

# Digital dirty tricks by Murdoch firm'

TV rival claims £700m after 'sabotage' of technology

By BECKY BARROW

THE \$1 billion legal claim launched against a company controlled by Rupert Murdoch's News Corporation has all the makings of one of the dirtiest soap operas in the history of television.

If Canal Plus is correct in its claims that "a cloak and dagger" operation was organised by Mr Murdoch's NDS group to "sabotage" its business, then *EastEnders* needs to improve its storylines or it will begin to seem dull.

It started on Monday when Canal Plus, part of the French media giant Vivendi Universal, lodged a 21-page legal claim in Palo Alto, California, requesting damages "in excess of \$1 billion (£720 million) from NDS.

To put this claim into perspective, NDS, which has two of Mr Murdoch's children, James and Lachlan, working for it, is valued at only \$161 million after the share price collapsed from \$47 to \$17 over the past 12 months.

The main allegation is that NDS embarked on an underhand mission to sabotage Canal Plus Technologies' smart cards which are used in up to 13 million people's pay-TV systems around the world.

Rather like a mobile phone's SIM card, a pay-TV system cannot operate without a smart card which decodes the relevant signals enabling viewers to watch all the channels that they have paid for.

Canal Plus alleges that a team of NDS experts undertook "a sophisticated and well-funded" mission to crack its rival's smart card technology. By the end of 1998, it had been successful.

They published the information on the internet to be used by anyone to produce counterfeit cards, thereby avoiding paying the pay-TV subscriptions. If the allegations are true, it was a well-organised and malicious attempt to destroy the competition.

One website, Thoric.com, also known as the House of Ill Computate, was allegedly used to distribute the secret code for making the counterfeit smart cards.

It is alleged that Ray Adams, () head of security at NDS, was involved with this website until its



Rupert Murdoch with his son, Lachlan, who works for NDS TV group which is facing a £720 million claim

sudden closure last year. He was not available for comment yesterday. Since 1999, counterfeit smart cards have "flooded" Italy and "proliferated" in other countries.

In Britain ITV Digital, the main rival to Mr Murdoch's BSkyB television operators, fears there are around 100,000 counterfeit cards in circulation. ITV Digital, which has lost at least £100 million as a result, is also understood to be planning legal action. A spokes-

The smart cards that are not so clever

By DAN SABBAGH AND BECKY BARROW

HACKING into the ITV Digital pay television system is becoming widespread thanks to the internet, cheap technology and a desire to save a monthly subscription fee of up to £44 a month.

Up to 100,000 pirate ITV Digital smart cards exist, compared to the company's paying subscriber base of 1.26 million.

All these cards have been made possible by the publication of the secret software codes that allegedly were cracked by a subsidiary of News Corporation four years ago.

All pay television operators encode the pictures they transmit before broadcasting them. They are then sent via cable, satellite or, in the case of ITV Digital, over the airwaves, where they are received and decoded using a video recorder-sized "set-top box".

When the system works properly, the pay television operator can control exactly who receives each of the channels.

Each subscriber is identified via a smart card - a computer chip on a card - which specifies which channels a household has signed up for.

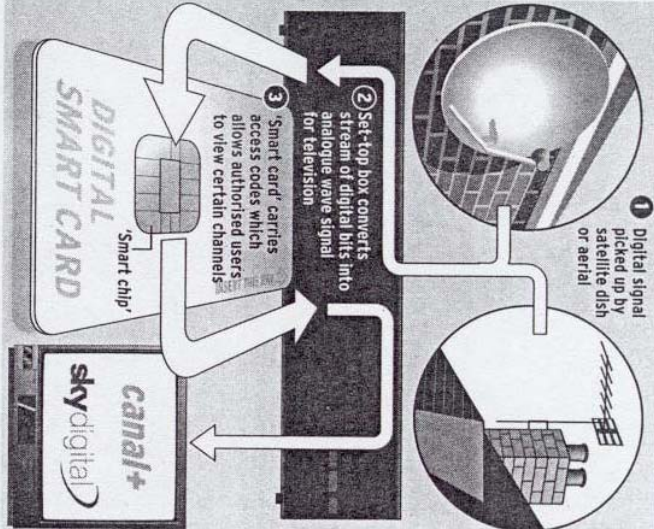
But the technology used by ITV Digital, which is supplied by Canal Plus Technologies, appears to have been fatally compromised for several years. According to Canal Plus's law suit, on March 26, 1999 some new software code was published by a website called DR7.com. A code called the "user ROM" is the key to the operation of the smart card. With its help, it becomes relatively

sidered "unthinkable" that NDS could be the villain, according to Francois Carayol, chairman and chief executive of Canal Plus.

"I couldn't believe it," he said last night when asked about his initial response. "Shocked. They are the market leader."

Canal Plus is "prepared to go all the way" to pursue its claim against NDS, he said.

How a digital TV smart card works



straightforward to create a forger that has almost all the properties of a legitimate smart card.

The code rapidly spread across the internet before being turned into a version that could be easily copied on to blank smart cards, known as "gold cards", which cost £4 each. Even now, it is relatively easy to find websites with copies of the "user ROM" and instructions on how to forge a smart card.

One website includes a discussion group with a question and answer tutorial. The tutorial's first question asks: "Are these cards legal?". The answer: "What do you think? Silly question really."

Researchers at the Cambridge University Computer Laboratory have said for some time that smart cards could be vulnerable to well-funded, well-motivated expert attackers.

In 1996 two academics, Ross Anderson and Markus Kuhn, said it was "remarkable that the tamper resistance claims made for smart cards... have gone untested for so long". After demonstrating several successful smart card hacks, they added that "these claims should be treated with circumspection".

Their warning was widely criticised by the smart card industry at the time. It may turn out to be remarkably prescient.

be the state of the art, and to shift blame for its inadequate technology and its past losses.

Canal Plus, which supplies smart cards to many broadcasters including the loss-making ITV Digital with 13 million subscribers, says it uses "some of the strongest security measures that exist today".

Like any good soap opera, there will be many more episodes before we find the answer to this cliffhanger.