

## **THE SMS MURDER MYSTERY: the dark side of technology**

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The network society is characterised by electronic communications, more often than not in digital form. While these developments generally enable many social and economic benefits, they also pose many social, ethical, political and not the least cultural consequences and challenges. While the technological developments and resulting services can contribute to enriching the users experience, they also introduce new privacy risks. Privacy is recognized by the United Nations as a fundamental human right in Article 12 of the Universal Declaration of Human Rights. *"No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation Everyone has the right to the protection of the law against such interference or attacks."*

To date an international harmonization of data protection legislation has not been achievable due to cultural, historical and political differences between nation states. For this reason, and because law does not provide suitable protection, privacy is often protected and enforced by technology, and it is frequently considered a design criterion for information and communication systems. What happens when security issues collide head on with civil liberties such as free speech and privacy in our current era of the 'war on terrorism'? How should the affordances of new technology be handled in relation to privacy, ethics and law?

In this paper we will examine what the increasing loss of civil liberties and gliding definitions of privacy can mean in a real world context. We will use a recent court case in Sweden to pursue this goal. Using media coverage, newspaper articles, and linguistic analyses of unique reconstructed text messages obtained from the trial prosecutor in a murder trial we will show how

complicated the new 'space' where civil liberties, surveillance and technology collide has become.

The Knutby murder mystery has gripped Sweden since January 2004 and is one of the most sensational Swedish criminal cases in living memory. The Knutby murder story includes the ingredients for a perfect Agatha Christie drama: sex, religion, murder, infidelity and new technology. (The following is based on 'news' as reported in Dagens Nyheter, Svenska Dagbladet, Expressen, Aftonbladet, Sveriges Television, TV 4, and Sveriges Radio) A pastor of the Pentecostal congregation in the small community of Knutby was sentenced to life in prison for persuading one of his lovers (the au pair) to shoot and kill his wife and trying to kill the husband of another mistress. Since the day of the murder this has been front-page news in Swedish media. The murder took place in early January of 2004 and during the year Swedish print media published an astounding 11,977 articles about Knutby. The au pair admitted to the shooting but maintained that the pastor made her believe she was doing it on a mission from God, in part by sending her anonymous text messages (SMS) he claimed were from God. The au pair claims to never have understood who sent the messages. She was deemed mentally ill and sentenced to psychiatric care.

For those of you unfamiliar with the "Knutby drama", as it has become known, the inevitable television movie will probably begin like this:

It's January - a cold, dark night. A quiet village in the middle of Sweden. A hooded figure walks through the snow (close-up on footsteps) and slips into the pastor's home. Upstairs, the pastor's wife, 23 year-old Alexandra F., is sleeping. The intruder enters her room, fires two shots in her head, one in her lower abdomen and leaves a knife sticking out of her neck.

Moments later, the 30 year-old next-door neighbour, Daniel L., hears his doorbell. He opens the door and stares down the barrel of a revolver. One shot hits him in the chest and another shatters his jawbone, but miraculously he survives. The assailant disappears. Opening credits...

That was January 10th 2004, and the following day Uppsala police and the national press descended on the village. Despite the villagers' reluctance to talk, the cult's secrets gradually began to reveal themselves, and since then, there has been plenty for the papers to write about. For the tabloids, salacious stories of

sex rituals, brainwashing and violence; and for the broadsheets, analysis of the workings of a cult, comparisons with Waco and what the whole affair says about Swedish society.

The truth may still be a long way off, but the papers seem to agree on a number of points. The pastor Helge F. is one of seven leaders of the 60-strong Knutby congregation, an extreme sect of the more mainstream Swedish Pentecostal Church. Ultimate power is said to be in the hands of 36-year old Åsa W., known as the "Bride of Christ", who "rules with an iron grip", while members are expected to give 10% of their earnings to the group collective.

Two days after the murder, the pastor's au pair Sara S. claimed that she did it. But the police weren't satisfied with this: a highly professional execution performed with a silenced gun - by a children's au pair? Despite her claims that she committed the crime alone "because it was the right thing to do," the police believed there was an accomplice.

Nevertheless, she stuck to her story and led police to the gun, which had been thrown into the water under the long bridge to the eastern island of Öland. And then it transpired that in November 2003 she attacked Alexandra F. with a hammer - although no charges were brought against her.

Five years ago, the pastor's first wife died in mysterious circumstances. She was said to have simply fallen in the bath but on reviewing the forensic evidence the police found she had a near-fatal dose of morphine in her body at the time.

On January 30th the pastor was arrested on suspicion of being an accomplice in the murder of Alexandra F. and on March 11th this was extended to include suspicion of murdering his first wife (in the bath) and conspiring to kill his second wife (with the hammer) in November.

The wife of Daniel L. (the one who was shot in the face - hope you're keeping up) was then arrested on suspicion of being involved in the attempted murder of her husband. (Her brother, incidentally, is married to 'the Bride of Christ'.) She was later released, but by then she had revealed that she was having an affair - with the pastor.

The prosecutors focused on the relationship between the pastor and the au pair and a TV documentary revealed that in the two months leading up to the murder, they exchanged over 2,000 text messages - and a phone call fifteen minutes after the crime was committed.

Both the pastor and the au pair were formally charged with murder. Prosecutors worked on the theory that the pastor manipulated the au pair -who has been declared “psychologically unstable” and was herself a victim of the "mind control" policies of the Knutby sect.

Pastor Helge F. was sentenced to life in prison for instigating the attempted murder and murder of his second wife Alexandra and the attempted murder of his lover's husband, neighbour Daniel L.. Helge F.'s children's au pair, Sara S., was found guilty of committing the murder and attempted murder under the influence of Helge F. and sentenced to psychiatric care.

Sara S. admitted to the shootings from the start, but claimed that she was being controlled by the manipulative pastor. The court believed her, saying in its verdict:

*"In the judgement of the investigation into Sara S's psychiatric state, the court cannot find grounds for any conclusion other than that she suffers from a psychiatric disorder of such a nature and extent that it constitutes a serious psychiatric disorder in the meaning of the law."*

What does all this have to do with technology and surveillance one might ask? The average user is not aware that their communication via mobile phones or their activities on the web are traceable and recoverable. The strongest evidence against the pastor and the au pair was their extensive communication through text messages and voice calls. Which leads us to discuss what new technology allows us to do and what we are allowed to do with new technology. Computer forensics made recovery of text messages possible, additional technological affordances of text messaging make it possible to send messages anonymously. In addition to that, text only communication is in itself fairly ambiguous with few cues to guide interpretation. The nature of written communication in combination with the possibility of an anonymous sender render it possible to argue in a court case that one actually believed that the SMS-messages were from God. Welcome to the brave new world in which, what you said

(telephone), what you have written (SMS), and what you have sent (Email), can and probably will be used against you.

## **The Recovered Text Messages**

The strongest evidence against the pastor was the extensive communication through text messages and voice calls between him and the au pair on the day of the murder and the time just before that. During the day of the murder they sent 18 SMS messages and made 10 voice calls. What they did not know was that their carefully deleted text messages were possible to recover. A computer forensic lab, Ibas, recovered data that the police, the prosecutor and the au pairs' solicitor believed to be wiped out for good. According to the report, the lab was able to recover 20 deleted text messages from the SIM-card of the au pair's Nokia 3510. The recovered messages were used in the prosecution of the pastor, which is now a closed case. The messages are thus a public document in Sweden. We requested copy of the report from the solicitor, containing the log of recovered messages from the computer forensic lab, to be used as data in this paper. The copy of the report that was sent to us included 19 messages.

Computer Sweden reports (19 May 2004) that according to the computer expert at the computer forensic lab, deleted data from the au pair's mobile phone was recovered in three steps. The first step was to retrieve information from the SIM-card in much the same manner as information is recovered from computer hard drives. A SIM-card works like any other memory circuit; the data that was deleted was just the "table of contents" which remain on the card until new information claims that space. In general, a SIM-card has the capacity to handle about 15-30 text messages. The next step was to analyse the internal memory card of the phone, which has the capacity to store up to 150 text messages. To retrieve that information, the card has to be taken out of the phone and emptied of its contents. According to the expert, this is a much more complicated process which only succeeds in about 50% of the cases. The third step to retrieve information was to access the phone operator's logs. ([http://computersweden.idg.se/ArticlePages/200405/19/20040519100532\\_CS737/20040519100532\\_CS737.dbp.asp](http://computersweden.idg.se/ArticlePages/200405/19/20040519100532_CS737/20040519100532_CS737.dbp.asp)).

It turned out that the recovered messages were sent between 12 December 2003 and 17 February 2004. Out of the 20 recovered messages, eight were believed to be sent to the au pair by the pastor. Four of the recovered messages consisted of

service/system messages from the mobile phone operator. All messages were written in Swedish, but have been translated here for your convenience.

The au pair admitted to the shooting but maintained that the pastor made her believe she was doing it on a mission from God, in part by sending her anonymous text messages he claimed were from God. Technological affordances of text messaging make it possible to send messages anonymously. Making a message appear to be sent anonymously is very simple. Basically, it requires no more than typing a code before the actual text of the message. Different operators use different codes. For instance, Vodafone subscribers in Sweden type “- A -“, while Telia subscribers type \*HN#. The nature of written communication in combination with the possibility of an anonymous sender render it possible to argue in a court case that one actually believed that the SMS-messages were from God. The pastor claimed to only be passing on those anonymous messages, and the au pair claimed to never have understood who sent them.

Reading through the log of recovered text messages, it seems that the pastor had manipulated the au pair for quite some time to make her do the deed he himself did not want to do (i.e. eliminate his wife). Many of the pastors “encouraging” messages were sent in the eerie hours of an early morning. (Was that to enhance the resemblance to a sort of wake-up call from God?). All of these messages are written in a Biblical tone, keeping the suggestions neutral. The sender has utilised the inherent ambiguity of text-only communication as well as the possibility of anonymity in written language in combination with that of the technological affordances of the medium. Words such as “he” and “him” may refer to either God or the pastor (or both!). The formulation of messages also makes use of the text-only nature of SMS communication. It is impossible to separate the capitalised “His” at the beginning of a sentence, capitalised to follow standard norms of written language, from “capitalisation of reverence”, which would explicitly refer to God. From the text alone it is hard to tell which is to be meant, and if charged with suspicion it is easy to claim not guilty. It is very likely that texts written in a biblical style are read as law by believers, especially given the Bible-steeped climate of an extreme sect such as the one in Knutby.

## The log of recovered messages

The first message, of those that were recovered, was sent 5 December 2003, i.e. some five weeks before the murder took place. It reads as follows:

<b>Date</b>	<b>Time</b>	<b>Message (in translation)</b>
2003-12-05	04.53.38	You need to make up your mind and not brood whether you should do it. Find a secure solution. You will prove your love by liberating him. He needs it. He has reached his limit soon.

The next message was sent two days later, this time in the evening. The au pair is reminded that time flies, and encouraged to not “feel” or “brood”. She is informed that if she makes up her mind, it will be her way to peace, or salvation , just as it will be his (The pastor’s salvation or Jesus’?).

<b>Date</b>	<b>Time</b>	<b>Message (in translation)</b>
2003-12-07	21.37.34	Time flies and you can not push it in front of you. Do not feel and do not brood. Make your decision and find a secure solution. It is your way to peace. As it is his.

A message sent a month before the murder is explicitly instructing the au pair to make up her mind, let “him” know. She is instructed to keep “him” out of it, and informs her that “his” . She is reminded that time flies and that she must act now before it is too late.

<b>Date</b>	<b>Time</b>	<b>Message (in translation)</b>
2003-12-10	09.16.18	You need to make a decision and not wither. Find a safe solution. You prove your love by liberating him. His limit is soon reached and he needs assurance. Time flies. Act before it is too late!

The next batch of messages were sent about 2-3 weeks before the murder. The first message contains an unmistakable reference to “Him”, using “capitalisation of reverence”. The second message of this period is calling out to the au pair’s pity of her beloved pastor: do not let your indecision cause him to do it himself out of desperation! The third message makes out that she has to do it for “his” sake, that” he” is appealing to her, and that she must complete the deed now.

<b>Date</b>	<b>Time</b>	<b>Message (in translation)</b>
2003-12-17	01.06.18	The first is your obligation. The other you can do out of love. It must be done some way or other. You would benefit from your unselfish help unto Him. You can do it!
2003-12-19	03.01.22	It is not too late yet. But soon. Do not trust other people. You yourself can do what you must. Do not risk that he will do it himself out of desperation. You will do it! You can!
2003-12-31	15.21.11	It's not your fault, there is still time. For his sake and because of his appeal for you it will not be too late. Finish it now.

A message sent three days before the murder looks highly suspicious, given what we now know about what was going to happen. The use of the iterative “again” and “just like last time” suggest the continuous contact between the sender and recipient. The message is closed with a request for “good news” and the encouraging “hug”.

<b>Date</b>	<b>Time</b>	<b>Message (in translation)</b>
2004-01-07	17.03.46	Hi again. Just wanted to say that if someone from here tries to call you today, do not answer. Just like last time. Talk to you later. I wish for good news! Hug!

The log of recovered messages contains four messages with complete Bible citations, all references to specific chapters and verses in the book of Romans. The sender entering a code before the actual text of the message explicitly made these messages anonymous. The first one was sent two days before the murder. Given the content of the citations, these messages seem to use Bible references in order to justify the murder and to encourage the au pair to go ahead and do the deed. (Was she faltering?). The last one was sent on the day that the au pair was charged with suspicion of murder, its content again justifying the mission from God, which she has now finally completed.

<b>Date</b>	<b>Time</b>	<b>Message (in translation)</b>
2004-01-06	10.49.04	Romans 6:23 For the wages of sin is death, but the gift of God is eternal life in[a] Christ Jesus our Lord.

2004-01-07 10.26.57	Romans 8:1 Therefore, there is now no condemnation for those who are in Christ Jesus (Romans 8:1 Some later manuscripts Jesus, who do not live according to the sinful nature but according to the Spirit)
2004-01-08 00.56.04	Romans 8:31 What, then, shall we say in response to this? If God is for us, who can be against us?
2004-01-11 09.44.55	Romans 12:12 Be joyful in hope, patient in affliction, faithful in prayer.

The only message from the actual day of the murder that was recovered was one containing no more than the crude “Yes”. It was sent right before the actual shooting of the pastor’s wife, early in the morning of 10 January 2004.

<b>Date</b>	<b>Time</b>	<b>Message (in translation)</b>
2004-01-10	04.31.27	Yes

Three messages in the log seem to be sent from someone else than the pastor. These are all written in a manner and tone that is quite different to the other recovered messages. The friendly and caring message sent 11 January, by one “Robert”, reached the au pair when she was charged with suspicion of murder of the pastor’s wife. It seems that the last message was sent before it was completed, or that something was lost in the retrieval process.

<b>Date</b>	<b>Time</b>	<b>Message (in translation)</b>
2004-01-08	07.55.56	Good morning! I’m available for a while if you wish and can call me, but maybe you are asleep... I love you. Hug!
2004-01-11	16.33.47	Hi my friend! I’ve heard everything that has happened, and understand that you are having a difficult time now. Just to let you know that I’m here if you’d like/ manage to talk! /Robert
2004-01-13	18.42.45	From gullegulli: Know that you can’t I

Both the pastor and the au pair were formally charged with murder. It is now definitely a fact that what you have written, and what you have sent, is possible to be used against you.

## **The dark side of technology: backside of mobile phone technology**

The strongest evidence against the pastor was his communication with the au pair. This case is not the only one of its kind. Digital evidence is increasingly becoming used in court cases all over the world. The list of cases is growing longer by the day: celebrity footballer David Beckham was found out to have had a love affair when his mistress sold their saucy SMS communication to a tabloid. In South Africa, a case has become known as the "SMS murder" after the killer sent text messages to his former girlfriend about the murder; and in Australia a drug dealer was charged relying on evidence from the fact that most of the 400 SMS stored on his cell phone were related to drug deals. (see further on [http://www.clickatell.com/brochure/sms\\_industry/law.php](http://www.clickatell.com/brochure/sms_industry/law.php))

Less pleasurable affordances of new technology are not just inviting people to commit criminal acts that are brought to court. The average user is not aware that their communication via mobile phones or their activities on the web are traceable and recoverable. Nor does the average user expect the technological affordances to be used against them. Swedish media report teenagers having been threatened through anonymous text messages, or that camera phones have been used for instance to take pictures of teenagers in the shower after gym classes. Being affected by the less attractive affordances of mobile phone technology is not just happening in Sweden. A report from *MobileYouth* ([www.w2forum.com/view/mobileyouth\\_2005\\_report](http://www.w2forum.com/view/mobileyouth_2005_report)) reveals that UK teenagers are using their mobile phone as a tool for rebellion. Instances of text bullying (anonymous threats via SMS), "happy slapping", underage gambling and meeting strangers through "photo flirting" all came up during the survey.

The Guardian (June 7 2005) reports that thousands of secondary school pupils are the victims of a new wave of bullying by camera phone (Children's Charity NCH: <http://www.nch.org.uk/information/index.php?i=237>). The study found that one in ten, in the poll of 11- to 19-year-olds, have felt threatened or embarrassed by pictures taken using mobile phones. They can be bullied even in their own homes when the perpetrators use their phones at any time of day or night to transmit the images - and threaten to send them to other people.

Abusive behaviour by means of mobile phone technology seems to be encouraged by Sony Ericsson. The company promoted a phone model with something called the "snap, send and shame" idea, which is an invitation to

students to send embarrassing photos of themselves and their friends taken on their phones. Young mobile users will then be able to vote the best, or worst, pictures depending on the point of view, and win a phone. ([http://www.w2forum.com/item/sony\\_ericsson\\_presents\\_shame\\_academy](http://www.w2forum.com/item/sony_ericsson_presents_shame_academy)).

TechWorld (21 February 2005) reports that hackers have posted the mobile phone address book of the celebrity Paris Hilton on the Internet, putting the phone numbers and e-mail addresses of her celebrity friends in the public domain (<http://www.techworld.com/mobility/news/index.cfm?NewsID=3175>). As it is argued in the article, the breach could be a valuable security lesson for individuals and companies using any kind of mobile data.

## **Law Enforcement and Human Rights**

In the aftermath of 9/11, the declaration of 'war on terrorism' by President Bush and the passing of United Nations' Security Council resolution 1373 has resulted in governments around the world demanding increased surveillance of citizens. The U.S. Congress passed the USA PATRIOT (Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism) ACT. Some people welcomed its passage as a deterrent to future threats. The vague language and considerable reach of this act, however, has generated concern that it could be used to infringe on privacy and due process rights of citizens who are not suspected of criminal activities, and indeed these fears have been realized, with the U.S. Justice Department acknowledging that the act has been used to infiltrate and investigate non-violent protest groups.

The European Commission released its draft directive on data retention in July. According to the Commission, all fixed and mobile telephony traffic and location data from all private and legal persons should be stored for 1 year. Data about communications 'using solely the internet protocol' should be stored for 6 months. The Commission surprisingly does not provide any argument about the usefulness and necessity of data retention, but considers the directive to be fair and proportionate if service providers are reimbursed for 'demonstrated additional costs'. The latest compromise proposed by the Ministers of Justice and Home Affairs (in their competing JHA Council proposal) to create a two-step approach, starting with telephony data and introducing internet data retention at a later stage, is completely ignored by the Commission.

The Commission claims to seek a balance between law enforcement, human rights and competition aspects by defining the purpose, limiting the categories and time period. The purpose is derived from Article 15 of the E-Privacy directive of 2002 and is actually wider than what the JHA Council proposed. The Commission includes the prevention of criminal offences and safeguarding national security, defence and public security besides the JHA purpose of the investigation, detection and prosecution of criminal offences.

We have begun to see some debate in Sweden now that the two proposals have become public. Concerns have been raised that both proposals are too far reaching in the trade off between personal integrity and crime prevention. The Swedish Minister of Justice has been hostile to any type of critique, calling them "exaggeration and pure lies". He claims that the new directives only "regulate a system that already exists"(Svenska Dagbladet 2005-08-03). That is stretching the truth somewhat as there is no unified "system" in all EU countries. What there is, for example in Sweden is the possibility for the police and prosecutor, in the case of suspected crimes, to apply for the right to access and analyse the digital data that internet and telephone service providers have compiled and saved for billing purposes. To infer a mandatory system of data surveillance and storage for all citizens raises many questions and concerns. It opens the possibility to track down whom one talks to and which web sites one frequents. To legally or illegally gain access to such archived information about citizens political, commercial or even sexual interests will be an enormous temptation for private, commercial and political actors in the future.

The recent terrorist attacks have heightened a long standing clash between two fundamental democratic values: the protection of public safety and the preservation of civil liberties. Clearly the EU member states need to cooperate in the "war against terrorism". The surveillance of suspected criminals and terrorists, including their digital footprints and behaviour is both a necessary and sufficient step to which few of us have serious objections. Few object to stronger laws and better control of both weapons and explosives. But to pass new laws that make all citizens suspected terrorists is simply Orwellian in the worst sense. Terrorism violates our human rights and freedom. The answer of Democracy must never be to abolish those rights.