



# Safe and Secure E-mentoring

A guide to developing successful  
projects.

Mentoring+  
Befriending  
Foundation



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# 1. Introduction

Traditionally, mentoring projects have provided the opportunity for mentors and mentees to meet on a face-to-face basis. Although there are considerable advantages to this approach, there are also certain drawbacks. For example, mentors are not always available or they may live or work some distance from the school or community.

As the availability of electronic communication increases in schools, business and the home, many people can see the advantages of applying this technology in the field of mentoring. Some projects are using e-mail as an extension to face-to-face schemes. Others are using the benefits of this technology to attract additional mentors, improve the flexibility of the scheme or develop mentees' computer skills.

E-mentoring has been defined as '**an interactive learning process by which one person assists another to grow and learn in a safe and supportive relationship using electronic communication.**' (Kim Langridge, 2004). It has also been described simply as 'mentoring by e-mail'. E-mentoring is still relatively new to the UK. It is more widely practised and has been operating for much longer in the US, where it is also known as telementoring.

E-mentoring shares many of the same characteristics as conventional face-to-face mentoring. However, although there are similarities, there are also important differences, not least – in the structures that need to be put in place if e-mentoring is to operate successfully and safely. With a number of options available – e-mail, chat rooms, MSN Messenger, video streaming, mobile telephone SMS text, projects are looking for advice on the best ways of setting up and operating e-mentoring projects and of ensuring the safety and security of the individuals participating in the programme.

## Purpose of these Guidelines

These guidelines focus on the questions that need to be addressed if e-mentoring is to operate successfully and safely. They deal specifically with the issues affecting the safety and protection of those participating in the project, especially the young people involved. They are designed to give the reader an insight into the confidential and secure use of electronic technology.

This document should be read in conjunction with: 'E-Mentoring: Guide to mentoring by e-mail.' (Mentoring and Befriending Foundation/Andrew Miller, 2003). The earlier guide provides an excellent general introduction to e-mentoring. This present guide builds on the previous one by concentrating on the safety of participants within the project and on the secure use of technology. It also includes additional information of a more technical nature.

To help the reader, concerns about the protection of individuals and policies for safe and secure e-mentoring are dealt with in the next section. Section 3 looks in detail at different forms of electronic communication and contains recommendations for their secure use. A number of software packages have now been developed commercially to help projects with their responsibility to offer a safe environment. Three such approaches are reviewed in Section 4. Appendices 1, 2 and 3 contain advice on the use of e-mail, selected links to e-mentoring programmes around the world and a glossary containing definitions of frequently used terms.

## 2. Policies for safe and secure E-Mentoring

Increasing use of the Internet means there is now much greater public awareness of the power of this type of communication and its potential abuse. It is therefore essential to have an agreed policy on child and mentor protection in place from the outset. Mentors must know what to do if the mentee discloses information which the mentor feels puts someone (either the mentee themselves or a third party) at risk. In addition, mentors should also know what the procedure is if an accusation is made against them. School co-ordinators must know how to respond to these situations. Mentors, mentees, parents and teachers need to have confidence in the measures taken to address these issues and deal with any problems arising.

### Child Protection and CRB Disclosure

The Criminal Records Bureau (CRB) provides a service called 'Disclosure' to help assess the suitability of applicants for positions of trust that involve working with young people and vulnerable adults. All projects should require CRB Disclosure whether mentors are participating on a face-to-face basis, acting as e-mentors or operating in a combination of the two roles.

Each project should have suitable policies in place in relation to CRB checks with a named person who has specific responsibility for this.

CRB Disclosure should be used in conjunction with other screening and selection processes such as taking up references and interviewing potential mentors.

### Confidentiality

Each project should have a confidentiality policy that prevents unauthorised access to e-mentoring communications and ensures that information is secure. If possible, any data sent across a network should be encrypted using the industry standard 128-bit encryption code.

Most school-based programmes rely on school and LEA firewalls to provide a level of protection. In most schemes this is supplemented by monitoring systems, with students supervised by teachers providing an additional level of support.

Antivirus and firewall software can carry out antivirus checking of e-mail contents, at either local PC or server levels. However, commercial e-mentoring software has an additional advantage, in that it can check e-mails against specific lexicons to look for inappropriate phrases, abusive language or grooming terms. (See Section 4)

It is good practice to appoint a moderator(s) to check the content of e-mails for suspicious words or phrases. This will usually be the responsibility of the project and/or school co-ordinators. Depending on the size of the programme, available resources and software used, this process can involve the moderator receiving copies of all e-mails, or a selection only. If the project is using commercial software, moderation of the e-mails is reasonably straightforward and the parameters can be set within the software. Developing a secure system is more difficult if the project uses standard e-mail programs and relies on the participants copying messages to the moderator.

## Access to Equipment

Face-to-face mentoring can only occur when the two parties arrange to meet at a given time and venue. Clear rules should be applied in which meetings take place in a safe environment, e.g. within school-time and under supervision.

However, the ethos of the World Wide Web, the Internet and the use of e-mail is to allow greater freedom in the flow of information and exchange of communications. E-mails can be exchanged at times convenient to the mentor and mentee and accessed from home, work or school, or anywhere where the Internet is available.

Decisions should be taken on what basis mentors and mentees are able to communicate, including the duration and frequency of contacts, and whether to apply any restrictions.

Although a policy of no restrictions (24 hour access) can be employed, this is difficult to police and suitable safe and secure software will need to be in place. This can take the form of accessing a dedicated web-site via user-name and password control, or secure e-mail. One example is provided below (See also Section 4).

In a more controlled environment, set times within the school day can be identified during which mentees can access dedicated computers in the school library or ICT suite. Although this will reduce access times for the students it will allow closer monitoring of e-mail messages to take place as well as supporting greater integration with lesson planning.

Whilst fully recognising the pressure on teachers' time and other demands on resources, it is important to ensure that students have regular access to computers and school co-ordinators should have sufficient time to carry out their responsibilities effectively.

A senior member of staff should support the work of the co-ordinator in order to monitor development, support the programme's integration with mainstream activity and ensure that the co-ordinator has the necessary resources and adequate time to carry out their role successfully.

A safe, secure system is provided by:

- Mentors and mentees using unique ID's to communicate; real e-mail addresses are not exchanged
- Encrypting all real e-mail addresses and recorded data
- Checking e-mails for suspicious words and phrases
- Random checks by programme co-ordinators
- Keeping all e-mails for 12 years for accountability purposes

(London Central Education Business Alliance)

## Health and Safety

The health and safety of project staff and participants is paramount. Projects should have in place written policies and procedures for health and safety and risk assessment. These should include a risk assessment of all procedures, equipment and buildings used. Training of project staff, mentors and mentees in the use of computer and IT equipment should be appropriate and adequate to the nature of their involvement and the roles undertaken.

## Data Protection

Every mentoring project involves a degree of record keeping. These details can be kept on paper-based systems, but in many instances the data is kept electronically. The project needs to ensure that it complies with the Data Protection Act 1998 for the storage and use of personal data or information that can be linked to a person. With respect to an e-mentoring project this data can include:

- User's details
- E-mail addresses
- E-mail storage
- Backups
- External e-mail address
- Software company-based addresses
- Encrypted addresses

A decision needs to be made concerning the type of secure storage media that will be used. One option is to use a secure hard drive accessed via Secure Sockets Layer (SSL) technology that transmits confidential data between computers and servers. An alternative is Secure HTTP that transmits secure individual messages across the World Wide Web. This technology is used in the finance industry to send credit card details and bank transactions between sites and across the Internet.

As for local storage, the project can 'back up' information to CD, removable hard drive, Zip Drive<sup>®</sup>, USB memory sticks or tape. Data needs to be stored in a format that ensures future compatibility for audit purposes.

E-mail addresses should be kept in a secure, confidential file, with access only allowed to appropriate people.

## 3. Security considerations

### Internet Security Software

Once e-mail contacts are exchanged, conversations can take place using any number of desktop-based e-mail software (e.g. Microsoft Outlook) or web-based mail options (e.g. Hotmail). A message is sent across the Internet using an e-mail software, where it is stored on a central computer server until the recipient accesses their e-mails by logging on to a password protected account. This is the type of electronic communication with which most people are familiar.

There are several issues that arise from using this means of communication. The sending of a message across the Internet is inherently unsafe if there are no safeguards in place. Messages can be intercepted, monitored or read during sending, storage or receiving. The contents of a message can be malicious, defamatory, rude or simply inappropriate. The message may contain a virus that can corrupt its contents.

Most new desktop or laptop computers are delivered with anti-virus software together with other software packages. The nature and efficiency of these programs varies considerably and relies on the owner updating the software on a regular basis. A number of the available packages, (e.g. Norton<sup>®</sup> Antivirus) are able to scan incoming and outgoing e-mail for different types of viruses. In addition, these programs can also block spam, adware and spyware.

The web-mail software programs Hotmail and Yahoo mail have recently incorporated automatic antivirus scanning as part of free services offered to their account users. However, standard virus scanning and security programs do not scan for abusive language, obscenities, malicious phrases or, more importantly when young people and

vulnerable adults are part of the project, content connected with 'grooming' activities, which may leave them exposed to a potentially abusive situation.

### Recommendation

Suitable Internet security packages should be installed in all computers that are likely to be used within the project either by project staff, mentors or mentees. These packages can be updated regularly to reduce the risk of infection with computer viruses etc. It would also be sensible to check the company policy of business mentors participating in the project to ensure that their computers are also protected. Commercial software can be used to ensure that the message content is appropriate. Three such examples (e-Mentor Pro, Firefox Ltd and The Brightside Trust) are reviewed in Section 4. However, there is no substitute for moderation of the e-mails. The project will need to decide if they are to read all the e-mails or a sample to ensure appropriateness.

### PC Protection Firewalls

As soon as a PC is linked to the Internet it is potentially at risk of being attacked by external hackers. It is therefore imperative to have a firewall installed to prevent such attacks. MS Windows XP has its own in-built firewall and it is recommended to activate this when first starting a new PC or installing the operating system for the first time. Microsoft also carries out regular security updates of its operating system.

Independent software houses provide excellent firewall software (e.g. Norton<sup>®</sup> Personal Firewall 2005). These types of programs will provide security for the personal user.

Many business systems have safeguards in place, in addition to the restriction of the use of the Internet to known, safe websites. Any e-mentoring project that uses a web-based program will need to have the site authorised by the I.T. departments of companies providing e-mentors. Businesses now go to great lengths to prevent any intrusion; even to the extent of monitoring random or highlighted e-mails to ensure that no inappropriate messages are being sent, either internally or externally.

### Recommendation

A firewall should be installed, together with anti-virus software. A firewall may already be in place in the case of organisations that use a server e.g. schools, colleges, community-based organisations and businesses. The use of a firewall by individuals using a home PC will also offer protection in normal use, as well as during their participation in the e-mentoring project.

## Wireless Connections

Use of Bluetooth, Wireless Local Area Network (WLAN) and Wireless Fidelity (WiFi) is growing. These are modes of communication that use radio waves to send information from one PC to another without wires.

- Bluetooth is used by an increasing number of products to send information to mobile telephone hands-free devices, printers, and to transfer data from hand-held equipment to other storage devices such as a PC. This technology has a limited range of about 10 metres.
- WLAN is, as the name suggests, a local system. The signal can be received up to approximately 50 metres away.
- The Wireless Internet is a system that allows you to download information such as e-mails, shopping, train times sport news etc. using your PDA, laptop or mobile phone, Smart Phone. This technology requires that you have access to Wireless Application Protocol (WAP) and is dependent on the air time companies (e.g. Vodaphone) providing a signal in any given area.

The use of these systems can be insecure if the information sent via the wireless link is not encrypted. Although most wireless systems have an option to encrypt the data, this results in the information being sent at a slower rate. Anyone with appropriate detecting devices can then intercept the communication without the sender or recipient's knowledge.

### Recommendation

Some form of encryption should be used if data is to be sent via a wireless network. Most wireless routers allow for this option to be activated during installation. It is recommended that at least 64bit encryption is used. Most wireless routers have the option of a 128bit-encryption that is currently the industry standard encryption strength.

## Hand-held Devices

The number of hand-held devices, such as PDA and Smart Phones able to run e-mail software via Windows compatible software has increased (e.g. Palm OS or Research in Motion (Blackberry)). Unfortunately, this means there is a greater possibility that malicious software can be downloaded and passed on via these products. The problems multiply as many hand-held devices can be synchronised with desktop and laptop computers; thus passing on the virus to home PC's, business servers or web-based servers. A number of companies now provide PDA-based antivirus software that can reduce the proliferation of malicious software (e.g. McAfee<sup>®</sup> VirusScan<sup>®</sup> PDA Edition).

### Recommendation

The use of hand-held devices is a very convenient way of keeping in touch. Infections with viruses are lower than for desktop or laptop computers, although these concerns should not be ignored. If the devices are to be synchronised with desktop or laptop computers, then appropriate software should be installed on these machines too.

## Instant Messaging, Video Streaming and NetMeeting

Screening of messages is more difficult with SMS, Microsoft, Yahoo! and Windows-based Messenger. Antivirus software does provide some security by screening instant messages (SMS) and any attachments. However, for NetMeeting, video streaming or Web cams, the ability to screen 'live' instant messages is very difficult.

There are several commercial products that will back up files to suitable devices on a local basis. School, college or business servers can be used to store data, but the data should remain secure, confidential and available. Commercial e-mentoring software includes this security feature as an important dimension of their products (see Section 4).

## Data Storage

Once a message is received or sent, standard desktop or laptop based programs, do not have an automatic message store or retrieval service; other than filing the message in an inbox or sent folder. More advanced users can use rules within the program to direct messages to defined storage folders. Messages are stored on a single storage device such as the PC hard drive, which, if corrupted, will destroy all the files. One option is to regularly back up these files on removable storage devices, (e.g. CD).

One of the most important aspects of any responsible e-mentoring project is to include an audit trail of messages so that any concerns expressed by the mentor, mentee or other stakeholders can be suitably investigated. There are several 'off the shelf packages' that use e-mail scanning techniques to provide these safeguards. These packages provide a means of keeping a record of all messages, files and attachments (if included) for set periods of time.

### Recommendation

An audit trail should be available to track the origin and destination of all messages. In a large e-mentoring project, or one that has been operating for a number of years, the storage of a considerable volume of e-mails, attached files and administration data can be an issue. Data should be backed-up on a suitable device in a format that can be read in the future. Any e-mails or documents sent by participants not using a 'controlled' PC need to be copied to project moderators or co-ordinators.

## 4. Reviews of Commercial Software

This section contains reviews of three different approaches to the use of software to support e-mentoring: a web-based e-mail processor (e-Mentor Pro), secure website (Firefox Ltd) and online weblog journals or Blogging (The Brightside Trust).

### Review of e-Mentor Pro (e-Mentoring Ltd)

#### Overview

e-Mentor Pro is a secure Internet-based software package that will allow the development and operation of a secure confidential e-mentoring programme. The management and authorisation structure within the software is such that it gives the mentee and mentor confidence in their own personal privacy and confidentiality. It is a flexible system that can be used for a variety of mentoring situations – business to education, business to business, peer mentoring and executive mentoring. The system has also supported combined ‘face-to-face, and e-mentoring approaches.

The software has a straightforward and understandable structure demonstrating clear responsibilities and accountability. To date (March 2005), over 22,000 e-mails have been sent within the system; 174 schools are currently operating the software, with 358 organisations providing mentors. Two new pilot projects have recently been commissioned.

#### Design

E-Mentor Pro was written by two former IBM employees to a brief prepared for Be London East; a consortium bringing together business and education in nine East London Boroughs. The idea was to design an e-mentoring system which was secure and which also answered a number of the issues surrounding the use of Internet and e-mails for mentoring young students and vulnerable adults. The entire system is provided by e-

Mentoring Ltd, complete with the web site and e-mail processor hosts, so that none of the user PC's need to be changed in any way. They only require access to the Internet and the capability to send e-mails.

#### Mentees

The project was designed with secondary school students in mind to help with their personal development, self-confidence, self-belief and self-esteem. It also offered the opportunity for the students to be paired with experienced business people to give them a better perspective of the world of work and to ask work-related questions and queries. Each mentee was identified by the school as someone who would benefit from the scheme.

Due to the versatile nature of the programme it is envisaged that the scheme can be expanded to include a wide range of participants. In fact the system has proved that even though a mentor has been relocated to another office (London to Hong Kong) the mentoring relationship between that person and their mentee can continue.

#### Mentors

All mentors are authorised to use the system by project managers/co-ordinators. They undergo a CRB Disclosure check, provide letters of reference and are interviewed by the project manager. They are invited to attend training in the use of the system, the skills required for e-mentoring and the dos and don'ts of e-mentoring (e-mail etiquette, use of words and phrases etc).

## Registration and authorisation

All mentors and mentees register on the system. The system can be customised to collect appropriate data and outcomes to reflect the information required by each organisation. The information is collected onto a statistical database and passed on to project managers to generate suitable reports for submission to the appropriate body. e-Mentor Pro can customise these reports in easy and useable formats.

Mentors are not allowed to use the system until programme managers have authorised them. If the mentor CRB check failed, or they were rejected for a different, legitimate reason, all the mentors' details will be removed from the system. However, their ID will remain on the system so that another potential mentor cannot use it again. Responsibility for child protection is at the school co-ordinator level and authorisation of CRB checks are at project manager level. Thus there is a clear division of responsibility.

Each Licence is able to accommodate 10,000 mentee-mentor partnerships within its database (subject to e-mail traffic volumes).

## Security

The whole system is an Internet-based programme sited on a secure web server at a central location that will allow interaction from any Internet-enabled computer. Each user must have a unique userID and password in order to access the web-site. Each mentor and mentee has a unique e-mail ID that will reside on the secure web server. All links to the server are by verified, encrypted (128-bit) connection with Secure Socket Licence (SSL) certificates from BT.

## E-mail accounts

Within the system a database is generated that holds the details of the mentees' and mentors' e-mail addresses. Participants are allocated a secure e-mail address that is linked to their personal e-mail address. Each participant only has the system e-mail address of their mentoring partner and is advised not to disclose their personal e-mail address to the other party for confidentiality and security reasons. Therefore, if a mentee wants to e-mail their mentor, they use the

system e-mail they have been given. The system then compares that address with the database and forwards the e-mail to the mentor's personal address. This allows the mentor to access the e-mails even when away from the office, at home or even abroad. This gives the project its flexibility whilst still being a safe environment. When replying, the mentor uses the mentee's system e-mail they have been given. The system compares that address with the database and forwards the e-mail to the mentee's personal address (this could be school address or a Hotmail or Yahoo account).

Two recent introductions to the software are the addition of a basic Webmail option within the secure web-site and SMS text messages alerting users that they have e-mails to read within e-Mentor Pro. For Webmail, users are still required to log into the web-site using their userID and password before being able to send e-mails. These are then under the same restricted use policy as any other part of the system. When a user registers they are given an option to provide their mobile number so that when a new e-mail is received into their account the system automatically notifies the mentor, or mentee, by sending a SMS text message.

## Additional security features

Additional security features include each e-mail being scanned using a dictionary of inappropriate words, phrases and known terms. Any e-mail thought to be inappropriate will be censored and forwarded to the project manager for further investigation. They will then be able to investigate the e-mail and take further action accordingly. Fully authorised project managers can read all communications sent within their area of control on the system. The dictionary of censored words and phrases is supplied with the system, but can be updated or a different dictionary of terms substituted, depending on the local police or child protection agencies. Any e-mail addresses and telephone numbers detected in the messages are masked and the project manager notified. Any inappropriate language is deleted and the project manager notified.

The system has an inactivity time-out facility to ensure the user is logged off and reduces the risk of somebody else using that account. The length of time the account is inactive before automatically logging out can be set by project managers.

The system does allow approved attachments to e-mails at the discretion of the project manager. These are usually text files or spreadsheets. All other types of files are excluded, such as media files, photos etc. The software also has an integral anti-virus checking which is updated daily.

Randomly selected e-mails will be forwarded to the project manager. The number and frequency of these e-mails can be set in consultation with the project manager. This will allow the manager to check the content and suitability of the conversations. They will be able to suspend any e-mail account if it were thought that the subject under discussion was inappropriate. All e-mails, attachments, forum communication (see below) from the mentors, mentees, project staff and interrogations of the systems by the project manager are kept on the system indefinitely allowing a fully archived audit trail of all users activity. The providers of the e-Mentor Pro service (e-Mentoring Ltd) suggest at least a period of 12 years. The system is backed-up daily on site and a CD of the latest communications is extracted by the project manager for safe keeping once a month.

### Secure documents

The system has a section where secure documents can be stored. This includes support documents on the system, the background to mentoring, suggested topics of discussion for users, parents/carers. These documents can be loaded, updated and removed from the system by authorised project managers. The documents can be made available to certain individuals or groups depending on the nature of their content.

### Forums

e-Mentor Pro offers support for Forums. This allows mentees and mentors to have open discussions on certain controlled and moderated topics. The moderator could be a mentor or mentee who has been given the appropriate authorisation by the project manager. Contributors

to forums can use a self-selected alias or their system ID. However, all contributions undergo the normal strict security checks before being posted and anonymity is maintained.

### Work-related learning option

Following pilot studies, a new option will be shortly introduced that will concentrate on vocational and personal skills. This option will offer skills advice and training if and when requested by the project manager or mentees. A mentor will complete a section within their registration forms that will highlight their work-related skills including interview techniques, CV writing, industry specific career advice, language skills, work experience. The mentee will be matched with a suitable mentor with the appropriate skills for a period of a few weeks. This will be in addition to their normal mentoring partnerships. The system will be subject to the usual security checks within the system.

### Training and support

Extensive training and support in the use of the system is given to project managers. This includes understanding the concepts of e-mentoring, the use of the system and the security features offered within the software, along with a hands-on demonstration. e-Mentoring Ltd do offer telephone or on-site support to projects through their local agents, along with central technical support. The product is developing as new features are introduced and suitable training and support are offered.

### Current use of the system

15 projects within the UK, plus two new pilot projects, are using the system. The initial projects were with the Be London East Consortium area and London Central Consortium. These have now been extended to include Young Enterprise, Community Service Volunteers and Youth Action Network. The product is currently also being piloted in Ireland, France and Australia.

In the initial projects, mentors and mentees meet before they start the e-mentoring programme as an introduction. In the later projects these meetings are at the discretion of the project managers. However, normal practice is for

mentors and mentees to meet at some point during the project. Many of these projects use the e-Mentor Pro service as a sustainability tool or extension to existing 'face to face' mentoring programmes, where mentors move or change roles within an organisation or where the location of the partnership is difficult (e.g. rural communities or international boundaries).

The system is supported by a design team who will customise the 'front page' to reflect the organisation or project (e.g. logos, colours etc.) and the data gathering software to comply with the data required by funding bodies.

### Contact details

For further information on e-Mentor Pro see E-Mentoring Ltd's website [www.e-mentoring.net](http://www.e-mentoring.net) or contact David Horne by e-mail on [info@e-mentoring.net](mailto:info@e-mentoring.net) or telephone 01883 342321.

## Review of Firefox Enabling Technologies and Support Services for E-Mentoring

### Overview

Firefox Ltd (based in Solihull, West Midlands) provides technologies and support services for the secure delivery of e-based communities and e-mentoring. Their expertise has been used by programmes from the education, volunteering and corporate sectors including those led by LEAs, Education Business Link Organisations, regional development bodies and enterprise agencies such as the HSBC Education Trust. The Firefox system incorporates a range of security measures that have been specifically designed to prevent unauthorised contact and the exchange of inappropriate content or personal information.

### Hardware

One of the benefits of this system is that the customer does not have to install new and/or specialised equipment or install new software. The services are delivered from a secure, standalone, web-based environment built specifically for each programme, without the need for any existing IT infrastructure. Users simply require access to the Internet and a web browser (Firefox currently only support Microsoft Internet Explorer version 5.5 or above).

Firefox have designed their service to operate using any speed of connection and, consequently, it is adaptable for use in a variety of contexts. Although Firefox deliver high level security in their e-mentoring products, users' computers will still need to be connected to the Internet, therefore Firefox recommend that computers have up-to-date antivirus software and firewalls installed for general security.

### Software

The system is easy to use and looks similar to many standalone or web-based e-mail systems. As such, it has many of the functions of a standard e-mail system.

There are two parts to the Firefox system – the programme Hub and the TrustZone.

### Hub

The standalone environment is called a Hub. This is hosted and provided as a managed service by Firefox for users of the system. The Hub delivers the TrustZones and their services (outlined later in this section) and is where participants log into the system. The visible aspect of the Hub is a website that acts as a single point of information about the programme. It can be easily linked to other sites and learning portals. Participants gain access to their accounts by logging in via userID and passwords. All data is transferred using 128bit data encryption, ensuring the security of the information.

### TrustZone

The TrustZone is a safe and secure environment that has been specifically developed by Firefox to support the interaction of mentors and mentees. Each individual TrustZone prevents unauthorised communication with anyone outside of a defined mentee/mentor relationship. Every transaction within the TrustZone is monitored, logged, measured and archived. Settings within the TrustZone cannot be changed unless a request is made by programme owners/moderators.

### Filtering services

Firefox has developed filtering technologies using word databases or lexicons that automatically check the content of mentor/mentee exchanges on behalf of the moderators. Any occurrence of inappropriate content is automatically censored, with the offending words replaced or the whole message rejected. Rejection details are then supplied to the originator and an alert sent to their moderator (see below).

Firefox have also developed software that uses 'good' and 'bad' word databases. The Firefox Intelligent Filtering service includes the capacity to identify where a word deemed 'bad' sits within another word. For example the word 'arse' on its own is considered an inappropriate word. When it is part of a 'good' word, e.g. 'rehearse', e-mail communications are allowed to continue.

Firefox address another key concern of programme managers - inappropriate contact behaviour or grooming - by checking e-mails and postings (see forums below) for any 'at risk' content or grooming terms and phrases. If this activity is identified by the system, the e-mail or posting is permitted, but a copy is automatically sent to the moderator for further consideration/action.

### **Moderator alerts**

The Firefox system automatically provides programme moderators with a series of alerts that provides comprehensive information about events that may need management intervention. These are placed in a separate folder so as not to get confused with general e-mails. The alerts are designed to provide information from which suitable policy decisions can be made. Use of these alerts reduces the risk of breaches of policy occurring and not being addressed, especially at a school level.

Firefox are able to send an alert to any third party mail system, or mobile telephone via SMS, informing that person of a new e-mail waiting to be read in their Firefox mailbox.

### **Anonymisation**

The software allows for e-mail addresses to be 'anonymised' e.g. in the case of a celebrity or politician who wishes to keep this information confidential. A secure database is kept for matching these contact details with those of the paired mentor or mentee.

### **Attachments**

The software can block the sending and/or receipt of attachments in e-mails. It is worth noting that currently the content of attachments cannot be filtered, although Firefox are working on this.

### **Archiving**

E-mails are automatically archived in a secure store for at least six years. These files are available for audit and are stored in a format that ensures compatibility with the technology used.

### **Forums**

At the discretion of the project, Firefox can provide secure forum discussion areas for the use of mentors and/or mentees. Permission to participate in a forum is authorised by the programme manager. There is also the option of having forums moderated i.e. the moderator checks the content of each post before it is published to the forum. However, all posts in forums are filtered in exactly the same manner as e-mails, with similar alerts to programme moderators if a breach occurs.

Programme managers are automatically supplied with a forum facility to support programme management and communication processes.

### **Measurement, assessment and evaluation**

Firefox software allows for online assessments, or polls, within the TrustZone. These can take the form of simply 'Yes, No, Don't Know' questions, multiple choice or text answers. To date, thirteen polls have been devised covering various aspects of relationship development, soft-skills assessment and impact measurement. This information is collated and reports are sent to the programme manager. In addition to the poll results, the programme manager automatically receives monthly activity reports. These show detailed usage statistics, including the number and frequency of e-mails, the size of each e-mail (in file size and number of words), and how often users are logging into the system.

### **Training and support**

Firefox provides training to the programme management team on the use and application of the system. This training is available in a number of formats including workshop, paper-based and CD-Rom. They offer telephone and e-mail customer service and technical support during office hours. Outside these hours, many queries can be resolved by utilising the Frequently Asked Questions (FAQ) pages on the Firefox website.

### Recent and current projects

Firefox software is being used in over 40 projects within the UK, including:

- Greater Merseyside EBLO
- Lancashire Aimhigher
- P3+ Work Related Learning Project (East of England Development Agency)
- HSBC Education Trust
- Humberside Aimhigher
- Norfolk Aimhigher
- NHSU Academy
- Education Leeds

### Contact details

For more information about Firefox's products and services please visit their website

[www.firefox.co.uk](http://www.firefox.co.uk), contact James Moss ([james.moss@firefox.co.uk](mailto:james.moss@firefox.co.uk)), or call Customer Services on 01564 730094

## Review of the Brightside Trust E-Mentoring Project

### Introduction

The Brightside Trust is an independent charity founded to help disadvantaged individuals. The e-mentoring project entitled 'Bright Journals' went live in late 2004. It is targeted at the Healthcare industry and matches medical and health-care university undergraduates with Year 10-13 students. The funding for this project is via the Aimhigher national initiative. The project is based on the use of weblog journals. The software offers a secure web-site that enables students to communicate with university undergraduates on a range of issues, including medical studies, student life and the benefits of university education.

### Design

The Brightside Trust, in partnership with The Other Media ([www.othermedia.com](http://www.othermedia.com)) were commissioned to design and support a web-site to allow secure access to weblog journals or 'blogging'. 'Blogging' is a term used to refer to the continual updating of an on-line personal journal or diary that other users can access and comment on. In this software, mentors are only allowed to access the journal or blog of their mentees. Each mentor can have access to up to four different mentees. Each mentee will only have access to their personal mentors' journal or blog.

### Security

The software has been designed to incorporate a number of security features. The private web area on the web-site is accessed by password protected user-names. No personal information is available to the users, although limited personal information is stored on the system for use by the project co-ordinators. All information on the web-site is encrypted and there are firewalls in place.

Before authorisation to use the system is given, each mentor must undergo a CRB Disclosure check carried out by the participating institution.

All postings to the site are filtered for inappropriate language. The Trust operates a monitoring policy that allows the co-ordinators to check all communications between mentors and mentees. They recommend viewing random samples of posts on a regular basis. However, any breaches of these policies are automatically brought to the attention of the co-ordinators, in order for them to take appropriate action.

### Training and support

The site offers excellent online training covering all aspects of mentoring. It also offers texts that can be downloaded in PDF format to allow off-line working. Each module is task-orientated and there are comprehension tests to test the user's knowledge. If an incorrect answer is given the system will refer the user back to the training modules to refresh their knowledge. Once the user has completed the training they will receive a certificate of mentoring competency. Continuous help and support is available from the Trust, either via e-mail or by telephone.

The Trust provides all participants with appropriate tools to fully participate in the programme. This includes online access, hard copies of manuals/handbooks and training sessions. They are currently working on an online training pack that can be downloaded.

To encourage participants use of the system, the software notifies them that they have a posting in their journal. This is done by sending an SMS text message to the mobile telephone number given in their registration form.

### Library

There is a library of topics where users can find information on a range of subjects, mainly related to the healthcare industry including career advice, information on jobs, academic choices, current affairs in healthcare, money and finance, and student life. The system also gives advice to mentors and mentees on relevant topics to support their continuing discussions.

### **Forums**

The site also offers secure forum discussion areas for mentors and project co-ordinators. The postings to these areas are checked in the same way as for the weblog entries.

### **Monitoring and evaluation**

Project co-ordinators have access to a number of reporting functions. The Trust also undertakes regular evaluation on site usage and participant opinion.

### **Contact details**

The Brightside Trust can be contacted via their web-site [www.thebrightsidetrust.org](http://www.thebrightsidetrust.org) or e-mail [info@thebrightsidetrust.org](mailto:info@thebrightsidetrust.org).

To view an online demonstration of Bright Journals visit [www.brightjournals.org](http://www.brightjournals.org)

# Appendices

## Appendix 1

### E-mail Do's and Don'ts

There are certain things that would be appropriate to do and others that would not.

#### Do....

- post messages – several short messages are better than one long one
- ask straightforward questions
- use plain language
- be brief
- show an interest in your mentee
- be honest
- listen carefully to what your mentee is saying
- make your replies relevant

#### Don't....

- put off reading and replying to your e-mails
- jump to conclusions
- be judgmental
- make assumptions
- settle for rudeness, abuse or foul language
- try and be their parent

### Effective E-mails

It is important to engage the other person in a dialogue or conversation. In conjunction with the examples above, here are a few pointers to good e-mail etiquette:

- Check your e-mail regularly and reply promptly.
- Always start the e-mail with the name of the person – this personalises the e-mail.
- Try and include part of the previous e-mail or at least summarise the text – this will help remind the other person what the discussion was about.
- When writing an e-mail be brief, concise and to the point.
- Use blank spaces between paragraphs.
- Keep the paragraphs short – they are easier to read.

- Do not use whole words in CAPITALS as this is like shouting.
- Always re-read your e-mail before you send it to make sure it says what you want it to say – it is easy to mis-interpret what you have written which could upset or offend.
- Be flexible when you are interpreting other people e-mails – remember they may not have meant to say what they did in that way!
- If you are unclear as to what they are trying to say ask them for clarification – but be polite.
- If they are using 'net-speak' (e.g. acronyms, short-hand, smileys, etc.) to make a point remember they are trying to put some expression in their writing.
- Check your e-mail for spellings and grammar.

## Appendix 2

### Selected links from around the world of web-sites, projects and information with a focus on e-mentoring.

#### E-Mentoring Software

##### Mentors Online

Implementation package

[http://www.mentoring.org/program\\_staff/ementoring/mentors\\_online\\_implementation.php](http://www.mentoring.org/program_staff/ementoring/mentors_online_implementation.php)

E-Mentoring software toolkit

[http://www.mentoring.org/program\\_staff/ementoring/mentors\\_online\\_toolkit.php](http://www.mentoring.org/program_staff/ementoring/mentors_online_toolkit.php)

Review of software

[http://www.mentoring.org/program\\_staff/files/MentorsOnline\\_overview%202.5.ppt](http://www.mentoring.org/program_staff/files/MentorsOnline_overview%202.5.ppt)

E-mentoring reviews

[http://www.mentoring.org/program\\_staff/index.php?cid=60](http://www.mentoring.org/program_staff/index.php?cid=60)

#### UK

Mentoring and Befriending Foundation

<http://www.mandbf.org.uk>

The Brightside Trust

<http://www.thebrightsidetrust.org>

Firefox Ltd

<http://www.firefox.co.uk>

E-Mentoring Ltd

<http://www.e-mentoring.net>

##### Somerset EBP

Somerset Education Business Partnership piloted an E-mentoring scheme linking university students with Year 11 students through the use of email.

<http://www.ebp-somerset.org.uk/mentoring/ementoring.asp>

##### University of Westminster

This e-mentoring project offers free mentoring to all first level students by their peers at the third level. It has been funded by the University through the HEFCE Widening Participation Fund. It has been created with two outcomes in mind:

1) To offer first year students an effective support system from people who understand from their perspective.

2) To provide third year students with training and experience of mentoring, which will enable them to use their experiences gained at university for the benefit of others and to enhance their CV.

<http://www.wmin.ac.uk/ssh/page-444-smhp=204>

##### MentorPlace

MentorPlace is a partnership between IBM Corporation and EdReach, Inc., a non-profit organisation committed to expanding quality online mentoring programs around the world

<http://www.mentorplace.org>

#### Europe

##### Mentors ByNet

Mentors ByNet is a pioneering mentoring programme that is a joint venture between the South East Business Links and SEEDA. Mentors ByNet seeks to explore the potential for developing and encouraging individuals to grow their business and, help to realise new business ideas and ventures.

<http://www.mentorsbynet.co.uk>

#### USA

##### Connecting to Success

Mentoring through technology to achieve success

<http://ici.umn.edu/ementoring/overview.html>

Mentoring links and research papers

<http://ici.umn.edu/ementoring/research.html#issues>

##### Youth Trust

Youth Trust is a Minneapolis-based organisation that links schools and employees to help young people develop marketable skills. The program model is flexible so teachers and business partners shape the program to fit their needs.

<http://www.youthtrust.org/e-mentoring.html>

##### Global Action Network

An online community designed to connect, educate, and empower young people working in the global population and reproductive health field

<http://www.globalactionnetwork.org/network/ementoring/index.php>

**MentorNet**

An e-mentoring network for women in engineering and science

<http://www.mentornet.net/>

**Achieve Minneapolis**

Achieve Minneapolis's mission is to galvanize community resources to help all Minneapolis Public School students succeed in school and become productive citizens. Their e-Mentoring program connects students to professionals via e-mail and increases academic skills by exposing students to a variety of careers.

[http://achieveminneapolis.org/programs\\_mentoring.htm](http://achieveminneapolis.org/programs_mentoring.htm)

**Telementor Program**

The International Telementor Program provides academic mentoring support from professionals of ITP sponsor companies. All student/mentor communication is project focused and facilitated by a teacher or parent.

<http://www.telementor.org>

**Telementoring Web**

This site will guide you through important information if you plan to participate in a mentoring program

<http://mbhs.bergtraum.k12.ny.us/mentor/index.html>

**Electronic Emissary**

The Electronic Emissary is a web-based telementoring service and resource centre that helps students locate mentors who are experts in various disciplines, for purposes of setting up curriculum-based electronic exchanges among the teachers, their students, and the mentors. In this way, the interaction that occurs among teachers and students face-to-face in the classroom is supplemented and extended by electronic mail, web forum, chat, and teleconferencing exchanges.

<http://emissary.wm.edu/>

**National Schools Network**

Exploring tools, information services, technology and support for a national network of local learning communities.

<http://alpha.musenet.org:81/>

Telementoring Resources & WWW Links

[http://alpha.musenet.org:81/telementor\\_wrkshp/tmlink.html](http://alpha.musenet.org:81/telementor_wrkshp/tmlink.html)

**Service Leaders – Virtual Volunteering**

Virtual volunteering allows agencies to expand the benefits of their volunteer programs, by allowing for more volunteers to participate, and by utilizing volunteers in new areas.

<http://www.serviceleader.org/new/virtual/index.php>

**Australia****e-Mentoring Australia**

<http://www.e-mentoring.com.au/index.htm>

**Other Useful Links****CRB Disclosure**

<http://www.disclosure.gov.uk/>

## Appendix 3 – Glossary of terms

### Adware and Spyware

Adware refers to any software application in which advertising banners are displayed while the program is running.

Spyware is software that gathers information about a user as he or she navigates around the Web. It is intended to track surfing habits in order to build marketing profiles. Adware and Spyware are a major cause for public concern about privacy on the Internet.

### Anti-spam

Refers to any software, hardware or process that is used to combat the proliferation of spam or to keep spam from entering a system.

### Anti-virus

An anti-virus refers to any program that tracks down and kills viruses before they are released into your computer system.

### Blog or blogging

A blog is short for weblog, a personal journal that is frequently updated and intended for general public consumption. Blogging websites have appeal as they are easy-to-use and operate as open forum communication tools.

### Bluetooth

An open technology specification for short-range radio links between mobile PCs, 'smart' devices, and other portable machines.

### Encryption

The process of protecting information as it moves from one computer to another. The information is encoded before it is sent and decoded when it is received.

### Firewall

A traditional firewall is a specially programmed computer system that 'stands' between an organisation's local area network (LAN) and the Internet. It is a security measure used by many companies to prevent unauthorised users from accessing internal networks. Firewalls are also set up to protect the security of servers.

### Mentoring and Befriending Foundation

### Forum

An online community where users can read and post topics of common interest.

### Hard drive

A data storage medium that houses all of the electronic information and software programs on your computer.

### Hub

A common connection point for devices in a network. Hubs are commonly used to connect segments of a LAN (local area network).

### Personal Digital Assistant (PDA)

A handheld device that combines computing, telephone/fax, Internet and networking features. A typical PDA can function as a cellular phone, fax sender, Web browser and personal organiser.

### Portal

A website or service that offers a broad array of resources and services, such as e-mail, forums, search engines and online shopping.

### Secure Socket Layer (SSL)

A protocol developed by Netscape for transmitting private documents via the Internet. SSL protects the message transmissions using encryption.

### Server

A computer or device on a network that manages network resources. For example, a file server is a computer and storage device dedicated to storing files.

### Short Message Service (SMS)

The transmission of short text messages to and from a mobile phone, fax machine and/or IP address.

### Spam

An e-mail message sent to a large number of people without consent, also known as Unsolicited Commercial E-mail (UCE) or junk e-mail. Spam is usually sent to promote a product or service.

### **Trojan Horse**

A destructive program that masquerades as a benign application. Unlike viruses, trojan horses do not replicate themselves but they can be just as destructive.

### **Video Streaming**

'Streaming' allows video playback to begin almost immediately while the download is handled in the background.

### **Virus**

A computer program that replicates on computer systems by incorporating itself into shared programs. Viruses range from harmless pranks that merely display an annoying message to programs that can destroy files or disable a computer altogether.

### **Wireless Application Protocol (WAP)**

A secure specification that allows users to access information instantly via handheld wireless devices such as mobile phones, pagers, two-way radios, smartphones and communicators.

### **Wireless Local Area Network**

A wireless network interconnecting devices in the same office, floor or building, or areas inside buildings with areas just outside.

### **Worms**

A program or algorithm that replicates itself over a computer network and usually performs malicious actions, such as using up the computer's resources and possibly shutting the system down.

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