

teenagers of both sexes. While the majority of such communication may be entirely non-sexual, this is not always the case. Nor can such communication be properly monitored and regulated by their parents.

The risks associated with un-monitored commercial access to children

Cell-phones provide an unprecedented ease of access to children by a wide range of individuals and/or commercial bodies – most of it without the knowledge or consent of their parents. This can expose children to:

- Sales or marketing information of an unsuitable nature
- Invitations to participate in competitions, betting, gambling
- Material of a fraudulent or illegal nature
- Material of violent or sexual nature
- Unsolicited 'spam' material.

The risks associated with addiction or compulsive behavior

There is increasing concern regarding cell-phone 'addiction', 'dependency', and the compulsive behavior patterns that can be exhibited by children with unlimited access to cell-phones. To avoid exposing their children to such a risk, it is recommended that parents LIMIT their use of the cell-phone as much as possible.

The risks associated with 'Chat Rooms'

Cell-phones that allow access to the Internet (including WAP enabled phones) can allow the child access to such services as 'Chat Rooms' (open forums where anonymous individuals may exchange messages). This allows the child unlimited communication with persons whose intentions may not be known (who may be adults pretending to be other children). In some cases these virtual 'friends' turn out to be paedophiles seeking access to images of children, personal information and home addresses. Nor is it uncommon for such people to form friendships with the children with the intention of later exploiting their trust for illegal or sexual purposes.

How to protect children against such risks

Parents who allow their children access to 'Chat Rooms' or similar services are advised to ensure that the service is stringently moderated and controlled. Such controls include barring access by people over 18 years-of-age and limiting the circulation of personal information. 555, 0737 - 44 55 55

It is recommended that parents counsel their children against using or displaying their cell-phones in public places – other than in the case of emergency.

Loss of phones

Children can be careless and are thus prone to losing or misplacing their cellphones. It is therefore recommended that parents make careful note of the fifteen-digit International Mobile Equipment Identity (IMEI number) of their child's cell-phone, which should be used when reporting the loss to the Service Provider, who will immediately bar the phone from further use.

How to obtain the IMEI of your child's phone

Key in: Star – hash – zero – six – hash (* # 0 6 #)

The risks inherent in the use of Bluetooth enabled phones

'Bluetooth' technology is a form of short-range communication which allows communication between 'Bluetooth' enabled users in the same vicinity. Should you permit your child to use such technology you expose them to the risk of receiving unsolicited and unmonitored messages from unknown persons. Other 'Bluetooth' users may also be able to access the information stored on your child's phone (addresses, contacts, pictures, videos, personal information) and use it for unscrupulous or fraudulent purposes. This is known as 'bluesnuffing'.

How to protect children against such risks

A simple way of avoiding such unwelcome exposure is simply to disable the 'Bluetooth' application on your child's phone.

Need to know more?

For further information on the above topic or any other aspect of health and safety with regard to communication equipment, please contact:

Disclaimer: While every attempt has been made to ensure that the information included in this document is accurate, it is intended ONLY as a guideline towards the safe operation of communications equipment and should not be regarded as (or used in lieu of) legal advice. The Communications Authority of Kenya will not, therefore, accept any liability for the consequences of any actions taken, or decisions made upon the information offered.

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Children and the Use of Cell Phones

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This brochure has been developed as part of the **Consumer Education Programme** of the **Communications Authority of Kenya**. Its purpose is to provide concise and current information on aspects of safety with regard to the use of cell-phones by children.

Background

A majority of our children have access to cell-phone technology either directly, or via their parents, siblings or age-mates.

Many parents now use the cell-phone as a prime mode of communicating with their children. They also buy cell-phones for their children where the children use them not only to communicate with their family unit, but also to send text messages, watch video clips, use them to access the Internet, or to download their favourite ringtones.

There is, however, a growing concern that many parents may not be fully informed of the potential risks inherent in the use of cellphones by their children.

Both the benefits and risks are, therefore, offered below.

The benefits of cell-phones to children and parents

- Allow parents/guardians to monitor their children's movements
- Provide an immediate means of communication in case of medical or family emergencies – to children and parents alike
- Offer access to interactive informational or educational sites.

The risks inherent in the use of cell-phones by children

Whilst offering a number of benefits, the use of cell-phones by children also attracts a number of risks. They are as follows:

- The risk of exposure to electromagnetic radiation
- Financial risk
- The facilitation of harassment or bullying
- The facilitation of improper image/video use
- Risk of sexual harassment
- Exposure to unsuitable materials, images, concepts or sales messages
- Addiction and compulsive behavior
- Security risks.

The risk of exposure to electromagnetic radiation

Cellular telephones emit radiofrequency (RF) energy, which is a form of electromagnetic radiation. The amount of exposure to RF energy to which a cell-phone user is exposed depends on: the number and duration of calls, the amount of cellular telephone traffic at a given time, the distance from the nearest cellular base station, the quality of the transmission, how far the antenna is extended, and the size of the handset. The main source of RF energy in a cell-phone, however, is its antenna, which is in the hand-set, and which is typically held against the side of the head while the phone is in use. The closer the antenna is to the head, the greater the exposure to RF energy.

The amount of RF energy that is absorbed by the body decreases rapidly as the distance between the antenna and user is extended. However, because hand-held cell-phones are held close to the head,

there is concern that the RF energy produced by the phones may affect the brain and nervous system tissue of the head. Extensive research is currently being carried out to assess the potential risk of such exposure but until such time as it is published parents should be aware of the fact that it is thought that children may be at the greatest risk from the agents known to cause brain and nervous system cancers due to the fact that their nervous systems are still developing. There are additional concerns regarding the fact that unlimited use of cell-phones by school children could lead to learning disabilities and impaired concentration.

The rate at which the electromagnetic radiation emitted by a cell-phone is absorbed by the body is measured in terms of its Specific Energy Absorption Rate, or SAR value. An average cell-phone has a SAR value of 1.6w/kg, but some have a value as high as 2.0w/kg, which is the maximum permissible SAR value accorded to a cell-phone.

Limiting exposure to electromagnetic radiation

In the interests of protecting their children against the possible harm inherent in exposure to the electromagnetic radiation emitted by their cell-phones, it is recommended that parents:

- Explain to their children the fact that cell-phones emit potentially harmful radiation and specify that they keep their use to the absolute minimum
- Choose a cell-phone with the minimum SAR value and look into the benefits to be gained from the use of hands-free devices – such as headphones. They should also be aware of the fact that the greater the distance between the cell-phone and the head of the child – the less the electromagnetic emission. For instance, the strength of the electromagnetic field is fifty times lower when the phone is held at a distance of three feet away from the head than when it is held immediately next to it
- Contact their Service Provider for additional information and advice on the optimum safe use of cell-phones by children
- Encourage their children to use conventional (landline) phones whenever possible.
- Discourage children from keeping their cell-phones 'on' at night in their bedrooms – especially if they are kept under the pillow or by the bed.
- Encourage children to use text-messages wherever possible
 - a) because this limits the closeness of the phone to the head and
 - b) because it limits the duration of their exposure to electromagnetic emissions.

Practical ways of limiting cell-phone use by children

Depending on the amount of control the parent desires to have over the child's use of a cell-phone, there are number of practical means of limiting use:

- Given that the phone operates on the Pay-As-You-Go basis (using pre-paid phone cards of a specific amount), parents can effectively monitor the economic and, by inference, time-use of the phone
- Parents can also stipulate when the child has access to the phone and, if they wish, deny such access when the child is under their

control: at home, in the evenings and during weekends.

The financial implications of cell-phone use by children

As all cell-phone users will be aware, the cost of making cellular calls, texting, or accessing the Internet on a cell-phone is higher than that of a conventional landline, and even higher in relation to peak calling times, international calls or connection to 'Premium Rate Services' (PRS).

By virtue of their young age and relative inexperience, many children are unable to fully comprehend the financial implications of cell-phone use. Thus, they stay on the phone longer than is necessary, make unnecessary calls to friends and make extensive use of the text-messaging service. Unless prevented, they can also make international calls because they do not realize that they are connected to an international network. Carrying mobile phones in pockets or backpacks can also result in numbers being dialed by mistake.

There are a number of ways in which parents may protect themselves against the risk of incurring high financial costs as a result of their children's use of cell-phones. There are benefits and risks attached to both:

- They can ensure that their children's cell-phones operate on a 'Pay-As-You-Go' basis, and provide the child with only low-denomination phone-cards for everyday use (an additional emergency card can be provided for use ONLY in unusual circumstances).
- They can explore the various cheap-rate tariffs offered by their Service Provider.
- They can elect to put their child's phone on a 'Post-paid' billing service (an initial deposit is paid, thereafter the usage is calculated on a monthly basis, which is invoiced together with precise details on: numbers called, date of call, duration of call, cost of call), which allows them to monitor the exact usage of the phone (though NOT to limit its use).
- They can teach their children how to lock the phones when not in use thus preventing the possibility of numbers being dialed by mistake.

Running into debt

Since pre-paid phone-cards are readily available, it is possible for a child to either 'borrow' a card from a friend, or borrow money.

Emergency calls – 999 or 112

Parents should be aware of the fact that even if their children's cellphones have no pre-paid air-time both Kenyan Service Providers offer an emergency service which will operate regardless of account status, whether or not the phone is locked and whether or not the SIM card is inserted. Parents are therefore advised to explain to their children that if they call 999 or 112 their call WILL be connected; and to demonstrate how such a call can be made.

Premium Rate Services (PRS)

A number of services are offered, which are charged at 'Premium Rate' i.e. at high-cost rates. Normally these relate to the use of four-digit numbers, which offer ring-tones, participation in competitions, voting in contests, horoscopes, or supply of text information regarding sporting or news events. Such services are appealing to children, but they are also expensive. Furthermore, due to their age and inexperience the children may not realize the cost implications of such calls.

How to prevent access to PRS

It is recommended that parents explain to their children the relative cost of the use of PRS, compared to normal services. Should the parents so desire, they can also explore the possibility of barring the cell-phone from accessing to such numbers.

Other risks

There are a number of other social risks attached to the unsupervised access of children to cell-phones. They are:

The facilitation of harassment or bullying

Increasing incidents have been recorded of children being bullied or intimidated via the use of text-messages and/or calls to their cellphones – either by their age-mates, or by other parties. In many cases the children may not immediately advise their parents of this fact while suffering from its effect.

There are also increasing incidences of children using the in-built camera on their cell-phone to take unflattering or otherwise unpleasant pictures/video footage of other children – and use these to bully or intimidate them. Research has also shown that bullying by means of phone-pictures and video clips has a greater impact upon its victim than traditional bullying. All forms of bullying can cause severe stress, which may translate into poor performance at school and, more seriously, long-term emotional and mental damage. Parents are reminded that text harassment is a crime and MUST be reported to the police.

The use of children's phone-camera pictures/videos by adults

There is also evidence that unscrupulous adults can easily gain access to the images and video footage taken by children and stored on their cell-phone and use them for negative, sexual or illegal purposes.

The use of access to children via cell-phones – for ill-intentioned purpose

Cell-phones offer unprecedented freedom of access to children of all ages and there are increasing incidences of ill-intentioned or sexually motivated adults using this access to prepare or 'groom' them for future illegal sexual behavior.

The risks associated with the facilitation of under-age sexual interaction

Cell-phones encourage and promote communication between children/

