and the FBI to monitor

further illegal transfers of more than \$11m.

The exercise traced the activity to the offices of AO Saturn, a trading company in St Petersburg.

Citibank admitted that its system had been accessed without authorisation but insisted that no clients' money had been lost.

Levin, who was arrested at London's Heathrow airport in March, last week contested a US request for extradition.

Computer Weekly 24/8/95

Tragic Delay

THE INDEPENDENT Wednesday 14 June 1989

HOME NEWS 3

Operator asked four times for Hillsborough address

POLICE TRIED desperately for almost two minutes to persuade the fire service to send vital cutting gear to Hillsborough, the inquiry into the disaster was told yesterday.

But the operator at Sheffield Fire Headquarters spent one minute and 45 seconds asking four times for the address of the ground and five times for what the equipment was needed.

Susan Davies, fire service operator, told the hearing into the FA Cup semi-final tragedy in which 95 people were killed that the fire service computer would not recognise the Hillsborough ground as a place. "It needs a specific address and district in order to determine what specific pumps are required to attend. My training is not to assume what an address is, it is up to me to ascertain that from the person calling."

She added as far as she was concerned there could have been a number of football grounds at Hillsborough and she needed to know the specific address.

Fire Station Officer John Swain said there was confusion when he arrived at the ground. He found a police inspector and asked where

his men were needed, but was told: "To be honest kid, I don't really think we need you."

Shortly afterwards he saw a policeman screaming for more resuscitation equipment, telling him: "There are hundreds of dead and dying people on the pitch."

Fire Station Officer Brian

Fletcher said that when he arrived at the ground he spoke to two police officers who knew nothing about the incident. He asked a third officer what the incident involved and was told: "I don't know. Do we need you?" Mr Fletcher said he also spoke to a sergeant and an inspector,

who told him they did not know who was in charge of the police operation. He admitted there seemed to be no liaison between the fire service and other people and emergency services at the ground. Questioned by Michael Kallipetis QC, for the South Yorkshire Ambulance Service, he

agreed co-ordination between the services was lacking.

Assistant Chief Fire Officer Alan Hornsby, questioned by Mr Franz Muller QC, for the Fire Service, said the brigade needed to know about incidents as soon as possible. Asked what would have happened if they had arrived

earlier, he replied: "As far as the equipment we had, we could have quickly removed the fencing, probably within a minute or two. All the appliances had the same equipment on board and as we had two or three appliances at the same time we could have removed that fence very quickly."

Brian Sayles, a turnstile operator, said he had been present at many Sheffield Wednesday matches but on this occasion "it was like bedlam". Normally, supporters were inside the stadium by 2.30pm, but on that occasion they were still streaming in then.

"It was diabolical and terrifying. I have never seen anything like it. The majority of the fans coming through my turnstile had tickets but there was such a push that the turnstiles were becoming jammed and fans were pushing and jumping over the top.

"They were getting in any way they could. There was no way we could do anything about it. There seemed to be a few who went through without tickets but it was just like chaos."

The hearing was adjourned until today.

Questions lasted nearly two minutes as disaster claimed 95 lives

THE conversation between police and the fire operator was:

Police: Can we have cutting gear for Hillsborough please straight away?

Fire: Just a minute. Right, what's the address?

Police: Cutting equipment for Hillsborough Football Ground straight away.

Fire: Hillsborough Football Ground?

Police: Yes, Hillsborough Football Ground.

Fire: What road is that on, do you know?

Police: There has been a major accident, all the ambulances are up there.

Fire: What road is it on?

Police: I have no idea, Hillsborough Football Ground.

Fire: What road is it on, do you know?

Police: Hillsborough Football Ground,

what road is it on? [This was said to someone in police control] Penistone Road [to fire control].

Fire: Penistone Road.

Police: Penistone Road OK.

Fire: Penistone Road, just a minute, what's exactly involved?

Police: It's football, a big match, Liverpool v Notts Forest.

Fire: Yes, but why do you want us? You

said it was an RTA [Road Traffic Accident].

Police: No, no, no, major incident inside the ground.

Fire: Major incident inside, do you know exactly what it is?

Police: No I don't. They want all the cutting gear.

Fire: For what, do you know?

Police: Hang on a sec.

Police: [Male voice] Hello.

Fire: Hello, now you want some cutting gear, what exactly is it for?

Police: There has been a major accident at Hillsborough Football Ground where the semi-final is, the crowds have forced their way in, they have broken fences and gates down, I don't know exactly what it is, but there are people trapped.

Fire: Right. OK. Leave it with us.

Computer errors can kill - 1992



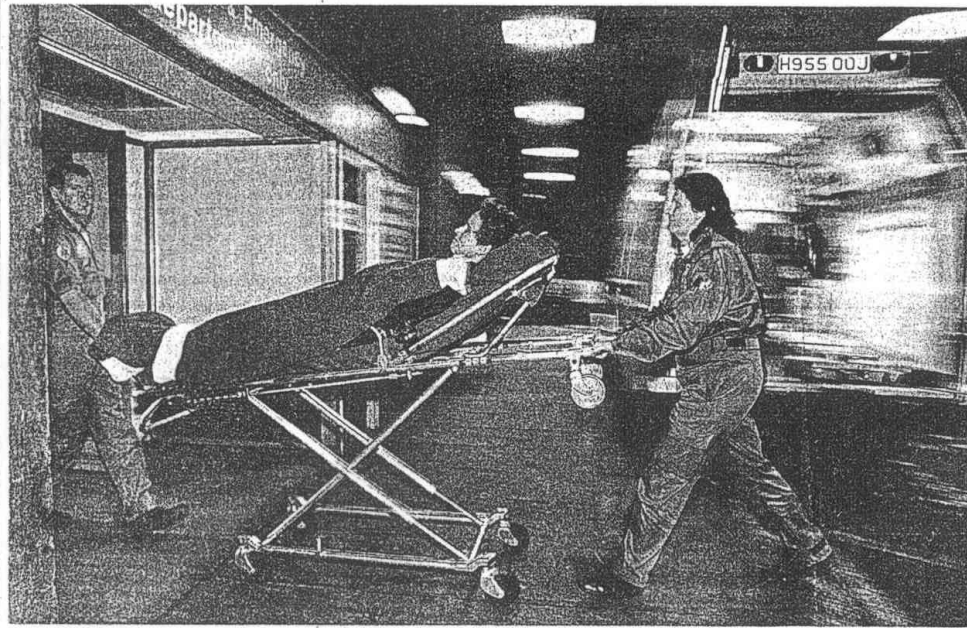
THE INDEPENDENT

No 1,883

THURSDAY 29 OCTOBER 1992

Published in London 45p

Ambulance chief quits after patients die in computer crash



A patient being taken into St Thomas's Hospital by members of the London Ambulance Service yesterday

Photograph: David Rose

THE CHIEF executive of the London Ambulance Service resigned yesterday over allegations that up to 20 people may have died because of the collapse of a new computer system controlling emergency calls.

Virginia Bottomley, Secretary of State for Health, was forced to announce an external inquiry into the 36 hours over Monday and Tuesday which led to delays of up to three hours in ambulances arriving.

Nupe, the public employees' union which represents ambulance staff, said that the resignation of John Wilby was recognition of management failure, but the Government was to blame for years of underfunding.

Mrs Bottomley's response to the "teething troubles" with the £1.5m computer system introduced in stages since January drew angry responses from both backbenches.

David Blunkett, Labour health spokesman, demanded that outside managerial expertise be brought in and accused Mrs Bottomley of failing to respond to the clear signs of crisis which had been building up for months.

Despite union warnings management brought the computer-aided dispatch system fully on stream at 3am on Monday giving cross-London coverage for the first time. The capital had been divided into three sectors — south of the Thames, north-east and north-west — with teams sending ambulances in their area by a combination of two-way radio and telephone, and computer displays in vehicles. At-

tempts to introduce the system partially in March collapsed.

The full introduction of the computer system effectively did away with the radio and telephones calls to stations, with the computer dispatching crews to answer calls.

But within hours, during the morning rush, it became obvious to crews and control room staff that calls were going missing in the system; ambulances were arriving late or doubling up on calls. Distraught emergency callers were also held in a queuing system which failed to put them through for up to 30 minutes.

Chris Humphreys, Nupe's divi-

sional officer, said that it was hard to verify how many people might have died because of the delays but it could be as many as 20.

However, the ambulance service contradicted claims that one 14-year-old boy had died of an asthma attack after waiting 45 minutes. It said that the call was dealt with in 28 minutes — although the Patient's Charter has a target of 14 minutes. A man of 83 was also said to have died before the service reverted to the old system at 2pm on Tuesday.

Management said initially yesterday that control room staff had been overloaded by the new system as they tried to respond to the extraordinary level of calls.

But in the Commons Mrs Bottomley conceded that the computer system "broke down" and that the old system would remain in operation until the problems had been solved.

Martin Gorman, deputy chief executive of South West Thames Regional Health Authority, is to take over from Mr Wilby until a replacement is found.

Mrs Bottomley said that a chief executive of another metropolitan ambulance service would be appointed to head the inquiry, which would be made public as soon as possible.

But her responses and earlier failures to act on numerous warnings left MPs dismayed. David Mellor, MP for Putney, called in his first Commons contribution since resigning as Secretary of State for Heritage for "top to bottom reform".

Leading article, page 26



Problems

- Defective Software
 - Financial crashes
 - Money losses
 - Lives losses
 - Damage to business
- IS Evolutions
 - Financial cost
- Crime around the globe
 - Identity theft
- Commerce around the globe
 - Incompatible laws, taxes
- Data Protection
 - Loss of data, privacy
 - Keeping data too long
- Intellectual Property
 - Copyright, trademarks
- Censorship
 - Access to information denied
- Governance
 - Surveillance
- Green IT
 - (un)sustainable power consumption

Issues

- Responsibility?
- Rights and duties of individuals and organisations
- How to deal with laws from different countries?
- What can organisations do?
- Why do things go wrong?
- What can be done to prevent mistakes happening again?
- Who is responsible for doing something?

Characteristics of Professions

Professions characterised by:

- Substantial body of knowledge
- Specified training and controlled entry
- Organised into one or more professional institutions
- Lay down standards of conduct enforced by disciplinary procedure

Typical Functions of Profession

- Maintain Code of Conduct and disciplinary procedures
- Disseminate good practice and new developments, eg publications and seminars
- Setting standards for initial education and minimum experience for public recognition as “Member”
- Advising government and regulatory bodies

Public Recognition of Practitioners

- Job Titles can be “Reserved” eg Architects
- Functions can be “Reserved” eg Chartered Accountants as Auditors
- In USA, “Engineer” is reserved in some states
- This can cause problems for “software engineers” and “systems engineers”!

In the UK

In the UK, building Information Systems is regarded as an **engineering discipline**

There are 40+ Engineering Institutions
They are recognised by Engineering Council

Two of these are:

- British Computer Society (BCS)
- Institution of Electrical Engineers (IEE)

- Their members are MBCS or MIEE and also Chartered Engineers (CEng)

BCS Code of Conduct

Public Interest

- Due care & diligence

- Comply with law and regulations

Duty to Employer

- Avoid conflicts of interest, misrepresentation, respect confidentiality

Duty to Profession

- Uphold reputation of profession and institution

Professional Competence & Integrity

- Maintain professional knowledge and skills

In Switzerland

- Société suisse des informaticiens
 - <http://www.s-i.ch/>
- Members
 - Lifelong learning, networking, mentoring
- Working Groups
 - Information Systems, AI, OO, Networking, ...

SI Code of Conduct

- Code of Ethics

- http://www.s-i.ch/fileadmin/s-i/download/SI_Ethik_v1.0_20070110_E_04.pdf

- Ethical commitments

- fair competition
 - trust between the customer and the service provider
 - ecological and social sustainability in informatics
 - avoidance of unnecessary and uncontrolled complexity.

ACM

- Association for Computing Machinery
 - www.acm.org
- Publications
- Networking
- Working Groups
- Conferences
- Careers